



International Aero Engines

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V2500-A5 SERIES PROPULSION SYSTEM SERVICE BULLETIN

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This document transmits Revision 1 to Service Bulletin EV2500-72-0438

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Supplement Revision Status

Bulletin Revision 1

Remove
All pages of the
Service Bulletin

Incorporate
Pages 1 to 18 of the
Service Bulletin

Reason for change
To add ATA Locator to
References.

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CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED

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LIST OF EFFECTIVE PAGES

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ENGINE - CONVERSION - DEFINITION OF MINIMUM BILL OF MATERIAL FOR OPERATIONS AT 33,000
LBS THRUST RATING

1. Planning Information

A. Effectivity

(1) Airbus A319

V2522-A5, V2524-A5, V2527M-A5 Engine prior to Serial No. V10198

(2) Airbus A320

V2527-A5, V2527E-A5 Engine prior to Serial No. V10198

(3) Airbus A321

V2530-A5 Engine prior to Serial No. V10198

NOTE: Conversion of V2500-A5 engines to a different model rating can only be accomplished as per contractual agreement with International Aero Engines.

B. Concurrent Requirements

Change of engine thrust rating is accomplished by Service Bulletin V2500-ENG-72-0285.

CAUTION: ENGINES THAT HAVE BEEN OPERATED AT A HIGHER RATING MUST MAINTAIN THE LIFE LIMITED PARTS LIVES CURRENTLY ASSIGNED TO THE HIGHER RATING, EVEN IF THE ENGINE IS SUBSEQUENTLY DOWNRATED TO A LOWER RATING.

C. Reason

(1) Condition

(a) There is a requirement to define a minimum bill of material for the operation of the V2500-A5 engine at 33000 lbs thrust rating.

(b) Operators of multiple V2500-A5 engine models desire flexibility with engine rating interchangeability.



(2) Background

The 33000 lbs thrust rating was introduced on engine V10198. Engines produced after V10198 are all capable of operating at up to 33000 lbs rating. Operators with engines manufactured prior to V10198 and who wish to operate those engines at that rating must ensure that the hardware complies with the List of Service Bulletins contained within this document. Operators must also note that should a change of rating be required, then conversion may only be accomplished by prior contractual agreement with International Aero Engines.

(3) Substantiation

The Service Bulletins listed in this document have all been individually approved.

(4) Objective

This Service Bulletin is raised to define the minimum hardware standard required for operation at 33000 lbs thrust rating.

(5) Effect of Bulletin on:

(a) Operation

Incorporation of all service Bulletins listed within this document will allow V2500-A5 engine manufactured prior to V10198 to be capable of operation at up to 33000 lbs thrust rating.

(b) Maintenance

Not affected.

(c) Overhaul

Not affected.

(d) Repair Schemes

Not affected.

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.



D. Description

The V2500-A5 Entry Into Service bill of material plus the parts introduced by the Service Bulletins listed in 1.N. (References) represent the minimum bill of material for operating V2500-A5 engines at a thrust rating of 33000 lbs.

It is incumbent on operators to ensure that the minimum bill of material has been achieved even though subsequent Service Bulletins may have been embodied.

E. Compliance

INFORMATION (RPO)

This Service Bulletin is introduced for Record Purposes Only.

F. Approval

The modifications listed in this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Models listed.

G. Manpower

Not affected.

H. Material Price and Availability

Not affected.

I. Tooling Price and Availability

Not affected.

J. Industry Support Information

Not affected.

K. Weight and Balance

(1) Weight Change

None.

(2) Moment Arm

No effect.

(3) Datum

Engine front mount centreline (Power Plant Station - PPS 100).



L. Electrical Load Data

Not affected.

M. Software Accomplishment Summary

Not affected.

N. References

V2500 Service Bulletins:

ENG-24-0004	ENGINE - ELECTRICAL POWER - IDG OIL COOLING TUBES - MODIFIED SUPPORT BRACKET FOR CLIP POINT 1072
ENG-70-0115	INFORMATION - ENGINE - PROVIDE ADDITIONAL OPTIONS FOR THE NO. 1 AND NO. 4 FACE SEAL ASSEMBLIES
ENG-70-0127	INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF A NEW ANNULUS FILLER ASSEMBLY WITH A REVISED PROFILE
ENG-70-0129	INFORMATION - ENGINE - INTRODUCE IMPROVED VARIABLE STATOR RIGGING PIN BRACKETS
ENG-70-0152	INFORMATION - ENGINE - INTRODUCE THE AVAILABILITY OF SHIMS TO ASSIST IN THE PROPER INSTALLATION OF THE ENGINE ELECTRONIC CONTROL (EEC)
ENG-70-0243	INFORMATION - LP TURBINE - PROVIDE A NEW ACC MANIFOLD MOUNTING BRACKET RIVET
ENG-70-0245	INFORMATION - ENGINE - TO ANNOUNCE THE AVAILABILITY OF A NEW TURBINE EXHAUST CASE ASSEMBLY
ENG-70-0247	INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF NEW P2.5CM TUBE ASSEMBLIES
ENG-70-0248	INFORMATION - LP TURBINE - INTRODUCE NEW STAGES 3 AND 4 TURBINE VANE ASSEMBLIES
ENG-70-0251	INFORMATION - ENGINE - TO ANNOUNCE THE AVAILABILITY OF A REVISED MATERIAL THRUST MOUNT BRACKET ASSEMBLY
ENG-70-0257	INFORMATION - ENGINE - TO ANNOUNCE THE AVAILABILITY OF A NEW WASHER FOR USE AT THE FAN EXIT GUIDE VANE INNER PLATFORM
ENG-70-0258	INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF A SILVER-PLATED LPC STATOR SELF-LOCKING NUT

