International Aero Engines

SERVICE BULLETIN

AIR - INCORPORATION OF ACC VALVE BRACKETS AND STATOR ROD FEATURING CHROME PLATED BEARING DETAILS - CATEGORY CODE 4 - MOD.ENG-75-0006

1. Planning Information

A. Effectivity

(1) AIRCRAFT: Airbus A320

(2) ENGINE: V2500-A1 Engines, Serial No.V0014 through V0085

B. Reason

(1) Condition

Corrosion may occur on spherical bearing balls used in ACC valve brackets and stator rod.

(2) Background

Corroded spherical bearing was found on the flight test engine. Corroded bearing has possibility to bring about the malfunction of the ACC system.

(3) Objective

Incorporate new ACC valve brackets and stator rod having the chrome plated spherical bearing to improve resistance for corrosion.

(4) Substantiation

Substantiation test is not required.

(5) Effects of Bulletin on the following shop functions:

Removal/Installation	Not affected.
Disassembly/Assembly	Not affected.
Cleaning	Not affected.
Inspection/Check	Affected (See supplemental information).
Repair	Not affected.
Testing	Not affected.

(6) Supplemental Information

(a) The Post-Service Bulletin configuration requires revision of the manuals to show the difference of the inspection procedure. Affected manuals are as follows:

Engine Manual
Chapter 72-40-00 Inspection/Check

Component Maintenance Manual
Chapter 75-24-47 Inspection/Check
Chapter 75-24-51 Inspection/Check

C. Description

(1) The changes introduced by this Service Bulletin are as follows:

(a) P/N 5W2098 ACC valve bracket assembly supersedes old P/N 5W8456 ACC valve bracket assembly.

(b) P/N 5W2099 ACC valve bracket assembly supersedes old P/N 5W1699 ACC valve bracket assembly.

(c) P/N 5W2096 stator rod assembly supersedes old P/N 5W8232 stator rod assembly.

D. Approval

The part number changes described in Section 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Avaiation Regulations and are FAA-APPROVED for the Engine Model listed.

E. Compliance

Category Code 4.

Accomplish at the first visit of an engine to a maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action or the reason for engine removal.

F. Manpower

Estimated manhours to incorporate the full intent of this Bulletin:

Venue	Estimated Manhours
(1) In shop	
(a) To replace old parts to new parts	65.05 minutes

G. Material - Price and Availability

Modification kit not required. Parts supplied as single line item.

H. Tooling - Price and Availability

Special tools not required.

I. Weight and Balance

(1) Weight change .. .. .. None.

(2) Moment arm .. .. .. No effect.

(3) Datum .. .. Engine front mount centerline (Powerplant Section (P.P.S.) 100)

J. Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

K. References

(1) Internal Reference No.

EC89VJ017

(2) Other References

Aircraft Maintenance Manual

Engine Manual

Standard Practices/Processes Manual

L. Other Publications Affected

(1) V2500 Engine Illustrated Parts Catalogue, 72-40-00, 75-24-47 and 75-24-51.

(2) V2500 Engine Manual, 72-40-00, Cleaning, Inspection/Check and Repair.

(3) V2500 Component Maintenance Manual; 75-24-47, Cleaning, Inspection/Check and Repair; 75-24-51, Cleaning Inspection/Check and Repair.

2. Accomplishment Instructions

A. Replacement Instructions, Refer to Figure 1 and 2

(1) Remove PN MS24665-151 Cotter pin from the bolt retaining PN 5W8232 stator rod to the ACC actuator and discard it.

(2) Remove PN AN310C4 nut and PN NAS6704DU20 or PN 5W2093 bolt.

(3) Remove PN MS24665-151 cotter pin from the crank retaining another end of the stator rod to the rod bracket and discard it.

(4) Remove PN AN310C4 nut.

(5) Remove two PN 4W0003 nuts and PN 4W0649 bolts which retain the rod bracket to the K flange.

(6) Remove the rod bracket with crank from the ACC valve to remove PN 5W8232 stator rod.

(7) Be in position PN 5W2096 stator rod and align holes of the rod end bearings, the ACC valve and ACC actuator.

(8) Install PN NA6704DU20 or PN 5W2093 bolt and PN AN310C4 nut to the ACC actuator.

