

P U B L I C A T I O N   T R A N S M I T T A L



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Date Oct.31/00

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This document transmits the Initial Issue of Service Bulletin V2500-ENG-72-0378

Bulletin Initial Issue

Remove

Incorporate  
Page 1 to 17 of the  
Service Bulletin

Reason for change  
Initial issue

**V2500-ENG-72-0378**

Transmittal - Page 1 of 2

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED – if any have not been received please advise

Technical Publications department, Rolls- Royce plc, Derby , England

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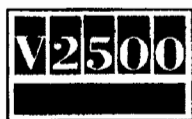
### LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin are as follows:

<u>Page</u>	<u>Revision Number</u>	<u>Revision Date</u>
Bulletin		
1		Oct.31/00
2		Oct.31/00
3		Oct.31/00
4		Oct.31/00
5		Oct.31/00
6		Oct.31/00
7		Oct.31/00
8		Oct.31/00
9		Oct.31/00
10		Oct.31/00
11		Oct.31/00
12		Oct.31/00
13		Oct.31/00
14		Oct.31/00
15		Oct.31/00
16		Oct.31/00
17		Oct.31/00

Printed in Great Britain

V2500-ENG-72-0378  
Transmittal - Page 2



# International Aero Engines SERVICE BULLETIN

ENGINE - LP COMPRESSOR – TO ANNOUNCE THE AVAILABILITY OF NEW ENGINE IDENTIFICATION PLATE WITH DESIGNATION OF ALL A5 MODEL RATINGS

## 1. Planning Information

### A. Effectivity

#### (1) Aircraft:

- (a) Airbus A319
- (b) Airbus A319CJ
- (c) Airbus A320
- (d) Airbus A321

#### (2) Engine:

- (a) V2522-A5 Engines
- (b) V2524-A5 Engines
- (c) V2527-A5 Engines
- (d) V2527E-A5 Engines
- (e) V2527M-A5 Engines
- (f) V2530-A5 Engines
- (g) V2533-A5 Engines

**NOTE:** 1. The parts introduced by this Service Bulletin will not be incorporated to the production Engines and the parts will be supplied as a spare only.

2. This Service Bulletin is not applicable for Engine Variants 00, 10, 30, 35, 40 50 as given in Service Bulletin V2500-ENG-72-0314.

3. Contact your IAE representative when the new Engine Identification Plate is used for a rating change of Engine.

#### (3) ATA Locator

72-32-00

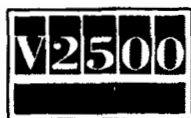
### B. Concurrent Requirements

None.

Oct.31/00

V2500-ENG-72-0378

Page 1 of 17



## International Aero Engines SERVICE BULLETIN

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### C. Reason

#### (1) Condition

Operators, allowed by contract, request IAE to provide the new Engine Identification Plate when rating of the Engine is changed.

#### (2) Background

Rating change can be performed by changing arrangement of jumper pin in the Date Entry plug. However, remarking of identification mark on the Engine Identification Plate is not allowed to operators. When the rating of the Engine is changed, operators, allowed by contract, have to ask IAE to provide the new Engine Identification Plate with changed rating marked, and can not install the Engine onto the Aircraft until it is made available to the operators.

#### (3) Objective

To provide the Engine Identification Plate with designation of all A5 rating to enable, operators allowed by contract, to change the rating designation on the Engine Identification Plate.

#### (4) Substantiation

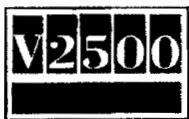
Fit check and analysis have been successfully completed.

#### (5) Effects of Bulletin on workshop procedure:

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

#### (6) Supplemental Information

- (a) Disassembly/Assembly of the Post-Service Bulletin configuration requires instruction for installing/removing the Engine Identification Plate and Name Plate Bracket.
- (b) The Cleaning of the Post-Service Bulletin configuration requires instruction for cleaning of the Engine Identification Plate and Name Plate Bracket.
- (c) The Inspection/Check of the Post-Service Bulletin configuration requires instruction for visual inspection of the Engine Identification Plate and Name Plate Bracket.
- (d) The Repair of the Post-Service Bulletin configuration requires instruction for replacement of the self-locking Nut on the Name Plate Bracket.



