

T.O. 00-25-254-1

TECHNICAL MANUAL

**COMPREHENSIVE ENGINE MANAGEMENT SYSTEM
ENGINE CONFIGURATION, STATUS AND TCTO REPORTING
PROCEDURES**

Prepared By: Automated Technical Order System (ATOS)

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CHAPTER 1

GENERAL INFORMATION - ENGINE REPORTING

1-1 INTRODUCTION TO ENGINE REPORTING.

1-1.1 This Technical Order (T.O.) provides policies and procedures for the uniform and efficient management of propulsion units. This T.O. provides the responsibilities and instructions for engine reporting. It applies to all regular Air Force, Air Force Reserve Command (AFRC), Air National Guard (ANG) and contractors performing services under contracts which require reporting to the Comprehensive Engine Management System (CEMS).

1-1.2 The primary objective of CEMS (Propulsion Unit Centralized Accountable Record (D042), Stock Record Account Number (SRAN) (FJ2031) is to obtain accurate information on the status, condition, and location of aircraft engines in the Air Force inventory. Selected components are also reported in CEMS to track certain life limiting parameters while the engine is installed. The FJ2031 account is the USAF accountable record for engines. Tracked components removed from the engine will be turned in and accounted for under normal supply accounting systems.

1-1.3 There are various methods of reporting data to CEMS; Core Automated Maintenance System (CAMS), direct line reporting (DLR) and mail. HQ AMC units are also required to report to CAMS for Airlift (G081). Base engine management FJXXXX account will be mechanized. AFTO Form 93, ENGINE TIME/CYCLE ACCUMULATION; AFTO Form 95, SIGNIFICANT HISTORICAL DATA and AFTO Form 349, MAINTENANCE DATA COLLECTION RECORD transactions will be entered into the base level CAMS and CEMS through established interfaces. Activities with DLR will report status, configuration, and Time Compliance Technical Order (TCTO) data to CEMS directly. Computer data links have been established between some major contractors and CEMS. This provides a direct method of reporting new production data on engines and parts they produce. Activities without CAMS or DLR will employ mail/e-mail or fax to report data to the prime ALC for direct reporting input to CEMS. Appropriate AF Forms 1534, CEMS CDB REPORT; AFTO Form 93, Engine Time/Cycle Accumulation Report; and AF Form 1559, D042 TCTO STATUS REPORT can be used to facilitate this mail information to CEMS.

1-1.4 Commanders must ensure that controls are established to monitor and police the accuracy and timeliness of CEMS IAW this T.O. The reporting systems must maintain accurate and timely engine inventory, surveillance of the base repair, transportation, overhaul segments of the engine pipeline and historical data to forecast funding and replacement requirements. For information on accessing CEMS, use T.O. 00-25-254-2, for CAMS use AFCSM 21-558.

1-2 RESPONSIBILITIES.

1-2.1 Headquarters USAF will:

- a. Maintain general surveillance and provide overall policy guidance for the management of engines and the CEMS reporting system.
- b. Provide overall policy guidance and insure applicable Air Force managed engine Type, Model, and Series (TMS) are included in the FJ2031 accountable records as prescribed in AFMAN 23-110.
- c. Appoint lead commands to conduct various engine management test programs.

1-2.2 Propulsion Product Group Manager (PPGM) (OC-ALC/LR) will:

- a. Review and rewrite this T.O.
- b. Periodically survey and analyze the policies and procedures used, collect, process, and distribute engine data.
- c. Provide representatives to the CEM's conference when requested.
- d. Ensure that ALC SRAN EM's submit AF Forms 1534, 93, and 1559 data as prescribed in this T.O.

- e. Ensure that all aircraft SPOs, ALC EIMs or any other office/organization writing or responsible for a contract involving movement of aircraft and/or engines include the propulsion data reporting requirements in this T.O.

1-2.3 Command Engine Managers will:

- a. Provide PPGM with changes to command directives on CEMS reporting.
- b. Provide command engine management data, as prescribed in this T.O. or as requested by PPGM.
- c. Ensure reporting directives for special projects are implemented.
- d. Ensure each reporting activity in the command has an assigned EM and assistant at all times.
- e. Ensure each assigned EM and assistant receives appropriate formal training in engine management.
- f. Contact OC-ALC/LPRC to solve reporting problems requiring clarification.
- g. Contact PPGM on problems with reporting policies.
- h. Convene periodic meetings with all BEMs in their command to clarify reporting procedures and to discuss and solve problems associated with base level engine management. OC-ALC/LPRC and SSG/ILM are available to assist in clarifying and solving reporting and accounting problems.
- i. Inform OC-ALC/LPRC of a change in BEM in their command and ensure the new or outgoing BEM requests an inventory.
- j. Inform OC-ALC/LPRC of a change in BEM or assistant in their command so that SRAN directory can be updated.
- k. Police CEMS reporting as required by this T.O. and initiate action to have CEMS reporting errors and variances corrected promptly.

1-2.4 Base Level and/or SRAN Engine Managers will:

- a. Assume responsibility and maintain the FJXXXX account IAW this T.O. and AFMAN 23-110.
- b. Administer the base engine management program and maintain currency of all engine status, transportation, and information management matters for the FJ account.
- c. Establish local procedures requiring base organizations to provide data for CEMS reporting of engines, tracked components, TCTO compliance.
- d. Reconcile data between engine and aircraft historical data as required.
- e. Assign reports location codes to organizations that prepare CEMS reports.
- f. Ensure each organization identifies personnel responsible for CEMS reporting and ensure training is provided and documented.
- g. Monitor CEMS reporting from activities within their area of responsibility for accuracy and timeliness of data.
- h. Review EMDL daily.
- i. Submit error and/or variance correction report the day received IAW T.O. 00-25-254-2 and this T.O.
- j. Ensure engine inventory report is completed and returned IAW this T.O. and AFMAN 23-110.
 - (1) The designated Alternate Engine Manager must fulfill this responsibility in the absence of the Assigned Base level and/or SRAN Engine Engine Manager.
- k. Ensure engine flying time, status and TCTO reconciliation reports are completed and returned IAW this T.O.
- l. Submit requests for changes to the SRAN directory to OC-ALC/LPRC through their CEM.
- m. Upon notification a new BEM has been assigned, the current BEM will request and accomplish a physical inventory IAW AFMAN 23-110 and this T.O. The old and new BEM must sign the inventory report, forward to OC-ALC/LPRC and notify appropriate CEM upon completion.

- n. Contact the CEM first to resolve reporting problems not covered in this T.O.
- o. Investigate and resolve delays involving maintenance or supply.
- p. Investigate and resolve transportation problems or delays.
- q. Initiate tracer action to locate assets shipped or transferred to another SRAN when not received within the required time frame of (20) calendar days for a shipment, or (10) calendar days for a transfer.
- r. Consider assets lost if not receipted within the above time frames and initiate ROS within (5) calendar days.
- s. Obtain disposition instructions for excess engines from the CEM.
- t. Ensure the handling, transportation, storage and receipt of shipping devices for engines are properly documented, maintained and reported.
- u. Ensure parts requirements for engine not mission capable supply (ENMCS) are accurately reported and promptly requisitioned.
- v. Ensure engine shipments are properly documented and authorized.
- w. Notify the CEM of all transactions or condition codes ML or LL that cannot be processed to the CEMS CDB. Establish specific procedures for obtaining required reporting information from deployed activities when reporting responsibilities are retained at the home SRAN.
- x. Maintain responsibility for propulsion assets when sent to a Contract Field Team facility. Do not transfer to nearest active SRAN. The policy applies regardless if the aircraft is intended to return to home station, or destined for another organization after the CFT.
 - (1) If an aircraft leaves a depot facility, going to a CFT enroute to it's intended gaining organization, that final gaining organization will assume responsibility for that aircraft upon release from the depot.
 - (2) In coordination with your command engine manager, establish a method of reporting status changes and updates to CEMS for propulsion assets temporarily possessed by Contract Field Teams (CFTs).

1-2.5 OC-ALC Commander will:

- a. Appoint a propulsion unit accountable supply officer and provide a staff to maintain the USAF centralized record, FJ2031. Specific offices at OC-ALC responsible for developing and maintaining CEMS are identified as follows:

1-2.6 OC-ALC/LPRC will:

- a. Develop, integrate and maintain CEMS based on requirements approved by the Configuration Control Board (CCB).
- b. Monitor and maintain the data gathered and reported by SRAN EM's and other CEMS reporting activities.
- c. Operate the USAF FJ2031 centralized record for CEMS reporting covered by this volume and correspond directly with bases, major commands, contractors, SSG, other services and accounts on all maintenance policy and correction of the FJ2031 records.
- d. Develop drafts of proposed changes to policies and procedures and forward a copy to the PPGM for approval.
- e. Develop and maintain the EJ-FJ SRAN information directory.
- f. Establish, publish, and maintain T.O. 00-25-254-2 and this T.O.
- g. Provide representatives to the CEMs conferences.
- h. Provide representatives to the Propulsion Management Committee (PMC).

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- i. Ensure full compliance with the responsibilities and duties prescribed in AFMAN 23-110 and AFI 21-104.
- j. Monitor the timeliness, accuracy and responsiveness of CEMS.

■ 1-2.7 OC-ALC/LPRC will:

- a. Develop, integrate and implement CEMS requirements based on approved C4SRDs.
- b. Develop and maintain CEMS programs.
- c. Monitor, process and maintain data gathered for CEMS.
- d. Operate centralized USAF inventory control system for engines covered by this T.O.
- e. Prepare and distribute CEMS output products.

1-2.8 USAF Base/Group Commanders will:

- a. Ensure that maintenance, operations, transportation, data automation, distribution and supply personnel perform their assigned duties to ensure proper system operation.
- b. Ensure the base level system is responsive to the needs of all CEMS users.
- c. Ensure CAMS is maintained IAW the provisions of this T.O. and AFCSM 21-558.
- d. Designate a formally trained BEM and assistant.
- e. Request formal training through the CEM.

1-2.9 Prime Engine Management Office (PEMO) will:

- a. Be responsible for the accuracy, completeness, timeliness of initialization and file maintenance of new part number data into CEMS.
- b. Input CEMS data for contractors without direct line access to CEMS.
- c. Establish, load and monitor TCTO master records in CEMS until completed or rescinded.
- d. Assist CEMS technicians in correcting erroneous transactions.
- e. Ensure contract coverage for CEMS reporting and compliance with reporting instructions for contracts administered by them.
- f. Ensure that all duplicate S/Ns are processed IAW this T.O.
- g. Ensure depot level SOWs adequately contain instructions for re-serialization in the case of duplicate S/Ns.
- h. Ensure that contractors report Air Force engines in their possession if under contract to do so.

1-3 CEMS CONTINGENCY PLAN.

If CEMS has an interruption of service, it will be operated from another location or via message traffic. System users will be notified of the outage and when operation is expected to resume. Bases will work with the EIMs to resolve logistical problems. To facilitate recovery of CEMS data, users will retain data in date time order for input when CEMS operation resumes. CEMS users will restrict requests for output products during recovery.

1-4 ADDITION OF A NEW ACCOUNTABLE ASSET OR TRACKED PART.

1-4.1 CEMS is responsible for tracking accountable assets and identified tracked parts maintained by the AF. Action will be taken to initialize new items into CEMS as they enter the AF inventory. When a technical or engineering decision is made to initiate tracking of an engine or a part, a C4SRD must be prepared IAW AFI 33-103 by the PEMO or the appropriate Acquisition office.

1-4.2 C4SRD requirements for non-parts-tracked engines are as follows: If only whole-engine inventory tracking is necessary, an AF Form 3215 will suffice. These additions will not prompt a requirement for special reporting mechanisms or output products not already provided by CEMS.

1-4.3 C4SRD requirements for parts tracking is a requirement of the maintenance management plan for a new engine, a more thorough impact analysis will be required. A C4SRD specifying particular information is required to implement the engine in CEMS. Such information should include the quantity of engines, number of tracked parts, projected deployment locations, requirements for new output products, special computational algorithms and a brief synopsis of the maintenance concept to be used in conjunction with the new equipment. The initiator of the C4SRD must ensure it is properly prepared and coordinated. As a minimum, coordination must be secured from the affected major command(s), appropriate Engine Program Management office, PPGM and forwarded to OC-ALC/LPRC. The C4SRD initiator will work with OC-ALC/LPRC and SSG/ILM to ensure requirements are clearly defined.

1-4.4 OC-ALC/LPRC will manage and monitor all actions required to add the new item for tracking. The C4SRD initiator will provide OC-ALC/LPRC all information concerning the item to be tracked. (i.e.: noun, manufacturer's part number, type limit [hours or cycles], limit value, K factors, WUC, NHA, QPA, level of maintenance [base or depot], CII in the CEMS scheme, any additional tracking parameters necessary and end item application) An evaluation will be conducted by OC-ALC/LPRC to determine what changes to CEMS will be required. They will also evaluate the necessity for back-fill data (location, age, NHA, etc) and determine the method of gathering back-fill data. If no actual data from past history is available, engineering estimates of cycle-engine time parameters will be used for back-filling. When such estimates are used, they should be acknowledged as such for reliability purposes.

1-4.5 PEMO will establish part numbers and S/Ns to initialize CEMS. Implementation load data will be sent to the affected bases for loading in CAMS at a pre-arranged time and date as specified. The implementation date will be coordinated with the affected major command(s) and SSG if appropriate.

1-4.6 Approximately 30 days prior to implementation the affected SRANs will be notified of the specific procedures to follow and target date for completing the loading operation. Approximately 23 days prior to the implementation date, one test SRAN will be selected and furnished initialization decks. Preferably a CONUS base with low volume and low activity will be selected to expedite debugging and avoid disruptions should technical problems develop during loading. Approximately 10 days prior to the implementation date all affected SRANs will be advised of test results. A date and time (Greenwich Mean Time) will be selected for follow-on initialization to remaining SRANs. Twenty-four hours prior to the implementation date all affected bases will cease transmission of tracking data. The CEMS database manager will provide data to each base for loading into the CAMS database. CEMS and CAMS data specialists will be available during loading to resolve any systems problems. Normal processing of data will resume when the CAMS database is fully loaded and operational.

1-4.7 Special Diagnostic Requirements. If a new item has special diagnostic requirements for other data systems, additional C4SRD(s) must be initiated. If the additional C4SRD(s) requires an interface, coordination must be obtained from the appropriate system offices.

1-5 EJ-FJ SRAN DIRECTORY.

1-5.1 For reporting and ID, each reporting activity is assigned an EJ (contractor reporting installations) or FJ (Air Force reporting installations) SRAN. OC-ALC/LPRC is the accountable office for the official Air Force engine account FJ2031 and maintains the EJ-FJ SRAN information directory. This directory is available in CEMS as a browse product. It is updated weekly and contains only EJ and FJ engine related SRANs. OC-ALC/LPRC is the control point for new and revised account numbers not reflected in the DoD directory. Additions, deletions or revisions to the EJ-FJ SRAN directory (i.e. EM change, telephone number changes, etc), will be forwarded through the CEM to OC-ALC/LPRC electronically at <https://cews.tinker.af.mil>.

1-5.2 Requests for new SRAN numbers must be submitted and coordinated between the CEM and OC-ALC/LPRC. The CEM will submit the request electronically specifying the effective date for the utilization of the new SRAN number. When it is determined that an activity will be closed, the CEM will initiate correspondence to OC-ALC/LPRC at least 30 days in advance. All SRAN accountable assets must be reported as shipped and received by another SRAN before the closing SRAN can be changed to inactive. The closing SRAN EM must clear all outstanding errors on the EMDL. OC-ALC/LPRC will provide a special reconciliation to the closing SRAN EM. In addition, the following actions must be taken:

1-5.3 When there is a change of BEM, an inventory of accountable assets is required. OC-ALC/LPRC will provide the inventory report when requested. If any assets cannot be accounted for, a ROS and subsequent certificate of deletion will be required IAW AFMAN 23-110 and this T.O.

1-5.4 The data elements for requesting a new SRAN or for changes to existing SRANs are on the CEMS website: <https://cews.tinker.af.mil>.

1-6 DOCUMENTATION.

1-6.1 Required documentation supporting SRAN accountability for use by the accountable SRAN officer, base, depot, contractor and other DoD agencies is:

1-6.2 Engine gain/loss documentation must be submitted to OC-ALC/LPRC by depots, contractors, bases or any organization processing gain/loss transactions to/from AF ownership account codes.

- A. GAINS - All engine serial number gains into Air Force ownership account codes must be accompanied by a receipt signed by an authorized government representative, a copy of which must be sent to, and maintained in, OC-ALC/LPRC. This receipt document can be the DD Form 250, MATERIAL INSPECTION AND RECEIVING REPORT (preferred documentation for new production gains), or other approved official shipping/acquisition document. Gain reports other than a DD Form 250 must be an independently verifiable acquisition document from the gaining organization, and cannot be a CEMS product.
- B. LOSSES - All engine serial number losses from Air Force ownership account codes must be accompanied by an independently verifiable disposition document (a Loss Report) signed by an authorized government representative. A copy of this document must be sent from the losing organization to, and maintained in, OC-ALC/LPRC. This documentation includes, but is not limited to: EIM authorization correspondence, CEM coordination, SF Form 361, DD Form 200, etc. Accountable items are also considered "lost" if a shipment or transfer has been input to CEMS and a receipt has not been processed within the time provided in paragraph 1-2.4 q. Assets in this status require DD Form 200, ROS be submitted by the shipping BEM IAW paragraph 1-2.4 q. Accountable asset responsibility remains with the last possessing BEM until received by an authorized gaining organization, or proper documentation has been provided to OC-ALC/LPRC and asset disposition requirements have been met.

1-6.3 DD FORM 200, FINANCIAL LIABILITY/INVESTIGATION OF PROPERTY LOSS, is used to resolve SRAN accountability discrepancies. Forward to OC-ALC/LPRC for record keeping.

1-6.4 SF FORM 361, TRANSPORTATION DISCREPANCY REPORT, is used to document accountability discrepancies during transportation. Forward to OC-ALC/LPRC for record keeping.

1-6.5 Termination of engine accountability will be accomplished IAW AFI 121-116 and this T.O.

1-6.6 DD FORM 1348-1A, ISSUE RELEASE/RECEIPT DOCUMENT. Prepared for engine shipments. (An alternate form for shipment is a DD Form 1149.) The shipping and receiving activity keeps this form IAW AFR 4-20. This form is prepared for each shipment as follows:

The Federal Stock Class (FSC) and TMS are entered in the stock/part number block.

The DCN/TCN is entered in the document number block with the proper two position engine identifier code.

The Required Delivery Date (RDD) is entered in the delivery date block.

The S/N of the engine being shipped is entered in the item nomenclature/description block.

The remarks/description block will contain the national stock number (NSN) of the container or transportation trailer or stand and transportation mounting adapters used in transporting the engine (see T.O. 00-85-20). Shipping device is an optional entry in CEMS.

Other blocks of the form are completed IAW AFMAN 23-110.

Destruction of accountable documents must be IAW AFMAN 37-139.

1-7 REQUIRED DELIVERY DATE (RDD).

The RDD will be consistent with the time standards in T.O. 2-1-18, Aircraft Engine Operating Limits and Factors and is a three-digit number that represents the Julian Day an engine is required to arrive at a receiving activity. Absence of an RDD on a shipping document will automatically authorize handling of shipments to satisfy DoD Instruction 4410.6, Uniform Materiel Movement and Issue Priority System (UMMIPS) requirements. The generating activity transportation personnel will ship an engine by the lowest

cost mode capable of satisfying the RDD assigned. The EIM will assign an RDD for each shipment from the TRC and depot consistent with T.O. 2-1-18, Re-supply Transportation Times, and DoD Instruction 4410.6. Retrograde CONUS and overseas transportation times are in T.O. 2-1-18 and DoD Instruction 4410.6. To determine the RDD for retrograde shipments, the BEM will add the time standard allowed for retrograde engines in T.O. 2-1-18, to the date of the L condition code transaction. The RDD for engines may be adjusted by the EIM based upon engine TMS inventory levels. Refer to T.O. 2-1-18 to change RDD factors. The changed RDD factors will be provided by the EIM to the CEM who in turn will distribute the changed TMS RDD factors to the affected BEM.

Example: 144 (Julian Date of L condition code transaction) plus 12 (total retrograde transportation time allowed coming from area 4, T.O. 2-1-18) equals 156 RDD to the depot.

1-8 LIST OF DEFINITIONS AND ACRONYMS.

Accountable Asset - Any asset monitored in the EJ-FJ account from initialization into the Air Force inventory until the S/N is removed from the system.

Accountable Officer - The designated individual required to ensure accurate property records are maintained.

ADRSS - Automated Data Reporting Submission System

AFR - Air Force Reserve

AMARC - Aerospace Maintenance and Regeneration Center

ANG - Air National Guard

ASC - Aeronautical Systems Center

AWM - Awaiting Maintenance

Batch Reporting - A collection and transmission of multiple actions in one file.

BCC - Base Communication Center

BEM - Base Engine Manager

C4SRD - Command Control Communication Computer Systems Requirements Document, AF Form 3215

Calendar Day - A 24-hour period of time. A change in Julian date identifies an additional calendar day.

CAMS - Core Automated Maintenance System. Base level automated reporting system.

CAMS User Manual - AFSCM 21-558 for user procedures.

CCB - Configuration Control Board

CDB - Central Database

CEM - Command Engine Manager. Focal point for engine management matters for a command.

CEMS - Comprehensive Engine Management System

CEMS User Technical Order - T.O. 00-25-254-2 is a functional document that provides CEMS users with detailed instructions on reporting data into CEMS and obtaining output products.

CFP - CEMS Forwarding Program

CFT - Contract Field Team

CIVV - Compressor Inlet Variable Vane

COB - Close of Business

Component - Tracked item in support of the Reliability Centered Maintenance (RCM) concept.

CII - Configured Item Identifier. CEMS equivalent of a Work Unit Code.

DAMES - Defense Automated Message Exchange System

DAO - Defense Accounting Office

Data Currency - Elapsed time from when an event occurs until the data is accepted and posted to CEMS.

DPC - Data Processing Center

Deployed Engine - An engine physically located somewhere other than its owning SRAN.

Depot Repair Activity - An activity that performs depot level specialized repair, overhaul, or modification.

DLR - Direct Line Reporting. Real time reporting into the CEMS CDB.

Document Number - The control number entered on a DD Form 1348-1A for asset shipment.

DPC - Data Processing Center

DRMO - Defense Reutilization and Marketing Office

DTG - Date Time Group

EHR - Event History Recorder

EIM - Engine Inventory Manager. The ALC individual responsible for overall accountable asset management by TMSM.

ELP - Engine Load Program

EM - Engine Manager

EMDL - Engine Managers Data List

End Item - The NHA for an accountable asset or tracked item.

Engine Recorder - Any device which measures and collects engine operating parameters.

ENMCS - Engine Not Mission Capable Supply. (Reference Data Item Table in Chapter 9 of this T.O.)

EPM - Engine Program Management

ES - Equipment Specialist. Engine Technical Services representative in the ALC/LP organization.

FAA - Federal Aviation Administration

FHR - Flying Hour

FMS - Foreign Military Sales

FOD - Foreign Object Damage

FSC - Federal Stock Class

How Mal Code - How Malfunction Code

IBEMS - Integrated Base Engine Management System

IND - Indenture Level

IMS - Inventory Management Specialist

JEIM - Jet Engine Intermediate Maintenance

JOAP - Joint Oil Analysis Program

Loss From Inventory - An accountable asset removed from the inventory for any reason must be reported and supporting/authorizing documentation provided to OC-ALC/LPRC. This documentation includes, but is not limited to EIM authorization correspondence, CEM coordination, SF Form 361, DD Form 200, etc. Assets will be considered "lost" if a shipment or transfer has been processed, but a receipt has not been input in the time frame provided in this T.O. and will require DD Form 200, ROS be submitted by the shipping BEM. Assets will not be removed from the last possessing BEMs account until the documentation is provided to OC-ALC/LPRC.

MDR - Material Deficiency Report

MDS - Mission Design Series

MODULE - Major Assembly.

NHA - Next Higher Assembly

NLA - Next Lower Assembly

Non-Accountable Item - Assemblies and/or parts tracked by CEMS for reasons of life limitations or logistical criticality.

Obligated for Installation - Engines required to fill existing holes in aircraft or missiles.

OCM - On Condition Maintenance

OMB - Office of Management and Budget

OPR - Office of Primary Responsibility

PDM - Programmed Depot Maintenance - Depot modification and maintenance normally scheduled on a calendar time cyclic basis.

PEMO - Prime Engine Management Office. Example: OC-ALC/LPA.

Pipeline (Time) - The quantitative information of the number and average elapsed time engines spend in supply, transportation and repair segments.

PMC - Propulsion Management Committee

Possession - The physical custody of an asset by an organization, SRAN or command.

PPGM - Propulsion Product Group Manager

Pre-positioned Engine - An engine located at other than its home base.

PCN - Program Control Number

QEC - Quick Engine Change

QPA - Quantity Per Assembly

RCM - Reliability Centered Maintenance - A maintenance concept that allows the condition of the equipment to dictate the need for maintenance or the extent of repair-overhaul required.

ROS - Report of Survey

SAP - Security Assistance Program. - Foreign Military Sales (FMS) and grant aid.

SOW - Statements of Work

Spare Engine - An un-installed engine.

SPO - Special Project Office

SRAN - Stock Record Account Number

SRAN Directory - Product listing each EJ-FJ SRAN account number and accountable officer information.

SSG - Standard Systems Group

TCC Transaction Condition Code - The code for a transaction in CEMS

TCN - Transportation Control Number

TCTO - Time Compliance Technical Order

TDR - Teardown Deficiency Report

Tenant Organization - An organization located on, or attached to, a base operated by another major command.

TLC - Type Limit Code

TLCC - Type Limit Code Category

TMO - Traffic Management Officer

TMS - Type, Model, and Series

TMSM - Type, Model, Series, and Modification

T.O. - Technical Order

TRC - Technological Repair Center

TRIC - Transaction Identifier Code

TSN - Time Since New

TSO - Time Since Overhaul

TSOCM - Time Since On Condition Maintenance

WUC - Work Unit Code

CHAPTER 2

REPORTABLE ACTIONS AND EVENTS

2-1 DESCRIPTION OF REPORTABLE ACTIONS.

This chapter briefly explains which actions and events must be reported to CEMS. Organizations reporting by mail will complete AF Forms 1534, 93, or 1559 as appropriate. A reasonable facsimile is permissible if reporting electronically. (Refer to this T.O. for guidelines for preparation of these forms.) Status changes must be reported for all accountable assets. Status changes include changes in condition, command code, organization code, removal, and any other changes to accountable item records. Accountable assets are listed in this T.O. Configuration Tracked Engines and/or Components reports must be submitted for all tracked items. Configuration reports include engine updates, EHR window initialization, S/N initialization, adjustments to age factors, and others as listed in this T.O. Installation, removal, and work complete reports use the same TCC for tracked engines and components as are used for status reports. TCTO reporting on engines and tracked components must be submitted to CEMS. Reporting by any method should be accomplished no later than Close of Business (COB) next business day following the date/time of the occurrence. Ensure all transactions are reported and input in the order they occur.

2-2 REPORTABLE EVENTS AND ACTIONS.

Accounts Transfer - Accounts transfer reports are required when accountable assets are moved to or from Air Force accounts (A, B, C, E, G, L, K, N, R, S, or Z), or when they are changed to or from the Army, Navy, Coast Guard, Federal Aviation Administration (FAA), SAP, foreign, or other government agency's account (D, H, J, F, P, T, or W). An Air Force activity gaining an accountable asset must process the gain report first and the account transfer second. An Air Force activity losing an accountable asset must process an account transfer report before the loss report. Accountable assets in non-Air Force accounts received by an Air Force activity for repair and return are not transferred to an Air Force account. Accountable assets requiring reimbursement should be transferred in an un-installed condition.

Addition or Subtraction - Use (TCC's 6A or 6S) to add or subtract time on end item/assemblies/parts. The values will be automatically added or subtracted on all installed lower indentured assemblies/parts.

AFTO Form 95 - All AFTO Form 95 data is maintained in CEMS in program A295. All entries will be input to this automated AFTO Form 95 program. CAMS automated AFTO Form 95 narrative history data must be input to CEMS.

Aircraft Engine Update - Use (TCC 6F) transaction to update time for all engines on an aircraft with a single transaction, against aircraft MDS/tail number. Use (TCC 6H) to update time on an aircraft one engine at a time, input via CII S/N.

Air Force Owned Engines Supported by a Contractor's Pool of Engines - Use (TCC C_) when an engine is gained from the contractor. Use (TCC L_) when an engine is removed from an aircraft and is to be returned to the contractor. Use (TCC Z_) following the removal to show loss.

Awaiting Disposition - Use (TCC N_) when disposition instructions have been requested from the EIM for an engine. This includes engines in long term storage, excess engines, Material Deficiency Report (MDR), designated engines, etc.

Bailment or Lease and Loaned - Use (TCC T_) and (Account code B) when engines are bailed or leased. Use (TCC T_) and (Account code E) when engines are loaned. Losing activity will submit this report. Engines loaned to a nonreporting activity will be retained on the records of the Air Force activity that is responsible for the engine. Reporting is not required while the engine is in the bailed or loaned account. A routine report indicating the applicable account code, normally A, is necessary to indicate termination of bailment, lease or loan when the engine is returned.

Cannibalization - Use (TCC 2L) when an engine is cannibalized at depot for component parts.

Change In Maintenance - Use (TCC M_) when a change in the level of maintenance or condition is required on engines. Use (TCC MK) when depot workload processes a minor overhaul.

Classified Project - Use (TCC T_) and (Account code L) to report engines to be assigned to a classified project, where status reporting would be in violation of security. While engines are in the "L" account, further reports are not required. Un-installed engines returning from classified projects are reported as routine. Engines used in support of a classified project, where status reporting will not violate security, are reported under routine procedures.

Command Code Change - The command code can change only if the engine status is FB, FR, RB, RR, or VA. To change an engine from one command to another, submit a routine R type report. Show the new command code in the command block, the losing command in the TO and/or FROM block, and other data on the transaction as required.

Condemnation - Use (TCC 6C) to condemn spare assembly/part S/Ns without lower indentured items. Use (TCC 6G) for assemblies with installed parts.

Crash Damaged Aircraft - Use (TCC MZ) to report an engine involved in a mishap. Reporting will be consistent with the requirements of AFI 21-103 reporting for the aircraft. Do not process removal transactions until the engine(s) are physically removed and the aircraft termination message specifically excludes engine(s). Use (TCC TZ) to report an engine when an aircraft is involved in a mishap at/or near some other SRAN that is taking possession or responsibility. This effort must be coordinated with the SRAN that will report the engine(s) with (TCC RZ) as of the same date. If the accident investigation board maintenance officer determines that the aircraft is repairable, or the engine(s) are excluded from the aircraft termination message, engine reporting will be accomplished as routine. Use (TCC LL) to remove the engine(s) and immediately notify the prime EIM. Use (TCC SL) to ship the engine to depot. Time occurrence will be the actual termination of flight (landing or crash) rounded to the nearest whole hour. Use (TCC WZ) to report an engine where the receipt of an aircraft termination message does not specifically exclude engine(s). Time of occurrence will be the time of the message rounded off to the nearest whole hour. This will delete both the aircraft and engines from the Air Force inventory. All open TCTOs will programmatically be coded 05 (lost from AF inventory).

Deployed and/or Prepositioned Accountable Items. Prepositioned and/or deployed engines may either be reported by the base where the engine is located or by the home base. If the engine is reported by the base where it is located, it will be reported using the major and subcommand code for which it is allocated. For example, an engine allocated to a HQ ACC tenant located on a HQ AMC host base will be reported by the HQ AMC host SRAN EM as a HQ ACC asset. If reporting is to remain with the home base, arrangements will be made by the home base to have reports prepared and sent to the home SRAN EM. In this case, if an engine is shipped to an activity other than the home base, it will be reported as a normal shipment by the home SRAN EM to the intended recipient SRAN EM. If it is shipped to the home base, no reporting is required.

End Of Month - On the last workday of the month, end of month reports, Type A, are required from batch reporting SRANs. This report is automatically generated and is the last sequence number transmitted to CEMS for the previous month plus one. SRANs that report by mail must send an AF Form 1534 to the prime ALC engine division office for input to CEMS.

Engine ID Change - Use (TCC 6E) when a parts tracked engine or module is being modified or re-identified to a new configuration. This transaction will change the Type, Model, Series, and Modification (TMSM) to be compatible with the new engine ID. Any unique tracked parts must be removed before the engine and/or module ID can be changed. Reference AFSCM 21-558 for CAMS TRIC CED instructions.

Exhaust Gas Temperature - Use (TCC 6W) to report and store an absolute number 0-999. When processed engine TSN for EGT (Cat 92) will be overlaid by the value input on the transaction without updating NLA. Applicable to F108 engine serial numbers only.

Gain Reports - A separate gain report is required for each engine whether installed or un-installed. Use (TCC A_) when reporting acceptance of a new engine into the USAF inventory from a new production manufacturer. Use (TCC B_) when reporting acceptance of an engine into the USAF inventory from a source other than new production (i.e., other US agency, foreign government, commercial airlines, etc.) and reimbursement by USAF to the previous owner is required. Use (TCC C_) when: (a) Reporting acceptance of an engine into the USAF inventory and reimbursement by USAF to the previous owner is NOT required. (b) To report accountable items received from other US agencies or foreign governments that are temporarily gained into USAF possession while undergoing repair and modifications using USAF funds. (c) To report assets found at a given SRAN that are not currently included in CEMS. Use (TCC D_) when an engine is to be gained into the USAF inventory in exchange for a like engine.

Ground Training Engines - Use (Account code S) when an engine is assigned to ground training. Engines assigned to S account require no subsequent reporting except when engines are installed, removed, or transferred, or when assignment to S account terminates. Engines installed and removed for training are to be considered as installed at all times.

Initialization of a (assembly/part) S/N - Use (TCC 6N) to initialize a newly tracked part/assembly in an installed or uninstalled status or to change possession (SRAN) of a part/assembly already in CEMS.

Inspections - Update of inspection criteria can be input via CEMS program A465. Use (TCC LF) with How Mal Code 878 to remove engines for inspections. If the inspection reveals that additional maintenance is required, report the How Mal Code applicable to the additional maintenance on the FB work completed report.

Installation - Use (TCC V_) when an engine, assembly or part is installed other than transient. NOTE: For installation of a transient engine, the transient SRAN EM will not submit the installation report. The transient SRAN EM will provide the home SRAN EM the necessary data to submit the report. If the engine that is installed belongs to the transient SRAN the transient SRAN EM will process a pseudo shipment into CEMS and advise the home SRAN EM of the engine installed and date of pseudo shipment. When the aircraft owner SRAN receives notice that the engine is intransit, that EM will submit a report, initialize the engine into the SRANs CAMS system (if applicable) and then report the VA installation of the engine on the aircraft. Use (TCC U_) when a non-parts tracked engine is installed by a transient SRAN that is a portion of the transient SRANs stockage objective. The transient SRAN EM will submit a UA for the installation that will cause the transient SRAN to lose possession and automatically transfer possession of the newly installed engine to the SRAN that owns the aircraft in CEMS. If the aircraft owner SRAN is a CAMS reporting base, it is the responsibility of the owner SRAN EM to initialize the newly installed engine into that base's CAMS reporting system. NOTE: Parts installed at a transient location will be reported to the SRAN EM for appropriate time update/initialization/install action.

Issue to Maintenance - Use (TCC P_) when an engine is issued to maintenance from reparable supply at a depot repair facility. Issue to maintenance transaction for crash damaged, Unsatisfactory Report (UR) exhibit, and TDR engines will include an appropriate "Reason for Return to Overhaul" code.

Loss - Use (TCC W_) when an engine is lost from the USAF inventory due to crash, fire, combat, launching, Act of God or transportation loss, etc. Use (TCC X_) when an engine is lost from the USAF inventory because it has been disassembled to reclaim parts. Use (TCC Y_) when an engine is lost to the USAF inventory by disposal action through DRMO. Use (TCC Z_) when an engine is lost from the USAF inventory to another US agency, foreign government, etc., through sale, donation or exchange. Enter command code 1M and the SAP country code of the receiving activity. All open TCTOs will programmatically be coded 05 (lost from AF inventory). In addition to an AF Form 1534, CEMS CDB Report, supporting documentation is required to provide an official record of the loss. Refer to AFMAN 23-220, Report of Survey for Air Force Property and DFAS Regulation AFR 177-19 (old AFM 75-35), The Air Force Freight Loss and Damage Claims System. When an engine is properly reported on AF Form 1534, the activity submitting the report is shown as the possessor in the central inventory records until another activity reports a receipt and acknowledges possession. If this report and acknowledgment is not done and the activity charged with possession cannot find an engine, it is considered lost.

Manual Time Change - Use (TCC 6X) to change time data on an engine, assembly or part without affecting the time on any indentured assemblies or parts. This transaction is password controlled; contact OC-ALC/LPRC.

Mass Initialization - Use (TCC 6I) to initialize up to a maximum of twenty assembly/part S/Ns at one time. All S/Ns must be the same CII, Mission Design Series (MDS), and part number. This transaction is only for new production initialization. (Valid for DLR only)

Mass Installation - Use (TCC VM) to build an engine or an assembly via multiple installations of NLAs on a single transaction. (Valid for DLR only)

Mass Loss - Use (TCC 6G) to lose an entire assembly including all NLAs from CEMS. (Valid for DLR only)

Mass Removal - Use (TCC LM) to remove all NLAs one indenture level down from an engine or an assembly. (Valid for DLR only)

MDS/Position Number (QEC) - Use (TCC 2P) to change MDS or position number.

Monthly Operating Time Report (T Reports) - FHR (CAT 11) is required to be updated in CEMS as of last day of Month. The CDB will automatically generate T reports for all installed engines at DLR SRANs with Account Codes of A, G, N and R.

Organization Code Change - Use (TCC 2M) to change the organization code.

Part Number Change - Use (TCC 6J) to update/correct the P/N and MDS by batch reporting contractors. MDS will be updated on all lower assemblies.

Reactivation of a Condemned Tracked Part - Use (TCC 6B) to re-activate a tracked assembly/part previously condemned or retired for 18 months or less. TCTOs in open status at time part was condemned will reverse from 05 to its prior open status. Any part that has been condemned for over 18 months must be reinitialized and any required TCTOs reloaded against the S/N

Receipts - Use (TCC R_) when an accountable asset is received, either installed or uninstalled. For an uninstalled engine, the reportable event occurs as of the date and time the engine is delivered and accepted at the appropriate Jet Engine Maintenance area. On tracked component engines, submit one report on the complete engine and the CEMS programs will automatically generate receipts for the installed tracked components as applicable. The receipt report will contain the major and command code for the command who owns the asset.

Record Adjustments - Valid for OC-ALC/LPRC and depot only. Use Type 4 reports to correct data that is submitted in error to CEMS and that is not detectable by the system edit checks. The condition code should remain the same as previous for engines as authorized by the logical sequence of event table. Valid codes, S/Ns, item designations, SRAN numbers, etc., do pass the edit checks of the system and will be posted to history. When submitting a type 4 report, enter the correct data to be changed. All other entries show the same date as submitted on the original report.

Removal - Use (TCC L_) for any removal reason of engines and tracked assemblies/parts other than transient. Prior to accomplishing a removal of a major assembly or part, ensure all updates have been processed against the engine. This ensures time is correct on the assembly/part. Use (TCC K_) by the home SRAN for engines and tracked assemblies/parts removed transient. If it is determined that the transient SRAN is to retain possession of the engine, the home SRAN EM will submit a pseudo ship transaction and advise the transient SRAN EM when to submit the pseudo receipt transaction. Parts removed at a transient location will be reported to the home SRAN EM for appropriate time update/removal/initialization/install action. If it is determined that the removed item is to be returned to the home SRAN, the transient EM will physically return the item to the home SRAN.

SAP Reporting - All engines gained or transferred into the Air Force inventory from a SAP country must be reported. Engines received from a SAP country for repair must be reported in the "J" account. Two reports are required for the sale, donation, or exchange of an Air Force engine to a SAP country. The first report will be an account transfer K type report and the second will be the loss report, ZA, ZB, ZF, ZG, or ZR. Two reports are required to gain an engine from a SAP country under a purchase, donation, or exchange transaction. The first report will gain the engine to the inventory, the second, a K type report, will be an account transfer.

Shipments - Use (TCC S_) when possession of an accountable uninstalled asset is shipped to another SRAN, use the date and time the asset is shipped by TMO as the shipping date. If a deployed/pre-positioned engine is physically shipped to an activity other than the home SRAN, an example would be to a Depot, it will be reported as a normal shipment by the home SRAN who has possession in CEMS. If physically shipped to the home SRAN, no reporting is required.

TCTO Reporting - CAMS batch reporting will use (TCC 7S) when changing TCTO data as a result of compliance, de-compliance/reversal. The subsystem ID will always be "T". Direct line users will report on CEMS program A240/A241.

Test Cell Reject - Use (TCC G_) when reporting an engine rejected from test cell if any of the following conditions apply:

- (1) Engine fails the test cell run, after maintenance was performed, for the same reason identified during the pre-maintenance run or original cause for the removal.
- (2) Engine fails due to a discrepancy induced or found in the same area in which maintenance was performed.
- (3) Engine is rejected from the test cell for maintenance corrective actions that are beyond the corrective capability of test cell personnel and equipment or tooling.

Transferred - Use (TCC T_) when an installed accountable asset is transferred to another SRAN.

Update Maintenance Data - Use (TCC 6P) following depot repair or overhaul. This transaction has an option to set individual S/N limits for inspection, warranty expiration and next scheduled depot visit.

Update transaction - Use (TCC 6U) to update time. This update transaction is reported after each engine operation, flight day, or as required by the applicable T.O. 00-20-5-1-X. When engines are transferred, a "6U update" will be input by the receiving SRAN.

Window Value Initialization - Use (TCC 6T) to initialize the engine recorder values. This must be accomplished when a new engine recorder is obtained, upon repair or test of an engine recorder, immediately following installation of an engine recorder, parts tracked engine with a recorder or after any engine time corrections (i.e. 6A, 6S or 6X).

Work Completed - Use (TCC F_) when reporting "work complete." Ensure that all other CEMS reportable events occurring during the course of maintenance have been properly reported. Included are engine designation changes following modification and engine related How Mal Code describing the true or primary reason for maintenance action. If the repair action was different from the original reason for removal, enter the removal code that best describes the true reason for failure. For depots and depot level activities, this transaction code includes preservation and packaging of engine for storage and shipment. If periodic inspection or recondition maintenance is performed on an engine which is in maintenance, code the work complete report with How Mal Code 878. The How Mal Code is always required except upon completion of work from raw to build-up condition. Report "work complete" at depot after test cell acceptance, automated and/or manual records update, and completion of preservation and packaging

Work Started - Use (TCC J_) when starting or resuming work on an uninstalled engine. At depot level activities, this transaction code includes preservation and packaging of engine for storage and shipment.

Work Stoppage - Use (TCC H_) when reporting work stoppage on an engine (Other than ENMCS) for lack of manpower, tools, work space, or parts and a valid ENMCS situation does not exist. Work stopped transactions require entry of a Reason for Delay code. Use (TCC E_) when reporting work stoppage on an engine in "ENMCS" status.

2-2.1 The following are the transaction condition code reporting requirements, APPLICABLE TO ALL TRACKED PARTS, COMPONENTS, AND/OR MODULES, for reporting changes in condition, status, and level of maintenance (specific transaction condition codes may vary depending upon the organization reporting the event and level of maintenance required):

REMOVALS

- A) JEIM/QB/2LM ('LB', 'LF', 'LL')
- B) DEPOT ('LB', 'LL')

Report the action of any removal based upon the condition of item:

- 'B' = Serviceable
- 'F' = JEIM/QB/2LM Reparable
- 'L' = Depot Reparable

INSTALLS

- A) JEIM/QB/2LM ('VA')
- B) DEPOT ('VA')

Report the action of any installation of an item. The installs will be edited to ensure that the item is in a built condition, 'B'

CHANGE IN MAINTENANCE

- A) JEIM/QB/2LM ('MB', 'MF', 'ML')
- B) DEPOT ('MB', 'ML')

Report the action of any change in level of maintenance (Condition Code) to be performed similar to an engine. (i.e. This is to provide the correct level of maintenance performed, and the current condition of the item.)

WORK COMPLETED

- A) JEIM/QB/2LM ('FB')
- B) DEPOT ('FB')

Report the action for work complete for any tracked item similar to an engine. (i.e. This is to provide when work is completed on an item for depot reporting. An 'FB' following any 'L' condition transaction code should only be reported by the depot. Work complete should be reported following the '6P'.)

RECEIVE FROM SUPPLY

- A) JEIM/QB/2LM ('6N') (SRAN OF RECEIVING BASE)
- B) DEPOT ('6N') (SRAN OF RECEIVING DEPOT)

Report the action for receiving an item from supply. 'VA' can also be used if item is already built up and is installed immediately.

TURN IN TO SUPPLY

- A) JEIM/QB/2LM ('6D') (SRAN 'UNKN')
- B) DEPOT ('6D') SRAN 'UNKN' (OCALC CAN USE '6N' TO 'OCSU')

Report the action for an item turned in to supply.

CONDEMNED

- A) JEIM/QB/2LM ('6C')
- B) DEPOT ('6C')

Report the action when an item is condemned at the depot and for those items which are authorized to be condemned at base level.

DEPOT MAINTENANCE

- A) DEPOT ('6P')

Report OVH/OCM or set time change. Must be followed by 'FB' to update condition.

2-2.2 HOW MAL/CONDITION CODE compatibility edits on removals and change of maintenance transactions will be the same for parts as are for engines. Change of maintenance and work complete transactions for parts will be reported like engines - separately into CEMS and not through IBEMS. The HOW MAL is the only required input on the CHANGE OF MAINTENANCE; it is optional on the work complete. Part installations will be edited similar to engines in that they must be in a built-up condition prior to installation.

CHAPTER 3

CEMS-CAMS REPORTING INSTRUCTIONS

3-1 REPORTING REQUIREMENTS.

Accountable assets are identified in table 9-15 of this T.O. Tracked assemblies and parts are identified by TMSM in the tables in Chapter 9. Modules are no longer accountable assets (status tracked) and are tracked in CEMS as major assemblies.

3-2 CAMS MATRIX.

Matrix Table 9-42 assists CAMS reporting activities in determining the correct TRIC to use. Reference AFCSM 21-558.

3-3 CEMS INPUT TRANSACTIONS.

CEMS file maintenance transactions submitted to the FJ2031 account must conform to the provisions of this T.O. The three primary reports used to report status, configuration or TCTO data for non-CAMS input are as follows: AF Form 1534, AFTO Form 93, and AF Form 1559. It is noted there are special cases that are addressed in a glossary of footnotes at the end of the matrix. Sample forms in this T.O. provide complete information required to properly prepare AFTO Form 1534 and AF Form 1559 as necessary to facilitate CEMS reporting.

3-3.1 IBEMS. Contact OC-ALC/LPRC for instructions on CAMS/CEMS connectivity utilizing IBEMS software.

3-3.2 Direct Line Reporting. Transactions are input and corrected through a remote terminal. This method is restricted to organizations that have access to CEMS via remote terminals. For HQ AMC SRANs reporting to G081 and CEMS separate reports are required for each system.

3-3.3 Batch Reporting. This is for contractors without direct line capability. Contact CAMS Database Manager/OC-ALC/LPRC for ADRSS connectivity to CEMS. All other non-AF locations should contact OC-ALC/LPRC for connectivity. Continue to submit priority reports during MINIMIZE.

3-3.4 Mail Reporting. Activities without CAMS or direct reporting capability will mail, via first class mail, AF Form 1534, AFTO Form 93, and AF Form 1559 for subsequent input to CEMS as follows:

- (1) Users reporting on hardware prime at OC-ALC will route all status, configuration and TCTO transactions to: OC-ALC/LPRI Tinker AFB, OK 73145-3020.

3-4 DESCRIPTION OF ENTRIES ON AF FORM 1534.

Block 1 - Place an X in appropriate block if additional forms are attached for engine recorder device reports.

Block 2 - Subsystem Identifier. Enter S for status reporting or C for configuration reporting. S will be used on all non-TCTO transactions for non parts tracked engines and for parts-tracked engines other than those specified in the following paragraph. C will be used on all 6-transaction codes and all parts tracked engine component installations and removals except intransit installations.

Block 3 - CII Designation. Direct reporting and mail-in enter CII as shown in the CII table. Batch reporting enter engine ID work unit code (WUC).

Block 4 - S/N. Enter the S/N as identified on the data plate. CEMS does not recognize a dash (-). If dashes (-) are encountered on the engine, assembly or part data plate, the dash will be replaced with a zero for reporting purposes. If data plate contains any other special character, contact OC-ALC/LPRC for instruction.

Example: 629-1234 will be input to CEMS as “0062901234.” The standard method of structuring serial numbers in CEMS is as follows:

MM = Manufacturer’s Code (two position) (Table 9-12)

Z = Zero (0)

C = Engine module symbol as follows:

| | |
|---------------|---|
| Basic Engine | E |
| Augmentor | A |
| Fan | F |
| Compressor | C |
| Turbine (LPT) | L |
| Turbine (HPT) | H |
| Gearbox | G |
| Turbine | T |

X = An alpha or numeric character

NOTE

With the exception of the F107 engine, all century series engines (i.e. F100, F101, etc) and T56 and F110-404 engines use structure MMZCXXXXXX, where column 5 through 10 are the values obtained from the last 6 positions on the data plate. The field will be moved to the right and zero filled on the left.

Examples: F100-100 Engine “PW0E680092.” “T56 engine S/Ns prior to 113432 will reflect the old S/N structure in CEMS of MMZZXXXXXX. T56 gearbox S/Ns prior to S/N 33641 will reflect the old S/N structure in CEMS of ZZMCXXXXXX. T56 engine 113432 and beyond will use MMZCXXXXXX”

Example: (AD0E113432), Gearbox 33641 and beyond will use MMZCXXXXXX

Example: (AD0G33641), All other aircraft engines use structure MMZZXXXXXX, where column 5 through 10 are values obtained from the last 6 positions on the data plate. The field will be moved to the right and zero filled on the left.

Example: J75-17 Engine “PW00611438.” All tracked assemblies and parts and all non-F100 modules use structure 10 positions. All 10 positions are values obtained from the data plate. The field will be moved to the right and zero filled on the left. The alpha O will be converted to numeric 0 and the alpha I will be converted to numeric 1 for reporting purposes.

Block 5 - Occurrence Date and/or Hour. Enter the actual Julian date and time the status change occurred.

Block 6 - SRAN. Enter SRAN of the activity preparing report.

Block 7 - Command. Enter the applicable major and subcommand codes.

Block 8 - Organization Code. This block is authorized for local use and is one position alpha, excluding X.

Block 9 - Engine Ownership Account. Enter the one position engine ownership account code. Account codes A, B, C, E, G, K, L, N, P, R, S, and Z are Air Force assets. Transfers between these accounts will be made on routine reports (code R, block 10). Account codes D, F, H, J, T, and W are other than Air Force assets. Transfer between Air Force and other than Air Force accounts will be made on K type report (block 10). All un-installed engine transfers on K type reports must be documented and a copy of the document maintained as prescribed in this T.O. If account code J is reported, see instructions for block 21. Engines transferred to classified project (L account, routine report) will not be reported thereafter until returned or until the classified project is canceled. Returns from a classified project will be reported as a receipt to the A-account on a routine report. Engines assigned to ground training (S account) require no subsequent reporting except when engines are installed, removed, or transferred, or when assignment to S account terminates. Engines installed and removed for training are to be considered as installed at all times. Engines received from other than Air Force activities for repair and return are to be retained in the activity’s account while on hand. If an exchange of engines with the Air Force is to be accomplished, the transfers between accounts will be made on K reports.

Block 10 - Engine Type Report. Enter the appropriate report code IAW this T.O.

Block 11 - Part Number. Enter the part number from the data plate.

Block 12 - Transaction Code. Circle the appropriate transaction code.

Block 13 - Condition Code. Circle the appropriate engine condition code.

Block 14 - To-From Command and/or SRAN. Enter the shipped to-from SRAN. Report the owning command code for tenant shipments and receipts. Block will be blank for reports of transfer to or from classified projects.

Block 15 - Type of Shipping Device. Optional.

Block 16 - Sequence Control Number. Enter the sequence control number assigned to the report being prepared. CEMS uses sequence numbers to ensure receipt and processing of all CEMS reports. The sequence number is seven positions long. The first part is a number from 01-12 to designate the month of the reporting period. The code for the reporting period changes on the first of each month. The second part of the sequence number is composed of five numbers. These numbers start with 00001 for the first report submitted each monthly reporting period. Sequence numbers are assigned in ascending order.

Block 17 - Engine Related How Mal Codes. Enter the engine related How Mal Code that best identifies the symptom that is causing the removal.

Block 18 - Reason for Return to Overhaul. Enter appropriate reason for return to overhaul code.

Block 19 - Repairable Engine S/N. Optional or enter the S/N of the repairable engine being replaced by the serviceable shipment. This number or the word stock will be furnished by the EIM. If a number or the word stock is not furnished by the EIM, enter "Not Furn."

Block 20 - Blank

Block 21 - SAP number. On K reports for engines gained to or from a SAP country, enter the six position SAP ID number contained in the supplementary address field, card columns 45 through 50, of the DD Form 1348-1A. If the SAP number is not listed in the supplementary address field, contact the prime EIM.

Block 22 - Document Number-NSN. Enter the debit or credit number from the document covering gain and loss transactions. For all shipments and receipts of un-installed engines to-from a different SRAN reporting activity, enter the TCN from card columns 30 through 43 of the DD Form 1348-1A or block six of DD Form 1149, REQUISITION AND INVOICE/SHIPPING DOCUMENT. If not received with the engine, contact the previous SRAN EM for the TCN the engine was shipped with. Also, if the shipment has been reported to CEMS, the TCN will appear on part 2 of the EMDL. For un-installed reimbursable account transfer (K type report), to a non-Air Force account (SAP, Navy, Army, FAA, etc), report the requesting activities requisition number obtained from the prime EIM. The NSN, dashes omitted, is input in this field for cannibalization transactions.

Document numbers are constructed following the guidance in DOD 4000 25-1-M or per instructions in AFM 23-110 and/or applicable Supply Local Operating Instructions.

| | |
|----------------|---|
| Position 1-6 | DOD Activity Address - Code of Activity assigning the number e.g. FJ2039 (FJ suffix is used for Air Force reporting and EJ suffix is used for Contractor) |
| Position 7 | Last digit of the calendar year |
| Position 8-10 | Julian day of document assignment |
| Position 11-12 | S/N assigned by activity |
| Position 13-14 | Two digit alpha engine ID code |

NSN is constructed as follows:

| | |
|----------------|---|
| Position 1-4 | Federal Stock Class, e.g. 2840 |
| Position 5-6 | Country Code, e.g. 01 (USA) |
| Position 7-13 | National Item Identifier Number (NIIN) e.g. 5869746 |
| Position 14-15 | Material Management Code (MMC), e.g. RU, if applicable. |

Block 23 - Engine Flying Time. For non-parts-tracked (status) engines, enter TSO. Time is recorded in days, hours, or minutes as required by engine TMSM. The number is right justified with a single decimal place. The fraction of hours are rounded (up or down) to the nearest tenth of an hour. Time will be reported in whole minutes for the J85-5, J69-20, J69-41A, and J69-406 engines. Time will be recorded in whole calendar days on the F107 and F112 engines.

Block 24 - Cycle Sortie Count. Enter cycle sortie count.

Block 25 - Error Sequence Number. Enter the sequence number from the transaction.

Block 26 - TMSM. Enter the TMSM for the engine that is being reported. TMSM is defined as a 12 position field for TMS and Modification of a given engine family.

TMSM will be structured as follows:

- Position 1-3 Type (alphanumeric, right justified, prefix with spaces)
- Position 4-7 Model (alphanumeric, right justified, prefix with zero's)
- Position 8-10 Series (alphanumeric, right justified, prefix with zero's)
- Position 11-12 Modification (alphanumeric, left justified, suffix with spaces) Reference TMSM table.

Block 27 - NHA Designation. When entry is required and the NHA is an aircraft, enter the seven position alphanumeric MDS; or enter the NHA seven position alphanumeric CII code. When entry is required and the report initialized (TCC 6N) an un-installed tracked item, fill all seven positions with nines.

Standard MDS structure is as follows:

- Position 1-3 Mission (alphanumeric, right justified, prefix with spaces)
- Position 4-6 Design (alphanumeric, right justified, prefix with zero's)
- Position 7 Series (alphanumeric)

Block 28 - NHA S/N Structure. For aircraft S/N use YYNNNNNNNN where YY is year of manufacture and NNNNNNNN is the tail number prefixed with zeros. When an initialization entry (TCC 6N) is required on an un-installed tracked item, fill all 10 positions with nines.

Block 29 - Position Number. If the engine being reported is applicable to a single QPA, enter the digit one. For multiple engine aircraft, engines will be numbered from left to right from pilot's position. Missiles and tracked assemblies/parts are exempt from this entry.

Block 30 - Is used when additional information is required on AF Form 1534 i.e., Reason for Delay Codes.

| CEMS CDB REPORT | | | | 1. REPORT CONTROL SYMBOL | | FORM APPROVED OMB NO. 0704-0188 | | | | |
|--|--------------------|---------------------|---|----------------------------|---------|--|---------|-------------------------------|---------|-------------------------------|
| Public reporting burden for this collection of information is estimated to average 6 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send your completed form to Headquarters, United States Air Force, Attn: AF/LGMY Washington, DC, 20330-1000. | | | | | | | | | | |
| 2. SUB SYS ID | 3. CII DESIGNATION | 4. SERIAL NUMBER | | 5. OCCURRENCE | | 6. SRAN | 7. COMD | 8. ORG | 9. ACCT | 10. TYPE REPORT |
| | | | | 5a DATE | 5b HOUR | | MAJ SUB | | | |
| 11 PART NUMBER | | | | 14. TO/FROM | | 15. SHIPPING DEVICE | | 16. SEQUENCE NO. | | |
| | | | | CMD | SRAN | | | | | |
| 12. TRANSACTION (CIRCLE ONE) | | | | 13. CONDITION (CIRCLE ONE) | | | | | | |
| GAIN | | ENMCS | | E SERVICEABLE | | | | | | |
| NEW PRODUCTION | A | WORK COMPLETED | F | BUILT-UP | B | 17. ENG RELATED HOW MAL CODE | | 18. REASON FOR RETURN TO OVHL | | 19. REPARABLE ENG. SERIAL NO. |
| REIMBURSABLE | B | TEST CELL REJECT | G | RAW | R | | | | | |
| NON-REIMBURSABLE | C | WORK STOPPED | H | | | 20. PRIMARY/SECONDARY HOW MAL INDICATOR (CIRCLE ONE) P S | | 21. SAP NO. | | |
| EXCHANGE | D | WORK STARTED | J | REPARABLE | | | | | | |
| | | REMOVED TRANSIENT | K | CONDEMED | C | 22. DOCUMENT NO./NSN | | | | |
| LOSS | | REMOVED OTHER | L | WITH QEC | F | | | | | |
| ATTRITION | W | CHANGE IN MAINT | M | WITHOUT QEC | G | 23. ENGINE FLYING TIME | | 24. CYCLE/SORTIE | | |
| FOR PARTS | X | AWAIT DISPOSITION | N | MINOR OVHL | K | | | | | |
| SALVAGE/DPRO | Y | ISSUE MAINTENANCE | P | MAJOR OVHL | L | 25. ERROR SEQUENCE NO. | | 26. TMSM | | |
| OTHER | Z | | | | | | | | | |
| | | CAB/ORG-CHANGE | 2 | | | | | | | |
| NON-GAIN/LOSS | | CONFIGURATION | 6 | | | 27. NHA DESIGNATOR | | 28. NHA SERIAL NO. | | 29. POSITION NO. |
| RECEIVED | R | | | INSTALLED | | | | | | |
| SHIPPED | S | INSTALLED TRANSIENT | U | ACTIVE | A | 30. REMARKS | | | | |
| TRANSFERRED | T | INSTALLED OTHER | V | INACTIVE | Z | | | | | |

AF FORM 1534, OCT 91 PREVIOUS EDITIONS ARE OBSOLETE.

*U.S. Government Printing Office: 1982 — 311-790/5073

H9239568

Figure 3-1. AF Form 1534, CEMS CDB Report

3-5 DESCRIPTION OF ENTRIES ON AFTO FORM 93.

Engine Time/Cycle Accumulation Report. Reference T.O. 00-20-5-1-1.

3-6 DESCRIPTION OF ENTRIES ON AF FORM 1559.

CEMS TCTO Status Reporting. This form is used to identify the compliance, de-compliance (reversal), and kitsparts-tools availability, etc or a TCTO-data code.

Block 1 - TCC. The TCTO status update code 7S is preprinted.

Block 2 - Sequence Number. Enter the assigned seven position (NNNNNNNN) sequence number.

Block 3 - CII. For direct line and mail-in reporting, enter CII for S/N that TCTO status is being reported. For Batch reporting, enter engine ID-WUC.

Block 4 - DATA CODE. Enter the seven-position data code (NNNNNNNN). This code can be obtained from upper right corner of TCTO cover page.

Block 5 - Status-How Mal Code. Enter the appropriate three-position How Mal Code (NNN) or the appropriate two position status code (NN) depending on the mode of input. For Batch input enter the How Mal Code.

Block 6 - Status Date. Enter Julian date (YYDDD) that TCTO compliance or status change was accomplished.

Block 7 - Accomplishing SRAN. Enter the four position SRAN (NNNN) that accomplished the TCTO action.

Block 8 - Accomplishing Command. Enter the two-position major and one position sub command code.

Block 9 - Actual Man-hours. Enter the number of man-hours expended to accomplish data code-TCTO, to the nearest tenth of an hour. Note: When actual man-hour reporting is not required the estimated man-hours from hard copy of TCTO will be entered.

Block 10 - Reversal Code. Enter X to reverse TCTO status from closed (codes 22, 01-05) to open (codes 06-21, 24).

Block 11 - N/A

Block 12 - Work Center. Enter the five-position work center code that performed the TCTO action.

Block 13 - Work Order Number. Enter the eight-position work order number.

Block 14 - S/N. Enter the S/N that the TCTO status applies to.

Block 15 - Batch reporting. The following data element entries are required for Batch input:

Block 15.a - Subsystem ID. T is preprinted.

Block 15.b - Federal Supply Class. Enter the four-position federal supply class (NNNN).

Block 15.c - Type Report. Enter the appropriate report code.

Block 15.d - Blank.

Block 16 - Error Sequence Number. Enter the sequence number of the erroneous transaction.

Block 17 - Old Part Number. Enter current part number of item to be modified. On non-parts-tracked engines, enter the CAMS TMSM in lieu of the part number.

Block 18 - New Part Number. Enter the new part number when the TCTO directs reID to a new part number upon compliance. On non-parts-tracking engines, enter the new CAMS TMSM in lieu of part number.

Block 19 - Remarks. Entry not required unless specified by local procedures.

| | | | |
|--|-------------------------|-----------------------|------------------------------------|
| D042 TCTO STATUS REPORT | | Report Control Symbol | Form Approved OMB No. 0704-0188 |
| <small>Public reporting burden for this collection of information is estimated to average 3 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington DC 20503. Please DO NOT RETURN your form to either of these addresses. Send your completed form to: HQUSAF, ATTN: CIV, Washington, DC, 20330-1000</small> | | | |
| TRANSACTION CONDITION CODE: 75 | | SEQUENCE NO. | |
| CONFIGURATION ITEM IDENTIFIED | DATA CODE | STATUS/SHOW MAL | STATUS DATE |
| ACCOMPLISHING SRAN | COMMAND | ACTUAL MANHOURS | REVERSAL CODE |
| | MAJ | | REVERSAL HOURS |
| | SUB | | |
| WORK CENTER | WORK ORDER NO. | | |
| SERIAL NO | AUTODIN/BATCH DATA | | |
| | A. SUB SYSTEM ID | B. TYPE OF REPORT | |
| | T | | |
| | C. FEDERAL SUPPLY CLASS | D. | |
| ERROR SEQUENCE NO. | OLD PART NUMBER | | |
| | NEW PART NUMBER | | |
| NAME | GRADE | TELEPHONE NO. | |

AF Form 1559, OCT 91 PREVIOUS EDITION IS OBSOLETE

H9239567

Figure 3-2. AF Form 1559, D042 TCTO Status Reporting

CHAPTER 4

CONTRACTOR REPORTING

4-1 INTRODUCTION.

This chapter contains the mandatory reporting events for contractors and provides information, requirements, and procedures for reporting engines and tracked assemblies/parts to CEMS. Procedures for reporting certain life limiting parameters and TCTO reporting are also included. Reporting requirements are held to the minimum necessary to supply the AF with essential engine management data. Different event reports are required from contractor organizations depending upon the type of contract service being performed.

4-2 TERMINOLOGY.

The basic terminology used throughout this T.O. is directed to USAF organizations and is not always compatible with terms normally associated with contractors. For clarification, the following terms should be construed as having specific meanings as indicated for contractors:

Base - This term identifies any military installation or contractor facility.

Commander - This term will identify the management levels within a contractor facility.

EM - This term will be used to identify the individual at a contractor facility who is responsible for the management or reporting of engines they are under contract to report.

SRAN - This term identifies the FJ at a military installation and the EJ at a contractor facility.

4-3 CONTRACTOR RESPONSIBILITIES.

The contractor will appoint an EM to be responsible for and maintain the engine EJ SRAN IAW this T.O. The EM will establish local procedures to insure accuracy and timeliness of information reporting to CEMS. These procedures will also address coordination actions by other internal organizations to provide continuity between reportable event data submission to CEMS and manual annotation of historical records, i.e. AFTO Form 95, etc. The EM will contact the appropriate PEMO to resolve reporting problems.

4-4 SCHEDULE OF CONTRACTOR REPORTABLE EVENTS.

IMS program A295 (Automated History) must be updated any time significant narrative history occurs. All reportable events will be made as they occur in the same time frame as an AF activity except for the inventory of accountable engines which are required semi-annually. See Chapter 2 for CEMS reportable events, Chapter 3 for reporting instructions, Chapter 8 for inventory and certificate of deletion requirements and Chapter 9 for applicable table(s).

CHAPTER 5

TRANSACTION CONTROL

5-1 LOGICAL SEQUENCE OF EVENT CODES.

Refer to table in chapter 9 of this T.O. for the logical sequence of event codes.

NOTE

Error and variance codes will be assigned to reported codes that do not follow the logical sequence. An engine with an assigned condition code cannot be shipped off base under another condition code without first reporting the change. Example: an engine in TCC JF must be reported with TCC ML prior to shipment as TCC SL. Gain and loss transaction codes have been excluded from the transaction and condition table as they can occur throughout the pipeline cycle. Loss codes have been omitted from the authorized codes because the next logical code would always be a gain transaction. Condition codes R and G are not valid for reporting major assemblies or F100, F101 and F110 engines. For those instances where specific disposition instructions are not provided, i.e., transfer to a museum, contact the appropriate PEMO for instructions.

5-2 CODES FOR USE WITH AN ACCOUNT TRANSFER.

K type reports are gain transactions B, C, and D with applicable condition code. The next logical sequence after a K type report is usually a loss report using the new account code.

5-3 CODES FOR USE BY DEPOT REPAIR ACTIVITIES.

In addition to the base level authorized codes depot repair activities are authorized additional codes. Refer to tables in the back of this T.O.

5-4 CODES AUTHORIZED FOR SRANS USING CAMS BATCH REPORTING ONLY.

Table 9-3 lists the additional authorized codes for use only by CAMS activities and are not transmitted to CEMS.

Example: 8X equates to RB and 8Y equates to RR. These TCCs permit the on-base reassignment of RB and RR engines when required. Reference AFSCM 21-558.

CHAPTER 6

CORRECTION OF DUPLICATE TRACKED PARTS S/NS

6-1 DUPLICATE TRACKED PART S/NS.

CEMS does not allow duplicate S/Ns within a CII. Any duplicate S/N reported to CEMS will be rejected. An error code will result if two different activities report the same S/N (Error Code 101 - Invalid Processor) or if a SRAN reports the same S/N (Error Codes 116 - Invalid NHA; or 118 - Item Already Installed) installed in two different NHAs. When a suspect S/N is physically verified as a true duplicate, the possessing SRAN may be requested to obtain a photograph or rub-off to be mailed to PEMO.

6-2 SRAN LEVEL.

When duplicate S/Ns appear on accessible assemblies/parts the following actions are required:

6-2.1 Verify the actual S/N on the item via physical inspection and report the S/N found on the part to OC-ALC/LPRC via telephone or message. OC-ALC/LPRC will request a physical inspection by the activity that possesses the other item with the reported S/N. Appropriate action as indicated by the results of the physical inspections will be taken: If both pieces of hardware have the same S/N, OC-ALC/LPRC will notify the PEMO.

6-2.2 PEMO will determine which suffix should be assigned, A for first duplicate, B for second, etc. They will also send a message to the SRAN that received the error and instruct that a suffix be added to the S/N on all manual records; and to resubmit the erroneous transaction with the pseudo S/N.

6-2.3 The SRAN that received the error will remove and delete the duplicate S/N from CAMS if they are a CAMS reporting activity. Initialize and install the pseudo S/N in CAMS, resubmit the transaction and change the S/N in all manual records. If the inspections reveal that SRAN (A) received the error but reported the S/N incorrectly, there is no true duplicate. The SRAN (A) will report the correct S/N via a correction transaction to clear the error. If the inspections reveal that SRAN (A) received the error but reported the S/N correctly and SRAN (B) has been reporting the wrong, there is no true duplicate S/N. However, the data system must be corrected and OC-ALC/LPRC will coordinate actions between the affected SRANs. SRAN (B) will remove and delete the S/N from CAMS, initialize and install the correct S/N.