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ENG-70-0260	INFORMATION - ENGINE - PROVIDE AN IGNITION COOLING BOX WITH IMPROVED CLEARANCE TOLERANCES
ENG-70-0261	INFORMATION - ENGINE - INTRODUCE A REINFORCED NF HARNESS SUPPORT BRACKET
ENG-70-0262	INFORMATION - ENGINE - LP COMPRESSOR - INTRODUCE A NEW BLEED VALVE RING VESPEL GUIDE RIVET
ENG-70-0266	INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF A ONE PIECE CAST FAN FRAME ASSEMBLY
ENG-70-0270	INFORMATION - ENGINE - ELECTRICAL HARNESSES - INTRODUCTION OF NEW LACING AND ALTERNATIVE TAPE
ENG-70-0275	INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF A NEW FAN FRAME DRAIN PIPE
ENG-70-0276	INFORMATION - ENGINE - TO ANNOUNCE THE AVAILABILITY OF A NEW IGNITOR PLUG FEATURING REVISED GLASS SEAL MATERIAL
ENG-70-0280	INFORMATION - TO ANNOUNCE THE INTRODUCTION OF LONGER BOLTS AT CLIPPING POINT CP6057
ENG-70-0281	INFORMATION - ENGINE - AIR - TO ANNOUNCE A NEW HPT/LPT ACC VALVE ACTUATOR ASSEMBLY WITH IMPROVED PIN RETENTION FEATURES
ENG-70-0282	INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF VARIOUS REVISED MATERIAL FRONT COMPRESSOR PARTS
ENG-70-0283	INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF A REVISED FAN EXIT COOLING AIR PRESSURE BOSS
ENG-70-0287	INFORMATION - ENGINE - VIGV AND VSV OUTER SPINDLE BUSHES - DELETION OF ALTERNATIVE STEEL BACKED BUSH
ENG-70-0288	INFORMATION - ENGINE - PROVIDE VENDOR PART NUMBER IDENTIFICATION FOR VARIOUS HARNESS CONNECTORS AND PINS
ENG-70-0290	INFORMATION - ANNOUNCEMENT OF NEW ELECTRICAL CONNECTORS
ENG-70-0294	INFORMATION - ENGINE - TO ANNOUNCE THE AVAILABILITY OF A NEW CLIP AT CLIPPING POINT CP5758
ENG-70-0295	INFORMATION - ENGINE - PROVIDE REDUCED LENGTH RIVETS FOR THE HP TURBINE CASE COOLING MANIFOLD SUPPORT BRACKET



ENG-70-0300 INFORMATION - ENGINE - HP TURBINE ROTOR AND STATOR
ASSEMBLY - INTRODUCE NEW STAGE 1 HPT DUCT SEGMENTS WITH
REVISED COATED AREAS

ENG-70-0308 INFORMATION - ENGINE - FUEL AND CONTROL - TO ANNOUNCE THE
AVAILABILITY OF A FUEL DIVERTER AND RETURN VALVE WITH
CHROME PLATING ON THE PISTON ROD (IHI SB 13298-73-002 AND
17300-73-002)

ENG-70-0314 INFORMATION - ENGINE - TO ANNOUNCE THE AVAILABILITY OF
EEC SENSE LINES THAT FEATURE PROTECTIVE SLEEVING

ENG-70-0315 INFORMATION - ENGINE - TO ANNOUNCE THE AVAILABILITY OF A
NEW BRACKET AT CLIPPING POINT CP1200

ENG-70-0317 INFORMATION - ENGINE - REPLACEMENT OF VARIOUS STANDARD
PART NUMBER BOLTS WITH IAE PART NUMBER BOLTS

ENG-70-0323 INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE
AVAILABILITY OF A NEW LPC INLET GUIDE VANE ASSEMBLY WITH
REVISED MOULDING MATERIAL

ENG-70-0325 INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE NEW
FAN SPEED AND TRIM BALANCE PROBES WITH REVISED SURFACE
TREATMENT TO IMPROVE DURABILITY

ENG-70-0327 INFORMATION - ENGINE - PROVIDE A NEW NO. 1 BEARING OIL
SUPPLY TUBE BRACKET ASSEMBLY DESIGNED TO ENSURE PROPER
TUBE INSTALLATION

ENG-70-0331 INFORMATION - ENGINE - HP COMPRESSOR - TO ANNOUNCE THE
AVAILABILITY OF A NEW STAGE 12 HPC REAR INNER TO OUTER
CASE SEALING RING ASSEMBLY