## International Aero Engines SERVICE BULLETIN

### D. Description

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

- (a) New Engine Identification Plate have all designation of A5 Engine Model ratings engraved on the plate, and a specific rating to be used is marked by placing the Engine Rating Indicator. See figure 1 and 2.
  - (b) The new Engine Identification Plate is reusable type and the Engine Rating Indicator is disposable type. See figure 1, 2 and 4.
  - (c) Configuration of Fan Case is not changed.
  - (d) Mounting configuration of the new Engine Identification Plate to the new Name Plate Bracket is changed. The Nuts used in the new configuration are additional items. See figure 1 and 3.
  - (e) Mounting configuration of the existing 5A2189 Module Identification Plate to the new Name Plate Bracket is changed. The Nuts used in the new configuration are additional items. See figure 1 and 3.
  - (f) Mounting configuration of the new Name Plate Bracket to existing Fan Case is changed. The self-locking Nuts and Rivets used in the new configuration are additional items. See figure 1.
- (2) Existing 5A1465 Engine Identification Plate, and 5A2129 Name Plate Bracket can not be reworked to new parts.
- (3) The Engine Rating Indicator is an additional item. See figure 1 and 4. For the additional item, ATA No.73-22-36 is newly assigned.
- (4) For relationship with other Service bulletins, see 1.L "References".

### E. Approval

The Part Number changes and/or part modifications are given in Section 2 and 3 of this Service Bulletin. They obey the applicable Federal Aviation Regulation and are FAA-APPROVED for the Engine Models listed.

### F. Compliance

Category Code 8

Accomplish based upon experience with the prior configuration.



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### G. Manpower

Estimated Man-hours to incorporate the full intent of this Bulletin :

<u>Venue</u>	<u>Est'd Man Hours</u>
(1) In service	
(a) To gain access and make safe. (fan cowl doors, 'C' ducts and hold open rods)	1 hour 08 minutes
(b) To embody mod. (remove and strip existing Engine Identification Plate. Assemble and fit new Plate)	1 hour 24 minutes
(c) To return engine to flyable status	1 hour 16 minutes
Total	3 hours 48 minutes

#### (2) At overhaul

NOTE: The parts affected by this Service Bulletin are accessible at overhaul

(a) To embody modification (remove and strip existing Engine Identification Plate. Assemble and fit new Plate)	1 hour 24 minutes.
Total	1 hour 24 minutes.

### H. Material - Price and Availability

- (1) Modification kit is not required.
- (2) See "Material Information" section for prices and availability of future spares.

### I. Tooling - Price and Availability

Special tools are not required to accomplish this Bulletin.

### J. Weight and Balance

(1) Weight change	.. ..	Plus 0.3 lb. (0,136 Kg)
(2) Moment arm	.. ..	No effect
(3) Datum	.. ..	Engine front mount centerline (Power Plant Station (P.P.S.) 100)



## International Aero Engines SERVICE BULLETIN

### K. Electrical Load Data

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

### L. References

- (1) IAE Engineering Change 00VJ013
- (2) V2500 Engine Illustrated Parts Catalog (S-V2500-2IA, 5IA, 6IA and 7IA), Chapter/Section 72-32-85
- (3) IAE Service Bulletin V2500-ENG-72-0285 Engine-CONVERSION-PROVIDE INSTRUCTIONS TO CHANGE THE V2500-A5 ENGINE RATING BY MODIFYING THE DATA ENTRY PLUG.
- (4) IAE Service Bulletin V2500-ENG-72-0314 - ENGINE - CONVERSION - PROVIDE INSTRUCTIONS TO CHANGE THE V2500-A5 ENGINE START CRANK BY MODIFYING THE DATA ENTRY PLUG
- (5) V2500 Standard Practices/Processes Manual (SPP-V2500-1IA)
- (6) A319/A319CJ/A320/A321 Aircraft Maintenance Manual (AMM), Chapter/Section 71-13-00 and 78-32-00.

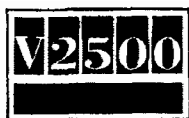
### M. Other Publications Affected

- (1) For in-service
  - (a) Power Plant Illustrated Parts Catalog (PIP-V2500-2IA), Chapter/Section 72-32-85 will be revised to add the new part.
  - (b) New Chapter/Section 73-22-36 will be add in Power Plant Illustrated Parts Catalog (PIP-V2500-2IA).
  - (c) A319/A319CJ/A320/A321 Aircraft Maintenance Manual (AMM), Chapter/Section 72-32-85 Removal/Installation will be revised to incorporate removal procedure for Engine Identification Plate and Name Plate Bracket.
- (2) For in-shop
  - (a) V2500 Engine Illustrated Parts Catalog (S-V2500-2IA, 5IA, 6IA and 7IA), Chapter/Section 72-32-85 will be revised to add the new part.
  - (b) New Chapter/Section 73-22-36 will be add in V2500 Engine Illustrated Parts Catalog (S-V2500-2IA, 5IA, 6IA and 7IA).

