

2 December 1996



Maintenance

**REMOVAL AND INSTALLATION OF ENGINES
AND INSPECTION OF BAYS**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the HQ AFRC WWW site at <http://www.afrc.af.mil>. and the AFRCEPL (CD-ROM), published monthly.

OPR: 457 FS/DOM (CMSgt Cunning)

Certified by: 301 LG/CC (Col David L. Petterson)

Pages: 4

Distribution: F

This instruction tailors procedures and documentation requirements for engine removal, installation, and inspection of engines and engine bays. It applies to all personnel in the 301st Logistics Group (LG) and 457 FS Flying Squadron Maintenance (FSM). This instruction implements AFPD 21-1, *Managing Aerospace Equipment Maintenance* and Air Force TO's 1F-16C-2-80FI-00-1, 1F-16C-6, 1F-16C-2-70JG-00-22, 1F-16C-2-10JG-00-1, 1F-16C-2-70JG-00-21, 1F-16C-2-26JG-10-1, 1F-16C-2-70JG-10-21 and LWC-301FW-10-22.

1. Engine Removal. When an engine removal is required, the FSM will assign an individual as the Team Chief.

1.1. The Team Chief will:

1.1.1. Ensure the aircraft forms are reviewed by the following sections to verify what maintenance is required during the engine removal.

1.1.1.1. Engine Tracking Section.

1.1.1.2. TCTO Monitor. (P,S,D).

1.1.1.3. Plans and Scheduling.

1.1.1.4. Crew Chief for Delayed Discrepancy File.

1.1.1.5. Maintenance Operations Center (MOC).

1.1.2. Initiate a copy of the engine removal and installation preprint package and incorporate it in the aircraft Form 781A, **Maintenance Discrepancy and Work Document**, records. Engine removal procedures will be followed using attachment 1.

1.1.3. Inspect the engine bay for proper configuration according to TO 1F-16C-6 and enter engine bay discrepancies into the Core Automated Maintenance System (CAMS) computer prior to engine installation. Engine installation procedures will be followed using attachment 2.

1.1.4. Make sure timely and appropriate entries are entered in aircraft AFTO Form 781A.

1.1.5. Notify MOC upon completion of engine bay inspection and engine installation.

1.1.6. Carry engine records to engine tracking prior to first run.

1.2. MOC will:

1.2.1. Notify engine tracking that an engine is to be removed and the reason for the removal.

1.2.2. Dispatch specialists, as required, to repair engine bay discrepancies.

1.2.3. Notify Quality Assurance for technical inspection (TI) of engine bay and final engine installation after completion of installation work cards.

1.3. Quality Assurance will (when notified by MOC):

1.3.1. Conduct a TI of engine bay after completion of all work cards.

1.3.2. Conduct a final engine installation inspection.

1.3.3. Conduct a throttle connection inspection when notified.

1.3.4. Confirm that the removal and installation WCE has been removed from CAMS.

1.4. Engine tracking will:

1.4.1. Load engine removal package in CAMS.

1.4.2. Perform engine records check prior to engine run.

2. Engine Rollback. *NOTE:* Engine rollbacks will be the exception, not the norm. Full engine removal will be accomplished when feasible. Ensure engine is rolled back as far aft as possible.

2.1. To be considered for engine roll back instead of full removal:

2.1.1. The engine must have 25 hours or less since last removal.

2.1.2. The aircraft must be scheduled to fly within 48 hours.

2.2. The forward mount must not leave the rail.

2.3. After engine is rolled back, accomplish engine bay inspection and inspections items according 1F-16C-6.

BOB L. EFFERSON, Colonel, USAFR
Commander

Attachment 1

ENGINE REMOVAL PROCEDURES

A1.1. FSM personnel will notify MOC that the engine has to be removed, and state the reason for removal.

A1.2. MOC will notify engine tracking that the engine is to be removed; state the reason engine removal, and inform tracking to load engine removal package (JST). A job control number will be relayed to team chief for entry in AFTO 781A.

A1.3. FSM personnel will remove engine.

A1.4. FSM will complete the AFTO Form 93, **Modular Engine Time/Cycle Accumulation**, showing engine removal, also complete AFTO Form 350, **Repairable Item Processing Tag**, and attach to engine. The following items need to be completed on AFTO Form 93:

Date & Time

Acft ID

Name of Crew Chief

Top of Card (Removed item record):

Serial No.

Noun

Type Maint

Action Taken

How MAL code (Must be Engine related How MAL)

A1.5. Use information on completed AFTO Form 350 to take time for engine removal. Take engine removal write-up out of the computer. **NOTE: ENSURE ENGINE INLET COVER IS INSTALLED AND BLEED AIR DUCTS ARE COVERED PRIOR TO TOWING ENGINE.**

A1.6. Take engine to engine shop, regardless of reason removed, along with completed AFTO Form 93; give to engine tracking.

Attachment 2**ENGINE INSTALLATION PROCEDURES**

A2.1. If engine is picked up at engine shop, confirm with engine management supervisor which engine is to be used. Inform engine tracking that engine serial no. _____ is being taken to acft _____ for installation.

NOTE:

Make sure engine to be installed has serviceable AFTO Form 350 attached to it. **DO NOT TAKE ENGINE UNLESS IT HAS A SERVICEABLE TAG, AND ENGINE COVERS ARE INSTALLED.**

A2.2. FSM personnel will install the engine.

A2.3. Fill out AFTO Form 93 for engine installation as follows:

Front side:

- I. Engine ID
 - II. Date & Time
 - III. Acft ID
 - IV. Name of Crew Chief
- I. Bottom of Card (Installed Item Record)
 - II. Serial No.
 - III. Noun

A2.4. Use information on completed AFTO Form 350 to take time for engine installation. Take engine installation write-up out of computer prior to records review by engine tracking or engine run .

NOTE:

Engine records check will be completed before engine run if possible. If engine tracking is not available for records check, team chief will ensure engine WCE is taken out of CAMS computer and engine is downloaded prior to and after engine run. Engine records check may be completed at this time. If engine records check is to be done at this time, take aircraft forms to engine tracking also.

A2.5. Take completed AFTO Form 93 to engine tracking.