ENG-70-0332 INFORMATION - ENGINE - TO INTRODUCE REDUCED SIZE CLIPS AT
CLIPPING POINTS CP0302 AND CP0305

ENG-70-0347 INFORMATION - ENGINE - MAIN GEARBOX ASSEMBLY - TO
ANNOUNCE THE AVAILABILITY OF NEW OIL SCAVENGE TUBE
ASSEMBLIES

ENG-70-0352 INFORMATION - ENGINE - TURBINE EXHAUST - TO ANNOUNCE THE
AVAILABILITY OF NEW NO. 5 BEARING SCAVENGE AND PRESSURE
TUBE ASSEMBLIES MADE OF REVISED MATERIAL AND WITH AN
IMPROVED BRAZE MATERIAL

ENG-70-0356 INFORMATION - DELETION OF SPACERS AT CP0806, CP0807 AND
CP0808



- ENG-70-0363 INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF AN LPC BLEED VALVE SCREEN WITH IMPROVED DURABILITY FEATURES
- ENG-70-0365 INFORMATION - ENGINE - MAIN GEARBOX ASSEMBLY - TO ANNOUNCE THE AVAILABILITY OF AN OIL SCAVENGE PUMP FEATURING A WIDER TOOTH FACE
- ENG-70-0367 INFORMATION - TO ANNOUNCE THE AVAILABILITY OF NEW FAN CASE EEC AND CORE IGNITION SUPPLY HARNESS WITH REPLACEMENT BACKSHELLS, CABLE AND BUSHES
- ENG-70-0368 INFORMATION - ENGINE - HP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF A NEW HPC REAR OUTER CASE ASSEMBLY THAT PROVIDES PARTS COMMONALITY BETWEEN THE V2500-A1 AND V2500-A5 ENGINE MODELS
- ENG-70-0374 INFORMATION - ENGINE - TO ANNOUNCE THE AVAILABILITY OF A CORE EEC HARNESS WITH ALUMINIUM BACKSHELLS AND STEEL COUPLINGS
- ENG-70-0375 INFORMATION - ENGINE - TO ANNOUNCE THE AVAILABILITY OF A NEW GEARBOX OIL SCAVENGE TUBE ASSEMBLY
- ENG-70-0377 INFORMATION - ENGINE - TO ANNOUNCE THE AVAILABILITY OF NEW FAN EXIT GUIDE VANES WITH OUTER PLATFORMS OF REDUCED WEIGHT MATERIAL
- ENG-70-0379 INFORMATION - ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - TO ANNOUNCE THE AVAILABILITY OF A NEW STAGE 1 TURBINE BLADE WITH IMPROVED DURABILITY
- ENG-70-0380 INFORMATION - ENGINE - OIL - TO ANNOUNCE THE AVAILABILITY OF A NEW NO. 4 SCAVENGE VALVE (LUCAS SB 1779-79-001)
- ENG-70-0381 INFORMATION - ENGINE - LP COMPRESSOR - INTRODUCE A NEW WEIGHT REDUCED REAR FAIRING ASSEMBLY
- ENG-70-0383 INFORMATION - ENGINE - LP COMPRESSOR - INTRODUCE A NEW 2.5 BLEED RING SUPPORT THAT ELIMINATES AN UNNECESSARY COATING MATERIAL
- ENG-70-0385 INFORMATION - ENGINE - DIFFUSER AND COMBUSTION SECTION - TO ANNOUNCE THE AVAILABILITY OF ADDITIONAL CLASSES OF CASE FUEL NOZZLE BOSS INSERTS
- ENG-70-0388 INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF A NEW ANNULUS FILLER WITH REVISED RUBBER SEAL



ENG-70-0390	INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF NEW MATERIAL ADJUSTING WASHERS
ENG-70-0399	INFORMATION - ENGINE - INTRODUCE AN ALTERNATE SOURCE FOR THE MAIN OIL FILTER ELEMENT
ENG-70-0419	INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF NEW LP COMPRESSOR REAR CASE FLANGE PLATE WASHERS
ENG-70-0428	INFORMATION - ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - TO ANNOUNCE THE AVAILABILITY OF NEW STAGE 2 HP TURBINE VANES
ENG-70-0435	INFORMATION - ENGINE - MAIN GEARBOX ASSEMBLY- TO ANNOUNCE THE AVAILABILITY OF A NEW DE-OILER IMPELLOR ASSEMBLY
ENG-70-0442	INFORMATION - ENGINE - SCAVENGE OIL TUBES - INTRODUCTION OF NEW OIL TUBE ASSEMBLY WITH IMPROVED NUT RESTRAINING FEATURES
ENG-70-0447	INFORMATION - ENGINE - EXTERNAL GEARBOX MODULE - PROVIDE A SECOND SOURCE FOR THE SPHERICAL BEARINGS ON MAIN GEARBOX LINKS
ENG-70-0452	INFORMATION - ENGINE - LP COMPRESSOR - TO ANNOUNCE THE AVAILABILITY OF NEW PANEL LINERS WITH REVISED BUSHES
ENG-70-0453	INFORMATION - ENGINE - TO ANNOUNCE NEW HARNESS BRACKET AND HARNESS SUPPORT RACEWAY BOLTS AND TO ALTER THE QUANTITY OF A FUEL TUBE WASHER
ENG-70-0478	INFORMATION - ENGINE - HP SYSTEM MODULE - TO ANNOUNCE THE AVAILABILITY OF A NEW FIRST STAGE HPT OUTER AIR SEAL GASKET
ENG-70-0480	INFORMATION - ENGINE - LP TURBINE MODULE - TO ANNOUNCE THE AVAILABILITY OF A NEW TURBINE EXHAUST CASE WITH INCREASED THICKNESS
ENG-70-0484	INFORMATION - ENGINE - TO INTRODUCE AN ALTERNATIVE INLET CONE ASSEMBLY
ENG-70-0487	INFORMATION - POWERPLANT - TO ANNOUNCE THE AVAILABILITY OF A NEW CORE SERVICE AND FIRE DETECTION HARNESS
ENG-70-0488	INFORMATION - ENGINE - TO INTRODUCE A NEW LP TURBINE SHAFT