Oct.31/00

V2500-ENG-72-0378

Page 5



## International Aero Engines SERVICE BULLETIN

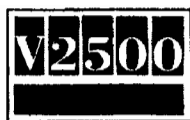
- (c) V2500 Engine Manual (E-V2500-11A), Chapter/Section 72-32-00 Disassembly-05, Config-02 will be revised to incorporate removal procedure for Engine Identification Plate and Name Plate Bracket.
- (d) V2500 Engine Manual (E-V2500-11A), Chapter/Section 72-32-00 Assembly-11, Config-02 will be introduced to incorporate Installation procedure for Engine Identification Plate and Name Plate Bracket.
- (e) V2500 Engine Manual (E-V2500-11A), Chapter/Section 72-32-85, Cleaning will be introduced to incorporate clearing procedure for Name Plate Bracket.
- (f) V2500 Engine Manual (E-V2500-11A), Chapter/Section 72-32-85, Inspection will be introduced to incorporate inspection procedure for Name Plate Bracket.
- (g) A New Repair Scheme will be introduced into the V2500 Engine Manual (E-V2500-11A), Chapter/Section 72-32-85 which requires Repair Part for its accomplishment.

### (3) Service Bulletin

IAE Service Bulletin V2500-ENG-72-0285 will be revised to incorporate Installation/removal procedure for new Engine Identification Plate and Engine Rating Indicator.

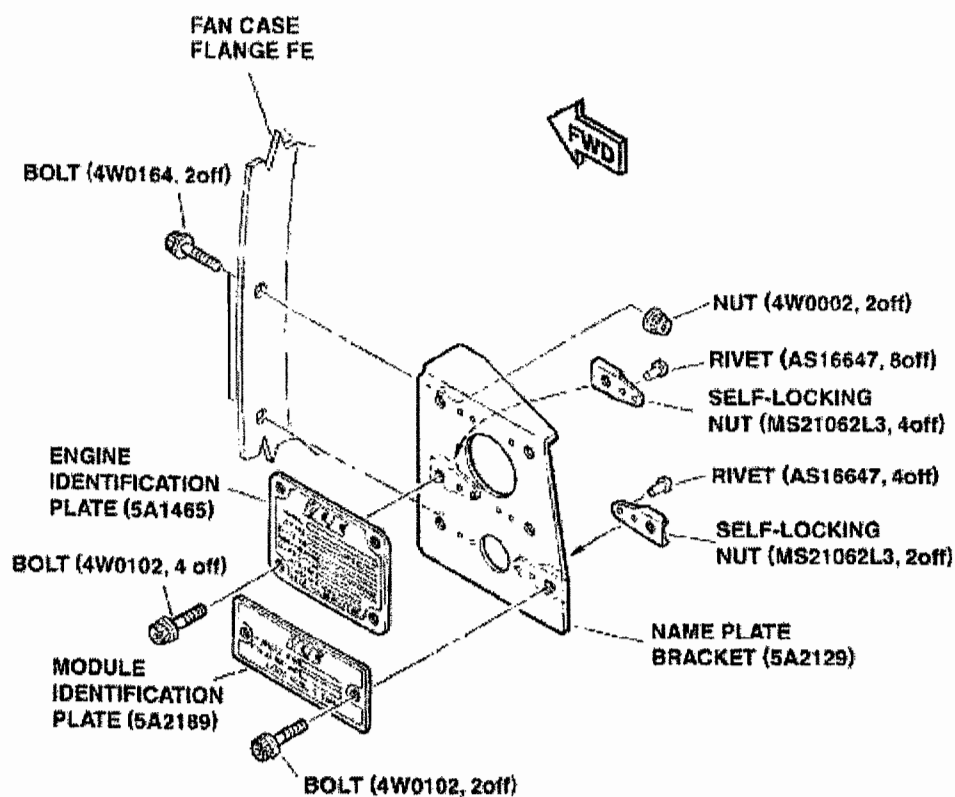
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BEFORE ALTERATION

