International Aero Engines

SERVICE BULLETIN

ENGINE - FUEL AND CONTROL - ENGINE DEDICATED ALTERNATOR (EDA) STATOR UNIT - INTRODUCTION OF PERIODIC INSPECTION FOR CARBON DEPOSITS - CATEGORY CODE 3 - MOD.ENG-73-0028

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320

(2) Engine: V2500-A1 Engines prior to Serial No.V0122.

(3) Stator Unit: Any type Mk.2 delivered as a spare unit

B. Reason

The engine dedicated alternator (stator and rotor), is filled with a mist of engine oil during operation.

The continuous operating temperature of the alternator can cause the oil mist to form carbon deposits on the surface of the power stator bore.

C. Compliance

Category Code 3.

For engines that have not reached the first "C" check since entry into service, accomplish the intent of this bulletin at the first "C" check.

For engines that have had the first "C" check since entry into service, accomplish the intent of this bulletin within 300 hours or service since the first "C" check.

D. Approval

The 'compliance" statement and the procecures described in paragrph F. of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

E. References

(1) Internal Reference No.

91VR710

RFA RD162-90

(2) Other References

A320/V2500 Aircraft Maintenance Manual.

Dowty Fuel System Service Bulletin No.1664-73-004.

F. Action

(1) Remove the EDA stator unit from the engine.

(a) Remove the stator unit as instructed in the Aircraft Maintenance Manual 73-22-38.

(2) Inspect the stator bore. Refer to DFS Service Bulletin 1664-73-004.

(3) Clean the stator bore. Refer to DFS Service Bulletin 1664-73-004.

(4) Install the EDA stator unit as instructed in the Aircraft Maintenance Manual 73-22-38.

G. No record of accomplishment is necessary.

Dowty Fuel Systems

SERVICE BULLETIN

1664-73-004

ENGINE DEDICATED ALTERNATOR - STATOR UNIT INTRODUCTION OF PERIODIC INSPECTION FOR CARBON DEPOSITS

(IAE SB V2500-ENG-73-0028)

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus - A320

(2) Engine: V2500-A1

(3) Stator Unit, Type 1664 Mk 2 units.

B. Reason

(1) Condition

The engine dedicated alternator (stator and rotor), is filled with a mist of engine oil during operation. The continuous operating temperature of the alternator can cause the oil mist to form carbon deposits on the surface of the power stator bore.

(2) Background

The condition was identified during life assessment of the unit.

(3) Objective

Incorporation of the inspection procedure introduced by this Service Bulletin will ensure that build-up of carbon deposit is prevented from becoming excessive.

(4) Substantiation

The inspection procedure introduced by this Service Bulletin has been shown to alleviate the condition.

C. Description

This Service Bulletin introduces a periodic inspection and cleaning procedure to remove carbon deposits from the bore of the stator.

D. Compliance

The periodicity of application of the inspection and cleaning introduced by this Service Bulletin is detailed in IAE SB V2500-ENG-73-0028.

E. Approval

Service Bulletin No. 1664-73-004, was technically approved by IAE on May 3rd 1991. The actions described in this Service Bulletin have been shown to comply with the appropriate Federal Aviation Regulations and are FAA approved for those units listed in this Bulletin.

F. Manpower

1.0 Man hours are required to accomplish this Service Bulletin, including removal and installation of the unit.

G. Material - Price and Availability

Not applicable.

H. Tooling - Price and Availability

(1) Additional Tools

See the supplement to this Bulletin.

(2) Tools made redundant

None.

I. Weight and Balance

Not affected.

J. Electrical Load Data

Not affected.

K. References

(1) IAE SB V2500-ENG-73-0028.

(2) Dowty & Smiths Industries Controls Limited, Component Maintenance Manual 73-22-38

L. Other Publications Affected

Nil.

2. Accomplishment Instructions

A. Remove the Stator Unit (Stator) from the engine.

(1) Remove the Stator from the engine in accordance with IAE SB V2500-ENG-73-0028.

(2) Take the Stator to a well lit area for inspection.