(9) Install the rod bracket with crank to the K flange with two PN 4W0649 bolts and PN 4W0003 nuts.

NOTE: Make sure that the crank, the ACC valve and the stator rod are in position to be retained by the nut.

(10) Torque the PN 4W0003 nuts to 10 to 170 lbfin. (16,95 to 19,21 Nm).

CAUTION: 1. MAKE SURE THAT EACH FACE OF THE ROD END BEARINGS KEEPS IN TOUCH WITH STEP OF THE CRANK, THE BUSH OR STEP OF THE BOLT BEFORE TORQUEING THE NUT.

2. DO NOT OVER THE TIGHTENING TORQUE LIMIT, IF SLOT OF THE NUT AND PIN HOLE OF THE BOLT OR CRANK CAN NOT BE ALIGNED WITH THE TORQUEING LIMIT, TURN THE NUT TO LOOSENING DIRECTION UNTIL NEAREST ALIGNED POSITION.

(11) Torque two PN AN310C4 nuts to 32.5 to 42.5 lbfin. (3,67 to 4,80 Nm) and align the slot of the nut and pin hole of the bolt or crank.

(12) Safety the nuts with new PN MS24665-151 cotter pins.

(13) Remove two PN 4W0003 nuts and PN 4W0471 bolt to release PN 5W1699 ACC valve bracket from the M flange.

(14) Remove two PN 4W0002 nuts and PN 4W0166 bolts to remove assembly of PN 5W2058 ACC valve link and PN 5W1699 ACC valve bracket.

(15) Remove PN MS24665-151 cotter pins from the assembly of ACC valve brackets and ACC valve link and discard them.

(16) Remove two PN AN310C4 and PN NAS6704DU12 bolts to disassemble the assembly of ACC valve brackets and ACC valve link.

(17) Assemble PN 5W2098 ACC valve bracket, PN 5W2058 ACC valve link and PN 5W2099 ACC valve bracket with two PN AN310C4 and PN NAS6704DU12 bolt.

CAUTION:
1. MAKE SURE THAT EACH FACE OF THE ROD END BEARINGS KEEPS IN TOUCH WITH THE BUSH BEFORE TORQUEING THE NUT.

2. DO NOT OVER THE TIGHTENING TORQUE LIMIT, IF SLOT OF THE NUT AND PIN HOLE OF THE BOLT CAN NOT BE ALIGNED WITH THE TORQUEING LIMIT, TURN THE NUT TO LOOSENING DIRECTION UNTIL NEAREST ALIGNED POSITION.

(18) Torque two PN AN310C4 nuts to 32.5 to 42.5 lbfin (3,67 to 4,80 Nm) and align the slot of the nut and pin hole of the bolt.

(19) Safety the nuts with new PN MS24665-151 cotter pins.

(20) Install PN 5W2098 ACC valve bracket to the ACC valve with two PN 4W0166 Bolts and PN 4W0002 nuts.

(21) Torque the nuts to 85 to 95 lbfin (9,6 to 10,73 Nm).