Before and after alteration of Engine Identification Plate,

Figure 1 (Sheet 1 of 2)

Oct.31/00

V2500-ENG-72-0378

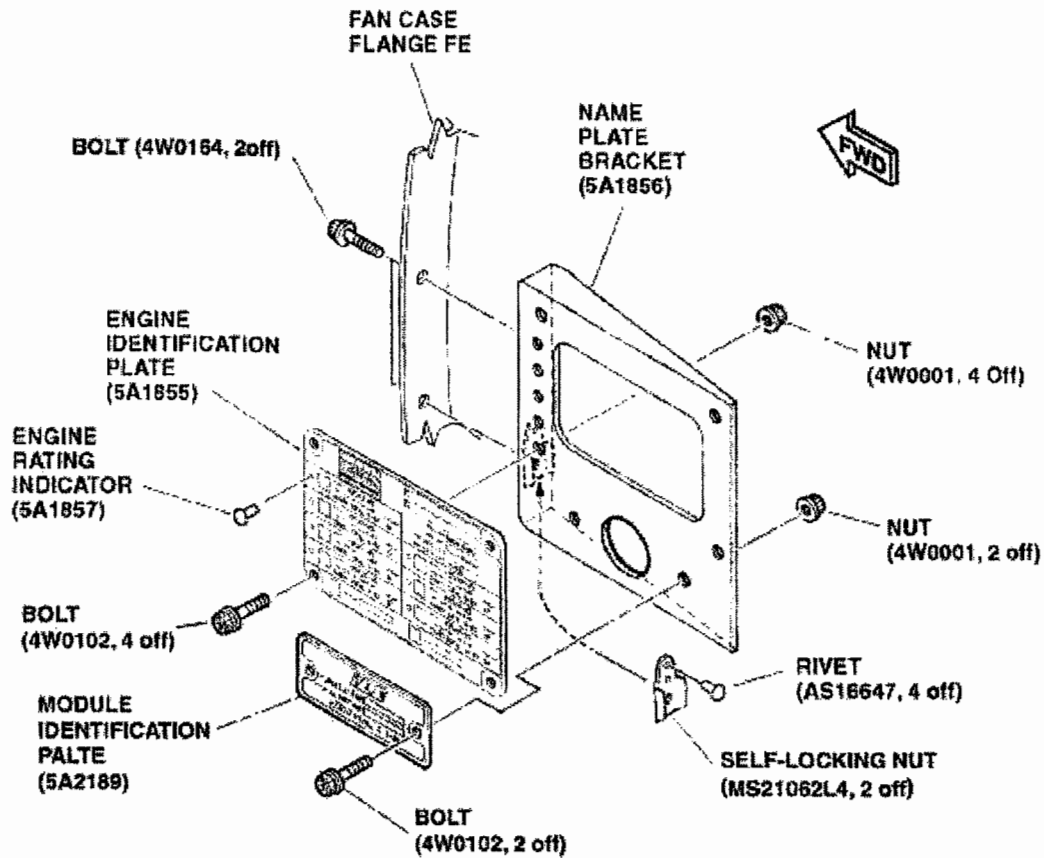
Page 7

jax0800024



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**NOTE:** Location of the Engine Rating Indicator above is example.

AFTER ALTERATION

Before and after alteration of Engine Identification Plate,  
Name Plate Bracket and Fastener  
Figure 1 (Sheet 2 of 2)

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Oct.31/00

V2500-ENG-72-0378

Page 8



# International Aero Engines SERVICE BULLETIN

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2.7 in (69,0 mm)

2.0 in (52,0 mm)

**IAE**  
INTERNATIONAL AERO ENGINES A5

MODEL

SER NO.  DATE

EMISSIONS  VARIANT

TAKE-OFF RATING-BUMP

DEP P/N  EPR MOD

INSTL APP

TYPE CERTIFICATE

PROD CERTIFICATE

BEFORE ALTERATION

4.7 in (120 mm)

3.2 in (81,0 mm)

