

ATA AIRLINES, INC.

#1 ENGINE TRANSIENT PRESSURE UNIT

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CHECK BEING PERFORMED: Custom

ZONES: 212 411
A/C NUMBER:
REV. DATE: 11/17/03
FREQUENCY: 1C

W/C NUMBER: 241F7501 DATE:
W/O:
JAC CODE:

PANELS

413AL

414AR

MECH INSP

OPERATIONAL CHECK THE LEFT ENGINE TRANSIENT PRESSURE UNIT (TPU).

1. The TPU - Adjustment/Test.

A. Consumable Materials.

- (1) Lockwire - British Spec/Ref. - DTD. 189A, 22 SWG.
American Spec/Ref. - 21 AWG.
OMAT No. 238.

B. References.

- (1) AMM 24-22-00/201, Electrical Power - Control.
- (2) AMM 31-41-00/201, EICAS.
- (3) AMM 71-00-00/201, Power Plant.
- (4) AMM 71-11-04/201, Fan Cowl Panels.
- (5) AMM 75-32-00/101, Compressor Bleed Control System.
- (6) AMM 75-32-00/201, Compressor Bleed Control System.

C. Do the TPU/TFV Operational Test (Engine in Operation).

CAUTION: OBEY THE PRECAUTIONS FOR THE KEVLAR WRAPPING WHEN YOU OPEN THE FAN COWL PANEL. IF THE PRECAUTIONS ARE NOT OBEYED, DAMAGE TO THE KEVLAR WRAPPING CAN OCCUR.

_____ XXXXX (1) Open the fan cowl panels (AMM 71-11-04/201).

_____ XXXXX (2) Supply the electrical power (AMM 24-22-00/201).

CAUTION: THE P4 AIR TUBE MUST STAY LOOSELY CONNECTED TO THE TPU DURING THE ENGINE START TO KEEP ENGINE SURGES TO A MINIMUM. AN ENGINE SURGE CAN CAUSE DAMAGE TO THE

REVISION DATE: 11/17/03

ATA AIRLINES, INC. B757 FLEET

W/C #: 241F7501

DATE WORK CARD COMPLETE ___/___/___

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ENGINE.

_____ XXXXX (3) Loosen the flexible tube connection on the TPU at the P4 air tube but do not disconnect.

WARNING: USE AMM 71-00-00/201 TO OPERATE THE POWER PLANT. IF YOU DO NOT USE THIS PROCEDURE, YOU CAN CAUSE DAMAGE TO EQUIPMENT OR INJURY TO PERSONS.

_____ XXXXX (4) Use the Power Plant Operation (Normal) procedure to start the engines (AMM 71-00-00/201).

_____ XXXXX (5) Examine the EICAS status/maintenance pages for fault messages as follows:

(a) Do the EICAS status/maintenance message procedure to erase the fault codes (AMM 31-41-00/201).

(b) On the EICAS maintenance panel (P61), push the ECS/MSG switch and make sure that the ECS/MSG format is shown.

(c) Make sure that the L (R) ENG SURGE CONT or L (R) ENG SURGE BITE messages are not shown on the EICAS status/maintenance pages.

_____ XXXXX (6) If the L (R) ENG SURGE CONT or the L (R) ENG SURGE BITE messages are shown, do the steps that follow:

(a) Use the Power Plant Operation (Normal) procedure to do the engine shutdown (AMM 71-00-00/201).

(b) Do the corrective action for the messages shown (FIM 75-32-00/101).

WARNING: USE AMM 71-00-00/201 TO OPERATE THE POWER PLANT. IF YOU DO NOT USE THIS PROCEDURE, YOU CAN CAUSE DAMAGE TO EQUIPMENT OR INJURY TO PERSONS.

(c) Use the Power Plant Operation (Normal) procedure to start the engine

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(AMM 71-00-00/201).

(d) Do the EICAS status/maintenance message erase procedure (AMM 31-41-00/201).

(e) On the EICAS maintenance panel (P61), push the ECS/MSG switch and make sure that the L (R) ENG SURGE CONT or the L (R) ENG SURGE BITE messages are not shown.

CAUTION: DO NOT MOVE THE THRUST LEVERS FROM THE IDLE POSITION DURING THE TPU TEST. FAN COWL PANEL AND ENGINE DAMAGE CAN OCCUR.

_____ XXXXX (7) Let the engine become stable at minimum idle.

WARNING: ONLY GO NEAR THE ENGINES IN THE SPECIFIED HAZARD AREAS FOR MINIMUM IDLE POWER (AMM 71-00-00/201). IF YOU DO NOT STAY IN THESE AREAS, INJURY CAN OCCUR.

WHEN YOU DISCONNECT THE TPU FLEXIBLE TUBE CONNECTION, MAKE SURE YOU ARE CLEAR OF THE HIGH ENERGY IGNITOR BOXES AND LEADS. IF YOU DO NOT OBEY THESE INSTRUCTIONS, INJURY TO PERSONS CAN OCCUR.

CAUTION: IF N3 DROPS BELOW 36%, THIS IS INDICATIVE THAT RE-IGNITION HAS NOT OCCURED. CUT-OFF FUEL IMMEDIATELY AS A PRECAUTION AGAINST A TURBINE EXHAUST AREA FIRE. MONITOR EGT (EGT START LIMIT IS 570 DEGREES C).

_____ XXXXX (8) While holding the TPU P4 pneumatic flexible line in place, remove the lockwire and loosen the locknut. Quickly disconnect the flexible line directing the open end away from P4 air tube. Re-install immediately

(within 0.5 seconds) and re-fit locknut to hold the flexible line in place (leakage prevention) until the engine has recovered to idle and been subsequently shut down.

_____ XXXXX (9) Verify that engine parameters decrease, (N3, ect..) the engine relights, and recovers to minimum idle.

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_____ XXXXX (10) Make sure that the L(R) ENG SURGE BITE message is shown on the lower EICAS display 10 seconds after the TPU flexible tube is disconnected. A 5 second time delay is incorporated in the EICAS message logic.

Note: The BVCU will stay in the transient mode and the EGT will not go back to its usual parameters until engine shutdown occurs.

_____ XXXXX (11) Use the Power Plant Operation (Normal) procedures to do the engine shut-down (AMM71-00-00/201)

_____ XXXXX (12) Make sure that the TPU shows the fault code FO 40 after the engine is shutdown.

_____ XXXXX (13) Examine the BVCU BITE as follows:

- (a) Put the BVCU/EEC ground test switch, on the matric junction block, to the BVCU position and make sure that the BVCU BITE shows FO 04.
- (b) Release ground test switch and make sure the switch goes back with spring pressure to the middle off position.

_____ XXXXX (14) Verify torque of the TPU flexible tube (125 inch pounds).

_____ XXXXX (15) Do the EICAS status/maintenance message procedure to erase the fault codes (AMM 31-41-00/201).

_____ XXXXX (16) Remove the electrical power (AMM 24-22-00/201).

CAUTION: OBEY THE PRECAUTIONS FOR THE KEVLAR WRAPPING WHEN YOU CLOSE THE FAN COWL PANEL. IF THE PRECAUTIONS ARE NOT OBEYED, DAMAGE TO THE KEVLAR WRAPPING CAN OCCUR.

_____ XXXXX (17) Close the fan cowl panels (AMM 71-11-04/201).

*****END OF WORKCARD*****