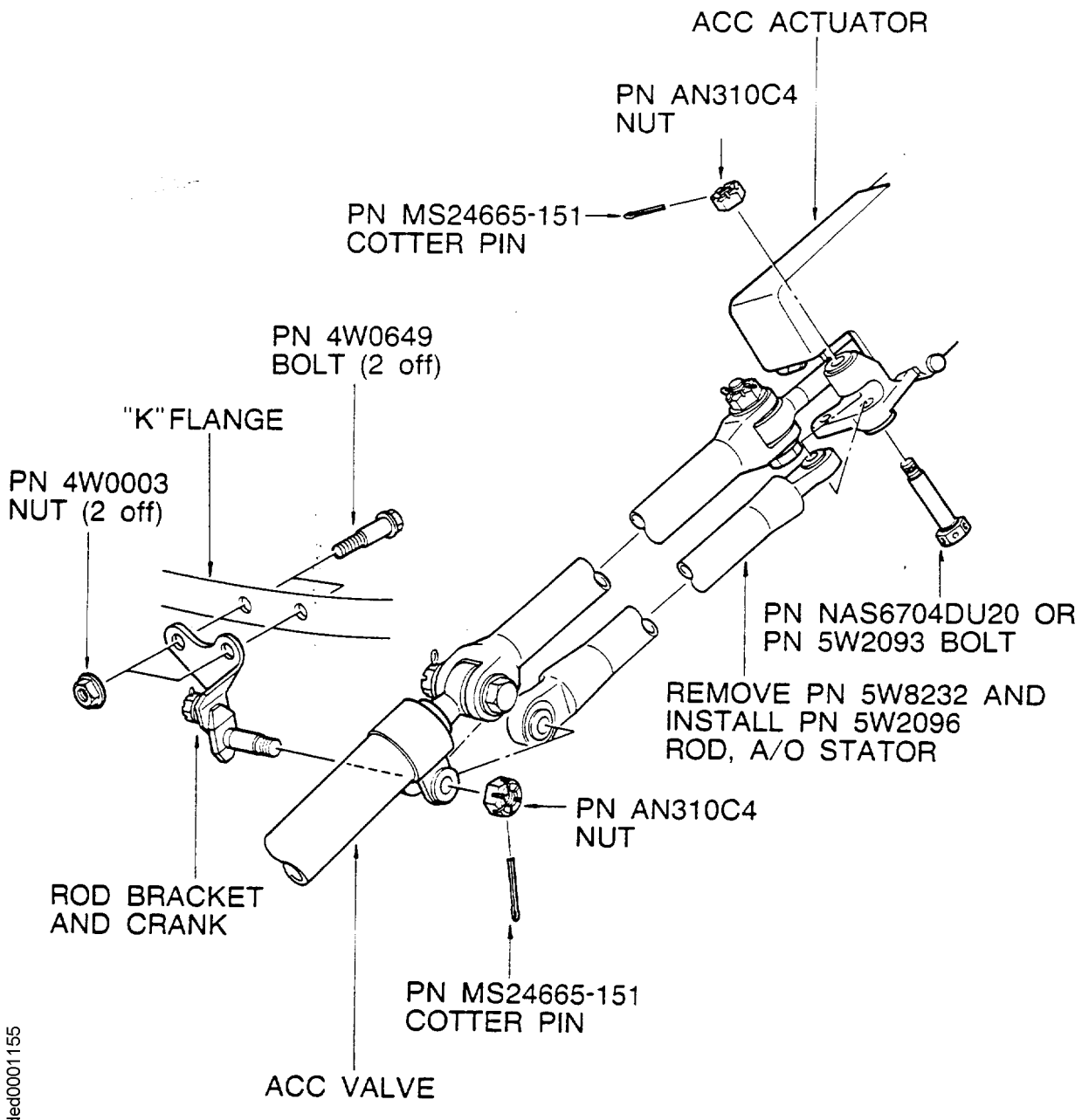
(22) Install the PN 5W2099 ACC valve bracket to the M flange with two PN 4W0471 bolts and PN 4W0003 nuts.

(23) Torque the nuts to 150 to 170 lbfin (16,95 to 19,21 Nm).