**V2500**  
International Aero Engines

DEP P/N  EPR MOD

EMISSIONS FAR34 COMPLY

INSTL APP

TYPE CERTIFICATE

PROD CERTIFICATE 114NE

<input type="checkbox"/> MODEL V2533-A5 TAKE-OFF RATING-BUMP 31600 IDEAL 2-XX VARIANT 02	<input type="checkbox"/> MODEL V2527M-A5 TAKE-OFF RATING-BUMP 24800 IDEAL 9-XX VARIANT 47
<input type="checkbox"/> MODEL V2530-A5 TAKE-OFF RATING-BUMP 29900 IDEAL 3-XX VARIANT 12	<input type="checkbox"/> MODEL V2524-A5 TAKE-OFF RATING-BUMP 24480 IDEAL 8-XX VARIANT 42
<input type="checkbox"/> MODEL V2527-A5 TAKE-OFF RATING-BUMP 24800 IDEAL 6-XX VARIANT 32	<input type="checkbox"/> MODEL V2522-A5 TAKE-OFF RATING-BUMP 23040 IDEAL 10-XX VARIANT 52
<input type="checkbox"/> MODEL V2527E-A5 TAKE-OFF RATING-BUMP 24800 IDEAL 7-XX VARIANT 37	

SER NO.  DATE

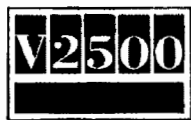
AFTER ALTERATION

Before and after alteration of  
Engine Identification Plate  
Figure 2

Oct.31/00

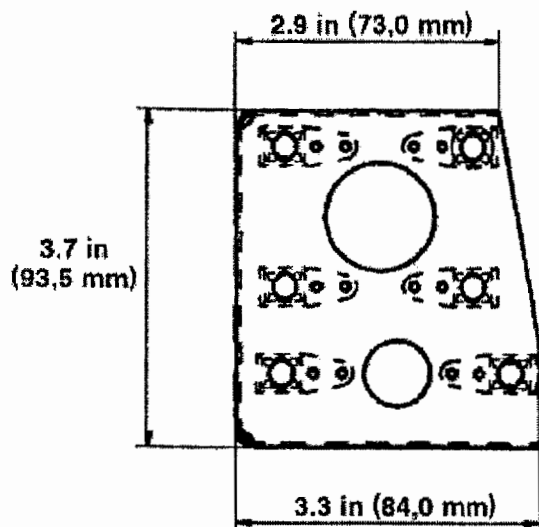
V2500-ENG-72-0378

Page 9

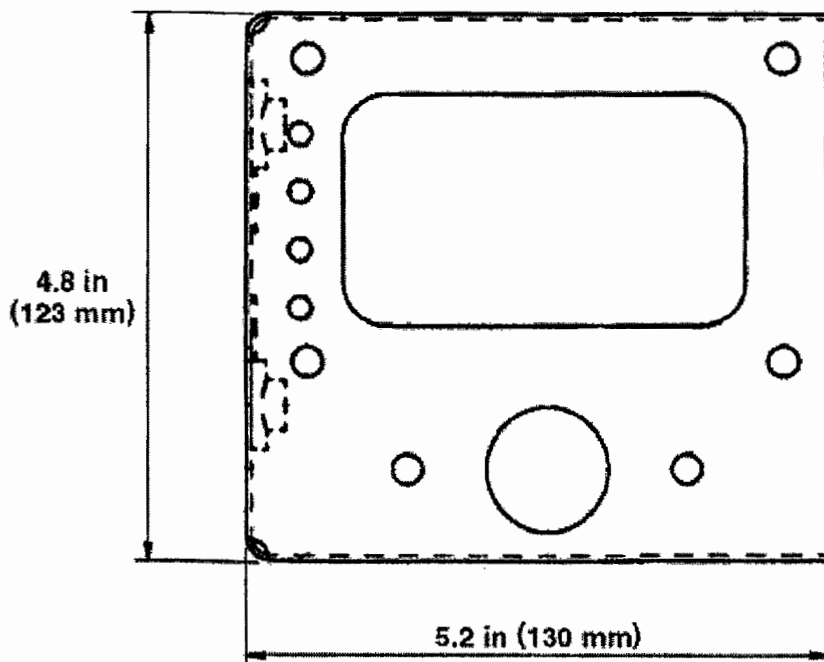


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BEFORE ALTERATION



AFTER ALTERATION

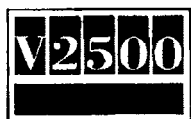
Before and after alteration  
of Name Plate Bracket  
Figure 3

