INCH-POUND

MIL-E-5007D
AMENDMENT 3
27 December 1995
SUPERSEDING
AMENDMENT 2
8 October 1982

MILITARY SPECIFICATION

ENGINE, AIRCRAFT, TURBOJET AND TURBOFAN
GENERAL SPECIFICATION FOR

This amendment forms a part of MIL-E-5007D, dated 15 October 1973, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 4

3.1.2.7, delete and substitute:

"3.1.2.7 Pads and drives. The requirements for pads and drives shall be as follows:

a. Pads and drives suitable for mounting and driving the engine components and aircraft accessories shall be in accordance with the basic configuration and rating requirements specified in the engine specification, and presented as shown in table V.

b. The engine component drive system and the accessory drive systems (engine accessory drive gearbox and power takeoff drive) shall be capable of simultaneous, operation of all the drives when each drive is subjected to the maximum permissible torque or power rating specified for the individual drive.

c. All drive splines shall be either positively lubricated by engine oil, or incorporate provisions for accessory manufacturer supplied or engine manufacturer supplied non-metallic shaft-couplings as described in MS14184 or MS14169. A nonmetallic shaft-coupling required for an accessory shall be defined in the accessory specification.

d. Complete dimensions and details of the drive pads together with clearance requirements shall be shown on the engine configuration specification and envelope figure. No part of the gearbox shall prevent independent removal of any one accessory mounted on these drives.

e. Pads and drives for aircraft accessories and engine components shall conform to the appropriate MS3325 through MS3329 standards.

f. When a standard tachometer generator is provided for speed indication in accordance with 3.7.6.8, the tachometer generator drive shall conform to AND20005. The tachometer generator drive spline need not be positively lubricated by engine oil or incorporate a nonmetallic shaft-coupling."

PAGE 11

* 3.1.2.11.3, under Substance," delete "Methyl bromide" and substitute "Halogenated hydrocarbon."

PAGES 26 AND 27

3.3.1.1, delete and substitute:

"3.3.1.1 Materials and processes. When the engine manufacturer's documents are used for materials and processes, the documents shall be subject to review by the Using Service prior to the start of the PFRT, and unless specifically disapproved, will be considered released upon arrival of the PFRT and QT. The use of non-government documents shall not constitute waiver of Government inspection. The Using Service reserves the right to inspect any and all processes of manufacture. The use of magnesium requires specific application approval by the Using Service. Copper and cadmium shall not be used in engine parts which are in direct contact with fuel or oil during engine operation. Dissimilar metals, as directed in MIL-STD-889, shall not be used in direct contact with each other."

PAGE 48

3.7.6.8, delete and substitute:

"3.7.6.8 Speed indication. The engine shall provide signals for rotor speed (rpm) indication. The signals shall be of the same characteristics as that from a standard tachometer generator conforming to MIL-G-26611. For multi-rotor engines, a speed signal for each rotor shall be provided for each rotor system. The signal at 100 percent speed for each rotor shall be of the same characteristics as that from a standard tachometer generator operating at 4,200 rpm. The speed (rpm) for each rotor at 100 percent speed shall be specified in the engine specification."

PAGE 51

3.7.7.4.3, delete and substitute:

"3.7.7.4.3 Oil filtration. Oil filtration shall be provided in the engine oil system in both the pressure and scavenge portions as follows:

a. Pressure side filtration shall be accomplished by means of a filter assembly. The type of elements, filtration rating in microns, and capacity shall be specified in the engine specification. The filter assembly shall incorporate a pressure relief bypass and be of a design which will prevent the discharge of filter contaminant through the bypass. The filter housing shall incorporate an automatic shutoff device to prevent oil drainage when the filter bowl is removed. The filter assembly shall be equipped with a differential pressure activated pop-out device that will give visual warning of impending bypass, by raising a red indicator, when the differential pressure across the element exceeds a specified value. Once activated, the red indicator shall remain extended until manually reset internally after filter element removal.

b. Scavenge side filtration may be accomplished by means of strainers or screens, preferably located at the outlet from each bearing compartment. Each strainer or screen shall not impede the flow of scavenge oil and shall also provide sufficient area to collect anticipated debris and to prevent clogging due to buildup."

PAGE 152

* Concluding material (Custodians): delete "Air Force - 11."

Concluding material (Review activities): delete and substitute.

"Review activities:
Air Force - 99"

"The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment."

PAGE 179

Table V, add a new column with a heading entitled as follows:

"MAXIMUM SPLINE MISALIGNMENT - (IN.)"

Custodians:
Army - AV
Navy - AS

Review activities:
Air Force - 99

Preparing activity:
Navy - AS

(Project 2840-0656)