6-2.4 OC-ALC/TILC will submit a S/N change transaction to CEMS for the S/N that has been erroneously reported by SRAN (B). SRAN (A) will initialize and install the S/N it was attempting to report and submit an error correction transaction verifying that the reported S/N is correct. When duplicate S/Ns appear on non-accessible items, OC-ALC/LPRC will notify the PEMO.

6-2.5 The PEMO will determine which suffix should be assigned, A for first duplicate, B for second, etc., and will notify SRAN (A) that received the error instructing them to add a suffix to the S/N in CAMS and in the manual records. SRAN (A) that received the error will remove and delete the S/N from CAMS if they are a CAMS reporting activity, initialize, install the pseudo S/N and submit an error correction transaction using the pseudo S/N.

6-3 DEPOT LEVEL.

Depot will request a configuration listing for all engines and/or-assemblies input for repair and examine the listing as well as the manual records accompanying the item for any S/Ns with an alpha suffix A-L. A suffix indicates that the tracked part S/N MAY be a duplicate and must be physically inspected if exposed during repair.

6-3.1 The required action depends upon the results of the physical inspection. If the S/N on the assembly/part is physically verified, the part will be physically re-serialized by permanent marking IAW the applicable repair manual. The suspect duplicate S/N suffix will be changed in CEMS via program A460. Suspect duplicate S/N "A" will be changed to "M," "B" to "N," "C" to "P." If a suspect suffix higher than "C" is found during the records search, contact the PEMO.

6-3.2 If the actual S/N on the part does not match the basic S/N of the pseudo S/N in the data system or manual records, determine if the actual S/N is a spare in CEMS. Assume the part was installed with the wrong S/N. Therefore the age data accumulated since installation must be transferred to the correct S/N (actual S/N removed) in CEMS. Ensure that the manual records reflect the correct information and S/N.

6-3.3 When the depot repair activity attempts to process a transaction on a part-assembly that it has physical possession of, but, the CEMS CDB indicates the item is being possessed-installed at another activity, the depot repair activity will contact the PEMO.

6-3.4 The PEMO will coordinate with the possessor and request a physical verification. They will determine if the S/N is in error or is a suspect duplicate. If the S/N was initialized in error, the PEMO will instruct the activity to remove the incorrect S/N and install the correct S/N. Correction to the age data must be made to reflect time accrued on the S/N that is physically installed and time removed from the other S/N. Contact the applicable PEMO point of contact for assistance.

CHAPTER 7

CEMS TABLES FILE MAINTENANCE RESPONSIBILITY AND QUERY

7-1 GENERAL INFORMATION.

CEMS contains a number of tables and programs on which query by CEMS direct line users is authorized. Although data in the tables and programs is not classified, establishment, alteration or deletion of data in these tables is restricted to specified personnel. T.O. 00-25-254-2 contains procedures for query and file maintenance of these programs and tables.

7-2 TABLE FILE MAINTENANCE RESPONSIBILITY.

The OPR may delegate to other organizations the authority to accomplish file maintenance, but the responsibility for the technical content remains with the OPR.

7-3 ACCESS CONTROL AND MONITORING.

Specific users identified by the OPR to OC-ALC/LPRC will be authorized access to tables files maintenance. ■

CHAPTER 8

INVENTORY, RECONCILIATION, FILE MAINTENANCE AND ERROR CORRECTION

8-1 SPECIAL REPORTING.

This chapter contains information for accomplishing special reporting.

8-2 QUARTERLY/SEMI-ANNUAL INVENTORY/STATUS REPORT.

8-2.1 Physical Inventory. AF Base Level Activities are required to accomplish a quarterly (December, March, June and September) physical inventory for all accountable assets. Depot and Contractor SRANs are required to accomplish a semi-annually (March and September) physical inventory for all accountable assets.

8-2.2 OC-ALC/LPRC prepares and distributes the Inventory Status Reports (PCN CED042.BUA510.A10Q, A20Q, A30Q, and A40Q) on the 20th of December, March, June and September. When the 20th occurs on a Saturday or Sunday, the quarterly will be produced on the previous Friday with the correct "as of date," either the 18th or 19th. These reports are provided to assist SRAN EM in accomplishing the reporting requirements. DLR SRANs will print this report using the L option of TSOA that will route the product to the SRANs' local printer. Two copies are required, retain one copy at the SRAN, sign and return the second copy to OC-ALC/LPRC by the 5th workday of the new quarter.

- A. A10Q PART I INSTALLED contains all reportable engines in accounts A, G, N and R that were last reported as installed and active.
- B. A20Q PART II SERVICEABLE contains uninstalled accountable assets on hand in serviceable status.
 - (1) PART II REPARABLE contains total quantity of uninstalled accountable assets on hand in repairable status.
 - (2) PART II INSTALLED contains total quantity of accountable assets on hand in an installed status other than that mentioned in PART I INSTALLED above.

8-2.3 Command and SRAN Engine Managers shall notify OC-ALC/LPRC by 15 Oct each Fiscal Year of known changes to the engine inventory which occurred prior to 20 Sep, but did not get reported to the CEMS until after that date. OC-ALC/LPRC will then be responsible for ensuring that all correcting entries are properly posted to CEMS and the DAO informed of all changes.

8-2.4 Accountable SRANs are required to inventory deployed and/or prepositioned assets.

8-2.5 The inventory will be accomplished by visually comparing the data plates of accountable assets with the CED042.BUA510 products. If a data plate is not accessible for installed or containerized accountable assets, review aerospace vehicle engine flight document and AFTO Form 95 to find the engine S/Ns. Do not rely on S/Ns stenciled on containers.

8-2.6 The report should be annotated to reflect only changes up to the sequence number listed on part IV. While conducting the physical inventory if any discrepancy reflects a lower sequence number than the one listed on part IV, the report must be annotated. For example, if an accountable asset was previously shipped or transferred to another SRAN, line through the transaction and annotate the report with "shipped to" SRAN and date transferred or shipped. If the accountable asset has been in transfer status 10 days or in shipped status 20 days before receipt of the report, notify the shipped to SRAN to submit appropriate receipt reports. If an engine has been removed, line through S/N on A10Q and add to A20Q. If an engine was installed, line through S/N on A20Q and add to A10Q. If a spare engine changes status (i.e., LF to FB), all transactions must be annotated on the report. All changes annotated on the report will include TMS, S/N, TCC, transaction date and reporting sequence number. After the physical inventory has been conducted, the report should be compared with all documentation (i.e., DD Form 1348-1A) to determine if the discrepancies

found during the physical inventory are valid. Any accountable asset added to the CED042.BUA510 product at the time of the physical inventory must be reported to CEMS.

8-2.7 Concurrent with accomplishing the physical inventory at CAMS Batch reporting activities, the SRAN EM is responsible for ensuring CAMS and CEMS contain the same information using CAMS TRIC ISR. If an accountable asset cannot be located and no record exists of the asset currently being at that SRAN, or if the item was shipped-transferred more than 60 days ago, a certificate of deletion must be submitted. When completing the certificate, include all known data that will help in an investigation. Submission of a certificate of deletion does not necessarily mean responsibility for the accountable asset by the SRAN EM ends. The FJ2031 accountable officer must be satisfied as to accountability before CEMS records will be adjusted. If no response to a certificate of deletion is received before the next inventory, include a statement on A40Q Certificate of Deletion previously submitted. Transfer the latest annotated status for each possessed accountable asset from the updated working copy to the original copy of the CED042.BUA510.A10Q, A20Q, A30Q, and update the totals on A40Q as of the end of the quarter. The SRAN EM will sign a copy of the inventory, certifying the accuracy of the annotated products. Attach the certificate of deletion, include a statement on A40Q Negative Certificate of Deletion or Certificate of Deletion previously submitted and mail to OC-ALC/LPRC.

8-3 FOR NON-RECEIPT OF QUARTERLY INVENTORY REPORTS.

OC-ALC/LPRC will:

A. Send reminder to DLR activities.

B. Produce a list of non-receipts on the 15th day of the new quarter. CEMS technicians will:

1. Contact Engine Managers.
2. Note pertinent information on listing.
3. Note PEMO on listing.
4. Return completed listing to the Quarterly Status Inventory Monitor no later than the 20th workday of the new quarter.

C. Notify Command Engine Managers/Contractors by official message or letter with an info copy to OC-ALC/LR and the applicable PEMO.

8-4 CEMS-CAMS BATCH REPORTING DATABASE RECONCILIATION FOR CONFIGURATION.

Each SRAN possessing tracked engines will reconcile the CAMS database a minimum of once every year with CEMS for tracked components possessed by that SRAN. The reconciliation and inventory process may be a combined effort, but may not conflict nor delay the completion of the inventory. Tracked component reconciliation schedules will be coordinated by OC-ALC/LPRC with the individual SRANs. On the scheduled reconciliation date, CAMS will produce a reconciliation file using TRIC REC IAW AFCSM 21-558. Reconciliation transaction 6Z will start with the next sequence number. A cutoff transaction 6R will be passed to CEMS. This transaction will contain the reconciliation file beginning and ending sequence number. The file will be transmitted to OC-ALC/LPRC via ADRSS or normal daily CAMS transmission method. CAMS will then resume normal processing. If the reconciliation file has not been received within five working days of the scheduled reconciliation date, the reconciliation will be canceled and rescheduled. CEMS, upon receipt of the cutoff transaction 6R will cease processing for the SRAN being reconciled. CEMS will flag all outstanding configuration error transactions for the reconciled base, and a temporary file will be produced for all CII-S/N records showing that SRAN as the possessor. A CEMS-CAMS configuration reconciliation discrepancy listing with error code and verbiage will be sent to the reconciling SRANs OPR. Upon receipt of the discrepancy listing, it will be compared with the SRAN reconciliation listing. Any discrepancies that exist in the SRAN level computer will be corrected. If CEMS is in error and SRAN level records are correct, the assigned technician in OC-ALC/LPRC will research CEMS and make corrections as required.

1. These engines are on the reconciliation list for this activity and should be deleted for the reasons indicated below:

a. An erroneous serial number has been reported.

| TMS | SERIAL NUMBER | BASE NUMBER |
|-----|---------------|-------------|
| | D042 | ACTUAL |

- (1)
- (2)
- (3)

b. There is no base record to indicate the disposition of the engine.

- (1)
- (2)
- (3)

c. The engine was previously at this base but was transferred or shipped to another base.

| TMS | SERIAL NO | TRANSFER BASE NO | DATE | BILL OF LADING | IF INSTALLED - AIRCRAFT MDS |
|-----|-----------|---------------------|------|-------------------|--------------------------------|
|-----|-----------|---------------------|------|-------------------|--------------------------------|

- (1)
- (2)
- (3)

2. I certify the above engines are no longer at this base and should be deleted from my inventory reconciliation listing.

| NAME AND RANK | DATE | ORGANIZATION COMMAND AND SRAN NO |
|---------------|------|----------------------------------|
|---------------|------|----------------------------------|

Figure 8-1. Sample Certificate of Deletion Format

8-5 SRAN LEVEL TCTO STATUS RECONCILIATION.

All CEMS reporting activities, except depots, are required to accomplish a TCTO quarterly reconciliation. Contractors serving in engine management capacities that report to CEMS must accomplish a quarterly TCTO reconciliation.

8-6 CAMS BATCH REPORTING SRANS.

- OC-ALC/LPRC will produce and provide quarterly a two-part TCTO Reconciliation Listing (CEDO42.BUA520.A10Q) by SRAN for engines and parts active TCTOs. CAMS will produce a TCTO status listing for SRAN assets using TRIC DCR or TCI IAW AFCSM 21-558. SRAN personnel will compare and annotate these listings. Any discrepancies will be compared with available records. Changes to CAMS will be input as a 7S TCTO transaction. The second copy of the CEMS reconciliation report will be used to report errors to CEMS. Changes (i.e. TCTO status, status date, etc) will be circled or marked through with red pen or pencil and annotated with the correct data immediately to the right or the most appropriate blank space on the report. Changes will be made in CEMS upon receipt of the listing by
- OC-ALC/LPRC. The annotated copy of the TCTO report (CEDO42.BUA520.A10Q) must be returned within 30 days from the date of the TCTO report. Only pages with annotated corrections will be returned. If no corrections are required, forward a negative reply to OC-ALC/LPRC. Include SRAN on all correspondence. Provide written notification to CEM that quarterly TCTO review has been accomplished.

8-7 DIRECT LINE SRANS.

- SRANs reporting TCTO status directly to CEMS will compare TCTO status with available records. Input TCTO status corrections IAW T.O. 00-25-254-2. TCTO reconciliation must be accomplished and reported to OC-ALC/LPRC and CEM within 20 working days after the end of each quarter by message/letter/fax/e-mail confirming completed review. Include SRAN on all correspondence.

8-8 EMDL.

The five part EMDL is prepared daily, including prior 30 days. The SRAN EM will correct EMDL immediately upon receipt. The product varies in output and contains only pertinent information. The EMDL will be reviewed daily. DLR SRANS will use (TSOA Option L).

- 8-8.1 EMDL for CAMS batch reporting SRANS: The first record of the message contains the addressee, product number, report number, message number (different from report number), and preparation date. The message numbers are sequential and begin with 01 for the first report transmitted to addressee each month. Also the first message to an addressee each month will have a record that shows the number of messages transmitted to the activity the previous month. All records within a message are numbered sequentially in columns 76 through 80. If they are out of sequence, rearrange them before processing. Number all records within a message sequentially in columns 76 through 80. The text trailer record signals the end of the message and contains the addressee, product number, batch message number, and total number of records. If message is not received or complete, contact OC-ALC/LPRC. Output formats are contained in T.O. 00-25-254-2.

8-8.2 Part One of EMDL (Error or Variance Reports). Informs the EM a transaction has been rejected by CEMS and additional action is required before transaction will be accepted. (Exception: Error codes 070 and 071 indicate illogical sequence.) Also, Shipment/Transfer actions overage (Error 79 or 80) Part One contains: incorrect data on unit ID, S/N, error sequence number, TCC, engine ID, WUC, error date and contains a narrative message. Error(s) will appear on first processing day recognized and will not reappear until the 5th day to allow EM response time. If not corrected by 5th day, error(s) will repeat daily until appropriate follow-up action is taken.

- 8-8.2.1 Data Variance Correction. The two transaction type reports that correct error or variance are (C) for Correction and (V) for Verification. Reference AFCSM 21-558. To resolve processing problems, contact OC-ALC/LPRC.

8-8.3 Part Two of EMDL (Due-In Accountable Assets). Provides information on asset(s) shipped or transferred by another SRAN. Shipment-transfer transaction appears the first day after shipment/transfer. Part Two contains: designation, S/N, document number (if un-installed) or aircraft data (if installed), TCC, SRAN of shipping activity, command code of destined user, hours and date of transaction.

8-8.4 Part Three of EMDL (Possession Exceptions). Provides information to the losing EM when another SRAN takes possession of an accountable asset. Informs any organization that acquires possession of an accountable asset that CEMS has processed a change in possession. Part Three contains: designation, S/N of the accountable asset, document number (if un-installed), or aircraft data (if installed), TCC, SRAN-command code gaining possession and date of occurrence.

8-8.5 Part Four of EMDL (Results of Corrective Actions): Provides corrective action taken on reports previously held in suspense. Part Four contains: correction, deletion, and verification reports that were received and rejected by CEMS again. In some instances, corrective actions can be made by OC-ALC/LPRC. When such corrections are made, this portion of the EMDL will be used to inform the reporting activity. (Applicable to contract FTP data only.)

8-8.6 Part Five of EMDL (Obligations to Install). Furnishes data to the EM that an aircraft does not contain the required QPA. CEMS will provide data on accountable assets that are indicated as installed. Part Five contains: unit ID, aircraft S/N, TMSM, position and S/N of engine(s) installed. If no accountable assets are installed, a narrative is provided.

8-9 DLR DATA CORRECTION.

The transaction type (4) Record Adjustment is used to correct the error or variance at DLR SRANs. (Contact OC-ALC/LPRC). Reference T.O. 00-25-254-2. It is advantageous to correct errors on-line.

8-10 ERROR CODE RESPONSIBILITIES.

The following error codes are the responsibility of OC-ALC/LPRC. All other error codes are the responsibility of the BEM where the error occurs.

| | | |
|---------|---------|---------|
| 1 | 158 | 289-290 |
| 3-9 | 160-161 | 410 |
| 12-13 | 166-167 | 413 |
| 15-16 | 169-170 | 416-417 |
| 19-22 | 172-173 | 420 |
| 29-38 | 177-178 | 503-505 |
| 64 | 180 | 507-508 |
| 91 | 182 | 510-514 |
| 105-113 | 188 | 516-517 |
| 115-119 | 200-207 | 519-524 |
| 122 | 209-210 | 527-530 |
| 148-154 | 212-248 | 540-542 |
| 156 | 263-286 | |

8-11 CAMS ERROR CORRECTION ACTION KEYS.

1. Most error codes have been assigned more than one corrective action. This is primarily for two reasons: The first reason is that your corrective action may be different depending on whether the information in your CAMS system is correct or incorrect. Example: if you received an error code 069 and you knew you had made a mistake when you input the receipt in CAMS, you would simply make the correction (ESU, format 5, option 1) and you would not need to call OC-ALC/LPRC. However, if the engine was in fact serviceable, you would call OC-ALC/LPRC to explain pertinent details in addition to verifying (ESU, format 3, option 1) your transaction. The second reason error codes have been assigned more than one corrective action key is that many of the errors require more than one action. For example, many errors which require that you use ESU, format 5, option 1, to generate a corrective transaction to CEMS were actually caused by another mistake elsewhere in your CAMS records and will require that you correct your CAMS database. If you are unfamiliar with what must be done to correct CAMS, contact your host CAMS Data Base Manager for help. If they require further information or assistance, they are able to contact the SSG/ILM, Field Assistance Branch, 24 hours a day, seven days a week at DSN 596-5771/5401.
2. ESU, format 5, option 1.
3. ESU, format 5, option 2 (if this is used, ESU, format 5, option 1 must be run after this).
4. ESU, format 2, if required.
5. ESU, format 3, if required.
6. Call OC-ALC/LPRC, Engine Systems Branch, Tinker AFB, OK.
7. Call SSG/ILMD (via the Field Assistance Branch, DSN 596-5771/5401).
8. Correct CAMS database.
9. Ensure batch were processed and transmitted through ADRSS
10. Not Used
11. COR, format 1.
12. COR, format 2.
13. TRIC PSC CAMS screen 79.
14. See AFCSM 21-558 for further explanation.

8-12 ERROR CORRECTION ASSISTANCE.

If problems are encountered while making corrections as defined in this T.O., contact OC-ALC/LPRC as specified in CEMS IMSA program A301.

8-13 ERROR CODES.

CODE 001

Description: Assigned when command code is not in the CEMS table of valid command codes.

Possible Causes: Major command/sub-command code is invalid or has not been loaded into table.

Corrective Action for DLR: Enter correct command code. If valid, contact OC-ALC/LPRC to load new code.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 8.

CODE 002

Description: Assigned when account code is not valid.

Possible Causes: Incorrect account code entered.

Corrective Action for DLR: Enter correct account code.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 8.

CODE 003

Description: Assigned when type report is invalid.

Possible Causes: Selection of incorrect report type

Corrective Action for DLR: Enter correct type report.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 004

Description: Assigned when date of occurrence is in error.

Possible Causes: The date of occurrence is invalid.

Corrective Action for DLR: Enter correct date of occurrence.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 005

Description: Assigned when month code/date of occurrence combination is invalid.

Possible Causes: Error in month code or date of occurrence.

Corrective Action for DLR: Enter correct date.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 006

Description: Assigned when type report is invalid for this program.

Possible Causes: Type report code other than K, R, T, or 4 was used.

Corrective Action for DLR: Enter K, R, T, or 4 type report as applicable.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 007

Description: Assigned when sequence month number is not valid.

Possible Causes: Field is other than 01-12 or does not reflect previous month on a type A report.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 008

Description: Assigned when To-From SRAN number is not consistent with transaction or type report.

Possible Causes: Data is contained in To-From SRAN number block and TC is not coded as S, T, U or is not a gain, loss or type K report. TC is U but the To-From SRAN number block is blank.

Corrective Action for DLR: Enter the appropriate gain or loss transaction code.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 6.

CODE 009

Description: Assigned when command code in To-From SRAN block is not valid.

Possible Causes: Command code was reported in error or was blank.

Corrective Action for DLR: Enter correct command code. If correct contact, TILC to load new code.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 010

Description: Assigned when a T report has been previously reported and posted for the same date.

Possible Causes: A T report was previously reported or was generated by CEMUA145.

CODE 012

Description: Assigned when TCC reflects invalid or unacceptable combination of codes or no entry.

Possible Causes: Incorrect TCC combination or no entry or TCC codes EL, EK, JL, JK, or RK are reported by other than a depot repair activity.

Corrective Action for DLR: Enter correct codes.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 013

Description: Assigned when TCC is not valid with account code, and/or type report.

Possible Causes: Erroneous type report, account or TCC.

Corrective Action for DLR: Enter correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 6.

CODE 014

Description: Assigned when a character other than an alpha/numeric is used for engine or part serial number.

Possible Causes: Invalid character entered in serial number field.

Corrective Action for DLR: Enter valid alpha/numeric character.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 8.

CODE 015

Description: Serviceable shipment without entry in reparable engine serial number block.

Possible Causes: TCC reflects codes "SR" or "SB," but reparable engine SN is invalid, or not left blank.

Corrective Action for DLR: Submit a type "C" report with the correct reparable engine serial number, the word "stock" or "not furn," as applicable.

CODE 016/017/18

Description: Assigned when condition code, NHA designator, and NHA S/N combination is not valid.

Possible Causes: Condition code does not reflect code A or Z (installed), but NHA designator and NHA S/N contains S/N.

Corrective Action for DLR: Enter correct condition code, NHA designator and NHA S/N.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 019

Description: Assigned when engine related How Mal Code or transaction code is in error.

Possible Causes: Engine related How Mal code erroneous, blank or TC is not F, G, L, K or M.

Corrective Action for DLR: Enter correct How Mal Code

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 020

Description: Invalid Container Type.

Possible Causes: Transaction code is "S," but shipping device code is invalid.

Corrective Action for DLR: Submit a type "C" report, with the correct shipping device code.

CODE 021

Description: Assigned when reason for return to overhaul is in error.

Possible Causes: TCC is LL, KL, or ML and reason for return to overhaul is blank or invalid.

Corrective Action for DLR: Enter the correct reason for return to overhaul code.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 022

Description: Assigned when Reason for return to overhaul code is in error.

Possible Causes: Reason for return to overhaul code is other than 9D, 9E, or 9F.

Corrective Action for DLR: Enter correct reason for return to overhaul code.

CODE 023

Description: Organization Code cannot be same as previous.

Possible Causes: Organization Code is the same.

Corrective Action: Enter organization code of "A" through "Z" excluding "X".

CODE 027/028

Description: Assigned when engine time is lower than previously reported or exceeds 500 hours.

Possible Causes: Engine time or S/N is incorrect. Major overhaul input by depot or hour meter changed.

Corrective Action for DLR: Enter correct engine S/N and correct operating time

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 3, and 6.

CODE 029

Description: Assigned when reason for delay code on work stopped report is in error. Reference Table 9-9.

Possible Causes: Incorrect reason for delay code.

Corrective Action for DLR: Enter correct code

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 030

Description: Assigned when engine related How Mal Code is not compatible with removal TCC combination. Reference Table 9-7.

Possible Causes: Engine related How Mal Code in error

Corrective Action for DLR: Enter correct code.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 031

Description: Assigned when maximum time or engine related How Mal Code (866 or 867) is inconsistent with the operating time on the engine.

Possible Causes: Engine related How Mal Code or engine time in error.

Corrective Action for DLR: Enter correct How Mal Code or engine time

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 032

Description: Assigned when an incompatibility exists between account code and SRAN when a gain or loss is reported.

Possible Causes: Account code, transaction code or to-from SRAN entry erroneous.

Corrective Action for DLR: Enter correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 033

Description: TCN not reported on un-installed account transfers, receipt reports, gains, or losses.

Possible Causes: TC incorrect or document number not entered.

Corrective Action for DLR: Enter correct data

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 7.

CODE 034

Description: Assigned when a K type report is submitted and the account code is the same as in CEMS or when account code Z is used with other than a VA or TCC.

Possible Causes: Incorrect account code, type report (should not have been K) or TCC.

Corrective Action for DLR: Enter correct data

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 6.

CODE 035

Description: Assigned when batch sequence number is higher than the sequence number reported on the type A report.

Possible Causes: Incorrect month code or sequence number entered.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 036

Description: Assigned when engine related How Mal Code or engine time, reported with TC E or J.

Possible Causes: Incorrect code or time

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 7.

CODE 037

Description: Assigned when an invalid document number is used on a K type report.

Possible Causes: Incorrect document number.

Corrective Action for DLR: Enter correct document number.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 038

Description: Assigned when transaction date is earlier than previously reported.

Possible Causes: Erroneous date entry or transactions submitted out of proper sequence.

Corrective Action for DLR: Enter correct date and any missing transactions.

CODE 039

Description: Assigned when transaction code reflects transaction code A which indicates a new production engine gain, but SRAN is not a new production contractor SRAN.

Possible Causes: Incorrect transaction code or account code.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 043

Description: Assigned when the date of occurrence of a K type report is earlier than CEMS.

Possible Causes: Date of occurrence in error or transfer report (K type) not submitted in proper sequence.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 7.

CODE 044

Description: Assigned when account code J on a K type report and SAP number was incorrect.

Possible Causes: SAP number erroneous or blank or account code erroneous.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 045

Description: Assigned when date and /or time less than previously reported.

Possible Causes: Transaction date of occurrence is less than previous transaction.

Corrective Action for DLR: Enter correct date.

CODE 047

Description: Assigned when transaction is not valid for a K type report. Valid codes are B, C, or D.

Possible Causes: Transaction code or Type report code erroneous.

Corrective Action for DLR: Enter correct TCC or type report.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 6.

CODE 051/55/56

Description: Assigned when an A type report is received at CEMS prior to the end of the month, invalid sequence number.

Possible Causes: Incorrect Type Report code or month code entered in sequence number or was submitted prior to the end of the month.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 057

Description: Assigned when error is detected in sequence numbers entered on a deletion report submitted to delete a block of consecutive sequence numbers.

Possible Causes: Month codes do not match or the sequence number is lower than previous.

CODE 058

Description: Assigned when other than a K type report is used to transfer engines between AF and non-AF accounts.

Possible Causes: Invalid/missing account code or type report code. Engine was previously reported in the incorrect account.

Corrective Action for DLR: Enter correct account code or type.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 059

Description: Assigned when the date of occurrence reflects a lapse in time in excess of 30 days.

Possible Causes: Untimely submission of report or incorrect date of occurrence.

Corrective Action for DLR: Enter correct date within last 30 days.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 060

Description: Assigned when TMSM is not compatible with the part number in the engine S/N record.

Possible Causes: Invalid TMSM, TCTO was accomplished to change the part number, and the work complete transaction does not reflect the new TMSM is not compatible with the part number. A TCTO was accomplished, but not entered and part number did not get updated.

Corrective Action for DLR: Enter the correct data including the TCTO action to change the part number.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 061

Description: Assigned when command code of asset being installed does not match NHA.

Possible Causes: Invalid command code

Corrective Action for DLR: Enter correct command code.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 062

Description: Assigned when the Ship To command code differs from the receiving command code or when the command code changes on any transaction.

Possible Causes: Erroneous command code or Command code is correct, but To SRAN is incorrect.

Corrective Action for DLR: Enter correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 063

Description: Assigned when the engine TMSM is not in CEMS.

Possible Causes: Erroneous TMSM or has not been established in the CEMS table.

Corrective Action for DLR: Enter the correct TMSM, if TMSM is not in CEMS physically check the engine data plate and/or records to ensure that the designation is correct, and advise OC-ALC/LPRC. When the designation has been validated and included in the CEMS table resubmit transaction

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 064

Description: Assigned when attempting to install a condemned/lost engine or part on a NHA S/N.

Possible Causes: NHA is not in the system or has been previously reported condemned or lost.

Corrective Action for DLR: Enter correct S/N. If the S/N is correct, contact OC-ALC/LPRC to add NHA.

Corrective Action for CAMS: See paragraph 8-11; keys 6 and 8.

CODE 065

Description: Assigned when engine S/N is reported as lost.

Possible Causes: Multiple loss reports submitted on the same engine. Erroneous engine S/N. Engine was erroneously reported as lost. Engine returned from a SAP country and gained.

Corrective Action for DLR: Gain the S/N to the inventory and enter correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 6, and 8.

CODE 066

Description: Assigned when a gain transaction is submitted on an engine already in the inventory.

Possible Causes: Erroneous engine designation, engine S/N, transaction code.

Corrective Action for DLR: Enter correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 6, and 8.

CODE 067/068

Description: Assigned when a receipt has been input on an engine not been shipped/transferred.

Possible Causes: Engine S/N in error, engine not shipped/transferred or transfer reflected a different To-From SRAN. Erroneous To-From SRAN entry on a U transaction.

Corrective Action for DLR: Enter correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 6, and 8.

CODE 069

Description: Assigned when the previous report indicates the condition as reparable and the current transaction is attempting to report the condition as serviceable without work started or work completed status changes.

Possible Causes: Engine condition in error. Engine condition is serviceable and one or more reports were not received at the CEMS.

Corrective Action for DLR: Enter the correct condition code

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 6.

CODE 070/071

Description: Code 070 is assigned in conjunction with code 071, which reflects an illogical pipeline sequence. Code 070 provides information on the previous to the one that caused code 071 to be assigned. This information is provided to determine which pipeline sequence has been missed. For example: code 070 report reflects TCC codes LL. The report coded with code 071 reflects TCC codes VA. Inasmuch as an engine that is reparable for major overhaul (LL) cannot be logically installed (VA) without going through other reportable segments of the pipeline, the report of installation (VA) is assigned code 071. When compared with the variance code 070 report, the missing segments can be determined and the necessary reports submitted.

Possible Causes: Failure to submit one or more status reports. For non-parts-tracked engines, the engine will be programmatically removed when the removal pipeline segment has been by-passed. This is not true for parts-tracked engines.

Corrective Actions for DLR: Locate the report assigned code 71, which reflects the next transaction that caused both the code 70 and 71 to be generated. In the event the reporting activity that received the code 71 is not the same as the reporting activity that received the code 70, it is the responsibility of the activity receiving the code 71 to initiate communication with the activity that received the code 70 for correction of the problem. Determine the segments of the pipeline that have been missed and if the missed reports are the responsibility of the activity that received the code 70, then prepare the proper report(s) in the following manner: In each report, enter the date of occurrence when the missing pipeline segment occurred. Enter the word MISS (representing missed) in sequence number portion. Do not fill in the month portion. Complete all applicable data on each report that is being submitted.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 6.

CODE 072

Description: Assigned when an engine is reported installed in one end item and CEMS show it in another.

Possible Causes: Erroneous NHA S/N. The engine was removed from previously reported end item and reinstalled in another end item without submission of the necessary reports.

Corrective Action for DLR: Enter correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 6, and 8.

CODE 073

Description: Assigned when an engine is reported installed on an unacceptable end item.

Possible Causes: Incorrect NHA or engine ID. Valid engine/end item combination not loaded in CEMS. Incorrect family group code or the engine ID-TMSM table.

Corrective Action for DLR: Enter correct data and/or notify OC-ALC/LPRC that the combination is valid.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 8.

CODE 074

Description: Assigned when the entry does not match a valid SRAN in the CEMS table, or is not valid for type item reported.

Possible Causes: Erroneous TO/FROM SRAN with other than an Account code "J" and not TC "B," "C," "D," or "Z", or attempting to report an engine at a parts only SRAN.

Corrective Action for DLR: Enter correct SRAN.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 075

Description: Assigned when a SRAN submits a report on an engine it previously shipped or transferred.

Possible Causes: Report of shipment or transfer was in error. Incorrect S/N or date of occurrence.

Corrective Action for DLR: Enter correct data or call OC-ALC/LPRC.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 076

Description: Assigned when engine condition is repairable and are attempting to install the engine.

Possible Causes: One or more reports reflecting engine condition code changes were not received.

Corrective Action for DLR: Enter correct data in sequence.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 9.

CODE 079

Description: Assigned when engine is reported in transit and not reported as received by the allowable time, 10 days for transfers and 20 days for shipments. The shipping activity is responsible for engine in transit until receipt is reported.

Possible Causes: The activity to which the engine was shipped has not submitted a receipt report.

Corrective Action for DLR: The shipping activity must initiate follow-up action providing the necessary information to OC-ALC/LPRC. The shipping activity will also furnish to the Ship To activity the S/N, shipping document number, date, method of transportation and other applicable data necessary to locate the engine. If confirmation is not received from the recipient within 10 days, the shipping activity will initiate tracer action through transportation. After tracer action has been taken and further assistance is required, advise OC-ALC/LPRC. Submit a type 4 report with the correct To-From SRAN or to regain possession. Then submit a routine type report reflecting the shipment of the correct engine.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 080

Description: Assigned when an engine has been shipped and a receipt has not processed within the allowable time. (See Code 079 for allowable time.)

Possible Causes: Engine has been received and receipt has not been processed in CEMS.

Corrective Action for DLR: Enter the correct receipt data. If CEMS does not show that the engine has been shipped, contact the owning SRAN and request they input the correct transactions. If after five days action has not been taken, notify OC-ALC/LPRC.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 4, and 6.

CODE 081

Description: Assigned when a loss report transaction code W, X, Y, or Z, is received with a date of occurrence earlier than reflected on CEMS records or the same date of occurrence with a sequence number lower than that reflected on CEMS records.

Possible Causes: Erroneous Transaction code or date of occurrence.

Corrective Action for DLR: Enter correct code or date.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 083

Description: Assigned when the MDS is not the same as that reflected in CEMS.

Possible Causes: The engine was modified, but the modification was not reported.

Corrective Action for DLR: Enter correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6, and 8.

CODE 084

Description: Assigned when the NHA designator reported is not in CEMS.

Possible Causes: Incorrect NHA designator or is valid, but is not contained in the CEMS table.

Corrective Action for DLR: Enter the correct data or notify OC-ALC/LPRC if a new NHA designator is required. Upon confirmation of validity, OC-ALC will load new designation in CEMS.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6, and 8.

CODE 085

Description: Assigned when the transaction code is U or V or NHA S/N does not match.

Possible Causes: Erroneous transaction code or NHA S/Ns.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6, and 8.

CODE 088

Description: Assigned when CEMS records reflect an engine as installed and a status report with a transaction code other than K or L and a condition code other than A or Z is processed. No action is required on the report that generated the code 088; however, code 088 will continue each seven days until the removal report is processed.

Possible Causes: Removal assigned error-variance code. Removal report not submitted or received.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 089

Description: Assigned when a removal report is processed and CEMS records reflect the engine as un-installed prior to the removal report. The removal has up-dated the master record and no action is required on this report; however, this error will continue each seven days until the installation report is processed.

Possible Causes: Installation report not submitted, in error or received and not processed.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 091

Description: Assigned when engine is reported lost from wrong end item.

Possible Causes: Erroneous transaction code or NHA S/Ns.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6, and 8.

CODE 101

Description: Assigned when possessor code does not match CEMS.

Possible Causes: Assigned when reporting on an item not possessed because it has been shipped off-base or an erroneous S/N.

Corrective Action for DLR: Enter correct data. If duplicate S/N is suspected, contact PEMO for assistance

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 8.

CODE 102

Description: Assigned when the SRAN reported is not in the CEMS table of valid SRAN codes, or is no longer an active CEMS reporting organization and is reflected in the SRAN table for history purposes.

Possible Causes: The SRAN code reported is invalid/inactive.

Corrective Action for DLR: Enter correct SRAN or contact OC-ALC/LPRC to establish new SRAN.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 6, and 8.

CODE 103

Description: Assigned when the part number reported is not in the CEMS part numbers table.

Possible Causes: The reported part number is invalid or new part number not loaded.

Corrective Action for DLR: Enter the correct part number and/or contact the PEMO to load the new P/N.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 6, and 8.

CODE 104

Description: Assigned when part number reported does not match CEMS for the S/N reported.

Possible Causes: Part number is invalid.

Corrective Action for DLR: Enter the correct part number and/or contact the PEMO.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 6, and 8.

CODE 105/106

Description: Assigned when invalid engine position number is reported.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, and 8.

CODE 107

Description: Assigned when date of occurrence not numeric or not valid 24 hour time range, eg 2615.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 108

Description: Assigned when HS1-hrs 790-845 field is either blank or not numeric.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 109

Description: Assigned when HS2-hrs 810-830 field is either blank or not numeric.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 110

Description: Assigned when LCF-Events 790 field is either blank or not numeric.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 111

Description: Assigned when manual cycle-event 550 field is either blank or not numeric.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 114

Description: Assigned when invalid S/N.

Corrective Action for DLR: Enter correct S/N

Corrective Action for CAMS: See paragraph 8-11; keys 1, 3, and 6.

CODE 115

Description: Assigned when 6U TCC valid for engine CII-WUC only.

Corrective Action for DLR: Enter 6U in the TCC field and engine CII-WUC.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 116

Description: Assigned when Invalid NHA.

Possible Causes: NHA S/N indicated on the transaction does not match that in CEMS.

Corrective Action for DLR: Enter the correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 6 and 8.

CODE 117

Description: Assigned when attempt to over-install, exceeds the authorized installed QPA.

Possible Causes: A previous removal transaction has rejected thereby failing to create a vacancy.

Corrective Action for DLR: Correct and resubmit removal/installation transaction.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 118

Description: Assigned when item already installed.

Possible Causes: A previous removal transaction has rejected.

Corrective Action for DLR: Enter correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 119

Description: Assigned when invalid or incorrect engine recorder S/N is reported.

Possible Causes: Erroneous engine recorder-engine combination reported or missing transactions.

Corrective Action for DLR: Enter correct engine recorder-engine combination.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 6, and 8.

CODE 120

Description: Assigned when action would result in negative time on NLA's by attempting to decrease the time by more than the total TSN of NLA's. Applicable to 6S transaction only.

Possible Causes: Erroneous entry.

Corrective Action for DLR: Enter correct time. Could require removal of the NLA(s) going negative, adjust the time on the NHA and re-install the NLA(s).

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 122

Description: Assigned when invalid catalog number is reported.

Corrective Action for DLR: Enter correct catalog number.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 123

Description: Assigned when Invalid unit ID is reported, must be alpha, cannot be X.

Corrective Action for DLR: Enter correct unit ID.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 124

Description: Assigned when duplicate sequence number, date and or time is reported.

Possible Causes: This transaction is either a duplicate or has been reprocessed.

Corrective Action for DLR: No corrective action is required.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 125

Description: Assigned when Flying time exceeds Flying time previously reported by more than maximum update limit.

Corrective Action for DLR: Enter correct flying time

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 126/127

Description: Assigned when EOT LCF-Event 790-minor cycle value exceeds that previously reported by more than maximum update limit.

Possible Causes: Aircraft has been on an extended flight and has accumulated more than the normal limit. Missing-unreported 6U or 6T transactions prior to the current update transaction. Engine recorder malfunction. Misread engine recorder, erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit transaction.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 128

Description: Assigned when HS1-Hrs 790-845-EG8 value increased more than EOT.

Possible Causes: Aircraft has been on an extended flight and has accumulated more than the normal maximum update limit. Missing-unreported 6U, or 6T transactions prior to the current update transaction. Engine recorder malfunction, misread or entered incorrectly.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 129

Description: Assigned when HS2-Hrs 810-830-EG9 value increased more than the EOT window value.

Possible Causes: Engine recorder malfunction, misread or entered incorrectly.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 130

Description: Assigned when the combination of HS1 and HS2 window value increases is greater than the EOT window value increase.

Possible Causes: Engine recorder malfunction, misread or entered incorrectly.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 131

Description: Assigned when delta hours 810-830-EG9 exceeds delta hours 790-845-EG8.

Possible Causes: Engine recorder malfunction, misread or entered incorrectly.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 132/133

Description: Assigned when FHR/EOT exceeds that previously reported by more than maximum update limit with extended flight indicator present.

Possible Causes: Aircraft has been on an extended flight and has accumulated more than the normal maximum update limit. Missing-unreported 6U, or 6T transactions prior to the current update transaction. Engine recorder malfunction, misread or entered incorrectly.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 134

Description: Assigned when LCF-events 790-minor cycles exceeds maximum update limit with extended flight indicator present.

Possible Causes: Assigned when aircraft has been on an extended flight and has accumulated more than the normal maximum update limit. Missing-unreported 6U, or 6T transactions prior to the current update transaction. Engine recorder malfunction, misread or entered incorrectly.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. FHR on F100 and TF34 and manual cycles on F100 must be increased with a 6A transaction. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 135

Description: Assigned when EOT value is less than that previously reported.

Possible Causes: Missing-unreported 6T or 6U transaction. Late or out of sequence 6U TCC. Engine recorder malfunction, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. FHR on F100 and TF34 and manual cycles on F100 must be increased with a 6A transaction. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 136

Description: Assigned when HS1-Hrs 790-845-EG8 value is less than previously reported.

Possible Causes: Missing-unreported 6T or 6U transaction. Late or out of sequence 6U TCC. Engine recorder malfunction, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. FHR on F100 and TF34 and manual cycles on F100 must be increased with a 6A transaction. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 137/138 /141

Description: Assigned when HS2-HRS 810-830-EG9/LCF-EVENTS 790/HSF/EVENTS 550 value is less than previously reported.

Possible Causes: Missing-unreported 6T or 6U transaction. Late or out of sequence 6U TCC. Engine recorder malfunction, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. FHR on F100 and TF34 and manual cycles on F100 must be increased with a 6A transaction. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 142/143

Description: Assigned when FHR/EOT reported differs from CEMS by more than the allowed variance.

Possible Causes: Missing-unreported 6A, 6S, or 6U TCC or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 144/145

Description: Assigned when HS2-HRS 790-845/HS2-Hrs 810 reported differs from CEMS by more than plus or minus 10 hours.

Possible Causes: Missing, incorrect or-unreported 6A (add), 6S (subtract), or 6U (update) transactions.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 146

Description: Assigned when LCF-events 790 submitted differs from CEMS by more than plus or minus 100 cycles.

Possible Causes: Missing, incorrect or unreported 6A (add), 6S (subtract), or 6U (update) transactions.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 147

Description: Assigned when Manual Cycles-events 550 submitted differs from the CEMS by more than plus or minus 10 cycles.

Possible Causes: Missing, incorrect or unreported 6A (add), 6S (subtract), or 6U (update) transactions.

Corrective Action for DLR: Enter missing transactions and resubmit transaction with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 148/149/150/151/152

Description: Assigned when EOT/HS1-Hrs 790/HS2-Hrs 810/LCF-Events 790/Manual cycle-events 550 subtraction error. The transaction would result in ne value in the database if processed.

Possible Causes: Erroneous entry. Discrepancy between CAMS and CEMS databases, ie the transaction does not create a negative value in CAMS, but would if processed by CEMS.

Corrective Action for DLR: Enter correct value to subtract and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 155

Description: Assigned when WOW value is less than previously reported.

Possible Causes: Missing-unreported or out of sequence 6U transaction. Engine recorder malfunction.

Corrective Action for DLR: Enter missing transactions and resubmit with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 156

Description: Attempt to update an incomplete engine.

Possible Causes: Missing, unreported or erroneous installation transaction. Attempt to input work complete report FR-FB, report of maintenance (6P), or installed transfers-serviceable shipments on an incomplete engine.

Corrective Action for DLR: Enter missing transactions and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 157

Description: Assigned when attempting to initialize an engine S/N.

Possible Causes: Erroneous entry of CII-S/N.

Corrective Action for DLR: Enter correct data.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 158

Description: Assigned when attempting to use an invalid CII.

Possible Causes: Erroneous entry of CII or new CII not yet initialized in CEMS.

Corrective Action for DLR: Enter correct CII and/or contact OC-ALC/LPRC.

Corrective Action for CAMS: See paragraph 8-11; key 6, 7 and 8.

CODE 159

Description: Assigned when missing card or transaction set is transmitted to CEMS from CAMS.

Possible Causes: Data not transmitted to the CEMS or transmission malfunction.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 7 and 9.

CODE 160/161

Description: Assigned when FHR/EOT is reported blank or is not numeric.

Possible Causes: Field blank or not numeric.

Corrective Action for DLR: Resubmit numeric value.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 162/163/164/165

Description: Assigned when FHR /SOR 100 ext. flight indicator/SOR maximum update limit/FHR and/or SOR reported as zero. No action required.

CODE 168

Description: Assigned when Major Cycles value exceeds that previously reported by more than the maximum update limit with extended flight indicator present.

Possible Causes: Aircraft has been on an extended flight and has accumulated more than the extended maximum update limit. Missing-unreported 6U or 6A transactions prior to the rejected report. Engine recorder malfunction or erroneous input.

Corrective Action for DLR: Enter missing transactions and resubmit with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 169

Description: Assigned when an invalid engine related How Mal Code has been entered.

Possible Causes: Improper or invalid entry.

Corrective Action for DLR: Enter correct code.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 170

Description: Assigned to FHR subtraction error, transactions would result in negative FHRs if processed.

Possible Causes: The number of hours have been improperly entered.

Corrective Action for DLR: Enter correct hours.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 171

Description: Assigned when Major Cycles value exceeds that previously reported by more than the maximum update limit with extended flight indicator present.

Possible Causes: Aircraft has been on an extended flight and has accumulated more than the extended maximum update limit. Missing-unreported 6U or 6A transactions prior to the rejected report. Engine recorder malfunction or erroneous input.

Corrective Action for DLR: Enter missing transactions and resubmit with extended flight indicator code. If recorder malfunctions, estimate data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 172

Description: Assigned when attempting to delete an engine.

Possible Causes: An unauthorized attempt to delete an engine.

Corrective Action for DLR: Engines must be lost, input appropriate transaction for engine loss.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 173

Description: Assigned when attempting to change engine ID.

Possible Causes: Invalid engine ID submitted or a new engine identifier has not been loaded in CEMS.

Corrective Action for DLR: Enter correct engine ID. Contact OC-ALC/LPRC to load the new ID.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 7.

CODE 174

Description: Assigned when reported tracked part life limit does not match CEMS, applies to TCC 6L only.

Possible Causes: The limit has been changed or entered incorrectly.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6, 8, 11 and 12.

CODE 175

Description: Assigned when delta hours 840 exceeds delta hours 830.

Possible Causes: Engine recorder misread or malfunctioning.

Corrective Action for DLR: Re-read recorder or estimate value IAW the applicable T.O. 00-20-5-1-X series, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 176

Description: Assigned when TCC is invalid for installed item.

Possible Causes: Missing removal report or incorrect S/N.

Corrective Action for DLR: Enter missing transactions, correct data and reenter.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 3 and 6.

CODE 177

Description: Assigned when sequence number is not found in error suspense file.

Possible Causes: Sequence number submitted was incorrect or is not in the suspense file.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 178

Description: Assigned when meter readings present for engines other than parts tracked engines.

Possible Causes: Engine identifier (TMSM-CII) has been erroneously entered.

Corrective Action for DLR: Determine correct meter readings and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 8.

CODE 179

Description: Assigned when attempting to update an engine while in NB, NR, FB, or FR status.

Possible Causes: Missing or incorrect entry.

Corrective Actions for DLR: Enter missing transactions and resubmit.

CODE 180

Description: Assigned when new engine ID does not match engine ID of NHA.

Possible Causes: Engine ID or NHA incorrectly reported. Engine TMSM not previously related to reported NHA has been authorized for the configuration being reported but has not been input to CEMS.

Corrective Action for DLR: Enter correct data, contact OC-ALC/LPRC to load new TMSM.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 181

Description: Assigned when FHR value input exceeds EOT

Possible Causes: Attempting to adjust only one value or a discrepancy between CAMS and CEMS.

Corrective Action for DLR: Enter correct value for FHR or EOT.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 182

Description: Assigned when S/N not found for an account transfer gain.

Possible Causes: CII-S/N submitted in error.

Corrective Action for DLR: Enter correct CII-S/N. If not in CEMS, contact OC-ALC/LPRC.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 6 and 8.

CODE 183

Description: Assigned when updating an engine with TCC 6U without engine recorder window initialized.

Possible Causes: Engine recorder S/N incorrectly entered on 6U or 6T transaction.

Corrective Action for DLR: Enter correct recorder S/N followed by a 6T then the 6U.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 8.

CODE 184

Description: Assigned when engine-ID of transaction does not match engine-ID of S/N to be changed.

Possible Causes: Engine-ID or S/N has been erroneously reported.

Corrective Action for DLR: Enter correct engine-ID or S/N.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 185

Description: Assigned when EOT equals previously reported and cycles-events greater than previous.

Possible Causes: Incorrect EOT/cycles-events or engine recorder malfunction.

Corrective Action for DLR: Enter correct EOT/cycles-events. If recorder is malfunctioning, estimate recorder data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 186

Description: Assigned when updating an engine with manual cycles greater than LCF or with no LCF.

Possible Causes: LCF parameter omitted or LCF/manual cycles in error.

Corrective Action for DLR: Enter correct LCF. If recorder is malfunctioning, estimate recorder data IAW T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 187

Description: Assigned when updating an engine, TCC 6U, with flag greater than 1.

Possible Causes: The update flag has been input erroneously.

Corrective Action for DLR: Verify engine recorder that the flag is ON or OFF and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 188

Description: Assigned when attempting to delete from CAMS an installed item.

Possible Causes: Erroneous entry of S/N or missing removal transaction.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 189

Description: Assigned when K-Factor does not match CEMS value on reconciliation transaction.

Possible Causes: The K-Factor is in error or the K-Factor in the part number database is in error.

Corrective Action for DLR: Contact the PEMO to correct the K-factors in the part number database.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 7 and 8.

CODE 190

Description: Assigned when WOW value is greater than the EOT value.

Possible Causes: The EOT/WOW value was omitted or erroneously entered.

Corrective Action for DLR: Enter correct data.

Corrective Action for CAMS: See paragraph 8-11, keys 1 and 7.

CODE 191

Description: Assigned when Flag subtraction error occurs.

Possible Causes: On TCC 6S, attempting to subtract more flag events than previously occurred.

Corrective Action for DLR: Verify number of flag events and resubmit. If the number of flag events is correct, a 6A transaction to add flag events is needed.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 192/193/194/195/ 196/199

Description: Assigned when EOT/HS2-HRS 790-845/HS2-HRS 810-830/LCF-Events/Manual Cycles-Events 550/Events 790 FHR addition error. Value must be greater than CEMS value.

Possible Causes: CAMS and CEMS databases are out of synchronization.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 200

Description: Assigned when LCY window value is less than previously reported.

Possible Causes: Missing, unreported or out of sequence 6U or 6T transactions prior to current update transaction. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 201/202

Description: Assigned when LCY window value exceeds CEMS by more than maximum update limit with extended flight indicator.

Possible Causes: Aircraft has been on an extended flight and has accumulated more than the normal maximum limit. Missing-unreported 6U or 6T transactions prior to current update transaction. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and input correct value via 6A transaction and a 6T transaction to adjust the window values.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 203

Description: Assigned when LCY value must be greater than zero.

Possible Causes: Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Estimate recorder data IAW the applicable T.O. 00-20-5-1-X, and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 204

Description: Assigned when FTC window value exceeds that previous by more than maximum update limit.

Possible Causes: Aircraft has been on an extended flight and has accumulated more than the normal maximum limit. Missing-unreported 6U or 6T transactions prior to current update transaction. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 205

Description: Assigned when LCY value increased more than the FTC window value.

Possible Causes: Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 206

Description: Assigned when FTC value is less than that previous.

Possible Causes: Missing-unreported 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 207

Description: Assigned when CIC value increased more than 10 X Delta FTC value.

Possible Causes: Missing-unreported 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 208

Description: Assigned when CYC greater than max update limit without extended flight indicator.
Possible Causes: Aircraft has been on extended flight and has accumulated more than the maximum update limit. Missing-unreported 6U transactions prior to the rejected report. Erroneous input.
Corrective Action for DLR: Enter missing transactions and/or resubmit with extended flight indicator code. Correct erroneous data and resubmit.
Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 209

Description: Assigned when catalog value is either blank or not numeric.
Corrective Action for DLR: Enter correct catalog value.
Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 210

Description: Assigned when ABC value increased more than 5 x Delta FTC value.
Possible Causes: Missing-unreported 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.
Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.
Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 211

Description: Assigned when CYC greater than max update limit with extended flight indicator.
Possible Causes: Aircraft has been on extended flight and has accumulated more than the maximum update limit. Missing-unreported 6U transactions prior to the rejected report. Erroneous input.
Corrective Action for DLR: Enter missing transactions and/or resubmit with extended flight indicator code. Correct erroneous data and resubmit.
Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 212

Description: Assigned when CIC value is less than that previously reported.
Possible Causes: Missing-unreported 6T or 6U transaction, late or out of sequence 6U TCC or engine recorder malfunction. Misread engine recorder, erroneous entry.
Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.
Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 213

Description: Assigned when ABC value is zero with an ABT value.
Possible Causes: Missing-unreported 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.
Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.
Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 214

Description: Assigned when TT1 is less than that previously reported.
Possible Causes: Missing-unreported 6T or 6U transaction, late or out of sequence 6U TCC or engine recorder malfunction. Misread engine recorder, erroneous entry.
Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.
Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 215

Description: Assigned when TT1 value increased more than 0.5 x Delta EOT.

Possible Causes: Missing-unreported 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 216

Description: Assigned when TT2 value is less than that previously reported.

Possible Causes: Missing-unreported 6T or 6U transaction, late or out of sequence 6U TCC or engine recorder malfunction. Misread engine recorder, erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 217

Description: Assigned when TT2 value increased more than TT1.

Possible Causes: Missing-unreported 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 218

Description: Assigned when TT3 value is less than previously reported.

Possible Causes: Missing-unreported 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 219

Description: Assigned when TT3 value increased more than $TT2 + 0.1$.

Possible Causes: Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 220

Description: Assigned when TT4 value is less than previously reported.

Possible Causes: Missing-unreported 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 221

Description: Assigned when TT4 value increased more than $TT3 + 0.1$.

Possible Causes: Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 222

Description: Assigned when TT5 value is less than previously reported.

Possible Causes: Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 223

Description: Assigned when TT5 value increased more than $TT4 + 0.1$.

Possible Causes: Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 224

Description: FTC value is the same as previously reported. Applicable to 6U transactions.

Possible Causes: Missing-unreported 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 225/226

Description: Assigned when Add/Subtract transaction value must be equal to or greater than/equal to or less than CEMS value.

Possible Causes: Missing-unreported 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 227/228/229/230/231/232/233/234

Description: Assigned when Manual cycles/ABC/ABT/VMX/CY4/HS3/HS4/IFT window value is less than that previous; Also if man cycle = 0 and CY4 > 0 or man cycle > 0 and CY4 = 0.

Possible Causes: Missing-unreported 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 235/236/237/238/239

Description: Assigned when Manual cycles-events 550/ABC/ABT/VMX/CY4 window value exceeds that previously reported by more than maximum update limit.

Possible Causes: Aircraft has been on an extended flight and has accumulated more than the normal maximum limit. Missing-unreported 6U or 6T transactions prior to the current update transaction. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 240/241/242/243/244

Description: Assigned when HS3 window value increased more than the EOT window value. The HS1 window value increased more than the HS3 window value. The HS4 window value increased more than the HS1 window value. The HS2 window value increased more than the HS4 window value. The IFT window value increased more than the EOT window value. Applicable to 6U transactions.

Possible Causes: Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 245/246/247/248

Description: Assigned when Manual cycles-events 550/ABT/VMX/CY4 window value exceeds that previous by more than maximum update limit with extended f indicator.

Possible Causes: Aircraft has been on an extended flight and has accumulated more than the normal maximum limit. Missing-unreported 6U or 6T transactions prior to the current update transaction. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit. If extended flight, use 6A to adjust time.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 249/250/251/252

Description: Assigned when ABC/ABT/VMX/CY4 submitted differs from the CEMS by more than the allowed variance.

Possible Causes: Missing 6A (add), 6S (subtract), or 6U (update) transactions. Erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 253/254/255

Description: Assigned when HS3/HS4/IFT submitted differs from the CEMS by more than the allowed variance. Applies to removal, installation, and ini transactions.

Possible Causes: Missing 6A (add), 6S (subtract), or 6U (update) transactions. Erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 256/257/258/259/260/261/262

Description: Assigned when ABC/ABT/VMX/CY4/HS3/HS4/IFT addition error. Transaction value must be equal to or greater than CEMS value.

Possible Causes: Missing 6S transaction. CAMS and CEMS databases are out of synchronization for unknown reason. Erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 263/264/265/266/267/268/269

Description: Assigned when ABC/ABT/VMX/CY4/HS3/HS4/IFT subtraction error. The transaction would result in negative value in the database if proce

Possible Causes: Erroneous entry. Discrepancy between CAMS and CEMS databases, ie the transaction does not create a negative value in CAMS, but would if processed by CEMS.

Corrective Action for DLR: Enter missing transactions and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 270/271/272/273/274/275/276

Description: Assigned when ABC/ABT/VMX/CY4/HS3/HS4/IFT field is either blank or not numeric.

Corrective Action for DLR: Enter correct numeric value.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 277/278

Description: Assigned when A-B cycle value increased more than 20 x Delta EOT/CIC value increased more than 5 x Delta FTC.

Possible Causes: Engine recorder malfunction. Misread engine recorder, erroneous entry.

Corrective Action for DLR: Estimate recorder data IAW T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 279/280/281/282/283/284/285/286

Description: Assigned when TT1/FTC/CIC/LCY/TT2/TT3/TT4/TT5 value differs from CEMS by more than the allowed variance.

Possible Causes: Missing 6A (add), 6S (subtract), or 6U (update) transactions or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 287/288

Description: Assigned when TT1/ABT value is greater than the Delta EOT value.

Possible Causes: Missing 6A (add), 6S (subtract), or 6U (update) transactions or erroneous entry.

Corrective Action for DLR: Enter missing transactions.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 289

Description: Assigned when CIC value is the same as previously reported.

Possible Causes: Missing 6T or 6U transaction or late or out of sequence. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit transaction. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 290

Description: Assigned when FTC window value exceeds that previously reported by more than maximum update limit.

Possible Causes: Aircraft has been on an extended flight and has accumulated more than the normal maximum limit. Missing, late or out of sequence 6T or 6U transaction. Engine recorder malfunctioning, misread or erroneous entry.

Corrective Action for DLR: Enter missing transactions and resubmit transaction. If recorder malfunction occurs, estimate recorder data IAW the applicable T.O. 00-20-5-1-X and resubmit. If extended flight, use 6A to adjust time.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 291

Description: Assigned when CII not applicable for engine ID.

Possible Causes: Attempt to change engine ID-TMSM of engine/module without first removing parts which are not applicable to the new engine ID-TMSM. Erroneous engine ID-TMSM entry.

Corrective Action for DLR: Remove non-applicable parts, correct engine ID-TMSM and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 292

Description: Assigned when Batch file maintenance will not change engine ID for parts.

Possible Causes: Attempt to change engine ID-TMSM for an F-100 assembly via batch file maintenance.

Engine ID-TMSM changes are only applicable to depot repair activities.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 293

Description: Assigned when QPA for specified CII is not applicable for engine ID.

Possible Causes: Attempting to change engine ID-TMSM of engine without first adjusting QPA.

Corrective Action for DLR: Adjust QPA for new engine ID and/or correct engine ID and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 294

Description: Assigned when F100/T56 assembly TMSM not applicable to NHA TMSM.

Possible Causes: Engine/assembly TMSM has been changed as a result of modification, but corresponding TMSM change has not been made. Erroneous TMSM entry.

Corrective Action for DLR: Correct TMSM for assembly and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 295

Description: Assigned when attempting to change engine ID on an installed engine.

Possible Causes: The engine ID-TMSM change was not input prior to installations.

Corrective Action for DLR: Remove engine, How Mal Code 483, correct engine ID and reinstall engine.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 296

Description: Assigned when 6F/6H transactions are not applicable to the F108 engine.

Possible Causes: The F108 updates FHR via WOW (CAT 27).

Corrective Action for DLR: Do not use 6F or 6H for F108 engine.

CODE 297

Description: Assigned when attempting to update LCF, but with no Manual Cycles.

Possible Causes: Manual Cycle value has been omitted.

Corrective Action for DLR: Enter correct Manual Cycle value. In the event where the recorder is obviously giving an erroneous reading, estimate manual cycles as outlined in T.O. 00-20-5-1-X.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 298

Description: Assigned when attempting to update IFT with no LCY, CIC, or FTC.

Possible Causes: LCY, CIC, or FTC has been omitted.

Corrective Action for DLR: Enter correct cycle data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 300

Description: Assigned when FHR or CYC is reported as zero on engine update transactions or CYC less than 1 if F118101 engine.

Possible Causes: FHR or CYC value reported is in error.

Corrective Action for DLR: Correct erroneous data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 301

Description: Assigned when CYC is less than 1 on F118101 engine update.

Possible Causes: CYC value reported in error.

Corrective Action for DLR: Correct erroneous data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 302

Description: Assigned when RUN, FLT, CPU, IBR, or HSP exceed maximum update limit. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 303

Description: Assigned when RUN or CPU value reported is not greater than previous. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 304

Description: Assigned when RUN, CSC, FLT, CPU, IBR, or HSP reported is less than previous. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 305

Description: Assigned when CSC increased more than RUN. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 306

Description: Assigned when HS1 exceeds maximum update limit. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 307

Description: Assigned when HS2 increased more than HS1. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 308

Description: Assigned when HS3 increased more than HS2. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 309

Description: Assigned when HS4 increased more than HS3. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 310

Description: Assigned when transaction condition code (TCC) is not applicable for engine/CII.

Possible Causes: Erroneous entry.

Corrective Action for DLR: Do not use TCC for type engine reported.

CODE 311

Description: Assigned when multiple engine transfer is attempted on aircraft, but required quantity of engines are not installed.

Possible Causes: Unreported engine installations.

Corrective Action for DLR: Submit installation transaction of engine(s) on aircraft.

CODE 312

Description: Assigned when IFT increased but FLT did not increase. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 313

Description: Assigned when any F119 life usage values, catalogs 41-49, exceed maximum update limit. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 314

Description: Assigned when attempting to remove next lower assemblies of F100 HPT module before the module is removed.

Possible Causes: Unreported HPT module removal.

Corrective Action: Submit removal transaction for HPT module.

CODE 315

Description: Assigned when any F119 life usage value reported, catalogs 41-49, is less than previous. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 316-318

(Not being used)

CODE 319

Description: Assigned when EOT value reported is not greater than previous. Applicable to 6U transactions.

Possible Causes: Missing, late, or out of sequence 6U (update) transactions. Engine data misread or malfunctioning or erroneous entry.

Corrective Action for DLR: Enter missing transactions or correct data and resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 401

Description: Assigned when Engine ID/WUC does not represent a valid engine TMSM on a tracked item.

Possible Causes: Engine-ID and WUC have not been established or were input incorrectly.

Corrective Action for DLR: Correct engine-ID/WUC. Notify OC-ALC/LPRC to load new engine-ID/WUC.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 8.

CODE 402

Description: Assigned when S/N reported does not exist within a CII.

Possible Causes: Transaction is for a new production engine and the gain transaction has not been processed or is related to an assembly/part not in CEMS. The engine S/N was reported in error.

Corrective Action for DLR: Ensure that a Gain for engines or a 6n for parts has been accomplished.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6, 8 and 13.

CODE 404/407

Description: Assigned when TCTO data code is not applicable to reported item S/N/invalid.

Possible Causes: Invalid S/N. S/N not loaded against TCTO.

Corrective Action for DLR: Notify the applicable PEMO to have the S/N loaded to TCTO master record.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6, 8 and 13.

CODE 408

Description: Assigned when TCTO data code was rescinded or retired.

Possible Causes: TCTO rescinded/retired or incorrect data code entered.

Corrective Action for DLR: Enter correct data code. If TCTO is retired/rescinded, no further file maintenance will be accepted.

Corrective Action for CAMS: See paragraph 8-11; key 1.

CODE 410

Description: Assigned when How Mal not reported as 793, 796, 797, 798, 801, 802 or 911.

Possible Causes: Invalid How Mal Code reported.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 8.

CODE 413

Description: Assigned when reported How Mal Code will not replace the How Mal Code in CEMS.

Possible Causes: Status How Mal Code not reported in logical sequence.

Corrective Action for DLR: Correct status How Mal Code.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 8.

CODE 416

Description: Assigned when invalid card number, must be 1 or 2 for TCTO.

Possible Causes: Card number not compatible with reported data.

Corrective Action for DLR: Enter correct card number.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 417

Description: Assigned when subsystem identifier is not a T for TCTO, S for status, and C for configuration.

Possible Causes: Subsystem identifier not compatible with type data reported.

Corrective Action for DLR: Enter correct subsystem identifier code.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 420

Description: Assigned when date of occurrence (YYDDD) is invalid. Cannot represent a future date.

Possible Causes: Incorrect date format.

Corrective Action for DLR: Correct date.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 422/423

Description: Assigned when part number for engine ID-WUC, S/N and/or TCTO is invalid.

Possible Causes: Erroneous part number, S/N or engine ID-WUC. Part number not established.

Corrective Action for DLR: Enter correct P/N. Contact applicable PEMO to load new P/N.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 8.

CODE 424

Description: Assigned when attempting to change new part number.

Possible Causes: The new part number of the status record is equal to the part of the CII-S/N master upon compliance of a S/N.

Corrective Action for DLR: Reestablish part number(s) with program A415, then resubmit.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 8

CODE 425

Description: Assigned when reporting invalid actual man-hours.

Possible Causes: Actual man-hours entered was not numeric.

Corrective Action for DLR: Enter correct actual man-hours.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 8.

CODE 427

Description: Assigned when reporting invalid reversal status code.

Possible Causes: The input status code is 22, 01-05 and reversal code X has been entered

Corrective Action for DLR: User cannot reverse TCTO status from one closed status (codes 22, 01-05) to another closed status unless status code 10 with "X" in reversal block is reported.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 8.

CODE 428

Description: Assigned when reporting invalid TCTO status code.

Possible Causes: TCTO status is either spaces or greater than 22.

Corrective Action for DLR: Enter correct input status code (status codes 01-22).

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 430

Description: Assigned when reporting invalid reversal code, use X.

Possible Causes: Reversal code does not equal space or X.

Corrective Action for DLR: If reversal transaction is desired, enter X; if not desired, enter space.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 8.

CODE 432

Description: Assigned when reporting invalid status date.

Possible Causes: Status date is not numeric or is greater than the current date.

Corrective Action for DLR: Enter the corrected status date.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 8.

CODE 434

Description: Assigned when TCTO is already in closed status.

Possible Causes: Status code is (22, 01-05) and the current status code equals (22, 01-05).

Corrective Action for DLR: Enter correct status code for data code and S/N(s).

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6 and 8.

CODE 435

Description: Assigned when existing TCTO is not complied with.

Possible Causes: TCTO status codes 06-21 will not reverse

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 436

Description: Assigned when reporting invalid function, use reversal.

Possible Causes: On a TCTO status update transaction, the input status code is 06-21, and the current status code is 22, 01-05. Attempting to update the status code of a S/N in a closed (22, 01-05) status code.

Corrective Action for DLR: Enter correct TCTO status. If the intent is to place the S/N back in open status, reenter the data with reversal code X and status code 10.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2 and 8.

CODE 437

Description: Assigned when reporting invalid use of TCTO status code 05 (lost from AF inventory).

Possible Causes: TCTO status code 05 input to CEMS on S/N(s) that is/are not coded as a loss.

Corrective Action for DLR: Enter correct TCTO status. If this is correct TCTO status, then research to determine if S/N should be in a loss status. If S/N(s) should be in a loss status, process appropriate loss transactions, S/N's will programmatically be coded 05.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 438

Description: Assigned when Total man-hours for status codes 01, 02 or 03 are required.

Possible Causes: Man-hour field blank on entry of code 01, 02 or 03.

Corrective Action for DLR: Enter correct total man-hours.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 439

Description: Assigned when reporting invalid reversal status code.

Possible Causes: Input status code is 06-21 and current status code is 22, 01-05.

Corrective Action for DLR: To re-open TCTO from closed to open status, always use status code 10 with "X" in reversal block.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 500

Description: Assigned when there is a discrepancy in hour-cycle data between CAMS and CEMS.

Possible Causes: Missing transactions or erroneous entry.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 8, 11 and 12.

CODE 501

Description: Assigned when an invalid CII is entered on 6T window value initialization.

Possible Causes: Invalid CII.

Corrective Action for DLR: Enter correct CII.

CODE 502

Description: Assigned when NHA designation field left blank.

Possible Causes: NHA designator field was left blank.

Corrective Action for DLR: Enter either the correct NHA designator or if a spare, fill all spaces with nines.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 503

Description: Assigned when reporting invalid aircraft MDS.

Possible Causes: MDS improperly entered. The aircraft MDS does not match the MDS in CEMS.

Corrective Action for DLR: Enter correct MDS.

CODE 504

Description: Assigned when reporting invalid aircraft S/N.

Possible Causes: S/N improperly entered. Aircraft S/N is not initialized in the aircraft record.

Corrective Action for DLR: Enter correct aircraft S/N. If correct, contact the aircraft system manager at the ALC prime for the aircraft being reported and OC-ALC/LPRC.

CODE 505

Description: Assigned when 6N reported is invalid for existing installed CII-S/N.

Possible Causes: 6N transaction, possessor change on an item still installed. A duplicate CII-S/N exists.

Corrective Action for DLR: Previous possessor must submit a removal transaction, then current possessor must resubmit the 6N possessor change transaction. If duplicate, contact PEMO.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 506

Description: Assigned when NSN being reported is invalid.

Possible Causes: Position 1-4 NSN is incorrect or not numeric.

Corrective Action for DLR: Enter correct NSN.

CODE 507

Description: Assigned when reporting invalid NLA S/N.