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Oct.31/00

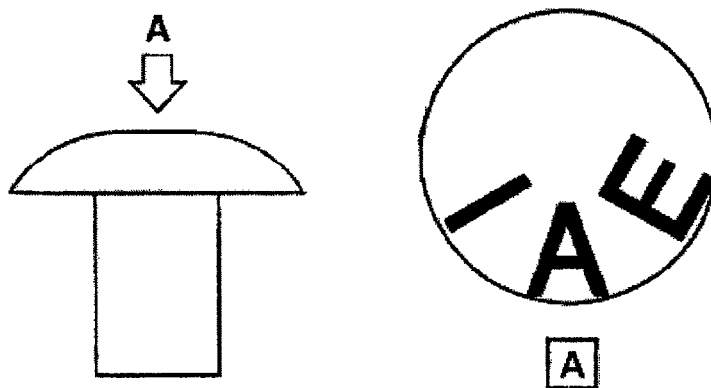
V2500-ENG-72-0378

Page 10

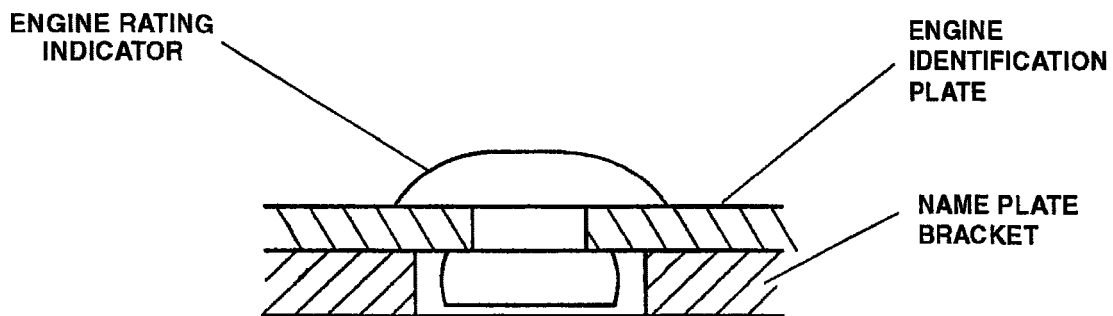


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Engine Rating Indicator, as purchased



Engine Rating Indicator, as placed  
on the Engine Identification Plate

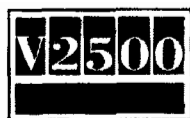
Engine Rating Indicator  
Figure 4

jax0800028

Oct.31/00

V2500-ENG-72-0378

Page 11



## International Aero Engines SERVICE BULLETIN

### 2. Material Information

Applicability: For each V2500-A5 Engine to incorporate this Bulletin.

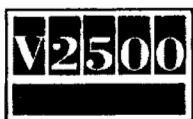
A. Kit associated with this Bulletin:

None.

B. Part affected by this Bulletin:

New Part No. (ATA No.)	Qty	Est'd Unit Price(\$)	Keyword	Old Part No. (IPC No.)	Instruction/ Disposition
4W0001 (72-32-85)	2		. Nut	- (03-107)	(A)(D)(S1)
5A1855 (72-32-85)	1		. Plate, Engine Identification	5A1465 (03-120)	(B)(S1)
4W0001 (72-32-85)	4		. NUT	- (03-127)	(A)(D)(S1)
5A1856 (72-32-85)	1		. Bracket, A/O Name Plate	5A2129 (03-150)	(B)(C)(S1)
- (72-32-85)	2		. NUT	4W0002 (03-160)	(C)(S1)
- (72-32-85)	8		.. Rivet, Solid CSK Head	AS16647 (03-170)	(C)(F)
- (72-32-85)	4		.. Nut, Self- Locking	MS21062L3 (03-172)	(C)(F)
- (72-32-85)	4		.. Rivet, Solid CSK Head	AS16647 (03-175)	(C)(F)
- (72-32-85)	2		.. Nut, Self- Locking	MS21062L3 (03-177)	(C)(F)
AS16647 (72-32-85)	4		.. Rivet, Solid CSK Head	- (03-185)	(D)(F)
MS21062L4 (72-32-85)	2		.. Nut, Self- Locking	- (03-187)	(D)(F)

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# International Aero Engines SERVICE BULLETIN

New Part No. (ATA No.)	Qty	Est'd Unit Price(\$)	Keyword	Old Part No. (IPC No.)	Instruction/ Disposition
5A1857 (73-22-36)	1		. Indicator, Engine Rating	- (01-100)	(B)(D)(E)(S1)

**NOTE:** The unit prices, if shown, are an estimate and they are given for the purposes of planning only. For information about actual prices, refer to the IAE Price Catalog or contact IAE's Spare parts Sales Department.