- ENG-70-0513 INFORMATION - ENGINE - LP TURBINE ROTOR AND STATOR ASSEMBLY - INTRODUCTION OF LP TURBINE VANE STAGE 3 CAST CLUSTER
- ENG-70-0514 INFORMATION - ENGINE - LP TURBINE ROTOR AND STATOR ASSEMBLY - RE-INTRODUCTION OF LP TURBINE VANE STAGE 4 BRAZED CLUSTER
- ENG-70-0522 INFORMATION - ENGINE - LP TURBINE - TO ANNOUNCE THE AVAILABILITY OF IMPROVED STAGE 3, 5, 7 TURBINE DISK AND AIR SEAL STAGE 4 AND 5 INTO V2500 A1 AND A5 ENGINE FOR COMMONALITY REASONS. RE-INTRODUCTION OF THE LP TURBINE INNER AIR SEAL STAGE 4 IN WASPALLOY MATERIAL FOR V2500 A1 ENGINES
- ENG-70-0563 INFORMATION - AIR - TO ANNOUNCE THE AVAILABILITY OF NEW ACTIVE CLEARANCE CONTROL (ACC) SUPPORTS AND CLAMPS IN X10 MATERIAL
- ENG-70-0571 INFORMATION - ANNOUNCEMENT OF AVAILABILITY OF ALTERNATIVE AIR MOISTURE TRAPS
- ENG-70-0572 INFORMATION - ANNOUNCEMENT OF AVAILABILITY OF ALTERNATIVE ELECTRICAL INSULATION TAPES
- ENG-70-0581 INFORMATION - ENGINE - MAIN GEARBOX ASSEMBLY SIGHT GLASS SECOND SOURCE (SHAW AEROSUPPLIER)
- ENG-70-0643 INFORMATION - MAIN GEARBOX ASSEMBLY - TO ANNOUNCE THE INTRODUCTION OF A GEARBOX LINK-PIN COMMON TO A1 ENGINES
- ENG-71-0111 POWER PLANT - EEC HARNESS FAN/CORE - DELETION OF CLIPPING AT VSVA AND PMA HARNESS CONNECTORS AND INTRODUCTION OF WIRE LOCKING TO SECURE CONNECTORS
- ENG-71-0113 POWER PLANT - RELAY BOX - MOUNTING BRACKET WITH INCREASED HEIGHT SUPPORTS AND ALTERED CLIPPING LUGS
- ENG-71-0118 ENGINE - POWER PLANT - REVISED CLIPPING TO PROVIDE INCREASED CLEARANCE BETWEEN OIL QUANTITY TRANSMITTER AND EEC HARNESS
- ENG-71-0119 ENGINE - POWER PLANT - INTRODUCE REVISED EEC HARNESS CLIPPING TO PROVIDE SUFFICIENT CLEARANCE BETWEEN HARNESS AND FLANGE FD IN AREA ADJACENT TO EEC
- ENG-71-0120 ENGINE - POWER PLANT - REROUTE THE CORE HARNESS TO ENSURE ADEQUATE CLEARANCE BETWEEN THE HARNESS AND VARIOUS TUBES
- ENG-71-0122 ENGINE - POWER PLANT - INTRODUCTION OF A LONGER BOLT AT CLIPPING POINT CP5523