Possible Causes: NLA S/N in error.

Corrective Action for DLR: Enter correct S/N.

CODE 508

Description: Assigned when an installed item and NHA or P/N and MDS are incompatible.

Possible Causes: Incorrect S/N of either the NHA or NLA. Part number master table incomplete or is not applicable to NHA.

Corrective Action for DLR: Enter correct S/N. If correct, contact the applicable PEMO to change the part number master table.

CODE 509

Description: Assigned when S/N was previously initialized and installed on a F101, F108, or F110.

Possible Causes: Item had historical experience in another engine TMSM. Duplicate S/N problems.

Corrective Action for DLR: Contact the responsible PEMO to determine a resolution to the discrepancy.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 510/511

Description: Assigned when reporting invalid Type Limit Code Category (TLCC) and/or limit.

Possible Causes: Limit being reported is not numeric. TLCC being reported not valid for the CII or S/N.

Corrective Action for DLR: Enter only numeric limits for applicable TLCC.

CODE 512

Description: Assigned when attempting to condemn a part which has next lower assemblies.

Possible Causes: Data on condemnation transaction erroneously entered. Some transactions are missing, causing CEMS to show parts installed which are actually spares. The part being condemned actually has NLAs on it.

Corrective Action for DLR: Verify NLA data. Installed parts must be removed from the NHA.

CODE 513

Description: Assigned when attempting to condemn an item that is installed.

Possible Causes: Item is installed.

Corrective Action for DLR: The item must be removed.

CODE 514

Description: Assigned when reporting a 2L transaction and current status is not NL, PL, or RL.

Possible Causes: (NL, PL, or RL must precede 2L).

Corrective Action for DLR: Submit an NL, PL, or RL transaction on the part being reported.

CODE 515

Description: Assigned when reporting incomplete data for correction report.

Possible Causes: Sequence number/SRAN not entered correctly when recalling an error for correction.

Corrective Action for DLR: Enter the proper sequence number and SRAN.

CODE 516

Description: Assigned when transaction will result in negative "TSN" at installation.

Possible Causes: Erroneous value entered on 6S, 6U, 6A, 6P, or 6X transaction.

Corrective Action for DLR: Enter missing transactions and correct value to be changed, increased or decreased.

CODE 517

Description: Assigned when reporting a 6S transaction that would result in a negative value on one or more NLAs to the engine.

Possible Causes: The 6S transaction is in error.

Corrective Action for DLR: Reverse the erroneous 6S hours with an appropriate 6A transaction.

Enter a 6X transaction to increase the negative hours to the actual time on the component. This error is a probable indicator that other components on the engine have erroneous time which has not been gone negative.

CODE 518

Description: Assigned when reporting a condemn flag that is not X.

Possible Causes: Condemn flag field left blank.

Corrective Action for DLR: Enter X to indicate condemned.

CODE 519

Description: Assigned when an attempt is being made to condemn an engine.

Possible Causes: CII-S/N erroneously entered.

Corrective Action for DLR: Enter correct data. If S/N is an engine, report appropriate loss transaction.

CODE 520

Description: Assigned when TCC being reported is not valid a part CII.

Possible Causes: An attempt is being made to perform a status report on a part.

Corrective Action for DLR: Enter correct data.

CODE 521

Description: Assigned when TCC is invalid for this program.

Possible Causes: TCC incorrect

Corrective Action for DLR: Enter correct TCC.

CODE 522

Description: Assigned when TCC is valid for engine S/N only.

Possible Causes: Attempting to execute an update transaction (6U) on a part.

Corrective Action for DLR: Enter the correct CII and S/N.

CODE 523

Description: Assigned when TLC value is not within plus-minus variance.

Possible Causes: TLC value entered not incorrectly. Missing transactions causing variance.

Corrective Action for DLR: Enter the correct TLC's and values. Process any missing transactions.

CODE 524

Description: Assigned when incorrect CII or S/N is entered for the 6U transaction.

Possible Causes: Erroneous entry of CII and S/N.

Corrective Action for DLR: Enter correct CII S/N.

CODE 525

Description: Assigned when attempting a 6S/6X transaction that would result in negative TSO or TSO CM. The transaction would cause TSN to be less than TSN-AT-OH or TSN-AT-OCM at last maintenance.

Possible Causes: Erroneous value entered and/or TSN-AT-OH and/or TSN-AT-OCM are in error.

Corrective Action for DLR: Determine correct TSN-AT-OH and/or TSN-AT-OCM and contact the PEMO to correct with a 6P, type 4. Then enter original 6X or 6S transaction.

CODE 526

Description: Assigned when Item is not in condemned status.

Possible Causes: An attempt was made to reactivate CII-S/N transaction 6B for an already active item.

Corrective Action for DLR: Determine correct CII-S/N. If correct, no action is required.

CODE 527

Description: Assigned when Item is already condemned.

Possible Causes: A 6C transaction has been submitted for a part that has previously been condemned.

Corrective Action for DLR: Determine correct CII-S/N. If correct, no action is required.

CODE 529

Description: Assigned when transaction would result in negative accumulated time on NLA's by attempting to decrease time by more than the accumulated value since installation of NLA's on the engine.

Possible Causes: The time error was caused by an error before the NLA was installed.

Corrective Action for DLR: Enter correct time. If error re-occurs, remove the NLA(s) which would go negative, adjust the time on the engine and re-install the NLA(s).

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 7.

CODE 530

Description: Assigned when Item is already initialized.

Possible Causes: A 6N transaction has already been processed.

Corrective Action for DLR: Determine correct CII-S/N. If correct, no action is required.

CODE 531

Description: Assigned when reporting invalid type report.

Possible Causes: Type report submitted is not R or 4.

Corrective Action for DLR: Enter correct type report.

CODE 532

Description: Assigned when the SRAN reported is not a depot facility.

Possible Causes: Erroneous SRAN entry or attempting to update information authorized only for depot.

Corrective Action for DLR: Enter correct SRAN.

CODE 533

Description: Assigned when installing an item where the possessors for the item and NHA do not match.

Possible Causes: Erroneous SRAN entry. 6N transaction was not submitted to change possessor of part.

Corrective Action for DLR: Enter correct SRAN or submit a 6N transaction to change possessor, resubmit the installation transaction.

CODE 534

Description: Assigned when TCC is valid for installed item only.

Possible Causes: Failure to report removal transaction prior to reporting un installed receipt, shipment, transfer, gains or loss transaction. Previous installation transaction failed to post because of error. Erroneous TCC entry.

Corrective Action for DLR: Enter an install transaction followed by the installed receipt, shipment, transfer, gain or loss transaction.

CODE 535

Description: Assigned when TCC is valid for un-installed items only.

Possible Causes: Failure to report removal transaction prior to reporting the un-installed receipt, shipment, transfer, gain or loss transaction. Previous removal transaction failed due to errors. Erroneous TCC entry.

Corrective Action for DLR: Enter a removal transaction and resubmit the uninstalled receipt, shipment, transfer gain or loss transaction.

CODE 536

Description: Assigned when TCC is invalid for condemned item.

Possible Causes: Erroneous entry or failure to submit a transaction to reactivate the item before attempting to install it.

Corrective Action for DLR: Enter correct data or enter a transaction to reactivate the S/N and resubmit install transaction.

CODE 537

Description: Assigned when invalid TCC is reported without command code change.

Possible Causes: RR, RB, FR, FB, VA or VZ report were input back to back and command code was not changed.

Corrective Action for DLR: Enter correct command code.

CODE 538

Description: Assigned when UA and UZ TCC are reported for parts-tracked S/Ns.

Possible Causes: UA or UZ transaction entered on a parts tracked engine.

Corrective Action for DLR: Home SRAN should submit a VA transaction after receiving ownership.

CODE 539/540/541

Description: Assigned when attempting to input life used that is equal to/or greater than life limit.

Possible Causes: Life used input is equal to or greater than life limit in CEMS. CEMS value is incorrect.

Corrective Action for DLR: Review life limit T.O. and/or contact applicable PEMO to adjust CEMS.

CODE 542

Description: Assigned when the date the item is removed is less than the date contained in CEMS.

Possible Causes: Removal date less than last action date.

Corrective Action for DLR: Enter correct removal date.

CODE 543

Description: Assigned when MDS cannot be changed on an installed item.

Possible Cause: Incorrect S/N, the item is a spare or the removal transaction is missing or in error.

Corrective Action for DLR: Enter any missing transactions and/or correct S/N.

CODE 544

Description: Assigned when installing a serial number with a part number that is incompatible with its next higher assembly part number. The edit is based on data provided by the engine management office, LP.

Possible Causes: Incorrect part number(s) is reflected in CEMS; wrong item is being installed.

Corrective Action: Contact LP organization for part number correction or installation instructions.

CODE 545

Description: Assigned when installing a serial number with a part number that is incompatible with a previously installed part number/serial number. The edit is based on data provided by the engine management office, LP.

Possible Causes: Incorrect part number(s) is reflected in CEMS; wrong item is being installed.

Corrective Action: Contact LP organization for part number correction or installation instructions.

CODE 600

Description: Assigned when Warranty catalog number and category are duplicated within this transaction.

Possible Causes: More than one warranty for was submitted.

Corrective Action for DLR: Enter correct Warranty data.

CODE 601

Description: Assigned when Warranty EOT is not numeric.

Possible Causes: EOT for performance warranty was blank or not numeric.

Corrective Action for DLR: Enter the correct EOT for warranty.

CODE 602

Description: Assigned when TACs for warranty are not numeric.

Possible Causes: TACs for warranty not numeric

Corrective Action for DLR: Enter correct TACs for warranty.

CODE 603

Description: Assigned when performance warranty category is not P.

Possible Causes: Warranty category code blank or not P.

Corrective Action for DLR: Enter category code P for performance warranty.

CODE 604/605

Description: Assigned when performance warranty TT1/Calendar not numeric.

Possible Causes: TT1 warranty category code was blank or not 65P/Calendar warranty not 24Q.

Corrective Action for DLR: Enter category codes 65P for performance /24Q for calendar warranty.

CODE 607/608

Description: Assigned when reporting invalid calendar warranty date/category.

Possible Causes: Invalid calendar date (year or Julian date). Warranty category not P or Q.

Corrective Action for DLR: Enter correct date/category.

CODE 609/610

Description: Assigned when reporting invalid EOT (P)/FHR (Q) warranty category.

Possible Causes: Warranty category code blank or other than P/Q.

Corrective Action for DLR: Enter correct warranty category.

CODE 611

Description: Assigned when FHR for quality warranty not numeric.

Possible Causes: FHR for quality warranty was blank or not (11Q).

Corrective Action for DLR: Enter correct data.

CODE 612

Description: Assigned when catalog value is not numeric. Applies to 6P S/N limits only.

Possible Causes: Required field is blank or not numeric.

Corrective Action for DLR: Enter a seven digit numeric value, right justified.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 2.

CODE 613

Description: Assigned when category is invalid. Applies to 6P S/N limits only.

Possible Causes: Invalid category for catalog number or is left blank.

Corrective Action for DLR: Enter a valid one digit alpha character.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2 and 6.

CODE 614

Description: Assigned when TLCC has not been established for this CII. Applies to 6P S/N limits only.

Possible Causes: TLCC is not valid for this CII.

Corrective Action for DLR: Enter correct TLCC code.

Corrective Action for CAMS: See paragraph 8-11; keys 1 and 6.

CODE 615

Description: Assigned when Warranty has been previously established. Applies to 6P S/N limits only.

Possible Causes: CEMS has processed a prior transaction for this data.

Corrective Action for DLR: If transaction is to correct erroneous data, contact OC ALC/LPRC.

CODE 800

Description: Assigned when CEMS TLC value does not match base TLC value for item being reconciled.

Possible Causes: TLC value on reconciliation from SRAN is not within allowable variance of CEMS value.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 8, 11 and 12.

CODE 801

Description: Assigned when TLCC and/or limit is invalid.

Possible Causes: The TLCC/limit for a specific part does not match CEMS.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6, 8, 11 and 12.

CODE 802

Description: Assigned when Engine ID does not match CEMS.

Possible Causes: Engine ID from reconciliation transaction (6Z) does not match CEMS.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6, 11, 12 and 13.

CODE 803/804

Description: Assigned when WUC/CII does not match.

Possible Causes: CEMS WUC/CII does not match CAMS.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 8 and 12.

CODE 805/806

Description: Assigned when position number/NHA does not match.

Possible Causes: CEMS position number/NHA does not match CAMS.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 2, 8 and 11.

CODE 807

Description: Assigned when K-Factor does not match.

Possible Causes: CEMS K-Factor does not match CAMS.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 6, 8, 11 and 12.

CODE 808

Description: Assigned when part number does not match.

Possible Causes: CEMS part number does not match CAMS.

Corrective Action for CAMS: See paragraph 8-11; keys 1, 8, 11 and 12.

CODE 920

Description: Assigned Family Group Code (FGC) not valid for engine.

Possible Causes: Incorrect engine ID/TMSM for Family Group Code.

Corrective Action: Submit removal transaction for HPT module.

CODE 921

Description: Assigned when an engine is reported installed on an unacceptable end item that has an engine with an incompatible engine ID/TMSM installed.

Possible Cause: A previous removal transaction has rejected in addition to incorrect family group code or engine ID-TMSM table.

Corrective Action for CAMS: See Paragraph 8-11; keys 1, 2 and 8.

Corrective Action for DLR: Correct input and/or notify OC-ALC/LPRC that the combination is valid.

CHAPTER 9

TABLES

Table 9-1. Logical Sequence of Event Codes

| AUTHORIZED CODES | NEXT LOGICAL TCCs |
|------------------|--|
| | GAINS |
| AA | KB, KF, KG, LB, LF, LG, LL, SA, TA |
| AB | JB, MF, ML, NB, SB, UA, VA, VZ |
| AR | JR, MG, ML, NR, SR |
| BB | JB, MF, ML, NB, SB, UA, VA, VZ |
| BF | JF, MG, ML, NF, SF |
| BG | JG, ML, NG, SG |
| BL | NL, SL |
| BR | JR, MG, ML, NR, SR |
| CA | KB, KF, KG, KL, LB, LF, LG, LL, SA, TA, MZ |
| CB | JB, JR, MF, MG, ML, NB, NR, SB, SR, TB, TR, UA, VA, VZ |
| CF | JF, MG, ML, NF, SF |
| CG | JG, ML, NG, SG |
| CL | NL, SL |
| CR | JR, MG, ML, NR, SR, TR |
| CZ | LB, LF, LG, LL, MA, SZ, TZ |
| DB | JB, MF, ML, NB, SB, UA, VA, VZ |
| DR | JR, MG, ML, NR, SR |
| DF | JF, MG, ML, NF, SF |
| DG | JG, ML, NG, SG |
| DL | NL, SL |
| | ENMCS |
| EB | HB, JB, MF, ML |
| EF | HF, JF, ML |
| EG | HG, JG, ML |
| ER | HR, JR, MG, ML |
| | WORK COMPLETED |
| FB | FB, JB, MF, ML, NB, SB, TB, UA, VA, VZ |
| FR | FR, JR, MG, ML, NR, SR, TR |
| | TEST CELL REJECT |
| GB | EB, FB, GB, HB, MF, ML, NB |
| GF | EF, FB, GF, HF, ML, NF |
| GG | EG, FB, FR, GG, HG, ML, NG |
| GR | ER, FB, FR, GR, HR, MG, ML, NR |
| | WORK STOPPED |
| HB | JB, MF, ML, NB, SB |
| HF | JF, ML, NF, SF |
| HG | JG, ML, NG, SG |
| HR | JR, MG, ML, NR, SR |
| | WORK START |
| JB | EB, FB, FR, GB, HB, MF, ML, NB |
| JF | EF, FB, GF, HF, MG, ML, NF |
| JG | EG, FB, FR, GG, HG, MF, ML, NG |
| JR | ER, FB, FR, GR, HR, MF, MG, ML, NR |

Table 9-1. Logical Sequence of Event Codes - Continued

| AUTHORIZED CODES | NEXT LOGICAL TCCs |
|------------------|--|
| | TRANSIENT REMOVAL |
| KB | JB, MF, ML, NB, SB, UA, VA, VZ |
| KF | JF, ML, NF, SF |
| KG | JG, ML, NG, SG |
| KL | NL, SL |
| | REMOVAL |
| LB | JB, MF, ML, NB, SB, TB, UA, VA, VZ |
| LF | JF, ML, NF, SF |
| LG | JG, ML, NG, SG |
| LL | NL, SL |
| | CHANGE IN LEVEL OF MAINTENANCE |
| MA | KB, KF, KG, KL, LB, LF, LG, LL, MZ, SA, TA, VA |
| MC | NC, SC |
| MF | JF, NF, SF |
| MG | JG, NG, SG |
| ML | NL, SL |
| MZ | LB, LF, LG, LL, MA, SZ, TZ |
| | AWAITING DISPOSITION |
| NB | JB, MF, ML, SB, UA, VA, VZ |
| NC | ML, SC |
| NF | JF, ML, SF |
| NG | JG, ML, SG |
| NL | MC, MF, MG, SL |
| NR | JR, MG, ML, SR |
| | INTRA AIR-FORCE RECEIPT |
| RA | KB, KF, KG, KL, LB, LF, LG, LL, MZ, SA, TA |
| RB | JB, MF, ML, NB, RB, SB, TB, UA, VA, VZ |
| RC | NC, SC |
| RF | JF, ML, NF, SF |
| RG | JG, ML, NG, SG |
| RR | JR, MG, NR, RR, SR, TR |
| RZ | LB, LF, LG, LL, MA, SZ |
| RL | SL (Queen Bee) |
| | INTRA AIR-FORCE SHIPMENT |
| SA | RA |
| SB | RB |
| SC | RC |
| SF | RF |
| SG | RG |
| SL | RL |
| SR | RR |
| SZ | RZ |
| | TRANSFER |
| TA | KB, KF, KG, KL, RA, RZ |
| TB | RB, RC, RF, RG, RL, RR |
| TR | RB, RC, RF, RG, RL, RR |
| TZ | RZ |
| | TRANSIENT INSTALLATION |
| UA | KB, KF, KG, KL, LB, LF, LG, LL, MZ, TA |
| | INSTALLED |
| VA | KB, KF, KG, KL, LB, LF, LG, LL, MZ, SA, TA, VA |
| VZ | LB, LF, LG, LL, MA, SZ, VZ |

Table 9-2. Codes for Use by Depot Repair Activities

| AUTHORIZED CODES | NEXT LOGICAL TCCs |
|------------------|----------------------------|
| AB | PB |
| AR | PR |
| BB | PB |
| BF | PF |
| BG | PG |
| BL | PL |
| CB | PB |
| CF | PF |
| CG | PG |
| CL | JL, PL |
| DF | PF |
| DG | PG |
| DL | PL |
| EK | JK |
| EL | JL |
| GK | EK, FB, FR, GK, HK, ML |
| GL | EL, FB, FR, GL, HL, MK |
| HK | JK, NK |
| HL | JL, NL |
| JK | EK, FB, FR, GK, HK, ML |
| JL | EL, FB, FR, GL, HL, MC, MK |
| KF | MK |
| KG | MK |
| KL | JL, MK |
| LF | MK |
| LG | MK |
| LK | JK, ML, PK |
| LL | JL, MK |
| MK | JK, NK |
| ML | JL |
| NB | PB |
| NC | PC |
| NF | PF |
| NG | PG |
| NK | MC, ML, PK, JK |
| NL | PL, 2L |
| NR | PR |
| PB | FB, JB, MF, MK, ML, NB, VA |
| PC | NC, XC |
| PF | JF, MK, ML, NF |
| PG | JG, MK, ML, NG |
| PK | JK, MG, ML, NK |
| PL | JL, MK, NL, 2L |
| PR | JR, MG, MK, ML, NR |
| RB | PB |
| RC | PC |
| RF | PF |
| RG | PG |
| RL | JL, MC, MK, PL, 2L |
| RR | PR |

Table 9-3. Codes Authorized for SRANs Using CAMS Only

| AUTHORIZED CODES | NEXT LOGICAL TCCs |
|------------------|--|
| LB | 8A, 8Z |
| LF | 8A, 8Z |
| LG | 8A, 8Z |
| LL | 8A, 8Z |
| FB | 8B |
| FR | 8R |
| RB | 8X |
| RR | 8Y |
| VA | 8A, LK |
| VZ | 8Z |
| 8A | LB, LF, LG, LL |
| 8Z | LB, LF, LG, LL |
| 8B | FB, 8B, LB, LL, LG, LF, 8Y |
| 8R | FR, 8R, LB, LF, LG, LL, 8X |
| 8X | LB, LF, LG, LL |
| 8Y | LB, LF, LG, LL |
| 9R | RR, 9R, RC, RF, RG, RB, CR, DR, 8R, RB |
| 9B | RB, 9B, RC, RF, RG, RR, BB, CB, DB, 8B |

NOTE: Gain and loss transaction codes have been excluded from the transaction and condition table as they can occur throughout the pipeline cycle. Loss codes have been omitted from the authorized codes because the next logical code would always be a gain transaction.

Table 9-4. D042 Status Required Data Elements vs TCC (AF Form 1534)

NOTE

- An “X” in a block number field indicates a mandatory entry requirement.
- A numeric in a block number field indicates footnotes located at the rear of the matrix that may qualify or exempt information from that particular block for that type transaction.

| TCC | BLOCK NUMBERS | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|---------------|----|-----|----|---|----|----|----------|-------|----|-------------|----|----|----|----|----|----|----|---------|--------------|----|----|----|----|----|----|
| | 1 | 2 | 3-6 | 7 | 8 | 9 | 10 | 11 | 12-13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| AA | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | | GAINS 23 | | | | | | | | 6 28 | 5 6 28 | | X | X | X | 17 | |
| AB | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | | | 23 | | | | | 4 | | 6 28 | 5 6 28 | | X | | | | |
| AR | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | | | 23 | | | | | 4 | | 6 28 | 5 6 28 | | X | | | | |
| BA | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | | 23 | | | | | | | 6 | 5 6 | | X | X | X | 17 | |
| BB | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | |
| BF | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | |
| BG | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | |
| BL | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | |
| BR | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | |
| CA | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | | 23 | | | | | | | 6 | 5 6 | | X | X | X | 17 | |
| CB | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | |

Table 9-4. D042 Status Required Data Elements vs TCC (AF Form 1534) - Continued

| TCC | 1 | 2 | 3-6 | 7 | 8 | 9 | 10 | 11 | 12-13 | BLOCK NUMBERS | | | | | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|-----|----------|----|-----|----|---|----|----|----------|-------|---------------|----|----|----|--|----|----|----|----|---------|--------------|----|----|----|----|----|----|----|
| | | | | | | | | | | 14 | 15 | 16 | 17 | | | | | | | | | | | | | | |
| CF | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | | |
| CG | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | | |
| CL | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | | |
| CR | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | | |
| CZ | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | | 23 | | | | | | | 6 | 5 6 | | X | X | X | 17 | | |
| DB | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | | |
| DF | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | | |
| DG | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | | |
| DL | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | | |
| DR | 27 28 | 23 | X | 24 | | 24 | 25 | 27 28 | X | X | X | 23 | | | | | 4 | X | 6 28 | 5 6 28 | | X | | | | | |

Table 9-4. D042 Status Required Data Elements vs TCC (AF Form 1534) - Continued

| TCC | 1 | 2 | 3-6 | 7 | 8 | 9 | 10 | 11 | 12-13 | BLOCK NUMBERS | | | | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|-----|---|----|-----|----|---|----|----|----|-------|------------------|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|
| | | | | | | | | | | 14 | 15 | 16 | 17 | | | | | | | | | | | | | |
| | | | | | | | | | | ENG - ENMCS | | | | | | | | | | | | | | | | |
| EB | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| EF | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| EG | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| EK | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| EL | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| ER | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| | | | | | | | | | | WORK COMPLETED | | | | | | | | | | | | | | | | |
| FB | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | 3 | | | | 19 | | | | | | 18 | | | |
| FR | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | 3 | | | | 19 | | | | | | 18 | | | |
| | | | | | | | | | | TEST CELL REJECT | | | | | | | | | | | | | | | | |
| GB | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | X | | | | | | | | | | | | | |
| GF | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | X | | | | | | | | | | | | | |
| GG | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | X | | | | | | | | | | | | | |
| GK | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | X | | | | | | | | | | | | | |
| GL | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | X | | | | | | | | | | | | | |
| GR | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | X | | | | | | | | | | | | | |
| | | | | | | | | | | WORK STOPPED | | | | NON-ENMCS | | | | | | | | | | | | |
| HB | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | 30 |
| HF | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | 30 |
| HG | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | 30 |
| HK | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | 30 |
| HL | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | 30 |
| HR | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | 30 |

Table 9-4. D042 Status Required Data Elements vs TCC (AF Form 1534) - Continued

| TCC | 1 | 2 | 3-6 | 7 | 8 | 9 | 10 | 11 | 12-13 | BLOCK NUMBERS | | | | | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|-----|---|----|-----|----|---|----|----|----|-------|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | | | | | | | | | 14 | 15 | 16 | 17 | 18 | | | | | | | | | | | | |
| | | | | | | | | | | <u>CHANGE IN LEVEL MAINTENANCE</u> | | | | | | | | | | | | | | | | |
| MA | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | X | X | 17 | | |
| MC | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| MF | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| MG | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| MK | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| ML | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | X | X | | | | | | | | | | | | |
| MZ | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | 13 | 13 | | | X | X | 17 | | |
| | | | | | | | | | | <u>AWAITING DISPOSITION</u> | | | | | | | | | | | | | | | | |
| NB | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| NC | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| NF | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| NG | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| NL | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| NR | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| | | | | | | | | | | <u>ISSUE MAINTENANCE</u> | | | | | | | | | | | | | | | | |
| PB | | 23 | X | 24 | | 24 | 25 | | X | | X | 23 | | | | | | 19 | | | | | | | | |
| PC | | 23 | X | 24 | | 24 | 25 | | X | | X | 23 | | | | | | 19 | | | | | | | | |
| PF | | 23 | X | 24 | | 24 | 25 | | X | | X | 23 | | | | | | 19 | | | | | | | | |
| PG | | 23 | X | 24 | | 24 | 25 | | X | | X | 23 | | | | | | 19 | | | | | | | | |
| PL | | 23 | X | 24 | | 24 | 25 | | X | | X | 23 | | | | | | 19 | | | | | | | 31 | |
| PK | | 23 | X | 24 | | 24 | 25 | | X | | X | 23 | | | | | | 19 | | | | | | | | |
| PR | | 23 | X | 24 | | 24 | 25 | | X | | X | 23 | | | | | | 19 | | | | | | | | |

Table 9-4. D042 Status Required Data Elements vs TCC (AF Form 1534) - Continued

| TCC | BLOCK NUMBERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----------------------------------|----|-----|----|---|----|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|
| | 1 | 2 | 3-6 | 7 | 8 | 9 | 10 | 11 | 12-13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | |
| | <u>INTRA - AIR FORCE RECEIPT</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RA | | 23 | X | X | 8 | X | X | | X | | | 23 | | | | | | X | X | 5 | | | | X | X | X | | | | |
| RB | | 23 | X | 24 | | 24 | 25 | | X | | 34 | 23 | | | | | | X | | | | | | | | | | | | |
| RC | | 23 | X | 24 | | 24 | 25 | | X | | 34 | 23 | | | | | | X | | | | | | | | | | | | |
| RF | | 23 | X | 24 | | 24 | 25 | | X | | 34 | 23 | | | | | | X | | | | | | | | | | | | |
| RG | | 23 | X | 24 | | 24 | 25 | | X | | 34 | 23 | | | | | | X | | | | | | | | | | | | |
| RL | | 23 | X | 24 | | 24 | 25 | | X | | 34 | 23 | | | | | | X | | | | | | | | | | | | |
| RR | | 23 | X | 24 | | 24 | 25 | | X | | 34 | 23 | | | | | | X | | | | | | | | | | | | |
| RZ | | 23 | X | 24 | | 24 | 25 | | X | | | 23 | | | | | | | 13 | 13 | | | | X | X | 17 | | | | |
| | <u>INTRA - AIR FORCE SHIPMENT</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SA | | 23 | X | 24 | | 24 | 25 | | X | X | | 23 | | | | | | | | | | | | X | X | 17 | | | | |
| SB | | 23 | X | 24 | | 24 | 25 | | X | X | 34 | 23 | | | X | | | X | | | | | | | | | | | | |
| SC | | 23 | X | 24 | | 24 | 25 | | X | X | 34 | 23 | | | | | | X | | | | | | | | | | | | |
| SF | | 23 | X | 24 | | 24 | 25 | | X | X | 34 | 23 | | | | | | X | | | | | | | | | | | | |
| SG | | 23 | X | 24 | | 24 | 25 | | X | X | 34 | 23 | | | | | | X | | | | | | | | | | | | |
| SL | | 23 | X | 24 | | 24 | 25 | | X | X | 34 | 23 | | | | | | X | | | | | | | | | | | | |
| SR | | 23 | X | 24 | | 24 | 25 | | X | X | 34 | 23 | | | X | | | X | | | | | | | | | | | | |
| SZ | | 23 | X | 24 | | 24 | 25 | | X | X | | 23 | | | | | | | | | | | | X | X | 17 | | | | |
| | <u>TRANSFER</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TA | | 23 | X | 24 | | 24 | 25 | | X | X | | 23 | | | | | | | | | | | | X | X | 17 | | | | |
| TB | | 23 | X | 24 | | 24 | 25 | | X | X | | 23 | | | | | | X | | | | | | | | | | | | |
| TZ | | 23 | X | 24 | | 24 | 25 | | X | X | | 23 | | | | | | | | | | | | X | X | 17 | | | | |
| | <u>TRANSIENT INSTALLATION</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UA | | 23 | X | 24 | | 24 | 25 | 22 | X | X | | 23 | | | | | | | X | 5 | | | X | X | 15 | | | | | |

Table 9-4. D042 Status Required Data Elements vs TCC (AF Form 1534) - Continued

| TCC | 1 | 2 | 3-6 | 7 | 8 | 9 | 10 | 11 | 12-13 | BLOCK NUMBERS | | | | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|-----|----|----|-----|----|---|----|----|----|-------|---------------|----|----|----|----|----|----|----|----|----|---------|----|----|----|----|----|----|
| | | | | | | | | | | 14 | 15 | 16 | 17 | | | | | | | | | | | | | |
| VA | 27 | 23 | X | 24 | | 24 | 25 | 22 | X | | | 23 | | | | | | | 6 | 5 6 | | | X | X | 15 | |
| VM | | | X | | | | | | X | | | | | | | | | | | | | | | | | |
| VZ | | 23 | X | 24 | | 24 | 25 | 22 | X | | | 23 | | | | | | | 6 | 5 6 | | | X | X | 15 | |
| WA | | 23 | X | 24 | | 24 | 25 | | X | X | | 23 | | | | | | | 13 | 5 13 | | | X | X | 15 | |
| WB | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| WC | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| WF | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| WG | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| WK | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| WL | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| WR | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| WZ | | 23 | X | 24 | | 24 | 25 | | X | X | | 23 | | | | | | | 13 | 5 13 | | | X | X | 15 | |
| XA | | 23 | X | 24 | | 24 | 25 | | X | X | | 23 | | | | | | | 13 | 5 13 | | | X | X | 15 | |
| XB | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| XC | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| XF | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| XG | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| XK | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| XL | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| XR | | 23 | X | 24 | | 24 | 25 | | X | X | X | 23 | | | | | X | | | | | | | | | |
| XZ | | 23 | X | 24 | | 24 | 25 | | X | X | | 23 | | | | | | | 13 | 5 | | | X | X | 15 | |

Table 9-4. D042 Status Required Data Elements vs TCC (AF Form 1534) - Continued

| TCC | BLOCK NUMBERS | | | | | | | | | | | | | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|-----|---------------|----|-----|----|----|----|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | 1 | 2 | 3-6 | 7 | 8 | 9 | 10 | 11 | 12-13 | 14 | 15 | 16 | 17 | | | | | | | | | | | | | |
| 6B | | 23 | X | 24 | | 24 | 23 | | X | | | 23 | | | | | | | | | | | | | | |
| 6C | | 23 | X | 24 | | 24 | 23 | | X | | | 23 | | | | | | | | | | | | | | |
| 6D | | | X | | | | | | X | | | | | | | | | | | | | | | | | |
| 6E | | 23 | X | | | | 25 | | X | | | 23 | | | | | | | | | | | | | | |
| 6F | | | X | | | | | | X | | | | | | | | X | 5 | | | | | | | | |
| 6G | | | X | X | X | | | | X | X | | | | | | | | | | | | | | | | |
| 6H | | | X | X | X | | | | X | | | | | | | | X | 5 | | | X | X | X | | | |
| 6I | | | X | | X | | | X | X | | | | | | | | | | | | 1 | | | | 2 | |
| 6J | | | X | | | | X | 32 | X | | | X | | | | | | | | | | | 33 | | | |
| 6N | X | 23 | X | 24 | 28 | 24 | 25 | X | X | | | 23 | | | | | 6 | | | | | 12 | 12 | | | |
| 6P | 26 | 23 | X | 24 | 28 | 24 | X | | X | | | 23 | | | | | 6 | | | | | | | | | |
| 6S | | 23 | X | 24 | 28 | 24 | 25 | | X | | | 23 | | | | | 6 | | | | | 17 | 17 | | | |
| 6T | X | 23 | X | 24 | 28 | 24 | 25 | | X | | | 23 | | | | | 6 | | | | | 17 | 17 | | | |
| 6U | X | 23 | X | 24 | 28 | 24 | X | | X | | | 23 | | | | | 6 | | | | | 17 | 17 | 17 | | |
| 6X | X | 23 | X | 24 | 28 | 24 | 25 | | X | | | 23 | | | | | 6 | | | | | 17 | 17 | | | |

- 1 Convert TMSM to Engine-ID.
- 2 Enter MDS.
- 3 Entry required when engine related How Mal Code is determined to be different from originally reported.
- 4 Required on type K reports only.
- 5 Cycle count required for TF33 and sortie required for J79.
- 6 Entry is not required for parts tracked engines.
- 7 Not used.
- 8 All "TP" users have the capability to add or change organization codes by serial number using TCC "2M."
- 9 NHA designator and NHA serial number are required for removals of tracked engines (F100/TF34), and components.
- 10 Not used.
- 11 Not used.
- 12 Input if the item is installed and NHA CII and serial number is entered, the item will be initialized as installed; else, the item will be initialized as a spare.
- 13 Entry is not required for parts-tracked engines except F108, also AF FORM 1557 not required.

Table 9-4. D042 Status Required Data Elements vs TCC (AF Form 1534) - Continued

- 14 Document number is required only if previous transaction is "S."
- 15 Not used.
- 16 Optional:
- 17 Not required if item is installed.
- 18 Optional: When work is completed which changes the series or modification of engine designation, enter the new TMSM.
- 19 Document number is optional except as cited previously in this T.O.
- 20 Reason for return to overhaul required for accountable items; not required for non-CEMS-accountable tracked parts.
- 21 Not used.
- 22 Not used.
- 23 Entry not required for direct line reporting input.
- 24 Entry not required for non-CEMS-accountable items (both non-direct line reporting and direct line reporting input).
- 25 Entry not required for non-CEMS-accountable items input by non-direct line reporting mode.
- 26 Trailer from (AF FORM 1557) is required if type report is "4;" not required if type report is "R."
- 27 Entry not required for non-parts-tracked engines reported via AUTODIN format.
- 28 Entry required for direct line reporting input only.
- 29 When submitting a 2L TCC add quantity of cannibalized parts to block 30 on AF FORM 1534. This is applicable to OC-ALC only.
- 30 Reason for delay code is required for "H" transaction.
- 31 Reason for return to overhaul code is optional for TCC PL.
- 32 Enter new PN.
- 33 Enter new or current MDS.
- 34 Optional.

Table 9-5. TCTO Status Codes vs Required Data Element Entries AF Form 1559 - TCTO Status Report

NOTE

An "X" in a block number field indicates a mandatory entry requirement. A numeric in a block field indicates footnotes located at the end of the matrix that may qualify or exempt data from that particular type transaction.

| TCTO STATUS CODE | BLOCKS 1 THRU 8 | BLOCK 9 ACTUAL MANHOURS | BLOCK 10 RVRSL CODE | BLOCK 11 RVRSL HOURS | BLOCK 12 WORK CENTER | BLOCK 13 WORK ORDER NUMBER | BLOCK 14 SERIAL NUMBER | BLOCK 15 AUTODIN BATCH DATA | BLOCK 16 ERROR SEQUENCE NUMBER | BLOCK 17 OLD PART NUMBER | BLOCK 18 NEW PART NUMBER | BLOCK 19 REMARKS |
|------------------|-----------------|-------------------------|---------------------|----------------------|----------------------|----------------------------|------------------------|-----------------------------|--------------------------------|--------------------------|--------------------------|------------------|
| 00(796) | X | - | - | - | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 01(801) | X | X | - | - | 7 | 7 | X | 3 | 4 | X | 5 | 6 |
| 02(797) | X | - | - | - | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 03(798) | X | - | - | - | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 04 | X | - | - | - | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 05 | X | - | - | - | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 06(802) | X | X | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 07 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 08 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 09 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 10(911) | X | - | X | X | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 11 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 12 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 13 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 14 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 15 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 16 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 17(793) | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 18 | X | X | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 19 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 20 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 21 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |
| 22 | X | - | 1 | 2 | 7 | 7 | X | 3 | 4 | X | - | 6 |

Table 9-5. TCTO Status Codes vs Required Data Element Entries AF Form 1559 - TCTO Status Report - Continued

- (1) How Mal Codes 793, 796, 797, 798, 801, 802, and 911 will be used by CAMS and AUTODIN facilities in lieu of the corresponding two position status code.
- (2) TCTO status codes 01-18 are used by CEMS for updating. For a complete list of the TCTO status codes use this TO.
- (3) Blocks 1 through 8 are:

¹ TCC

² Sequence Number

³ CII

⁴ Data Code

⁵ Status-How Mal Code

⁶ Status Date

⁷ Accomplishing SRAN

⁸ Accomplishing Command

NOTE

- Block 10 (reversal code) will need to be entered when status is changed from closed with (01-05/22) to open status.
- Block 11 (reversal hours) may be entered when there is a reversal code entry in Block 10.
- Block 15 (AUTODIN-batch data) consists of three data element headers that require entries for AUTODIN reporting. The three data element headers are: Block 15.a. - Subsystem ID; Block 15.b. - Type Report; Block 15.c. - Federal Supply Class.
- Block 16 (error sequence number) - Enter only when an error is being corrected. This is the sequence number for which an error is being corrected.
- Block 18 (new part number) - Enter the new part number if TCTO instructs change to a new part number upon compliance.
- Block 19 (remarks) - Entry required only when specified by local procedures. This block may be used for additional pertinent information.
- Blocks 12 and 13 are optional inputs. User may input data in these blocks if the need exists to record the accomplishing work center and/or the work order number.

Table 9-6. Engine Related "How MAL Codes"

| <u>CODES</u> | <u>CONDITION</u> | |
|--------------|---|---|
| 006 | CONTACTS, CONNECTORS OR CONNECTION DEFECTIVE | ■ |
| 008 | NOISY/CHATTERING | ■ |
| 020 | CUT, WORN, CHAFED, FRAYED OR TORN | ■ |
| 025 | CAPACITANCE INCORRECT | ■ |
| 028 | CONDUCTANCE INCORRECT | ■ |
| 029 | CURRENT INCORRECT | ■ |
| 045 | BATTERY REPLACED, NO OTHER DEFECT | ■ |
| 069 | FLAMEOUT | ■ |
| 070 | BROKEN SAFETY WIRE, HARDWARE, EXTERNAL PARTS OF COMPONENTS | ■ |
| 086 | SHIPPING OR HANDLING DAMAGE | ■ |
| 105 | LOOSE, DAMAGED OR MISSING HARDWARE (NUTS, BOLTS, CLAMPS, SAFETY WIRE, ETC.) | ■ |
| 111 | BURST OR RUPTURED | ■ |
| 116 | CUT | ■ |
| 127 | ADJUSTMENT OR ALIGNMENT IMPROPER | ■ |
| 135 | BINDING, STUCK OR JAMMED | ■ |
| 136 | DAMAGED-CRACKED FAN STATOR CASE | |
| 137 | DAMAGED-CRACKED FAN STATOR VANES | |
| 138 | FAN BLADE DAMAGE | |
| 139 | CRACKED OR WARPED INLET GUIDE | |
| 140 | FROZEN FAN | |
| 141 | COMPRESSOR CASE FAILURE OR EXCESSIVE AIR LEAKAGE | |
| 142 | COMPRESSOR DAMAGE DUE TO FAILURE OR SEIZURES | |
| 143 | DAMAGED-CRACKED COMPRESSOR CASE | |
| 144 | COMPRESSOR ROTOR CHANGE (OTHER THAN FOD) | |
| 145 | CRACKED DIFFUSER CASES | |
| 146 | COMBUSTION DAMAGE | |
| 147 | COMBUSTION CASE BURN OR HOT SPOT | |
| 148 | DAMAGED-CRACKED TURBINE FRAME-CASE (BURNED THROUGH) | |
| 149 | FLAMEHOLDER OR FUEL RING-BARS DAMAGED | |
| 150 | THROWN, DAMAGED OR FAILED BUCKETS | |
| 151 | TURBINE WHEEL FAILURE | |
| 152 | TURBINE NOZZLE FAILURE | |
| 153 | TURBINE DAMAGE DUE TO MATERIAL FAILURE | |
| 154 | ENGINE OR AFTERBURNER FIRE DAMAGE | |
| 155 | ENGINE TO AC MOUNT FAILURE | |
| 156 | AFTERBURNER OR AUGMENTOR PROBLEM REPAIR | |
| 157 | THRUST REVERSER SYSTEM FAILURE | |
| 158 | ACCESSORY DRIVE GEARBOX FAILURE (INCLUDES TURBOPROP GEARBOX) | |
| 159 | INTERNAL REDUCTION GEAR FAILURE | |
| 160 | BEARING AND/OR SUPPORT FAILURE | |
| 162 | SCAVENGE PUMP FAILURE (INCLUDES TURBOPROP GEARBOX) | |
| 163 | ENGINE DECOUPLED (TURBOPROP) | |
| 164 | PROPELLER BRAKE FAILED (TURBOPROP) | |
| 165 | POWER SECTION FAILURE (TURBOPROP) | |
| 166 | REDUCTION GEARBOX FAILURE (TURBOPROP) | |
| 167 | TENSION OR TORQUE INCORRECT | ■ |
| 168 | TORQUE METER FAILURE (TURBOPROP) | ■ |
| 169 | VOLTAGE INCORRECT | ■ |
| 170 | CORRODED MILD/MODERATE | |
| 171 | IMPELLER OR INDUCER DAMAGE | |
| 172 | SLIPPED BLOWER CLUTCH | |
| 173 | TURBO SUPERCHARGE FAILURE | |
| 174 | QEC DISCREPANCY | |
| 175 | ADVERSE EGT-TIT TREND | |
| 176 | ADVERSE RPM TREND | |
| 177 | HIGH OR LOW FUEL CONSUMPTION | |
| 178 | VIBRATION TREND | |
| 179 | EXHAUST PRESSURE RATIO (EPR) TREND | |
| 180 | ADVERSE OIL CONSUMPTION TREND | |
| 181 | ADVERSE FUEL FLOW TREND | |

Table 9-6. Engine Related "How MAL Codes" - Continued

| <u>CODES</u> | <u>CONDITION</u> |
|--------------|--|
| 182 | PERFORMANCE TREND INDICATES COMPRESSOR SECTION DETERIORATION OR DAMAGE |
| 183 | PERFORMANCE TREND INDICATES COMBUSTION SECTION DETERIORATION OR DAMAGE |
| 184 | PERFORMANCE TREND INDICATES TURBINE SECTION DETERIORATION OR DAMAGE |
| 185 | PERFORMANCE TREND INDICATES ACCESSORY SECTION DETERIORATION OR DAMAGE |
| 186 | REMOVED FOR FURTHER TEST CELL DIAGNOSTIC CHECK |
| 187 | BORESCOPE INDICATES COMPRESSOR SECTION DETERIORATION |
| 188 | BORESCOPE INDICATES COMBUSTOR SECTION DETERIORATION |
| 189 | BORESCOPE INDICATES TURBINE SECTION DETERIORATION |
| 190 | CRACKED |
| 191 | HIGH EGT |
| 192 | OVERTEMPERATURE |
| 193 | EXCESSIVE STALLS |
| 194 | HIGH BREATHER PRESSURE |
| 195 | EXCEEDING QUALITY CHECK TEMPERATURE LIMIT |
| 196 | EXCESSIVE OIL FROM BREATHER, OR HIGH PUMP PRESSURE |
| 197 | FUEL LEAKAGE |
| 198 | CONTAMINATED FUEL |
| 199 | HIGH OR LOW OIL CONSUMPTION |
| 200 | OIL LEAKAGE |
| 201 | CONTAMINATED OIL |
| 202 | LOW OIL PRESSURE |
| 203 | HIGH OIL PRESSURE |
| 204 | SMOKE OR FUMES IN COCKPIT |
| 205 | START OR OFF IDLE STAGNATION |
| 206 | STEADY STATE STAGNATION |
| 207 | AUGMENTOR INDUCED STAGNATION |
| 208 | AUGMENTOR NOZZLE MECHANISM DETERIORATION |
| 209 | INTERNAL NOISE ON SHUTDOWN-START |
| 210 | SERVICING WITH IMPROPER GRADE OR TYPE OF FUEL OR OIL |
| 211 | CORRODED INTERNAL SURFACES |
| 212 | CORRODED EXTERNAL SURFACES |
| 213 | LOW COMPRESSION |
| 214 | BLOW-BY OR DETONATION |
| 215 | MANIFOLD PRESSURE BEYOND LIMITS, OVERBOOST |
| 216 | LOW MANIFOLD PRESSURE |
| 217 | OIL IN INDUCTION SYSTEM OR COMPRESSOR SECTION |
| 218 | SUDDEN STOPPAGE - REDUCTION OR EXCEEDED TORQUE LIMITS |
| 219 | INTERNAL FAILURE |
| 220 | LOSS OF TORQUE |
| 223 | CONTROL SYSTEM COMPONENT MALFUNCTION |
| 224 | BACKUP-EMERGENCY CONTROL SYSTEM FAILURE |
| 225 | BLEED AIR MALFUNCTION |
| 226 | ENGINE START TIME BEYOND LIMITS |
| 227 | REAR COMP VAR VANE (RCVV) GEOMETRY IMPROPER-AXIAL FLUTTER |
| 228 | COMPRESSOR INLET VARIABLE VAIN (CIVV) GEOMETRY IMPROPER |
| 230 | DIRTY, CONTAMINATED OR SATURATED BY FOREIGN MATERIAL |
| 231 | AUGMENTOR BLOWOUT |
| 232 | AUGMENTOR NO LIGHT |
| 233 | AUGMENTOR RUMBLE |
| 234 | TURBINE BORE - FIRE |
| 242 | FAILED TO OPERATE-SPECIFIC REASON UNKNOWN |
| 253 | MISFIRES |
| 277 | FUEL NOZZLE-OIL LINE COKING |
| 279 | SPRAY PATTERN DEFECTIVE |
| 290 | FAILS DIAGNOSTIC/AUTOMATIC TEST |
| 300 | FOREIGN OBJECT (NO DAMAGE) |
| 301 | FOREIGN OBJECT DAMAGE (FOD) |
| 303 | DAMAGE BY SEMI-SOLID FOREIGN OBJECTS (BIRDS) |
| 314 | INABILITY TO ACCELERATE, ALL POWER SETTINGS ABOVE IDLE |
| 315 | SURGES-FLUCTUATES |

Table 9-6. Engine Related "How MAL Codes" - Continued

| <u>CODES</u> | <u>CONDITION</u> |
|--------------|---|
| 317 | HOT STARTS |
| 334 | TEMPERATURE LIMITS EXCEEDED |
| 350 | INSULATION BREAKDOWN |
| 372 | METAL IN SUMP-SCREEN OR ON MAG PLUG |
| 381 | LEAKING INTERNAL OR EXTERNAL |
| 410 | LACK OF OR IMPROPER LUBRICATION |
| 425 | PITTED, NICKED, CHIPPED, SCORED, SCRATCHED OR CRAZED |
| 458 | OUT OF BALANCE |
| 464 | OVERSPEED |
| 475 | INABILITY TO START, GROUND OR AIR |
| 476 | DAMAGE BY SOLID - FOREIGN OBJECT (METAL, STONE) |
| 477 | DAMAGE BY SEMI-SOLID FOREIGN OBJECT (ICE) |
| 478 | DAMAGE BY SEMI-SOLID FOREIGN OBJECT (RAGS, PLASTIC, RUBBER, ETC.) |
| 479 | DAMAGE FROM SIMULATED COMBAT (AIR TO AIR - AIR TO GROUND) |
| 480 | DAMAGE BY AIRCRAFT ACCIDENT BY INCIDENT |
| 481 | EXPOSURE TO FIRE EXTINGUISHING AGENT |
| 482 | EXCESSIVE "G" FORCE INSPECTION |
| 483 | DUMMY ENGINE TRANSACTION |
| 484 | BLADE SHINGLING |
| 513 | COMPRESSOR STALLS (AFTERBURNER) |
| 525 | PRESSURE INCORRECT/FLUCTUATES |
| 537 | LOW POWER OR THRUST |
| 553 | DOES NOT MEET SPECIFICATIONS |
| 561 | UNABLE TO ADJUST TO LIMITS |
| 567 | RESISTANCE INCORRECT |
| 585 | SHEARED |
| 599 | TRAVEL OR EXTENSION INCORRECT |
| 602 | FAILED OR DAMAGED DUE TO MALFUNCTION OF ASSOCIATED EQUIPMENT |
| 615 | SHORTED |
| 625 | INDUCTANCE INCORRECT |
| 644 | BUILT-IN-TEST (BIT) INDICATED FAULT |
| 690 | EXCESSIVE VIBRATION OR ROUGH OPERATION |
| 698 | FAULTY CARD, TAPE, PROGRAM OR DISK |
| 718 | IMPROPER RESPONSE TO MECHANICAL INPUT |
| 721 | IMPROPER RESPONSE TO ELECTRICAL INPUT |
| 731 | BATTLE DAMAGE |
| 750 | MISSING |
| 756 | BLADE SEAL MISSING/DEFECTIVE |
| 780 | BENT, BUCKLED, COLLAPSED, DENTED, DISTORTED OR TWISTED |
| 793 | NO DEFECT - TCTO KIT RECEIVED BY BASE SUPPLY OR PARTS ARE IN SUPPLY |
| 796 | NO DEFECT - TCTO NOT APPLICABLE |
| 797 | NO DEFECT - TCTO PREVIOUSLY COMPLIED WITH |
| 798 | NO DEFECT - TCTO COMPLIED WITH BY RECORD RECORD CHECK OR INSPECTION |
| 799 | NO DEFECT |
| 800 | NO DEFECT - PART REMOVED - REINSTALLED TO FACILITATE OTHER MAINTENANCE |
| 801 | NO DEFECT - T.O. COMPLIED WITH, ALL APPLICABLE OPERATIONS COMPLETED |
| 802 | NO DEFECT - PARTIAL TCTO COMPLIANCE |
| 804 | NO DEFECT - REMOVED FOR SCHEDULED MAINTENANCE, MODIFICATION OR ASSESSMENT |
| 812 | NO DEFECT - DEFECT CAUSED BY ASSOCIATED EQUIPMENT MALFUNCTION |
| 816 | IMPEDANCE INCORRECT |
| 844 | HOLE WARE, OUT OF ROUND |
| 846 | DELAMINATED |
| 847 | ABRASION, EROSION, PITS (COMPOSITES) |
| 848 | MISSING OR LOOSE FIBERS (COMPOSITES) |
| 865 | DETERIORATED, SEPARATION OF LAYERS (COMPOSITES) |
| 866 | EXPIRATION OF MAXIMUM TIME, ENGINES OR COMPONENTS (T.O. DIRECTED) |
| 867 | TRANSFER TIME LIMIT (T.O. 2-1-18) |
| 868 | REMOVED - ROLLED BACK FOR FAILED EXTERNAL COMPONENT, REINSTALLED IN SAME AC |
| 870 | REMOVED FOR RESEARCH, TEST OR DIAGNOSTIC EVENT |
| 872 | REMOVED DURING AIRCRAFT PDM |

Table 9-6. Engine Related "How MAL Codes" - Continued

| <u>CODES</u> | <u>CONDITION</u> |
|--------------|---|
| 874 | STORAGE DAMAGE OR DETERIORATION |
| 875 | REMOVED FOR REUSE (CANNIBALIZATION) |
| 876 | NON-T.O. DIRECTED REMOVAL |
| 877 | T.O. IDENTIFIED COMPONENTS |
| 878 | REMOVAL TO PERFORM SCHEDULE - SPECIAL INSPECTION (T.O. DIRECTED) |
| 879 | EXPIRATION OF MAXIMUM CYCLE - SORTIES FOR ENGINES OR COMPONENTS (T.O. DIRECTED) |
| 880 | OPPORTUNISTIC MAINTENANCE REMOVAL OF TRACKED PARTS |
| 881 | REMOVAL TO PERFORM MINOR INSPECTION (BORESCOPE - T.O. DIRECTED) |
| 884 | LEAD BROKEN |
| 890 | LIGHTNING STRIKE DAMAGE |
| 900 | BURNED OR OVERHEATED |
| 911 | TCTO NOT COMPLIED WITH. TCTO COMPLIED WITH OR PLACED IN WORK IN ERROR |
| 916 | JOAP REMOVAL |
| 917 | IMPENDING FAILURE OR LATENT DEFECT INDICATED BY NDI |
| 932 | DOES NOT ENGAGE, LOCK OR UNLOCK CORRECTLY |
| 943 | DATA ERROR |
| 988 | VACUUM LOSS OR INCORRECT |

■ IDENTIFIES NEW CODES ADDED BY THE PROGRAM MANAGEMENT REVIEW CONDUCTED JAN 1998

Table 9-7. Authorized How MAL Codes for Removals/Change in Maintenance

| <u>TRANSACTION CODE</u> | <u>CONDITION CODE</u> | <u>DESCRIPTION</u> |
|-------------------------|-----------------------|---|
| K - L - M | F or G | Any engine related removal code is authorized except 215, 483, 793, 797, 798, 799, 800, 802, 804, 867, 868, 870, 872, 875, and 911. |
| K - L | L | Any engine related removal code is authorized except 483, 796, 797, 798, 799, 800, 867, and 868. |
| K - L - M* | B | Only engine related codes 483, 797, 798, 799, 800, 801, 804, 812, 867, 868, 870, 872, 875, and 876 are authorized. |
| M | L | Any engine related removal code is authorized except 483, 796, 797, 798, 799, 800, 867, and 868. |

* MB applies to parts only, not engines.

Table 9-8. TCTO Status and/or How MAL Codes

| <u>DATA ITEMS</u> | <u>TCTO STATUS CODES</u> | <u>HOW MAL CODES</u> |
|--|--------------------------|----------------------|
| TCTO Completely Complied With | 01 | 801 |
| TCTO Previously Complied With | 02 | 797 |
| TCTO Complied With by Record Check or Inspection | 03 | 798 |
| TCTO Not Complied With - Cancelled | 04 | |
| Equipment Permanently Transferred or Lost from AF Inventory | 05 | |
| TCTO Partially Complied With - Ready for Work | 06 | 802 |
| TCTO Partially Complied With - Kits, Parts and/or Tools Test Equipment on Order | 07 | |
| TCTO N/C/W - Condition Inspection Required | 08 | |
| TCTO N/C/W - Held in Abeyance | 09 | |
| TCTO N/C/W - Placed in Work or Reported C/W in Error | 10 | 911 |
| TCTO N/C/W - Kits and/or Parts on Order but not Received | 11 | |
| TCTO N/C/W - Prior Compliance of a Field and/or Depot TCTO Required | 12 | |
| TCTO N/C/W - Test and/or Support Equipment not Available | 13 | |
| TCTO N/C/W - Kits, Parts, and/or Test Equipment on Hand but Equipment not Available for Modification | 14 | |
| TCTO N/C/W - Event Type | 15 | |
| TCTO N/C/W - Depot Level TCTO Only | 16 | |
| TCTO N/C/W TCTO Ready for Work | 17 | 793 |
| Depot Level TCTO, Partially Complied With | 18 | |
| Technical Order not Released by the Prime ALC | 19 | |
| TCTO N/C/W - Kits on Hand, Parts on Order | 20 | |
| TCTO N/C/W - Established in CEMS CDB with Release and Rescission date. | 21 | |
| Applies to Organization/Intermediate Level TCTOs. | | |
| TCTO Not Applicable to this Equipment | 22 | 796 |
| TCTO N/C/W - In storage at AMARC. | 24 | |

NOTE

The seven engine related How Mal Codes listed above are the only codes used by all reporting activities. Systems use status code "22."

Table 9-9. Reason for Delay Code

| <u>CODE</u> | <u>DEFINITION</u> |
|-------------|---|
| A | Manpower Shortage |
| B | Tooling Not Available |
| C | Work Space Not Available |
| D | Maintenance Stand Not Available |
| E | Build Up Stand Not Available |
| F | Other (Not Applicable at Depot Repair Activity) |
| G | Technical Data Not Available |
| H | Higher Priority Work (Depot Repair Activity Only) |
| J | Software Not Available |
| K | Test Cell Delay |
| M | Parts Shortage (Maintenance) |
| N | Parts Shortage (Supply) (TRC Only) |
| R | Revised Requirement (TRC Only) |
| S | Floating Stock Shortage (TRC Only) |

NOTE

Codes A through F, K and M are usable in CAMS and DLR. All codes can be used by depot activities and contractors.

Table 9-10. Engine Reason for Return to Overhaul Codes

| <u>DATA ITEMS</u> | <u>DATA CODES</u> |
|---|-------------------|
| Expiration of Max Time | 9A |
| Lack of JEIM Equipment, Tools, or Facilities | 9B |
| Repairs Not Authorized | 9C |
| Crash Damage | 9D |
| UR Exhibit for TDR | 9E |
| Special TDR | 9F |
| Questionable Structural Integrity | 9G |
| Directed by Higher HQ (Lack of Parts) | 9H |
| Directed by Higher HQ (Lack of Manpower) | 9J |
| Directed by Higher HQ (Other) | 9K |
| Three Consecutive Test Cell Rejects for Same Reason | 9L |
| Maintenance Economy | 9M |
| Expiration of Maximum Cyc-Sorties | 9R |
| Warranty Exhibit | 9W |
| 2 Level Maintenance | 9T |

Table 9-11. Engine Ownership Account Codes

| <u>DATA ITEMS AND EXPLANATIONS</u> | <u>DATA CODES</u> |
|---|-------------------|
| GENERAL ACCOUNT. Engine owned by the AF and possessed by AF or contractors for purposes other than bailment, research or development, loan, Government Furnished Property (GFP), Government Furnished Aircraft Equipment (GFAE), Air National Guard (ANG), Air Force Reserve (AFR), ground training classified project, aero clubs, or DPDO. | A |
| BAILMENT OR LEASE. Engine on bailment or lease contract. AF owned engine on hand or received by a reporting activity that is covered by a bailment or lease contract. This includes installed engines when the end item is covered by a bailment contract. | B |
| RESEARCH OR DEVELOPMENT. Engine undergoing or used in conjunction with air or ground equipment that is undergoing research or development. This code is restricted for use by AFMC activities only. | C |
| DEPARTMENT OF THE ARMY. Engine owned by the army that is assigned to and possessed by the AF. | D |
| LOAN. Engine on loan. AF owned engine that is shipped or transferred to a non-reporting activity on a loan or facility agreement. This includes installed engines wherein the end item is on loan or facility agreement. | E |
| FAA. Engine owned by the FAA that is assigned to and possessed by the AF. | F |
| GFP. Engine owned by the AF that is possessed by an aircraft modification and/or repair contractor. This includes all installed engines and serviceable spare engines that are intended to be installed in other than new production aircraft. | G |
| COAST GUARD. Engine owned by the Coast Guard that is assigned to and possessed by the AF. | H |
| CLASSIFIED PROJECT. Engine owned by the AF and being used in support of a classified project, when reporting would be in violation of security. | L |
| SAP. Engine owned by SAP that is assigned to and possessed by the AF. | J |
| GFAE. Engine owned by the AF that is possessed by a contractor for installation (including those installed) in new production aircraft. | K |
| ANG. Engine possessed by the ANG. | N |
| EUROPEAN PARTICIPATING GOVERNMENT. History Only. | P |
| AFR. Engine possessed by the AFR. | R |
| GROUND TRAINING. School Engine. | S |
| DEPARTMENT OF THE NAVY. Engine owned by the Navy that is assigned to and possessed by the AF. | T |
| OTHER NON-AF ACTIVITIES. Engine owned by an AF auxiliary unit, NASA, school, other government agency, or commercial activity that is assigned to and possessed by the AF. | W |
| AIRCRAFT STORAGE SITE. Engine installed in an aircraft that was transferred to R and M. This code restricted for use by the aircraft storage site (FJ 2373). | Z |

Table 9-12. Manufacturer's Codes

| <u>DATA ITEM AND EXPLANATION</u> | <u>DATA CODES</u> |
|--|-------------------|
| Aerojet | AJ |
| Allison Division, General Motors Corporation | AD |
| CFM International, Inc | CF |
| Air Force Aero Propulsion Laboratory | PL |
| Teledyne Continental Aviation and Engineering Corporation | CA |
| Curtiss-Wright Corporation | WA |
| Ford | FD |
| General Electric Company | GE |
| Lycoming Division, Avco Corporation | LD |
| Marquadt Company | MA |
| Microturbo, Toulouse, France | MT |
| Nash Kelvinator | NK |
| Rocketdyne | RD |
| Rolls Royce, Ltd | RR |
| Solar Division, International Harvester Corporation | SO |
| Pratt and Whitney Aircraft Division, United Aircraft Corporation | PW |
| United Aircraft of Canada, Ltd | CP |
| United Aircraft of West Virginia | WV |
| United Aircraft Research Laboratory | UA |
| United Technology Center | UT |
| Williams International | WR |

Table 9-13. Special Status Code Table

| <u>CODE</u> | <u>DEFINITION</u> |
|-------------|-----------------------------------|
| AWR | Awaiting Repair |
| AI | Accident Investigation |
| ACI | Analytical Condition Test |
| AMT | Accelerated Mission Test |
| CAB | Cannibalized |
| CAL | Test Cell Calibration Engine |
| DIS | Disassembled Engine |
| ENG | Engineering Evaluation |
| EWP | Engine Warranty Program |
| LTF | Lead The Fleet |
| OAR | Oil Analysis Report |
| ORF | Overhaul-Repair Facilities |
| PMG | Parts Missing |
| REC | Reclamation |
| SAF | Simulated Actual Flight Endurance |
| SSL | Special Serialized Limits |
| TDR | Teardown Deficiency Report |
| TRG | Training Items |

Table 9-14. Authorized Tracking Methods

| <u>CAT NO</u> | <u>TLC NOUN</u> | <u>TLC</u> | <u>DEC POS</u> |
|---------------|--------------------------------------|------------|----------------|
| 04 | Low Cal Cy | LCC | 1 |
| 05 | Nr. Of Engine Runs | RUN | 0 |
| 06 | Emergency War Operations | EWO | 0 |
| 07 | Cycles-Sorties | SOR | 0 |
| 08 | Calculated Cycles | CCY | 0 |
| 09 | Engine Operating Time | EOT | 1 |
| 10 | Major Cycles | MAJ | 0 |
| 11 | Engine Flying Hours | FHR | 1 |
| 12 | Elapsed Days | DAY | 0 |
| 13 | Time Above Exhaust Gas Temperature 8 | EG8 | 2 |
| 14 | Time Above Exhaust Gas Temperature 9 | EG9 | 2 |
| 15 | Manual Cycles | MAN | 0 |
| 16 | Low Cycles Fatigue | LCF | 0 |
| 17 | Hot Section 1 | HS1 | 2 |
| 18 | Hot Section 2 | HS2 | 2 |
| 19 | Nr. Of Installed Shutdowns | CSC | 0 |
| 20 | Number of Flights | FLT | 0 |
| 23 | Minor Cycles | MIN | 0 |
| 24 | Calendar Date | CAL | 0 |
| 25 | Total Accumulated Cycles | TAC | 0 |
| 26 | In-Flight Shutdown | FSD | 0 |
| 27 | Time Weight Off Wheels | WOW | 2 |
| 28 | Total Accumulated Cycles (F119) | TAC | 0 |
| 31 | Time Above Temperature 7 | T78 | 2 |
| 32 | Time Above Temperature 8 | TT8 | 2 |
| 34 | Flag 8 | 840 | 0 |
| 35 | Flag 9 | 927 | 0 |
| 36 | Event 5 | EV5 | 0 |
| 37 | Event 7 | EV7 | 0 |
| 40 | Cycles | CYC | 2 |
| 41 | Fan Life Usage | FLL | 0 |
| 42 | HPC Life Usage | CLL | 0 |
| 43 | Diffuser/Combustor Life Usage | DLL | 0 |
| 44 | HPT Life Usage | HLL | 0 |
| 45 | LPT Life Usage | LLL | 0 |
| 46 | HPT Hot Usage | HAL | 0 |
| 47 | LPT Hot Usage | LAL | 0 |
| 48 | Nozzle Life Usage | NLL | 0 |
| 49 | Bearing Life Usage | BLL | 0 |
| 50 | Control System Power-ups | CPU | 0 |
| 51 | IBR Minutes | IBR | 2 |
| 52 | HSP Counts | HSP | 0 |
| 53 | ERL Hours | ERL | 1 |
| 59 | Low Cycle Fatigue | LCY | 0 |
| 60 | Full Thermal Cycle | FTC | 0 |
| 61 | Cruise Intermediate Cruise Cycle | CIC | 0 |
| 62 | Afterburner Cycles | ABC | 0 |
| 63 | Afterburner Time | ABT | 1 |
| 64 | Equivalent Low Cycle Fatigue | ELC | 0 |
| 65 | Time Above Temperature 1 | TT1 | 1 |
| 66 | Time Above Temperature 2 | TT2 | 1 |
| 67 | Time Above Temperature 3 | TT3 | 1 |
| 68 | Time Above Temperature 4 | TT4 | 1 |
| 69 | Time Above Temperature 5 | TT5 | 1 |
| 70 | Equivalent Time at Temperature | ETT | 1 |
| 71 | V-Max Time | VMX | 2 |
| 72 | Fatigue Cycles Type IV | CY4 | 0 |
| 73 | Hot Section 3 | HS3 | 2 |

Table 9-14. Authorized Tracking Methods - Continued

| <u>CAT NO</u> | <u>TLC NOUN</u> | <u>TLC</u> | <u>DEC POS</u> |
|---------------|----------------------------------|------------|----------------|
| 74 | Hot Section 4 | HS4 | 2 |
| 75 | Calculated Flight Time | CFH | 1 |
| 76 | Safety Cycles | SCY | 0 |
| 77 | In Flight Time | IFT | 1 |
| 80 | PLA > 80 | PL8 | 2 |
| 81 | Time/Temp 1 | TM1 | 2 |
| 82 | Time/Temp 2 | TM2 | 2 |
| 83 | Time/Temp 3 | TM3 | 2 |
| 84 | Time/Temp 4 | TM4 | 2 |
| 85 | Time/Temp 5 | TM5 | 2 |
| 86 | Power Lever Angle | PLA | 0 |
| 87 | Stress Rupture Fatigue (HPT BSR) | SRF | 2 |
| 88 | Pressure Station 3A | P3A | 0 |
| 89 | Pressure Station 3B | P3B | 0 |
| 90 | Equivalent Fuel Thermal Cycles | EFC | 1 |
| 91 | Low Cycle Fatigue Partial | LCP | 0 |
| 92 | Exhaust Gas Temperature | EGT | 0 |

Table 9-15. CII Table

| <u>TMSM FORMAT (NON-CAMS)</u> | <u>TMSM FORMAT (MMICS AND/OR CAMS)</u> | <u>NOUN</u> | <u>ENG ID</u> | <u>MFG CODE</u> | <u>CII</u> |
|---------------------------------------|--|-------------------|---------------|---------------------|------------|
| ::F0100100:: | :F0100100:: | F100-100 Engine* | X1 | PW | AF10010 |
| ::F0100100A: | :F0100100A: | F100-100A Engine* | X4 | PW | AF10010 |
| ::F0100100B: | :F0100100B: | F100-100B Engine* | X5 | PW | AF10010 |
| ::F0100100C: | :F0100100C: | F100-100C Engine* | X6 | PW | AF10010 |
| ::F0100200:: | :F0100200:: | F100-200 Engine* | X2 | PW | AF10010 |
| ::F0100200A: | :F0100200A: | F100-200A Engine* | X7 | PW | AF10010 |
| ::F0100200B: | :F0100200B: | F100-200B Engine* | X8 | PW | AF10010 |
| ::F0100200C: | :F0100200C: | F100-200C Engine* | X9 | PW | AF10010 |
| ::F0100220A: | :F0100220A: | F100-220A Engine* | YF | PW | AF10010 |
| ::F0100220B: | :F0100220B: | F100-220B Engine* | YA | PW | AF10010 |
| ::F0100220C: | :F0100220C: | F100-220C Engine* | YJ | PW | AF10010 |
| ::F0100220D: | :F0100220D:: | F100-220D Engine* | YC | PW | AF10010 |
| ::F0100220E: | :F0100220E: | F100-220E Engine* | YD | PW | AF10010 |
| ::F0100220F: | :F0100220F: | F100-220F Engine* | YE | PW | AF10010 |
| ::F0100229A: | :F0100229A: | F100-229A Engine* | YG | PW | AF10010 |
| ::F0100229B: | :F0100229B: | F100-229B Engine* | YH | PW | AF10010 |
| ::F0101102:: | :F0101102:: | F101-102 Engine | HF | GE | AF10110 |
| ::F0103100:: | :F0103100:: | F103-100 Engine | HL | GE | AF10310 |
| ::F0107101:: | :F0107101:: | F107-101 Engine | HK | WR | AF10710 |
| ::F0108100:: | :F0108100:: | F108-100 Engine | HM | CF | AF10810 |
| ::F0108201:: | :F0108201:: | F108-201 Engine | JE | CF | AF10810 |
| ::F0109100:: | :F0109100:: | F109-100 Engine | XS | GA | AF10910 |
| ::F0110100:: | :F0110100:: | F110-100 Engine | XY | GE | AF11010 |
| ::F110100B: | :F0110100B: | F110-100B Engine | YP | GE | AF11B10 |
| ::F0110129: | :F0110129: | F110-129 Engine | XZ | GE | AF12910 |
| ::F0110400: | :F0110400: | F110-400 Engine | YK | GE | AN40010 |
| ::F0112100: | :F0112100:: | F112-100 Engine | HQ | WR | AF11210 |
| ::F0117100: | :F0117100:: | F117-100 Engine | PK | PW | AF11710 |
| ::F0118100: | :F0118100: | F118-GE100 Engine | PM | GE | AF11810 |
| ::F0118101: | :F0118101: | F118-GE101 Engine | PP | GE | AU11810 |
| ::F0119100: | :F0119100: | F119-100 Engine | YR | PW | AF11910 |
| ::F0404F102 | :F0404F102 | F404-F102 Engine | PA | GE | AF40410 |
| ::J0033035: | :J0033035:: | J33-35 Engine | AB | AD | AJ03310 |