B. Inspect the Stator Bore (Figure 1).

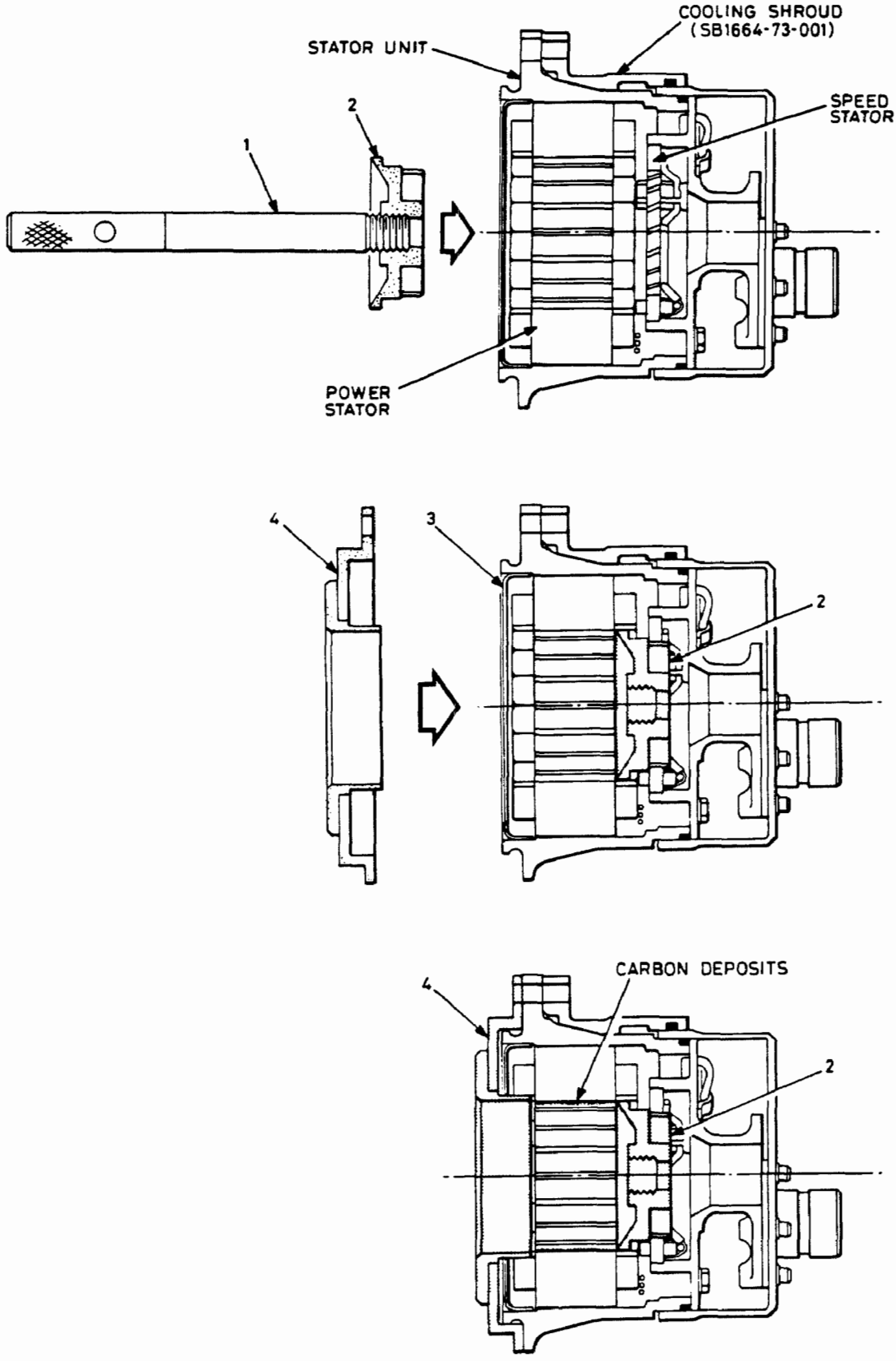
(1) Examine the power stator bore of the unit for evidence of carbon deposits on the surface of the stator bore where shown.