ENG-71-0123	TO ALLEVIATE HARNESS CONTACT CONDITION AT CP0817 AND CP0818
ENG-71-0148	ENGINE - POWER PLANT - MODIFICATION OF THE EEC HARNESS SUPPORT BRACKET
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ENG-71-0199	POWER PLANT - ELECTRICAL HARNESS - LIGHT DUTY - EEC HARNESS - CORE - INTRODUCTION OF REVISED CLIPPING FOR EGT HARNESS ASSEMBLY
ENG-72-0129	ENGINE - INSPECT THE OIL SCAVENGE PUMP DRIVE AND DRIVEN GEARS
ENG-72-0144	ENGINE - LP COMPRESSOR - INTRODUCE A REVISED 2.5 STATOR ASSEMBLY WITH VANES INCORPORATING A RELOCATED LOCATOR BOLT HOLE
ENG-72-0146	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - PROVIDE A NEW STAGE 1 HPT BLADE
ENG-72-0147	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - PROVIDE A NEW STAGE 1 HPT SUPPORT ASSEMBLY AND A NEW STAGE 1 HPT VANE ASSEMBLY
ENG-72-0148	ENGINE - NO. 4 BEARING COMPARTMENT - REPLACE EXISTING TUBE ADAPTERS WITH TUBE ADAPTERS HAVING A DECREASED INNER DIAMETER
ENG-72-0151	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - PROVIDE NEW STAGE 1 HPT VANE PLATFORM SEALS
ENG-72-0152	ENGINE - LP COMPRESSOR - REPLACE THE PTO DRIVE BEARING SUPPORT SHAFT SEALING RING

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ENG-72-0153	ENGINE - MAIN GEARBOX ASSEMBLY - TO INTRODUCE GEARBOX CASING AND IDG ADAPTOR DRAWINGS WITH REVISED DIMENSIONS FOR A1 AND A5 MODELS
ENG-72-0155	ENGINE - LP COMPRESSOR - PROVIDE A NEW LPC BLEED DUCT ASSEMBLY WITH IMPROVED DURABILITY FEATURES
ENG-72-0156	ENGINE - LP COMPRESSOR - REPLACE THE FAN CASE ASSEMBLY NO. 1 RUBBER SEAL ASSEMBLY
ENG-72-0158	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - REMOVE THE STAGE 1 AND 2 TURBINE (INTERSTAGE FRONT OUTER) WIRE SEAL
ENG-72-0159	ENGINE - DIFFUSER AND COMBUSTION SECTION - INTRODUCE NEW INNER AND OUTER COMBUSTION CHAMBER ASSEMBLIES
ENG-72-0160	ENGINE - LP COMPRESSOR - PROVIDE A NEW FAN CASE ASSEMBLY THAT ELIMINATES THE PROVISIONS FOR A TRANSITION RING
ENG-72-0162	ENGINE - LP TURBINE - INTRODUCE A NEW NO. 5 BEARING FACE SEAL WITH A DECREASED THICKNESS
ENG-72-0163	ENGINE - NO. 4 BEARING COMPARTMENT - PROVIDE A NEW NO. 4 BEARING SEAL ASSEMBLY WITH NUTS SILVER PLATED ON THE THREADS ONLY
ENG-72-0164	ENGINE - LP TURBINE ROTOR AND STATOR ASSEMBLY - INTRODUCE A TWO PIECE LP TURBINE CASE ASSEMBLY
ENG-72-0165	ENGINE - LP TURBINE - REPLACE THE EXISTING NO. 5 BEARING SEAL SPACER WITH A SPACER INCORPORATING FOOLPROOF INSTALLATION FEATURES
ENG-72-0166	ENGINE - DIFFUSER CASE ASSEMBLY - REMOVE THE STAGE 1 HP TURBINE COOLING AIR PRESSURE SENSING TUBES
ENG-72-0167	ENGINE - DIFFUSER AND COMBUSTION SECTION - REPLACE THE EXISTING NO. 4 BEARING SCAVENGE TUBE CRUSH GASKET WITH A GASKET HAVING IMPROVED SEALING FEATURES
ENG-72-0168	ENGINE - NO. 4 BEARING COMPARTMENT - INTRODUCE A NEW NO. 4 BEARING OIL TUBE ASSEMBLY
ENG-72-0172	ENGINE - HP COMPRESSOR BLADES - STAGES 9 TO 12 ROTOR BLADES WITH PLATFORM CORNER CROPPED
ENG-72-0175	ENGINE - LP COMPRESSOR - PROVIDE LONGER ATTACHING BOLTS FOR THE OPEN LATCH INDICATOR BRACKET