Table 9-15. CII Table - Continued

| TMSM FORMAT (NON-CAMS) | TMSM FORMAT (MMICS AND/OR CAMS) | NOUN | ENG ID | MFG CODE | CII |
|------------------------------|---|------------------|--------|-------------|---------|
| ::J0047025:: | :J0047025:: | J47-25 Engine | AF | GE | AJ04710 |
| ::J0057021A: | :J0057021A: | J57-21A Engine | HZ | FD/PW | AJ05710 |
| ::J0057021B: | :J0057021B: | J57-21B Engine | HW | FD/PW | AJ05710 |
| ::J0057023B: | :J0057023B: | J57-23B Engine | HX | FD/PW | AJ05710 |
| ::J0057029WA | :J0057029WA | J57-29WA Engine | JA | FD/PW | AJ05710 |
| ::J0057043WB | :J0057043WB | J57-43WB Engine | JC | FD/PW | AJ05710 |
| ::J0057059W: | :J0057059W: | J57-59W Engine | AR | FD/PW | AJ05710 |
| ::J0060003:: | :J0060003:: | J60-3 Engine | AS | PW | AJ06010 |
| ::J060003A: | :J0060003A: | J60-3A Engine | JF | PW | AJ06010 |
| ::J0060005A: | :J0060005A: | J60-5A Engine | AT | PW | AJ06010 |
| ::J0060005B: | :J0060005B: | J60-5B Engine | JD | PW | AJ06010 |
| ::J0060009:: | :J0060009:: | J60-9 Engine | VB | PW | AJ06010 |
| ::J0065005F: | :J0065005F: | J65-5F Engine | JM | WA | AJ06510 |
| ::J0069025:: | :J0069025:: | J69-25 Engine | AX | CA | AJ06910 |
| ::J0069025A: | :J0069025A: | J69-25A Engine | JU | CA | AJ06910 |
| ::J0069406:: | :J0069406:: | J69-406 Engine | JY | CA | AJ06910 |
| ::J0075017:: | :J0075017:: | J75-17 Engine | BB | PW | AJ07510 |
| ::J0075019:: | :J0075019:: | J75-19 Engine | BC | PW | AJ07510 |
| ::J0075019W: | :J0075019W: | J75-19W Engine | JZ | PW | AJ07510 |
| ::J0079015:: | :J0079015:: | J79-15 Engine | BG | GE | AJ07910 |
| ::J0079015A: | :J0079015A: | J79-15A Engine | KM | GE | AJ07910 |
| ::J0079015E: | :J0079015E: | J79-15E Engine | BR | GE | AJ07910 |
| ::J0079017:: | :J0079017:: | J79-17 Engine | BH | GE | AJ07910 |
| ::J0079017A: | :J0079017A: | J79-17A Engine | KQ | GE | AJ07910 |
| ::J0079017E: | :J0079017E: | J79-17E Engine | BZ | GE | AJ07910 |
| ::J0079017F: | :J0079017F: | J79-17F Engine | KS | GE | AJ07910 |
| ::J0079017G: | :J0079017G: | J79-17G Engine | CA | GE | AJ07910 |
| ::J0085005H: | :J0085005H: | J85-5H Engine | LB | GE | AJ08510 |
| ::J0085005J: | :J0085005J: | J85-5J Engine | LC | GE | AJ08510 |
| ::J0085005L: | :J0085005L: | J85-5L Engine | KX | GE | AJ08510 |
| ::J0085005M: | :J0085005M: | J85-5M Engine | KU | GE | AJ08510 |
| ::J0085005P: | :J0085005P: | J85-5P Engine | LK | GE | AJ08510 |
| ::J0085005R: | :J0085005R: | J85-5R Engine | KT | GE | AJ08510 |
| ::J0085007:: | :J0085007:: | J85-7 Engine | BK | GE | AJ08510 |
| ::J0085017A: | :J0085017A: | J85-17A Engine | LH | GE | AJ08510 |
| ::J0085021B: | :J0085021B: | J85-21B Engine | LG | GE | AJ08510 |
| :PT0006A41:: | N/A | PT6A-41 Engine | ZU | PW | AT00610 |
| :PT0006A42:: | N/A | PT6A-42 Engine | ZV | PW | AT00610 |
| :PT0006A65B: | N/A | PT6A-65B Engine | ZW | PW | AT00610 |
| ::R2000004:: | :R2000004:: | R2000-4 Engine | BT | PW | A200010 |
| ::R2000007M2 | :R2000007M2 | R2000-7M2 Engine | FZ | PW | A200010 |
| ::T0053011A: | :T0053011A: | T53-11A Engine | CT | LD | AT05310 |
| ::T0053013B: | :T0053013B: | T53-13B Engine | ML | LD | AT05310 |
| ::T0056007:: | :T0056007:: | T56-7 Engine | VE | AD | AT05610 |
| ::T0056007B: | :T0056007B: | T56-7B Engine | MS | AD | AT05610 |
| ::T0056009B: | :T0056009B: | T56-9B Engine | VG | AD | AT05610 |
| ::T0056009C: | :T0056009C: | T56-9C Engine | VH | AD | AT05610 |
| ::T0056009D: | :T0056009D: | T56-9D Engine | MX | AD | AT05610 |
| ::T0056009E:: | :T0056009E:: | T56-9E Engine | MC | AD | AT05610 |
| ::T0056015:: | :T0056015:: | T56-15 Engine | EQ | AD | AT05610 |
| ::T0058003:: | :T0058003:: | T58-3 Engine | CX | GE | AT05810 |
| ::T0058005:: | :T0058005:: | T58-5 Engine | FC | GE | AT05810 |
| ::T0058100:: | :T0058100:: | T58-100 Engine | FE | GE | AT05810 |
| ::T0064007:: | :T0064007:: | T64-7 Engine | GG | GE | AT06410 |
| ::T0064100: | :T0064100: | T64-100 Engine | NL | GE | AT06410 |
| ::T0400400:: | :T0400400:: | T400-400 Engine | HD | CP | AT40010 |

Table 9-15. CII Table - Continued

| TMSM FORMAT (NON-CAMS) | TMSM FORMAT (MMICS AND/OR CAMS) | NOUN | ENG ID | MFG CODE | CII |
|------------------------------|---|--|--------|-------------|---------|
| ::T0700700:: | :T0700700:: | T700-700 Engine | HE | GE | AT70010 |
| ::T0700701C: | :T0700701C: | T700-701C Engine CF6-50E (see F103) | GT | GE | AT70010 |
| ■ :JT003D003B: | JT003D003B: | JT3D-3B Engine | PF | PW | AJT3D10 |
| ■ :TF0030003:: | TF0030003:: | TF30-3 Engine | GH | PW | ATF3010 |
| :TF0030007:: | TF0030007:: | TF30-7 Engine | GL | PW | ATF3010 |
| :TF0030009:: | TF0030009:: | TF30-9 Engine | GM | PW | ATF3010 |
| :TF0030100:: | TF0030100:: | TF30-100 Engine | GN | PW | ATF3010 |
| :TF0030103:: | TF0030103:: | TF30-103 Engine | XG | PW | ATF3010 |
| :TF0030107:: | TF0030107:: | TF30-107 Engine | XH | PW | ATF3010 |
| :TF0030109:: | TF0030109:: | TF30-109 Engine | XJ | PW | ATF3010 |
| :TF0030111:: | TF0030111:: | TF30-111 Engine | XK | PW | ATF3010 |
| :TF0030P414A:: | TF0030P414A: | TF30-P414A Engine(NAVY) | FI | PW | ANA3010 |
| :TF0033003:: | TF0033003:: | TF33-3 Engine | CH | PW | ATF3310 |
| :TF0033005:: | TF0033005:: | TF33-5 Engine | CJ | PW | ATF3310 |
| :TF0033007:: | TF0033007:: | TF33-7 Engine | CK | PW | ATF3310 |
| :TF0033007A: | TF0033007A: | TF33-7A Engine | LN | PW | ATF3310 |
| :TF0033009:: | TF0033009:: | TF33-9 Engine | CL | PW | ATF3310 |
| :TF0033011A: | TF0033011A: | TF33-11A Engine | LQ | PW | ATF3310 |
| :TF0033100A: | TF0033100A: | TF33-100A Engine | VV | PW | ATF3310 |
| :TF0033102:: | TF0033102:: | TF33-102 Engine | LR | PW | ATF3310 |
| :TF0033102A: | TF0033102A: | TF33-102A Engine | LS | PW | ATF3310 |
| :TF0033102B: | TF0033102B: | TF33-102B Engine | LP | PW | ATF3310 |
| :TF0033102C: | TF0033102C: | TF33-102C Engine | LL | PW | ATF3310 |
| :TF0033103: | TF0033103: | TF33-103 Engine | LT | PW | ATF3310 |
| :TF0033105: | TF0033105: | TF33-105 Engine | LM | PW | ATF3310 |
| :TF0034100:: | TF0034100:: | TF34-100 Engine | T1 | GE | ATF3410 |
| :TF0034100A: | TF0034100A: | TF34-100A Engine | XR | GE | ATF3410 |
| :TF0039001:: | TF0039001:: | TF39-1 Engine | CM | GE | ATF3910 |
| :TF0039001C: | TF0039001C: | TF39-1C Engine | PC | GE | ATF3910 |

Table 9-16. CII Table - Engine Applicability

| TMSM FORMAT (NON-CAMS) | NOUN | ENG ID | MFG CODE | CII | NHA CII | ENGINE APPLICABILITY |
|------------------------------|---------------------------------|-----------|-------------|---------|---------|-------------------------------|
| ::F010023A:: | Inlet Fan Module | X1 | PW | DF10030 | AF10010 | X1,X2,X4,X5,X6,X7,X8,X9 |
| ::F010024A:: | Inlet Fan Module | X2 | PW | DF10030 | AF10010 | X1,X2,X4,X5,X6,X7,X8,X9 |
| ::F010025A:: | Inlet Fan Module | YF | PW | DF10030 | AF10010 | YF,YA,YJ,YE,YD,YC |
| ::F010034A:: | Inlet Fan Module | Y1 | PW | DF10030 | AF10010 | X1,X2,X4,X5,X6,X7,X8,X9,YF,YA |
| ::F010034AA:: | Inlet Fan Module | Y2 | PW | DF10030 | AF10010 | X1,X2,X4,X5,X6,X7,X8,X9,YF,YA |
| ::F010026A:: | Inlet Fan Module | YG | PW | DF10030 | AF10010 | YG,YH |
| ::F010023B:: | Core Module | X1 | PW | DF10040 | AF10010 | X1,X4 |
| ::F010024B:: | Core Module | X2 | PW | DF10040 | AF10010 | X2,X7 |
| ::F010034B:: | Core Module | X5 | PW | DF10040 | AF10010 | X5,X6,X8,X9 |
| ::F010025B:: | Core Module | YF | PW | DF10040 | AF10010 | YF,YA,YJ,YE,YD,YC |
| ::F010026B:: | Core Module | YG | PW | DF10040 | AF10010 | YG,YH |
| ::F010023H:: | High Pressure Turbine Module | X1 | PW | DF10050 | DF10040 | X1,X2 |
| ::F010024H:: | High Pressure Turbine Module | X2 | PW | DF10050 | DF10040 | X1,X2 |
| ::F010025H:: | High Pressure Turbine Module | YF | PW | DF10050 | DF10040 | YA,YC,YD,YE,YF,YJ,X5,X6,X8,X9 |

Table 9-16. CII Table - Engine Applicability - Continued

| <u>TMSM FORMAT (NON-CAMS)</u> | <u>NOUN</u> | <u>ENG ID</u> | <u>MFG CODE</u> | <u>CII</u> | <u>NHA CII</u> | <u>ENGINE APPLICABILITY</u> |
|---------------------------------------|------------------------------|-------------------|---------------------|------------|----------------|--|
| ::F010026H:: | High Pressure Turbine Module | YG | PW | DF10050 | DF10040 | YG, YH |
| ::F010023C:: | Fan Drive Turbine Module | X1 | PW | DF10060 | AF10010 | X1, X2, X4, X5, X6, X7, X8, X9 |
| ::F010024C:: | Fan Drive Turbine Module | X2 | PW | DF10060 | AF10010 | X1, X2, X4, X5, X6, X7, X8, X9 |
| ::F010025C:: | Fan Drive Turbine Module | YF | PW | DF10060 | AF10010 | YF, YA, YJ, YE, YD, YC |
| ::F010034C:: | Fan Drive Turbine Module | Y1 | PW | DF10060 | AF10010 | X1, X2, X4, X5, X6, X7, X8, X9, YF, YA |
| ::F010034CA: | Fan Drive Turbine Module | Y2 | PW | DF10060 | AF10010 | X1, X2, X4, X5, X6, X7, X8, X9, YF, YA |
| ::F010026C:: | Fan Drive Turbine Module | YG | PW | DF10060 | AF10010 | YG, YH |
| ::F010023F:: | Augmentor Module | X1 | PW | DF10070 | AF10010 | X1, X4, X5, X6 |
| ::F010024F:: | Augmentor Module | X2 | PW | DF10070 | AF10010 | X2, X7, X8, X9 |
| ::F010025F:: | Augmentor Module | YF | PW | DF10070 | AF10010 | YF, YA, YJ, YE, YD, YC |
| ::F010026F:: | Augmentor Module | YG | PW | DF10070 | AF10010 | YG, YH |
| ::F010023G:: | Gearbox Module | X1 | PW | DF10080 | AF10010 | X1, X5 |
| ::F010024G:: | Gearbox Module | X2 | PW | DF10080 | AF10010 | X2, X8 |
| ::F010023GA: | Gearbox Module | X4 | PW | DF10080 | AF10010 | X4, X6 |
| ::F010024GA: | Gearbox Module | X7 | PW | DF10080 | AF10010 | X7, X9 |
| ::F010025G:: | Gearbox Module | YF | PW | DF10080 | AF10010 | YF, YA, YJ, YD, YC, YE, X1, X2, X4, X5, X6, X7, X8, X9 |
| ::F010026G:: | Gearbox Module | YG | PW | DF10080 | AF10010 | YG, YH |

Table 9-17. CII Table - Status Engines

| ENGINE ID | WUC | CI | ENGINE ID | WUC | CI |
|-----------|-------|---------|-----------|-------|---------|
| HL | 99999 | AF10310 | BZ | 99999 | AJ07910 |
| HK | 99999 | AF10710 | CA | 99999 | AJ07910 |
| XS | 99999 | AF10910 | KM | 99999 | AJ07910 |
| HQ | 99999 | AF11210 | KQ | 99999 | AJ07910 |
| PK | 99999 | AF11710 | KS | 99999 | AJ07910 |
| AB | 99999 | AJ03310 | BT | 99999 | A200010 |
| AF | 99999 | AJ04710 | *ZU | 99999 | AT00610 |
| AR | 99999 | AJ05710 | *ZV | 99999 | AT00610 |
| HW | 99999 | AJ05710 | *ZW | 99999 | AT00610 |
| HZ | 99999 | AJ05710 | CT | 99999 | AT05310 |
| JC | 99999 | AJ05710 | ML | 99999 | AT05310 |
| AS | 99999 | AJ06010 | CX | 99999 | AT05810 |
| AT | 99999 | AJ06010 | FC | 99999 | AT05810 |
| JD | 99999 | AJ06010 | FE | 99999 | AT05810 |
| JF | 99999 | AJ06010 | GF | 99999 | AT06410 |
| JM | 99999 | AJ06510 | GG | 99999 | AT06410 |
| AX | 99999 | AJ06910 | NL | 99999 | AT06410 |
| JX | 99999 | AJ06910 | HD | 99999 | AT40010 |
| JY | 99999 | AJ06910 | GT | 99999 | AT70010 |
| BB | 99999 | AJ07510 | HE | 99999 | AT70010 |
| BC | 99999 | AJ07510 | PF | 99999 | AJT3D10 |
| JZ | 99999 | AJ07510 | CM | 99999 | ATF3910 |
| BG | 99999 | AJ07810 | PC | 99999 | ATF3910 |
| BH | 99999 | AJ07910 | PB | 99999 | ATF3910 |

*CLS ENGINES

Table 9-18. Distinctions Between Each Type of F100 Engine

| TMSM | ENG ID | NOUN | PART NUMBER |
|-----------|--------|---|-------------|
| F0100100 | X1 | -100 Engine | 4045100 |
| F0100100A | X4 | -100 Engine plus Gear Fuel Pump | 4074100 |
| F0100100B | X5 | -100 Engine plus 4000-Cycle Core | 4069100 |
| F0100100C | X6 | -100 Engine plus 4000-Cycle Core and Gear Fuel Pump | 4074200 |
| F0100200 | X2 | -200 Engine | 4061200 |
| F0100200A | X7 | -200 Engine plus Gear Fuel Pump | 4065200 |
| F0100200B | X8 | -200 Engine plus 4000-Cycle Core | 4073500 |
| F0100200C | X9 | -200 Engine plus 4000-Cycle Core and Gear Fuel Pump | 4070200 |
| F0100220A | YF | -220 Engine -F15 Application | 4067220 |
| F0100220B | YA | -220 Engine -F16 Application | 4068220 |
| F0100220C | YJ | -220 Engine -F15 Application | 4074220 |
| F0100220D | YC | -220 Engine -F15E Application | 4078400 |
| F0100220E | YD | -220 Engine -F15 Application | 4075200 |
| F0100220F | YE | -220 Engine -F16 Application | 4075300 |
| F0100229A | YG | -229 Engine -F15 Application | 4068700 |
| F0100229B | YH | -229 Engine -F16 Application | 4068800 |

Table 9-19. Configured CII for TF30 Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS LIMITS WITH (TLCC) |
|--------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| TF30 Engine (All TMSM) | 2 | 2 | 23000 | ATF3010 | | FHR | FHRH |
| 1st Stage T Disk | 1 | 3 | 23ECH | LTF3011 | ATF3010 | FHR | FHRN |
| 2nd Stage T Disk | 1 | 3 | 23EDB | LTF3012 | ATF3010 | FHR | FHRN |
| 3rd Stage T Disk | 1 | 3 | 23EDF | LTF3013 | ATF3010 | FHR | FHRN |
| 4th Stage T Disk | 1 | 3 | 23EDH | LTF3014 | ATF3010 | FHR | FHRN |
| AB Fuel Pump | 1 | 3 | 23SCO | LTF3015 | ATF3010 | FHR | FHRH |
| AB HYD Pump | 1 | 3 | 23SEO | LTF3016 | ATF3010 | FHR | FHRH |
| Main Fuel Control | 1 | 3 | 23RAA | FTF3017 | ATF3010 | FHR | NO LIMIT |
| AB Fuel Control | 1 | 3 | 23SAA | LTF3018 | ATF3010 | FHR | NO LIMIT |
| Afterburner | 1 | 3 | 23JAO | LTF3019 | ATF3010 | FHR | NO LIMIT |
| N1 Front Low Speed Compressor | 1 | 3 | 23BBO | HTF3020 | ATF3010 | FHR | NO LIMIT |
| 1st Stage Disk | 1 | 4 | 23BBA | PTF3021 | HTF3020 | FHR | FHRN |
| 2nd Stage Disk | 1 | 4 | 23BBG | PTF3022 | HTF3020 | FHR | FHRN |
| 3rd Stage Disk | 1 | 4 | 23BBL | PTF3023 | HTF3020 | FHR | FHRN |
| 4th Stage Disk | 1 | 4 | 23BBN | PTF3024 | HTF3020 | FHR | FHRN |
| 5th Stage Disk | 1 | 4 | 23BBP | PTF3025 | HTF3020 | FHR | FHRN |
| 6th Stage Disk | 1 | 4 | 23BBQ | PTF3026 | HTF3020 | FHR | FHRN |
| 7th Stage Disk | 1 | 4 | 23BBR | PTF3027 | HTF3020 | FHR | FHRN |
| 8th Stage Disk | 1 | 4 | 23BBS | PTF3028 | HTF3020 | FHR | FHRN |
| 9th Stage Disk | 1 | 4 | 23BBT | PTF3029 | HTF3020 | FHR | FHRN |
| N2, Rear High Speed Compressor | 1 | 3 | 23BHO | HTF3030 | ATF3010 | FHR | NO LIMIT |
| 10th Stage Disk | 1 | 4 | 23BHA | PTF3031 | HTF3030 | FHR | FHRN |
| 11th Stage Disk | 1 | 4 | 23BHB | PTF3032 | HTF3030 | FHR | FHRN |
| 12th Stage Disk | 1 | 4 | 23BHC | PTF3033 | HTF3030 | FHR | FHRN |
| 13th Stage Disk | 1 | 4 | 23BHD | PTF3034 | HTF3030 | FHR | FHRN |
| 14th Stage Disk | 1 | 4 | 23BHE | PTF3035 | HTF3030 | FHR | FHRN |
| 15th Stage Disk | 1 | 4 | 23BHF | PTF3036 | HTF3030 | FHR | FHRN |
| 16th Stage Disk | 1 | 4 | 23BHG | PTF3037 | HTF3030 | FHR | FHRN |

TF30 EDITS

| TRANSACTION | FLYING TIME |
|---|----------------------------|
| Initializations, Removals, Installations | Plus or minus 10 hrs |
| "6 U" Update Normal Limit Extended Flight | 10 hrs 25 |

Table 9-20. Configured CII for Navy TF30 Engine

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| TF30 Navy Engine | | 2 | BM100 | ANA3010 | | FHR | NONE |
| Pressure Ratio | 1 | 2 | BB200 | LNA3011 | ANA3010 | FHR | FHRH |
| BL Cntrl | | | | | | | |
| Main Gearbox ASM | 1 | 3 | B5200 | LNA3012 | ANA3010 | FHA | FHRH |
| Main Fuel Pump | 1 | 3 | B6100 | LNA3013 | ANA3010 | FHR | FHRH |
| Main Fuel Control | 1 | 3 | B6200 | LNA3014 | ANA3010 | FHR | FHRH |
| Afterburner Fuel Pump | 1 | 3 | B7100 | LNA3015 | ANA3010 | FHR | FHRH |
| Afterburner Fuel Control | 1 | 3 | B7200 | LNA3016 | ANA3010 | FHR | FHRH |
| A/B Hydraulic Pump | 1 | 3 | B7700 | LNA3017 | ANA3010 | FHR | FHRH |
| Module 1 | 1 | 3 | BM100 | HNA30A0 | ANA3010 | FHR | FHRN |
| N1 Low CMP Rotor ASM | 1 | 4 | B1A00 | HNA30B0 | HNA30A0 | FHR | FHRH |
| 1ST Stage Disc | 1 | 5 | B1A10 | PNA30BA | HNA30B0 | FHR | FHRN |
| 1-2 Stage Airseal | 1 | 5 | B1230 | PNA30BC | HAN30B0 | FHR | FHRN |
| 1-2 Stage Spacer | 1 | 5 | B1A12 | PNA30BD | HNA30B0 | FHR | FHRN |
| 2nd Stage Disc | 1 | 5 | B1A20 | PNA30BE | HNA30B0 | FHR | FHRN |
| 2-3 Stage Airseal | 1 | 5 | B1330 | PNA30BG | HNA30B0 | FHR | FHRN |
| 2-3 Stage Spacer | 1 | 5 | B1A22 | PNA30BH | HNA30B0 | FHR | FHRN |
| 3rd Stage Disc | 1 | 5 | B1A30 | PNA30BJ | HNA30B0 | FHR | FHRN |
| 3-4 Stage Airseal | 1 | 5 | B1423 | PNA30BL | HNA30B0 | FHR | FHRN |
| 3-4 Stage Spacer | 1 | 5 | B1A32 | PNA30BM | HNA30B0 | FHR | FHRN |
| 4th Stage Disc | 1 | 5 | B1A40 | PNA30BN | HNA30B0 | FHR | FHRN |
| 4-5 Stage Spacer/Airseal | 1 | 5 | B1A42 | PNA30BP | HNA30B0 | FHR | FHRN |
| 5th Stage Disc | 1 | 5 | B1A50 | PNA30BR | HNA30B0 | FHR | FHRN |
| 5th Stage Stator | 1 | 5 | B1760 | PNA30B1 | HNA30B0 | FHR | FHRH |
| 6th Stage Disc | 1 | 5 | B1A60 | PNA30B2 | HNA30B0 | FHR | FHRN |
| 6th Stage Stator | 1 | 5 | B1770 | PNA30B3 | HNA30B0 | FHR | FHRH |
| 7th Stage Disc | 1 | 5 | B1A70 | PNA30B4 | HNA30B0 | FHR | FHRN |
| 7-8 Stage Spacer | 1 | 5 | B1A72 | PNA30B5 | HNA30B0 | FHR | FHRN |
| 7th Stage Stator | 1 | 5 | B1780 | PNA30B6 | HAN30B0 | FHR | FHRH |
| 8th Stage Disc | 1 | 5 | B1A80 | PNA30B7 | HNA30B0 | FHR | FHRN |
| 8th Stage Stator | 1 | 5 | B1939 | PNA30B8 | HNA30B0 | FHR | FHRH |
| 9th Stage Disc | 1 | 5 | B1A90 | PNA30B9 | HNA30B0 | FHR | FHRN |
| Module 2 | 1 | 3 | BM200 | HNA30D0 | ANA3010 | FHR | FHRN |
| N2 High CMP Rotor AS | 1 | 4 | B1B00 | HNA30E0 | HNA30D0 | FHR | FHRH |
| Tie Rod Heat Shield | 1 | 5 | B1B14 | PNA30EA | HNA30E0 | FHR | FHRN |
| 10th Blade Ret Plate/Airseal | 1 | 5 | B1B13 | PNA30EB | HNA30E0 | FHR | FHRN |
| 10th Stage Disc | 1 | 5 | B1B10 | PNA30EC | HNA30E0 | FHR | FHRN |
| 10th Stage Stator | 1 | 5 | B17A0 | PNA30ED | HNA30E0 | FHR | FHRH |
| 10th Stage Spacer Airseal | 1 | 5 | B1B12 | PNA30EE | HNA30E0 | FHR | FHRN |
| 11th Stage Disc | 1 | 5 | B1B30 | PNA30EH | HNA30E0 | FHR | FHRN |
| 11th Stage Spacer Airseal | 1 | 5 | B1B32 | PNA30EK | HNA30E0 | FHR | FHRN |
| 12th Stage Disc | 1 | 5 | B1B40 | PNA30EL | HNA30E0 | FHR | FHRN |
| 12th Stage Spacer Airseal | 1 | 5 | B1B42 | PNA30EN | HNA30E0 | FHR | FHRN |
| 13th Stage Disc | 1 | 5 | B1B50 | PNA30EP | HNA30E0 | FHR | FHRN |
| 13th Stage Spacer Airseal | 1 | 5 | B1B52 | PNA30E2 | HNA30E0 | FHR | FHRN |
| 14th Stage Disc | 1 | 5 | B1B60 | PNA30E3 | HNA30E0 | FHR | FHRN |
| 14th Stage Spacer Airseal | 1 | 5 | B1B62 | PNA30E5 | HNA30E0 | FHR | FHRN |
| 15th Stage Disc | 1 | 5 | B1B70 | PNA30E6 | HNA30E0 | FHR | FHRN |
| 15th Stage Stator | 1 | 5 | B17F0 | PNA30E7 | HNA30E0 | FHR | FHRH |
| 15th Stage Spacer Airseal | 1 | 5 | B1B72 | PNA30E8 | HNA30E0 | FHR | FHRN |
| 16th Stage Disc | 1 | 5 | B1B80 | PNA30E9 | HNA30E0 | FHR | FHRN |

Table 9-20. Configured CII for Navy TF30 Engine - Continued

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| N2 High Turb Rotor ASM | 1 | 4 | B3300 | HNA30F0 | HNA30D0 | FHR | FHRH |
| High Turbine Drive Shaft | 1 | 5 | B3310 | PNA30F1 | HNA30F0 | FHR | FHRN |
| 1st Stage Turbine Disc | 1 | 5 | B3320 | PNA30F2 | HNA30F0 | FHR | FHRN |
| No 5 Bearing Airseal | 1 | 5 | B3311 | PNA30F4 | HNA30F0 | FHR | FHRN |
| Compressor Case ASM | 1 | 4 | B1700 | HNA3020 | HNA30D0 | FHR | FHRH |
| Compressor Case | 1 | 5 | B17G0 | PNA3021 | HNA3020 | FHR | FHRH |
| No 2 Bearing Housing | 1 | 5 | B1720 | PNA3022 | HNA3020 | FHR | FHRH |
| No 2 Bearing Seal | 1 | 5 | B1721 | PNA3023 | HNA3020 | FHR | FHRH |
| No 3 Bearing Housing | 1 | 5 | B1730 | PNA3025 | HNA3020 | FHR | FHRH |
| No 3 Bearing Seal | 1 | 5 | B1731 | PNA3026 | HNA3020 | FHR | FHRH |
| Diffuser Case/ Stator ASM | 1 | 4 | B1800 | HNA3030 | HNA30D0 | FHR | FHRH |
| Diffuser Case | 1 | 5 | B1870 | PNA3031 | HNA3030 | FHR | FHRH |
| 16th Stage Stator | 1 | 5 | B1820 | PNA3032 | HNA3030 | FHR | FHRH |
| 4/5 Scavenge Pump | 1 | 5 | B8400 | PNA3033 | HNA3030 | FHR | FHRH |
| No 4 Bearing Housing | 1 | 5 | B1830 | PNA3034 | HNA3030 | FHR | FHRH |
| No 4 Bearing Seal | 1 | 5 | B1831 | PNA3035 | HNA3030 | FHR | FHRH |
| Tower Shaft Assy | 1 | 5 | B1860 | PNA3037 | HNA3030 | FHR | FHRH |
| Comb Cham Outer Case | 1 | 4 | B2200 | HNA3040 | HNA30D0 | FHR | FHRH |
| Module 3 | 1 | 3 | BM300 | HNA3050 | ANA3010 | FHR | FHRN |
| N1 Low Turb Rotor ASM | 1 | 4 | B3400 | HNA3060 | HNA3050 | FHR | FHRH |
| Low Turbine Drive Shaft | 1 | 5 | B3410 | PNA3061 | HNA3060 | FHR | FHRN |
| 2nd Stage Turbine Disc | 1 | 5 | B3420 | PNA3062 | HNA3060 | FHR | FHRN |
| 2-3 Stage Turb Airseal | 1 | 5 | B3430 | PNA3063 | HNA3060 | FHR | FHRN |
| 3rd Stage Turbine Disc | 1 | 5 | B3450 | PNA3064 | HNA3060 | FHR | FHRN |
| 3-4 Stage Turb Airseal | 1 | 5 | B3460 | PNA3065 | HNA3060 | FHR | FHRN |
| 4th Stage Turbine Disc | 1 | 5 | B3470 | PNA3066 | HNA3060 | FHR | FHRN |
| Frnt Comp Drive Turb Hub | 1 | 5 | B3414 | PNA3067 | HNA3060 | FHR | FHRN |
| Stg 1 Turb Stator Assy | 1 | 4 | B3160 | HNA3090 | HNA3050 | FHR | FHRH |

Table 9-21. Configured CII for TF33 Engine

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-----------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| TF33 Engine (All TMSM) | 8 | 2 | 23000 | ATF3310 | | FHR, SOR | NONE |
| T Disk, 1st Stage | 1 | 3 | 23ECB | LTF3311 | ATF3310 | FHR, SOR | SORN |
| T Disk, 2nd Stage | 1 | 3 | 23EDB | LTF3312 | ATF3310 | FHR, SOR | SORN |
| T Disk, 3rd Stage | 1 | 3 | 23EDD | LTF3313 | ATF3310 | FHR, SOR | SORN |
| T Disk, 4th Stage | 1 | 3 | 23EDF | LTF3314 | ATF3310 | FHR, SOR | SORN |
| N1 Front Low Speed Compressor | 1 | 3 | 23BAL | HTF3320 | ATF3310 | FHR, SOR | NO LIMIT |
| Disk, 1st Stage | 1 | 4 | 23BAM | PTF3321 | HTF3320 | FHR, SOR | SORN |
| Disk, 2nd Stage | 1 | 4 | 23BAN | PTF3322 | HTF3320 | FHR, SOR | SORN |
| *Disk, 3rd Stage | 1 | 4 | 23BAP | PTF3323 | HTF3320 | FHR, SOR | SORN |
| Disk, 4th Stage | 1 | 4 | 23BAQ | PTF3324 | HTF3320 | FHR, SOR | SORN |
| Disk, 5th Stage | 1 | 4 | 23BAR | PTF3325 | HTF3320 | FHR, SOR | SORN |
| Disk, 6th Stage | 1 | 4 | 23BAS | PTF3326 | HTF3320 | FHR, SOR | SORN |
| Disk, 7th Stage | 1 | 4 | 23BAT | PTF3327 | HTF3320 | FHR, SOR | SORN |
| Disk, 8th Stage | 1 | 4 | 23BAU | PTF3328 | HTF3320 | FHR, SOR | SORN |
| Disk, 9th Stage | 1 | 4 | 23BAV | PTF3329 | HTF3320 | FHR, SOR | SORN |
| N2, Rear High Speed Compressor | 1 | 3 | 23BCA | HTF3330 | ATF3310 | FHR, SOR | NO LIMIT |
| Disk, 10th Stage | 1 | 4 | 23BCL | PTF3331 | HTF3330 | FHR, SOR | SORN |
| Disk, 11th Stage | 1 | 4 | 23BCM | PTF3332 | HTF3330 | FHR, SOR | SORN |
| Disk, 12th Stage | 1 | 4 | 23BCN | PTF3333 | HTF3330 | FHR, SOR | SORN |
| Disk, 13th Stage | 1 | 4 | 23BCP | PTF3334 | HTF3330 | FHR, SOR | SORN |
| Disk, 14th Stage | 1 | 4 | 23BCQ | PTF3335 | HTF3330 | FHR, SOR | SORN |
| Disk, 15th Stage | 1 | 4 | 23BCR | PTF3336 | HTF3330 | FHR, SOR | SORN |
| Disk, 16th Stage | 1 | 4 | 23BCS | PTF3337 | HTF3330 | FHR, SOR | SORN |
| **Gearbox Assy | 1 | 3 | 23CAO | HTF3340 | ATF3310 | FHR, SOR | FHRH |

* Only -7(CK), -7A(LN), -100A(VV) engines track the 3rd stage disk (PTF3323).

* *Only -100A(VV) engines track the gearbox assy (HTF3340).

TF33 EDITS

| TRANSACTION | FLYING TIME | SORTIES |
|--|----------------------------|----------------------------|
| Initializations, Removals, Installations | Plus or minus 10 hrs | Plus or minus 10 sor |
| "6U" Update Normal Limit Extended Flight | 30 hrs 100 hrs | 30 sor 100 sor |

Table 9-22. Configured CII for TF34 Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--------------------------|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| TF34-GE-100/A Engine | 2 | 2 | 23C00 | ATF3410 | | EOT, EV5, EV7, TT8, T78, FHR | NONE |
| Bearing, Ball NR 1 | 1 | 3 | 23CAJ | LTF3411 | ATF3410 | EOT | EOTN |
| Bearing, Roller NR2 | 1 | 3 | 23CAK | LTF3412 | ATF3410 | EOT | EOTN |
| Bearing, Ball NR3 | 1 | 3 | 23CK2 | LTF3413 | ATF3410 | EOT | EOTN |
| Bearing, Roller NR4 | 1 | 3 | 23CLY | LTF3414 | ATF3410 | EOT | EOTN |
| Bearing, Roller NR5 | 1 | 3 | 23CLT | LTF3415 | ATF3410 | EOT | EOTN |
| Bearing, Roller NR6 | 1 | 3 | 23CSN | LTF3416 | ATF3410 | EOT | EOTN |
| Bearing, Roller NR7 | 1 | 3 | 23CSG | LTF3417 | ATF3410 | EOT | EOTN |
| Shaft, Fan Drive | 1 | 3 | 23CAH | LTF3418 | ATF3410 | EV5, EV7 | CCYN |
| Main Fuel Control | 1 | 2 | 23DCA | LTF3419 | ATF3410 | EOT | EOTH |
| Frame, Combustion | 1 | 3 | 23CL3 | LTF341A | ATF3410 | EV5, EV7 | CCYN |
| Shaft, Fan Front | 1 | 3 | 23CAE | LTF341B | ATF3410 | EV5, EV7 | CCYN |
| Accessory Gearbox | 1 | 2 | 23CDO | LTF341C | ATF3410 | EOT | EOTH |
| ETTR | 1 | 3 | 55CAO | LTF341E | ATF3410 | EOT | NONE |
| Drive Assy, PTO | 1 | 3 | 23CE0 | HTF3420 | ATF3410 | EOT | NONE |
| Bearing, Duplex, PTO | 1 | 4 | 23CEF | PTF3421 | HTF3420 | EOT | EOTN |
| Compressor Stator | 1 | 2 | 23CJO | HTF3430 | ATF3410 | EOT | EOTH |
| Compressor Rotor Assy | 1 | 3 | 23CK0 | HTF3440 | ATF3410 | EOT, EV5, EV7 | NONE |
| Shaft, Comp Fwr | 1 | 4 | 23CKT | PTF3441 | HTF3440 | EV5, EV7 | CCYN |
| Disc, Stg 1 Comp | 1 | 4 | 23CKS | PTF3442 | HTF3440 | EV5, EV7 | CCYN |
| Disc, Stg 2 Comp | 1 | 4 | 23CKU | PTF3443 | HTF3440 | EV5, EV7 | CCYN |
| Spool, Stg 3-8 Comp | 1 | 4 | 23CKV | PTF3444 | HTF3440 | EV5, EV7 | CCYN |
| Disc, Stg 9 Comp | 1 | 4 | 23CKW | PTF3445 | HTF3440 | EV5, EV7 | CCYN |
| Spool, Stg 10.14 Comp | 1 | 4 | 23CKX | PTF3446 | HTF3440 | EV5, EV7 | CCYN |
| Shaft, Comp Rear | 1 | 4 | 23CKY | PTF3447 | HTF3440 | EV5, EV7 | CCYN |
| Seal, Comp | 1 | 4 | 23CKZ | PTF3448 | HTF3440 | EV5, EV7 | CCYN |
| Discharge | | | | | | | |
| HPT Rotor Assy | 1 | 3 | 23CM0 | HTF3450 | ATF3410 | EOT, EV5, EV7, TT8, T78 | NONE |
| Shaft, HPT Rotor | 1 | 4 | 23CMC | PTF3451 | HTF3450 | EV5, EV7 | CCYN |
| Seal, Rotating Air, HPT | 1 | 4 | 23CMB | PTF3452 | HTF3450 | EV5, EV7 | CCYN |
| Plate, Stg 1 Fwd Cooling | 1 | 4 | 23CMD | PTF3453 | HTF3450 | EV5, EV7 | CCYN |
| Disc, Stg 1 HPT | 1 | 4 | 23CME | PTF3454 | HTF3450 | EV5, EV7, TT8, T78 | CCYN |
| Blade, Set, Stg 1 HPT | 1 | 5 | 23CMF | STF3455 | PTF3454 | EV5, TT8, T78, EV7 | CCYN, T78N, TT8N |
| Plate, Stg 1 Aft Cooling | 1 | 4 | 23CMG | PTF3456 | HTF3450 | EV5, EV7 | CCYN |
| Coupling, Torque-Inner | 1 | 4 | 23CMU | PTF3459 | HTF3450 | EV5, EV7 | CCYN |
| Coupling, Torque-Outer | 1 | 4 | 23CMV | PTF345A | HTF3450 | EV5, EV7 | CCYN |
| Plate, Stg 2 Fwd Cooling | 1 | 4 | 23CMJ | PTF345B | HTF3450 | EV5, EV7 | CCYN |
| Disc, Stg 2 HPT | 1 | 4 | 23CMK | PTF345C | HTF3450 | EV5, EV7, TT8 | CCYN |
| Blade Set, Stg 2 HPT | 1 | 5 | 23CML | STF345D | PTF345C | TT8 | TT8N |
| Plate, Stg 2 Aft Cooling | 1 | 4 | 23CMM | PTF345F | HTF3450 | EV5, EV7 | CCYN |
| LPT Rotor Assy | 1 | 3 | 23CR0 | HTF3460 | ATF3410 | EOT, EV5, EV7 | NONE |
| Shaft, LPT | 1 | 4 | 23CRP | PTF3461 | HTF3460 | EV5, EV7 | CCYN |
| Disc, Stg 3 LPT | 1 | 4 | 23CRA | PTF3462 | HTF3460 | EV5, EV7 | CCYN |

Table 9-22. Configured CII for TF34 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Seal, Stg 4 LPT | 1 | 4 | 23CRE | PTF3463 | HTF3460 | EV5, EV7 | CCYN |
| Disc, Stg 4 LPT | 1 | 4 | 23CRC | PTF3464 | HTF3460 | EV5, EV7 | CCYN |
| Seal, Stg 5 LPT | 1 | 4 | 23CRH | PTF3465 | HTF3460 | EV5, EV7 | CCYN |
| Cone, Turbine Drive | 1 | 4 | 23CRM | PTF3466 | HTF3460 | EV5, EV7 | CCYN |
| Disc, Stg 5 LPT | 1 | 4 | 23CRF | PTF3467 | HTF3460 | EV5, EV7 | CCYN |
| Seal, Stg 6 LPT | 1 | 4 | 23CRL | PTF3468 | HTF3460 | EV5, EV7 | CCYN |
| Disc, Stg 6 LPT | 1 | 4 | 23CRJ | PTF3469 | HTF3460 | EV5, EV7 | CCYN |
| Disc, Fan | 1 | 3 | 23CAD | HTF3470 | ATF3410 | EV5, EV7 | CCYN |
| Blade, Fan | 28 | 4 | 23CAC | PTF3471 | HTF3470 | EV5, EV7 | CCYN |

TF34 EDITS

| TRANSACTION | ENG HRS | HRS 790 | HRS 810 | EVENTS 790 | EVENTS 550 |
|--|----------------------|----------------------|----------------------|--------------------------|-------------------------|
| Initializations, Removals, Installations | Plus or minus 10 hrs | Plus or minus 10 hrs | Plus or minus 10 hrs | Plus or minus 100 events | Plus or minus 10 events |
| “6U” Normal Limit Extended Flight DELTA HRS 790 Cannot Exceed Delta EOT DELTA HRS 810 Cannot Exceed Delta EOT DELTA HRS 810 Cannot Exceed Delta HRS 790 | 10 hrs 50 | NONE | NONE | 100 events 200 | 25 events 36 |

Table 9-23. Configured CII for TF56 Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|----------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| * T56 Engine | 4 | 2 | 22ZAB | AT05610 | A/C | FHR | NONE |
| * Propeller Assy, Build-Up | 1 | 3 | 32511 | HT05630 | AT05610 | FHR | FHRH |
| * Propeller Blade | 4 | 4 | 3251D | PT05631 | HT05630 | FHR | FHRH |
| * Compressor module | 1 | 3 | 22200 | DT05640 | AT05610 | FHR | FHRH |
| Rotor Assy, Compressor | 1 | 4 | 22230 | HT05670 | DT05640 | FHR | FHRN |
| Wheel Assy, 1st Stg, Comp | 1 | 5 | 2223A | PT0567A | HT05670 | FHR | FHRN |
| Wheel Assy, 2nd Stg, Comp | 1 | 5 | 2223B | PT0567B | HT05670 | FHR | FHRN |
| Wheel Assy, 3rd Stg, Comp | 1 | 5 | 2223C | PT0567C | HT05670 | FHR | FHRN |
| Wheel Assy, 4th Stg, Comp | 1 | 5 | 2223D | PT0567D | HT05670 | FHR | FHRN |
| Wheel Assy, 5th Stg, Comp | 1 | 5 | 2223E | PT0567E | HT05670 | FHR | FHRN |
| Wheel Assy, 6th Stg, Comp | 1 | 5 | 2223F | PT0567F | HT05670 | FHR | FHRN |
| Wheel Assy, 7th Stg, Comp | 1 | 5 | 2223G | PT0567G | HT05670 | FHR | FHRN |
| Wheel Assy, 8th Stg, Comp | 1 | 5 | 2223H | PT0567H | HT05670 | FHR | FHRN |
| Wheel Assy, 9th Stg, Comp | 1 | 5 | 2223J | PT0567J | HT05670 | FHR | FHRN |
| Wheel Assy, 10th Stg, Comp | 1 | 5 | 2223K | PT0567K | HT05670 | FHR | FHRN |
| Wheel Assy, 11th Stg, Comp | 1 | 5 | 2223L | PT0567L | HT05670 | FHR | FHRN |
| Wheel Assy, 12th Stg, Comp | 1 | 5 | 2223M | PT0567M | HT05670 | FHR | FHRN |
| Wheel Assy, 13th Stg, Comp | 1 | 5 | 2223N | PT0567N | HT05670 | FHR | FHRN |
| Wheel Assy, 14th Stg, Comp | 1 | 5 | 2223P | PT0567P | HT05670 | FHR | FHRN |
| * Turbine Module | 1 | 3 | 22400 | DT05650 | AT05610 | FHR | FHRN |
| * Rotor Assy, Turbine | 1 | 4 | 22440 | HT05660 | DT05650 | FHR | FHRH |
| Wheel Assy, 1st Stg, Turb | 1 | 5 | 2244A | PT0566A | HT05660 | FHR | FHRN |
| Wheel Assy, 2nd Stg, Turb | 1 | 5 | 2244B | PT0566B | HT05660 | FHR | FHRN |
| Wheel Assy, 3rd Stg, Turb | 1 | 5 | 2244C | PT0566C | HT05660 | FHR | FHRN |
| Wheel Assy, 4th Stg, Turb | 1 | 5 | 2244D | PT0566D | HT05660 | FHR | FHRN |
| Spacer Assy, 1-2 Stg, Turb | 1 | 5 | 2244E | PT0566E | HT05660 | FHR | FHRN |
| Spacer Assy, 2-3 Stg, Turb | 1 | 5 | 2244F | PT0566F | HT05660 | FHR | FHRN |
| Spacer Assy, 3-4 Stg, Turb | 1 | 5 | 2244G | PT0566G | HT05660 | FHR | FHRN |
| * Gearbox Module | 1 | 3 | 22600 | DT05680 | AT05610 | FHR | FHRH |
| Gear Ring | 1 | 4 | 2261B | PT0568A | DT05680 | FHR | FHRN |
| Gear Assy, Planet | 5 | 4 | 2262C | PT0568B | DT05680 | FHR | FHRN |
| Shaft Propeller | 1 | 4 | 22621 | PT0568C | DT05680 | FHR | FHRN |
| Bearing, Ball, Prop Shaft | 1 | 4 | 22623 | PT0568D | DT05680 | FHR | FHRN |
| Bearing, Roller, Prop Shaft | 1 | 4 | 22624 | PT0568E | DT05680 | FHR | FHRN |
| * Shaftgear Assy, Pinion | 1 | 4 | 2263A | PT0568F | DT05680 | FHR | FHRN |
| Bearing, Roller, Carrier Rear | 1 | 4 | 22631 | PT0568G | DT05680 | FHR | FHRN |
| Bearing, Roller Main Drive Gear | 1 | 4 | 22635 | PT0568H | DT05680 | FHR | FHRN |
| Diaphragm, Main | 1 | 4 | 22633 | PT0568J | DT05680 | FHR | FHRN |
| Gear Assy, Reduction, Main Drive | 1 | 4 | 22634 | PT0568K | DT05680 | FHR | FHRN |
| Gear, Sun | 1 | 4 | 22636 | PT0568L | DT05680 | FHR | FHRN |

* CAMS will load and track only these items.

T56 EDITS

| TRANSACTION | FLYING TIME |
|--|----------------------|
| Initialization, Removals, Installations | Plus or minus 10 FHR |
| “6U” Update Normal Limit Extended Flight | 10 FHR 25 FHR |

Table 9-24. Configured CII for J69-25A Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-----------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| J69-T25A Engine | 2 | 2 | 23000 | AJ06910 | T037B | FHR | NONE |
| Inner Combustion Shell | 1 | 3 | 23DAE | LJ06911 | AJ06910 | FHR | FHRN |
| Outer Combustion Shell | 1 | 3 | 23DAF | LJ06912 | AJ06910 | FHR | FHRN |
| Turbine Inlet Nozzle | 1 | 3 | 23EAA | LJ06913 | AJ06910 | FHR | FHRN |
| Fuel Distributor | 1 | 3 | 23EAK | LJ06914 | AJ06910 | FHR | FHRN |
| Rear Bearing | 1 | 3 | 23FAG | LJ06915 | AJ06910 | FHR | FHRN |
| Rear Bearing Support | 1 | 3 | 23FAQ | LJ06916 | AJ06910 | FHR | FHRN |
| Fuel Control | 1 | 3 | 23GAB | LJ06917 | AJ06910 | FHR | FHRN |
| Fuel Pump | 1 | 3 | 23GAC | LJ06918 | AJ06910 | FHR | FHRN |
| Starting Fuel Nozzle | 2 | 3 | 23GAE | LJ06919 | AJ06910 | FHR | FHRN |
| Compressor Housing | 1 | 3 | 23CAA | LJ0691A | AJ06910 | FHR | FHRN |
| Turbine Shaft | 1 | 3 | 23EAG | LJ0691B | AJ06910 | FHR | FHRN |
| Turbine Housing | 1 | 3 | 23DAA | LJ0691C | AJ06910 | FHR | FHRN |
| Oil Pump | 1 | 3 | 23HAB | LJ0691D | AJ06910 | FHR | FHRN |
| Compressor/Inducer Rotor Assembly | 1 | 3 | 23CAB | HJ06920 | AJ06910 | FHR | FHRN |
| Radial Compressor | 1 | 4 | 23CAC | PJ06921 | HJ06920 | FHR | FHRN |
| Compressor Inducer | 1 | 4 | 23CAD | PJ06922 | HJ06920 | FHR | FHRN |

J69-25A EDITS

| TRANSACTION | FLYING TIME |
|---|----------------------|
| Initializations, Removals, Installations | Plus or minus 10 FHR |
| “6U” Update Normal Update Extended Flight | 10 FHR 25 FHR |

Table 9-25. Configured CII for J0085005 (all series) and J0085017A Engines

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-------------------------|-----|-----------|-------|----------|-----------|-----------------------|-------------------------------------|
| J85-5/17A Engine | 2 | 2 | 23000 | AJ08510 | T38A/A37B | FHR, LCC | NONE |
| *A/B Control | 1 | 3 | 23EBA | LJ08511 | AJ08510 | FHR | FHRN |
| *Main Control | 1 | 3 | 23FAA | LJ08512 | AJ08510 | FHR | FHRN |
| *OSG | 1 | 3 | 23EAJ | LJ08513 | AJ08510 | FHR | FHRN |
| *A/B Pump | 1 | 3 | 23EBB | LJ08514 | AJ08510 | FHR | FHRN |
| *Main Pump | 1 | 3 | 23EAB | LJ08515 | AJ08510 | FHR | FHRN |
| *Lube Pump | 1 | 3 | 23EAA | LJ08516 | AJ08510 | FHR | FHRN |
| *T5 Motor | 1 | 3 | 23HAL | LJ08517 | AJ08510 | FHR | FHRN |
| *Bleed Valve | 2 | 3 | 23JAM | LJ08518 | AJ08510 | FHR | FHRN |
| *Exciter | 1 | 3 | 23HAA | LJ08519 | AJ08510 | FHR | FHRN |
| Rotor Compressor | 1 | 3 | 23BCS | HJ08540 | AJ08510 | FHR, LCC | FHRN, LCCN |
| Blades Stg 1 | 1 | 4 | 23BCT | PJ0854A | HJ08540 | FHR | FHRN |
| ***Disk Stg 1 | 1 | 4 | 23BC8 | PJ0854B | HJ08540 | LCC | LCCN |
| ***Disk Stg 2 | 1 | 4 | 23BCC | PJ0854C | HJ08540 | LCC | LCCN |
| Disk Stg 3 | 1 | 4 | 23BCD | PJ0854D | HJ08540 | LCC | LCCN |
| ***Disk Stg 4 | 1 | 4 | 23BCE | PJ0854E | HJ08540 | LCC | LCCN |
| ***Disk Stg 5 | 1 | 4 | 23BCF | PJ0854F | HJ08540 | LCC | LCCN |
| ***Disk Stg 6 | 1 | 4 | 23BCG | PJ0854G | HJ08540 | LCC | LCCN |
| ***Disk Stg 7 | 1 | 4 | 23BCH | PJ0854H | HJ08540 | LCC | LCCN |
| **Spool, Fwd Stg 1 & 2 | 1 | 4 | 23BCB | PJ0854J | HJ08540 | LCC | LCCN |
| **Spool, Rear Stg 4 & 8 | 1 | 4 | 23BCK | PJ0854K | HJ08540 | LCC | LCCN |
| ***Disk Stg 8 | 1 | 4 | 23BCJ | PJ0854I | HJ08540 | LCC | LCCN |
| ***Spacer Stg 2 | 1 | 4 | 23BCL | PJ0854L | HJ08540 | LCC | LCCN |
| ***Spacer Stg 3 | 1 | 4 | 23BCM | PJ0854M | HJ08540 | LCC | LCCN |
| ***Spacer Stg 4 | 1 | 4 | 23BCN | PJ0854N | HJ08540 | LCC | LCCN |
| ***Spacer Stg 5 | 1 | 4 | 23BCP | PJ0854O | HJ08540 | LCC | LCCN |
| ***Spacer Stg 6 | 1 | 4 | 23BCQ | PJ0854P | HJ08540 | LCC | LCCN |
| ***Spacer Stg 7 | 1 | 4 | 23BCR | PJ0854Q | HJ08540 | LCC | LCCN |
| Labyrinth Seal | 1 | 4 | 23BC5 | PJ0854S | HJ08540 | LCC | LCCN |
| Drive Shaft | 1 | 4 | 23BC2 | PJ0854R | HJ08540 | LCC | LCCN |
| Rotor Turbine | 1 | 3 | 23CBL | HJ08550 | AJ08510 | FHR, LCC | FHRN, LCCN |
| Wheel Stg 1 | 1 | 4 | 23CBD | PJ08551 | HJ08550 | LCC | LCCN |
| WHEEL Stg 2 | 1 | 4 | 23CBJ | PJ08552 | HJ08550 | LCC | LCCN |
| Torque Ring | 1 | 4 | 23CBF | PJ08553 | HJ08550 | LCC | LCCN |
| *AB Assembly | 1 | 3 | 23DB0 | HJ08560 | AJ08510 | FHR | FHRN |
| *VEN Actuator | 3 | 4 | 23DCG | PJ08561 | HJ08560 | FHR | FHRN |

*Part not tracked on J0085017A

**Part tracked on J0085005R only

***Part not tracked on J0085005R

Table 9-26. F0100100 Engine Configuration - X1 Engine

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---------------------------------------|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| F0100100 Engine | 1 | 2 | 23Z00 | AF10010 | | EOT, HS1, HS2, LCF, FHR, MAN | NONE |
| Duct - Fan, Outer, Front, Assy of | 1 | 3 | 23QCB | LF1001A | AF10010 | EOT | EOTN |
| Duct - Fan, Rear, Assy of | 1 | 3 | 23QCA | LF1001B | AF10010 | EOT | EOTN |
| Exciter - Ignition, Dual | 1 | 3 | 23KAD | LF1001C | AF10010 | EOT | EOTH |
| Exciter - Ignition, Single | 1 | 3 | 23KAE | LF1001D | AF10010 | EOT | EOTH |
| Pump - Fuel, Augmentor | 1 | 3 | 23HAE | LF1001E | AF10010 | EOT | EOTH |
| Pump - Fuel, Main | 1 | 3 | 23HAD | LF1001F | AF10010 | EOT | EOTH |
| Regulator, Air Press Exit Noz Cont | 1 | 3 | 23PAC | LF1001G | AF10010 | EOT | EOTH |
| Sensor - Hydromechanical, N2 | 1 | 3 | 23HAG | LF1001J | AF10010 | EOT | EOTH |
| Sensor - Temperature Fan Exit (TT2.5) | 1 | 3 | 23HAH | LF1001K | AF10010 | EOT | EOTH |
| Stator - Generator | 1 | 3 | 23KAH | LF1001L | AF10010 | EOT | EOTH |
| Valve, Anti-Icing, Engine Inlet | 1 | 3 | 23QA8 | LF1001M | AF10010 | EOT | EOTH |
| Events History Recorder | 1 | 3 | 23QA4 | LF1001R | AF10010 | EOT | EOTH |
| Control - Engine Electronic | 1 | 3 | 23HAB | LF10011 | AF10010 | EOT | EOTN |
| Control, Exhaust Nozzle Convergent | 1 | 3 | 23PAB | LF10012 | AF10010 | EOT | EOTH |
| Control, Unified, Turbine Engine | 1 | 3 | 23HAA | LF10014 | AF10010 | EOT | EOTH |
| Controller - Fuel Pump, Augmentor | 1 | 3 | 23HAF | LF10015 | AF10010 | EOT | EOTH |
| Cooler - Oil, Fuel | 1 | 3 | 23JAC | LF10017 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin, CPR, Bleed | 1 | 3 | 23QA7 | LF10018 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin Var VN, Rear CPR | 2 | 3 | 23QA6 | LF10019 | AF10010 | EOT | EOTH |
| Inlet Fan Module | 1 | 3 | 23A00 | DF10030 | AF10010 | FHR, LCF, MAN, EOT | CCYV |
| Seal, Air Compr, 2nd Stage | 1 | 4 | 23ADT | PF1003A | DF10030 | LCF, MAN | CCYN |
| Bearing, Main, No 1 Roller | 1 | 4 | 23AAE | PF1003B | DF10030 | EOT | EOTH |
| Contr & Cyl, Var Vane, Comp Inlet | 1 | 4 | 23AAP | PF10031 | DF10030 | EOT | EOTH |
| Cyl - Actg, Lin Var Vane, Comp Inlet | 1 | 4 | 23AAQ | PF10032 | DF10030 | EOT | EOTH |
| Disk & Hub, Compr, 1st Stage | 1 | 4 | 23ADB | PF10033 | DF10030 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 2nd Stage | 1 | 4 | 23ADG | PF10034 | DF10030 | LCF, MAN | CCYN |
| Disk, Compr, 3rd Stage | 1 | 4 | 23ADL | PF10035 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Compr Front, 1st Stage | 1 | 4 | 23ADE | PF10036 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Front, Compr Inlet | 1 | 4 | 23ADD | PF10037 | DF10030 | LCF, MAN | CCYN |
| Seal, Air Compr, Rear, 1st Stage | 1 | 4 | 23ADJ | PF10038 | DF10030 | LCF, MAN | CCYN |
| Retainer, Compr, Blade Lock | 1 | 4 | 23ADS | PF10039 | DF10030 | LCF, MAN | CCYN |
| Core Engine Module | 1 | 3 | 23B00 | DF10040 | AF10010 | FHR, LCF, MAN, EOT | CCYV |
| Spacer, Air, Compr, 13th Stage | 1 | 4 | 23BJ7 | PF1004A | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 4th Stage | 1 | 4 | 23BJA | PF1004B | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 5th Stage | 1 | 4 | 23BJE | PF1004C | DF10040 | LCF, MAN | CCYN |

Table 9-26. F0100100 Engine Configuration - X1 Engine - Continued

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--------------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Disk & Hub, Compr, 6th Stage | 1 | 4 | 23BJH | PF1004D | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 7th Stage | 1 | 4 | 23BJL | PF1004E | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 8th Stage | 1 | 4 | 23BJP | PF1004F | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 9th Stage | 1 | 4 | 23BJS | PF1004G | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 10th Stage | 1 | 4 | 23BJV | PF1004H | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 11th Stage | 1 | 4 | 23BJY | PF1004J | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 12th Stage | 1 | 4 | 23BJ2 | PF1004K | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 13th Stage | 1 | 4 | 23BJ5 | PF1004L | DF10040 | LCF, MAN | CCYN |
| Shaft, Rear, Compr, Drive | 1 | 4 | 23BJ8 | PF1004M | DF10040 | LCF, MAN | CCYN |
| Bearing, Main, NBR 2, Ball | 1 | 4 | 23BBD | PF1004N | DF10040 | EOT | EOTH |
| Bearing, Main, NBR 3, Ball | 1 | 4 | 23BEC | PF1004P | DF10040 | EOT | EOTH |
| Bearing, Main, NBR 4, Roller | 1 | 4 | 23BLK | PF1004Q | DF10040 | EOT | EOTH |
| Diffuser Case | 1 | 4 | 23BPD | PF1004R | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 4th Stage | 1 | 4 | 23BJD | PF10041 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 5th Stage | 1 | 4 | 23BJG | PF10042 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 6th Stage | 1 | 4 | 23BJK | PF10043 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 7th Stage | 1 | 4 | 23BJN | PF10044 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 8th Stage | 1 | 4 | 23BJR | PF10045 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 9th Stage | 1 | 4 | 23BJU | PF10046 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 10th Stage | 1 | 4 | 23BJX | PF10047 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 11th Stage | 1 | 4 | 23BJ1 | PF10048 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 12th Stage | 1 | 4 | 23BJ4 | PF10049 | DF10040 | LCF, MAN | CCYN |
| High Turbine Assembly | 1 | 4 | 23BN0 | DF10050 | DF10040 | FHR, LCF, MAN | CCYV |
| Disk, 1st Stage, Turbine | 1 | 5 | 23BNB | PF10051 | DF10050 | LCF, MAN | CCYN |
| Disk & Hub, 2nd Stage, Turbine | 1 | 5 | 23BNL | PF10052 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG, 2nd Stage, Turbine | 1 | 5 | 23BNF | PF10053 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Front | 1 | 5 | 23BNG | PF10054 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Rear | 17 | 5 | 23BNK | PF10055 | DF10050 | LCF, MAN | CCYN |
| Fan Drive Turbine Module | 1 | 3 | 23C00 | DF10060 | AF10010 | FHR, LCF, MAN, EOT | CCYV |
| Disk, 3rd Stage, Turbine | 1 | 4 | 23CBB | PF10061 | DF10060 | LCF, MAN | CCYN |
| Disk, 4th Stage, Turbine | 1 | 4 | 23CBP | PF10062 | DF10060 | LCF, MAN | CCYN |
| Seal, Air, Turbine, 4th Stage | 1 | 4 | 23CBL | PF10063 | DF10060 | LCF, MAN | CCYN |
| Bearing, Main, NBR 5, Roller | 1 | 4 | 23CCD | PF10064 | DF10060 | EOT | EOTH |
| Seal, Air Turbine, 3rd Stage | 1 | 4 | 23CBD | PF10065 | DF10060 | LCF, MAN | CCYN |
| Augmentor Duct and Nozzle Module | 1 | 3 | 23F00 | DF10070 | AF10010 | FHR, EOT, LCF, MAN | EOTN, CCYV |
| Augmentor, Comp Chamber Duct Assy | 1 | 4 | 23FAA | PF10073 | DF10070 | EOT, LCF, MAN | CCYN |
| Actuator - Ballscrew, Prmry Conv Noz | 1 | 4 | 23FAN | PF10071 | DF10070 | EOT | EOTH |
| Actuator - Ballscrew, Scndy Conv Noz | 4 | 4 | 23FAP | PF10072 | DF10070 | EOT | EOTH |
| Gearbox Module | 1 | 3 | 23G00 | DF10080 | AF10010 | FHR, EOT | EOTH |

Table 9-27. F0100100A Engine Configuration - X4 Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---------------------------------------|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| F0100100A Engine | 1 | 2 | 23Z00 | AF10010 | | EOT, HS1, HS2, LCF, FHR, MAN | NONE |
| Duct - Fan, Outer, Front, Assy of | 1 | 3 | 23QCB | LF1001A | AF10010 | EOT | EOTN |
| Duct - Fan, Rear, Assy of | 1 | 3 | 23QCA | LF1001B | AF10010 | EOT | EOTN |
| Exciter - Ignition, Dual | 1 | 3 | 23KAD | LF1001C | AF10010 | EOT | EOTH |
| Exciter - Ignition, Single | 1 | 3 | 23KAE | LF1001D | AF10010 | EOT | EOTH |
| Pump - Fuel, Augmentor | 1 | 3 | 23HAE | LF1001E | AF10010 | EOT | EOTH |
| Regulator, Air Press Exit Noz Cont | 1 | 3 | 23PAC | LF1001G | AF10010 | EOT | EOTH |
| Sensor - Hydromechanical, N2 | 1 | 3 | 23HAG | LF1001J | AF10010 | EOT | EOTH |
| Sensor - Temperature Fan Exit (TT2.5) | 1 | 3 | 23HAH | LF1001K | AF10010 | EOT | EOTH |
| Stator - Generator | 1 | 3 | 23KAH | LF1001L | AF10010 | EOT | EOTH |
| Valve, Anti-Icing, Engine Inlet | 1 | 3 | 23QA8 | LF1001M | AF10010 | EOT | EOTH |
| Events History Recorder | 1 | 3 | 23QA4 | LF1001R | AF10010 | EOT | EOTH |
| Pump - Gear, Main Fuel | 1 | 3 | 23HAL | LF1001S | AF10010 | EOT | EOTH |
| Valve - Fuel Bypass | 1 | 3 | 23HAJ | LF1001T | AF10010 | EOT | EOTH |
| Control - Engine Electronic | 1 | 3 | 23HAB | LF10011 | AF10010 | EOT | EOTN |
| Control, Exhaust Nozzle Convergent | 1 | 3 | 23PAB | LF10012 | AF10010 | EOT | EOTH |
| Control, Unified, Turbine Engine | 1 | 3 | 23HAA | LF10014 | AF10010 | EOT | EOTH |
| Controller - Fuel Pump Augmentor | 1 | 3 | 23HAF | LF10015 | AF10010 | EOT | EOTH |
| Cooler - Oil, Fuel | 1 | 3 | 23JAC | LF10017 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin, CPR, Bleed | 1 | 3 | 23QA7 | LF10018 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin Var VN, Rear CPR | 2 | 3 | 23QA6 | LF10019 | AF10010 | EOT | EOTH |
| Inlet Fan Module | 1 | 3 | 23A00 | DF10030 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Seal, Air Compr, 2nd Stage | 1 | 4 | 23ADT | PF1003A | DF10030 | LCF, MAN | CCYN |
| Bearing, Main, No 1 Roller | 1 | 4 | 23AAE | PF1003B | DF10030 | EOT | EOTH |
| Contr & Cyl, Var Vane, Comp Inlet | 1 | 4 | 23AAP | PF10031 | DF10030 | EOT | EOTH |
| Cyl - Actg, Lin Var Vane, Comp Inlet | 1 | 4 | 23AAQ | PF10032 | DF10030 | EOT | EOTH |
| Disk & Hub, Compr, 1st Stage | 1 | 4 | 23ADB | PF10033 | DF10030 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 2nd Stage | 1 | 4 | 23ADG | PF10034 | DF10030 | LCF, MAN | CCYN |
| Disk, Compr, 3rd Stage | 1 | 4 | 23ADL | PF10035 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Compr Front, 1st Stage | 1 | 4 | 23ADE | PF10036 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Front, Compr Inlet | 1 | 4 | 23ADD | PF10037 | DF10030 | LCF, MAN | CCYN |

