DG Flugzeugbau GmbH
76646 Bruchsal

Technical Note
No. 873/27

Subject : Powerplant / electrical system / manual revision

Effectivity : DG-800B with engine Mid-West AE 50T
all ser.no.'s

Accomplishment : Until April 30. 2002

Reason : Instruction 1: Both electrical circuits of the fuel pump and the coolant pump (from batteries and from generator) are protected by the DEI circuit breaker. Thus the pumps will stop running if this circuit breaker pops out. By installing a resettable fuse and by changing the wiring in the control unit the pumps will continue running via the generator circuit if the DEI circuit breaker is popped out
Instruction 2: The circuit breaker ETA 4A for the DEI may pop out under unfavourable conditions even if there is no short circuit, therefore it will be replaced by an ETA 5A circuit breaker.
Instruction 3: With unfavourable routing of the wires in the instrument panel, a wire may wear through at the sharp edges of the DEI. Therefore an edge protection must be installed.
Instruction 4: manual revision for instructions 1 and 2 and due to service experience.

Instructions :
1. Remove the control unit and ship it to DG for modification. When reinstalling the control unit regard the notes in MM sect. 1.14.3. Modify the wiring according to working instruction no. 1 for TN 873/27.
2. Exchange the DEI ETA 4A circuit breaker against a similar ETA 5A breaker.
3. Installation of an edge protection at the DEI: Check if any wires have already been damaged and repair if necessary. Cut and attach the felt according to drawing S49.
4. Exchange the following maintenance manual pages against the new pages issued November 2001, marked TN 873/27:
   FM: 0.1, 0.5, 7.7
   MM: 1, 2, 3, 4, 25, 28, 49, 86, 91, 93, wiring schemes 8E101, 8E105
   amendment to wiring plan 8E102

Material : Instruction 1: modified control unit 8E103, Ty-rap 4,8x360mm, wire No. 63 with heat shrink tubing, working instruction no. 1 for TN 873/27
Instruction 2: circuit breaker ETA 5A
Instruction 3: felt self-adhesive 3mm 4036 60x100mm, drawings S49
Instruction 4: manual pages see above

Weight and balance : influence negligible

Remarks : Use the order form for TN 873/27 for sending the control unit for modification and for ordering the necessary parts.
Instructions No. 1 - 3 are to be executed by the manufacturer or by a licensed workshop and to be inspected and entered in the aircraft logs by a licensed inspector.

Bruchsal, date:
November 29. 2001

Author:
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Type certification inspector:
Dipl. Ing. Swen Lehner

LBA – approved:

The German original of this TN has been approved by the LBA under the date of *17.12.01* and is signed by Mr. Blume. The translation into English has been done by best knowledge and judgement.

DG Flugzeugbau GmbH

Working instruction No. 1 for TN 873/27

For instruction 1

Remove the heat shrink tubing from the red (+) wire of the fuel pump. Disconnect wires 56 and 58 from the connector which is crimped onto the red wire. Plug together wire 56 and wire 58 and insulate with heat shrink tubing. Now wire 56/58 will supply electric power only to the coolant pump.
Plug the new wire (No. 63, 1,2 mm²) onto the connector at the red wire and insulate with heat shrink tubing. Push the wire through the cable duct which contains the starter motor wires forwards into the relays compartment. Solder the wire to pin 33 in the control unit connector plug.

See also 8E105 amendment to wiring plan 8E102

Issued: November 29. 2001