ENG-72-0178	ENGINE - HP COMPRESSOR DISCS - STAGE 3 TO 8 ROTOR DRUM WITH THICKER STAGE 6 DISC HUB AND DAMPING WIRE LOCATION LIPS
ENG-72-0180	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - INTRODUCE A NEW FIRST STAGE TURBINE AIR SEAL
ENG-72-0185	ENGINE - HP COMPRESSOR - STAGE 10 CASE ASSEMBLY WITH INTEGRAL FRONT RETAINING ARM FOR SEAL RING
ENG-72-0186	ENGINE - HP COMPRESSOR - NEW VARIABLE INLET GUIDE VANES AND STAGE 3 AND STAGE 4 VARIABLE STATOR VANES WITH INCREASED ANGULAR MOVEMENT
ENG-72-0187	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - PROVIDE A NEW STAGE 2 TURBINE BLADE (FOR VARIOUS MODEL PARTS COMMONALITY)
ENG-72-0189	ENGINE - CORE ENGINE TUBES - TUBE ASSEMBLIES COUPLED TO BIFURCATION PANEL, RE-RUN TO CLEAR COWL DOOR HOLD OPEN RODS
ENG-72-0190	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - INTRODUCE A NEW STAGE 1 HPT AIR SEAL AND NO. 4 BEARING REAR COOLING DUCT ASSEMBLY
ENG-72-0191	ENGINE - ATTACHING PARTS AND FITTINGS - HP SYSTEM MODULE - IMPROVED COOLING AIR DEFLECTOR FOR CABIN AIR PRESSURE REGULATING VALVE
ENG-72-0192	ENGINE - TURBINE EXHAUST CASE ASSEMBLY AND FITTINGS - REMOVE THE TURBINE EXHAUST CASE FAIRING
ENG-72-0194	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - INTRODUCE A NEW STAGE 1 HP TURBINE AIR SEAL
ENG-72-0201	ENGINE - HP COMPRESSOR - INTRODUCE A NEW STAGE 3 HPC ROTOR BLADE WITH A CUT BACK SHROUD
ENG-72-0202	ENGINE - HP COMPRESSOR - INTRODUCE A STRENGTHENED HPC REAR SHAFT AND A NEW MATING REAR ROTATING SEAL
ENG-72-0204	ENGINE - HP COMPRESSOR - INTRODUCE A NEW STAGE 12 LH LOCKING BLADE WITH AN INCREASED PLATFORM CROP
ENG-72-0207	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - PROVIDE A NEW STAGE 2 HPT AIR SEAL ASSEMBLY FEATURING RECONTOURED FORWARD AND REARWARD MATING SURFACES AND A TAPERED WEB
ENG-72-0211	ENGINE - LP COMPRESSOR - PROVIDE A NEW FAN FRAME ASSEMBLY AND ELIMINATE A T2.5CM THERMOCOUPLE



ENG-72-0212	ENGINE - LP COMPRESSOR - PROVIDE A NEW FAN CASE TO MAIN GEARBOX ASSEMBLY MATING SEAL RING
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ENG-72-0238	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - PROVIDE NEW STAGE 1 TURBINE HUB
ENG-72-0239	ENGINE - DIFFUSER AND COMBUSTION GROUP - PROVIDE NEW DIFFUSER GROUP ADAPTERS AND TUBE ASSEMBLIES
ENG-72-0240	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - PROVIDE A NEW STAGE 2 HPT AIR SEAL AND NEW STAGE 1 HPT HUB METERING PLUGS
ENG-72-0241	ENGINE - STAGE 1 TURBINE NOZZLE ASSEMBLY - PROVIDE A NEW STAGE 1 HPT COOLING DUCT ASSEMBLY AND SEGMENTS
ENG-72-0242	ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - PROVIDE NEW STAGE 1 HPT BLADES



ENG-72-0252	ENGINE - HP COMPRESSOR BLADES - INTRODUCTION OF STAGE 7 AND 8 ROTOR BLADES WITH ALUMINIUM TIP COATING REMOVED
ENG-72-0254	ENGINE - HP COMPRESSOR DISC (STAGES 3 TO 8) - INTRODUCTION OF HP COMPRESSOR DRUM WITH REVISED DISC PROFILES
ENG-72-0268	ENGINE - HP COMPRESSOR RING CASES - INTRODUCTION OF SCALLOPED STAGE 7 REAR LINER
ENG-73-0049	ENGINE - FUEL SYSTEM TUBES - RESET FUEL RETURN TUBE - DISCONNECT TO FUEL METERING UNIT
ENG-73-0052	ENGINE - FUEL AND CONTROL - TO PROVIDE A NEW EEC WITH THE SCN9A VERSION 021/121 SOFTWARE CONFIGURATION AND HARDWARE CHANGES TO ADDRESS NACELLE DRAINAGE REQUIREMENTS
ENG-73-0054	ENGINE - FUEL AND CONTROL - NEW FUEL DIVERTER AND RETURN VALVE ASSEMBLY WITH NEW CAP SEAL AND ENLARGED SOLENOID ORIFICE
ENG-73-0055	ENGINE - FUEL AND CONTROL - REPLACE THE DATA ENTRY PLUG WITH ONE THAT HAS A REVISED WIRING SCHEME
ENG-73-0057	ENGINE - FUEL AND CONTROL - FUEL METERING UNIT - INTRODUCTION OF REVISED PUSH ROD SEAL AND BEARING - PRESSURE RAISING AND OVERSPEED VALVES
ENG-73-0060	ENGINE - FUEL AND CONTROL - REPLACE THE TUBE CLIP AT CLIPPING POINT CP0795
ENG-73-0061	ENGINE - FUEL AND CONTROL - INCORPORATE NEW FUEL AND OIL TUBES MADE FROM IMPROVED FRETAGE RESISTANT MATERIAL AND REVISED TUBE CLIPPING
ENG-73-0062	ENGINE - FUEL AND CONTROL - REPLACE THE FUEL DIVERTER AND RETURN VALVE PACKINGS WITH PACKINGS MADE FROM IMPROVED MATERIAL (IHI SB 13298-73-005 AND 17300-73-005)
ENG-73-0064	ENGINE - FUEL AND CONTROL - FUEL SYSTEM AIR TUBES - RE-POSITIONED CLIPPING POINT CP1080
ENG-73-0067	ENGINE - FUEL AND CONTROL - REPLACE THE FUEL PUMP PACKINGS WITH PACKINGS MADE FROM IMPROVED MATERIAL (STS CORPORATION SB STS-73-001)
ENG-73-0068	ENGINE - FUEL AND CONTROL - INTRODUCTION OF AN IMPROVED FUEL PUMP (STS CORPORATION SB STS-73-002)
ENG-73-0071	ENGINE - FUEL AND CONTROL - REPLACEMENT OF FUEL TEMPERATURE THERMOCOUPLE WITH STUD AND NUT TERMINATIONS