Table 9-27. F0100100A Engine Configuration - X4 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-----------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Seal, Air Compr, Rear, 1st Stage | 1 | 4 | 23ADJ | PF10038 | DF10030 | LCF, MAN | CCYN |
| Retainer, Compr, Blade Lock | 1 | 4 | 23ADS | PF10039 | DF10030 | LCF, MAN | CCYN |
| Core Engine Module | 1 | 3 | 23B00 | DF10040 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Spacer, Air, Compr, 13th Stage | 1 | 4 | 23BJ7 | PF1004A | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 4th Stage | 1 | 4 | 23BJA | PF1004B | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 5th Stage | 1 | 4 | 23BJE | PF1004C | DF10040 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 6th Stage | 1 | 4 | 23BJH | PF1004D | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 7th Stage | 1 | 4 | 23BJL | PF1004E | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 8th Stage | 1 | 4 | 23BJP | PF1004F | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 9th Stage | 1 | 4 | 23BJS | PF1004G | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 10th Stage | 1 | 4 | 23BJV | PF1004H | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 11th Stage | 1 | 4 | 23BJY | PF1004J | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 12th Stage | 1 | 4 | 23BJ2 | PF1004K | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 13th Stage | 1 | 4 | 23BJ5 | PF1004L | DF10040 | LCF, MAN | CCYN |
| Shaft, Rear, Compr, Drive | 1 | 4 | 23BJ8 | PF1004M | DF10040 | LCF, MAN | CCYN |
| Bearing, Main, NBR 2, Ball | 1 | 4 | 23BBB | PF1004N | DF10040 | EOT | EOTH |
| Bearing, Main, NBR 3, Ball | 1 | 4 | 23BEC | PF1004P | DF10040 | EOT | EOTH |
| Bearing, Main, NBR 4, Roller | 1 | 4 | 23BLK | PF1004Q | DF10040 | EOT | EOTH |
| Diffuser Case | 1 | 4 | 23BPD | PF1004R | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 4th Stage | 1 | 4 | 23BJD | PF10041 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 5th Stage | 1 | 4 | 23BJG | PF10042 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 6th Stage | 1 | 4 | 23BJK | PF10043 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 7th Stage | 1 | 4 | 23BJN | PF10044 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 8th Stage | 1 | 4 | 23BJR | PF10045 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 9th Stage | 1 | 4 | 23BJU | PF10046 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 10th Stage | 1 | 4 | 23BJX | PF10047 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 11th Stage | 1 | 4 | 23BJ1 | PF10048 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 12th Stage | 1 | 4 | 23BJ4 | PF10049 | DF10040 | LCF, MAN | CCYN |
| High Turbine Assembly | 1 | 4 | 23BN0 | DF10050 | DF10040 | FHR, LCF, MAN | CCYV |
| Disk, 1st Stage, Turbine | 1 | 5 | 23BNB | PF10051 | DF10050 | LCF, MAN | CCYN |
| Disk & Hub, 2nd Stage, Turbine | 1 | 5 | 23BNL | PF10052 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG, 2nd Stage, Turbine | 1 | 5 | 23BNF | PF10053 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Front | 1 | 5 | 23BNG | PF10054 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Rear | 17 | 5 | 23BNK | PF10055 | DF10050 | LCF, MAN | CCYN |
| Fan Drive Turbine Module | 1 | 3 | 23C00 | DF10060 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Disk, 3rd Stage, Turbine | 1 | 4 | 23CBB | PF10061 | DF10060 | LCF, MAN | CCYN |
| Disk, 4th Stage, Turbine | 1 | 4 | 23CBP | PF10062 | DF10060 | LCF, MAN | CCYN |

Table 9-27. F0100100A Engine Configuration - X4 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--------------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Seal, Air, Turbine, 4th Stage | 1 | 4 | 23CBL | PF10063 | DF10060 | LCF, MAN | CCYN |
| Bearing, Main, NBR 5, Roller | 1 | 4 | 23CCD | PF10064 | DF10060 | EOT | EOTH |
| Seal, Air Turbine, 3rd Stage | 1 | 4 | 23CBD | PF10065 | DF10060 | LCF, MAN | CCYN |
| Augmentor Duct and Nozzle Module | 1 | 3 | 23F00 | DF10070 | AF10010 | FHR, EOT, LCF, MAN | EOTN, CCYV |
| Augmentor, Comp Chamber Duct Assy | 1 | 4 | 23FAA | PF10073 | DF10070 | EOT, LCF, MAN | CCYN |
| Actuator - Ballscrew, Prmry Conv Noz | 1 | 4 | 23FAN | PF10071 | DF10070 | EOT | EOTH |
| Actuator - Ballscrew, Scndy Conv Noz | 4 | 4 | 23FAP | PF10072 | DF10070 | EOT | EOTH |
| Gearbox Module | 1 | 3 | 23G00 | DF10080 | AF10010 | FHR, EOT | EOTH |

Table 9-28. F0100100B Engine Configuration - X5 Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---------------------------------------|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| F0100100B Engine | 1 | 2 | 23Z00 | AF10010 | | EOT, HS1, HS2, LCF, FHR, MAN | NONE |
| Duct - Fan, Outer, Front, Assy of | 1 | 3 | 23QCB | LF1001A | AF10010 | EOT | EOTN |
| Duct - Fan, Rear, Assy of | 1 | 3 | 23QCA | LF1001B | AF10010 | EOT | EOTN |
| Exciter - Ignition, Dual | 1 | 3 | 23KAD | LF1001C | AF10010 | EOT | EOTH |
| Exciter - Ignition, Single | 1 | 3 | 23KAE | LF1001D | AF10010 | EOT | EOTH |
| Pump - Fuel, Augmentor | 1 | 3 | 23HAE | LF1001E | AF10010 | EOT | EOTH |
| Pump - Fuel, Main | 1 | 3 | 23HAD | LF1001F | AF10010 | EOT | EOTH |
| Regulator, Air Press Exit Noz Cont | 1 | 3 | 23PAC | LF1001G | AF10010 | EOT | EOTH |
| Sensor - Hydromechanical, N2 | 1 | 3 | 23HAG | LF1001J | AF10010 | EOT | EOTH |
| Sensor - Temperature Fan Exit (TT2.5) | 1 | 3 | 23HAH | LF1001K | AF10010 | EOT | EOTH |
| Stator - Generator | 1 | 3 | 23KAH | LF1001L | AF10010 | EOT | EOTH |
| Valve, Anti-Icing, Engine Inlet | 1 | 3 | 23QA8 | LF1001M | AF10010 | EOT | EOTH |
| Events History Recorder | 1 | 3 | 23QA4 | LF1001R | AF10010 | EOT | EOTH |
| Control - Engine Electronic | 1 | 3 | 23HAB | LF10011 | AF10010 | EOT | EOTN |
| Control, Exhaust Nozzle Convergent | 1 | 3 | 23PAB | LF10012 | AF10010 | EOT | EOTH |
| Control, Unified, Turbine Engine | 1 | 3 | 23HAA | LF10014 | AF10010 | EOT | EOTH |
| Controller - Fuel Pump Augmentor | 1 | 3 | 23HAF | LF10015 | AF10010 | EOT | EOTH |
| Cooler - Oil, Fuel | 1 | 3 | 23JAC | LF10017 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin, CPR, Bleed | 1 | 3 | 23QA7 | LF10018 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin Var VN, Rear CPR | 2 | 3 | 23QA6 | LF10019 | AF10010 | EOT | EOTH |
| Inlet Fan Module | 1 | 3 | 23A00 | DF10030 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Seal, Air Compr, 2nd Stage | 1 | 4 | 23ADT | PF1003A | DF10030 | LCF, MAN | CCYN |
| Bearing, Main, No 1 Roller | 1 | 4 | 23AAE | PF1003B | DF10030 | EOT | EOTH |
| Contr & Cyl, Var Vane, Comp Inlet | 1 | 4 | 23AAP | PF10031 | DF10030 | EOT | EOTH |
| Cyl - Actg, Lin Var Vane, Comp Inlet | 1 | 4 | 23AAQ | PF10032 | DF10030 | EOT | EOTH |
| Disk & Hub, Compr, 1st Stage | 1 | 4 | 23ADB | PF10033 | DF10030 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 2nd Stage | 1 | 4 | 23ADG | PF10034 | DF10030 | LCF, MAN | CCYN |
| Disk, Compr, 3rd Stage | 1 | 4 | 23ADL | PF10035 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Compr Front, 1st Stage | 1 | 4 | 23ADE | PF10036 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Front, Compr Inlet | 1 | 4 | 23ADD | PF10037 | DF10030 | LCF, MAN | CCYN |

Table 9-28. F0100100B Engine Configuration - X5 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Seal, Air Compr, Rear, 1st Stage | 1 | 4 | 23ADJ | PF10038 | DF10030 | LCF, MAN | CCYN |
| Retainer, Compr, Blade Lock | 1 | 4 | 23ADS | PF10039 | DF10030 | LCF, MAN | CCYN |
| Core Engine Module | 1 | 3 | 23B00 | DF10040 | AF10010 | FHR, LCF, MAN, EOT | CCYV |
| Spacer, Air, Compr, 13th Stage | 1 | 4 | 23BJ7 | PF1004A | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 4th Stage | 1 | 4 | 23BJA | PF1004B | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 5th Stage | 1 | 4 | 23BJE | PF1004C | DF10040 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 6th Stage | 1 | 4 | 23BJH | PF1004D | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 7th Stage | 1 | 4 | 23BJL | PF1004E | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 8th Stage | 1 | 4 | 23BJP | PF1004F | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 9th Stage | 1 | 4 | 23BJS | PF1004G | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 10th Stage | 1 | 4 | 23BJV | PF1004H | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 11th Stage | 1 | 4 | 23BJY | PF1004J | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 12th Stage | 1 | 4 | 23BJ2 | PF1004K | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 13th Stage | 1 | 4 | 23BJ5 | PF1004L | DF10040 | LCF, MAN | CCYN |
| Shaft, Rear, Compr, Drive | 1 | 4 | 23BJ8 | PF1004M | DF10040 | LCF, MAN | CCYN |
| Bearing, Main, NBR 2, Ball | 1 | 4 | 23BBB | PF1004N | DF10040 | EOT | EOTH |
| Bearing, Main, NBR 3, Ball | 1 | 4 | 23BEC | PF1004P | DF10040 | EOT | EOTH |
| Bearing, Main, NBR 4, Roller | 1 | 4 | 23BLK | PF1004Q | DF10040 | EOT | EOTH |
| Diffuser Case | 1 | 4 | 23BPD | PF1004R | DF10040 | LCF, MAN | CCYN |
| Seal - RR Compr Inlet | 1 | 4 | 23BJB | PF1004S | DF10040 | LCF, MAN | CCYN |
| Chamber - Combustion, ASYO | 1 | 4 | 23BPH | PF1004T | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 4th Stage | 1 | 4 | 23BJD | PF10041 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 5th Stage | 1 | 4 | 23BJG | PF10042 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 6th Stage | 1 | 4 | 23BJK | PF10043 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 7th Stage | 1 | 4 | 23BJN | PF10044 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 8th Stage | 1 | 4 | 23BJR | PF10045 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 9th Stage | 1 | 4 | 23BJU | PF10046 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 10th Stage | 1 | 4 | 23BJX | PF10047 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 11th Stage | 1 | 4 | 23BJ1 | PF10048 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 12th Stage | 1 | 4 | 23BJ4 | PF10049 | DF10040 | LCF, MAN | CCYN |
| High Turbine Assembly | 1 | 4 | 23BN0 | DF10050 | DF10040 | FHR, LCF, MAN | CCYV |
| Disk, 2nd Stage, Turbine | 1 | 5 | 23BNQ | PF1005A | DF10050 | LCF, MAN | CCYN |
| Disk, 1st Stage, Turbine | 1 | 5 | 23BNB | PF10051 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG, 2nd Stage, Turbine | 1 | 5 | 23BNF | PF10053 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Front | 1 | 5 | 23BNG | PF10054 | DF10050 | LCF, MAN | CCYN |
| Hub - Turbine, Front | 1 | 5 | 23BND | PF10056 | DF10050 | LCF, MAN | CCYN |
| Plate - RTG, Blade, Tur, Rear, 2nd Stg | 1 | 5 | 23BNM | PF10057 | DF10050 | LCF, MAN | CCYN |
| Seal - Air, Turbine, 1st Stg | 1 | 5 | 23BNH | PF10058 | DF10050 | LCF, MAN | CCYN |

Table 9-28. F0100100B Engine Configuration - X5 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--------------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Seal - Air, Nr 4 Brng, R | 1 | 5 | 23BMY | PF10059 | DF10050 | LCF, MAN | CCYN |
| Fan Drive Turbine Module | 1 | 3 | 23C00 | DF10060 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Disk, 3rd Stage, Turbine | 1 | 4 | 23CBB | PF10061 | DF10060 | LCF, MAN | CCYN |
| Disk, 4th Stage, Turbine | 1 | 4 | 23CBP | PF10062 | DF10060 | LCF, MAN | CCYN |
| Seal, Air, Turbine, 4th Stage | 1 | 4 | 23CBL | PF10063 | DF10060 | LCF, MAN | CCYN |
| Bearing, Main, NBR 5, Roller | 1 | 4 | 23CCD | PF10064 | DF10060 | EOT | EOTH |
| Seal, Air Turbine, 3rd Stage | 1 | 4 | 23CBD | PF10065 | DF10060 | LCF, MAN | CCYN |
| Augmentor Duct and Nozzle Module | 1 | 3 | 23F00 | DF10070 | AF10010 | FHR, EOT, LCF, MAN | EOTN, CCYV |
| Augmentor, Comp Chamber Duct Assy | 1 | 4 | 23FAA | PF10073 | DF10070 | EOT, LCF, MAN | CCYN |
| Actuator - Ballscrew, Prmry Conv Noz | 1 | 4 | 23FAN | PF10071 | DF10070 | EOT | EOTH |
| Actuator - Ballscrew, Scndy Conv Noz | 4 | 4 | 23FAP | PF10072 | DF10070 | EOT | EOTH |
| Gearbox Module | 1 | 3 | 23G00 | DF10080 | AF10010 | FHR, EOT | EOTH |

Table 9-29. F0100100C Engine Configuration - X6 Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---------------------------------------|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| F0100100C Engine | 1 | 2 | 23Z00 | AF10010 | | EOT, HS1, HS2, LCF, FHR, MAN | NONE |
| Duct - Fan, Outer, Front, Assy of | 1 | 3 | 23QCB | LF1001A | AF10010 | EOT | EOTN |
| Duct - Fan, Rear, Assy of | 1 | 3 | 23QCA | LF1001B | AF10010 | EOT | EOTN |
| Exciter - Ignition, Dual | 1 | 3 | 23KAD | LF1001C | AF10010 | EOT | EOTH |
| Exciter - Ignition, Single | 1 | 3 | 23KAE | LF1001D | AF10010 | EOT | EOTH |
| Pump - Fuel, Augmentor | 1 | 3 | 23HAE | LF1001E | AF10010 | EOT | EOTH |
| Regulator, Air Press Exit Noz Cont | 1 | 3 | 23PAC | LF1001G | AF10010 | EOT | EOTH |
| Sensor - Hydromechanical, N2 | 1 | 3 | 23HAG | LF1001J | AF10010 | EOT | EOTH |
| Sensor - Temperature Fan Exit (TT2.5) | 1 | 3 | 23HAH | LF1001K | AF10010 | EOT | EOTH |
| Stator - Generator | 1 | 3 | 23KAH | LF1001L | AF10010 | EOT | EOTH |
| Valve, Anti-Icing, Engine Inlet | 1 | 3 | 23QA8 | LF1001M | AF10010 | EOT | EOTH |
| Events History Recorder | 1 | 3 | 23QA4 | LF1001R | AF10010 | EOT | EOTH |
| Pump - Gear, Main Fuel | 1 | 3 | 23HAL | LF1001S | AF10010 | EOT | EOTH |
| Valve - Fuel Bypass | 1 | 3 | 23HAJ | LF1001T | AF10010 | EOT | EOTH |
| Control - Engine Electronic | 1 | 3 | 23HAB | LF10011 | AF10010 | EOT | EOTN |
| Control, Exhaust Nozzle Convergent | 1 | 3 | 23PAB | LF10012 | AF10010 | EOT | EOTH |
| Control, Unified, Turbine Engine | 1 | 3 | 23HAA | LF10014 | AF10010 | EOT | EOTH |
| Controller - Fuel Pump Augmentor | 1 | 3 | 23HAF | LF10015 | AF10010 | EOT | EOTH |
| Cooler - Oil, Fuel | 1 | 3 | 23JAC | LF10017 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin, CPR, Bleed | 1 | 3 | 23QA7 | LF10018 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin Var VN, Rear CPR | 2 | 3 | 23QA6 | LF10019 | AF10010 | EOT | EOTH |
| Inlet Fan Module | 1 | 3 | 23A00 | DF10030 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Seal, Air Compr, 2nd Stage | 1 | 4 | 23ADT | PF1003A | DF10030 | LCF, MAN | CCYN |
| Bearing, Main, No 1 Roller | 1 | 4 | 23AAE | PF1003B | DF10030 | EOT | EOTH |
| Contr & Cyl, Var Vane, Comp Inlet | 1 | 4 | 23AAP | PF10031 | DF10030 | EOT | EOTH |
| Cyl - Actg, Lin Var Vane, Comp Inlet | 1 | 4 | 23AAQ | PF10032 | DF10030 | EOT | EOTH |
| Disk & Hub, Compr, 1st Stage | 1 | 4 | 23ADB | PF10033 | DF10030 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 2nd Stage | 1 | 4 | 23ADG | PF10034 | DF10030 | LCF, MAN | CCYN |
| Disk, Compr, 3rd Stage | 1 | 4 | 23ADL | PF10035 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Compr Front, 1st Stage | 1 | 4 | 23ADE | PF10036 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Front, Compr Inlet | 1 | 4 | 23ADD | PF10037 | DF10030 | LCF, MAN | CCYN |
| Seal, Air Compr, Rear, 1st Stage | 1 | 4 | 23ADJ | PF10038 | DF10030 | LCF, MAN | CCYN |

Table 9-29. F0100100C Engine Configuration - X6 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Retainer, Compr, Blade Lock | 1 | 4 | 23ADS | PF10039 | DF10030 | LCF, MAN | CCYN |
| Core Engine Module | 1 | 3 | 23B00 | DF10040 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Spacer, Air, Compr, 13th Stage | 1 | 4 | 23BJ7 | PF1004A | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 4th Stage | 1 | 4 | 23BJA | PF1004B | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 5th Stage | 1 | 4 | 23BJE | PF1004C | DF10040 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 6th Stage | 1 | 4 | 23BJH | PF1004D | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 7th Stage | 1 | 4 | 23BJL | PF1004E | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 8th Stage | 1 | 4 | 23BJP | PF1004F | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 9th Stage | 1 | 4 | 23BJS | PF1004G | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 10th Stage | 1 | 4 | 23BJV | PF1004H | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 11th Stage | 1 | 4 | 23BJY | PF1004J | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 12th Stage | 1 | 4 | 23BJ2 | PF1004K | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 13th Stage | 1 | 4 | 23BJ5 | PF1004L | DF10040 | LCF, MAN | CCYN |
| Shaft, Rear, Compr, Drive | 1 | 4 | 23BJ8 | PF1004M | DF10040 | LCF, MAN | CCYN |
| Bearing, Main, NBR 2, Ball | 1 | 4 | 23BBB | PF1004N | DF10040 | EOT | EOTH |
| Bearing, Main, NBR 3, Ball | 1 | 4 | 23BEC | PF1004P | DF10040 | EOT | EOTH |
| Bearing, Main, NBR 4, Roller | 1 | 4 | 23BLK | PF1004Q | DF10040 | EOT | EOTH |
| Diffuser Case | 1 | 4 | 23BPD | PF1004R | DF10040 | LCF, MAN | CCYN |
| Seal - RR CP Inlet | 1 | 4 | 23BJB | PF1004S | DF10040 | LCF, MAN | CCYN |
| Chamber - Combustion, ASYO | 1 | 4 | 23BPH | PF1004T | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 4th Stage | 1 | 4 | 23BJD | PF10041 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 5th Stage | 1 | 4 | 23BJG | PF10042 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 6th Stage | 1 | 4 | 23BJK | PF10043 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 7th Stage | 1 | 4 | 23BJN | PF10044 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 8th Stage | 1 | 4 | 23BJR | PF10045 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 9th Stage | 1 | 4 | 23BJU | PF10046 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 10th Stage | 1 | 4 | 23BJX | PF10047 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 11th Stage | 1 | 4 | 23BJ1 | PF10048 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 12th Stage | 1 | 4 | 23BJ4 | PF10049 | DF10040 | LCF, MAN | CCYN |
| High Turbine Assembly | 1 | 4 | 23BN0 | DF10050 | DF10040 | FHR, LCF, MAN | CCYV |
| Disk, 2nd Stage, Turbine | 1 | 5 | 23BNQ | PF1005A | DF10050 | LCF, MAN | CCYN |
| Disk, 1st Stage, Turbine | 1 | 5 | 23BNB | PF10051 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG, 2nd Stage, Turbine | 1 | 5 | 23BNF | PF10053 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Front | 1 | 5 | 23BNG | PF10054 | DF10050 | LCF, MAN | CCYN |
| Hub - Turbine, Front | 1 | 5 | 23BND | PF10056 | DF10050 | LCF, MAN | CCYN |
| Plate - RTG, Blade, Tur, Rear, 2nd Stg | 1 | 5 | 23BNM | PF10057 | DF10050 | LCF, MAN | CCYN |
| Seal - Air, Turbine, 1st Stg | 1 | 5 | 23BNH | PF10058 | DF10050 | LCF, MAN | CCYN |
| Seal - Air, N 4 Brng, R | 1 | 5 | 23BMY | PF10059 | DF10050 | LCF, MAN | CCYN |
| Fan Drive Turbine Module | 1 | 3 | 23C00 | DF10060 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Disk, 3rd Stage, Turbine | 1 | 4 | 23CBB | PF10061 | DF10060 | LCF, MAN | CCYN |
| Disk, 4th Stage, Turbine | 1 | 4 | 23CBP | PF10062 | DF10060 | LCF, MAN | CCYN |

Table 9-29. F0100100C Engine Configuration - X6 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--------------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Seal, Air, Turbine, 4th Stage | 1 | 4 | 23CBL | PF10063 | DF10060 | LCF, MAN | CCYN |
| Bearing, Main, NBR 5, Roller | 1 | 4 | 23CCD | PF10064 | DF10060 | EOT | EOTH |
| Seal, Air Turbine, 3rd Stage | 1 | 4 | 23CBD | PF10065 | DF10060 | LCF, MAN | CCYN |
| Augmentor Duct and Nozzle Module | 1 | 3 | 23F00 | DF10070 | AF10010 | FHR, EOT, LCF, MAN | EOTN, CCYV |
| Augmentor, Comp Chamber Duct Assy. | 1 | 4 | 23FAA | PF10073 | DF10070 | EOT, LCF, MAN | CCYN |
| Actuator - Ballscrew, Prmry Conv Noz | 1 | 4 | 23FAN | PF10071 | DF10070 | EOT | EOTH |
| Actuator - Ballscrew, Scndy Conv Noz | 4 | 4 | 23FAP | PF10072 | DF10070 | EOT | EOTH |
| Gearbox Module | 1 | 3 | 23G00 | DF10080 | AF10010 | FHR, EOT | EOTH |

Table 9-30. F0100200 Engine Configuration - X2 Engine ID

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---------------------------------------|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| F0100200 Engine | 1 | 2 | 23Z00 | AF10010 | | EOT, HS1, HS2, LCF, FHR, MAN | NONE |
| Duct - Fan, Outer, Front, Assy of | 1 | 3 | 23QCB | LF1001A | AF10010 | EOT | EOTN |
| Duct - Fan, Rear, Assy of | 1 | 3 | 23QCA | LF1001B | AF10010 | EOT | EOTN |
| Exciter - Ignition, Dual | 1 | 3 | 23KAD | LF1001C | AF10010 | EOT | EOTH |
| Exciter - Ignition, Single | 1 | 3 | 23KAE | LF1001D | AF10010 | EOT | EOTH |
| Pump - Fuel, Augmentor | 1 | 3 | 23HAE | LF1001E | AF10010 | EOT | EOTH |
| Pump - Fuel, Main | 1 | 3 | 23HAD | LF1001F | AF10010 | EOT | EOTH |
| Regulator, Air Press Exit Noz Cont | 1 | 3 | 23PAC | LF1001G | AF10010 | EOT | EOTH |
| Sensor - Hydromechanical, N2 | 1 | 3 | 23HAG | LF1001J | AF10010 | EOT | EOTH |
| Sensor - Temperature Fan Exit (TT2.5) | 1 | 3 | 23HAH | LF1001K | AF10010 | EOT | EOTH |
| Stator - Generator | 1 | 3 | 23KAH | LF1001L | AF10010 | EOT | EOTH |
| Valve, Anti-Icing, Engine Inlet | 1 | 3 | 23QA8 | LF1001M | AF10010 | EOT | EOTH |
| Control - Fuel, Backup | 1 | 3 | 23HBA | LF1001N | AF10010 | EOT | EOTH |
| Valve - Transfer, BUC | 1 | 3 | 23HBB | LF1001P | AF10010 | EOT | EOTH |
| Valve - Shutoff, CENC | 1 | 3 | 23HBC | LF1001Q | AF10010 | EOT | EOTH |
| Events History Recorder | 1 | 3 | 23QA4 | LF1001R | AF10010 | EOT | EOTH |
| Control - Engine Electronic | 1 | 3 | 23HAB | LF10011 | AF10010 | EOT | EOTN |
| Control, Exhaust Nozzle Convergent | 1 | 3 | 23PAB | LF10012 | AF10010 | EOT | EOTH |
| Control, Unified, Turbine Engine | 1 | 3 | 23HAA | LF10014 | AF10010 | EOT | EOTH |
| Controller - Fuel Pump Augmentor | 1 | 3 | 23HAF | LF10015 | AF10010 | EOT | EOTH |
| Cooler - Oil, Fuel | 1 | 3 | 23JAC | LF10017 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin, CPR, Bleed | 1 | 3 | 23QA7 | LF10018 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin Var VN, Rear CPR | 2 | 3 | 23QA6 | LF10019 | AF10010 | EOT | EOTH |
| Inlet Fan Module | 1 | 3 | 23A00 | DF10030 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Seal, Air Compr, 2nd Stage | 1 | 4 | 23ADT | PF1003A | DF10030 | LCF, MAN | CCYN |
| Bearing, Main, No 1 Roller | 1 | 4 | 23AAE | PF1003B | DF10030 | EOT | EOTH |
| Contr & Cyl, Var Vane, Comp Inlet | 1 | 4 | 23AAP | PF10031 | DF10030 | EOT | EOTH |
| Cyl - Actg, Lin Var Vane, Comp Inlet | 1 | 4 | 23AAQ | PF10032 | DF10030 | EOT | EOTH |
| Disk & Hub, Compr, 1st Stage | 1 | 4 | 23ADB | PF10033 | DF10030 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 2nd Stage | 1 | 4 | 23ADG | PF10034 | DF10030 | LCF, MAN | CCYN |
| Disk, Compr, 3rd Stage | 1 | 4 | 23ADL | PF10035 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Compr Front, 1st Stage | 1 | 4 | 23ADE | PF10036 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Front, Compr Inlet | 1 | 4 | 23ADD | PF10037 | DF10030 | LCF, MAN | CCYN |

Table 9-30. F0100200 Engine Configuration - X2 Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-----------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Seal, Air Compr, Rear, 1st Stage | 1 | 4 | 23ADJ | PF10038 | DF10030 | LCF, MAN | CCYN |
| Retainer, Compr, Blade Lock | 1 | 4 | 23ADS | PF10039 | DF10030 | LCF, MAN | CCYN |
| Core Engine Module | 1 | 3 | 23B00 | DF10040 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Spacer, Air, Compr, 13th Stage | 1 | 4 | 23BJ7 | PF1004A | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 4th Stage | 1 | 4 | 23BJA | PF1004B | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 5th Stage | 1 | 4 | 23BJE | PF1004C | DF10040 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 6th Stage | 1 | 4 | 23BJH | PF1004D | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 7th Stage | 1 | 4 | 23BJL | PF1004E | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 8th Stage | 1 | 4 | 23BJP | PF1004F | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 9th Stage | 1 | 4 | 23BJS | PF1004G | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 10th Stage | 1 | 4 | 23BJV | PF1004H | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 11th Stage | 1 | 4 | 23BJY | PF1004J | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 12th Stage | 1 | 4 | 23BJ2 | PF1004K | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 13th Stage | 1 | 4 | 23BJ5 | PF1004L | DF10040 | LCF, MAN | CCYN |
| Shaft, Rear, Compr, Drive | 1 | 4 | 23BJ8 | PF1004M | DF10040 | LCF, MAN | CCYN |
| Bearing, Main, NBR, 2, Ball | 1 | 4 | 23BBD | PF1004N | DF10040 | EOT | EOTH |
| Bearing, Main, NBR, 3, Ball | 1 | 4 | 23BEC | PF1004P | DF10040 | EOT | EOTH |
| Bearing, Main, NBR, 4, Roller | 1 | 4 | 23BLK | PF1004Q | DF10040 | EOT | EOTH |
| Diffuser Case | 1 | 4 | 23BPD | PF1004R | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 4th Stage | 1 | 4 | 23BJD | PF10041 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 5th Stage | 1 | 4 | 23BJG | PF10042 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 6th Stage | 1 | 4 | 23BJK | PF10043 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 7th Stage | 1 | 4 | 23BJN | PF10044 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 8th Stage | 1 | 4 | 23BJR | PF10045 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 9th Stage | 1 | 4 | 23BJU | PF10046 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 10th Stage | 1 | 4 | 23BJX | PF10047 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 11th Stage | 1 | 4 | 23BJ1 | PF10048 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 12th Stage | 1 | 4 | 23BJ4 | PF10049 | DF10040 | LCF, MAN | CCYN |
| High Turbine Assembly | 1 | 4 | 23BN0 | DF10050 | DF10040 | FHR, LCF, MAN | CCYV |
| Disk, 1st Stage, Turbine | 1 | 5 | 23BNB | PF10051 | DF10050 | LCF, MAN | CCYN |
| Disk & Hub, 2nd Stage, Turbine | 1 | 5 | 23BNL | PF10052 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG, 2nd Stage, Turbine | 1 | 5 | 23BNF | PF10053 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Front | 1 | 5 | 23BNG | PF10054 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Rear | 17 | 5 | 23BNK | PF10055 | DF10050 | LCF, MAN | CCYN |
| Fan Drive Turbine Module | 1 | 3 | 23C00 | DF10060 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Disk, 3rd Stage, Turbine | 1 | 4 | 23CBB | PF10061 | DF10060 | LCF, MAN | CCYN |
| Disk, 4th Stage, Turbine | 1 | 4 | 23CBP | PF10062 | DF10060 | LCF, MAN | CCYN |
| Seal, Air, Turbine, 4th Stage | 1 | 4 | 23CBL | PF10063 | DF10060 | LCF, MAN | CCYN |
| Bearing, Main, NBR 5, Roller | 1 | 4 | 23CCD | PF10064 | DF10060 | EOT | EOTH |

Table 9-30. F0100200 Engine Configuration - X2 Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--------------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Seal, Air Turbine, 3rd Stage | 1 | 4 | 23CBD | PF10065 | DF10060 | LCF, MAN | CCYN |
| Augmentor Duct and Nozzle Module | 1 | 3 | 23F00 | DF10070 | AF10010 | FHR, EOT, LCF, MAN | EOTN, CCYV |
| Augmentor, Comp Chamber Duct Assy. | 1 | 4 | 23FAA | PF10073 | DF10070 | EOT, LCF, MAN | CCYN |
| Actuator - Ballscrew, Prmry Conv Noz | 1 | 4 | 23FAN | PF10071 | DF10070 | EOT | EOTH |
| Actuator - Ballscrew, Scndy Conv Noz | 4 | 4 | 23FAP | PF10072 | DF10070 | EOT | EOTH |
| Gearbox Module | 1 | 3 | 23G00 | DF10080 | AF10010 | FHR, EOT | EOTH |

F0100/200 EDITS

| TRANSACTION | EOT | HS1 | HS2 | LCF | MAN CY |
|--|----------------------|----------------------|----------------------|--------------------------|-------------------------|
| Initializations, Removals, Installations | Plus or minus 10 hrs | Plus or minus 10 hrs | Plus or minus 10 hrs | Plus or minus 100 cycles | Plus or minus 10 cycles |
| "6U" Update Normal Limit Extended Flight DELTA HS1 Cannot Exceed Delta EOT DELTA HS2 Cannot Exceed Delta EOT DELTA HS1 Plus Delta HS2 Cannot Exceed Delta EOT | 10 hrs 25 | NONE | NONE | 100 cycles 200 | NONE NONE |

Table 9-31. F0100200A Engine Configuration - X7 Engine ID

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| F0100200A Engine | 1 | 2 | 23Z00 | AF10010 | | EOT, HS1, HS2, LCF, FHR, MAN | NONE |
| Duct - Fan, Outer, Front, Assy of | 1 | 3 | 23QCB | LF1001A | AF10010 | EOT | EOTN |
| Duct - Fan, Rear, Assy of | 1 | 3 | 23QCA | LF1001B | AF10010 | EOT | EOTN |
| Exciter - Ignition, Dual | 1 | 3 | 23KAD | LF1001C | AF10010 | EOT | EOTH |
| Exciter - Ignition, Single | 1 | 3 | 23KAE | LF1001D | AF10010 | EOT | EOTH |
| Pump - Fuel, Augmentor | 1 | 3 | 23HAE | LF1001E | AF10010 | EOT | EOTH |
| Regulator, Air Press Exit Noz Cont | 1 | 3 | 23PAC | LF1001G | AF10010 | EOT | EOTH |
| Sensor - Hydromechanical, N2 | 1 | 3 | 23HAG | LF1001J | AF10010 | EOT | EOTH |
| Sensor - Temperature Fan Exit (TT2.5) | 1 | 3 | 23HAH | LF1001K | AF10010 | EOT | EOTH |
| Stator - Generator | 1 | 3 | 23KAH | LF1001L | AF10010 | EOT | EOTH |
| Valve, Anti-Icing, Engine Inlet | 1 | 3 | 23QA8 | LF1001M | AF10010 | EOT | EOTH |
| Control - Fuel, Backup Valve - Transfer, BUC | 1 | 3 | 23HBA | LF1001N | AF10010 | EOT | EOTH |
| Valve - Transfer, BUC | 1 | 3 | 23HBB | LF1001P | AF10010 | EOT | EOTH |
| Valve - Shutoff, CENC | 1 | 3 | 23HBC | LF1001Q | AF10010 | EOT | EOTH |
| Events History Recorder | 1 | 3 | 23QA4 | LF1001R | AF10010 | EOT | EOTH |
| Pump - Gear, Main Fuel | 1 | 3 | 23HAL | LF1001S | AF10010 | EOT | EOTH |
| Valve - Fuel Bypass | 1 | 3 | 23HAJ | LF1001T | AF10010 | EOT | EOTH |
| Control - Engine Electronic | 1 | 3 | 23HAB | LF10011 | AF10010 | EOT | EOTN |
| Control, Exhaust Nozzle Convergent | 1 | 3 | 23PAB | LF10012 | AF10010 | EOT | EOTH |
| Control, Unified, Turbine Engine | 1 | 3 | 23HAA | LF10014 | AF10010 | EOT | EOTH |
| Controller - Fuel Pump Augmentor | 1 | 3 | 23HAF | LF10015 | AF10010 | EOT | EOTH |
| Cooler - Oil, Fuel | 1 | 3 | 23JAC | LF10017 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin, CPR, Bleed | 1 | 3 | 23QA7 | LF10018 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin Var VN, Rear CPR | 2 | 3 | 23QA6 | LF10019 | AF10010 | EOT | EOTH |
| Inlet Fan Module | 1 | 3 | 23A00 | DF10030 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Seal, Air Compr, 2nd Stage | 1 | 4 | 23ADT | PF1003A | DF10030 | LCF, MAN | CCYN |
| Bearing, Main, No 1 Roller | 1 | 4 | 23AAE | PF1003B | DF10030 | EOT | EOTH |
| Contr & Cyl, Var Vane, Comp Inlet | 1 | 4 | 23AAP | PF10031 | DF10030 | EOT | EOTH |
| Cyl - Actg, Lin Var Vane, Comp Inlet | 1 | 4 | 23AAQ | PF10032 | DF10030 | EOT | EOTH |
| Disk & Hub, Compr, 1st Stage | 1 | 4 | 23ADB | PF10033 | DF10030 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 2nd Stage | 1 | 4 | 23ADG | PF10034 | DF10030 | LCF, MAN | CCYN |
| Disk, Compr, 3rd Stage | 1 | 4 | 23ADL | PF10035 | DF10030 | LCF, MAN | CCYN |

Table 9-31. F0100200A Engine Configuration - X7 Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-----------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Seal, Air, Compr Front, 1st Stage | 1 | 4 | 23ADE | PF10036 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Front, Compr Inlet | 1 | 4 | 23ADD | PF10037 | DF10030 | LCF, MAN | CCYN |
| Seal, Air Compr, Rear, 1st Stage | 1 | 4 | 23ADJ | PF10038 | DF10030 | LCF, MAN | CCYN |
| Retainer, Compr, Blade Lock | 1 | 4 | 23ADS | PF10039 | DF10030 | LCF, MAN | CCYN |
| Core Engine Module | 1 | 3 | 23B00 | DF10040 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Spacer, Air, Compr, 13th Stage | 1 | 4 | 23BJ7 | PF1004A | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 4th Stage | 1 | 4 | 23BJA | PF1004B | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 5th Stage | 1 | 4 | 23BJE | PF1004C | DF10040 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 6th Stage | 1 | 4 | 23BJH | PF1004D | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 7th Stage | 1 | 4 | 23BJL | PF1004E | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 8th Stage | 1 | 4 | 23BJP | PF1004F | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 9th Stage | 1 | 4 | 23BJS | PF1004G | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 10th Stage | 1 | 4 | 23BJV | PF1004H | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 11th Stage | 1 | 4 | 23BJY | PF1004J | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 12th Stage | 1 | 4 | 23BJ2 | PF1004K | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 13th Stage | 1 | 4 | 23BJ5 | PF1004L | DF10040 | LCF, MAN | CCYN |
| Shaft, Rear, Compr, Drive | 1 | 4 | 23BJ8 | PF1004M | DF10040 | LCF, MAN | CCYN |
| Bearing, Main, NBR, 2, Ball | 1 | 4 | 23BBD | PF1004N | DF10040 | EOT | EOTH |
| Bearing, Main, NBR, 3, Ball | 1 | 4 | 23BEC | PF1004P | DF10040 | EOT | EOTH |
| Bearing, Main, NBR, 4, Roller | 1 | 4 | 23BLK | PF1004Q | DF10040 | EOT | EOTH |
| Diffuser Case | 1 | 4 | 23BPD | PF1004R | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 4th Stage | 1 | 4 | 23BJD | PF10041 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 5th Stage | 1 | 4 | 23BJG | PF10042 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 6th Stage | 1 | 4 | 23BJK | PF10043 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 7th Stage | 1 | 4 | 23BJN | PF10044 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 8th Stage | 1 | 4 | 23BJR | PF10045 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 9th Stage | 1 | 4 | 23BJU | PF10046 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 10th Stage | 1 | 4 | 23BJX | PF10047 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 11th Stage | 1 | 4 | 23BJ1 | PF10048 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 12th Stage | 1 | 4 | 23BJ4 | PF10049 | DF10040 | LCF, MAN | CCYN |
| High Turbine Assembly | 1 | 4 | 23BN0 | DF10050 | DF10040 | FHR, LCF, MAN | CCYV |
| Disk, 1st Stage, Turbine | 1 | 5 | 23BNB | PF10051 | DF10050 | LCF, MAN | CCYN |
| Disk & Hub, 2nd Stage, Turbine | 1 | 5 | 23BNL | PF10052 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG, 2nd Stage, Turbine | 1 | 5 | 23BNF | PF10053 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Front | 1 | 5 | 23BNG | PF10054 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Rear | 17 | 5 | 23BNK | PF10055 | DF10050 | LCF, MAN | CCYN |

Table 9-31. F0100200A Engine Configuration - X7 Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--------------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Fan Drive Turbine Module | 1 | 3 | 23C00 | DF10060 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Disk, 3rd Stage, Turbine | 1 | 4 | 23CBB | PF10061 | DF10060 | LCF, MAN | CCYN |
| Disk, 4th Stage, Turbine | 1 | 4 | 23CBP | PF10062 | DF10060 | LCF, MAN | CCYN |
| Seal, Air, Turbine, 4th Stage | 1 | 4 | 23CBL | PF10063 | DF10060 | LCF, MAN | CCYN |
| Bearing, Main, NBR 5, Roller | 1 | 4 | 23CCD | PF10064 | DF10060 | EOT | EOTH |
| Seal, Air Turbine, 3rd Stage | 1 | 4 | 23CBD | PF10065 | DF10060 | LCF, MAN | CCYN |
| Augmentor Duct and Nozzle Module | 1 | 3 | 23F00 | DF10070 | AF10010 | FHR, EOT, LCF, MAN | EOTN, CCYV |
| Augmentor, Comp Chamber Duct Assy. | 1 | 4 | 23FAA | PF10073 | DF10070 | EOT, LCF, MAN | CCYN |
| Actuator - Ballscrew, Prmry Conv Noz | 1 | 4 | 23FAN | PF10071 | DF10070 | EOT | EOTH |
| Actuator - Ballscrew, Scndy Conv Noz | 4 | 4 | 23FAP | PF10072 | DF10070 | EOT | EOTH |
| Gearbox Module | 1 | 3 | 23G00 | DF10080 | AF10010 | FHR, EOT | EOTH |

Table 9-32. F0100200B Engine Configuration - X8 Engine ID

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| F0100200B Engine | 1 | 2 | 23Z00 | AF10010 | | EOT, HS1, HS2, LCF, FHR, MAN | NONE |
| Duct - Fan, Outer, Front, Assy of | 1 | 3 | 23QCB | LF1001A | AF10010 | EOT | EOTN |
| Duct - Fan, Rear, Assy of | 1 | 3 | 23QCA | LF1001B | AF10010 | EOT | EOTN |
| Exciter - Ignition, Dual | 1 | 3 | 23KAD | LF1001C | AF10010 | EOT | EOTH |
| Exciter - Ignition, Single | 1 | 3 | 23KAE | LF1001D | AF10010 | EOT | EOTH |
| Pump - Fuel, Augmentor | 1 | 3 | 23HAE | LF1001E | AF10010 | EOT | EOTH |
| Pump - Fuel, Main | 1 | 3 | 23HAD | LF1001F | AF10010 | EOT | EOTH |
| Regulator, Air Press Exit Noz Cont | 1 | 3 | 23PAC | LF1001G | AF10010 | EOT | EOTH |
| Sensor - Hydromechanical, N2 | 1 | 3 | 23HAG | LF1001J | AF10010 | EOT | EOTH |
| Sensor - Temperature Fan Exit (TT2.5) | 1 | 3 | 23HAH | LF1001K | AF10010 | EOT | EOTH |
| Stator - Generator | 1 | 3 | 23KAH | LF1001L | AF10010 | EOT | EOTH |
| Valve, Anti-Icing, Engine Inlet | 1 | 3 | 23QA8 | LF1001M | AF10010 | EOT | EOTH |
| Control - Fuel, Backup Valve - Transfer, BUC | 1 | 3 | 23HBA | LF1001N | AF10010 | EOT | EOTH |
| Valve - Transfer, BUC | 1 | 3 | 23HBB | LF1001P | AF10010 | EOT | EOTH |
| Valve - Shutoff, CENC | 1 | 3 | 23HBC | LF1001Q | AF10010 | EOT | EOTH |
| Events History Recorder | 1 | 3 | 23QA4 | LF1001R | AF10010 | EOT | EOTH |
| Control - Engine Electronic | 1 | 3 | 23HAB | LF10011 | AF10010 | EOT | EOTN |
| Control, Exhaust Nozzle Convergent | 1 | 3 | 23PAB | LF10012 | AF10010 | EOT | EOTH |
| Control, Unified, Turbine Engine | 1 | 3 | 23HAA | LF10014 | AF10010 | EOT | EOTH |
| Controller - Fuel Pump Augmentor | 1 | 3 | 23HAF | LF10015 | AF10010 | EOT | EOTH |
| Cooler - Oil, Fuel | 1 | 3 | 23JAC | LF10017 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin, CPR, Bleed | 1 | 3 | 23QA7 | LF10018 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin Var VN, Rear CPR | 2 | 3 | 23QA6 | LF10019 | AF10010 | EOT | EOTH |
| Inlet Fan Module | 1 | 3 | 23A00 | DF10030 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Seal, Air Compr, 2nd Stage | 1 | 4 | 23ADT | PF1003A | DF10030 | LCF, MAN | CCYN |
| Bearing, Main, No 1 Roller | 1 | 4 | 23AAE | PF1003B | DF10030 | EOT | EOTH |
| Contr & Cyl, Var Vane, Comp Inlet | 1 | 4 | 23AAP | PF10031 | DF10030 | EOT | EOTH |
| Cyl - Actg, Lin Var Vane, Comp Inlet | 1 | 4 | 23AAQ | PF10032 | DF10030 | EOT | EOTH |
| Disk & Hub, Compr, 1st Stage | 1 | 4 | 23ADB | PF10033 | DF10030 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 2nd Stage | 1 | 4 | 23ADG | PF10034 | DF10030 | LCF, MAN | CCYN |
| Disk, Compr, 3rd Stage | 1 | 4 | 23ADL | PF10035 | DF10030 | LCF, MAN | CCYN |

Table 9-32. F0100200B Engine Configuration - X8 Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-----------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Seal, Air, Compr Front, 1st Stage | 1 | 4 | 23ADE | PF10036 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Front, Compr Inlet | 1 | 4 | 23ADD | PF10037 | DF10030 | LCF, MAN | CCYN |
| Seal, Air Compr, Rear, 1st Stage | 1 | 4 | 23ADJ | PF10038 | DF10030 | LCF, MAN | CCYN |
| Retainer, Compr, Blade Lock | 1 | 4 | 23ADS | PF10039 | DF10030 | LCF, MAN | CCYN |
| Core Engine Module | 1 | 3 | 23B00 | DF10040 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Spacer, Air, Compr, 13th Stage | 1 | 4 | 23BJ7 | PF1004A | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 4th Stage | 1 | 4 | 23BJA | PF1004B | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 5th Stage | 1 | 4 | 23BJE | PF1004C | DF10040 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 6th Stage | 1 | 4 | 23BJH | PF1004D | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 7th Stage | 1 | 4 | 23BJL | PF1004E | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 8th Stage | 1 | 4 | 23BJP | PF1004F | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 9th Stage | 1 | 4 | 23BJS | PF1004G | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 10th Stage | 1 | 4 | 23BJV | PF1004H | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 11th Stage | 1 | 4 | 23BJY | PF1004J | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 12th Stage | 1 | 4 | 23BJ2 | PF1004K | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 13th Stage | 1 | 4 | 23BJ5 | PF1004L | DF10040 | LCF, MAN | CCYN |
| Shaft, Rear, Compr, Drive | 1 | 4 | 23BJ8 | PF1004M | DF10040 | LCF, MAN | CCYN |
| Bearing, Main, NBR, 2, Ball | 1 | 4 | 23BBB | PF1004N | DF10040 | EOT | EOTH |
| Bearing, Main, NBR, 3, Ball | 1 | 4 | 23BEC | PF1004P | DF10040 | EOT | EOTH |
| Bearing, Main, NBR, 4, Roller | 1 | 4 | 23BLK | PF1004Q | DF10040 | EOT | EOTH |
| Diffuser Case | 1 | 4 | 23BPD | PF1004R | DF10040 | LCF, MAN | CCYN |
| Seal - RR CP Inlet | 1 | 4 | 23BJB | PF1004S | DF10040 | LCF, MAN | CCYN |
| Chamber - Combustion, ASYO | 1 | 4 | 23BPH | PF1004T | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 4th Stage | 1 | 4 | 23BJD | PF10041 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 5th Stage | 1 | 4 | 23BJG | PF10042 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 6th Stage | 1 | 4 | 23BJK | PF10043 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 7th Stage | 1 | 4 | 23BJN | PF10044 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 8th Stage | 1 | 4 | 23BJR | PF10045 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 9th Stage | 1 | 4 | 23BJU | PF10046 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 10th Stage | 1 | 4 | 23BJX | PF10047 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 11th Stage | 1 | 4 | 23BJ1 | PF10048 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 12th Stage | 1 | 4 | 23BJ4 | PF10049 | DF10040 | LCF, MAN | CCYN |
| High Turbine Assembly | 1 | 4 | 23BN0 | DF10050 | DF10040 | FHR, LCF, MAN | CCYV |
| Disk, 2nd Stage, Turbine | 1 | 5 | 23BNQ | PF1005A | DF10050 | LCF, MAN | CCYN |
| Disk 1st Stage, Turbine | 1 | 5 | 23BNB | PF10051 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG, 2nd Stage, Turbine | 1 | 5 | 23BNF | PF10053 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Front | 1 | 5 | 23BNG | PF10054 | DF10050 | LCF, MAN | CCYN |
| Hub - Turbine, Front | 1 | 5 | 23BND | PF10056 | DF10050 | LCF, MAN | CCYN |

Table 9-32. F0100200B Engine Configuration - X8 Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Plate - Rtg, Blade, Turb, Rear, 2nd Stg | 1 | 5 | 23BNM | PF10057 | DF10050 | LCF, MAN | CCYN |
| Seal - Air, Turbine, 1st Stg | 1 | 5 | 23BNH | PF10058 | DF10050 | LCF, MAN | CCYN |
| Seal - Air, NBR 4, Bearing, R | 1 | 5 | 23BMY | PF10059 | DF10050 | LCF, MAN | CCYN |
| Fan Drive Turbine Module | 1 | 3 | 23C00 | DF10060 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Disk, 3rd Stage, Turbine | 1 | 4 | 23CBB | PF10061 | DF10060 | LCF, MAN | CCYN |
| Disk, 4th Stage, Turbine | 1 | 4 | 23CBP | PF10062 | DF10060 | LCF, MAN | CCYN |
| Seal, Air, Turbine, 4th Stage | 1 | 4 | 23CBL | PF10063 | DF10060 | LCF, MAN | CCYN |
| Bearing, Main, NBR 5, Roller | 1 | 4 | 23CCD | PF10064 | DF10060 | EOT | EOTH |
| Seal, Air Turbine, 3rd Stage | 1 | 4 | 23CBD | PF10065 | DF10060 | LCF, MAN | CCYN |
| Augmentor Duct and Nozzle Module | 1 | 3 | 23F00 | DF10070 | AF10010 | FHR, EOT, LCF, MAN | EOTN, CCYV |
| Augmentor, Comp Chamber Duct Assy. | 1 | 4 | 23FAA | PF10073 | DF10070 | EOT, LCF, MAN | CCYN |
| Actuator - Ballscrew, Prmry Conv Noz | 1 | 4 | 23FAN | PF10071 | DF10070 | EOT | EOTH |
| Actuator - Ballscrew, Scndy Conv Noz | 4 | 4 | 23FAP | PF10072 | DF10070 | EOT | EOTH |
| Gearbox Module | 1 | 3 | 23G00 | DF10080 | AF10010 | FHR, EOT | EOTH |

Table 9-33. F0100200C Engine Configuration - X9 Engine ID

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| F0100200C Engine | 1 | 2 | 23Z00 | AF10010 | | EOT, HS1, HS2, LCF, FHR, MAN | NONE |
| Duct - Fan, Outer, Front, Assy of | 1 | 3 | 23QCB | LF1001A | AF10010 | EOT | EOTN |
| Duct - Fan, Rear, Assy of | 1 | 3 | 23QCA | LF1001B | AF10010 | EOT | EOTN |
| Exciter - Ignition, Dual | 1 | 3 | 23KAD | LF1001C | AF10010 | EOT | EOTH |
| Exciter - Ignition, Single | 1 | 3 | 23KAE | LF1001D | AF10010 | EOT | EOTH |
| Pump - Fuel, Augmentor | 1 | 3 | 23HAE | LF1001E | AF10010 | EOT | EOTH |
| Regulator, Air Press Exit Noz Cont | 1 | 3 | 23PAC | LF1001G | AF10010 | EOT | EOTH |
| Sensor - Hydromechanical, N2 | 1 | 3 | 23HAG | LF1001J | AF10010 | EOT | EOTH |
| Sensor - Temperature Fan Exit (TT2.5) | 1 | 3 | 23HAH | LF1001K | AF10010 | EOT | EOTH |
| Stator - Generator | 1 | 3 | 23KAH | LF1001L | AF10010 | EOT | EOTH |
| Valve, Anti-Icing, Engine Inlet | 1 | 3 | 23QA8 | LF1001M | AF10010 | EOT | EOTH |
| Control - Fuel, Backup Valve - Transfer, BUC | 1 | 3 | 23HBA | LF1001N | AF10010 | EOT | EOTH |
| Valve - Transfer, BUC | 1 | 3 | 23HBB | LF1001P | AF10010 | EOT | EOTH |
| Valve - Shutoff, CENC | 1 | 3 | 23HBC | LF1001Q | AF10010 | EOT | EOTH |
| Events History Recorder | 1 | 3 | 23QA4 | LF1001R | AF10010 | EOT | EOTH |
| Pump - Gear, Main Fuel | 1 | 3 | 23HAL | LF1001S | AF10010 | EOT | EOTH |
| Valve - Fuel Bypass | 1 | 3 | 23HAJ | LF1001T | AF10010 | EOT | EOTH |
| Control - Engine Electronic | 1 | 3 | 23HAB | LF10011 | AF10010 | EOT | EOTN |
| Control, Exhaust Nozzle Convergent | 1 | 3 | 23PAB | LF10012 | AF10010 | EOT | EOTH |
| Control, Unified, Turbine Engine | 1 | 3 | 23HAA | LF10014 | AF10010 | EOT | EOTH |
| Controller - Fuel Pump Augmentor | 1 | 3 | 23HAF | LF10015 | AF10010 | EOT | EOTH |
| Cooler - Oil, Fuel | 1 | 3 | 23JAC | LF10017 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin, CPR, Bleed | 1 | 3 | 23QA7 | LF10018 | AF10010 | EOT | EOTH |
| Cylinder - Actg, Lin Var VN, Rear CPR | 2 | 3 | 23QA6 | LF10019 | AF10010 | EOT | EOTH |
| Inlet Fan Module | 1 | 3 | 23A00 | DF10030 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Seal, Air Compr, 2nd Stage | 1 | 4 | 23ADT | PF1003A | DF10030 | LCF, MAN | CCYN |
| Bearing, Main, No 1 Roller | 1 | 4 | 23AAE | PF1003B | DF10030 | EOT | EOTH |
| Contr & Cyl, Var Vane, Comp Inlet | 1 | 4 | 23AAP | PF10031 | DF10030 | EOT | EOTH |
| Cyl - Actg, Lin Var Vane, Comp Inlet | 1 | 4 | 23AAQ | PF10032 | DF10030 | EOT | EOTH |
| Disk & Hub, Compr, 1st Stage | 1 | 4 | 23ADB | PF10033 | DF10030 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 2nd Stage | 1 | 4 | 23ADG | PF10034 | DF10030 | LCF, MAN | CCYN |
| Disk, Compr, 3rd Stage | 1 | 4 | 23ADL | PF10035 | DF10030 | LCF, MAN | CCYN |

Table 9-33. F0100200C Engine Configuration - X9 Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-----------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Seal, Air, Compr Front, 1st Stage | 1 | 4 | 23ADE | PF10036 | DF10030 | LCF, MAN | CCYN |
| Seal, Air, Front, Compr Inlet | 1 | 4 | 23ADD | PF10037 | DF10030 | LCF, MAN | CCYN |
| Seal, Air Compr, Rear, 1st Stage | 1 | 4 | 23ADJ | PF10038 | DF10030 | LCF, MAN | CCYN |
| Retainer, Compr, Blade Lock | 1 | 4 | 23ADS | PF10039 | DF10030 | LCF, MAN | CCYN |
| Core Engine Module | 1 | 3 | 23B00 | DF10040 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Spacer, Air, Compr, 13th Stage | 1 | 4 | 23BJ7 | PF1004A | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 4th Stage | 1 | 4 | 23BJA | PF1004B | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 5th Stage | 1 | 4 | 23BJE | PF1004C | DF10040 | LCF, MAN | CCYN |
| Disk & Hub, Compr, 6th Stage | 1 | 4 | 23BJH | PF1004D | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 7th Stage | 1 | 4 | 23BJL | PF1004E | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 8th Stage | 1 | 4 | 23BJP | PF1004F | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 9th Stage | 1 | 4 | 23BJS | PF1004G | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 10th Stage | 1 | 4 | 23BJV | PF1004H | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 11th Stage | 1 | 4 | 23BJY | PF1004J | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 12th Stage | 1 | 4 | 23BJ2 | PF1004K | DF10040 | LCF, MAN | CCYN |
| Disk, Compr, 13th Stage | 1 | 4 | 23BJ5 | PF1004L | DF10040 | LCF, MAN | CCYN |
| Shaft, Rear, Compr, Drive | 1 | 4 | 23BJ8 | PF1004M | DF10040 | LCF, MAN | CCYN |
| Bearing, Main, NBR, 2, Ball | 1 | 4 | 23BBB | PF1004N | DF10040 | EOT | EOTH |
| Bearing, Main, NBR, 3, Ball | 1 | 4 | 23BEC | PF1004P | DF10040 | EOT | EOTH |
| Bearing, Main, NBR, 4, Roller | 1 | 4 | 23BLK | PF1004Q | DF10040 | EOT | EOTH |
| Diffuser Case | 1 | 4 | 23BPD | PF1004R | DF10040 | LCF, MAN | CCYN |
| Seal - RR Compr Inlet | 1 | 4 | 23BJB | PF1004S | DF10040 | LCF, MAN | CCYN |
| Chamber - Combustion, ASYO | 1 | 4 | 23BPH | PF1004T | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 4th Stage | 1 | 4 | 23BJD | PF10041 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 5th Stage | 1 | 4 | 23BJG | PF10042 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 6th Stage | 1 | 4 | 23BJK | PF10043 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 7th Stage | 1 | 4 | 23BJN | PF10044 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 8th Stage | 1 | 4 | 23BJR | PF10045 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 9th Stage | 1 | 4 | 23BJU | PF10046 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 10th Stage | 1 | 4 | 23BJX | PF10047 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 11th Stage | 1 | 4 | 23BJ1 | PF10048 | DF10040 | LCF, MAN | CCYN |
| Seal, Air, Compr, 12th Stage | 1 | 4 | 23BJ4 | PF10049 | DF10040 | LCF, MAN | CCYN |
| High Turbine Assembly | 1 | 4 | 23BN0 | DF10050 | DF10040 | FHR, LCF, MAN | CCYV |
| Disk, 2nd Stage, Turbine | 1 | 5 | 23BNQ | PF1005A | DF10050 | LCF, MAN | CCYN |
| Disk 1st Stage, Turbine | 1 | 5 | 23BNB | PF10051 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG, 2nd Stage, Turbine | 1 | 5 | 23BNF | PF10053 | DF10050 | LCF, MAN | CCYN |
| Plate, RTG Turb, 1st Stage, Front | 1 | 5 | 23BNG | PF10054 | DF10050 | LCF, MAN | CCYN |
| Hub - Turbine, Front | 1 | 5 | 23BND | PF10056 | DF10050 | LCF, MAN | CCYN |

Table 9-33. F0100200C Engine Configuration - X9 Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Plate - Rtg, Blade, Turb, Rear, 2nd Stg | 1 | 5 | 23BNM | PF10057 | DF10050 | LCF, MAN | CCYN |
| Seal - Air, Turbine, 1st Stg | 1 | 5 | 23BNH | PF10058 | DF10050 | LCF, MAN | CCYN |
| Seal - Air, NBR 4 Bearing, R | 1 | 5 | 23BMY | PF10059 | DF10050 | LCF, MAN | CCYN |
| Fan Drive Turbine Module | 1 | 3 | 23C00 | DF10060 | AF10010 | FHR, EOT, LCF, MAN | CCYV |
| Disk, 3rd Stage, Turbine | 1 | 4 | 23CBB | PF10061 | DF10060 | LCF, MAN | CCYN |
| Disk, 4th Stage, Turbine | 1 | 4 | 23CBP | PF10062 | DF10060 | LCF, MAN | CCYN |
| Seal, Air, Turbine, 4th Stage | 1 | 4 | 23CBL | PF10063 | DF10060 | LCF, MAN | CCYN |
| Bearing, Main, NBR 5, Roller | 1 | 4 | 23CCD | PF10064 | DF10060 | EOT | EOTH |
| Seal, Air Turbine, 3rd Stage | 1 | 4 | 23CBD | PF10065 | DF10060 | LCF, MAN | CCYN |
| Augmentor Duct and Nozzle Module | 1 | 3 | 23F00 | DF10070 | AF10010 | FHR, EOT, LCF, MAN | EOTN, CCYV |
| Augmentor, Comp Chamber Duct Assy. | 1 | 4 | 23FAA | PF10073 | DF10070 | EOT, LCF, MAN | CCYN |
| Actuator - Ballscrew, Prmry Conv Noz | 1 | 4 | 23FAN | PF10071 | DF10070 | EOT | EOTH |
| Actuator - Ballscrew, Scndy Conv Noz | 4 | 4 | 23FAP | PF10072 | DF10070 | EOT | EOTH |
| Gearbox Module | 1 | 3 | 23G00 | DF10080 | AF10010 | FHR, EOT | EOTH |

Table 9-34. F0100220A-F Engine Configuration - YF, YA, YJ, YC, YD, YE Engine ID

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---------------------------------------|-----|-----------|-------|----------|---------|---|-------------------------------------|
| F0100220A/B Engine | 1 | 2 | 23Z00 | AF10010 | | FHR, ABC, EOT, HS1, ABT, HS2, LCF, HS3, CY4, MAN, HS4, IFT, VMX | CALQ, EOTQ, CCYP |
| Duct - Fan, Outer, Front, Assy of | 1 | 3 | 23QCB | LF1001A | AF10010 | EOT | EOTN, CALQ, EOTQ |
| Duct - Fan, Rear, Assy of | 1 | 3 | 23QCA | LF1001B | AF10010 | EOT | EOTN, CALQ, EOTQ |
| Exciter - Ignition, Dual | 2 | 3 | 23KAD | LF1001C | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Pump - Fuel, Augmentor | 1 | 3 | 23HHO | LF100AG | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Valve, Anti-Icing, Engine Inlet | 1 | 3 | 23QA8 | LF1001M | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Control - Fuel, Augmentor | 1 | 3 | 23HEO | LF1001U | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Control - Fuel, Main | 1 | 3 | 23HCO | LF1001V | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Detector - Light - Off | 1 | 3 | 23HJO | LF1001W | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Diagnostic Unit - Engine | 1 | 3 | 23KCO | LF1001Z | AF10010 | EOT | EOTN, CALQ, EOTQ |
| Control, Exhaust Nozzle Convergent | 1 | 3 | 23PBO | LF100AD | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Control - Digital Engine Electronic | 1 | 3 | 23HFO | LF10013 | AF10010 | EOT | EOTN, CALQ, EOTQ |
| Controller - Fuel Pump Augmentor | 1 | 3 | 23HGO | LF100AE | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Cooler - Oil, Fuel | 1 | 3 | 23JAC | LF10017 | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Cylinder - Actg, Lin, CPR, Bleed | 1 | 3 | 23QA7 | LF10018 | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Cylinder - Actg, Lin Var VN, Rear CPR | 2 | 3 | 23QA5 | LF100AF | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Rotor - Generator | 1 | 3 | 23KBB | LF100AA | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Stator - Generator | 1 | 3 | 23KBA | LF100AB | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Pump - Gear, Main Fuel | 1 | 3 | 23HA2 | LF100AC | AF10010 | EOT | EOTH, CALQ, EOTQ |
| Inlet Fan Module | 1 | 3 | 23A00 | DF10030 | AF10010 | FHR, IFT, LCF, MAN, CY4, EOT | CCYV, CALQ, EOTQ |
| Seal, Air Compr, 2nd Stage | 1 | 4 | 23ADT | PF1003A | DF10030 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Bearing, Main, No 1 Roller | 1 | 4 | 23AAE | PF1003B | DF10030 | EOT | EOTH, CALQ, EOTQ |
| Contr & Cyl, Var Vane, Comp Inlet | 1 | 4 | 23AAW | PF1003D | DF10030 | EOT | EOTH, CALQ, EOTQ |

Table 9-34. F0100220A-F Engine Configuration - YF, YA, YJ, YC, YD, YE Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--------------------------------------|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| Cyl - Actg, Lin Var Vane, Comp Inlet | 1 | 4 | 23AAY | PF1003E | DF10030 | EOT | EOTH, CALQ, EOTQ |
| Disk & Hub, Compr, 1st Stage | 1 | 4 | 23ADB | PF10033 | DF10030 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk & Hub, Compr, 2nd Stage | 1 | 4 | 23ADG | PF10034 | DF10030 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk, Compr, 3rd Stage | 1 | 4 | 23ADL | PF10035 | DF10030 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Compr Front, 1st Stage | 1 | 4 | 23ADE | PF10036 | DF10030 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Front, Compr Inlet | 1 | 4 | 23ADD | PF10037 | DF10030 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air Compr, Rear, 1st Stage | 1 | 4 | 23ADJ | PF10038 | DF10030 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Retainer, Compr, Blade Lock | 1 | 4 | 23ADS | PF10039 | DF10030 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Core Engine Module | 1 | 3 | 23B00 | DF10040 | AF10010 | FHR, IFT, LCF, MAN, CY4, EOT | CCYV, CALQ, EOTQ |
| Spacer, Air, Compr, 13th Stage | 1 | 4 | 23BJ7 | PF1004A | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk, Compr, 4th Stage | 1 | 4 | 23BJA | PF1004B | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk, Compr, 5th Stage | 1 | 4 | 23BJE | PF1004C | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk & Hub, Compr, 6th Stage | 1 | 4 | 23BJH | PF1004D | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk, Compr, 7th Stage | 1 | 4 | 23BJL | PF1004E | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk, Compr, 8th Stage | 1 | 4 | 23BJP | PF1004F | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk, Compr, 9th Stage | 1 | 4 | 23BJS | PF1004G | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk, Compr, 10th Stage | 1 | 4 | 23BJV | PF1004H | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk, Compr, 11th Stage | 1 | 4 | 23BJY | PF1004J | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk, Compr, 12th Stage | 1 | 4 | 23BJ2 | PF1004K | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk, Compr, 13th Stage | 1 | 4 | 23BJ5 | PF1004L | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Shaft, Rear, Compr, Drive | 1 | 4 | 23BJ8 | PF1004M | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Bearing, Main, NBR, 2, Ball | 1 | 4 | 23BBD | PF1004N | DF10040 | EOT | EOTH, CALQ, EOTQ |
| Bearing, Main, NBR, 3, Ball | 1 | 4 | 23BEC | PF1004P | DF10040 | EOT | EOTH, CALQ, EOTQ |
| Bearing, Main, NBR, 4, Roller | 1 | 4 | 23BLK | PF1004Q | DF10040 | EOT | EOTH, CALQ, EOTQ |
| Diffuser Case | 1 | 4 | 23BPD | PF1004R | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |

Table 9-34. F0100220A-F Engine Configuration - YF, YA, YJ, YC, YD, YE Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--|-----|-----------|-------|----------|---------|-----------------------------------|-------------------------------------|
| Seal - RR CP Inlet | 1 | 4 | 23BJB | PF1004S | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Chamber - Combustion, ASYO | 1 | 4 | 23BPH | PF1004T | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Compr, 4th Stage | 1 | 4 | 23BJD | PF10041 | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Compr, 5th Stage | 1 | 4 | 23BJG | PF10042 | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Compr, 6th Stage | 1 | 4 | 23BJK | PF10043 | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Compr, 7th Stage | 1 | 4 | 23BJN | PF10044 | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Compr, 8th Stage | 1 | 4 | 23BJR | PF10045 | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Compr, 9th Stage | 1 | 4 | 23BJU | PF10046 | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Compr, 10th Stage | 1 | 4 | 23BJX | PF10047 | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Compr, 11th Stage | 1 | 4 | 23BJ1 | PF10048 | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Compr, 12th Stage | 1 | 4 | 23BJ4 | PF10049 | DF10040 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| High Turbine Assembly | 1 | 4 | 23BN0 | DF10050 | DF10040 | FHR, IFT, LCF, MAN, CY4 | CCYV, CCYQ, CALQ |
| Disk, 2nd Stage, Turbine | 1 | 5 | 23BNQ | PF1005A | DF10050 | LCF, MAN, CY4 | CCYN, CCYQ, CALQ |
| Disk 1st Stage, Turbine | 1 | 5 | 23BNB | PF10051 | DF10050 | LCF, MAN, CY4 | CCYN, CCYQ, CALQ |
| Plate, RTG, 2nd Stage, Turbine | 1 | 5 | 23BNF | PF10053 | DF10050 | LCF, MAN, CY4 | CCYN, CCYQ, CALQ |
| Plate, RTG Turb, 1st Stage, Front | 1 | 5 | 23BNG | PF10054 | DF10050 | LCF, MAN, CY4 | CCYN, CCYQ, CALQ |
| Hub - Turbine, Front | 1 | 5 | 23BND | PF10056 | DF10050 | LCF, MAN, CY4 | CCYN, CCYQ, CALQ |
| Plate - Rtg, Blade, Tur, Rear, 2nd Stg | 1 | 5 | 23BNM | PF10057 | DF10050 | LCF, MAN, CY4 | CCYN, CCYQ, CALQ |
| Seal - Air, Turbine, 1st Stg | 1 | 5 | 23BNH | PF10058 | DF10050 | LCF, MAN, CY4 | CCYN, CCYQ, CALQ |
| Seal - Air, Nr 4 Brng, R | 1 | 5 | 23BMY | PF10059 | DF10050 | LCF, MAN, CY4 | TACN |
| Fan Drive Turbine Module | 1 | 3 | 23C00 | DF10060 | AF10010 | FHR, IFT, LCF, MAN, CY4, EOT, HS3 | CCYV, CALQ, EOTQ |
| Disk, 3rd Stage, Turbine | 1 | 4 | 23CBB | PF10061 | DF10060 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Disk, 4th Stage, Turbine | 1 | 4 | 23CBP | PF10062 | DF10060 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Seal, Air, Turbine, 4th Stage | 1 | 4 | 23CBL | PF10063 | DF10060 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |

