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LBA anerkannter Herstellungsbetrieb IB 25
LBA anerkannter Luftfahrttechnischer Betrieb IIA 279

SUBJECT : Modification of the DG-600 to version DG-600/18

EFFECTIVITY : . / .

ACCOMPLISHMENT : alternative

REASON : The DG-600 may be retrofitted with 18 m wing tip extensions. Due to the necessary technical modifications and the change of the operational limitations the type designation is changed to "DG-600 version DG-600/18".

INSTRUCTIONS :

1. Exchange the flight manual against the flight manual for the version DG-600/18 issued December 1991.

2. Alter the maintenance manual DG-600 to the maintenance manual for the version DG-600/18 by exchanging the following pages (issued December 1991):

Cover	0
List of amendments	1
Content	2-3
Aileron- and wingflap control	9
Massbalance of the control surfaces	15
Code no's of airspeed indicators	35
Placards	Diagr.7

3. Alter the repair manual DG-600 to the repair manual DG-600/18 by exchanging the following pages (issued December 91):

Cover	0
List of amendments	1
Content	2

4. Alter the airspeed indicator markings. End of the green and white arc is now 185 km/h (100 kts) instead of 200 km/h (108 kts).

5. Exchange the data placard in the cockpit against the data placard for version DG-600/18.

6. Limit the wingflap deflection range to -10° up to L, see working instruction for TN 370-3.

7. Remove or deface the marking -15° on the placard for the wingflap settings.

8. Reinforce the root ribs of the inboard wings at the wing parting according to working instruction 1 for TN 370-3.

This reinforcement was already installed by the factory in the wings from part no. 6-85 on.

9. Additional reinforcement with carbonfibre tape at the receiver for the sparends of the wing tip extensions according to working instruction 1 for TN 370-3.
This reinforcement was already installed by the factory in the wings from part no 6-85 on.

10. Fit the 18 m wing tip extensions supplied by GLASER-DIRKS to the inboard wings. Adjust for and aft play if there is any by shims according to section 1.10 of the maintenance manual.

11. Execute an inspection on the occasion of a major modification.
Therefore execute the following items:

    a) Inspect instructions 1 up to 10.

    b) Execute a weight and balance determination with 18 m wing span. Write a new weighing report taking into consideration section 2.4 of the flight manual.

    c) Check if the flaperons move free with all flap settings and aileron deflection (rigged with 18 m wing span!). Therefore push both wings upwards and downwards at the tips with a load of appr. 30 daN (66 lbs).

    d) Measure the control surface displacements and write a report
    Take into consideration sect. 1.4.2 of the maintenance manual.

    e) Write an inspection report with the following remarks:
    Inspection after modification of the DG-600 to version DG-600/18 according to GLASER-DIRKS technical note 370-3.

    Part no's of the 18 m wing tip extensions:

    right FRA 618-xxx
    left FLA 618-xxx

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MATERIAL : Flight manual for the version DG-600/18 issued Dec. 1991.

Maintenance manual for the version DG-600/18 pages: 0, 1-3, 9, 15, 35, diagram 7, issued Dec. 1991.

Repair manual for the version DG-600/18 pages: 0, 1, 2, issued Dec. 1991.

1 pair 18 m wing tip extensions incl. flaperons

Working instruction no. 1 for TN 370-3

Further material see list in working instruction no. 1 for TN 370-3.

WEIGHT AND BALANCE : Execute new weight and balance with 18 m wing span.

REMARKS : Instructions No. 1 - 11 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 4, date 07.02.92

Author: Wilhelm Od

LBA - approved:
The German original of this TN has been approved by the LBA under the date of 30. Juni 1992 and is signed by Mr. Fendt. The translation into English has been done by best knowledge and judgement. In any case of doubt the German original is authoritative

Type certification inspector:

Lange

Workinginstruction No. 1 for Technical Note No. 370-3

Part 1:

Materials: All specifcations are for one pair of wings.

Fiberglas:	Interglas 92125 fabric. 200mm x 1000mm
Carbonfibre:	KDU 1007 (300g/m²) unidirectional tape. 25mm x 1020mm.
Peel-ply fabric:	70mm x 340mm
Cottonflocks:	appr. 50g
Resin:	L285 - H286 or L160 - H163 or L20 - SL75 appr. 450g Resin-hardner mixture. Processing, see repair manual sec. 4.
Paint:	Nitropaint black.

1 A **Reinforcement of inner wing-section rootrib and the receiver for the spar-end of the wing tip extension.**

1. 1 Remove all paint and roughen the surface in the spar-end receiver and on the rootribs between the two tangential-force bushes, with a dry, grade-80 abresive paper

1. 2 Impregnate the surface of the spar-end receiver with resin-hardner mixture, and fill the corners with resin thickened with cottonflocks.

