Subject	:	Manual revision, improvements to the drive mount, software updates for DEI-NT and control unit NT (E-Box)
Effectivity	type:	DG-1000
	variants:	DG-1000M
Accomplishment	:	Instructions 1 up to 3: before the next use of the engine, at the latest 30 calendar days after the effective date of the corresponding AD. Instruction 2: if cracks are detected, the drive mount must be repaired before the next flight. Instructions 4 up to 6: A), If cracks are detected: Before next flight. B), If no cracks are detected: No later than March 31st, 2026, or after 15 engine hours, whichever comes earlier.
Reason	:	On a DG-1000M cracks in the drive mount 10M112 occurred repeatedly, near the propeller head. Therefor further inspections, as well as repair instructions are introduced. To reduce the loads in the drive mount, the mount will be reinforced by a CFRP-bracket and dynamic propeller balancing will be required. Also, the belt tension has to be set differently. Finally updates to both DEI-NT and the control unit NT (E-Box) are necessary, to adapt the slip warning and to prevent the propeller to hit the engine covers, in case the retraction limit switch fails.

Instructions :

1. Manual revision: Exchange the following Maintenance manual pages against new pages: 0.0, 0.2, 0.3, 0.5, 0.7, 0.13, 4.2, 4.19, 6.1, 6.2, diagram 21 issued January 2025, marked with TN1000-51. Respect the marked changes.
2. a) Check the drive mount for cracks in accordance with Inspection Instruction no. 1 for TM1000-51
   b) If cracks are detected, the drive mount must be repaired. In inspection instruction no.1 for TN1000-51, three cases of cracks are listed.
   In case A, repair according to repair instruction RA 1000-51
   In case B, repair according to repair instruction RA 1000-10M112-2 FE33-01
   In case B, repair according to repair instruction RA 1000-10M112l FE-33-06.
   See inspection instruction no.1 for TN1000-51 for further details.
   Caution:
   Only drive mounts with an outside diameter of 40mm of the main tubes are allowed to be repaired.
   The drive mounts with an outside diameter of 38.1 mm of the main tubes are not allowed to be repaired. They must be replaced by a new drive mount, according to TN 1000/37.
3. Check and, if necessary, adjust the belt tension in accordance with maintenance manual DG-1000M section 4.10.2 a) and c)
4. Install CFRP bracket between the brackets of the two upper drive belt guide rollers, in accordance with installation instructions TN1000-51-01-01b.
5. Perform dynamic balancing of the propeller assembly in accordance with DG Inspection Instruction PA0/28 or the procedures of the maintenance organization.
   An IPS value of 0.05 or better must be achieved.
   The balancing mass may be installed to the threaded holes for the propeller sensor bolts.

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The balancing accelerometer must be attached to a bracket, which shall be screwed to the two upper radiator attachment points.
Caution:
Maximum permissible mass for dynamic balancing is 28 g (or 1 ounce) per bolt (M5 DIN912-8.8). Maximum permissible torque for the M5 bolts is 5 Nm (or 3.6 ft-lbs).

6. Send both DEI-NT as well as the control unit-NT (E-box) to DG Aviation for software updates.
   For the DEI-NT in the front cockpit, update to software version 1.7.
   For the DEI-NT in the rear cockpit, update to software version 1.4.
   For the control unit NT (E-box), update to software version 1.5.
   Exception for control unit-NT: serial numbers 10-145M2 and 10-279M40 are not affected as they already have the latest software in the control unit-NT (E-box).

Material : Maintenance Manual pages DG-1000M issued January 2025 (Rev.19)
Inspection Instruction No. 1 for TN1000-51
Material kit art. no. 21100051, with:
- Installation Instruction for TN1000-51-01-01b
- 10M226 Bushing for CFRP-bracket between drive belt guide rollers
- 10M227 CFRP-bracket for upper drive belt guide rollers
- 10M169a Bolt for drive belt guide rollers

If required, upon request:
Repair Instruction RA 1000-51
Repair Instruction RA 1000-10M112-2 FE-33-01
Repair Instruction RA 1000-10M112l FE-33-06

Weight and balance : influence negligible

Remarks : The manual pages as well as the inspection instruction can be downloaded from the DG Website.
The applicable repair instructions are sent, as requested.
The installation instructions are sent with the material kit.
Use only genuine spare parts.
Parts (except for standard parts) and material kits shall only be installed if an EASA Form 1 is existent for these products.
The DG invoice is valid as “Certificate of conformity” for standard parts.

Instructions No. 1 may be executed by the pilot/owner himself.
The actions are to be inspected and released by the pilot/owner (according to ML.A.801 (b) 3. for EASA registered aircraft).

Instruction No. 2-6
1. EASA registered aircraft: The pilot/owner is not allowed to release the actions. The actions must be released according to ML.A.801 (b) 1.
2. Non EASA registered aircraft: The actions have to be performed in a licensed workshop. All instructions are to be inspected and entered in the aircraft logs by a licensed inspector.

If you have any questions concerning this TN please contact DG Aviation:
Tel.: 0049 7251 36660-0, e-mail: info@dg-aviation.de.

Bruchsal, date:
26 Feb. 2025

Author:
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The modifications and the repairs are approved by EASA, date 9 April 2025 under Approval No. 10086880.

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