

- Subject : Main wheel brake system
- Effectivity : Type: DG-500, all variants (sailplanes and motorgliders) with retractable landing gear with main wheels ser. No. 51833 and all ser. No.'s from 52002 on.
- Accomplishment : Mandatory latest March 31. 2012
- Reason : End of 1989 the manufacturer of the main wheel moved the brake disc 2 mm to attain more clearance between brake calliper and tyre.
- With this version of the wheel it was detected that with wear of the brake pads the brake calliper touches the landing gear strut. So only 1 of the 2 brake pads brakes, which results in reduced braking efficiency and increased wear of the brake pad.
- To overcome this shortcoming the wheel must be shifted 3 mm to the right hand side to provide clearance between brake calliper and LG strut even with max. allowable wear of the brake pads.
- Instructions : 1. Identify the ser.no. of the wheel. If the ser. No. is not in the range given above action 2 is not necessary (Identification of ser. No.'s is only applicable for gliders produced 1990 and earlier, later gliders are definitely affected). If the ser. No. can't be identified the status of the wheel must be identified by measurement. Follow the procedures given in the working instruction no. 1 for TN500/03 section A.
2. In case of the wheel being affected modify the mounting of the main wheel and brake calliper according to working instruction no. 1 for TN500/03 section B.
3. Maintenance manual:
- DG-500 all sailplane variants:** Use maintenance manual DG-500 issued December 2009. Exchange the following manual pages against new pages issued July 2011 marked with TN500/03: 0.1, 0.3, 0.4, 0.7, add diagram 7a
- Variant DG-500M:** Use maintenance manual DG-500M issued December 2009. Exchange the following manual pages against new pages issued July 2011 marked with TN500/03: 0.1, 0.3, 0.6, 0.9, add diagram 7a
- Variant DG-500MB:** Use maintenance manual DG-500MB issued September 1998. Exchange the following manual pages against new pages issued July 2011 marked with TN500/03: 1, 4, remove diagram 7, add diagram 7a
- Material : working instruction no. 1 for TN500/03
1 ring 5FW4/3
1 bush 5FW4/1length 29.5 mm (or shorten existing bush yourself)
4 bolts M6x24 LN9037
5 selflocking nuts M6 DIN985-8 zn
1 selflocking nut M8 DIN985-8 zn
8 washers 6.4 DIN125 St zn
suitable metal glue e.g. Uhu Plus schnellfest
lock wire
- Weight and balance : influence negligible

Remarks : Instructions No. 1 and 3 may be executed by the pilot/owner himself and are to be inspected and entered in the aircraft logs by a licensed inspector at the latest with the next annual inspection.

Instructions No. 2:

1. EASA countries: The actions have to be performed in a Part -145 approved organisation, or in a Part M, Subpart F approved organisation according to the regulations of the Part M and released according to M.A.801.
2. Non EASA countries: 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.

As the initial maintenance manuals for all DG-500 sailplane variants and variant DG-500M will no longer be updated it is mandatory to use the maintenance manual (see instruction 3) to maintain the glider after this TN has been performed.

There are a few DG-500 with fixed landing gear which are equipped with a wheel with drum brake, these gliders are not affected by this TN.

Bruchsal, date:
26.08.2011

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Modifications approved by EASA Date 21.09.2011
under Approval No. 10036593

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