

Work Order 300045613	Incoming Unit/Part 23285-026	Unit Description DC Starter- Generator	U mailto:f.lps.bck-pitstone-repairs@safrangroup.com Y10017	23285-026
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Aircraft Model Super Lynx	Aircraft Tail # M501-6	Aircraft Serial # WA437
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MODs on Receipt Nil.	MODs on Despatch Nil.
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TSN 1839.25	TSR N/A	TSO N/A	TSI N/A	Manufacture Date N/K	Aircraft Deliv. Date 15/10/2003	Last Return Date No Record
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Removal Date 10/06/2019	Received Date 17/11/2021	Customer LEONARDO UK LTD	Originator/Fax ROB WALTERS	Order Number 4802537487
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Reasons for Removal

NO. 2 ENGINE UNABLE TO COMPLETE VENTING. RUNNING TOO HEAVY (BRUSH WEAR CHECK). CUSTOMER LOG CARD NUTS ARE MISSING FROM TERMINALS B & E.

Customer Part Number: WG1451-0055-001.

Parts Damaged/Items Missing on Receipt

There was damage to the DE Bearing Support and also the Terminal Block flash guard was chipped. The Terminal Nuts for both B and E Posts were missing as was the Terminal Block Cover.

Summary/Primary Findings

The DC Starter Generator was inspected on receipt and the unit was found to be very dirty. Although minor scratches to the external paintwork were visible, no corrosion was evident to the Main Housing. The unit was dismantled for an internal inspection, which revealed large sections of the Stator and Housing Assembly had overheated with the protective coating of the windings damaged and was peeling away. The protective coating on the Armature Assembly was also damaged and had started to detach.

Component	Failure Mode	Failure Type
Main Stator	SSC	F

Secondary Findings

The underside of the Terminal Block had partially melted. The Bearing and Brush Support Assembly was damaged and corroded and the retaining Screws were worn. The DE Bearing Support screw heads were also damaged. The Brush Support Filter Lead was missing. A large number of the Brush Lead strands had fractured and frayed causing internal FOD, and the Brushes had light, even wear. The Drive Shaft had fretting corrosion within the shear neck area of the Shaft. The Speed Pickup Guard Screws were rounded. The Speed Pickup rubber Grommet had perished. All of the Nuts, Bolts and Washers either had surface corrosion present or were damaged. The inner material of the Brush Band was peeling away

Action To Be Taken

The DC Starter Generator will be reworked in accordance with the Component Maintenance Manual (CMM) - refer to the attached parts list. The DC Starter Generator will be recertified prior to release.

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Investigation Engineer C. Anderson	Date 28/02/22	Approved by P. Fletcher	Date 28/02/22	Warranty (if applicable) N/A	Date
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Rectification Costs

Costs are not accepted by Safran Electrical & Power UK Ltd, Pitstone Green as the Original Equipment (O.E) warranty period has expired.

PARTS CALLED

PART NUMBER	DESC	QTY	REASON
02-2001-27	INSULATOR SLOT ROUND	8	100%
02-2169-01	ADAPTOR	2	100%
02-4231-03	WASHER SPRING	1	100%
03-6009-23	BRGBALL	2	WORN
05-341303	SCREW	2	WORN
05-370232	WASHER, FLAT	8	CORRODED
05-374095	WASHER	8	100%
06-209285	PLATEID (REPLACEMENT)	1	100%
23076-1200	COVER, TERMINAL BLOCK	1	MISSING AS REC'D
23085-1503	ARMATURE	1	WORN
23085-1537	STATOR & HOUSING ASSY	1	WORN
23085-1681	SHAFTDRIVE	1	CORRODED
23085-366	FILTER ASSY	1	CUSTOMER INDUCED
23088-1073	END BELL ASSY, DE	1	CUSTOMER INDUCED
23088-1310	BAND, BRUSH	1	NOT TO SPEC
23088-1321	BRUSH	4	NOT TO SPEC
AN3-7A	BOLT	8	100%
M83248/1-113	O'RING	1	100%
M83723-83A803N	CONNECTOR	1	100%
MS16624-1066	RING	1	100%
MS21042-4	NUT, SELF LOCKING	1	100%
MS21318-13	SCREW DRIVE	4	100%
MS35206-242	SCREW	2	WORN
MS35206-246	SCREW	4	WORN
MS35265-22	SCREW	4	WORN
MS35265-46	SCREW	4	WORN
MS35338-42	WASHER,LOCK	12	100%
MS35489-1	GROMMET	1	NOT TO SPEC
NAS1149F0332P	WASHER (SUPERSEDES AN960-	8	100%
NAS1149F0463P	WASHER, FLAT (Replaces	1	WORN
NAS1352-08-14P	SCREW, SOCKET HEAD CAP	6	WORN
06-200001	LABEL, PATENT	1	100%
06-201020	DECAL	1	100%
MS24693-S47	SCREW, FLAT HEAD	0	100%