Table 9-34. F0100220A-F Engine Configuration - YF, YA, YJ, YC, YD, YE Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--------------------------------------|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| Bearing, Main, NBR 5, Roller | 1 | 4 | 23CCD | PF10064 | DF10060 | EOT | EOTH, CALQ, EOTQ |
| Seal, Air, Turbine, 3rd Stage | 1 | 4 | 23CBD | PF10065 | DF10060 | LCF, MAN, CY4 | CCYN, CALQ, EOTQ |
| Augmentor Duct and Nozzle Module | 1 | 3 | 23F00 | DF10070 | AF10010 | FHR, IFT, EOT, LCF, MAN, CY4 | EOTH, CALQ, EOTQ, CCYV |
| Augmentor, Comp Chamber Duct Assy. | 1 | 4 | 23FAA | PF10073 | DF10070 | EOT, LCF, MAN, CY4 | CCYN |
| Actuator - Ballscrew, Prmry Conv Noz | 1 | 4 | 23FAN | PF10071 | DF10070 | EOT | EOTH, CALQ, EOTQ |
| Actuator - Ballscrew, Scndy Conv Noz | 4 | 4 | 23FAP | PF10072 | DF10070 | EOT | EOTH, CALQ, EOTQ |
| Gearbox Module | 1 | 3 | 23G00 | DF10080 | AF10010 | FHR, IFT, EOT | EOTH, CALQ, EOTQ |

F0100220A-F EDITS

| TRANSACTION | EOT | HS1, HS2, HS3, HS4 | LCF | MAN CY | AB CY | AB TIME |
|---|----------------------|------------------------|----------------------|---------------------|----------------------|----------------------|
| Initialization, Removals, Installations | Plus or minus 10 hrs | Plus or minus 9.98 hrs | Plus or minus 100 cy | Plus or minus 10 cy | Plus or minus 200 cy | Plus or minus 10 hrs |
| "6U" Update | >0 <= 10 hrs | NONE | 100 cy | 10 cy | 20 x EOT | .1 x EOT |
| Normal Limit | >0 <= 25 | NONE | 200 | 20 | 20 x EOT | .2 x EOT |
| Extended Flight | | | | | | |

| TRANSACTION | VMAX | CY4 | IFT |
|--|--------------------|----------------------|----------------------|
| Initializations, Removals, Installations | Plus or minus 1 hr | Plus or minus 100 cy | Plus or minus 10 hrs |
| "6U" Update | 0.00 hrs | 100 cy | NONE |
| Normal Limit | 1.00 | 200 | NONE |
| Extended Flight | | | |
| DELTA HS2 Cannot Exceed Delta HS4 | | | |
| DELTA HS4 Cannot Exceed Delta HS1 | | | |
| DELTA HS1 Cannot Exceed Delta HS3 | | | |
| DELTA HS3 Cannot Exceed Delta EOT | | | |
| DELTA IFT Cannot Exceed Delta EOT | | | |
| If ABC = 0, ABT must = 0 | | | |
| If MAN = 0, CY4 must = 0 | | | |
| If MAN > 0, CY4 must be > 0 | | | |

Table 9-35. F0100229A Engine Configuration - YG Engine ID; F0100229B Engine Configuration - YH Engine ID

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|--|-----|-----------|-------|----------|---------|---|-------------------------------------|
| F0100229A/B Engine | 1 | 2 | 23Z00 | AF10010 | | FHR,ABC,EOT, HS1,ABT,HS2, LCF,HS3,CY4, MAN,HS4,IFT, VMX,CAL | CALQ,IFTO, TACP |
| Control, Exhaust Nozzle | 1 | 3 | 23PBO | LF100AD | AF10010 | EOT | EOTH |
| Control - Engine, Digital Electronic | 1 | 3 | 23HFO | LF10013 | AF10010 | EOT | EOTH |
| Controller - Fuel Pump Augmentor | 1 | 3 | 23HGO | LF100AE | AF10010 | EOT | EOTH |
| Cooler - Oil | 1 | 3 | 23JAC | LF10017 | AF10010 | EOT | EOTH |
| Cylinder - Actuating, Compr Bleed | 1 | 3 | 23QA7 | LF10018 | AF10010 | EOT | EOTH |
| Cyl - Actg, Lin Var Vane, Rear Compr | 2 | 3 | 23QA5 | LF100AF | AF10010 | EOT | EOTH |
| Duct - Fan, Front, Assy of | 1 | 3 | 23QCB | LF100AH | AF10010 | LCF,MAN,CY4 | TACH/N |
| Duct - Fan, Rear, Assy of | 1 | 3 | 23QCA | LF100AJ | AF10010 | LFC,MAN,CY4 | TACH/N |
| Exciter - Ignition, Dual | 2 | 3 | 23KAD | LF1001C | AF10010 | EOT | EOTH |
| Pump - Fuel, Augmentor | 1 | 3 | 23HHO | LF100AG | AF10010 | EOT | EOTH |
| Fuel Control - Augmentor | 1 | 3 | 23HEO | LF1001U | AF10010 | EOT | EOTH |
| Fuel Control - Main | 1 | 3 | 23HCO | LF1001V | AF10010 | EOT | EOTH |
| Detector - Light - Off, Augmentor | 1 | 3 | 23HJO | LF1001W | AF10010 | EOT | EOTH |
| Valve - Anti-Icing | 1 | 3 | 23QA8 | LF1001X | AF10010 | EOT | EOTH |
| Diagnostic Unit - Engine | 1 | 3 | 23KCO | LF1001Z | AF10010 | EOT | EOTH |
| Rotor - Generator | 1 | 3 | 23KBB | LF100AA | AF10010 | EOT | EOTH |
| Stator - Generator | 1 | 3 | 23KBA | LF100AB | AF10010 | EOT | EOTH |
| Pump - Gear, Main Fuel | 1 | 3 | 23HA2 | LF100AC | AF10010 | EOT | EOTH |
| Inlet Fan Module | 1 | 3 | 23A00 | DF10030 | AF10010 | FHR,IFT,LCF, MAN,CY4,EOT | TACV |
| Contr & Cyl, Var Vane | 1 | 4 | 23AAW | PF1003D | DF10030 | EOT | EOTH |
| Cyl - Actg, Lin Var Vane, Comp Inlet | 1 | 4 | 23AAY | PF1003E | DF10030 | EOT | EOTH |
| Seal, Air, Compr Front, 1st Stg | 1 | 4 | 23ADE | PF10036 | DF10030 | LCF,MAN,CY4 | TACN |
| Seal, Air, Front, Compr Inlet | 1 | 4 | 23ADD | PF10037 | DF10030 | LCF,MAN,CY4 | TACN |
| Seal, Air, Compr, Rear, 1st Stg | 1 | 4 | 23ADJ | PF10038 | DF10030 | LCF,MAN,CY4 | TACN |
| Retainer, Compr, 3rd Stg | 1 | 4 | 23ADS | PF10039 | DF10030 | LCF,MAN,CY4 | TACN |
| Seal, Air, Compr, Front, 2nd Stg | 1 | 4 | 23ADT | PF1003A | DF10030 | LCF,MAN,CY4 | TACN |
| Bearing - Roller, No 1 | 1 | 4 | 23AAE | PF1003B | DF10030 | EOT | EOTH |
| Disk - Drum Rotor, Front Compr | 1 | 4 | 23AC5 | PF1003C | DF10030 | LCF,MAN,CY4 | TACN |
| Core Engine Module | 1 | 3 | 23B00 | DF10040 | AF10010 | FHR,IFT,LCF, MAN,CY4,EOT, HS1,HS2,HS3, HS4 | TACV |
| Disk & Hub, Compr, 6th Stage | 1 | 4 | 23BJH | PF1004D | DF10040 | LCF,MAN,CY4 | TACN |
| Bearing - Ball, Flanged, Nr 2 | 1 | 4 | 23BBB | PF1004N | DF10040 | EOT | EOTH |
| Bearing - Ball, Annular, Flanged, Nr 3 | 1 | 4 | 23BEC | PF1004P | DF10040 | EOT | EOTH |
| Bearing - Roller, Cylindrical, Nr 4 | 1 | 4 | 23BLK | PF1004Q | DF10040 | EOT | EOTH |
| Case - Diffuser, Assy of | 1 | 4 | 23BPD | PF1004R | DF10040 | LCF,MAN,CY4 | TACN |
| Chamber - Combustion, Assy of | 1 | 4 | 23BPH | PF1004T | DF10040 | LCF,MAN,CY4 | TACN |
| Disk - Drum Rotor, Rear Compr, Front | 1 | 4 | 23BGH | PF1004U | DF10040 | LCF,MAN,CY4 | TACN |
| Disk - Drum Rotor, Rear Compr, Rear | 1 | 4 | 23BGJ | PF1004V | DF10040 | LCF,MAN,CY4 | TACN |
| Case Set - Compr, 4 - 9th Stage | 1 | 4 | 23BGE | PF1004W | DF10040 | LCF,MAN,CY4 | TACN |
| Case - Compr, 10 - 12th Stg, Assy of | 1 | 4 | 23BGN | PF1004X | DF10040 | LCF,MAN,CY4 | TACN |
| Support - Nr 4 Bearing Seal, Front | 1 | 4 | 23BMC | PF1004Y | DF10040 | LCF,MAN,CY4 | TACN |
| Support - Nr 4 Bearing Seal, Rear | 1 | 4 | 23BMD | PF1004Z | DF10040 | LCF,MAN,CY4 | TACN |
| Seal Assy - Air, Mr 4 Bearing | 1 | 4 | 23BMB | PF100AA | DF10040 | LCF,MAN,CY4 | TACN |

Table 9-35. F0100229A Engine Configuration - YG Engine ID; F0100229B Engine Configuration - YH Engine ID - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|------------------------------------|-----|-----------|-------|----------|---------|---|-------------------------------------|
| Intermediate Case | 1 | 4 | 23BFS | PF100AB | DF10040 | LCF,MAN,CY4 | TACN |
| Rotor & Stator Assy - Turb (HPT) | 1 | 4 | 23BNO | DF10050 | DF10040 | FHR,IFT,LCF,MANCY4,EOT,HS1,HS2,HS3,HS4 | TACV |
| Disk - Turb, 1st Stage | 1 | 5 | 23BNB | PF10051 | DF10050 | LCF,MAN,CY4 | TACN |
| Plate, RTG Blade, 2nd Stage | 1 | 5 | 23BNF | PF10053 | DF10050 | LCR,MAN,CY4 | TACN |
| Plate, RTG Turb, 1st Stage | 1 | 5 | 23BNG | PF10054 | DF10050 | LCF,MAN,CY4 | TACN |
| Hub - Turbine, Rear Compr Drive | 1 | 5 | 23BND | PF10056 | DF10050 | LCF,MAN,CY4 | TACN |
| Plate, RTG, 2nd Stage, Rear | 1 | 5 | 23BNM | PF10057 | DF10050 | LCF,MAN,CY4 | TACN |
| Seal - Air, Turbine, 1st Stg | 1 | 5 | 23BNH | PF10058 | DF10050 | LCF,MAN,CY4 | TACN |
| Disk - Turb, 2nd Stage | 1 | 5 | 23BNQ | PF1005A | DF10050 | LCF,MAN,CY4 | TACN |
| Fan Drive Turbine (LPT) | 1 | 3 | 23C00 | DF10060 | AF10010 | FHR,IFT,LCF,MAN,CY4,EOT,HS1,HS2,HS3,HS4 | TACV |
| Disk, 3rd Stage, Turbine | 1 | 4 | 23CBB | PF10061 | DF10060 | LCF,MAN,CY4 | TACN |
| Disk, 4th Stage, Turbine | 1 | 4 | 23CBP | PF10062 | DF10060 | LCF,MAN,CY4 | TACN |
| Seal - Air, Turbine, 4th Stage | 1 | 4 | 23CBL | PF10063 | DF10060 | LCF,MAN,CY4 | TACN |
| Bearing - Roller, Nr 5 | 1 | 4 | 23CCD | PF10064 | DF10060 | EOT | EOTH |
| Seal - Air, Turbine, 3rd Stage | 1 | 4 | 23CBD | PF10065 | DF10060 | LCF,MAN,CY4 | TACN |
| Shaft, LPT | 1 | 4 | 23CBK | PF10066 | DF10060 | LCF,MAN,CY4 | TACN |
| Hub - Turbine, Rear | 1 | 4 | 23CBV | PF10067 | DF10060 | LCF,MAN,CY4 | TACN |
| Augmentor Duct and Nozzle | 1 | 3 | 23F00 | DF10070 | AF10010 | FHR,IFT,EOT,LCF,MAN,CY4,ABC,ABT | TACV |
| Augmentor, Comp Chamber Duct Assy. | 1 | 4 | 23FAA | PF10073 | DF10070 | EOT, LCF, MAN, CY4 | TACN |
| Actuator - Ballscrew, Prmry | 1 | 4 | 23FAN | PF10071 | DF10070 | EOT | EOTH |
| Actuator - Ballscrew, Scndy | 4 | 4 | 23FAP | PF10072 | DF10070 | EOT | EOTH |
| Gearbox | 1 | 3 | 23G00 | DF10080 | AF10010 | FHR,IFT,EOT,MAN,LCF,CY4 | EOTH |

F0100229A/B EDITS

| TRANSACTION | EOT | HS1,HS2 HS3,HS4 | LCF | MAN CY | AB CY | AB TIME |
|--|-------------------------|---------------------------|-------------------------|------------------------|-------------------------|-------------------------|
| Installations, Removals, Installations | Plus or minus 10 hrs | Plus or minus 9.98 hrs | Plus or minus 100 cy | Plus or minus 10 cy | Plus or minus 200 cy | Plus or minus 10 hrs |
| "6U" Update | | | | | | |
| Normal Limit | >0 <= 10 hrs | NONE | 100 cy | 10 cy | 30 x EOT | .1 x EOT |
| Extended Flight | >0 <= 25 | NONE | 200 | 20 | 30 x EOT | .2 x EOT |

| TRANSACTION | VMAX | CY4 | IFT |
|--|-----------------------|-------------------------|-------------------------|
| Initializations, Removals, Installations | Plus or minus 1 hr | Plus or minus 100 cy | Plus or minus 10 hrs |
| "6U" Update | | | |
| Normal Limit | | 200 cy | NONE |
| Extended Flight | | 400 | NONE |
| DELTA HS2 Cannot Exceed Delta HS4 DELTA HS4 Cannot Exceed Delta HS1 DELTA HS1 Cannot Exceed Delta HS3 DELTA HS3 Cannot Exceed Delta EOT DELTA IFT Cannot Exceed Delta EOT If ABC = 0, ABT must = 0 If MAN = 0, CY4 must = 0 If MAN > 0, CY4 must be > 0 | | | |

Table 9-35.1. F119 Engine Configuration - YR Engine ID

| NOMENCLATURE | OPA | IND LEVEL | LCN | CEMS CII | NHA LCN | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|---------------------------|-----|-----------|---------------------|----------|---------|---|------------------------------------|
| F119 Engine, Turbofan | 1 | 2 | 720000 | AF11910 | F22 | FHR, RUN, EOT, MAN, LCF, HS1, HS2, CSC, FLT, FLL, CLL, DLL, HLL, LLL, HAL, LAL, NLL, BLL, CPU, IBR, HSP, ABC, ABT, CY4, HS3, HS4, IFT | NONE |
| Diagnostic Unit-Eng Comp | 1 | 3 | 775110 | LF1191A | 720000 | EOT, CSC, CPU | EOTN |
| Fadec - Left | 1 | 3 | 761110A01 | LF1191B | 720000 | EOT, CSC, CPU | EOTN |
| Fadec - Right | 1 | 3 | 761110A02 | LF1191B | 720000 | EOT, CSC, CPU | EOTN |
| Gearbox Assembly | 1 | 3 | 726110 | LF1191C | 720000 | EOT | EOTN |
| Pump-Main Oil | 1 | 3 | 792310 | LF1191D | 720000 | EOT | EOTN, EOTV |
| Rotor Generator | 1 | 3 | 741120 | LF1191E | 720000 | EOT | EOTN |
| Stator Generator | 1 | 3 | 741110 | LF1191F | 720000 | EOT | EOTN |
| Pump - Actuator Fuel | 1 | 3 | 731510 | LF1191G | 720000 | EOT | EOTN |
| Fuel/Oil Cooler | 1 | 3 | 792410 | LF1191H | 720000 | EOT | EOTN |
| Air/Air Heat Exchanger | 1 | 3 | 727125 | LF1191J | 720000 | EOT, CSC | EOTN |
| Fuel/Air Heat Exchanger | 1 | 3 | 752110 | LF1191K | 720000 | EOT, CSC | EOTN |
| Exciter Ignition | 1 | 3 | 741210 | LF1191L | 720000 | EOT | EOTN |
| Detector-Light Off-Aug | 1 | 3 | 772210 | LF1191M | 720000 | EOT | EOTN |
| Sensor-N1 Speed | 1 | 3 | 771110 | LF1191N | 720000 | EOT | EOTN |
| Nozzle-Aug Fuel | 15 | 3 | 731410A01-731410A15 | LF1191P | 720000 | EOT, ABC, ABT | EOTN, EOTV |
| Nozzle-Aug Fuel, Ignition | 1 | 3 | 731430 | LF1191Q | 720000 | EOT, ABC, ABT | EOTN, EOTV |
| Liner Augmentor Assy | 1 | 3 | 785115 | LF1191R | 720000 | EOT, MAN, LCF, CY4, ABC, ABT | TCYN, TCYV |
| Aug Duct Assy | 1 | 3 | 785110 | LF1191S | 720000 | EOT, MAN, LCF, CY4 | TCYN, TCYV |
| Tail Cone | 1 | 3 | 720070 | LF1191T | 720000 | EOT, MAN, LCF, CY4 | TCYN |
| MEC Servocylinder | 1 | 3 | 752220 | HF11920 | 720000 | EOT, MAN, LCF, CY4 | EOTN, TCYV |
| MEC Actua Tor Solenoid | 1 | 4 | 752260 | PF11921 | 752220 | EOT | EOTN |
| Switch-Reed, MEC | 1 | 4 | 752250 | PF11922 | 752220 | EOT | EOTN |
| Main Fuel Pump | 1 | 3 | 731110 | HF11930 | 720000 | EOT | EOTN |
| Fuel Filter Delta P Trans | 1 | 4 | 731112 | PF11931 | 731110 | EOT | EOTN |
| Main Fuel Throttle Valve | 1 | 3 | 732210 | HF11940 | 720000 | EOT | EOTN |
| EHSV Module-Fuel Flow | 1 | 4 | 732211A01 | PF11941 | 732210 | EOT | EOTN |
| EHSV Module-Ther Recirc | 1 | 4 | 732211A02 | PF11941 | 732210 | EOT | EOTN |
| EHSV Module-By Pass | 1 | 4 | 732211A03 | PF11941 | 732210 | EOT | EOTN |
| Solenoid Module-N1 Ov/Sp | 1 | 4 | 732212A01 | PF11942 | 732210 | EOT | EOTN |
| Solenoid Module-Trans Vlv | 1 | 4 | 732212A02 | PF11942 | 732210 | EOT | EOTN |
| Transducer Pt/Temp | 1 | 4 | 732215 | PF11943 | 732210 | EOT | EOTN |
| VLV LVDT - Fuel Throttle | 1 | 4 | 732213A01 | PF11944 | 732210 | EOT | EOTN |
| VLV LVDT - Ther Rec | 1 | 4 | 732213A02 | PF11944 | 732210 | EOT | EOTN |
| Augmentor Fuel Control | 1 | 3 | 732110 | HF11950 | 720000 | EOT | EOTN |
| EHSV, AFC, Zone 1 | 1 | 4 | 732111A01 | PF11951 | 732110 | EOT | EOTN |
| EHSV, AFC, Zone 2 | 1 | 4 | 732111A02 | PF11951 | 732110 | EOT | EOTN |
| EHSV, AFC, Zone 3 | 1 | 4 | 732121A03 | PF11951 | 732110 | EOT | EOTN |
| LVDT, AFC, Zone 1 | 1 | 4 | 732112A01 | PF11952 | 732110 | EOT | EOTN |

Table 9-35.1. F119 Engine Configuration - YR Engine ID

| NOMENCLATURE | QPA | IND LEVEL | LCN | CEMS CII | NHA LCN | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|------------------------------|-----|-----------|---------------------|----------|---------|--|------------------------------------|
| LVDT, AFC, Zone 2 | 1 | 4 | 732112A02 | PF11952 | 732110 | EOT | EOTN |
| LVDT, AFC, Zone 3 | 1 | 4 | 732112A03 | PF11952 | 732110 | EOT | EOTN |
| Valve Anti-Ice, Eng Inlet | 1 | 3 | 751110 | HF11960 | 720000 | EOT | EOTN |
| Solenoid, A/I Valve | 1 | 4 | 751112 | PF11961 | 751110 | EOT | EOTN |
| Switch - Reed, A/I Valve | 1 | 4 | 751111 | PF11962 | 751110 | EOT | EOTN |
| Servocylinder, Fan | 1 | 3 | 753110 | HF11970 | 720000 | EOT | EOTN |
| Ehsv-Fvv Servocylinder, Ch.2 | 1 | 4 | 753111A02 | PF11971 | 753110 | EOT | EOTN |
| Servocylind, Compr Stator | 1 | 3 | 753310 | HF11980 | 720000 | EOT | EOTN |
| EHSV-FVV Servocylinder, Ch.1 | 1 | 4 | 753311A01 | PF11981 | 753310 | EOT | EOTN |
| EHSV-Fvv Servocylinder, Ch.2 | 1 | 4 | 753311A02 | PF11981 | 753310 | EOT | EOTN |
| T/Solenoid, CVV Servo Cyl | 1 | 4 | 753312 | PF11982 | 753310 | EOT | EOTN |
| Core Engine Module | 1 | 3 | 720510 | DF119C0 | 720000 | EOT, MAN, LCF, HS1, HS2, CLL, DLL, HLL, HAL, BLL, IBR, HSP, CY4, HS3, HS4, IFT | TCYV, TCYN, ERLN |
| Bearing No. 2 | 1 | 4 | 723620 | PF119CA | 720510 | EOT, BLL | EOTN, EOTV |
| Bearing No. 3 | 1 | 4 | 723630 | PF119CB | 720510 | EOT, BLL | EOTN, EOTV |
| Compr Rot & Hub Axl 4 Stg | 1 | 4 | 723510 | PF119CC | 720510 | EOT, MAN, LCF, CLL, IBR, CY4 | EOTN, EOTV |
| Compr Rotor, Axial 5 Stg | 1 | 4 | 723516 | PF119CD | 720510 | EOT, MAN, LCF, CLL, CY4 | EOTN, EOTV |
| Compr Rotor, Axial 6 Stg | 1 | 4 | 723521 | PF119CE | 720510 | EOT, MAN, LCF, CLL, CY4 | TCYV, TCYN |
| Compr Rotor, Axial 7 Stg | 1 | 4 | 723526 | PF119CF | 720510 | EOT, MAN, LCF, CLL, CY4 | TCYN, TCYV |
| Compr Rotor, Axial 8 Stg | 1 | 4 | 723531 | PF119CG | 720510 | EOT, MAN, LCF, CLL, CY4 | TCYN, TCYV |
| Compr Rot & Hub Axl 9 Stg | 1 | 4 | 723536 | PF119CH | 720510 | EOT, MAN, LCF, CLL, CY4 | TCYN, TCYV |
| Seal, Hub, 9th Stage | 1 | 4 | 724143 | PF119CJ | 720510 | EOT, MAN, LCF, DLL, CY4 | TCYN |
| Coupl Assy, Turbine Shaft | 1 | 4 | 723625 | PF119CK | 720510 | EOT, MAN, LCF, CY4 | TCYN, TCYV |
| Case-Diffuser, Outer | 1 | 4 | 724142 | PF119CL | 720510 | EOT, MAN, LCF, DLL, CY4 | TCYN, TCYV |
| Case-Diffuser, Inner | 1 | 4 | 724144 | PF119CM | 720510 | EOT, MAN, LCF, DLL, CY4 | TCYN, TCYV |
| Combustor Assy | 1 | 4 | 724110 | PF119CN | 720510 | EOT, MAN, LCF, HS1, HS2, DLL, CY4, HS3, HS4 | TCYN, TCYV |
| Nozzle-Fuel, Pri and Sec | 10 | 4 | 731220A01-731220A10 | PF119CP | 720510 | MAN, LCF, CY4 | TCYN, TCYV |
| Nozzle-Fuel, Secondary | 14 | 4 | 731210A01-731210A14 | PF119CQ | 720510 | MAN, LCF, CY4 | TCYN, TCYV |
| High Pres Turbine Rotor Assy | 1 | 4 | 725110 | HF119H0 | 7200510 | EOT, MAN, LCF, HS1, HS2, CLL, DLL, HLL, HAL, BLL, HSP, CY4, HS3, HS4, IFT | TCYN, TCYV, ERLN |
| Ring No. 4 Bearing-Inner | 1 | 5 | 725510 | PF119H1 | 725110 | EOT, BLL | EOTN, EOTV |

Table 9-35.1. F119 Engine Configuration - YR Engine ID

| NOMENCLATURE | OPA | IND LEVEL | LCN | CEMS CII | NHA LCN | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|---------------------------------|-----|-----------|--------|----------|---------|--|------------------------------------|
| No. 4 Bearing Rear Air Seal | 1 | 5 | 725512 | PF119H2 | 725110 | EOT, MAN, LCF, CY4, HLL | TCYN, TCYV |
| Seal, Rtg, Bld, Tb, Frt, 1 Stg | 1 | 5 | 725113 | PF119H3 | 725110 | EOT, MAN, LCF, HLL, HSP, CY4 | TCYN |
| Plate, Rtg, Tb, Front, 1 Stg | 1 | 5 | 725118 | PF119H4 | 725110 | EOT, MAN, LCF, HLL, CY4 | TCYN, TCYV |
| Seal - Hub, HPT 1st Stg | 1 | 5 | 725115 | PF119H5 | 725110 | EOT, MAN, LCF, HLL, CY4 | TCYN, TCYV |
| HPT Blade | 58 | 5 | 725117 | PF119H6 | 725110 | EOT, MAN, LCF, HS1, HS2, HAL, CY4, HS3, HS4 | TCYN, ERLN |
| Cover Plate, HPT Rear | 1 | 5 | 725514 | PF119H7 | 725110 | EOT, MAN, LCF, HLL, CY4, IFT | TCYN |
| No. 4 Bearing Frt Air Seal | 1 | 5 | 725513 | PF119H8 | 725110 | EOT, MAN, LCF, HLL, CY4 | TCYN, TCYV |
| Disk & Hub, Turbine 1 Stg | 1 | 5 | 725112 | PF119H9 | 725110 | EOT, MAN, LCF, HLL, HSP, CY4 | TCYN, TCYV |
| Inlet/Fan Module | 1 | 3 | 720410 | DF119F0 | 720000 | EOT, MAN, LCF, FLL, BLL, CY4, IFT | TCYN, TCYV |
| Bearing Rol, Cyl, Flgd. #1 | 1 | 4 | 723610 | PF119FA | 720410 | EOT, BLL | EOTN, EOTV |
| Compressor Rotor & CWTSET | 1 | 4 | 723110 | PF119FB | 720410 | EOT, MAN, LCF, FLL, CY4 | TCYN, TCYV |
| Comp Rotor - Axial 2 Stg | 1 | 4 | 723120 | PF119FC | 720410 | EOT, MAN, LCF, FLL, CY4 | TCYN, TCYV |
| Comp Rotor - Axial 3 Stg | 1 | 4 | 723130 | PF119FD | 720410 | EOT, MAN, LCF, FLL, CY4 | TCYN, TCYV |
| Hub-Front Compressor Rear | 1 | 4 | 723111 | PF119FE | 720410 | EOT, MAN, LCF, FLL, CY4 | TCYN, TCYV |
| Inlet Case Assy | 1 | 4 | 722110 | PF119FF | 720410 | EOT, MAN, LCF, CY4 | TCYN, TCYV |
| Fan Drive Turbine Module | 1 | 3 | 720610 | DF119L0 | 720000 | EOT, MAN, LCF, HS1, HS2, LLL, LAL, BLL, ABC, ABT, CY4, HS3, HS4, IFT | TCYN, TCYV, ERLN |
| #4 Bearing-Outer, Flanged, ASYO | 1 | 4 | 725525 | PF119LA | 720610 | EOT, BLL | EOTN, EOTV |
| Bearing - Roller, CYL, #5 | 1 | 4 | 725540 | PF119LB | 720610 | EOT, BLL | EOTN, EOTV |
| Case Asy, Turbine Exhaust | 1 | 4 | 725810 | PF119LC | 720610 | EOT, MAN, LCF, LLL, ABC, ABT, CY4 | TCYN, TCYV |
| LPT Fwd Duct | 1 | 4 | 725717 | PF119LD | 720610 | EOT, MAN, LCF, CY4 | TCYN, TCYV |
| LPT TOBI Duct Assy of | 1 | 4 | 725712 | PF119LE | 720610 | EOT, MAN, LCF, LLL, CY4 | TCYN, TCYV |
| Shaft-Front Comp, Dr, Turb | 1 | 4 | 725660 | PF119LF | 720610 | EOT, MAN, LCF, LLL, CY4 | TCYN, TCYV |
| Disk-Turbine, 2 Stage | 1 | 4 | 725610 | PF119LG | 720610 | EOT, MAN, LCF, LLL, CY4 | TCYN, TCYV |
| Seal-Air, Turbine, 2 Stage | 1 | 4 | 725612 | PF119LH | 720610 | EOT, MAN, LCF, LLL, CY4 | TCYN, TCYV |
| Plate, Rtg, Bld, Tb, Rear 2 Stg | 1 | 4 | 725613 | PF119LJ | 720610 | EOT, MAN, LCF, LLL, CY4 | TCYN, TCYV |
| LPT ID Seal | 1 | 4 | 725615 | PF119LK | 720610 | EOT, MAN, LCF, LLL, CY4 | TCYN, TCYV |

Table 9-35.1. F119 Engine Configuration - YR Engine ID

| NOMENCLATURE | QPA | IND LEVEL | LCN | CEMS CII | NHA LCN | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|---------------------------------|-----|-----------|-----------|----------|---------|---|------------------------------------|
| LPT Blade | 52 | 4 | 725617 | PF119LL | 720610 | EOT, MAN, LCF, HS1, HS2, LAL, CY4, HS3, HS4 | TCYN, ERLN |
| Nozzle Module | 1 | 3 | 781010 | DF119N0 | 720000 | EOT, MAN, LCF, NLL, ABC, ABT, CY4 | TCYN, TCYV |
| Liner, Divergent Seg Upper | 1 | 4 | 781245A01 | PF119NA | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Divergent Seg Lower | 1 | 4 | 781245A02 | PF119NA | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Convergent Seg Upper | 1 | 4 | 781230A01 | PF119NB | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Convergent Seg Lower | 1 | 4 | 781230A02 | PF119NB | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #1 Upper Left | 1 | 4 | 781210 | PF119NC | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #1 Lower Right | 1 | 4 | 781216 | PF119NN | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #2 Upper Left | 1 | 4 | 781211 | PF119ND | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #2 Lower Right | 1 | 4 | 781217 | PF119NP | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #3 Upper Left | 1 | 4 | 781212A01 | PF119NE | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #3 Lower Right | 1 | 4 | 781212A02 | PF119NE | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #4 Upper Left | 1 | 4 | 781218A01 | PF119NF | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #4 Lower Right | 1 | 4 | 781218A02 | PF119NF | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #5 Upper Left | 1 | 4 | 781213A01 | PF119NG | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #5 Lower Right | 1 | 4 | 781213A02 | PF119NG | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #6 Lower Left | 1 | 4 | 781214A01 | PF119NH | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #6 Upper Right | 1 | 4 | 781214A02 | PF119NH | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #7 Lower Left | 1 | 4 | 781215A01 | PF119NJ | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #7 Upper Right | 1 | 4 | 781215A02 | PF119NJ | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #8 Lower Left | 1 | 4 | 781219A01 | PF119NK | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #8 Upper Right | 1 | 4 | 781219A02 | PF119NK | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #9 Upper Right | 1 | 4 | 781216 | PF119NL | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #9 Lower Left | 1 | 4 | 781227 | PF119NQ | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #10 Lower Left | 1 | 4 | 781228 | PF119NR | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner, Seg, TDT #10 Upper Right | 1 | 4 | 781217 | PF119NM | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner Asy, SW, Aft Upper Right | 1 | 4 | 781223A01 | PF119NS | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |

Table 9-35.1. F119 Engine Configuration - YR Engine ID

| NOMENCLATURE | QPA | IND LEVEL | LCN | CEMS CII | NHA LCN | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|---|-----|-----------|-----------|----------|-----------|------------------------------|------------------------------------|
| Liner Asy, SW, Aft Lower Left | 1 | 4 | 781223A02 | PF119NS | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner Asy, SW, Aft Lower Right | 1 | 4 | 781221A01 | PF119NT | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner Asy, SW, Aft Upper Left | 1 | 4 | 781221A02 | PF119NT | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner Asy, SW, Fwd Lower Right | 1 | 4 | 781220A01 | PF119NU | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner Asy, SW, Fwd Upper Left | 1 | 4 | 781220A02 | PF119NU | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner Asy, SW, Fwd Upper Right | 1 | 4 | 781222A01 | PF119NV | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner Asy, SW, Fwd Lower Left | 1 | 4 | 781222A02 | PF119NV | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Nozzle Seg, Ext, Int, Upper | 1 | 4 | 781125A01 | PF119NW | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN, TCYV |
| Nozzle Seg, Ext, Int, Lower | 1 | 4 | 781125A02 | PF119NW | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN, TCYV |
| Nozzle Seg, Ext, Fwd, Upper | 1 | 4 | 781130 | PF119NX | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN, TCYV |
| Nozzle Seg, Ext, Fwd, Lower | 1 | 4 | 781135 | PF119NY | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN, TCYV |
| Nozzle Seg, Ext, Aft, Upper | 1 | 4 | 781140A01 | PF119NZ | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN, TCYV |
| Nozzle Seg, Ext, Aft, Lower | 1 | 4 | 781140A02 | PF119NZ | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN, TCYV |
| Liner Assy, Heatshield Air Pump Upper Left | 1 | 4 | 781560A01 | PF119N1 | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner Assy, Heatshield Air Pump Lower Right | 1 | 4 | 781560A02 | PF119N1 | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner Assy, Heatshield Air Pump Upper Right | 1 | 4 | 781550A01 | PF119N2 | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Liner Assy, Heatshield Air Pump Lower Left | 1 | 4 | 781550A02 | PF119N2 | 781010 | EOT, MAN, LCF, ABC, ABT, CY4 | TCYN |
| Servocylinder Conv Nozzle (Up) | 1 | 4 | 781710A01 | HF119P0 | 781010 | EOT | EOTN |
| EHV, Conv Nozzle Servo (Up) | 1 | 5 | 781711A01 | PF119P1 | 781710A01 | EOT | EOTN |
| Servocylinder Conv Nozzle (Lo) | 1 | 4 | 781710A02 | HF119P0 | 781010 | EOT | EOTN |
| EHV, Conv Nozzle Servo (Lo) | 1 | 5 | 781711A02 | PF119P1 | 781710A02 | EOT | EOTN |
| Servocylinder, Divergent Noz (Up) | 1 | 4 | 781610A01 | HF119R0 | 781010 | EOT | EOTN |
| EHV, Div Noz, Servocylinder (Up) | 1 | 4 | 781611A01 | PF119R1 | 781610A01 | EOT | EOTN |
| Solenoid, Diver Noz S/C (Up) | 1 | 5 | 781612A01 | PF119R2 | 781610A01 | EOT | EOTN |
| Servocylinder, Divergent Noz (Lo) | 1 | 4 | 781610A02 | HF119R0 | 781010 | EOT | EOTN |
| EHV, Div Noz, Servocylinder (Lo) | 1 | 5 | 781611A02 | PF119R1 | 781610A02 | EOT | EOTN |
| Solenoid, Diver Noz S/C (Lo) | 1 | 5 | 781612A02 | PF119R2 | 781610A02 | EOT | EOTN |

NOTE: QPA listed reflects QPA per nomenclature with exception of CII's LF1191P, PF119CP and PF119CQ in which their QPA reflects same nomenclature.

F119 Edits
6U Update - Normal/Extended Flight Limits

| Cat No. | TLC | EDITS |
|---------|-----|---|
| 05 | RUN | Delta Cat 05 (RUN) must be > 0 and ≤ 40 |
| 09 | EOT | Delta Cat 09 (EOT) must be > 0.0 and ≤ 25.0 |
| 15 | MAN | Delta Cat 15 (MAN) must be ≥ 0 and ≤ 40 |
| 16 | LCF | Delta Cat 16 (LCF) must be ≥ 0 and ≤ 300 If delta Cat 16 (LCF) > 0 , then delta Cat 15 (MAN) must be > 0 |
| 72 | CY4 | Delta Cat 72 (CY4) must be ≥ 0 and ≤ 300 If delta Cat 72 (CY4) > 0 , then delta Cat 15 (MAN) must be > 0 |
| 20 | FLT | Delta Cat 20 (FLT) must be ≥ 0 and ≤ 10 |
| 77 | IFT | Delta Cat 77 (IFT) must be ≥ 0.0 Delta Cat 77 (IFT) must be $<$ delta Cat 09 (EOT) If delta Cat 77 (IFT) > 0.0 , then delta Cat 20 (FLT) must be > 0 |
| 62 | ABC | Delta Cat 62 (ABC) must be ≥ 0 and < 98 |
| 63 | ABT | Delta Cat 63 (ABT) must be ≥ 0.0 and $<$ delta Cat 09 (EOT) If delta Cat 63 (ABT) > 0.0 , then delta Cat 62 (ABC) must be > 0 |
| 17 | HS1 | Delta Cat 17 (HS1) must be ≥ 0.00 and ≤ 4.00 |
| 18 | HS2 | Delta Cat 18 (HS2) must be ≥ 0.00 Delta Cat 18 (HS2) must be \leq Cat 17 (HS1) delta |
| 73 | HS3 | Delta Cat 73 (HS3) must be ≥ 0.00 Delta Cat 73 (HS3) must be \leq Cat 18 (HS2) delta. |
| 74 | HS4 | Delta Cat 74 (HS4) must be ≥ 0.00 Delta Cat 74 must be \leq Cat 73 (HS3) delta |
| 19 | CSC | Delta Cat 19 (CSC) must be ≥ 0 and \leq Cat 05 |
| 50 | CPU | Delta Cat 50 (CPU) must be > 0 and ≤ 200 |
| 49 | BLL | Delta Cat 49 (BLL) must be ≥ 0 and ≤ 2 |
| 41 | FLL | Delta Cat 41 (FLL) must be ≥ 0 and ≤ 2 |
| 51 | IBR | Must be $>$ or $= 0.00$ and < 4.00 |
| 52 | HSP | Must be $>$ or $= 0$ and $<$ or $= 5$ |
| 42 | CLL | Delta Cat 42 (CLL) must be ≥ 0 and ≤ 2 |
| 43 | DLL | Delta Cat 43 (DLL) must be ≥ 0 and ≤ 2 |
| 44 | HLL | Delta Cat 44 (HLL) must be ≥ 0 and ≤ 2 |
| 46 | HAL | Delta Cat 46 (HAL) must be ≥ 0 and ≤ 2 |
| 45 | LLL | Delta Cat 45 (LLL) must be ≥ 0 and ≤ 2 |
| 47 | LAL | Delta Cat 47 (LAL) must be ≥ 0 and ≤ 2 |
| 48 | NLL | Delta Cat 48 (NLL) must be ≥ 0 and ≤ 2 |

Table 9-36. Configured CII for F101 Engine

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|---------------------------------|-----|-----------|-------|----------|----------|--|------------------------------------|
| F101-GE Engine | 1 | 2 | 23Z00 | AF10110 | | EOT, FHR, LCY, FTC, CIC, TT1-TT5, ABC, ABT | NONE |
| Bearing #1 | 1 | 3 | 23JAA | LF10111 | AF10110 | EOT | EOTN |
| Bearing #2 | 1 | 3 | 23JCA | LF10112 | AF10110 | EOT | EOTN |
| Bearing #3 | 1 | 3 | 23JDA | LF10113 | AF10110 | EOT | EOTN |
| Bearing #4 | 1 | 3 | 23JEA | LF10114 | AF10110 | EOT | EOTN |
| Bearing #5 | 1 | 3 | 23JGA | LF10115 | AF10110 | EOT | EOTN |
| Main Engine Control | 1 | 3 | 23KBK | LF10116 | AF10110 | EOT | EOTN |
| Aft Control | 1 | 3 | 23LRA | LF10117 | AFF10110 | EOT | EOTN |
| Augmentor Control | 1 | 3 | 23KDE | LF10118 | AF10110 | EOT | EOTN, EOTV |
| Main Fuel Pump | 1 | 3 | 23KBF | LF10119 | AF10110 | EOT | EOTN |
| Boost Pump | 1 | 3 | 23KBA | LF1011A | AF10110 | EOT | EOTN |
| Augmentor Pump | 1 | 3 | 23KDA | LF1011B | AF10110 | EOT | EOTN |
| Lube & Scavenge Pump | 1 | 3 | 23NBA | LF1011C | AF10110 | EOT | EOTN |
| Hydraulic Pump | 1 | 3 | 23PBB | LF1011D | AF10110 | EOT | EOTN |
| CITS/Digital Electronic Control | 1 | 3 | 23LQA | LF1011G | AF10110 | EOT | EOTN |
| Thrust Control Actuator | 1 | 3 | 23LYA | LF1011N | AF10110 | EOT, LCY, FTC, CIC | TACN |
| Eng Bleed Air Duct Sys | 1 | 3 | 41AAA | LF1011P | AF10110 | EOT, LCY, FTC, CIC | TACN |
| Fan Rotor Assy | 1 | 3 | 23BEA | HF10130 | AF10110 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Disk, ST 1 Fan Rotor | 1 | 4 | 23BEJ | PF10131 | HF10130 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Disk, ST 2 Fan Rotor | 1 | 4 | 23BEK | PF10132 | HF10130 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Front Shaft, Fan Rotor | 1 | 4 | 23BEE | PF10133 | HF10130 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Rear Shaft, Fan Rotor | 1 | 4 | 23BEB | PF10134 | HF10130 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Air Seal, ST 2 Fan Rotor | 1 | 4 | 23BEG | PF10135 | HF10130 | EOT, LCY, FTC, CIC | EOTN, TACN |
| HPCR Rotor Assy | 1 | 3 | 23DHA | HF10140 | AF10110 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Spool, ST 1-2, Comp Rotor | 1 | 4 | 23DHQ | PF10141 | HF10140 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Disk, ST 3, Comp Rotor | 1 | 4 | 23DHR | PF10142 | HF10140 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Spool, ST 4-9, Comp Rotor | 1 | 4 | 23DHS | PF10143 | HF10140 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Air Seal, Rear, Comp Rotor | 1 | 4 | 23DJD | PF10144 | HF10140 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Front Shaft, Comp Rotor | 1 | 4 | 23DHM | PF10145 | HF10140 | EOT, LCY, FTC, CIC | EOTN, TACN |
| HPT Rotor Assy | 1 | 3 | 23GBA | HF10150 | AF10110 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Fwd Shaft, HPT Rotor | 1 | 4 | 23GBB | PF10151 | HF10150 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Fwd Outer Seal, HPT Rotor | 1 | 4 | 23GBC | PF10152 | HF10150 | EOT, LCY, FTC, CIC, TT1-TT5 | EOTN, TACN, TACV |
| Retainer Blade, Fwd HPT Rotor | 1 | 4 | 23GBD | PF10153 | HF10150 | EOT, LCY, FTC, CIC | EOTN, TACN |

Table 9-36. Configured CII for F101 Engine

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|-------------------------------|-----|-----------|-------|----------|---------|-----------------------|------------------------------------|
| Retainer Blade, Aft HPT Rotor | 1 | 4 | 23GBF | PF10154 | HF10150 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Aft Shaft, HPT Rotor | 1 | 4 | 23GBG | PF10155 | HF10150 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Disk HPT Rotor | 1 | 4 | 23GBE | PF10156 | HF10150 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade, HPT Rotor | 1 | 5 | 23GBH | SF10156 | PF10156 | EOT, LCY, FTC, CIC | EOTN, TACN |
| LPT Rotor Assy | 1 | 3 | 23GDA | HF10160 | AF10110 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Shaft, LPT Rotor | 1 | 4 | 23GDB | PF10161 | HF10160 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Retainer, ST 1, LPT Rotor | 1 | 4 | 23GDD | PF10162 | HF10160 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Disk, ST 1, LPT Rotor | 1 | 4 | 23GDE | PF10163 | HF10160 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade, ST 1, LPT Rotor | 1 | 5 | 23GDC | SF10163 | PF10163 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Air Seal, LPT Rotor | 1 | 4 | 23GDF | PF10164 | HF10160 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Retainer, ST 2, LPT Rotor | 1 | 4 | 23GDM | PF10165 | HF10160 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Disk, ST 2, LPT Rotor | 1 | 4 | 23GDN | PF10166 | HF10160 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade, ST 2, LPT Rotor | 1 | 5 | 23GDL | SF10166 | PF10166 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Spacer Seal, LPT Rotor | 1 | 4 | 23GDP | PF10167 | HF10160 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Support Cone, LPT Rotor | 1 | 4 | 23GDQ | PF10168 | HF10160 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Augmentor Assy | 1 | 3 | 23HBJ | HF10170 | AF10110 | EOT, ABC, ABT | EOTN |
| Exhaust Duct Liner | 1 | 4 | 23HDC | PF10171 | HF10170 | EOT, ABC, ABT | EOTN |
| Mixing Duct | 1 | 4 | 23HBF | PF10172 | HF10170 | EOT, ABC, ABT | EOTN |
| Damper Ring | 1 | 4 | 23HBG | PF10173 | HF10170 | EOT, ABC, ABT | EOTN |
| Flameholder | 1 | 4 | 23HBC | PF10174 | HF10170 | EOT, ABC, ABT | EOTN |
| EGT Thermocouple (T5.6) | 1 | 4 | 23LWA | PF10175 | HF10170 | EOT, ABC, ABT | EOTN |
| Aug Duct Liner | 1 | 4 | 23HBB | PF10176 | HF10170 | EOT, ABC, ABT | EOTN |
| Accessory Gearbox | 1 | 3 | 23ABA | HF10180 | AF10110 | EOT | EOTN |
| Coupling Shaft | 1 | 4 | 23ABS | PF10181 | HF10180 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Inlet Gearbox | 1 | 3 | 23AEA | HF10190 | AF10110 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Inlet Gearbox Bevel Gear | 1 | 4 | 23AEC | PF10191 | HF10190 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Fan Frame | 1 | 3 | 23DBB | HF101A0 | AF10110 | EOT | EOTN |
| HPCS Assy (Fwd) | 1 | 3 | 23DDA | HF101B0 | AF10110 | EOT | EOTN |
| Case Rear, Comp Stator | 1 | 4 | 23DFC | PF101B2 | HF101B0 | EOT | EOTN |
| Rear Support, Comp Stator | 1 | 4 | 23DFB | PF101B3 | HF101B0 | EOT | EOTN |
| HPT Shroud Assy | 1 | 3 | 23FHA | HF1011E | AF10110 | EOT, LCY, FTC, CIC | EOTN |
| HPT Nozzle Assy | 1 | 3 | 23FFA | HF1011F | AF10110 | EOT | EOTN |
| Front Frame | 1 | 3 | 23BBB | HF101F0 | AF10110 | EOT | EOTN |
| Turbine Frame | 1 | 3 | 23GKB | HF101G0 | AF10110 | EOT | EOTN |
| LPT Nozzle, ST 1 Assy | 1 | 3 | 23GFA | HF101H0 | AF10110 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| LPT Nozzle, ST 1 | 1 | 4 | 23GFB | PF101H1 | HF10110 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |

Table 9-36. Configured CII for F101 Engine

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|------------------------|-----|-----------|-------|----------|---------|-----------------------|------------------------------------|
| LPT Nozzle, ST 2 | 1 | 3 | 23GHA | HF1011J | AF10110 | EOT | EOTN |
| Combustor Case | 1 | 3 | 23FBA | HF1011L | AF10110 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Fwd Inner Nozzle | 1 | 4 | 23FBC | PF101L1 | HF1011L | EOT, LCY, FTC, CIC | EOTN, TACN |
| Combustor | 1 | 3 | 23FDA | HF1011M | AF10110 | EOT, LCY, FTC, CIC | EOTN, TACV |
| Combustor Dome | 1 | 4 | 23FDB | PF101M1 | HF1011M | EOT, LCY, FTC, CIC | EOTN, TACN |
| Outer Combustion Liner | 1 | 4 | 23FDC | PF101M2 | HF1011M | EOT, LCY, FTC, CIC | EOTN, TACN |
| Inner Combustion Liner | 1 | 4 | 23FDD | PF101M3 | HF1011M | EOT, LCY, FTC, CIC | EOTN, TACN |
| Inner Cowl | 1 | 4 | 23FDE | PF101M4 | HF1011M | EOT, LCY, FTC, CIC | EOTN, TACN |
| Outer Cowl | 1 | 4 | 23FDF | PF101M5 | HF1011M | EOT, LCY, FTC, CIC | EOTN, TACN |

F101102 EDITS

| TRANSACTION | FHR | EOT | LCY | FTC | CIC | ABC | ABT | TT1 | TT2 | TT3 | TT4 | TT5 |
|-------------------------|------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Removals, Installations | 25 | 10.0 | 3 | 30 | 30 | 15 | 0.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| "6N" Possessor Change | | | | | | | | | | | | |
| "6U" Update | 75.0 | >0<=10.0 | 3 | 60 | | | | | | | | |
| Normal Limit | | | | 200 | | | | | | | | |
| Extended Flight | - | >0<=25.0 | | | | | | | | | | |

Additional 6U Edits:

- 0.5 times delta EOT greater than TT1 greater than TT2 greater than TT3 greater than TT4 greater than TT5.
- ABC less than or equal to 5 times delta FTC.
- ABT less than or equal to .2 times delta EOT.
- If ABC = 0, then ABT = 0.
0. less than delta FTC less than 60.
0. less than delta LCY less than or equal to delta FTC + 1.
0. less than delta LCY less than or equal to 60.
- Delta FTC less than or equal to delta CIC less than or equal to 10. times delta FTC.

Table 9-37. Configured CII for AF F108-100/201 Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS LIMITS WITH (TLCC) |
|------------------------------|-----|-----------|-------|----------|---------|--|-------------------------------------|
| Engine | 1 | 2 | 27000 | AF10810 | | EOT, MAJ, FHR, EG9, EG8, MIN, WOW, EGT | MAJQ, CALQ, WOWQ |
| Power Management Control | 1 | 3 | 27HAJ | LF10811 | AF10810 | EOT, WOW | CALQ, WOWQ |
| Main Engine Control | 1 | 3 | 27HAC | LF10812 | AF10810 | EOT, WOW | CALQ, WOWQ |
| Pump, Fuel | 1 | 3 | 27HAA | LF10813 | AF10810 | EOT, WOW | CALQ, WOWQ |
| Fan and Booster Assy | 1 | 3 | 27AA0 | HF10820 | AF10810 | EOT, MAJ, WOW | CALQ, WOWQ |
| Spool, Booster-Rotor | 1 | 4 | 27AAH | PF10821 | HF10820 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Seal, Rotating, Air Fwd | 1 | 4 | 27AAM | PF10822 | HF10820 | EOT, WOW | CALQ, WOWQ |
| Disk, Assy-Fan Rotor Stg 1 | 1 | 4 | 27AAG | PF10824 | HF10820 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| #1 & 2 Bearing Support Assy | 1 | 3 | 27ABO | HF10830 | AF10810 | EOT, MAJ, WOW | CALQ, WOWQ |
| Shaft Assy-Fan | 1 | 4 | 27ABA | PF10831 | HF10830 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Bearing, Ball #1 | 1 | 4 | 27ABF | PF10832 | HF10830 | EOT, WOW | CALQ, WOWQ |
| Housing, #1 Bearing | 1 | 4 | 27ABD | PF10833 | HF10830 | EOT, WOW | CALQ, WOWQ |
| Bearing, Roller #2 | 1 | 4 | 27ABJ | PF10834 | HF10830 | EOT, WOW | CALQ, WOWQ |
| Fan Frame Assy | 1 | 3 | 27AD0 | HF10840 | AF10810 | EOT, WOW | CALQ, WOWQ |
| Inlet Gearbox & #3 Bearing | 1 | 3 | 27AC0 | HF10850 | AF10810 | EOT, WOW | CALQ, WOWQ |
| Bearing, Thrust #3 | 1 | 4 | 27ACA | PF10851 | HF10850 | EOT, WOW | CALQ, WOWQ |
| HPC Rotor Assy | 1 | 3 | 27AF0 | HF10860 | AF10810 | EOT, MAJ, WOW | CALQ, WOWQ |
| Shaft, Rotor | 1 | 4 | 27AF2 | PF10861 | HF10860 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Spool, Stg 1 & 2 | 1 | 4 | 27AFK | PF10862 | HF10860 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Disk, Stg 3 | 1 | 4 | 27AFL | PF10863 | HF10860 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Spool Assy-Rotor Stg 4-9 | 1 | 4 | 27AFM | PF10864 | HF10860 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Seal, Rotating-Air Rear | 1 | 4 | 27AFX | PF10865 | HF10860 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| HPC Stator-Fwd Assy | 1 | 3 | 27AG0 | HF10870 | AF10810 | EOT, WOW | CALQ, WOWQ |
| HPC Stator-Rear Assy | 1 | 3 | 27AH0 | HF10880 | AF10810 | EOT, WOW | CALQ, WOWQ |
| Combustion Casing Assy | 1 | 3 | 27AJ0 | HF10890 | AF10810 | EOT, WOW | CALQ, WOWQ |
| Combustion Chamber Assy | 1 | 3 | 27AK0 | HF108A0 | AF10810 | EOT, WOW | CALQ, WOWQ |
| HPT Nozzle Assy | 1 | 3 | 27AL0 | HF108B0 | AF10810 | EOT, WOW | CALQ, WOWQ |
| HPT Rotor Assy | 1 | 3 | 27AM0 | HF108C0 | AF10810 | EOT, MAJ, WOW | CALQ, WOWQ |
| Shaft, HPT Front | 1 | 4 | 27AMK | PF108C1 | HF108C0 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Seal, Rotating Air-HPT Front | 1 | 4 | 27AMD | PF108C2 | HF108C0 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |

Table 9-37. Configured CII for AF F108-100/201 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS LIMITS WITH (TLCC) |
|------------------------------|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| Disk-HPT Rotor | 1 | 4 | 27AML | PF108C3 | HF108C0 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Shaft-HPT Rear | 1 | 4 | 27AMN | PF108C4 | HF108C0 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| LPT Stg 1 Nozzle Assy | 1 | 3 | 27ANO | HF108DO | AF10810 | EOT, WOW | CALQ, WOWQ |
| LPT Assy | 1 | 3 | 27AW0 | HF108E0 | AF10810 | EOT, MAJ, WOW | CALQ, WOWQ |
| Disk, LPT Rotor Stg 1 | 1 | 4 | 27AWG | PF108E1 | HF108E0 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Disk, LPT Rotor Stg 2 | 1 | 4 | 27AWH | PF108E2 | HF108E0 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Disk, LPT Rotor Stg 3 | 1 | 4 | 27AWJ | PF108E3 | HF108E0 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Disk, LPT Rotor Stg 4 | 1 | 4 | 27AWK | PF108E4 | HF108E0 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Support Conical | 1 | 4 | 27AWL | PF108E5 | HF108E0 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Seal, Rotating Air LPT Stg 1 | 1 | 4 | 27AWM | PF108E6 | HF108E0 | EOT, WOW | CALQ, WOWQ |
| Seal, Rotating Air LPT Stg 2 | 1 | 4 | 27AWN | PF108E7 | HF108E0 | EOT, WOW | CALQ, WOWQ |
| Seal, Rotating Air LPT Stg 3 | 1 | 4 | 27AWP | PF108E8 | HF108E0 | EOT, WOW | CALQ, WOWQ |
| Seal, Rotating Air LPT Stg 4 | 1 | 4 | 27AWQ | PF108E9 | HF108E0 | EOT, WOW | CALQ, WOWQ |
| LPT Shaft Assy | 1 | 3 | 27AZ0 | HF108F0 | AF10810 | EOT, MAJ, EG8, EG9, MIN, WOW | CALQ, WOWQ |
| Shaft, LPT | 1 | 4 | 27AZR | PF108F1 | HF108F0 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Shaft, Stub LPT | 1 | 4 | 27AZS | PF108F2 | HF108F0 | EOT, MAJ, WOW | MAJN, CALQ, WOWQ |
| Bearing, Roller #4 | 1 | 4 | 27AZQ | PF108F3 | HF108F0 | EOT, WOW | CALQ, WOWQ |
| Bearing, Roller #5 | 1 | 4 | 27AZD | PF108F4 | HF108F0 | EOT, WOW | CALQ, WOWQ |
| Turbine Frame Assy | 1 | 3 | 27A10 | HF108G0 | AF10810 | EOT, WOW | CALQ, WOWQ |
| Transfer Gearbox Assy | 1 | 3 | 27AP0 | HF108H0 | AF10810 | EOT, WOW | CALQ, WOWQ |
| Accessory Gearbox Assy | 1 | 3 | 27AQ0 | HF108J0 | AF10810 | EOT, WOW | CALQ, WOWQ |

F0108 EDITS

| TRANSACTION | EOT | MAJ | EG8 | EG9 | MIN | WOW |
|---|------|------|---------------|---------------|----------------|---------------|
| Removals, Installations, "6N" Possessor | 25.0 | 30.0 | 5.00 | 5.00 | 90 | 25.00 |
| "6U" Update | 99.9 | 100 | Less than EOT | Less than EG8 | Greater than 0 | Less than EOT |
| Normal Limit | | | | | 200 | |
| Extended Flight | 99.9 | 100 | Less than EOT | Less than EG8 | Greater than 0 | Less than EOT |
| | | | | | 200 | |

Table 9-38. Configured CII for (Navy and FMS) F108 Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS LIMITS WITH (TLCC) |
|--------------------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| F108 Engine | 1 | 2 | 27000 | AG10810 | | EOT, MAJ, FHR | NONE |
| Power Management Control | 1 | 3 | 538XX | LG10811 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Main Engine Control | 1 | 3 | 5520X | LG10812 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Pump, Fuel | 1 | 3 | 531XX | LG10813 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Fan & Booster Assy | 1 | 3 | 51100 | HG10820 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Spool, Booster-Fan | 1 | 4 | 51241 | PG10821 | HG10820 | EOT, MAJ | EOTN, MAJN |
| Fan, Rotating, Airseal | 1 | 4 | 53230 | PG10822 | HG10820 | EOT, MAJ | EOTN, MAJN |
| Disk, Fan Stg 1 | 1 | 4 | 51220 | PG10824 | HG10820 | EOT, MAJ | EOTN, MAJN |
| #1 & 2 Bearing Support | 1 | 3 | 51300 | HG10830 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Shaft Fan | 1 | 4 | 513B0 | PG10831 | HG10830 | EOT, MAJ | EOTN, MAJN |
| Bearing, #1 | 1 | 4 | 51320 | PG10832 | HG10830 | EOT, MAJ | EOTN, MAJN |
| Housing, #1 Bearing | 1 | 4 | 51350 | PG10833 | HG10830 | EOT, MAJ | EOTN, MAJN |
| Bearing, #2 | 1 | 4 | 51370 | PG10834 | HG10830 | EOT, MAJ | EOTN, MAJN |
| Fan Frame | 1 | 3 | 51500 | HG10840 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Inlet Gearbox Bearing | 1 | 3 | 51400 | HG10850 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Bearing, #3 | 1 | 4 | 51470 | PG10851 | HG10850 | EOT, MAJ | EOTN, MAJN |
| HPC Rotor Assy | 1 | 3 | 52100 | HG10860 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Shaft, HPC | 1 | 4 | 52140 | PG10861 | HG10860 | EOT, MAJ | EOTN, MAJN |
| Spool, Stg 1 & 2 | 1 | 4 | 52110 | PG10862 | HG10860 | EOT, MAJ | EOTN, MAJN |
| Disk, Stg 3 HPC | 1 | 4 | 52150 | PG10863 | HG10860 | EOT, MAJ | EOTN, MAJN |
| HPC Spool Stgs 4-9 | 1 | 4 | 52170 | PG10864 | HG10860 | EOT, MAJ | EOTN, MAJN |
| HPC Aft, Rotating - Airseal | 1 | 4 | 521F0 | PG10865 | HG10860 | EOT, MAJ | EOTN, MAJN |
| HPC Fwd Stator Assy | 1 | 3 | 5220X | HG10870 | AG10810 | EOT, MAJ | EOTN, MAJN |
| HPC Aft Stator Assy | 1 | 3 | 5230X | HG10880 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Combustor Case | 1 | 3 | 5240X | HG10890 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Combustor | 1 | 3 | 5250X | HG108A0 | AG10810 | EOT, MAJ | EOTN, MAJN |
| HPT Nozzle Assy | 1 | 3 | 5260X | HG108B0 | AG10810 | EOT, MAJ | EOTN, MAJN |
| HPT Rotor Assy | 1 | 3 | 52700 | HG108C0 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Shaft, HPT Fwd | 1 | 4 | 52740 | PG108C1 | HG108C0 | EOT, MAJ | EOTN, MAJN |
| Seal, Rotating HPT Fwd Air-HPT Front | 1 | 4 | 52730 | PG108C2 | HG108C0 | EOT, MAJ | EOTN, MAJN |
| HPT Disk | 1 | 4 | 52720 | PG108C3 | HG108C0 | EOT, MAJ | EOTN, MAJN |
| Shaft-HPT Aft | 1 | 4 | 52750 | PG108C4 | HG108C0 | EOT, MAJ | EOTN, MAJN |
| LPT Stg 1 Nozzle Assy | 1 | 3 | 52800 | HG108DO | AG10810 | EOT, MAJ | EOTN, MAJN |
| LPT Rotor Assy | 1 | 3 | 53100 | HG108E0 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Disk, LPT Stg 1 | 1 | 4 | 53150 | PG108E1 | HG108E0 | EOT, MAJ | EOTN, MAJN |

Table 9-38. Configured CII for (Navy and FMS) F108 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS LIMITS WITH (TLCC) |
|-----------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Disk, LPT Stg 2 | 1 | 4 | 53150 | PG108E2 | HG108E0 | EOT, MAJ | EOTN, MAJN |
| Disk, LPT Stg 3 | 1 | 4 | 53170 | PG108E3 | HG108E0 | EOT, MAJ | EOTN, MAJN |
| Disk, LPT Stg 4 | 1 | 4 | 53180 | PG108E4 | HG108E0 | EOT, MAJ | EOTN, MAJN |
| Support Conical | 1 | 4 | 531B0 | PG108E5 | HG108E0 | EOT, MAJ | EOTN, MAJN |
| LPT, Rotating Airseal Stg 1 | 1 | 4 | 53150 | PG108E1 | HG108E0 | EOT, MAJ | EOTN, MAJN |
| LPT, Rotating Airseal Stg 2 | 1 | 4 | 531D0 | PG108E7 | HG108E0 | EOT, MAJ | EOTN, MAJN |
| LPT, Rotating Airseal Stg 3 | 1 | 4 | 531E0 | PG108E8 | HG108E0 | EOT, MAJ | EOTN, MAJN |
| LPT, Rotating Airseal Stg 4 | 1 | 4 | 531F0 | PG108E9 | HG108E0 | EOT, MAJ | EOTN, MAJN |
| LPT Shaft Assy | 1 | 3 | 53200 | HG108F0 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Shaft, LPT | 1 | 4 | 53210 | PG108F1 | HG108F0 | EOT, MAJ | EOTN, MAJN |
| Shaft, Stub LPT | 1 | 4 | 53220 | PG108F2 | HG108F0 | EOT, MAJ | EOTN, MAJN |
| Bearing, #4 | 1 | 4 | 532C0 | PG108F3 | HG108F0 | EOT, MAJ | EOTN, MAJN |
| Bearing, #5 | 1 | 4 | 532D0 | PG108F4 | HG108F0 | EOT, MAJ | EOTN, MAJN |
| Turbine Frame | 1 | 3 | 53300 | HG108G0 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Transfer Gearbox | 1 | 3 | 522XX | HG108H0 | AG10810 | EOT, MAJ | EOTN, MAJN |
| Accessory Gearbox | 1 | 3 | 521XX | HG108J0 | AG10810 | EOT, MAJ | EOTN, MAJN |

Table 9-39. Configured CII for F110-100 Engine

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|-----------------------------|-----|-----------|-------|----------|---------|---|------------------------------------|
| F110-GE-100 Engine | 1 | 2 | 27Z00 | AF11010 | F16 C/D | EOT, ABC, ABT, LCY, FHR, FTC, CIC, TT1-TT5, IFT | NONE |
| Aft Control | 1 | 3 | 27GPL | LF11011 | AF11010 | EOT | EOTN |
| Augmentor Control | 1 | 3 | 27GDH | LF11012 | AF11010 | EOT | EOTN, EOTV |
| VSV Actuator | 2 | 3 | 27GHC | LF11013 | AF11010 | EOT | EOTN |
| Pyrometer T4B | 1 | 3 | 27GPP | LF11015 | AF11010 | EOT | EOTN |
| Lube & Hydr Tank | 1 | 3 | 27GJA | LF11016 | AF11010 | EOT | EOTN |
| Fuel Oil Cooler | 1 | 3 | 27GAU | LF11017 | AF11010 | EOT | EOTN |
| Hydraulic Heat Exchanger | 1 | 3 | 27GMJ | LF11018 | AF11010 | EOT | EOTN |
| VSV Feedback Cable | 1 | 3 | 27GG3 | LF11019 | AF11010 | EOT | EOTN |
| Anti-Icing Valve | 1 | 3 | 27GTA | LF1101A | AF11010 | EOT | EOTN |
| IGV Actuator | 1 | 3 | 27BFA | LF1101B | AF11010 | EOT | EOTN |
| EMSP/DEC | 1 | 3 | 27GPT | LF1101C | AF11010 | EOT | EOTN |
| Alternator Rotor | 1 | 3 | 27GPH | LF1101D | AF11010 | EOT, LCY, FTC, CIC | TACN |
| Alternator Stator | 1 | 3 | 27GPJ | LF1101H | AF11010 | EOT | EOTN |
| Front Frame Assy | 1 | 3 | 27BAO | HF11020 | AF11010 | EOT | EOTN |
| #1 Bearing OR | 1 | 4 | 27FAE | PF11021 | HF11020 | EOT | EOTN |
| Bare Front Frame | 1 | 4 | 27BAA | PF11022 | HF11022 | EOT | EOTN |
| Fan Rotor Assy | 1 | 3 | 27BDO | HF11030 | AF11010 | EOT, LCY, FTC, CIC, IFT | EOTN, TACN, TACV |
| Disk, Stg 1 Fan | 1 | 4 | 27BDE | PF11031 | HF11030 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stg 1 Fan | 1 | 5 | 27BDB | SF11031 | PF11031 | EOT | EOTN |
| Disk, Stg 2 Fan | 1 | 4 | 27BDF | PF11032 | HF11030 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stg 2 Fan | 1 | 5 | 27BDC | SF11032 | PF11032 | EOT | EOTN |
| Disk, Stg 3 Fan | 1 | 4 | 27BDG | PF11033 | HF11030 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Set, Stg 3 Fan | 1 | 5 | 27BDD | SF11033 | PF11033 | EOT | EOTN |
| Fan Shaft, Rear | 1 | 4 | 27BDA | PF11034 | HF11034 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| #1 Bearing Inner Race | 1 | 4 | 27FAF | PF11035 | HF11030 | EOT | EOTN |
| #2 Bearing | 1 | 4 | 27FBM | PF11036 | HF11030 | EOT | EOTN |
| Fan Frame Assy | 1 | 4 | 27CAO | HF11040 | AF11010 | EOT | EOTN |
| FDT Sensor (T2.5) | 2 | 4 | 27GAW | PF11041 | HF11040 | EOT | EOTN |
| Fan Speed Sensor (N1) | 1 | 4 | 27GPS | PF11042 | HF11040 | EOT | EOTN |
| Inlet Gearbox | 1 | 4 | 27CCO | HF11050 | HF11040 | EOT, LCY, FTC, CIC | EOTN |
| Bevel Gear, IGB | 1 | 5 | 27CCC | PF11051 | HF11050 | EOT, LCY, FTC, CIC | EOTN, TACV |
| Fan Stator Assy | 1 | 3 | 27BCO | HF11060 | AF11010 | EOT | EOTN |
| Compressor Stator Assy, Fwd | 1 | 3 | 27CDO | HF11070 | AF11010 | EOT | EOTN |
| Comp Stator Case Assy, Fwd | 1 | 4 | 27CDA | PF11071 | HF11070 | EOT | EOTN |
| HPC Rotor Assembly | 1 | 3 | 27CGO | HF11080 | AF11010 | EOT, LCY, FTC, CIC | EOTN, TACN |
| HPC Spool Stg 1-2 | 1 | 4 | 27CGD | PF11081 | HF11080 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Set, Stg 1 HPC | 1 | 5 | 27CGG | SF11081 | PF11081 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Set, Stg 2 HPC | 1 | 5 | 27CGH | SF11082 | PF11081 | EOT | EOTN |
| HPC Disk Stg 3 | 1 | 4 | 27CGE | PF11082 | HF11080 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stg 3 HPC | 1 | 5 | 27CGJ | SF11083 | PF11082 | EOT | EOTN |