C. Instruction/Disposition Code

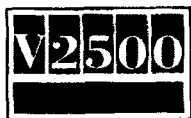
- (A) New part is currently available.
- (B) New part will be available in November 2000.
- (C) Old Part will continue to be available.
- (D) Additional Item.
- (E) ATA No.73-22-36 is newly assigned.
- (F) Repair parts for VRS1381
- (S1) New parts coded (S1) must replace old parts coded (S1) as a complete set per Engine.

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Oct.31/00

V2500-ENG-72-0378

Page 13



## International Aero Engines SERVICE BULLETIN

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### 3. Accomplishment Instructions

#### PART 1: In Service

##### A. Job Set-up Instructions

- (1) Open the Fan Cowl. For the correct procedures, refer to the A319/A319CJ/A320/A321 Aircraft Maintenance Manual (AMM), Chapter/Section 71-13-00, Cowl-Fan-Maintenance Practices, Task 71-13-00-010-010.
- (2) Open the Thrust Reverser Halves. For the correct procedures, refer to the A319/A319CJ/A320/A321 Aircraft Maintenance Manual (AMM), Chapter/Section 78-32-00, Thrust Reverser Halves –Maintenance Practices, Task 78-32-00-010-010.

##### B. Rework Instructions

None.

##### C. Assembly Instructions

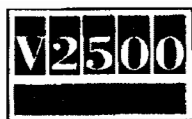
- (1) Remove the 5A2129 Name Plate Bracket and the 5A1465 Engine Identification Plate From the Fan Case (See Figure 1).
  - (a) Remove the 4W0164 Bolts (2 off) that attach the Name Plate Bracket to the Fan Case Flange FE.
  - (b) Remove the 4W0102 Bolts (4 off) that attach the Engine Identification Plate to the Name Plate Bracket.
  - (c) Remove the 4W0102 Bolts (2 off) that attach the 5A2189 Module Identification Plate to the Name Plate Bracket.
  - (d) Give the old Engine Identification Plate to your IAE Representative.
- (2) Install the new 5A1856 Name Plate Bracket and the new 5A1855 Engine Identification Plate to the Fan Case (See Figure 1, 2, 3 and 4).
  - (a) Install the 5A1857 Engine Rating Indicator at the appropriate 'TAKE-OFF RATING/VARIANT' position in the Engine Identification Plate.
  - (b) Install the Engine Identification Plate to the Name Plate Bracket with 4W0102 Bolts (4 off) and 4W0001 Nuts (4 off).
  - (c) Torque the Bolts between 36 and 45 lbfin (4,00 to 5,00 Nm).
  - (d) Install the Module Identification Plate to the Name Plate Bracket with 4W0102 Bolts (2 off) and 4W0001 Nuts (2 off).

Oct.31/00

V2500-ENG-72-0378

Page 14





# International Aero Engines SERVICE BULLETIN

- (e) Torque the Bolts between 36 and 45 lbf·in (4,00 to 5,00 Nm).
- (f) Install the Name Plate Bracket to the Fan Case Flange FE with 4W0164 Bolts (2 off).
- (g) Torque the Bolts between 85 and 105 lbf·in (10,00 to 12,00 Nm).

## D. Job Close-up Instructions

- (1) Close the Thrust Reverser Halves. For the correct procedures, refer to the A319/A319CJ/A320/A321 Aircraft Maintenance Manual (AMM), Chapter/Section 78-32-00, Thrust Reverser Halves –Maintenance Practices, Task 78-32-00-410-010.
- (2) Close the Fan Cowl. For the correct procedures, refer to the A319/A320/A321/A321CJ Aircraft Maintenance Manual (AMM), Chapter/Section 71-13-00, Cowl-Fan-Maintenance Practices, Task 71-13-00-410-010.

## E. Record Instructions

A record of accomplishment is necessary.

## PART 2 : In Shop

### A. Rework Instructions

None.