ENG-73-0076	ENGINE - FUEL AND CONTROL - DEDICATED ALTERNATOR STATOR - INTRODUCTION OF NEW SOURCE OF SUPPLY
ENG-73-0078	ENGINE - FUEL AND CONTROL - INTRODUCE A REPOSITIONED FCOC FUEL FLOW RESTRICTOR AND ASSOCIATED FUEL TUBES
ENG-73-0080	ENGINE - FUEL AND CONTROL - TO PROVIDE A NEW EEC WITH THE SCN10A SOFTWARE CONFIGURATION VERSION 026/026 TRIMS (HAMILTON SUNDSTRAND SB EEC150-20-73-10 AND EEC150-20-73-8)
ENG-73-0081	ENGINE - FUEL AND CONTROL - INTRODUCTION OF A NEW FUEL DIVERTER AND RETURN VALVE WITH NEW MICROSWITC ASSEMBLIES (IHI SB 13298-73-006 AND 17300-73-006)
ENG-73-0083	ENGINE - FUEL AND CONTROL - TO PROVIDE A NEW EEC WITH THE SCN10B SOFTWARE CONFIGURATION VERSION 027/027 TRIMS (HAMILTON SUNDSTRAND SB EEC150-20-73-12 AND EEC150-20-73-8)
ENG-73-0084	ENGINE - FUEL AND CONTROL - FUEL SYSTEM TUBES - INTRODUCTION OF RE-ALIGNED LP FUEL TUBE ASSEMBLY PRODUCED FROM STAINLESS STEEL MATERIAL
ENG-73-0145	SHORTER LENGTH BOLT FOR B F GOODRICH INSTALLATION (INTERIM STD)
ENG-74-0001	ENGINE - IGNITION - INTRODUCE NEW IGNITION EXCITER MOUNTING BRACKETS
ENG-74-0002	ENGINE - IGNITION - INTRODUCTION OF IMPROVED IGNITION LEAD, COOLING SHROUD AND THE IGNITION COOLING BOX (UNISON SB 74-43, 74-46 AND 74-48)
ENG-74-0003	ENGINE - IGNITION - INTRODUCTION OF A RE-DIMENSIONED IGNITION LEAD COOLING SHROUD AND THE DELETION OF IGNITION COOLING BOX SUPPORT BRACKET (UNISON SB 74-48)
ENG-74-0004	ENGINE - IGNITION - INTRODUCE IGNITER PLUG INSERTS WITH AN INCREASED WALL THICKNESS AND IMPROVED THREAD REQUIREMENTS
ENG-75-0022	ENGINE - AIR - STAGE 10 TO HPT AIR VALVE - INTRODUCE THE IMPROVED SWITCH MECHANISM (PARKER HANNIFIN SB 5860010-75-77)
ENG-75-0033	ENGINE - AIR - INCORPORATE A CHAMFER OF THE ACAC INLET/OUTLET DUCT LUG