(2) If any carbon deposit is evident in the power stator bore, clean the power stator bore in accordance with sub para 2.C.

C. Clean the Stator Bore (Figure 1).

(1) Obtain the Stator Cleaning Kit, ANC 3089; the kit is made up of the following items:-

Handle (1)
Speed Stator Gaurd (2)
Power Winding Guard (4)
Flexible Honing Tool (Not shown)



Inspection and Cleaning of the Stator Unit
Figure 1

CAUTION: MAKE SURE THAT THE SPEED STATOR GUARD DOES NOT DAMAGE THE WINDING LAMINATIONS OF THE POWER STATOR.

(2) Screw the handle (1) into the speed stator guard (2) and insert the guard through the power stator bore to engage the speed stator, at the outboard end of the Stator.

Note: Some resistance may be felt in the power stator bore because of the presence of carbon.

(3) Unscrew the handle from the speed stator guard (2) and check that the speed stator guard is not loose. If the speed stator guard is loose, refit the handle (1) and push the speed stator guard further into the speed stator to make sure of a good fit; unscrew the handle (1).

(4) Install the power winding guard (4) to the Stator (over the winding guard (3)). Check the fit of the power winding guard (4), if the guard is loose, secure it to the Stator flange using slave 1/4 in. (0.250 in.) UNF bolts and nuts.

(5) Check that both the speed stator guard (2) and the power winding guard (1) are fitted correctly; only the main bore of the power stator should be seen.

(6) Fit the flexible honing tool (part of ANC 3089), to an air or electrically driven, rotary power tool which has a set speed of 190/210 rpm.

(7) Hold the Stator firmly, start the power tool and insert the honing tool as far as possible into the bore (of the power stator) and then immediately remove it; do not let the honing tool stay in the stator bore.

(8) Inspect the bore (of the power stator), which should show clean metal over the full length. If any carbon deposit remains in the bore, repeat sub. para. 2C (7).

(9) Remove the slave nuts and bolts (if fitted) and remove the power winding guard (4) from the Stator.

(10) Screw the handle (1) into the speed stator guard (2) and remove the speed stator guard from the stator; unscrew the handle from the speed stator guard

(11) Inspect the power stator bore for signs of delamination (laminations which have become separated), or for broken/lost laminations. Check also that the cleaning procedure has not damaged the windings. If either condition exists, the Stator should not be re-installed on the engine.

CAUTION: DO NOT USE ANY SOLVENT POWER WASH PROCESS TO CLEAN THE STATOR.

(12) Swill the Stator with clean (approved), engine oil to remove the carbon particles caused by the cleaning procedure; repeat this at least five times and check to make sure that all the carbon particles have been removed.

(13) Let the oil drain from the stator and then wipe the external surfaces with a clean cloth.

D. Record of Accomplishment.

No Record of Accomplishment is required.

E. Install the Stator on the Engine.

(1) Install the Stator on the engine in accordance with IAE SB V2500-ENG-73-0028.

3. Material Information.

A. Modification Kit.

Not applicable.

B. Parts To Be Re-worked.

None

C. New Production Parts.

None

D. Redundant Parts.

Not applicable

E. Identification of Units.

The type of equipment affected by this Service Bulletin is:

Unit	Type No
Stator Unit	1664 Mk 2 Units.

Dowty Fuel Systems

SERVICE BULLETIN

1664-73-004 (SUPPLEMENT)

ENGINE DEDICATED ALTERNATOR - STATOR UNIT INTRODUCTION OF PERIODIC INSPECTION FOR CARBON DEPOSITS

(IAE SB V2500-ENG-73-0028)

1. Modification Kit.

   Not applicable.

2. New Production Parts.

   Not applicable.

3. New Tooling.

Part No.	Keyword	Gross World List Price (Dollars)	Availability on Receipt of Order
ANC 3089	KIT, Stator Cleaning	$1329.62	30 Days

SUPPLEMENT
1664-73-004