### B. Assembly Instructions

- (1) Remove the 5A2129 Name Plate Bracket and the 5A1465 Engine Identification Plate From the Fan Case (See Figure 1).
  - (a) Remove the 4W0164 Bolts (2 off) that attach the Name Plate Bracket to the Fan Case Flange FE.
  - (b) Remove the 4W0102 Bolts (4 off) that attach the Engine Identification Plate to the Name Plate Bracket.
  - (c) Remove the 4W0102 Bolts (2 off) that attach the 5A2189 Module Identification Plate to the Name Plate Bracket.
  - (d) Give the old Engine Identification Plate to your IAE Representative.
- (2) Install the new 5A1856 Name Plate Bracket and the new 5A1855 Engine Identification Plate to the Fan Case (See Figure 1, 2, 3 and 4).
  - (a) Install the 5A1857 Engine Rating Indicator at the appropriate 'TAKE-OFF RATING/VARIANT' position in the Engine Identification Plate. Refer to SPM task 70-39-03-390-501.



## International Aero Engines SERVICE BULLETIN

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- (b) Install the Engine Identification Plate to the Name Plate Bracket with 4W0102 Bolts (4 off) and 4W0001 Nuts (4 off).
- (c) Torque the Bolts between 36 and 45 lbfin (4,00 to 5,00 Nm).
- (d) Install the Module Identification Plate to the Name Plate Bracket with 4W0102 Bolts (2 off) and 4W0001 Nuts (2 off).
- (e) Torque the Bolts between 36 and 45 lbfin (4,00 to 5,00 Nm).
- (f) Install the Name Plate Bracket to the Fan Case Flange FE with 4W0164 Bolts (2 off).
- (g) Torque the Bolts between 85 and 105 lbfin (10,00 to 12,00 Nm).

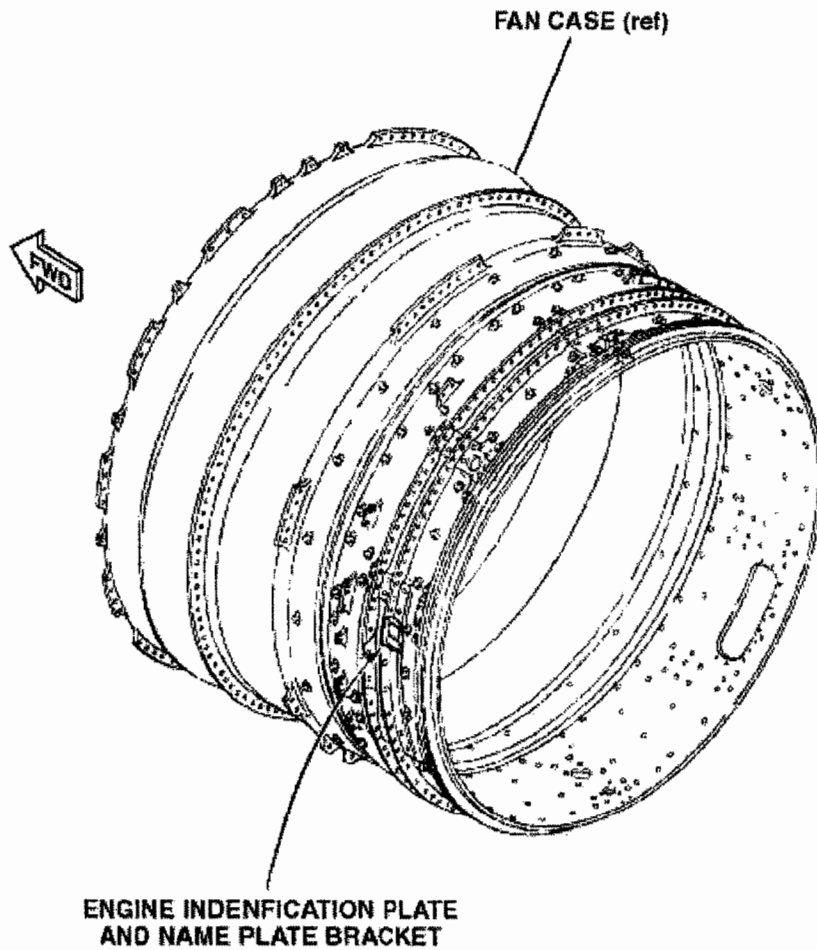
### C. Recording Instructions

A record of accomplishment is required.



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Location of Engine Identification Plate  
and Name Plate Bracket  
Figure 5

Oct.31/00

**V2500-ENG-72-0378**

Page 17