ENG-75-0035	ENGINE - AIR - REVISE THE ORIENTATION OF CLIPPING POINT CP5560
ENG-75-0036	ENGINE - AIR - INCORPORATE A REVISED SOLENOID SUPPORT BRACKET TO PROVIDE IMPROVED CLEARANCES BETWEEN BRACKET AND FAN CASE ASSEMBLY
ENG-75-0040	ENGINE - AIR - HP COMPRESSOR STAGE 7 AND STAGE 10 BLEED VALVES - INTRODUCTION OF AN IMPROVED CENTRE BUSH (DUNLOP SB 75-28)
ENG-75-0041	ENGINE - AIR - INTRODUCE A NEW LPC BLEED MASTER ACTUATOR FEATURING A LINEAR VARIABLE DIFFERENTIAL TRANSFORMER (LVDT) WITH IMPROVED WIRE TERMINATION (LUCAS SB 1666-75-004, 1777-75-002 AND 1797-75-001)
ENG-75-0044	ENGINE - AIR - INTRODUCE A NEW BRACKET AT CLIPPING POINT CP5560
ENG-75-0046	ENGINE - AIR - HPT/LPT ACC VALVE ACTUATOR - INTRODUCTION OF A NEW ROD END TO HPT/LPT ACC VALVE ACTUATOR (PARKER HANNIFIN SB 5860017-75-91 AND 5910479-75-92)
ENG-75-0049	ENGINE - AIR - BEARING COMPARTMENT COOLING HPC AIR BLEED TUBES - ADDITIONAL CLIPPING FOR CORE TUBES - SERVO AIR TO HANDLING BLEED SOLENOID VALVES
ENG-75-0052	ENGINE - AIR - INTRODUCE A VARIABLE STATOR VANE ACTUATOR (VSVA) HAVING A LINEAR VARIABLE DIFFERENTIAL TRANSDUCER WITH EXTENDED TRAVEL (LUCAS SB 1685-75-006)
ENG-75-0053	ENGINE - AIR - HP COMPRESSOR STAGE 7 BLEED VALVES - INTRODUCTION OF CHEVRON SEALS (DUNLOP SB 75-30)
ENG-75-0054	ENGINE - AIR - HP COMPRESSOR STAGE 10 BLEED VALVES - INTRODUCTION OF CHEVRON SEALS AND NEW VALVE CENTRE STEM BUSHING (DUNLOP SB 75-31)
ENG-75-0059	ENGINE - AIR - HPT/LPT ACC VALVE ACTUATOR - INTRODUCTION OF A NEW SEAL RING TO HPT/LPT ACC VALVE ACTUATOR (PARKER HANNIFIN SB 5860017-75-94 AND 5910479-75-95)
ENG-75-0061	ENGINE - AIR - HP COMPRESSOR VARIABLE STATOR VANE ACTUATOR - INTRODUCTION OF LINEAR VARIABLE DIFFERENTIAL TRANSFORMER WITH REVISED SOLDERED TERMINATION JOINTS AND SLEEVE MATERIAL (LUCAS SB 1685-75-007 AND 2607-75-001)
ENG-75-0063	ENGINE - AIR - INTRODUCTION OF A HPT/LPT ACC AIR VALVE WITH NEW SLOTTED ENTRY TYPE ROD END ASSEMBLY (PARKER HANNIFIN SB 5860016-75-97 AND 5910478-75-98)



ENG-79-0031	ENGINE - OIL - A NEW REINFORCED FUEL COOLED OIL COOLER TO PROVIDE IMPROVED DURABILITY
ENG-79-0038	ENGINE - FANCASE - REPLACE IDG POWER CABLE SUPPORT BRACKETS
ENG-79-0039	ENGINE - OIL - INTRODUCE A NEW OIL PRESSURE PUMP OUTLET-TO-ACOC TUBE SEALING RING
ENG-79-0043	OIL - AIR COOLED OIL COOLER AIR MODULATING VALVE - ACTUATOR ASSEMBLY - INTRODUCTION OF IMPROVED SEALING
ENG-79-0045	ENGINE - FANCASE - REPLACE IDG POWER CABLE SUPPORT BRACKETS
ENG-79-0047	ENGINE - POWERPLANT - OIL - REPLACEMENT OF PRESSURE INDICATING TUBES
ENG-79-0049	ENGINE - REPLACE MAIN OIL SCAVENGE PUMP MOUNTING FLANGE PACKINGS
ENG-79-0050	ENGINE - OIL - INTRODUCTION OF PARTIAL BLANKING ON THE ACOC MATRIX (SUMITOMO SB 79-2504)
ENG-79-0051	ENGINE - OIL - TO INTRODUCE A NEW MAIN SCAVENGE OIL PUMP FEATURING IMPROVED SPACERS AND COVERS
ENG-80-0008	ENGINE - STARTING - PNEUMATIC STARTER - INTRODUCTION OF A SYNCHRONOUS ENGAGEMENT CLUTCH (SUMITOMO SB 80-2509)
ENG-80-0010	ENGINE - STARTING - PNEUMATIC STARTER VALVE - INTRODUCTION OF STARTER CONTROL VALVE WITH REVISED SOLENOID AND PLUNGER SPOOL COATING (SUMITOMO SB 80-2513)
ENG-80-0012	ENGINE - STARTING - PNEUMATIC STARTER VALVE - INTRODUCTION OF STARTER CONTROL VALVE WITH REVISED MATERIAL FOR ACTUATOR LINK PIN (SUMITOMO SB 80-2512)
NAC-70-0439	INFORMATION - NACELLE - TO ANNOUNCE THE AVAILABILITY OF A NEW ANTI-ICE CABIN AIR AND STARTER SYSTEM DUCT LINK BEARINGS
NAC-71-0214	ELECTRICAL HARNESS - LIGHT DUTY - CP0804 AND CP0805 REVISED TO PROVIDE ADDITIONAL CLEARANCE WITH RAFT BRACKET

R (1) ATA Locator - 72-00-00.

0. Other Publications Affected

None.



P. Interchangeability of Parts

Not affected.

2. Material Information

None.

3. Accomplishment Instructions

A. Recording Instructions

- (1) Operators wishing to operate an applicable engine at 33,000 lbs thrust rating must verify compliance with the minimum requirements specified in this Service Bulletin.
- (2) A record of compliance with this Service Bulletin is required to be recorded in the engine log book.
- (3) If the engine is subsequently de-modified in respect to any of the requirements of the Service Bulletins listed in this Service Bulletin, then the record of this Service Bulletin must be removed from the engine log book.

NOTE: IAE must be informed of all rating changes.