Technical Note No. 1000/36 Revision 3

Subject : Rudder control operated by hand

Effectivity type: DG-1000
variants: DG-1000M, DG-1000S only with fixed landing gear and electrically operated landing gear
Revision 3: All with manual rudder control

Accomplishment : Optionally: Only during production.
Revision 1: Ser. No. 10-256M32 during final production inspection, further ser. No. during production.
Revision 2: From Ser. No. 10-283 on during production.
Revision 3: 1. Serial No. 10-280 latest with the next annual inspection, all further gliders with manual rudder control during production.
2. Serial No. 10-256 and 280 latest with the next annual inspection, all further gliders with manual rudder control during production

Reason : An additional control system to operate the rudder by hand may be installed to allow handicapped pilots to fly the DG-1000. The system shall be installed in the front cockpit only.
The normal rudder control system will not be waived to allow normal operation of the DG-1000 too. The handle must not and can't be removed for normal operation.

Revision 1: The bearing in pushrod 10St132 came loose.

Revision 2:
a) Instead of a connection between left and right hand rudder cable via a bellcrank installed in front of the front rudder pedals a connecting cable will be installed between the rear rudder pedals.
b) Variant DG-1000S will be included in the TN.

Revision 3: 1. One case was reported where a spring clip pin slipped out of the connection of the control cable at the rear left rudder pedal. The 2 spring-clip pins must be replaced by clevis pins with split pins.
2. To increase safety a large washer shall be installed above the bearing of the rod end.

Instructions : Installation according to drawings listed in drawing list 10Z09. Overview in installation plans 10Ep60 and 61.
Manual revision: Exchange the following manual pages against new pages issued August 2018 marked with TN1000/36. Respect the marked changes.
Flight manual: 0.2, 0.7, 9.1,9.2, 9.4, 9.5, 9.6
Maintenance Manual: 0.1, 0.7, 012, Enclosure 1 to Maintenance Manual DG-1000M (including diagrams 2a and 12a)

Revision 1: Drawing list 10Z09 issue 29.01.2019, 10Ep60b. The pushrod 10St132 will be installed in the centre of cylinder 10St133. The cylinder and the length of the pushrod will be changed.
Exchange manual pages with issue January 2019 marked with TN1000/36 Revision 1: 0.1, 0.7, enclosure 1 to MM DG-1000M page 2 and diagram 2a

Revision 2: Installation according to drawing list 10Z09 issue 3.06.2020, Overview in installation plan 10Ep66 instead of 10Ep60 and 10Ep61.
Changed manual pages with issue May 2020 marked with TN1000/36 Revision 2:
DG-1000M: MM 0.2, 0.7, enclosure 1 incl. Diagram 2b
DG-1000S:

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AFM: 0.2a, 0.5, 9.1, 9.2, 9.16-9.18
MM: 0.3, 0.6, 0.10, enclosure 3 (incl. diagram 2b + 11a)
Revision 3: Work according to MM diagram 2b issued February 2023
1 Replace the 2 spring-clip pins at the connection of the control cable at the rear left rudder by clevis pins with washer and split pins.
2. At the connection of pushrod 10St132 to the left rear rudder Pedal between nut and bearing of the rod end replace the small washer DIN125 by a large washer 6,4 DIN9021. Use a new lock nut M6 DIN985-8 zn.
3. Exchange manual pages with issue February 2023 marked with TN1000/36 Revision 3:
DG-1000M: MM 0.2, 0.6, 0.7, enclosure 1 page3, diagram 2b
DG-1000S: MM: 0.3, 0.6, 0.10, enclosure 3 page 2+3, diagram 2b)

Material :

See drawing list 10Z09 issue 29.01.2019, parts 10St130 – 145.
Revision 1: modified parts 10St132 and 133, bolt LN9037
Manual pages see instructions
Revision 2: See drawing list 10Z09 issue 3.06.2020
Revision 3: Manual pages see instructions, 2x clevis pin DIN 1434ST, 2x washer DIN 125 6,3 ST Zn, 2x split pin 1,6 DIN 94 Zn
1x washer DIN9021 6,4 St zn, lock nut M6 DIN985-8 zn.

Weight and balance : Weight and balance will be determined during final production testing.
Revision 1: No noticeable change due to the revision.
Revision 2: No noticeable change due to the revision.
Revision 3: No noticeable change due to the revision.

Remarks : These instructions are not intended for retrofit.
The rudder control operated by hand can only be installed during production.

If you have any questions concerning this TN please contact DG Aviation:
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Bruchsal, date:
16th Oct 2018,
Revision 1 30th Jan 2019
Revision 2 3rd June 2020
Revision 3 27. Feb 2023

Author:
Initial issue + Revision 1+2
Wilhelm Dirks



Revision 3
Andreas Bisson



Modifications approved by EASA Date 29 November 2018 under Approval No. 1006767
Revision 1: Modifications approved under the authority of DOA Ref. EASA.21J.530 under Minor Change No. TM1000/36 Revision 1, dated 30.01.2019.
Revision 2: Modifications approved under the authority of DOA Ref. EASA.21J.530 under Minor Change No. TM1000/36 Revision 2, dated 4.06.2020.
Revision 3: Modifications approved under the authority of DOA Ref. EASA.21J.780 under Minor Change No. TM1000/36 Revision 3, dated 2.03.2023x
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