Table 9-39. Configured CII for F110-100 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|-----------------------------|-----|-----------|-------|----------|---------|-------------------------|------------------------------------|
| HPC Spool Stg 4-9 | 1 | 4 | 27CGF | PF11083 | HF11080 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stg 4 HPC | 1 | 5 | 27CGK | SF11084 | PF11083 | EOT | EOTN |
| HPC Fwd Shaft | 1 | 4 | 27CGA | PF11084 | HF11080 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| HPC Rotating Air Seal, Rear | 1 | 4 | 27CGS | PF11085 | HF11080 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| #3 Bearing | 1 | 4 | 27FCG | PF11086 | HF11080 | EOT | EOTN |
| Compressor Stator Assy, R | 1 | 3 | 27CFO | HF11090 | AF11010 | EOT | EOTN |
| Comp Stator Case Assy, R | 1 | 4 | 27CFB | PF11091 | HF11090 | EOT | EOTN |
| Comp Stator Rear Support | 1 | 4 | 27CFA | PF11092 | HF11090 | EOT | EOTN |
| Combustor Case | 1 | 3 | 27CJA | HF110A0 | AF11010 | EOT, LCY, FTC, CIC, IFT | EOTN, TACN, TACV |
| Combustor | 1 | 4 | 27CJG | PF110A1 | HF110A0 | EOT, LCY, FTC, CIC, IFT | EOTN, TACV |
| Combustor Dome | 1 | 5 | 27CJH | PF110AA | PF110A1 | EOT, LCY, FTC, CIC | TACN |
| Inner Comb Liner | 1 | 5 | 27CJL | PF110AB | PF110A1 | EOT, LCY, FTC, CIC | TACN |
| Outer Comb Liner | 1 | 5 | 27CJK | PF110AC | PF110A1 | EOT, LCY, FTC, CIC | TACN |
| Outer Cowl | 1 | 5 | 27CJ2 | PF110AD | PF110A1 | EOT, LCY, FTC, CIC | TACN |
| Inner Cowl | 1 | 5 | 27CJ1 | PF110AE | PF110A1 | EOT, LCY, FTC, CIC | TACN |
| HPT Shroud Assy | 1 | 4 | 27CJT | PF110A2 | HF110A0 | EOT, LCY, FTC, CIC, IFT | EOTN, TACN, TACV |
| HPT Nozzle Assy | 1 | 4 | 27CJM | PF110A3 | HF110A0 | EOT, IFT | EOTN |
| Fwd Inner Nozzle Support | 1 | 4 | 27CJC | PF110A4 | HF110A0 | EOT, LCY, FTC, CIC | TACN |
| HPT Rotor Assy | 1 | 3 | 27CLO | HF110B0 | AF11010 | EOT, LCY, FTC, CIC, IFT | EOTN, TACN |
| Shaft HPT Fwd | 1 | 4 | 27CLA | PF110B1 | HF110B0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Seal, Rotating Fwd | 1 | 4 | 27CLB | PF110B2 | HF110B0 | EOT, LCY, FTC, CIC | EOTN TACN, TACV |
| Disk | 1 | 4 | 27CLD | PF110B3 | HF110B0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set | 1 | 5 | 27CLG | SF110B3 | PF110B3 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Retainer, Fwd | 1 | 4 | 27CLC | PF110B4 | HF110B0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Retainer, Aft | 1 | 4 | 27CLE | PF110B5 | HF110B0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Shaft, Aft | 1 | 4 | 27CLF | PF110B6 | HF110B0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| LPT Nozzle Assy, Stg 1 | 1 | 3 | 27DCO | HF110C0 | AF11010 | EOT, LCY, FTC, CIC | EOTN, TACN |
| LPT Nozzle, Stg 1 | 1 | 4 | 27DCA | PF110C1 | HF110C0 | EOT, LCY, FTC, CIC | EOTN, TACV, TACN |
| LPT Nozzle, Support, Stg 1 | 1 | 4 | 27DCB | PF110C2 | HF110C0 | EOT, LCY, FTC, CIC | EOTN, TACV, TACN |
| LPT Rotor Assy | 1 | 3 | 27DAO | HF110D0 | AF11010 | EOT, LCY, FTC, CIC, IFT | EOTN, TACN |
| Shaft, LPT | 1 | 4 | 27DAA | PF110D1 | HF110D0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |

Table 9-39. Configured CII for F110-100 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|------------------------------|-----|-----------|-------|----------|---------|-----------------------|------------------------------------|
| Retainer, Stage 1 Blade | 1 | 4 | 27DAC | PF110D2 | HF110D0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Disk, Stage 1 LPT | 1 | 4 | 27DAD | PF110D3 | HF110D0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stage 1 | 1 | 5 | 27DAB | SF110D3 | PF110D3 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Disk, Stage 2 LPT | 1 | 4 | 27DAM | PF110D4 | HF110D0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stage 2 | 1 | 5 | 27DAK | SF110D4 | PF110D4 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Spacer, Seal | 1 | 4 | 27DAN | PF110D5 | HF110D0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Retainer, Stage 2 Blade | 1 | 4 | 27DAL | PF110D6 | HF110D0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Seal, Air | 1 | 4 | 27DAH | PF110D7 | HF110D0 | EOT | EOTN |
| Seal, Rotating Air | 1 | 4 | 27DAJ | PF110D8 | HF110D0 | EOT | EOTN |
| #4 Bearing, IR & Roller Assy | 1 | 4 | 27FDA | PF110D9 | HF110D0 | EOT | EOTN |
| #5 Bearing IR | 1 | 4 | 27DAT | PF110DA | HF110D0 | EOT | EOTN |
| LPT Nozzle Assy, Stg 2 | 1 | 3 | 27DDO | HF110E0 | AF11010 | EOT | EOTN |
| Turbine Frame Assy | 1 | 3 | 27DEO | HF110F0 | AF11010 | EOT | EOTN |
| Mount Ring | 1 | 4 | 27DED | PF110F1 | HF110F0 | EOT | EOTN |
| #5 Bearing OR- Roller Assy | 1 | 4 | 27DEN | PF110F2 | HF110F0 | EOT | EOTN |
| Bare Turbine Frame | 1 | 4 | 27DEA | PF110F3 | HF110F0 | EOT, LCY, FTC, CIC | TACN |
| Augmentor Assy | 1 | 3 | 27EAO | HF110G0 | AF11010 | EOT, IFT, ABC, ABT | EOTN |
| Flameholder | 1 | 4 | 27EAD | PF110G1 | HF110G0 | EOT, ABC, ABT | EOTN |
| Aug Duct Liner | 1 | 4 | 27EAB | PF110G2 | HF110G0 | EOT, ABC, ABT | EOTN |
| Mixing Duct | 1 | 4 | 27EAC | PF110G3 | HF110G0 | EOT, ABC, ABT | EOTN |
| Damper Ring | 1 | 4 | 27EAQ | PF110G4 | HF110G0 | EOT, ABC, ABT | EOTN |
| EGT Thermocouple (T5.6) | 1 | 4 | 27GPN | PF110G5 | HF110G0 | EOT, ABC, ABT | EOTN |
| Exhaust Nozzle Assy | 1 | 4 | 27ECO | HF110H0 | HF110G0 | EOT, IFT | EOTN |
| Exh Nozzle Act Ring | 1 | 5 | 27ECZ | PF110H1 | HF110H0 | EOT | EOTN |
| Hyd Syn Actuator | 4 | 5 | 27EDC | PF110H2 | HF110H0 | EOT | EOTN, EOTV |
| Exhaust Duct Liner | 1 | 5 | 27ECC | PF110H3 | HF110H0 | EOT, ABC, ABT | EOTN |
| Accessory Gearbox | 1 | 3 | 27A00 | HF110J0 | AF11010 | EOT, ABC, ABT | EOTN |
| Radial Draft Shaft | 1 | 4 | 27CCK | PF110J1 | HF110J0 | EOT | EOTN |
| Gearshaft, Alt Drive | 1 | 4 | 27ANA | PF110J2 | HF110J0 | EOT | EOTN |
| Gearshaft, Spur #1 | 1 | 4 | 27AHA | PF110J3 | HF110J0 | EOT | EOTN |
| Bevel Gear, AGB | 1 | 4 | 27AEC | PF110J4 | HF110J0 | EOT | EOTN |
| Gearshaft Spur #2 | 1 | 4 | 27AHG | PF110J5 | HF110J0 | EOT | EOTN |
| Gearshaft, Bevel & Spur | 1 | 4 | 27AGE | PF110J6 | HF110J0 | EOT | EOTN |
| Main Engine Control | 1 | 4 | 27GAL | PF110J7 | HF110J0 | EOT | EOTN, EOTV |
| Main Fuel Pump | 1 | 4 | 27GAH | PF110J8 | HF110J0 | EOT | EOTN, EOTV |
| Fuel Boost Pump | 1 | 4 | 27GAA | PF110J9 | HF110J0 | EOT | EOTN, EOTV |
| Augmentor Fuel Pump | 1 | 4 | 27GDC | PF110JA | HF110J0 | EOT | EOTN, EOTV |
| Hydraulic Pump | 1 | 4 | 27GMC | PF110JB | HF110J0 | EOT | EOTN, EOTN |
| Lube-Scavenge Pump | 1 | 4 | 27GJH | PF110JC | HF110J0 | EOT | EOTN, EOTV |
| Coupling, Shaft | 1 | 4 | 27AGB | PF110JD | HF110J0 | EOT, LCY, FTC, CIC | TACN |

Table 9-40. Configured CII for F110-100B Engine

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|--------------------------------------|-----|-----------|-------|----------|---------|---|------------------------------------|
| F110-GE-100B Engine | 1 | 2 | 27Z00 | AF11B10 | F16 C/D | EOT, ABC, ABT, LCY, FHR, FTC, CIC, TT1-TT5, IFT | NONE |
| Augmentor Control | 1 | 3 | 27GDH | LF11B12 | AF11B10 | EOT | EOTN, EOTV |
| VSV Actuator, Left Side | 1 | 3 | 27GHG | LF11B13 | AF11B10 | EOT | EOTN |
| VSV Actuator, Right Side | 1 | 3 | 27GHC | LF11B14 | AF11B10 | EOT | EOTN |
| Pyrometer T4B | 1 | 3 | 27GPP | LF11B15 | AF11B10 | EOT | EOTN |
| Lube & Hydr Tank | 1 | 3 | 27GJA | LF11B16 | AF11B10 | EOT | EOTN |
| Fuel Oil Cooler | 1 | 3 | 27GAU | LF11B17 | AF11B10 | EOT | EOTN |
| Hydraulic Heat Exchanger | 1 | 3 | 27GMJ | LF11B18 | AF11B10 | EOT | EOTN |
| VSV Feedback Cable | 1 | 3 | 27GG3 | LF11B19 | AF11B10 | EOT | EOTN |
| Anti-Icing Valve | 1 | 3 | 27GTA | LF11B1A | AF11B10 | EOT | EOTN |
| IGV Actuator | 1 | 3 | 27BFA | LF11B1B | AF11B10 | EOT | EOTN |
| DEC | 1 | 3 | 27GPT | LF11B1C | AF11B10 | EOT | EOTN |
| Alternator Rotor | 1 | 3 | 27GPH | LF11B1D | AF11B10 | EOT, LCY, FTC, CIC | TACN |
| Alternator Stator | 1 | 3 | 27GPJ | LF11B1H | AF11B10 | EOT | EOTN |
| Front Frame Assy #1 | 1 | 3 | 27BAO | HF11B20 | AF11B10 | EOT | EOTN |
| Bearing O/R & RLR | 1 | 4 | 27FAE | PF11B21 | HF11B20 | EOT | EOTN |
| Bare Front Frame | 1 | 4 | 27BAA | PF11B22 | HF11B20 | EOT | EOTN |
| Fan Rotor Assy | 1 | 3 | 27BDO | HF11B30 | AF11B10 | EOT, LCY, FTC, CIC, IFT | EOTN, TACN, TACV |
| Disk, Stg 1 Fan | 1 | 4 | 27BDE | PF11B31 | HF11B30 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stg 1 Fan | 1 | 5 | 27BDB | SF11B31 | PF11B31 | EOT | EOTN |
| Disk, Stg 2 Fan | 1 | 4 | 27BDF | PF11B32 | HF11B30 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stg 2 Fan | 1 | 5 | 27BDC | SF11B32 | PF11B32 | EOT | EOTN |
| Disk, Stg 3 Fan | 1 | 4 | 27BDG | PF11B33 | HF11B30 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Set, Stg 3 Fan | 1 | 5 | 27BDD | SF11B33 | PF11B33 | EOT | EOTN |
| Fan Shaft, Rear | 1 | 4 | 27BDA | PF11B34 | HF11B30 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| #1 Bearing Inner Race | 1 | 4 | 27FAF | PF11B35 | HF11B30 | EOT | EOTN |
| #2 Bearing | 1 | 4 | 27FBM | PF11B36 | HF11B30 | EOT | EOTN |
| Fan Frame Assy | 1 | 4 | 27CAO | HF11B40 | AF11B10 | EOT | EOTN |
| FDT Sensor (T2.5) | 2 | 4 | 27GAW | PF11B41 | HF11B40 | EOT | EOTN |
| Fan Speed Sensor (N1) | 1 | 4 | 27GPS | PF11B42 | HF11B40 | EOT | EOTN |
| Inlet Gearbox | 1 | 4 | 27CCO | HF11B50 | HF11B40 | EOT, LCY, FTC, CIC | EOTN |
| Bevel Gear, IGB | 1 | 5 | 27CCC | PF11B51 | HF11B50 | EOT, LCY, FTC, CIC | EOTN, TACV |
| Fan Stator Assy | 1 | 3 | 27BCO | HF11B60 | AF11B10 | EOT | EOTN |
| Compressor Stator Assy, Forward | 1 | 3 | 27CDO | HF11B70 | AF11B10 | EOT | EOTN |
| Compressor Stator Case Assy, Forward | 1 | 3 | 27CDA | PF11B71 | HF11B70 | EOT | EOTN |
| HPC Rotor Assembly | 1 | 3 | 27CG0 | HF11B80 | AF11B10 | EOT, LCY, FTC, CIC | EOTN, TACN |
| HPC Spool Stg 1-2 | 1 | 4 | 27CGD | PF11B81 | HF11B80 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Set, Stg 1 HPC | 1 | 5 | 27CGG | SF11B81 | PF11B81 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Set, Stg 2 HPC | 1 | 5 | 27CGH | SF11B82 | PF11B81 | EOT | EOTN |

Table 9-40. Configured CII for F110-100B Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|--|-----|-----------|-------|----------|---------|-------------------------|------------------------------------|
| HPC Disk Stg 3 | 1 | 4 | 27CGE | PF11B82 | HF11B80 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stg 3 HPC | 1 | 5 | 27CGJ | SF11B83 | PF11B82 | EOT | EOTN |
| HPC Spool Stg 4-9 | 1 | 4 | 27CGF | PF11B83 | HF11B80 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stg 4 HPC | 1 | 5 | 27CGK | SF11B84 | PF11B83 | EOT | EOTN |
| HPC Fwd Shaft | 1 | 4 | 27CGA | PF11B84 | HF11B80 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| HPC AFT Rotating Air Seal | 1 | 4 | 27CGS | PF11B85 | HF11B80 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| #3 Bearing | 1 | 4 | 27FCG | PF11B86 | HF11B80 | EOT | EOTN |
| HPC AFT Compressor Stator Assy | 1 | 3 | 27CF0 | HF11B90 | AF11B10 | EOT | EOTN |
| HPC AFT Compressor Stator Case Assy, R | 1 | 4 | 27CFB | PF11B91 | HF11B90 | EOT | EOTN |
| HPC AFT Compressor Stator Support | 1 | 4 | 27CFA | PF11B92 | HF11B90 | EOT | EOTN |
| Combustor Case | 1 | 3 | 27CJA | HF11BA0 | AF11B10 | EOT, LCY, FTC, CIC, IFT | EOTN, TACN, TACV |
| Combustor | 1 | 4 | 27CJG | PF11BA1 | HF11BA0 | EOT, LCY, FTC, CIC, IFT | EOTN, TACV |
| Combustor Dome | 1 | 5 | 27CJH | PF11BAA | PF11BA1 | EOT, LCY, FTC, CIC | TACN |
| Inner Combustion Liner | 1 | 5 | 27CJL | PF11BAB | PF11BA1 | EOT, LCY, FTC, CIC | TACN |
| Outer Combustion Liner | 1 | 5 | 27CJK | PF11BAC | PF11BA1 | EOT, LCY, FTC, CIC | TACN |
| Outer Cowl | 1 | 5 | 27CJ2 | PF11BAD | PF11BA1 | EOT, LCY, FTC, CIC | TACN |
| Inner Cowl | 1 | 5 | 27CJ1 | PF11BAE | PF11BA1 | EOT, LCY, FTC, CIC | TACN |
| HPT Shroud Assy | 1 | 4 | 27CJT | PF11BA2 | HF11BA0 | EOT, LCY, FTC, CIC, IFT | EOTN, TACN, TACV |
| HPT Nozzle Assy | 1 | 4 | 27CJM | PF11BA3 | HF11BA0 | EOT, LCY, FTC, CIC, IFT | EOTN |
| Fwd Inner Nozzle Support | 1 | 4 | 27CJC | PF11BA4 | HF11BA0 | EOT, LCY, FTC, CIC | TACN |
| HPT Rotor Assy | 1 | 3 | 27CL0 | HF11BB0 | AF11B10 | EOT, LCY, FTC, CIC, IFT | EOTN, TACN, TACV |
| Shaft, HPT Fwd | 1 | 4 | 27CLA | PF11BB1 | HF11BB0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Seal, Rotating Fwd | 1 | 4 | 27CLB | PF11BB2 | HF11BB0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| HPT Disk | 1 | 4 | 27CLD | PF11BB3 | HF11BB0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| HPT Blade Set | 1 | 5 | 27CLG | SF11BB3 | PF11BB3 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Retainer, Fwd | 1 | 4 | 27CLC | PF11BB4 | HF11BB0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Retainer, HPT Aft | 1 | 4 | 27CLE | PF11BB5 | HF11BB0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Shaft, HPT Aft | 1 | 4 | 27CLF | PF11BB6 | HF11BB0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| LPT Nozzle, Assy Stg 1 | 1 | 3 | 27DCO | HF11BC0 | AF11B10 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| LPT Nozzle, Stg 1 | 1 | 4 | 27DCA | PF11BC1 | HF11BC0 | EOT, LCY, FTC, CIC | EOTN, TACV, TACN |

Table 9-40. Configured CII for F110-100B Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|------------------------------|-----|-----------|-------|----------|---------|-------------------------|------------------------------------|
| LPT Nozzle, Support, Stg 1 | 1 | 4 | 27DCB | PF11BC2 | HF11BC0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| LPT Rotor Assy | 1 | 3 | 27DAO | HF11BD0 | AF11B10 | EOT, LCY, FTC, CIC, IFT | EOTN, TACN |
| Shaft, LPT | 1 | 4 | 27DAA | PF11BD1 | HF11BD0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Retainer, Stage 1 Blade | 1 | 4 | 27DAC | PF11BD2 | HF11BD0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Disk, Stage 1 LPT | 1 | 4 | 27DAD | PF11BD3 | HF11BD0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stage 1 | 1 | 5 | 27DAB | SF11BD3 | PF11BD3 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Disk, Stage 2 LPT | 1 | 4 | 27DAM | PF11BD4 | HF11BD0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stage 2 | 1 | 5 | 27DAK | SF11BD4 | PF11BD4 | EOT, LCY, FTC, CIC | EOTN, TACN |
| LPT Blade Spacer, Seal | 1 | 4 | 27DAN | PF11BD5 | HF11BD0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Retainer, Stage 2 LPT Blade | 1 | 4 | 27DAL | PF11BD6 | HF11BD0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| LPT Rotating Seal Housing | 1 | 4 | 27DAH | PF11BD7 | HF11BD0 | EOT | EOTN |
| Seal, LPT Rotating Air | 1 | 4 | 27DAJ | PF11BD8 | HF11BD0 | EOT | EOTN |
| #4 Bearing, IR & Roller Assy | 1 | 4 | 27FDA | PF11BD9 | HF11BD0 | EOT | EOTN |
| #5 Bearing IR | 1 | 4 | 27DAT | PF11BDA | HF11BD0 | EOT | EOTN |
| LPT Nozzle Assy, Stg 2 | 1 | 3 | 27DDO | HF11BE0 | AF11B10 | EOT | EOTN |
| Turbine Frame Assy | 1 | 3 | 27DEO | HF11BF0 | AF11B10 | EOT, LCY, FTC, CIC | EOTN |
| Mount Ring | 1 | 4 | 27DED | PF11BF1 | HF11BF0 | EOT | EOTN |
| #5 Bearing OR-Roller Assy | 1 | 4 | 27DEN | PF11BF2 | HF11BF0 | EOT | EOTN |
| Bare Turbine Frame | 1 | 4 | 27DEA | PF11BF3 | HF11BF0 | EOT, LCY, FTC, CIC | TACN |
| Augmentor Assy | 1 | 3 | 27EAO | HF11BG0 | AF11B10 | EOT, IFT, ABC, ABT | EOTN |
| Flameholder | 1 | 4 | 27EAD | PF11BG1 | HF11BG0 | EOT, ABC, ABT | EOTN |
| Augmentor Duct Liner | 1 | 4 | 27EAB | PF11BG2 | HF11BG0 | EOT, ABC, ABT | EOTN |
| Mixing Duct | 1 | 4 | 27EAC | PF11BG3 | HF11BG0 | EOT, ABC, ABT | EOTN |
| Damper Ring | 1 | 4 | 27EAQ | PF11BG4 | HF11BG0 | EOT, ABC, ABT | EOTN |
| EGT Thermocouple (T5.6) | 1 | 4 | 27GPN | PF11BG5 | HF11BG0 | EOT, ABC, ABT | EOTN |
| Exhaust Nozzle Assy | 1 | 4 | 27ECO | HF11BH0 | HF11BG0 | EOT, IFT, ABC, ABT | EOTN |
| Exh Nozzle Act Ring | 1 | 5 | 27ECZ | PF11BH1 | HF11BH0 | EOT | EOTN |
| Hyd Syn Actuator | 4 | 5 | 27EDC | PF11BH2 | HF11BH0 | EOT | EOTN, EOTV |
| Exhaust Duct Liner | 1 | 5 | 27ECC | PF11BH3 | HF11BH0 | EOT, ABC, ABT | EOTN |
| Accessory Gearbox | 1 | 3 | 27A00 | HF11BJ0 | AF11B10 | EOT, LCY, FTC, CIC | EOTN |
| Radial Drive Shaft | 1 | 4 | 27CCK | PF11BJ1 | HF11BJ0 | EOT | EOTN |
| Gearshaft, Alt Drive | 1 | 4 | 27ANA | PF11BJ2 | HF11BJ0 | EOT | EOTN |
| Gearshaft, Spur #1 | 1 | 4 | 27AHA | PF11BJ3 | HF11BJ0 | EOT | EOTN |
| Bevel Gear, AGB | 1 | 4 | 27AEC | PF11BJ4 | HF11BJ0 | EOT | EOTN |
| Gearshaft, Spur #2 | 1 | 4 | 27AHG | PF11BJ5 | HF11BJ0 | EOT | EOTN |
| Gearshaft, Bevel & Spur | 1 | 4 | 27AGE | PF11BJ6 | HF11BJ0 | EOT | EOTN |
| Main Engine Control | 1 | 4 | 27GAL | PF11BJ7 | HF11BJ0 | EOT | EOTN, EOTV |
| Main Fuel Pump | 1 | 4 | 27GAH | PF11BJ8 | HF11BJ0 | EOT | EOTN, EOTV |
| Fuel Boost Pump | 1 | 4 | 27GAA | PF11BJ9 | HF11BJ0 | EOT | EOTN, EOTV |
| Augmentor Fuel Pump | 1 | 4 | 27GDC | PF11BJA | HF11BJ0 | EOT | EOTN, EOTV |
| Hydraulic Pump | 1 | 4 | 27GMC | PF11BJB | HF11BJ0 | EOT | EOTN, EOTN |

Table 9-40. Configured CII for F110-100B Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|--------------------|-----|-----------|-------|----------|---------|-----------------------|------------------------------------|
| Lube-Scavenge Pump | 1 | 4 | 27GJH | PF11BJC | HF11BJ0 | EOT | EOTN, EOTV |
| Coupling, Shaft | 1 | 4 | 27AGB | PF11BJD | HF11BJ0 | EOT, LCY, FTC, CIC | TACN |

Table 9-41. Configured CII for F110-129 Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|-------------------------------------|-----|-----------|-------|----------|---------|--|------------------------------------|
| F110-GE-129 Engine | 1 | 2 | 27Z00 | AF12910 | F16 C/D | EOT, ABC, ABT, LCY, FHR, FTC, CIC TT1-TT5, IFT | NONE |
| Digital Electronic Control | 1 | 3 | 27GPL | LF12911 | AF12910 | EOT | EOTN, EOTV |
| Augmentor Control | 1 | 3 | 27GDH | LF12912 | AF12910 | EOT | EOTN, EOTV |
| Anti-Icing Valve | 1 | 3 | 27GTA | LF12913 | AF12910 | EOT | EOTN |
| IGV Actuator | 1 | 3 | 27HFA | LF12914 | AF12910 | EOT | EOTN |
| Pyrometer T4B | 1 | 3 | 27GPP | LF12915 | AF12910 | EOT | EOTN |
| Lube & Hydr Tank | 1 | 3 | 27GJA | LF12916 | AF12910 | EOT | EOTN |
| Tri Oil Cooler | 1 | 3 | 27GAU | LF12917 | AF12910 | EOT | EOTN, EOTV |
| VSV Actuator-Right | 1 | 3 | 27GHD | LF12918 | AF12910 | EOT | EOTN, EOTV |
| VSV Feedback Cable | 1 | 3 | 27GG3 | LF12919 | AF12910 | EOT | EOTN |
| VSV Actuator-Left | 1 | 3 | 27GHG | LF1291A | AF12910 | EOT | EOTN, EOTV |
| Rotor, Alternator | 1 | 3 | 27GPH | LF1291B | AF12910 | EOT | EOTN, EOTV |
| Stator, Alternator | 1 | 3 | 27GPJ | LF1291C | AF12910 | EOT | EOTN, EOTV |
| Front Frame Assy | 1 | 3 | 27BA0 | HF12920 | AF12910 | EOT | EOTN, TACN |
| #1 Bearing OR | 1 | 4 | 27FAE | PF12921 | HF12920 | EOT | EOTN |
| Fan Rotor Assy | 1 | 3 | 27BD0 | HF12930 | AF12910 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Disk, Stg 1 Fan | 1 | 4 | 27BDE | PF12931 | HF12930 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stg 1 Fan | 1 | 5 | 27BDB | SF12931 | PF12931 | EOT, LCY, FTC, CIC | EOTN, EOTV, TACN |
| Disk, Stg 2 Fan | 1 | 4 | 27BDF | PF12932 | HF12930 | EOT, LCY, FTC, CIC | EOTN, TACV, TACN |
| Blade Set, Stg 2 Fan | 1 | 5 | 27BDC | SF12932 | PF12932 | EOT | EOTN |
| Disk, Stg 3 Fan | 1 | 4 | 27BDG | PF12933 | HF12930 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Set, Stg 3 Fan | 1 | 5 | 27BDD | SF12933 | PF12930 | EOT | EOTN |
| Fan Shaft, Aft | 1 | 4 | 27BDA | PF12934 | HF12930 | EOT, LCY, FTC, CIC | EOTN, TACV, TACN |
| #1 Bearing Inner Race | 1 | 4 | 27FAF | PF12935 | HF12930 | EOT | EOTN |
| #2 Bearing | 1 | 4 | 27FBM | PF12936 | HF12930 | EOT | EOTN |
| Fan Frame Assy | 1 | 3 | 27CA0 | HF12940 | AF12910 | EOT, LCY, FTC, CIC | EOTN, TACN |
| FDT Sensor (T2.5) | 2 | 4 | 27GAW | PF12941 | HF12940 | EOT | EOTV, EOTN |
| Fan Speed Sensor (N1) | 1 | 4 | 27GPS | PF12942 | HF12940 | EOT | EOTN |
| Inlet Gearbox | 1 | 4 | 27CC0 | HF12950 | HF12940 | EOT, LCY, FTC, CIC | EOTN |
| Bevel Gear, IGB | 1 | 5 | 27CCC | PF12951 | HF12950 | EOT, LCY, FTC, CIC | EOTN, TACV |
| Fan Stator Assy | 1 | 3 | 27BC0 | HF12960 | AF12910 | EOT | EOTN |
| HPC Compressor Stator Assy, Forward | 1 | 3 | 27CD0 | HF12970 | AF12910 | EOT | EOTN |

Table 9-41. Configured CII for F110-129 Engine - Continued

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|--|-----|-----------|-------|----------|---------|----------------------------------|------------------------------------|
| Compressor Stator Case HPC, Forward | 1 | 4 | 27CDA | PF12971 | HF12970 | EOT | EOTN, TACN |
| HPC Rotor Assembly | 1 | 3 | 27CG0 | HF12980 | AF12910 | EOT, LCY, FTC, CIC | EOTN, TACN |
| HPC Spool, Stg 1-2 | 1 | 4 | 27CGD | PF12981 | HF12980 | EOT, LCY, FTC, CIC | EOTN, TACV, TACN |
| HPC Stg 1 Blade Set | 1 | 5 | 27CGG | SF12981 | PF12981 | EOT, LCY, FTC, CIC | EOTN |
| HPC Stg 2 Blade Set | 1 | 5 | 27CGH | SF12982 | PF12981 | EOT | EOTN |
| HPC Fwd Shaft-Stg 3 Disk | 1 | 4 | 27CGE | PF12982 | HF12980 | EOT, LCY, FTC, CIC | EOTN, TACV, TACN |
| HPC Stg 3 Blade Set | 1 | 5 | 27CGJ | SF12983 | PF12982 | EOT | EOTN |
| HPC Spool, Stg 4-9 | 1 | 4 | 27CGF | PF12983 | HF12980 | EOT, LCY, FTC, CIC | EOTN, TACN |
| HPC Stg 4 Blade Set | 1 | 5 | 27CGK | SF12984 | PF12983 | EOT | EOTN |
| HPC Rotating Air Seal, Rear | 1 | 4 | 27CGS | PF12985 | HF12980 | EOT, LCY, FTC, CIC | EOTN, TACV, TACN |
| #3 Bearing | 1 | 4 | 27FCG | PF12986 | HF12980 | EOT | EOTN |
| Compressor Stator Assy, Rear | 1 | 3 | 27CF0 | HF12990 | AF12910 | EOT | (NONE) |
| Compressor Stator Case Assy, R | 1 | 4 | 27CFB | PF12991 | HF12990 | EOT | EOTN |
| Compressor Stator Rear Support | 1 | 4 | 27CFA | PF12992 | HF12990 | EOT | EOTN |
| Combustor Case | 1 | 3 | 27CJA | HF129A0 | AF12910 | EOT, LCY, FTC, CIC, IFT | EOTN, TACN |
| Combustor | 1 | 4 | 27CJG | PF129A1 | HF129A0 | EOT, LCY, FTC, CIC, IFT | EOTN, TACV |
| Combustor Dome | 1 | 5 | 27CJH | PF129AA | PF129A1 | EOT, LCY, FTC, CIC | TACN |
| Inner Combustor Liner | 1 | 5 | 27CJL | PF129AB | PF129A1 | EOT, LCY, FTC, CIC | TACN |
| Outer Combustor Liner | 1 | 5 | 27CJK | PF129AC | PG129A1 | EOT, LCY, FTC, CIC | TACN |
| Cowl, Outer | 1 | 5 | 27CJ2 | PF129AD | PF129A1 | EOT, LCY, FTC, CIC | TACN |
| Cowl, Inner | 1 | 5 | 27CJI | PF129AE | PF129A1 | EOT, LCY, FTC, CIC | TACN |
| HPT Shroud Assy | 1 | 4 | 27CJT | PF129A2 | HF129A0 | EOT | EOTN |
| HPT Nozzle Assy | 1 | 4 | 27CJM | PF129A3 | HF129A0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Fwd Inner Nozzle Support | 1 | 4 | 27CJC | PF129A4 | HF129A0 | EOT, LCY, FTC, CIC | TACN |
| HPT Rotor Assy | 1 | 3 | 27CLO | HF129B0 | AF12910 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Retainer Segment HPT | 1 | 4 | 27CLK | SF129B1 | HF129B0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Shaft, HPT Fwd | 1 | 4 | 27CLA | PF129B1 | HF129B0 | EOT, LCY, FTC, CIC, EOT, LCY, | EOTN, TACN, TACV |
| Seal, Outer Fwd | 1 | 4 | 27CLB | PF129B2 | HF129B0 | FTC, CIC, EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Disk, HPT | 1 | 4 | 27CLD | PF129B3 | HF129B0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set HPT | 1 | 5 | 27CLG | SF129B3 | PF129B3 | EOT, LCY, FTC, CIC | EOTN |
| Blade Retainer, Fwd | 1 | 4 | 27CLC | PF129B4 | HF129B0 | EOT, LCY, FTC, CIC | EOTN, TACN |

Table 9-41. Configured CII for F110-129 Engine - Continued

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|-----------------------------|-----|-----------|-------|----------|---------|-----------------------|------------------------------------|
| Blade Retainer, Aft HPT | 1 | 4 | 27CLE | PF129B5 | HF129B0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Shaft, HPT Aft | 1 | 4 | 27CLF | PF129B6 | HF129B0 | | EOTN, TACN, TACV |
| LPT Nozzle Assy, Stg 1 | 1 | 3 | 27DC0 | HF129C0 | AF12910 | EOT, LCY, FTC, CIC | EOTN, TACN |
| LPT Rotor Assy | 1 | 3 | 27DA0 | HF129D0 | AF12910 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Shaft, LPT | 1 | 4 | 27DAA | PF129D1 | HF129D0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Retainer, Stage 1 Blade | 1 | 4 | 27DAC | PF129D2 | HF129D0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Disk, Stage 1 LPT | 1 | 4 | 27DAD | PF129D3 | HF129D0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stage 1 | 1 | 5 | 27DAB | SF129D3 | PF129D3 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Disk, Stage 2 LPT | 1 | 4 | 27DAM | PF129D4 | HF129D0 | EOT, LCY, FTC, CIC | EOTN, TACN, TACV |
| Blade Set, Stage 2 | 1 | 5 | 27DAK | SF129D4 | PF129D4 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Blade Spacer, Seal LPT | 1 | 4 | 27DAN | PF129D5 | HF129D0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Retainer, Stage 2 Blade LPT | 1 | 4 | 27DAL | PF129D6 | HF129D0 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Seal, Rotating Air LPT | 1 | 4 | 27DAH | PF129D7 | HF129D0 | EOT | EOTN |
| Seal, Air Stationary LPT | 1 | 4 | 27DAJ | PF129D8 | HF129D0 | EOT | EOTN |
| #4 Bearing, IR & Roller | 1 | 4 | 27FDA | PF129D9 | HF129D0 | EOT | EOTN |
| #5 Bearing IR | 1 | 4 | 27DAT | PF129DA | HF129D0 | EOT | EOTN |
| LPT Nozzle Assy, Stg 2 | 1 | 3 | 27DD0 | HF129E0 | AF12910 | EOT | EOTN |
| Turbine Frame Assy | 1 | 3 | 27DE0 | HF129F0 | AF12910 | EOT, LCY, FTC, CIC | EOTN |
| Mount Ring | 1 | 4 | 27DED | PF129F1 | HF129F0 | EOT | EOTN |
| #5 Bearing OR | 1 | 4 | 27DEN | PF129F2 | HF129F0 | EOT | EOTN |
| Bare Turbine Frame | 1 | 4 | 27DEA | PF129F3 | HF129F0 | EOT, LCY, FTC, CIC | TACN |
| Augmentor Assy | 1 | 3 | 27EA0 | HF129G0 | AF12910 | EOT, IFT | EOTN |
| Flameholder | 1 | 4 | 27EAD | PF129G1 | HF129G0 | EOT, ABC, ABT | EOTN |
| Aug Duct Liner | 1 | 4 | 27EAB | PF129G2 | HF129G0 | EOT, ABC, ABT | EOTN |
| Mixing Duct | 1 | 4 | 27EAC | PF129G3 | HF129G0 | EOT, ABC, ABT | EOTN |
| Damper Ring | 1 | 4 | 27EAQ | PF129G4 | HF129G0 | EOT, ABC, ABT | EOTN |
| Thermocouple (T5.6) | 1 | 4 | 27GPN | PF129G5 | HF129G0 | EOT, ABC, ABT | EOTN |
| Exhaust Nozzle Assy | 1 | 4 | 27EC0 | HF129H0 | HF129G0 | EOT, IFT | EOTN |
| Exh Nozzle Act Ring | 1 | 5 | 27ECZ | PF129H1 | HF129H0 | EOT | EOTN |
| Hyd Syn Actuator | 4 | 5 | 27EDC | PF129H2 | HF129H0 | EOT | EOTN, EOTV |
| Exhaust Duct Liner | 1 | 5 | 27ECC | PF129H3 | HF129H0 | EOT, ABC, ABT | EOTN |
| Accessory Gearbox | 1 | 3 | 27A00 | HF129J0 | AF12910 | EOT, LCY, FTC, CIC | EOTN |
| Radial Drive Shaft | 1 | 4 | 27CCK | PF129J1 | HF129J0 | EOT | EOTN |
| Gearshaft, Alt Drive | 1 | 4 | 27ANA | PF129J2 | HF129J0 | EOT | EOTN |
| Gearshaft, Spur #1 | 1 | 4 | 27AHA | PF129J3 | HF129J0 | EOT | EOTN |
| Bevel Gear, AGB | 1 | 4 | 27AEC | PF129J4 | HF129J0 | EOT | EOTN |
| Gearshaft, Spur #2 | 1 | 4 | 27AHG | PF129J5 | HF129J0 | EOT | EOTN |
| Gearshaft, Bevel & Spur | 1 | 4 | 27AGE | PF129J6 | HF129J0 | EOT | EOTN |
| Control, Main Engine | 1 | 4 | 27GAL | PF129J7 | HF129J0 | EOT | EOTN, EOTV |
| Pump, Main Fuel | 1 | 4 | 27GAH | PF129J8 | HF129J0 | EOT | EOTN, EOTV |

Table 9-41. Configured CII for F110-129 Engine - Continued

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHOD WITH LIMITS (TLCC) |
|-----------------------|-----|-----------|-------|----------|---------|-----------------------|------------------------------------|
| Pump, Fuel, Boost | 1 | 4 | 27GAA | PF129J9 | HF129J0 | EOT | EOTN, EOTV |
| Pump, Fuel, Augmentor | 1 | 4 | 27GDC | PF129JA | HF129J0 | EOT | EOTN, EOTV |
| Pump, Hydraulic | 1 | 4 | 27GMC | PF129JB | HF129J0 | EOT | EOTN, EOTV |
| Pump, Lube-Scavenge | 1 | 4 | 27GJH | PF129JC | HF129J0 | EOT | EOTN, EOTV |
| Coupling Shaft | 1 | 4 | 27AGB | PF129JD | HF129J0 | EOT, LCY, FTC, CIC | TACN |

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| TRANSACTION | FHR | EOT | LCV | FTC | CIC | ABC | ABT | TT1 | TT2 | TT3 | TT4 | TT5 |
|-------------------------------|------|------|-----|-----|-----|-----|------|------|------|------|------|------|
| Removals, Installations | 50.0 | 10.0 | 15 | 80 | 400 | 20 | 1.0 | 3.0 | 2.9 | 2.8 | 2.7 | 2.6 |
| "6N" Possessor Change | | 25.0 | | | | 25 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| "6U" Update Normal Limit | 25.0 | 75.0 | 60 | 60 | 60 | 50 | 10.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Extended Flight | | | 15 | 80 | | | | | | | | |
| "6F"/"6H" Update Normal Limit | 25.0 | | | | | | | | | | | |
| Extended Flight | | | 37 | 200 | | | | | | | | |

1. CIC less than or equal to 11 times delta FTC for F110-100/100B.
2. CIC less than or equal to 50 times delta FTC for F110-129.
3. ABC greater than or equal to 20 times delta EOT.
4. ABT greater than or equal to 0.10 times delta EOT for F110-100.
5. ABT greater than or equal to 0.20 times delta EOT for F110-129.
6. If ABC = 0, then ABT = 0.
7. TT1 greater than 0.5 times EOT.
8. Cycle values for LCY, FTC, and CIC must be greater than zero if IFT is reported.
9. EOT > 0.

Table 9-42. Configured CII for Navy F110-GE-400 Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---------------------------|-----|-----------|-------|----------|---------|------------------------------|-------------------------------------|
| F110-GE-400 Engine | | 2 | 70000 | AN40010 | | FHR, EOT, LCY, FTC, CIC, ABC | NONE |
| Main Control | 1 | 3 | 76200 | LN40011 | AN40010 | EOT | EOTH |
| Augmentor Control | 1 | 3 | 77200 | LN40012 | AN40010 | EOT | EOTH |
| Pyrometer T4B | 1 | 3 | 79440 | LN40013 | AN40010 | EOT | EOTH |
| Augmentor Fuel Pump | 1 | 3 | 77100 | LN40014 | AN40010 | EOT | EOTH |
| HYD Pump | 1 | 3 | 7C100 | LN40015 | AN40010 | EOT | EOTH |
| Lube/Scavenge Pump | 1 | 3 | 78100 | LN40016 | AN40010 | EOT | EOTH |
| Main Fuel Pump | 1 | 3 | 76100 | LN40017 | AN40010 | EOT | EOTH |
| Fuel Boost Pump | 1 | 3 | 76300 | LN40018 | AN40010 | EOT | EOTH |
| Gearbox Fwd | 1 | 3 | 75200 | LN40019 | AN40010 | EOT | EOTH |
| Gearbox Aft | 1 | 3 | 75300 | LN40021 | AN40010 | EOT | EOTH |
| EMSP | 1 | 3 | 79300 | LN40022 | AN40010 | EOT | EOTH |
| Inlet Gearbox | 1 | 3 | 75100 | LN40024 | AN40010 | EOT | EOTH |
| HPT Rotor Assy | 1 | 3 | 73300 | HN40030 | AN40010 | EOT, LCY, FTC, CIC | |
| Shaft HPT Fwd | 1 | 4 | 73310 | PN40031 | HN40030 | EOT, LCY, FTC, CIC | TACN |
| HPT Fwd Rotating Seal | 1 | 4 | 73320 | PN40032 | HN40030 | EOT, LCY, FTC, CIC | TACN |
| HPT Disk | 1 | 4 | 73340 | PN40033 | HN40030 | EOT, LCY, FTC, CIC | TACN |
| Blade Retainer Fwd HPT | 1 | 4 | 73330 | PN40034 | HN40030 | EOT, LCY, FTC, CIC | TACN |
| Blade Retainer Aft HPT | 1 | 4 | 73350 | PN40035 | HN40030 | EOT, LCY, FTC, CIC | TACN |
| Shaft, Aft HPT | 1 | 4 | 73360 | PN40036 | HN40030 | EOT, LCY, FTC, CIC | TACN |
| LPT Rotor Assy | 1 | 3 | 73400 | HN40050 | AN40010 | EOT, LCY, FTC, CIC | TACV |
| Shaft, LPT | 1 | 4 | 73430 | PN40051 | HN40040 | EOT, LCY, FTC, CIC | TACN |
| Retainer, Stg 1 Blade LPT | 1 | 4 | 73412 | PN40052 | HN40040 | EOT, LCY, FTC, CIC | TACN |
| Disk, Stage 1 LPT | 1 | 4 | 73410 | PN40053 | HN40040 | EOT, LCY, FTC, CIC | TACN |
| Blade Set Stg 1 LPT | 1 | 5 | 73411 | SP40053 | PN40053 | EOT, LCY, FTC, CIC | TACV |
| Disk Stage 2 LPT | 1 | 4 | 73420 | PN40054 | HN40050 | EOT, LCY, FTC, CIC | TACN |
| Blade Set Stage 2 LPT | 1 | 5 | 73421 | SN40054 | PN40054 | EOT, LCY, FTC, CIC | TACV |
| Retainer Stg 2 Blade | 1 | 4 | 73422 | PN40055 | HN40050 | EOT, LCY, FTC, CIC | TACN |
| Seal, Spacer LPT BLD | 1 | 4 | 734A0 | PN40056 | HN40050 | EOT, LCY, FTC, CIC | TACN |
| Fan Rotor Assy | 1 | 3 | 71A00 | HN40070 | AN40010 | EOT, LCY, FTC, CIC | TACV |
| Disk Stg 1 Fan | 1 | 4 | 71A10 | PN40071 | HN40070 | EOT, LCY, FTC, CIC | TACN |

Table 9-42. Configured CII for Navy F110-GE-400 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Blade Set Stg 2 Fan | 1 | 5 | 71A21 | SN40072 | PN40072 | EOT, LCY, FTC, CIC | TACN |
| Disk Stg 2 Fan | 1 | 4 | 71A20 | PN40072 | HN40070 | EOT, LCY, FTC, CIC | TACN |
| Disk Stg 3 Fan | 1 | 4 | 71A30 | PN40073 | HN40070 | EOT, LCY, FTC, CIC | TACN |
| Fan Shaft Aft | 1 | 4 | 71A40 | PN40074 | HN40070 | EOT, LCY, FTC, CIC | TACN |
| HPC Rotor Assy | 1 | 3 | 71B00 | HN40080 | AN40010 | EOT, LCY, FTC, CIC | TACV |
| HPC Spool Stg 1-2 | 1 | 4 | 71B10 | PN40081 | HN40080 | EOT, LCY, FTC, CIC | TACN |
| HPT Disk Stg 3 | 1 | 4 | 71B30 | PN40082 | HN40080 | EOT, LCY, FTC, CIC | TACN |
| HPC Spool Stg 4-9 | 1 | 4 | 71B40 | PN40083 | HN40080 | EOT, LCY, FTC, CIC | TACN |
| HPT Shaft Fwd | 1 | 4 | 71B20 | PN40084 | HN40080 | EOT, LCY, FTC, CIC | TACN |
| Seal, Aft Rotating HPC | 1 | 4 | 71B50 | PN40085 | HN40080 | EOT, LCY, FTC, CIC | TACN |
| Combustor Case | 1 | 3 | 72200 | HN400A0 | AN40010 | EOT, LCY, FTC, CIC | TACN |
| Combustor Assy | 1 | 3 | 72300 | HN400B0 | AN40010 | EOT, LCY, FTC, CIC | EOTN, TACN |
| Combustor Cowl | 1 | 4 | 72340 | PN400B1 | HN400B0 | EOT, LCY, FTC, CIC | EOTN, TACN |

Table 9-43. Configured CII for F118-100 Engine

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---------------------------|-----|-----------|-------|----------|---------|-----------------------------|-------------------------------------|
| F118-GE-100 Engine | 4 | 2 | 23Z00 | AF11810 | B002A | EOT, FHR, FTC, LCY, TT1-TT5 | NONE |
| Control, EFT | 1 | 3 | 23GPL | LF11811 | AF10010 | EOT | EOTN |
| VSV Actuator | 2 | 3 | 23GHD | LF11812 | AF11810 | EOT | EOTN |
| Exciter, Ignition | 1 | 3 | 23GSA | LF11813 | AF11810 | EOT | EOTN |
| Pyrometer | 1 | 3 | 23GPP | LF11814 | AF11810 | EOT | EOTN |
| Tank, Lube | 1 | 3 | 23GJA | LF11815 | AF11810 | EOT | EOTN |
| Cooler, Lube Oil/Fuel | 1 | 3 | 23GAU | LF11816 | AF11810 | EOT | EOTN |
| Valve, De-Ice | 1 | 3 | 23GTA | LF11817 | AF11810 | EOT | EOTN |
| Actuator, 16G | 1 | 3 | 23BFA | LF11818 | AF11810 | EOT | EOTN |
| EMSP | 1 | 3 | 23GPT | LF11819 | AF11810 | EOT | EOTN |
| Sensor Debris Monitor | 1 | 3 | 23GJB | LF1181A | AF11810 | EOT | EOTN |
| Control, Main Engine | 1 | 3 | 23GAL | LF1181B | AF11810 | EOT | EOTN |
| Pump, Fuel | 1 | 3 | 23GAA | LF1181C | AF11810 | EOT | EOTN |
| Pump, Lube & Scavenge | 1 | 3 | 23GJH | LF1181D | AF11810 | EOT | EOTN |
| Rotor Alternator | 1 | 3 | 23GPH | LF1181E | AF11810 | EOT | EOTN |
| Stator, Alternator | 1 | 3 | 23GPJ | LF1181F | AF11810 | EOT | EOTN |
| Sensor, Lube Oil Level | 1 | 3 | 23GJG | LF1181G | AF11810 | EOT | EOTN |
| Frame Assy, Front | 1 | 3 | 23BA0 | HF11820 | AF11810 | EOT | EOTN |
| Frame Front | 1 | 4 | 23BAA | PF11821 | HF11820 | EOT | EOTN |
| Bearing #1, O.R. | 1 | 4 | 23FAE | PF11822 | HF11820 | EOT | EOTN |
| Sensor, Fan Inlet | 1 | 4 | 23GPK | PF11823 | HF11820 | EOT | EOTN |
| Rotor Assy, Fan | 1 | 3 | 23BD0 | HF11830 | AF11810 | EOT, LCY, FTC | EOTN, TACN |
| Disk Fan Stg 1 | 1 | 4 | 23BDE | PF11831 | HF11830 | EOT, LCY, FTC | EOTN, TACV, TACN |
| Blade Set (24), Fan Stg 1 | 1 | 5 | 23BDB | SF11831 | HF11830 | EOT | EOTN |
| Disk, Fan Stg 2 | 1 | 4 | 23BDF | PF11832 | HF11830 | EOT, LCY, FTC | EOTN, TACV, TACN |
| Disk, Fan Stg 3 | 1 | 4 | 23BDG | PF11833 | HF11830 | EOT, LCY, FTC | EOTN, TACV, TACN |
| Shaft Fan Aft | 1 | 4 | 23BDA | PF11834 | HF11830 | EOT, LCY, FTC | EOTN, TACN, TACV |
| Seal, Air Stage 1 | 1 | 4 | 23BDL | PF11835 | HF11830 | EOT, LCY, FTC | EOTN, TACN |
| Ring, #1 Inner | 1 | 4 | 23FAF | PF11836 | HF11830 | EOT | EOTN |
| Bearing #2 | 1 | 4 | 23FBM | PF11837 | HF11830 | EOT | EOTN |
| Frame Assy, Fan | 1 | 3 | 23CA0 | HF11840 | AF11810 | EOT | EOTN |
| Frame Fan | 1 | 3 | 23CAA | PF11841 | HF11840 | EOT | EOTN |
| Sensor, FDY (T25) | 2 | 4 | 23GAW | PF11842 | HF11840 | EOT | EOTN |
| Sensor, Fan Speed | 1 | 4 | 23GPS | PF11843 | HF11840 | EOT | EOTN |
| Gearbox Assy, Inlet | 1 | 3 | 23CC0 | HF11850 | AF11810 | EOT, LCY, FTC | EOTN |
| Gear, Bevel Inlet | 1 | 4 | 23CCC | PF11851 | HF11850 | EOT, LCY, FTC | EOTN |
| Case Assy, Fan Stator | 1 | 3 | 23BC0 | HF11860 | AF11810 | EOT | EOTN |
| Case Assy, Fwd Comp STA | 1 | 3 | 23CD0 | HF11870 | AF11810 | EOT | EOTN |
| Case, Front Stator, HPT | 1 | 4 | 23CDA | PF11871 | HF11870 | EOT | EOTN |
| Rotor Assy HPC | 1 | 3 | 23CG0 | HF11880 | AF11810 | EOT, LCY, FTC | EOTN, TACN |

Table 9-43. Configured CII for F118-100 Engine - Continued

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-----------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Spool, Stage 1 & HPC | 1 | 4 | 23CGD | PF11881 | HF11880 | EOT, LCY, FTC | EOTN, TACV, TACN |
| Disk, Stage 3 HPC | 1 | 4 | 23CGE | PF11882 | HF11880 | EOT, LCY, FTC | EOTN, TACV, TACN |
| Spool, Stage 4-9, HPC | 1 | 4 | 23CGF | PF11883 | HF11880 | EOT, LCY, FTC | EOTN, TACN, TACV |
| Shaft Forward HPC | 1 | 4 | 23CGA | PF11884 | HF11880 | EOT, LCY, FTC | EOTN, TACN |
| Seal, Rotating HPC (CDP) | 1 | 4 | 23CGS | PF11885 | HF11880 | EOT, LCY, FTC | EOTN, TACV, TACN |
| #3 Bearing | 1 | 4 | 23FCG | PF11886 | HF11880 | EOT | EOTN |
| Case, Assy, Aft Comp Stator | 1 | 3 | 23CF0 | HF11890 | AF11810 | EOT | EOTN |
| Case, Aft Stator HPC | 1 | 4 | 23CFB | PF11891 | HF11890 | EOT | EOTN |
| Support, Comp Stator, Rear | 1 | 4 | 23CFA | PF11892 | HF11890 | EOT | EOTN |
| Case Combustion | 1 | 3 | 23CJA | HF118A0 | AF11810 | EOT, LCY, FTC | EOTN, TACV, TACN |
| Support, Inner Noz HPT | 1 | 4 | 23CJC | PF118A1 | HF118A0 | EOT | EOTN |
| Seal, Stationary Inner | 1 | 4 | 23CJD | PF118A2 | HF118A0 | EOT | EOTN |
| Seal, Aft Outer | 1 | 4 | 23CJE | PF118A3 | HF118A0 | EOT | EOTN |
| Coupling, Shaft | 1 | 4 | 23AGB | PF118A4 | HF118A0 | EOT, LCY, FTC | TACN |
| Combustor | 1 | 3 | 23CJG | HF118B0 | AF11810 | EOT, LCY, FTC | EOTN, TACV |
| Inner Combustion Liner | 1 | 4 | 23CJL | PF118B1 | HF118B0 | EOT, LCY, FTC | TACN |
| Outer Combustion Liner | 1 | 4 | 23CJK | PF118B2 | HF118B0 | EOT, LCY, FTC | TACN |
| Combustion Dome | 1 | 4 | 23CJH | PF118B3 | HF118B0 | EOT, LCY, FTC | TACN |
| Cowl, Outer | 1 | 4 | 23CJ2 | PF118B4 | HF118B0 | EOT, LCY, FTC | TACN |
| Cowl, Inner | 1 | 4 | 23CJ1 | PF118B5 | HF118B0 | EOT, LCY, FTC | TACN |
| Shroud Assy HPT | 1 | 3 | 23CJT | HF118C0 | AF11810 | EOT | EOTN |
| Sprt/Hanger Shroud HPT | 1 | 4 | 23CJV | PF118C1 | HF118C0 | EOT | EOTN |
| Nozzle Assy HPT | 1 | 3 | 23CJM | HF118D0 | AF11810 | EOT | EOTN |
| Rotor Assy HPT | 1 | 3 | 23CL0 | HF118E0 | AF11810 | EOT, LCY, FTC | EOTN, TACN |
| Forward Shaft HPT | 1 | 4 | 23CLA | PF118E1 | HF118E0 | EOT, LCY, FTC | EOTN, TACN, TACV |
| Seal Forward HPT | 1 | 4 | 23CLB | PF118E2 | HF118E0 | EOT, LCY, FTC | EOTN, TACV, TACN |
| Disk HPT | 1 | 4 | 23CLD | PF118E3 | AF11810 | EOT, LCY, FTC | EOTN, TACN, TACV |
| Blade Set (72) HPT | 1 | 5 | 23CLG | SF118E3 | PF118E3 | EOT, LCY, FTC | EOTN, TACN |
| Retainer, Forward HPT Bld | 1 | 4 | 23CLC | PF118E4 | HF118E0 | EOT, LCY, FTC | EOTN, TACN |
| Retainer, Rear HPT Blade | 1 | 4 | 23CLE | PF118E5 | HF118E0 | EOT, LCY, FTC | EOTN, TACN |
| HPT Aft Shaft | 1 | 4 | 23CLF | PF118E6 | HF118E0 | EOT, LCY, FTC | TACN, EOTN, TACV |
| Nozzle Assy Stg 1 LPT | 1 | 3 | 23DC0 | HF118FO | AF11810 | EOT | EOTN |
| Rotor Assy, LPT | 1 | 3 | 23DA0 | HF118G0 | AF11810 | EOT, LCY, FTC | EOTN, TACN |
| Shaft LPT | 1 | 4 | 23DAA | PF118G1 | HF118G0 | EOT, LCY, FTC | EOTN, TACN |
| Retainer, LPT Blade Stg 1 | 1 | 4 | 23DAC | PF118G2 | HF118G0 | EOT, LCY, FTC | EOTN, TACN |
| Disk Stage 1 LPT | 1 | 4 | 23DAD | PF118G3 | HF118G0 | EOT, LCY, FTC | EOTN, TACN, TACV |
| Blade Set (108) Stg 1 LPT | 1 | 5 | 23DAB | SF118G3 | PF118G3 | EOT, LCY, FYC | EOTN, TACN |
| Disk Stage 2 LPT | 1 | 4 | 23DAM | PF118G4 | HF118G0 | EOT, LCY, FTC | EOTN, TACN |

Table 9-43. Configured CII for F118-100 Engine - Continued

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|----------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Blade Set (94) Stg 2 LPT | 1 | 5 | 23DAK | SF118G4 | PF118G4 | EOT, LCY, FTC | EOTN, TACN |
| Spacer, Rotor Seal, LPT | 1 | 4 | 23DAN | PF118G5 | HF118G0 | EOT, LCY, FTC | EOTN, TACN |
| Retainer, Blade, Stg 2 LPT | 1 | 4 | 23DAL | PF118G6 | HF118G0 | EOT, LCY, FTC | EOTN, TACN |
| Bearing #4 | 1 | 4 | 23FDA | PF118G7 | HF118G0 | EOT | EOTN |
| Bearing #5 Inner Ring | 1 | 4 | 23DAT | PF118G8 | HF118G0 | EOT | EOTN |
| Seal Air | 1 | 4 | 23DAE | PF118G9 | HF118G0 | EOT | EOTN |
| Nozzle Assy, Stage 2 LPT | 1 | 3 | 23DD0 | HF118H0 | AF11810 | EOT | EOTN |
| Turbine Frame Assy | 1 | 3 | 23DE0 | HF118J0 | AF11810 | EOT | EOTN |
| Turbine Frame | 1 | 4 | 23DEA | PF118J1 | HF118J0 | EOT | EOTN |
| Ring, Mount | 1 | 4 | 23DED | PF118J2 | HF118J0 | EOT | EOTN |
| Bearing #5 O.R. | 1 | 4 | 23DEN | PF118J3 | AF11810 | EOT | EOTN |
| Gearbox Accessory | 1 | 3 | 23A00 | HF118K0 | AF11810 | EOT | EOTN |

F118-100 EDITS

| TRANSACTION | FHR | EOT | LCY | FTC | TT1 | TT2 | TT3 | TT4 | TT5 |
|---|------|------|-----|-----|-----|-----|-----|-----|-----|
| Remove, Install, "6N" Possessor Change | 50.0 | 25.0 | 15 | 60 | 3.0 | 2.9 | 2.8 | 2.7 | 2.6 |
| "6U" Update Normal Limit | 50.0 | 25.0 | 15 | 60 | 3.0 | 2.9 | 2.8 | 2.7 | 2.6 |
| Extended flight | 50.0 | 75.0 | 30 | 120 | | | | | |

Additional 6U Edits:

1. $LCY \leq FTC + 1$
2. $0 \leq EOT \leq 25$
3. $0 \leq LCY \leq 15$
4. $0 \leq FTC \leq$
5. $0.3 \times EOT \geq TT1$
6. $TT1 + .1 \geq TT2$
7. $TT2 + .1 \geq TT3$
8. $TT3 + .1 \geq TT4$
9. $TT4 + .1 \geq TT5$

Table 9-44. Configured CII for F118-101 Engine

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|----------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| 118-GE101 Engine Assy | 1 | 2 | 27Z00 | AU11810 | U002S | FHR, CYC | FHRV |
| IGV Actuator | 1 | 3 | 27BFA | LU11811 | AU11810 | FHR | FHRN |
| Main Fuel Pump | 1 | 3 | 27GAA | LU11812 | AU11810 | FHR | FHRN |
| MEC (Main Engine Control) | 1 | 3 | 27GAL | LU11814 | AU11810 | FHR | FHRN |
| Fuel/Oil Cooler | 1 | 3 | 27GAU | LU11815 | AU11810 | FHR | FHRN |
| VSV Actuator (Right) | 1 | 3 | 27GHD | LU11817 | AU11810 | FHR | FHRN |
| VSV Actuator (Left) | 1 | 3 | 27GHG | LU11818 | AU11810 | FHR | FHRN |
| Oil Tank | 1 | 3 | 27GJA | LU11819 | AU11810 | FHR | FHRN |
| Oil (Temp & Level) Sensor | 1 | 3 | 27GJG | LU1181A | AU11810 | FHR | FHRN |
| Lube & Scavange Pump | 1 | 3 | 27GJH | LU1181B | AU11810 | FHR | FHRH |
| Engine AC Generator (ROT) | 1 | 3 | 27GPH | LU1181C | AU11810 | FHR | FHRN |
| Engine AC Generator (STAT) | 1 | 3 | 27GPJ | LU1181D | AU11810 | FHR | FHRN |
| EFT Control | 1 | 3 | 27GPL | LU1181E | AU11810 | FHR | FHRN |
| Oil Pressure Transmitter | 1 | 3 | 27GPM | LU1181F | AU11810 | FHR | FHRN |
| PYROMETER | 1 | 3 | 27GPP | LU1181G | AU11810 | FHR | FHRV |
| Ignition Exciter | 1 | 3 | 27GSA | LU1181H | AU11810 | FHR | FHRN |
| HPT Rotor Assy | 1 | 3 | 27CL0 | HU11820 | AU11810 | FHR, CYC | FHRV, CYCN |
| Fwd HPTR Shaft | 1 | 4 | 27CLA | PU11821 | HU11820 | FHR, CYC | FHRN, CYCN, FHRV |
| Fwd HPTR Seal | 1 | 4 | 27CLB | PU11822 | HU11820 | FHR | FHRN, FHRV |
| Fwd HPTR Retainer | 1 | 4 | 27CLC | PU11823 | HU11820 | FHR | FHRN, FHRV |
| HPTR Disk | 1 | 4 | 27CLD | PU11824 | HU11820 | FHR, CYC | FHRN, CYCN, FHRV |
| HPT Blade Set | 1 | 5 | 27CLG | SU11824 | PU11824 | FHR | FHRN, FHRV |
| Blade Aft HPT Retainer | 1 | 4 | 27CLE | PU11825 | HU11820 | FHR | FHRN, FHRV |
| Aft HPTR Shaft | 1 | 4 | 27CLF | PU11826 | HU11820 | FHR, CYC | FHRN, CYCN, FHRV |
| Aft Rotating HPTR Seal | 1 | 4 | 27CLK | PU11828 | HU11820 | FHR | FHRN, FHRV |
| LPT Rotor Assy | 1 | 3 | 27DA0 | HU11830 | AU11810 | FHR, CYC | FHRV, CYCN |
| LPTR Shaft | 1 | 4 | 27DAA | PU11831 | HU11830 | FHR, CYC | FHRN, CYCN, FHRV |
| Stage 1 LPTR Ring BLD | 1 | 4 | 27DAC | PU11832 | HU11830 | FHR | FHRN, FHRV |
| Stage 1 LPTR Disk | 1 | 4 | 27DAD | PU11833 | HU11830 | FHR | FHRN, FHRV |
| Stage 1 LPT Blade Set | 1 | 5 | 27DAB | SU11833 | PU11833 | FHR | FHRN, FHRV |
| Stage 2 LPTR Disk | 1 | 4 | 27DAM | PU11834 | HU11830 | FHR, CYC | FHRN, CYCN, FHRV |
| Stage 2 LPT Blade Set | 1 | 5 | 27DAK | SU11834 | PU11834 | FHR | FHRN, FHRV |
| Air LPTR Seal | 1 | 4 | 27DAE | PU11835 | HU11830 | FHR | FHRV |
| Air LPTR RTTG Seal | 1 | 4 | 27DAH | PU11836 | HU11830 | FHR | FHRV |
| Stage 2 LPTR RTN Blade | 1 | 4 | 27DAL | PU11837 | HU11830 | FHR | FHRN, FHRV |
| Seal LPTR Spacer | 1 | 4 | 27DAN | PU11838 | HU11830 | FHR | FHRN, FHRV |
| #5 Inner Bearing | 1 | 4 | 27DAT | PU11839 | HU11830 | FHR | FHRV |
| Bearing #5 | 1 | 4 | 27FDA | PU1183A | HU11830 | FHR | FHRV |
| LPT Stage 1 Nozzle Assy | 1 | 3 | 27DC0 | HU11840 | AU11810 | FHR, CYC | FHRV, CYCN |
| Stage 1 LPTN Segments | 11 | 4 | 27DCA | PU11841 | HU11840 | FHR | FHRN, FHRV |

Table 9-44. Configured CII for F118-101 Engine - Continued

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-----------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Stage 1 LPTN Support | 1 | 4 | 27DCB | PU11842 | HU11840 | FHR | FHRN, FHRV |
| Stage 1 LPTN Shrouds | 12 | 4 | 27DCC | PU11843 | HU11840 | FHR | FHRN, FHRV |
| Inner LPTN Air Seal | 1 | 4 | 27DCD | PU11844 | HU11840 | FHR | FHRN, FHRV |
| Stage 2 LPT Nozzle Assy | 1 | 3 | 27DD0 | HU11850 | AU11810 | FHR, CYC | FHRN, CYCN, FHRV |
| Stage 2 LPTN Support | 1 | 4 | 27DDA | PU11851 | HU11850 | FHR | FHRN, FHRV |
| Stage 2 LPTN Segments | 15 | 4 | 27ddb | PU11852 | HU11850 | FHR | FHRN, FHRV |
| Stage 2 LPTN Shrouds | 15 | 4 | 27DDD | PU11853 | HU11850 | FHR | FHRN, FHRV |
| Turbine Frame Assy | 1 | 3 | 27DE0 | HU11860 | AU11810 | FHR | FHRV |
| Turbine Frame | 1 | 4 | 27DEA | PU11861 | HU11860 | FHR | FHRV |
| Turbine Frame Mounting Ring | 1 | 4 | 27DED | PU11862 | HU11860 | FHR | FHRV |
| Bearing #5 | 1 | 4 | 27DEN | PU11863 | HU11860 | FHR | FHRV |
| Exhaust Duct | 1 | 3 | 27ECA | HU11870 | AU11810 | FHR | FHRV |
| EGT Probes (Long) | 4 | 4 | 27GP1 | PU11871 | HU11870 | FHR | FHRN |
| EGT Probes (Short) | 4 | 4 | 27GPN | PU11872 | HU11870 | FHR | FHRN |
| Accessory Gearbox Assy | 1 | 3 | 27A00 | HU118A0 | AU11810 | FHR | FHRV |
| Front Frame Assy | 1 | 3 | 27BA0 | HU118B0 | AU11810 | FHR | FHRV |
| Front Frame | 1 | 4 | 27BAA | PU118B1 | HU118B0 | FHR | FHRV |
| Bearing #1 | 1 | 4 | 27FAE | PU118B2 | HU118B0 | FHR | FHRV |
| Fan Inlet Temp Sensor T12 | 1 | 4 | 27GPK | PU118B3 | HU118B0 | FHR | FHRN |
| Fan Stator Assy | 1 | 3 | 27BC0 | HU118C0 | AU11810 | FHR | FHRV |
| Fan Stator Case | 1 | 4 | 27BCA | PU118C1 | HU118C0 | FHR | FHRV |
| Fan Rotor Assy | 1 | 3 | 27BD0 | HU118D0 | AU11810 | FHR, CYC | FHRV, CYCN |
| Aft Fan Shaft | 1 | 4 | 27BDA | PU118D1 | HU118D0 | FHR | FHRV |
| Stage 1 Fan Disk | 1 | 4 | 27BDE | PU118D2 | HU118D0 | FHR, CYC | FHRV, CYCN |
| Stage 1 Fan Blades | 1 | 5 | 27BDB | SU118D2 | PU118D2 | FHR | FHRV |
| Stage 2 Fan Disk | 1 | 4 | 27BDF | PU118D3 | HU118D0 | FHR, CYC | FHRV, CYCN |
| Stage 3 Fan Disk | 1 | 4 | 27BDG | PU118D4 | HU118D0 | FHR, CYC | FHRV, CYCN |
| Stage 1 Fan Air Seal | 1 | 4 | 27BDL | PU118D5 | HU118D0 | FHR | FHRV |
| Inner Bearing #1 Ring | 1 | 4 | 27FAF | PU118D6 | HU118D0 | FHR | FHRV |
| Bearing #2 | 1 | 4 | 27FBM | PU118D7 | HU118D0 | FHR | FHRV |
| Fan Frame Assy | 1 | 3 | 27CA0 | HU118E0 | AU11810 | FHR | FHRV |
| Fan Frame | 1 | 4 | 27CAA | PU118E1 | HU118E0 | FHR | FHRV |
| FDT Sensor (T25) (Upper) | 1 | 4 | 27GAW | PU118E2 | HU118E0 | FHR | FHRN |
| FDT Sensor (T25) (Lower) | 1 | 4 | 27GAX | PU118E3 | HU118E0 | FHR | FHRN |
| Fan Speed Sensor | 1 | 4 | 27GPS | PU118E4 | HU118E0 | FHR | FHRN |
| Inlet Gearbox Assy | 1 | 4 | 27CC0 | HU118F0 | AU11810 | FHR | FHRV |
| Radial Drive Shaft | 1 | 4 | 27CCK | PU118F1 | HU11810 | FHR | FHRV |
| Compressor Stator Fwd Assy | 1 | 3 | 27CD0 | HU118G0 | AU11810 | FHR | FHRV |
| Fwd HPCS Case | 1 | 4 | 27CDA | PU118G1 | HU118G0 | FHR | FHRV |

