Subject	:	15m neo Winglets DG-300
Effectivity	type:	DG single seaters
	variants:	DG-300, DG-300 ELAN, DG 300 ELAN ACRO, DG 300 Club ELAN, DG 300 Club ELAN ACRO
Accomplishment	:	Optional

Reason :

New aerodynamically optimized Winglets, so called neo winglets, have been developed for the DG-300.
With TN359/17 winglets have already been developed for the DG-300.
In case the DG-300 is already equipped such Winglets the neo winglets can be rigged to the same wing partings. Otherwise, the wing partings have to be retrofitted.
During flutter flight testing of the neo winglets it could be detected, that when flying with water ballast in the wings the requirement to be free of flutter up to 1,1 x VNE could not be met.
Therefor VNE must be reduced for flight with winglets as well as the max. mass. The limited values of TN359/24 instruction A have been chosen for this purpose. In addition, it is no more allowed to use water ballast in the wings when flying with winglets.
Note: As for these measures the ASI markings must be changed the reduced airspeed values are also applicable for flight without winglets.
The correct aileron sealings may also be important and have to be checked.
During these flight tests also tests with the existing winglets according to TN359/17 have been performed for comparison.
Also with these winglets flutter safety couldn´t be shown with water ballast in the wings. Therefore, also with these winglets the same reduction of limitations as described above had to be introduced with TN359/17 Revision 1.
For this reason, the manual pages, the changed ASI markings and the changed data-placards are the same and must be changed only once.

Instructions :

1. The limitations (airspeeds and masses) will be reduced, in addition it is no more allowed to use water ballast in the wings when flying with winglets, see flight manual section 7.3.
2. Manual revision: Exchange the following manual pages against new pages issued November 2024 marked with TN 359/17 revision 1and TN DG-SS-08.
   Respect the marked changes.
   Flight manuals of all DG-300 variants: 0.1, 2, 7.1 – 7.5
   Maintenance manual DG-300: 0.1, 0.3, 0.4, 0.6, 4.6, 6.1, 8.8 – 8.14 (diagrams)

Note: The changed manual pages are also applicable for winglets according to TN 359/17.

3. Change the ASI markings according to AFM section 7.3 item changes to section 2.3, if not already done when performing TN359/24.
4. Exchange the Cockpit data placard and the airspeed placard according to maintenance manual diagram 13.
5. Check if the aileron sealings are in conformity with one of those described in the MM section 4.6 and in order. If this isn´t the case the sealings must be renewed.

Note: In contrary to the description in the existing MM an additional Mylar sealing on the wing upper side is acceptable for all variants.

6. Install the neo winglets according to working instruction no. 1 for TN DG-SS-08.

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Material	:	Manual pages see instruction 2. Cockpit data placard DG-300 ELAN or DG-300 Club ELAN or DG-300 ELAN Acro or DG-300 Club ELAN Acro. If necessary, material for new sealings see MM DG-300 section 4.6. Retrofit kit neo winglets with wing parting, DG part no. 10000350 Retrofit kit neo winglets without wing parting, DG part no. 10000351. Working instruction no. 1 for TN DG-SS-08. 3F054c drawing neo Winglet DG-300 assembly. In addition, if there are no parting devices installed: TN359/17 with working instruction and drawings 3F52 and 3F53.
Weight and balance	:	New weight and balance must be performed
Remarks	:	Manual pages may be downloaded from the DG website. The working instructions will be shipped with the material. A set of cockpit placards can be ordered at DG with specification of the serial number, registration, year of production, minimum- and maximum cockpit loading and if TN359/24 instruction A (Reduction of operating limitations) is applicable. Use only genuine spare parts. Parts and material kits shall only be installed if an EASA Form 1 is existent for these products (standard parts are excluded). For standard parts DG invoice is valid as “Certificate of conformity”. Instructions no. 1, 2, 4 and 5 may be performed by the pilot/owner himself. The actions are to be inspected and released by the pilot/owner (according to MLA. 801 (b) 3. for EASA registered aircraft). Instructions no. 3 and 6: 1. EASA registered aircraft: The pilot/owner is not allowed to release the actions. The actions have to 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:
31 Jan. 2025

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