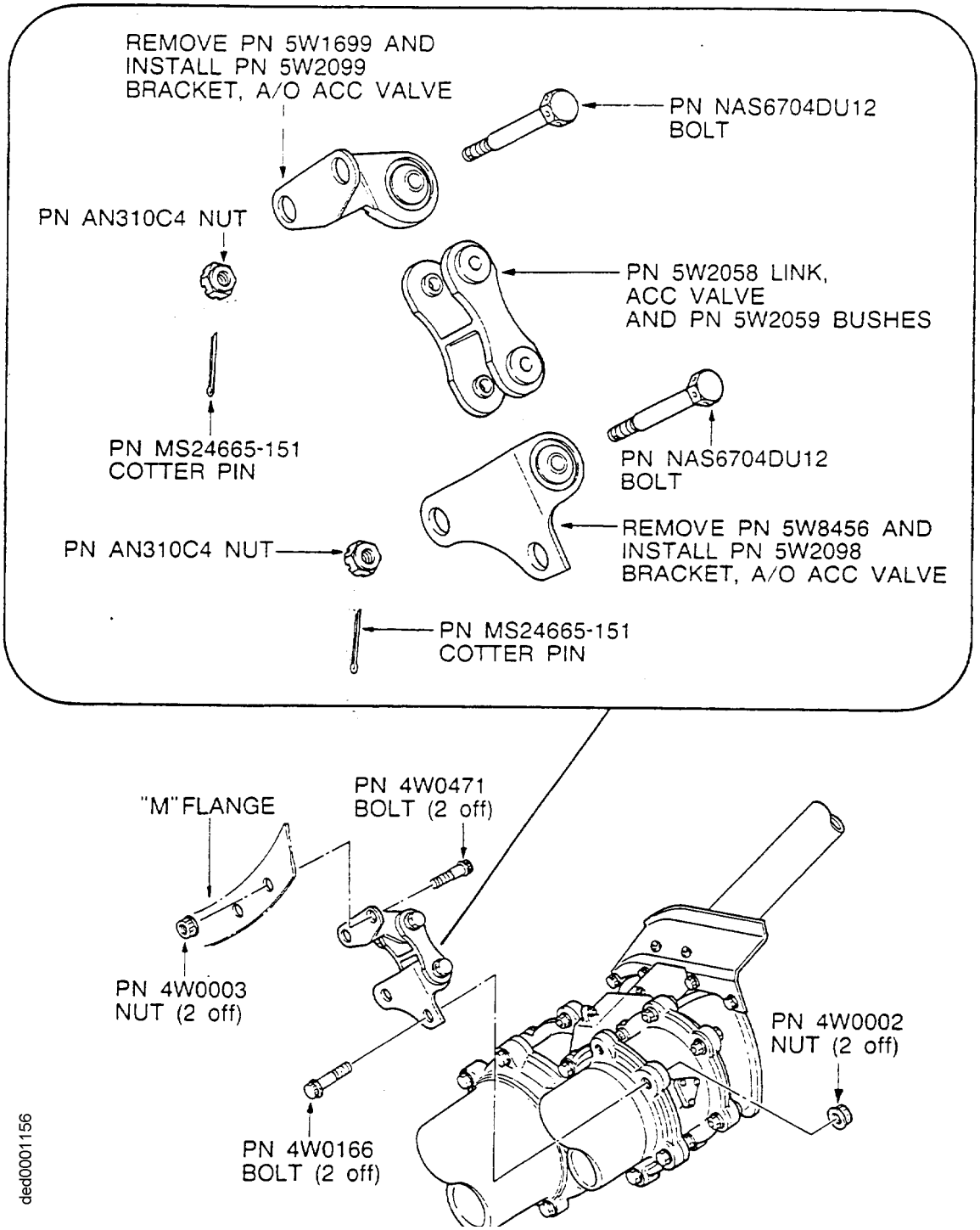
(24) Examine all the connecting points of the ACC system for any damage.

B. Recording Instructions

(1) A record of accomplishment is necessary.



Replacement of the stator rod
Fig.1



Replacement of the ACC brackets
Fig.2

3. Material Information

New Part No. (ATA No.)	Qty	Est'd Unit Price ($)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
Applicability: For each V2500 Engine to incorporate this Bulletin.					
A. Kits associated with this Bulletin:					
None					
B. Parts affected by this Bulletin:					
5W2099 (72-40-00)	1		Bracket, A/O ACC valve	5W1699 (05-500)	(S1)(A)(B)
5W2098 (75-24-47)	1		Bracket, A/O ACC valve	5W8456 (01-500)	(S1)(A)(B)
MS24665-151 (75-24-47)	1		Pin, cotter	MS24665-151 (01-510)	(C)
MS24665-151 (75-24-47)	1		Pin, cotter	MS24665-151 (01-560)	(C)
MS24665-151 (75-24-51)	1		Pin, cotter	MS24665-151 (01-136)	(C)
MS24665-151 (75-24-51)	1		Pin, cotter	MS24665-151 (01-145)	(C)
5W2096 (75-24-51)	1		Rod, A/O stator	5W8232 (01-485)	(S1(A)(B)

NOTE: Pricing information will be added when available.

C. Instruction/Disposition Code Statements:

(S1) Old and new part(s) is/are freely and fully interchangeable, both physically and functionally.

(A) New parts are currently available.

(B) Old parts are not available as a spare for replacement.

(C) Removed parts should be discarded and new ones should be used at reassembly.