Table 9-44. Configured CII for F118-101 Engine - Continued

| NOMENCLATURE | OPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Comp ST Aft Case Assy | 1 | 3 | 27CF0 | HU118K0 | AU11810 | FHR | FHRV |
| HPCS Rear Support | 1 | 4 | 27CFA | PU118K1 | HU118K0 | FHR | FHRV |
| Aft HPCS Case | 1 | 4 | 27CFB | PU118K2 | HU118K0 | FHR | FHRV |
| HPC Rotor Assy | 1 | 3 | 27CG0 | HU118M0 | AU11810 | FHR | FHRV |
| HPCR Fwd Shaft | 1 | 4 | 27CGA | PU118M1 | HU118M0 | FHR | FHRV |
| Stage 1-2 HPCR Spool | 1 | 4 | 27CGD | PU118M2 | HU118M0 | FHR | FHRV |
| Stage 3 HPCR Disk | 1 | 4 | 27CGE | PU118M5 | HU118M0 | FHR | FHRV |
| Stage 4-9 HPCR Spool | 1 | 4 | 27CGF | PU118M6 | HU118M0 | FHR, CYC | FHRV, CYCN |
| Rotating HPCR Seal | 1 | 4 | 27CGS | PU118MD | HU118M0 | FHR | FHRN |
| Gear, Bevel | 1 | 4 | 27FCD | PU118ME | HU118M0 | FHR | FHRN |
| Bearing #3 | 1 | 4 | 27FCG | PU118MF | HU118M0 | FHR | FHRN |
| CDN Assy | 1 | 3 | 27CJ0 | HU118N0 | AU11810 | FHR, CYC | FHRV, CYCN |
| Combustion Case | 1 | 3 | 27CJA | HU118P0 | AU11810 | FHR | FHRN, FHRV |
| HPT Inner Nozzle Support | 1 | 4 | 27CJC | PU118P1 | HU118P0 | FHR | FHRN, FHRV |
| Stationary Inner Seal | 1 | 4 | 27CJD | PU118P2 | HU118P0 | FHR | FHRN, FHRV |
| Aft Outer Seal | 1 | 4 | 27CJE | PU118P3 | HU118P0 | FHR | FHRN |
| Combustion Chamber Assy | 1 | 3 | 27CJG | HU118R0 | AU11810 | FHR, CYC | FHRV, CYCN |
| Nozzle HPT Assy | 1 | 3 | 27CJM | HU118T0 | AU11810 | FHR, CYC | FHRV, CYCN |
| Outer HPTN Support | 1 | 4 | 27CJN | PU118T1 | HU118T0 | FHR | FHRN, FHRV |
| Aft Inner Support | 1 | 4 | 27CJR | PU118T2 | HU118T0 | FHR | FHRN, FHRV |
| Seal HPTN Support | 1 | 4 | 27CJS | PU118T3 | HU118T0 | FHR | FHRN, FHRV |
| Shroud HPT Assy | 1 | 3 | 27CJT | HU118V0 | AU11810 | FHR, CYC | FHRV, CYCN |
| HPT Shroud Hanger Support | 1 | 4 | 27CJV | PU118V1 | HU118V0 | FHR | FHRN, FHRV |

F118-101 EDITS

| TRANSACTION | FLYING TIME | CYCLES |
|--|-----------------------|-----------------------|
| Initialization, Removals, Installations | 60.0 FHR | 20.00 CYC |
| "6U" Update Normal Limit Extended Flight | 60.0 FHR 100.0 FHR | 20.0 CYC 40.00 CYC |

Additional 6U Edits:

1. CYC = or > 1.00
2. FHR > 0.0

Table 9-45. Configured CII for F404-GE-F1D2 Engine

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-------------------------------|-----|-----------|-------|----------|---------|---|-------------------------------------|
| F404-GE-F1D2 Engine | 2 | 2 | 23A00 | AF40410 | --F117A | FHR, EOT, LCY, PL8, TM1, TM2, TM3, TM4, TM5, PLA, SRF, P3A, P3B, LCP, EFC | NONE |
| Valve, Anti-ice | 1 | 3 | 23TA0 | LF40411 | AF40410 | EOT | EOTN |
| Control, Main Fuel | 1 | 3 | 23PA0 | LF40412 | AF40410 | EOT | EOTN |
| Control Assy, Electrical | 1 | 3 | 23RA0 | LF40413 | AF40410 | EOT | EOTN |
| Pump Assy, Main Fuel | 1 | 3 | 23PE0 | LF40414 | AF40410 | EOT | EOTN |
| Transmitter, CIT | 1 | 3 | 23PB0 | LF40415 | AF40410 | EOT | EOTN |
| Pump Assy, Lube & Scavenge | 1 | 3 | 23SB0 | LF40416 | AF40410 | EOT | EOTN |
| Harness Assy, T5 | 2 | 3 | 23RN0 | LF40417 | AF40410 | EOT | EOTN |
| Actuator Assy, Fan VG | 1 | 3 | 23AAE | LF40418 | AF40410 | EOT | EOTN |
| Fan Module | 1 | 3 | 23AA0 | HF40420 | AF40410 | EOT, LCY, LCP | EOTN, LCYN, LCPN |
| Bearing, No. 1 | 1 | 4 | 23AAF | PF40421 | HF40420 | EOT | EOTN |
| Frame Assy Frnt | 1 | 4 | 23AAG | PF40422 | HF40420 | EOT, LCY, LCP | EOTH, LCYN, LCPN |
| Rotor Assy, Fan | 1 | 4 | 23AE0 | HF40430 | HF40420 | EOT, LCY, LCP | EOTN, LCYN, LCPN |
| Disk, Stg 1 Fan | 1 | 5 | 23AEA | PF40431 | HF40430 | LCY, LCP, ELC | LCYN, LCPN, ELCN |
| Blade Set Stg 1 Fan Rotor Set | 1 | 6 | 23AEB | SF40431 | PF40431 | LCY, LCP, ELC | LCYP, LCPN, ELCN |
| Disk, Stg 2 Fan | 1 | 5 | 23AEC | PF40432 | HF40430 | LCY, LCP, ELC | LCYN, LCPN, ELCN |
| Fan Rotor Set, Stg 2 | 1 | 6 | 23AEH | SF40432 | PF40432 | LCY, LCP, ELC | LCYN, LCPN, ELCN |
| Disk, Stg 3 Fan | 1 | 5 | 23AED | PF40433 | HF40430 | LCY, LCP, ELC | LCYN, LCPN, ELCN |
| Fan Rotor Set, Stg 3 | 1 | 6 | 23AEG | SF40433 | PF40433 | LCY, LCP, ELC | LCYN, LCPN, ELCN |
| Shaft, Fan Rear | 1 | 5 | 23AEE | PF40434 | HF40430 | LCY, LCP, ELC | LCYN, LCPN, ELCN |
| Bearing, No. 2 Inner | 1 | 5 | 23AEF | PF40435 | HF40430 | EOT | EOTN |
| Fan Stator Assembly | 1 | 4 | 23AH0 | HF404G0 | HF40420 | EOT, LCY, LCP | EOTN |
| Module, HPC | 1 | 3 | 23AL0 | HF40440 | AF40410 | EOT, LCY, LCP, ELC | EOTN, LCYN, LCPN, ELCN |
| Bearing, No. 2 Outer | 1 | 4 | 23ALG | PF40441 | HF40440 | EOT | EOTN |
| Bearing, No. 3 | 1 | 4 | 23ALH | PF40442 | HF40440 | EOT | EOTN |
| Mid-frame | 1 | 4 | 23ALJ | PF40443 | HF40440 | EOT, LCY, LCP | EOTN, LCYN, LCPN |
| Casting Combustor | 1 | 4 | 23ARB | HF404F0 | HF40440 | EOT,LCP | EOTN, LCPN |
| Nozzle, Fuel Set | 1 | 5 | 23PQ0 | PF404F1 | HF404F0 | LCP | LCPN |
| Rotor Assy, Compressor | 1 | 3 | 23AN0 | HF40450 | AF40410 | EOT, LCY, LCP, ELC | EOTH, LCYN, LCPN, ELCN |
| Shaft, Compr Front | 1 | 4 | 23ANB | PF40451 | HF40450 | LCY, LCP, ELC | LCYN, LCPN, ELCN |
| Spool, Compr Stg 1 & 2 | 1 | 4 | 23ANC | PF40452 | HF40450 | LCY, LCP, ELC | LCYN, LCPN, ELCN |

Table 9-45. Configured CII for F404-GE-F1D2 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|---|---|---|---|---|---|--|--|
| Disk, Stg 3 Compressor Spool, Compr Stg 4-7 | 1 1 | 4 4 | 23AND 23ANE | PF40453 PF40454 | HF40450 HF40450 | LCY, LCP, ELC LCY, LCP, ELC | LCYN, LCPN, ELCN LCYN, LCPN, ELCN |
| Compressor Stator Assy Case, Compr Forward Case, Compr Aftward | 1 1 1 | 3 4 4 | 23ALK 23ALL 23ALM | HF40460 PF40461 PF40462 | AF40410 HF40460 HF40460 | EOT EOT EOT | EOTN EOTN EOTN |
| Module Combustor Combustion Liner | 1 1 | 3 3 | 23AR0 23ARC | HF40470 PF40471 | AF40410 HF40470 | FHR, EOT, P3A, P3B, EFC FHR, EOT, EFC | EOTN, P3AN, P3BN FHRN, EOTN, EFCN |
| HPT Module Shaft, Fan Drive Bearing, No. 4 | 1 1 1 | 3 4 4 | 23AS0 23ASK 23ASL | HF40480 PF40481 PF40482 | AF40410 HF40480 AF40410 | EOT, LCY, LCP, ELC LCY, LCP, ELC EOT | EOTN, LCYN, LCPN, ELCN LCYN, LCPN, ELCN EOTN |
| HPT Rotor Assy Shaft, HPT Fwd Shaft, HPT Aft Seal, HPT Fwd Rotating Plate, HPT Fwd Cooling Plate, HPT Aft Cooling Disk, HPT Rotor Blade, HPT Set LPT Module Bearing, No. 5 Exhaust Frame & C-Clamp Assy | 1 1 1 1 1 1 1 1 1 1 1 | 3 4 4 4 4 4 4 5 3 4 4 | 23ASB 23ASC 23ASD 23ASE 23ASF 23ASG 23ASH 23ASJ 23AW0 23AWM 23AWN | HF40490 PF40491 PF40492 PF40493 PF40494 PF40495 PF40496 SF40496 HF404A0 PF404A1 PF404A2 | AF40410 HF40490 HF40490 HF40490 HF40490 HF40490 HF40490 PF40496 AF40410 HF404A0 HF404A0 | EOT, LCY, LCP, ELC LCY, LCP, ELC LCY, LCP, ELC LCY, LCP, ELC LCY, LCP, ELC LCY, LCP, ELC LCY, LCP, ELC EFC EOT, LCY, LCP, ELC EOT EOT, LCY, LCP, ELC | EOTN, LCYN, LCPN, ELCN LCYN, LCPN, ELCN LCYN, LCPN, ELCN LCYN, LCPN, ELCN LCYN, LCPN, ELCN LCYN, LCPN, ELCN LCYN, LCPN, ELCN EFCN EOTN, LCYN, LCPN, ELCN EOTN EOTN, LCYN, LCPN, ELCN |
| Rotor, Assy LPT Shaft, LPT Conical Seal, Fwd LPT Rotor Disk, LPT Rotor Blade, LPT Set | 1 1 1 1 1 | 3 4 4 4 5 | 23AWG 23AWH 23AWJ 23AWK 23AWL | HF404B0 PF404B1 PF404B2 PF404B3 SF404B3 | AF40410 HF404B0 HF404B0 HF404B0 PF404B3 | EOT, LCY, LCP, ELC LCY, LCP, ELC LCY, LCP, ELC LCY, LCP, ELC EOT | EOTN, LCYN, LCPN, ELCN LCYN, LCPN, ELCN LCYN, LCPN, ELCN LCYN, LCPN, ELCN EOTN |
| Module, Exhaust Mixer, Exh Duct | 1 1 | 3 4 | 23AX0 23AXA | HF404C0 PF404C1 | AF40410 HF404C0 | EOT, LCY, LCP, ELC EOT, LCY, LCP, ELC | EOTN, LCYN, LCPN, ELCN EOTN, LCYN, LCPN, ELCN |

Table 9-45. Configured CII for F404-GE-F1D2 Engine - Continued

| NOMENCLATURE | QPA | IND LEVEL | WUC | CEMS CII | NHA CII | TRACKING METHOD (TLC) | TRACKING METHODS WITH LIMITS (TLCC) |
|-------------------------|-----|-----------|-------|----------|---------|-----------------------|-------------------------------------|
| Gearbox Assy, ACCESSORY | 1 | 3 | 23AK0 | HF404D0 | AF40410 | EOT | EOTN |
| Drive Assy, PTO | 1 | 3 | 23AKF | HF404E0 | AF40410 | EOT | EOTN |

F404 EDITS

| TRANSACTION | EOT | FHR | LCY | PL8 | TM1 | TM2 | TM3 | TM4 | TM5 | PLA | SRF | P3A | P3B | EFC | LCP |
|---|------|------|-----|------|------|------|------|------|------|-----|------|-----|-----|-------|-----|
| Removals, Installations, "6N" Possessor "6U" Update | 15.0 | 15.0 | 15 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 30 | 15.0 | 1 | 3 | 99.9 | 25 |
| Normal Limit | 15.0 | 15.0 | 15 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 30 | 15.0 | 1 | 3 | 99.9 | 25 |
| Extended Flight | 30.0 | 30.0 | 30 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 60 | 30.0 | 3 | 9 | 400.0 | 30 |

Additional 6U Edits:

1. EOT ≥ TM1 ≥ TM2 ≥ TM3 ≥ TM4 ≥ TM5.
2. EOT > 0.
3. EOT is equal to or greater than FHR.
4. LCP is equal to or greater than LCY.

Table 9-46. CAMS Matrix

| ACTION | TYPE ASSET | TRIC | TYPE TRANS | FORMAT | OPTION | REMARKS | |
|---|---------------------------|------------|---------------------|-----------|--------|--------------------|---------------|
| NOTE All assets must be loaded to the CAMS data base before any action and/or event can be reported. Assets C, D, H, and K will not require manual loading when an "I" deck is used. | TEL | LOAD | 1 | E | | | |
| | C,D | TEL | LOAD | 2 | E | | |
| | | AHE | | 1 | 1 | | |
| | G,I,J | AUE | LOAD | | | | (as required) |
| | | TEL | LOAD | A/B/C/D/E | E | | |
| | H,K | TEL | LOAD | 1 | P | | |
| TEL | | LOAD | 2 | P | | | |
| | | TEL | LOAD | A/B/C/D/E | P | (as required) | |
| Automated History Events (optional) | A thru K | AHE | LOAD | 1 | 1 | (when required) | |
| Receipt of Uninstalled Asset | A thru J K | ESU | not applicable | 2 | 1 | | |
| Receipt of installed asset (non-parts-tracked assets not currently loaded in CAMS data base as previously possessed and all parts tracked assets). | A,B,F | TEL | I | 1 | E | ("R" in column 79) | |
| | C,D | TEL | I | A | E | ("R" in column 79) | |
| | G,H,I,K J | TEL | not applicable I | 2 | P | ("R" in column 79) | |
| | A,B,F,J | ESU | : | 1 | 4 | : | |
| Receipt of installed asset (non-parts-tracked assets previously possessed and still loaded in CAMS data base with prior status of "TA" or "SA"). | C,D,G,H,I,K | : | not applicable | : | : | : | |
| Request "I" Deck | A,B,F,G,I,J,K C,D H | CIP CIP | not applicable | A | E | | |
| | | | | A | P | | |
| Load TCTO Applicable to Asset | A thru K | TCD | LOAD | 1 | | | |
| | | TCD | LOAD | 2 | | | |
| | | TCD | LOAD | 3 | | | |
| | | TCD | LOAD | 4 | | | |
| | | TCD | LOAD | 4(SIC) | | | |
| Change in Maintenance for TCTO Compliance | A thru K | TCD | 4 | | | | |
| Work Started for TCTO Compliance | A THRU K | TJS | | | | | |
| Remove From NHA | A,B,F | RAE | R | 1 | E | | |
| | C,D | TER | R | A | E | | |
| | G,I,J | RAE | R | 2 | P | | |
| | H | TER | R | B/C | P | | |

Table 9-46. CAMS Matrix - Continued

| ACTION | TYPE ASSET | TRIC | TYPE TRANS | FORMAT | OPTION | REMARKS |
|---|------------------------|------------|----------------|--------|--------|--|
| | K | TER | R | C | P | |
| Remove from Transit NHA (reported by home base) | A,B,F | RAE | R | 1 | E | (Use "Y" transient indicator) (Use "Y" transient indicator) (Use "Y" transient indicator) (Use "Y" transient indicator) |
| | C,D | TER | R | A | E | |
| | G,I,J | JDC | R | 2 | P | |
| | H | TER | R | B/C | P | |
| | K | | not applicable | | | |
| Installed on NHA Installed on Transit NHA (home base) | A,B,F | IAE | I | 1 | E | (Use "Y" transient indicator) (Use "Y" transient indicator) (Use "Y" transient indicator) (Use "Y" transient indicator) |
| | C,D | TEI | I | A | E | |
| | G,I,J | TEI | I | 2 | P | |
| | H | TEI | I | B/C | P | |
| | K | TEI | I | C | P | |
| | A,B,F | TEI | I | 1 | E | |
| | C,D | TEI | I | A | E | |
| | G,I,J | TEI | I | 2 | P | |
| | H | TEI | I | B | P | |
| | K | | not applicable | | | |
| (Transit Base) | A thru J K | ESU | not applicable | 4 | | |
| Test Cell Reject | A thru F G thru K | ESU | not applicable | 2 | 4 | |
| ENMCS | A thru J K | ESU | not applicable | 2 | 4 | |
| Work Stopped Awaiting Maintenance | A thru J | ESU | | 2 | 4 | |
| | K | | not applicable | | | |
| Work Completed | A thru J | ESU | | 2 | 3 | |
| | K | | not applicable | | | |
| TCTO Complied With | A thru K | TCD | | | | |
| TCTO Decompliance | A thru K | TCD | Change | 4 | | |
| Identity Change Resulting from TCTO Compliance | A thru F | | | | | (Contact SSG) |
| | G thru K | TCD | Change | 2 | | |
| Operating Time Update | A,B,F,G,I,J C,D,H,K | OOU EHR | | | | |

Table 9-46. CAMS Matrix - Continued

| ACTION | TYPE ASSET | TRIC | TYPE TRANS | FORMAT | OPTION | REMARKS |
|---|----------------------|------|----------------|--------|--------|---------|
| Event Update (Cycles, Sorties, Mission, etc) | A,B,F,G,I,J | OUU | | | | |
| | C,D,H,K | EHR | | | | |
| Change in Maintenance | A thru J K | ESU | not applicable | 2 | 4 | |
| Awaiting Disposition | A thru J K | ESU | not applicable | 2 | 4 | |
| Shipped | A thru J K | ESU | not applicable | 3 | 1 | |
| Print Mechanized 95 Listing | A thru F G thru K | SHD | | 2 | | |
| | | SHD | | 3 | | |
| Transfer or Assets (Installed on ACFT) | A thru F,J | ESU | | 1 | 2 | |
| | G,H,I,K | | not applicable | | | |
| Loss of Assets (Installed on ACFT or End Item) | A thru F,J | ESU | | 1 | 3 | |
| | G,H,I,K | | not applicable | | | |
| (Uninstalled) Asset Inbound (Not Installed on NHA) | A thru J K | ESU | not applicable | 2 | 2 | |
| | A thru J | ESU | | 8 | 1 | |
| | K | | not applicable | | | |
| Asset Gained to Inventory (non-reimbursable) (installed on NHA) | A thru F,J | ESU | | 1 | 1 | |
| | G,H,I,K | | not applicable | | | |
| (Uninstalled) | A thru J K | ESU | not applicable | 2 | 2 | |

The following matrix is to assist the CAMS reporting activities in determining which is the correct TRIC to use by the type actions to be reported qualified by the type of accountable asset being reported. It is to serve as a "Roadmap" reference to AFCSM 21-558.

LEGEND OF TYPES OF REPORTABLE ASSETS:

- A = Standard (non-modular non-parts tracked engine) eg J57
- B = Modular Engine eg T56-9
- C = Parts Tracked Engine eg TF34
- D = Modular and Parts Tracked Engine eg F100
- F = SE Engine eg GTCP-85-397
- G = Module (non-parts tracked) eg T56-C9
- H = Module (parts tracked) eg F100-23A
- I = Gearbox with engine as NHA eg G56-15
- K = Tracked Component Part eg F100 Fuel Pump

Table 9-47. Batch Status Reports

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|---|--------|-----------|---|
| 1. SRAN | 4AN | 1-4 | Your four position SRAN. |
| 2. Unit Identification | 1A | 5 | Cannot be "X". |
| 3. Sequence Control Number | 7N | 6-12 | See this T.O. |
| 4. Card Number | 1N | 13 | Constant "1". NOTE: Never more than one card for a status report. |
| 5. Subsystem Identifier | 1A | 14 | Constant "S" except for installation or removal of parts-tracked engines-components or when "6" transaction code is used. |
| 6. Transaction Code | 1AN | 15 | |
| 7. Condition Code | 1A | 16 | |
| 8. Type Report | 1AN | 17 | Normally "R". |
| 9. Serial Number of Item Being Reported | 10AN | 18-27 | |
| 10. Command Code | 3AN | 28-30 | |
| a. Major Command | 2AN | 28-29 | Contractors use command code "1M-", dependent upon which USAF organization issued the contract. |
| b. Sub-Command | 1AN | 30 | |
| 11. Organization Code | 1AN | 31 | For local use. Cannot be "X". |
| 12. Ownership Account Code | 1A | 32 | See paragraph 7-1.2. |
| 13. Date of Occurrence | | | |
| a. Julian Date | 3N | 33-35 | ie 15 Feb - 046 |
| 14. Time of Occurrence | 2N | 36-37 | Two position military hour designator (24 hour clock) with time rounded to nearest hour, eg 0921 = 09, 1343 = 14. |
| 15. Engine Identifier | 2AN | 38-39 | Select correct engine identifier from column four of CII. |
| 16. WUC | 5AN | 40-44 | Use "99999" for non-parts-tracked engine or use WUC from applicable -06 T.O. or this T.O. |
| 17. Installed Receipts (45-80 defined) | | | |
| a. Filler | 6AN | 45-50 | Constant blank. |
| b. Engine Flying Hours | 5N | 51-55 | Right justify, whole numbers, precede with zeros, as necessary. |
| c. Cycle-Sorties Count | 5N | 56-60 | If applicable, justify whole numbers, prefix with zeros if necessary. |
| d. Aircraft MDS** | 7AN | 61-67 | |
| e. Filler | 1 | 68 | Constant blank. |
| f. Aircraft Serial Number | 10AN | 69-78 | |
| g. Position Number | 1N | 79 | |
| h. Filler | 1 | 80 | Constant blank. |
| 18. Removal (pos 45-80 defined) | | | |
| a. Filler | 6 | 45-50 | Constant blank. |
| b. Engine Flying Hours | 5AN | 51-55 | Right justify, whole numbers, precede with zeros, as necessary. |
| c. Cycle-Sortie Count | 5N | 56-60 | If applicable, right justify whole numbers, prefix with zeros if necessary. |

Table 9-47. Batch Status Reports - Continued

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|--|--------|-----------|--|
| d. Engine Related How Mal Code | 3N | 61-63 | |
| e. Reason for Return to Overhaul | 2AN | 64-65 | |
| f. Filler | 13 | 66-78 | Constant blank. |
| g. Primary or Secondary Reason for Removal | 1A | 79 | Must be "P" or "S". |
| h. Filler | 1 | 80 | Constant blank. |
| 19. Uninstalled Shipments (pos 45-80 predefined) | | | |
| a. Major Command (TO) | 2AN | 45-46 | Ship to command and SRAN for which disposition has been given. |
| b. SRAN (TO) | 4N | 47-50 | Destination SRAN. |
| c. Shipping Device Code | 4AN | 51-54 | |
| d. Document Number | 14AN | 55-68 | |
| e. Filler | 1 | 69 | Constant blank. |
| f. Repairable Engine Serial Number*** | 10AN | 70-79 | Serial number of engine that is being replaced. |
| g. Filler | 1 | 80 | Constant blank. |
| 20. Gains and Losses (uninstalled) (cols 45-80 defined) | | | |
| a. Major Command | 2AN | 45-46 | |
| b. SRAN | 4AN | 47-50 | SRAN that the engine was gained from or lost to in the USAF inventory. |
| c. Shipping Device Code | 4AN | 51-54 | |
| d. Document Number | 14AN | 55-68 | |
| e. Filler | 3 | 69-71 | Constant blank. |
| f. Security Assistance Program Number | 8AN | 72-79 | If gained or lost to a SAP country, enter appropriate SAP case number. |
| g. Filler | 1 | 80 | Constant blank. |
| 21. Uninstalled Receipts (cols 45-80 defined) | | | |
| a. Filler | 6AN | 45-50 | Constant blank. |
| b. Shipping Device Code | 4AN | 51-54 | |
| c. Filler | 26AN | 55-80 | Constant blank. |
| 22. Work Completed (cols 45-80 defined) | | | |
| a. Filler | 16AN | 45-60 | Constant blank. |
| b. Engine Related How Mal Code | 3N | 61-63 | |
| c. Filler | 17AN | 64-80 | Constant blank. |
| 23. Command Code Change (cols 45-80 defined) | | | |
| a. Major Command | 2AN | 45-46 | Enter old major command code. |
| b. Filler | 34AN | 47-80 | Constant blank. |
| 24. Installation (cols 45-80 defined) | | | |
| a. Filler | 16AN | 45-60 | Constant blank. |
| b. Aircraft MDS** | 7AN | 61-67 | |
| c. Filler | 1 | 68 | Constant blank. |
| d. End Item Serial Number | 10AN | 69-78 | |
| e. Position Number | 1N | 79 | |
| f. Filler | 1AN | 80 | Constant blank. |
| 25. Transfer of an Installed Engine (cols 45-80 defined) | | | |
| a. Major Command | 2AN | 45-46 | Major command to which an installed engine is being transferred. |

Table 9-47. Batch Status Reports - Continued

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|--|--------|-----------|---|
| b. SRAN | 4AN | 47-50 | Destination SRAN. |
| c. Engine Flying Hours | 5N | 51-55 | Right justify, whole numbers prefix with zeros. |
| d. Cycle-Sortie Count | 5N | 56-60 | If applicable, right justify whole numbers, prefix with zeros. |
| e. Aircraft MDS** | 7AN | 61-67 | |
| f. Filler | 1AN | 68 | Constant blank. |
| g. End Item Serial Number | 10AN | 69-78 | |
| h. Position Number | 1N | 79 | |
| i. Filler | 1 | 80 | Constant blank. |
| 26. Gains and Losses (installed) (cols 45-80 predefined) | | | |
| a. Major Command | 2AN | 45-46 | |
| b. SRAN | 4AN | 47-50 | SRAN the engine is gained from or lost to. |
| c. Engine Flying Hours | 5N | 51-55 | Right justify, whole numbers prefix with zeros. |
| d. Cycle-Sortie Count | 5N | 56-60 | If applicable, right justify whole numbers, prefix with zeros. |
| e. Aircraft MDS** | 7AN | 61-67 | |
| f. Filler | 1AN | 68 | Constant blank. |
| g. End Item Serial Number | 10AN | 69-78 | |
| h. Position Number | 1N | 79 | |
| i. Filler | 1AN | 80 | Constant blank. |
| 27. Installations (intransits) (cols 45-80 defined) | | | |
| a. Major Command | 2AN | 45-46 | Command code of activity that removed the item while in intransit status. |
| b. SRAN | 4AN | 47-50 | SRAN of activity that removed the item while in intransit status. |
| c. Filler | 10AN | 51-60 | Constant blank. |
| d. Aircraft MDS** | 7AN | 61-67 | |
| e. Filler | 1AN | 68 | Constant blank. |
| f. End Item Serial Number | 10AN | 69-78 | |
| g. Position Number | 1AN | 79 | |
| h. Filler | 1AN | 80 | Constant blank. |
| 28. Work Stopped (cols 45-80 defined) | | | |
| a. Filler | 20AN | 45-66 | Constant blank. |
| b. Reason for Delay Code | 1A | 65 | |
| c. Filler | 15AN | 66-80 | Constant blank. |
| 29. Others (ENMCS, Change in Maintenance, etc) (col 45-80 defined) | | | |
| a. Filler | 16AN | 45-60 | Constant blank. |
| b. Engine Related How Mal Code | 3N | 61-63 | |
| c. Reason for Return to Overhaul | 2AN | 64-65 | |
| d. Filler | 15AN | 66-80 | Constant blank. |

**Aircraft MDS is seven positions. When end item is other than aircraft or MDS, leave this field blank.

***Reparable engine serial number is used when a serviceable shipment is made to replace a reparable engine, otherwise enter "Stock" or "Not Furn".

Table 9-48. Configuration (Parts-Tracking) Reports

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|--|--------|-----------|--|
| 1. SRAN | 4AN | 1-4 | Your four position SRAN. |
| 2. Unit Identification | 1A | 5 | Cannot be "X." |
| 3. Sequence Control Number | 7N | 6-12 | See this T.O. |
| 4. Card Number | 1N | 13 | Constant "1." |
| 5. Subsystem Identifier | 1AN | 14 | Constant "C." |
| 6. Transaction Code | 1AN | 15 | |
| 7. Condition Code | 1A | 16 | |
| 8. Type Report | 1AN | 17 | Normally "R." |
| 9. Date-Time of Occurrence | 9N | 18-19 | |
| a. Year | 2N | 18-19 | Last two positions of calendar year (ie 84). |
| b. Julian Date | 3N | 20-22 | |
| c. Time of Occurrence | 4N | 23-26 | Time in 24 hour military clock (ie 0900). |
| 10. Engine Identifier | 2AN | 27-28 | Select correct engine identifier from column 4 of CII tables. |
| 11. WUC | 5AN | 29-33 | For all "6" type transactions, except "6U" or "6T," and all other type transactions, enter the WUC of the item being reported. For "6U" or "6T," enter the WUC of the engine. Select WUC from applicable -06 T.O. or this T.O. |
| 12. Serial Number | 10AN | 34-43 | For all "6" type transactions, except "6U" or "6T," and all other transactions, enter serial number of the item being reported. For "6U" or "6T," enter the serial number of the engine. |
| 13. Part Number or Recorder Serial Number | 15AN | 44-58 | For all "6" type transactions, except "6U" or "6T," enter the part number. For "6U" or "6T," enter serial number of the recorder. If the recorder serial number is input left justify (remaining field must be left blank). |
| 14. NHA Serial Number | 10AN | 59-68 | |
| 15. Engine Related How Mal Code | 3N | 69-71 | |
| 16. Reason for Return to Overhaul or Extended Flight Indicator | 2AN | 72-73 | On Update (6U) transactions, put an "X" in column 73 as an extended flight indicator. On removal (LL) transactions, enter the two position reason for return to overhaul code. |
| 17. Correction Sequence Number | 7N | 74-80 | Input original sequence number when type report = "C" or "V," else leave blank. |

Table 9-49. Card #2 for All Transactions Except 6P

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|---|--------|-----------|--|
| 1. Variable | 4AN | 1-4 | Repeat all data from columns 1-12 from card #1. |
| 2. Filler | 1N | 13 | Constant "2." |
| 3. Variable | 3AN | 14-17 | Repeat all data from columns 14 - 17 from card #1. |
| 4. Command Code | 3AN | 18-20 | |
| a. Major Command | 2AN | 18-19 | |
| b. Sub-Command | 1AN | 20 | |
| 5. Organization Code | 1A | 21 | Optional for local use. Cannot be "X." |
| 6. Position Number or Primary-Secondary Reason for Removal Code | 1AN | 22 | On removal reports, indicate the number of the position from which item was removed. |
| 7. Ownership Code | 1A | 23 | |
| 8. Filler | 5AN | 24-28 | Constant blank. |
| 9. Aircraft MDS | 7AN | 29-35 | |
| 10. Method of Tracking (occurs 5 times) | | 36-80 | NOTE: For Update (6U) and window value initialization (6T) transactions, enter the window values from the recorder except for flying hours (catalog #11), manual cycles (catalog #15) and sorties (catalog #7), which are delta values. All other initializations, adds, subtracts, removals, and installations are absolute values. |
| a. Catalog Number | 2N | 36-37 | |
| b. Catalog Value | 7N | 38-44 | Value of catalog number in 36-37. |
| c. Catalog Number | 2N | 45-46 | |
| d. Catalog Value | 7N | 47-53 | Value of catalog number in 45-46. |
| e. Catalog Number | 2N | 54-55 | |
| f. Catalog Value | 7N | 56-62 | Value of catalog number in 54-55. |
| g. Catalog Number | 2N | 63-64 | |
| h. Catalog Value | 7N | 65-71 | Value of catalog number in 63-64. |
| i. Catalog Number | 2N | 72-73 | |
| j. Catalog Value | 7N | 74-80 | Value of catalog number in 72-73. |

Table 9-50. Card #2 for 6P

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|--|--------|-----------|--|
| 1. Variable | 4AN | 1-12 | Repeat all data from columns 1-12 from card #1. |
| 2. Card Number | 1N | 13 | Constant "2." |
| 3. Variable | 4AN | 14-17 | Repeat all data from columns 14-17 from card #1. |
| 4. Type of Maintenance-Limit | 1A | 18 | "X" or "Y" or blank *. |
| 5. Type of Maintenance | 1A | 19 | "X" or blank *. |
| 6. Maintenance Date | 5N | 20-24 | Last two positions of calendar year. |
| 7. Depot SRAN | 4AN | 25-28 | |
| 8. MDS | 7AN | 29-35 | See this T.O. |
| 9. Method of Tracking (occurs 4 times) | | | |
| a. Catalog Number | 2N | 36-37 | |
| b. Category | 1A | 38 | |
| c. Category Value | 7N | 39-45 | Value of catalog number in 36-37. |
| d. Catalog Number | 2N | 46-47 | |
| e. Category | 1A | 48 | |
| f. Catalog Value | 7N | 49-55 | Value of catalog number in 46-47. |
| g. Catalog Number | 2N | 56-57 | |
| h. Category | 1A | 58 | |
| i. Catalog Value | 7N | 59-65 | Value of catalog number in 56-57. |
| j. Catalog Number | 2N | 66-67 | |
| k. Category | 1A | 68 | |
| l. Catalog Value | 7N | 69-75 | Value of catalog number in 66-67. |
| 10. Filler | 5N | 76-80 | |

*Enter "X" in column 18 for OCM - enter "X" in column 19 for overhaul - enter "Y" in column 18 for serial number limit.

Card #3 is needed only when the applicable engine requires more than five catalog number and values for reporting. It is used as an extension of the number of reportable catalog number and catalog number values from and catalog number values from card #2.

Table 9-51. Card #3 for All Transactions Except 6P

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|------------------------|--------|-----------|--|
| 1. Variable | 12AN | 1-12 | Repeat all data from columns 1-12 from card #1. |
| 2. Card Number | 1N | 13 | Constant "3." |
| 3. Variable | 4AN | 14-17 | Repeat all data from columns 14-17 from card #1. |
| 4. Methods of Tracking | | 18-80 | See NOTE in columns 36-80 of card #2. Use columns 18-80 on this card to report seven additional sets of 2 numeric catalog numbers-7 numeric catalog values in the same manner that was used in columns 36-80 of card #2. |

Table 9-52. Card #3 for 6P

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|------------------------|--------|-----------|--|
| 1. Variable | 4AN | 1-12 | Repeat all data from columns 1-12 from card #1. |
| 2. Card Number | 1N | 13 | Constant "3." |
| 3. Variable | 4AN | 14-17 | Repeat all data from columns 14-17 from card #1. |
| 4. Methods of Tracking | | | |
| a. Catalog Number | 2N | 18-19 | |
| b. Category | 1A | 20 | |
| c. Category Value | 7N | 21-27 | Value of catalog number in 18-19. |
| d. Catalog Number | 2N | 28-29 | |
| e. Category | 1A | 30 | |
| f. Catalog Value | 7N | 31-37 | Value of catalog number in 28-29. |
| 5. Filler | 43N | 38-80 | (blank) |

Card #4 is required only when the applicable engine requires more than 12 catalog number and catalog number values. In no case may the catalog number-value exceed a total of four cards (total of 19 catalog numbers and catalog values) per item reported.

Table 9-53. Card #4

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|-----------------------|--------|-----------|--|
| 1. Variable | 12AN | 1-12 | Repeat all data from columns 1-12 from card #1. |
| 2. Card Number | 1N | 13 | Constant "4." |
| 3. Variable | 4AN | 14-17 | Repeat all data from columns 14-17 from card #1. |
| 4. Method of Tracking | | 18-80 | See NOTE in columns 36-80 of card #2. Use columns 18-80 on this card to report seven additional sets of 2 numeric catalog numbers-7 numeric catalog values in the same manner that was used in columns 36-80 of card #2. |

Table 9-54. Engine ID Transaction

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|--------------------------------|--------|-----------|------------------------|
| 1. SRAN | 4AN | 1-4 | |
| 2. Unit Identification | 1AN | 5 | |
| 3. Sequence Control Number | | | |
| a. Sequence Month Code | 2N | 6-7 | |
| b. Sequence Number | 5N | 8-12 | |
| 4. Card Number | 1N | 13 | "1" |
| 5. Subsystem Identifier | 1AN | 14 | "C" |
| 6. Transaction/Condition Code | 2AN | 15-16 | "6E." |
| 7. Type Report | 1AN | 17 | "R", "C", "D", or "V." |
| 8. Work Unit Code | 5AN | 18-22 | |
| 9. Part Number | 15AN | 23-27 | (Left Justified) |
| 10. Serial Number | 10AN | 38-47 | (Right Justified) |
| 11. From Engine Identifier | 2AN | 48-49 | |
| 12. To Engine Identifier | 2AN | 50-51 | |
| 13. Filler | 22AN | 52-73 | (blank) |
| 14. Correction Sequence Number | 7AN | 74-80 | |

Table 9-55. Limit Change/Load

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|---|--------|-----------|-------------------------------|
| 1. SRAN | 4AN | 1-4 | |
| 2. Unit Identification | 1A | 5 | |
| 3. Sequence Control Number | | | |
| a. Sequence Month Code | 2N | 6-7 | |
| b. Sequence Month | 5N | 8-12 | |
| 4. Card Number | 1N | 13 | "1" |
| 5. Subsystem Identifier | 1A | 14 | "C" |
| 6. Transaction/Condition Code | 2AN | 15-16 | "6L" |
| 7. Type Report | 1AN | 17 | "T," "C," "D," "N," "E," "V." |
| 8. Date of Transaction/Date of Occurrence | 5N | 18-22 | |
| 9. As of Time of Occurrence | 4N | 23-26 | |
| 10. Engine Identifier | 2AN | 27-28 | |
| 11. Work Unit Code | 5AN | 29-33 | |
| 12. Serial Number | 10AN | 34-43 | |
| 13. Part Number | 15AN | 44-58 | |
| 14. Catalog Number | 2N | 59-60 | |
| 15. Limit | 7N | 61-67 | |
| 16. Filler | 6AN | 68-73 | (blank) |
| 17. Correction Sequence Number | 7AN | 74-80 | |

Table 9-56. TCTO Reporting (Card #1)

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|--|--------|-----------|---|
| 1. Stock Record | 4AN | 1-4 | SRAN number reporting TCTO status update. Item being reported must be in possession of reporting activity. |
| 2. Unit Identification | 1A | 5 | Cannot be "X." |
| 3. Sequence Number | 7N | 6-12 | |
| 4. Card Number | 1N | 13 | Constant "1." |
| 5. Subsystem Identifier | 1AN | 14 | Constant "T." |
| 6. Transaction Code | 1N | 15 | |
| 7. Condition Code | 1A | 16 | |
| 8. Type Report | 1AN | 17 | Normally "R." |
| 9. Engine Identifier | 2AN | 18-19 | Select correct engine identifier from column four of CII tables. |
| 10. WUC | 5AN | 20-24 | Use "99999" for non-parts-tracked engines or use WUC from applicable -06 T.O. or this T.O. |
| 11. Serial Number of Item Being Reported | 10AN | 25-34 | |
| 12. Data Code | 1N | 35-41 | Data code from cover sheet of TCTO. |
| 13. How Mal Code | 3N | 42-44 | |
| 14. Date of Occurrence | | | |
| a. Year | 2N | 45-46 | Last two position of year (ie 84). |
| b. Day of year | 3N | 47-49 | |
| 15. Actual Manhours | 5N | 50-54 | A five position field that to a tenth of an hour, the manhours expended to accomplish a TCTO (only use actual manhours with How Mal Code 801, else leave blank.) NOTE: If tenth of an hour is not involved, right justify with a zero ("0") in last position. |
| 16. Command Code | 2AN | 55-56 | |
| 17. Federal Supply Classification | 4N | 57-60 | Optional - ie 2840, 2915, etc. |
| 18. Work Center | 5AN | 61-65 | Optional-for local use. |
| 19. Work Order Number | 8AN | 66-73 | Optional-for local use. |
| 20. Error Sequence Number | 7N | 74-80 | Input original sequence number when input report = "C" or "V," else leave blank. |

Table 9-57. TCTO Reporting (Card #2)

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|--------------------|--------|-----------|--|
| 1. Variable | 12AN | 1-12 | Repeat all data from columns 1-12 from card #1. |
| 2. Card Number | 1N | 13 | Constant "2." |
| 3. Variable | 3AN | 14-17 | Repeat all data from columns 14-17 from card #1. |
| 4. Old Part Number | 15AN | 18-32 | See this T.O. Obtain from Data Plate. |
| 5. New Part Number | 15AN | 33-47 | See this T.O. As per TCTO instructions. |
| 6. Filler | 33 | 48-80 | Constant Blank. |

Table 9-58. End of Month Report

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|-------------------------|--------|-----------|--------------------------|
| 1. SRAN | 4AN | 1-4 | Your four position SRAN. |
| 2. Filler | 1 | 5 | Constant blank. |
| 3. Sequence Number | 7N | 6-12 | See this T.O. |
| 4. Card Number | 1N | 13 | Constant "1." |
| 5. Subsystem Identifier | 1A | 14 | Constant "S." |
| 6. Filler | 2AN | 15-16 | Constant blank. |
| 7. Type Report | 1A | 17 | Constant "A." |
| 8. Filler | 63AN | 18-80 | Constant blank. |

Table 9-59. Monthly Operating "T" Report

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|------------------------------|--------|-----------|--|
| 1. SRAN | 4AN | 1-4 | Your four position SRAN. |
| 2. Filler | 1AN | 5 | Constant blank. |
| 3. Sequence Number | 7N | 6-12 | |
| 4. Card Number | 1N | 13 | Constant "1." |
| 5. Subsystem Identifier | 1A | 14 | Constant "S." |
| 6. TCC | 2AN | 15-16 | Constant "VA." |
| 7. Type Report | 1AN | 17 | Constant "T." |
| 8. Serial Number | 10AN | 18-27 | |
| 9. Command Code | 3AN | 28-30 | |
| 10. Organization | 1A | 31 | Optional-for local use. |
| 11. Ownership Account Code | 1A | 32 | |
| 12. Date of Occurrence | 3N | 33-35 | Julian date. |
| 13. As of Time of Occurrence | 2N | 36-37 | Two position military hour designator (24 hour clock) with time rounded to the nearest hour eg 0921 = 09, 1343 = 14. |
| 14. Engine Identifier | 2AN | 38-39 | Select correct engine identifier from column four of CII tables. |
| 15. WUC | 5AN | 40-44 | Use "99999" for non-parts tracked engines or use WUC from applicable -06 T.O. |
| 16. Filler | 6AN | 45-50 | Constant blank. |
| 17. Engine Flying Hours | 5N | 51-55 | Whole numbers, prefix with zeros. |
| 18. Cycles-Sorties | 5N | 56-60 | Whole numbers, prefix with zeros. |
| 19. Aircraft MDS** | 7AN | 61-67 | If item is installed. |
| 20. Filler | 1AN | 68 | Constant blank. |
| 21. Aircraft Serial Number | 10AN | 69-78 | |
| 22. Position Number | 1N | 79 | |
| 23. Filler | 1AN | 80 | Constant blank. |

**Aircraft and MDS are seven positions. When end item is other than aircraft or MDS leave this field blank.

Table 9-60. Header Card for All BATCH Reporting (Card #1)

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|--|--------|-----------|----------------------|
| 1. Precedence | 1A | 1 | Constant "P". |
| 2. Language Media | 2A | 2-3 | Constant "CC". |
| 3. Security | 1AN | 4 | Constant "U". |
| 4. Content Indicator | 4A | 5-8 | Constant "FUDE" |
| 5. Filler | 1AN | 9 | (blank) |
| 6. Routing Identifier (from) | 7AN | 10-16 | |
| 7. Communications station serial number (from) | 4AN | 17-20 | |
| 8. Filler | 1AN | 21 | (blank) |
| 9. Time of Transmission | 7N | 22-28 | |
| 3 position julian date | 3N | 22-24 | |
| 4 position zulu time | 4N | 25-28 | |
| 10. Filler | 1AN | 29 | (blank) |
| 11. Record Count | 4N | 30-33 | |
| 12. Filler | 1AN | 34 | (blank) |
| 13. Classification Redundancy | 4A | 35-38 | Constant "UUUU". |
| 14. Start of Routing Signal | 2AN | 39-40 | Constant "--". |
| 15. Routing Identifier (to) | 7A | 41-47 | Constant "RUVORIA". |
| 16. Communication Action Identifier | 1AN | 48 | Constant ".". |
| 17. Filler | 32AN | 49-80 | (blank) |

Table 9-61. TEXHD Card Format for All BATCH Reporting (Card #2)

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|-------------------------------|--------|-----------|--------------------------|
| 1. Record Identifier | 5A | 1-5 | Constant "TEXHD". |
| 2. Filler | 1AN | 6 | (blank) |
| 3. Security Code | 1A | 7 | Constant "U". |
| 4. Filler | 1AN | 8 | (blank) |
| 5. Privacy Indicator | 1N | 9 | Constant "1". |
| 6. Filler | 1AN | 10 | (blank) |
| 7. TEXT Identity | 12AN | 11-22 | Constant "HAFLEYAR8215". |
| 8. Filler | 3AN | 23-25 | (blank) |
| 9. Submission Type | 1A | 26 | Constant "N". |
| 10. Filler | 1AN | 27 | (blank) |
| 11. Processing Date (YYMMDD) | 6N | 28-33 | |
| 12. Filler | 1AN | 34 | (blank) |
| 13. Sequence Number | 3N | 35-37 | Constant "001". |
| 14. Filler | 1AN | 38 | (blank) |
| 15. Logical Record Length | 4N | 39-42 | Constant "0080". |
| 16. Filler | 1AN | 43 | (blank) |
| 17. Blocking Factor | 2N | 44-45 | Constant "01". |
| 18. Filler | 1AN | 46 | (blank) |
| 19. Major Command code (from) | 2AN | 47-48 | |
| 20. SRAN Name (from) | 14AN | 49-62 | |
| 21. Filler | 1AN | 63 | (blank) |
| 22. Major Command Code (to) | 2AN | 64-65 | Constant "1M". |
| 23. Filler | 1AN | 66 | (blank) |
| 24. Supplemental | 11AN | 67-77 | Constant "OC-ALC/LPRC". |
| 25. Filler | 3AN | 78-80 | (blank) |

Table 9-62. *TEXTR Card for All BATCH Reporting (Card #3)*

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|------------------------------|--------|-----------|--|
| 1. Record Identifier | 5A | 1-5 | Constant "TEXTR". |
| 2. Filler | 1AN | 6 | (blank) |
| 3. Security Code | 1A | 7 | Constant "U." |
| 4. Filler | 1AN | 8 | (blank) |
| 5. Privacy Indicator | 1N | 9 | Constant "1." |
| 6. Filler | 1AN | 10 | (blank) |
| 7. TEXT Identity | 12AN | 11-22 | CONSTANT "HAFLEYAR8215." |
| 8. Filler | 3AN | 23-25 | (blank) |
| 9. Submission Type | 1A | 26 | Constant "N." |
| 10. Filler | 1AN | 27 | (blank) |
| 11. Processing Date (YYMMDD) | 6N | 28-33 | |
| 12. Filler | 1AN | 34 | (blank) |
| 13. Sequence Number | 3N | 35-37 | Constant "001." |
| 14. Filler | 1AN | 38 | (blank) |
| 15. Card Count | 6N | 39-44 | Total number of cards in transmission including the AUTODIN header, TEXHR, TEXTR, and AUTODIN trailer cards. |
| 16. Filler | 36AN | 45-80 | (blank) |

Table 9-63. *End of Data, Trailer Card for All BATCH Reporting (Card #4)*

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|----------------|--------|-----------|----------------------|
| 1. Filler | 76AN | 1-76 | (blank) |
| 2. End of Data | 4A | 77-80 | Constant "NNNN." |

Table 9-64. Warranty Reporting (Card #1)

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|----------------------------|--------|-----------|--|
| 1. SRAN | 4AN | 1-4 | Your four position SRAN. |
| 2. Reporting Unit | 1AN | 5 | |
| 3. Sequence Control Number | 7AN | 6-12 | |
| 4. Card Number | 1AN | 13 | Constant "1" |
| 5. Subsystem Identifier | 1AN | 14 | Constant "C." |
| 6. Transaction Code | 1AN | 15 | Constant "6". |
| 7. Condition Code | 1AN | 16 | Constant "P." |
| 8. Type Report | 1AN | 17 | Constant "R." |
| 9. Date-Time of Occurrence | 9AN | | |
| a. Year | 2AN | 18-19 | Last two positions of calendar year (ie 96). |
| b. Julian Date | 3AN | 20-22 | |
| c. Time of Occurrence | 4AN | 23-26 | example: "1200" |
| 10. Engine Identifier | 2AN | 27-28 | Select correct engine ID from column four of CII tables. |
| 11. WUC | 5AN | 29-33 | Select WUC from applicable table in this TO. |
| 12. Serial Number | 10AN | 34-43 | Enter serial number of warranted engine or part. |
| 13. Filler | 46AN | 44-80 | (blank) |

Table 9-65. Warranty Reporting (Card #2)

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|------------------------|--------|-----------|--|
| 1. Variable | 12AN | 1-12 | Repeat all data from columns 1-12 from card #1. |
| 2. Card Number | 1N | 13 | Constant "2". |
| 3. Variable | 4AN | 14-17 | Repeat all data from columns 14-17 from card #1. |
| 4. Type of Maintenance | 1AN | 18 | Constant "W". |
| 5. Filler | 17AN | 19-35 | (blank) |
| 6. Catalog Number | 2N | 36-37 | |
| 7. Category | 1AN | 38 | Type warranty ie "Q" = quality, "P" = performance or "W" = embedded non-tracked. |
| 8. Catalog Value | 7N | 39-45 | Examples: "0086216" = 4 AUG 86, or "0001000" = 1000 hours. |
| 9. Catalog Number | 2N | 46-47 | |
| 10. Category | 1AN | 48 | NOTE: Repeat catalog number, category and catalog value as necessary. |
| 11. Catalog Value | 7N | 49-55 | |
| 12. Catalog Number | 2N | 56-57 | |
| 13. Category | 1AN | 58 | |
| 14. Catalog Value | 7N | 59-65 | |
| 15. Catalog Number | 2N | 66-67 | |
| 16. Category | 1AN | 68 | |
| 17. Catalog Value | 7N | 69-75 | |
| 18. Filler | 5AN | 76-80 | |

Table 9-66. Warranty Reporting (Card #3)

| DATA ELEMENTS | LENGTH | CARD COLS | SPECIAL INSTRUCTIONS |
|--------------------|--------|-----------|---|
| 1. Variable | 12AN | 1-12 | Repeat all data from columns 1-12 from card #2. |
| 2. Card Numbers | 1N | 13 | Constant "3". |
| 3. Variable | 4AN | 14-17 | Repeat data columns 14-17 from card #2. |
| 4. Catalog Number | 2N | 18-19 | |
| 5. Category | 1AN | 20 | |
| 6. Catalog Value | 7N | 21-27 | |
| 7. Catalog Number | 2N | 28-29 | |
| 8. Category | 1AN | 30 | |
| 9. Catalog Value | 7N | 31-37 | |
| 10. Catalog Number | 2N | 38-39 | |
| 11. Category | 1AN | 40 | |
| 12. Catalog Value | 7N | 41-47 | |
| 13. Catalog Number | 2N | 48-49 | |
| 14. Category | 1AN | 50 | |
| 15. Catalog Value | 7N | 51-57 | |
| 16. Catalog Number | 2N | 58-59 | |
| 17. Category | 1AN | 60 | |
| 18. Catalog Value | 7N | 61-67 | |
| 19. Catalog Number | 2N | 68-69 | |
| 20. Category | 1AN | 70 | |
| 21. Catalog Value | 7N | 71-77 | |
| 22. Filler | 3AN | 78-80 | |

NOTE

All three cards are required per serial number. Up to four warranty expiration limits can be on card two. Card three can be used to set additional limits if required starting on column 18.

Table 9-67. CEMS Table Maintenance Responsibility

| (USE CEMS USERS MANUAL) | NUMBER | OC-ALC/TILC | PRIME ENGINE MANAGEMENT OFFICE (PEMO) |
|---|----------|-------------|---------------------------------------|
| Part Number Compatibility Table | CEMUA101 | | X |
| Base Record | CEMUA301 | X | |
| Aircraft-End Item Record | CEMUA302 | X | |
| Family Group Header Table | CEMUA303 | X | |
| TCC Table | CEMUA304 | X | |
| CII-WUC Table | CEMUA305 | X | |
| CAMS Initialization Data | CEMUA307 | X | |
| Command Code Table | CEMUA308 | X | X |
| Automatic Resupply Table | CEMUA309 | | X |
| Equation Constant Update Program | CEMUA310 | | X |
| Special Status Code Table | CEMUA311 | X | |
| Master Grouping Table | CEMUA312 | | X |
| Catalog Numbers Table | CEMUA314 | X | |
| Eng ID to TMSM | CEMUA315 | X | |
| Cost Update | CEMUA315 | | X |
| * Unit Cost/Acq Data/Mfg Name | CEMUA315 | | X |
| Error Code Table | CEMUA316 | X | |
| Engine Removal How Mal Table | CEMUA317 | X | |
| Official Failure Rate Table | CEMUA319 | | X |
| IMS Terminal Access Table | CEMUA320 | X | |
| Unit Data Table Maintenance | CEMUA321 | X | |
| Category of Aging Table | CEMUA322 | | X |
| CEMS Authorization Table | CEMUA325 | X | |
| TMSM-to-TMSM Table | CEMUA326 | X | |
| Logical Sequence to Pipeline Code Table | CEMUA327 | X | |
| Pipeline Code Update | CEMUA328 | X | |
| Pipeline Standards Table | CEMUA329 | | X |
| Part Number File Maintenance | CEMUA400 | | X |
| ** TCTO Master Record | CEMUA415 | X | X |
| *** CII-Serial Number Change-Delete | CEMUA460 | | X |
| Authorized Exception Code and Special Status Code | CEMUA465 | | X |

* Depot EIMS and ASC must update unit cost, mfg name, and acq date for their engines before 30 September each year. Notify OC-ALC/LPRC to obtain ID and password.

** Only OC-ALC/LPRC Analyst may change "Total Quantity of Items Affected".

*** OC-ALC/LPRC Analyst will delete engine gained in error (wrong serial number) upon documentation from the contractor when the correct engine serial number has already been gained. Note: The preferred method would be a serial number change from incorrect to correct instead of gaining another engine.

Table 9-68. Type Report Codes and Explanations

DATA CODES

| | |
|--|---|
| END OF MONTH. A report submitted by each reporting activity to denote that no further reports will be submitted for the reporting month. Report is submitted on the first day of the month showing total reports submitted during the preceding reporting period. | A |
| CORRECTION. A report submitted by affected reporting activity to correct information previously submitted in error. | C |
| DELETION. A report submitted by affected reporting activity to delete data previously submitted in error. This report is not used in CAMS. | D |
| ACCOUNT TRANSFER. A report submitted to effect an engine transfer between AF and other than AF accounts. | K |
| ROUTINE. A report submitted on all transactions other than those specifically identified. | R |
| INSTALLED ENGINE OPERATING TIME. A report submitted by affected reporting activity to update installed engine operating time as of the last day of each quarter. | T |
| VERIFICATION. A report to verify previously submitted data that appears as questionable on the EM data list products. | V |
| RECORD ADJUSTMENT. A report to correct a previously reported error when such data will not appear on the EM data list. This report is not used in CAMS. | 4 |

NOTE

Only data codes "K", "R", "T", and "4" are valid for direct line reporting.

Command Codes. The following command and sub-command codes are acceptable for reporting. Use of any code not listed below will result in error or variance code assignment. Three positions are

available. The first position (numeric) and the second position (alpha), will designate the major command. The third position (alpha) will designate subcommand when applicable.

Table 9-69. Major and Subcommand Code Table

| MAJ CMD | SUB CMD | COMMAND ACRONYM | COMMAND NAME | COMMAND ABBREV | SUBCOMMAND NAME |
|---------|---------|-----------------|------------------------------------|----------------|---|
| 0B | | HQ AFA | US AIR FORCE ACADEMY | AFA | NONE |
| *0D | A | HQ USAFE | US AIR FORCE IN EUROPE | AFE | HEADQUARTERS USAFE |
| *0D | C | HQ USAFE | US AIR FORCE IN EUROPE | AFE | THIRD AIR FORCE |
| *0D | E | HQ USAFE | US AIR FORCE IN EUROPE | AFE | SEVENTEENTH AIR FORCE |
| *0D | G | HQ USAFE | US AIR FORCE IN EUROPE | AFE | SIXTEENTH AIR FORCE |
| *0D | U | HQ USAFE | US AIR FORCE IN EUROPE | AFE | HQ AIR FORCE CONTRACT MAINT |
| 1M | A | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | HEADQUARTERS AF MATERIEL COMMAND |
| 1M | D | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | OKLAHOMA CITY ALC |
| 1M | E | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | OGDEN ALC |
| *1M | F | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | SAN ANTONIO ALC |
| *1M | H | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | SACRAMENTO ALC |
| 1M | J | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | WARNER ROBINS ALC |
| 1M | M | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | AEROSPACE MAINTENANCE AND REGENERATION CENTER (AMARC) |
| 1M | S | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | 2750 AIR BASE WING |
| 1M | X | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | ARNOLD EDC |
| 1M | C | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | SMSC LOS ANGELES, AFB |
| 1M | K | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | AIR FORCE FLIGHT TEST CTR |
| 1M | G | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | ARMAMENT DEVELOPMENT AND TEST CTR |
| 1M | U | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | AERONAUTICAL SYSTEMS CENTER |
| 1M | V | HQ AFMC | AIR FORCE MATERIEL COMMAND | MTC | ELECTRONIC SYSTEMS CENTER |
| 0J | | HQ AETC | AIR EDUCATION AND TRAINING COMMAND | ETC | NONE |
| 0M | | HQ AFRC | AIR FORCE RESERVE COMMAND | AFR | NONE |
| 0R | A | HQ PAF | PACIFIC AIR FORCE | PAF | HQ PACAF |
| 0R | B | HQ PAF | PACIFIC AIR FORCE | PAF | 5TH AIR FORCE/PACAF LOGSC |
| 0R | C | HQ PAF | PACIFIC AIR FORCE | PAF | 13TH AIR FORCE |
| 0R | D | HQ PAF | PACIFIC AIR FORCE | PAF | NOT USED |
| 0R | E | HQ PAF | PACIFIC AIR FORCE | PAF | 326TH AIR DIVISION |

* For history purposes only

Table 9-69. Major and Subcommand Code Table - Continued

| MAJ CMD | SUB CMD | COMMAND ACRONYM | COMMAND NAME | COMMAND ABBREV | SUBCOMMAND NAME |
|---------|---------|-----------------|--------------------------------------|----------------|--------------------|
| 0R | F | HQ PAF | PACIFIC AIR FORCE | PAF | NOT USED |
| 0R | G | HQ PAF | PACIFIC AIR FORCE | PAF | 15TH AIR BASE WING |
| *0U | | HQ USS | US SECURITY SERVICE | USS | NONE |
| 0V | | HQ SOC | AIR FORCE SPECIAL OPERATIONS COMMAND | SOC | NONE |
| 0W | | HQ USN | US NAVY | USN | NONE |
| 0Y | | HQ CSV | AF COMMUNICATIONS CMD | CSV | NONE |
| 1C | | HQ CMB | AIR COMBAT COMMAND | CMB | |
| 1L | | HQ AMC | AIR MOBILITY COMMAND | MOB | |
| 1S | | HQ SPC | HQ SPACE COMMAND | SPC | NONE |
| 4Z | | NGB | AIR NATIONAL GUARD | ANG | NONE |
| 4D | | BAF | BELGIUM AIR FORCE | BAF | NONE |
| 4E | | DAF | ROYAL DANISH AIR FORCE | DAF | NONE |
| *4F | | NAF | ROYAL NETHERLANDS AIR FORCE | NAF | NONE |
| 4G | | WAF | NORWEGIAN AIR FORCE | WAF | NONE |
| 01 | | NONE | CONTRACTOR | CON | ANY CONTRACTOR |
| *02 | | NONE | GOVERNMENT AGENCY | GOV | NONE |

* For history purposes only

Table 9-70. Status Transaction Codes

| <u>DATA ITEMS</u> | <u>DATA CODES</u> |
|--|-------------------|
| NEW PRODUCTION GAIN. Installed or uninstalled engine gained to the AF inventory from a new production contract. (Restricted to new production contractors only.) | A |
| REIMBURSABLE GAIN. Uninstalled engine gained to the inventory of the reflected engine ownership account from any source, other than new production contract, involving monetary reimbursement. | B |
| NON-REIMBURSABLE GAIN. Engine gained to the inventory of the reflected ownership account from any source when monetary reimbursement is not involved. | C |
| EXCHANGE GAIN. Engine gained to the inventory of the reflected ownership account through negotiated exchange agreement where a reparable engine is exchanged for a serviceable engine or vice versa and repair cost is involved. Used only when transferring between AF and other than AF accounts. | D |
| ENMCS. Uninstalled engine undergoing repair or build-up where work stoppage resulted because spare parts from local resources were not available and required parts have been requisitioned. | E |
| WORK COMPLETED. Engine repair or build-up has been completed. | F |
| TEST CELL REJECT. An engine rejected from the test cell for maintenance corrective action required that is beyond the corrective capability of test cell personnel or equipment tooling. | G |
| WORK STOPPED. Uninstalled engine undergoing repair or build-up where work stoppage results from other than shortage of repair parts. | H |
| WORK STARTED. Engine on which actual maintenance has been started or resumed after a work stoppage. | J |
| REMOVAL TRANSIENT. Engine removed from a transient aircraft and the reporting activity is gaining possession of the removed engine. | K |
| REMOVED OTHER. Engine removed from an end item when the reporting activity is the possessor. | L |
| CHANGE IN MAINTENANCE. Engine that is being reported to show an authorized change in condition status. | M |
| AWAITING DISPOSITION. Engine on which disposition instructions have been requested from the EIM and have not been received. | N |
| WORKLOAD PROCESSING. Uninstalled engine removed from the supply warehouse to the overhaul line (restricted to depot repair activities only). | P |
| RECEIVED. Engine received by a reporting activity. | R |
| SHIPPED. Uninstalled or installed engine shipped or transported from the reporting activity to another reporting activity. | S |
| TRANSFERRED. Installed aircraft engine that is transferred (flown) from the reporting activity to another reporting activity, also used when installed and uninstalled engines are transferred to a classified project (L account) and loan (E account). | T |
| INSTALLED TRANSIENT. Engine installed on a transient aircraft and the reporting activity is losing possession of the installed engine. Not applicable to parts tracked engines. | U |
| INSTALLED OTHER. Engine installed on an end item when the reporting activity is the possessor. | V |
| ATTRITION LOSS. Engine lost from the inventory due to fire, Act of God, combat, crash, firing, launch, or transportation loss. | W |

Table 9-70. Status Transaction Codes - Continued

| <u>DATA ITEMS</u> | <u>DATA CODES</u> |
|--|-------------------|
| RECLAIMED FOR PARTS LOSS. Engine disassembled on a maintenance work order or contract in order to reclaim useable parts and dispose of the residue. | X |
| SALVAGE-DPDO LOSS. Engine that has been over to DPDO or is salvaged by a contractor. | Y |
| OTHER LOSS. Engine in other than an AF account that is lost from the inventory (eg, Army, Navy, MAP, etc). | Z |
| CAB-ORG CHANGE. A multi-purpose code (for use by depot repair activities only) used in establishing or updating cannibalization registers or issuing engine to maintenance facilities for other than categorization. The use of this code does not change the status of the engine. | 2 |
| CONFIGURATION. A transaction that updates data on parts-tracked engines, modules or component parts. The use of this transaction code "6" does not change the status of the item being reported. | 6 |

Table 9-71. Status Condition Codes

| <u>DATA ITEMS</u> | <u>DATA CODES</u> |
|---|-------------------|
| INSTALLED ACTIVE. Engine installed in an active aircraft including aircraft undergoing Progressive Aircraft Repair Cycle (PARC) or PDM. Engine installed in an AF owned and possessed missile that is on a pad and ready for firing or launch. Engine installed in active or inactive aerospace ground equipment end item except reparable aerospace ground equipment end item at the depot repair activity awaiting or undergoing repair. | A |
| SERVICEABLE BUILT-UP. An engine with all externally mounted equipment and any additional items if necessary (Quick Engine Change (QEC) kit, etc) and is considered ready for installation. (F100 engines and modules are delivered ready for installation.) | B |
| REPARABLE CONDEMNED. Engine that has been condemned or otherwise held in inactive status pending determination of disposal or rehabilitation action. | C |
| REPARABLE WITH QEC. Engine, built-up in a power pack configuration, that requires or is undergoing base maintenance. | F |
| REPARABLE WITHOUT QEC. Engine, not built-up in a power pack configuration, that requires or is undergoing base maintenance. | G* |
| REPARABLE MINOR. Engine located at a depot or contractor overhaul site that requires or is undergoing minor overhaul. | K |
| REPARABLE MAJOR. Engine that requires or is undergoing major overhaul. | L |
| SERVICEABLE RAW. An engine without all externally mounted equipment, that by its configuration cannot be installed directly onto an aircraft or missile without additional time in a maintenance shop to install a QEC kit or other hardware. | R* |
| INSTALLED INACTIVE. Engine installed in an inactive aircraft that is in extended storage, authorized for reclamation, is used for ground training, or involved in accident (or incident) and disposition is pending. Missile engine possessed by a contractor that is installed in a missile, including a missile that is operationally ready. AF possessed missile engine that is installed in an inactive missile (off the pad). Engine installed in reparable aerospace ground equipment end item at the depot repair activity awaiting or undergoing repair. | Z |

*This condition code is not applicable to all modules.

Table 9-72. TCTO-Configuration TCCs

| DATA ITEMS | <u>DATA CODES</u> |
|---|-------------------|
| CHANGE MDS/POS NR. Changes MDS and/or position number (QEC kit). | 2P |
| CHANGE IN MAINTENANCE. Updates condition of spares when level of maintenance changes to provide correct level of maintenance performed: | |
| Serviceable | MB |
| Base Repairable (JEIM/QB/2LM) | MF |
| Depot Repairable | ML |
| ADDITION. Adds time or cycles to engines, modules, or components. | 6A |
| RE-ACTIVATE. Re-activation of a condemned-retired non-CEMS-accountable tracked item. | 6B |
| CONDEMNATION. Shows a tracked component as lost to the system. | 6C |
| POSSESSOR CHANGE. Changes possessor of existing SRAN to UNKN SRAN on non-accountable items, to indicate a part in supply. | 6D |
| ENGINE ID CHANGE. Changes engine ID-TMSM of parts-tracked engine or module. | 6E |
| AIRCRAFT ENGINE UPDATE. Update flying hours for all engines on an aircraft with a single transaction. | 6F |
| NON-ACCOUNTABLE LOSS. Loses a non-accountable module/assembly from the USAF inventory. | 6G |
| AIRCRAFT ENGINE UPDATE. Updates flying hours and/or cycles/sorties. | 6H |
| MASS INITIALIZATION. Initializes multiple serial number (direct line reporting only). | 6I |
| SERIAL NO INITIALIZATION. Initializes a serial number to the system or transfer location. | 6N |
| WINDOW INITIALIZATION. Initializes an engine recorder window value to CEMS. | 6T |
| UPDATE TRANSACTION. Updates engine time-cycle counts based on engine recorder readings. | 6U |
| EGT. Exhaust Gas Temperature (F108 ENG. only) | 6W*** |
| MANUAL TIME CHANGE. Updates operating time on an engine, module, or component. Does not change time on lower assemblies. | 6X |
| UPDATE MAINTENANCE DATA. Updates maintenance data and/or establishes a serial number limit. | 6P |
| CUTOFF BATCH PROCESSING. Cuts off batch processing and establishes beginning and ending transactions of the configuration reconciliation. | 6R |
| SUBTRACT. Subtracts time or cycles to engines, modules, or components. | 6S |
| RECONCILIATION TRANSACTION. Updates CEMS when the time submitted in the base's reconciliation tape is within the allowable variance. | 6Z |
| TCTO UPDATE. Changes status of a TCTO, ie shows compliance, decompliance, or any other status change. | 7S |
| UPDATE OF TCTO. "When to Accomplish Date" identifies transaction where only the "When to Accomplish Date is Updated." | 7W |

Table 9-72. TCTO-Configuration TCCs - Continued

| DATA ITEMS | <u>DATA CODES</u> |
|---|-------------------|
| CAMS AUTOMATED HISTORY. Adds, changes or deletes CAMS narrative history information into CEMS. | AH** |
| REMOVAL. Removal of a component part: | |
| Depot Repairable | LL |
| Removed Serviceable | LB |
| Base Repairable (JEIM/QB/2LM) | LF |
| INSTALLED OTHER. Active. | VA |
| MASS REMOVAL. Disassemble on engine module/assembly. | LM |
| MASS INSTALLATION. Assembles an engine module/assembly. | VM |
| WORK COMPLETE - To report when maintenance is complete for component parts; should be reported following the '6P'. | FB |

**AH transaction used to indicate incoming CAMS narrative history data input in CEMS A295 program.

***6W available on CAMS screen 712.