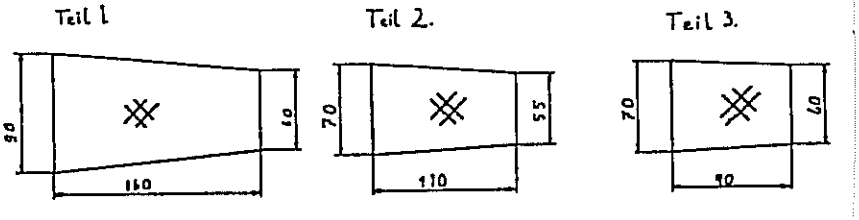
1. 3 Prelaminate the glasfibre fabric part No.1 (ref.sketch 1) on a plastic-film and lay it symmetrically on each side of the receiver, according to sketch 2.

1. 4 Remove the film, and tap the fabric with a brush to remove all the airbubbles.

1. 5 Impregnate the rootribs with resin, and fill the corners with resin thickened with cottonflocks.

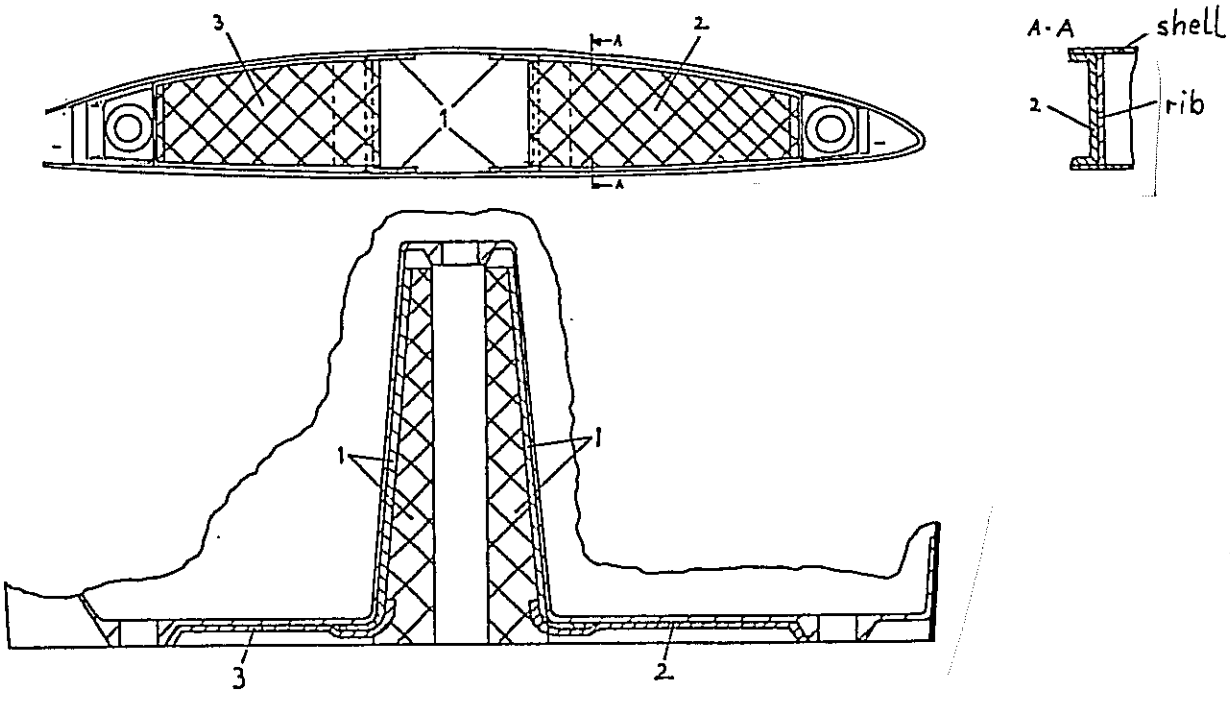
1. 6 Laminate glasfibre fabric part No.2 and No.3 on to the rootribs according to sketch 2.

Sketch 1:



Workinginstruction No. 1 for
Technical Note No. 370-3

Sketch 2:



1 B **Carbonfibre U-reinforcement.**

1. 7 Prelaminate three tapes (length 170mm ref.: sketch 3) on top of eachother on a plasticfilm.

1. 8 Lay the carbonfibre-tapes in the spar-end receiver according to sketch 4

1. 9 Remove the film and tap the tape with a brush to remove airbubbles.

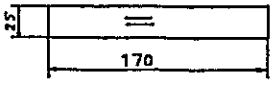
1.10 Smoothen the occuring step with resin thickened with cottonflocks, and laminate peel ply fabric on top of it.

1.11 When dry: Remove the peel ply fabric and roughen the receiver and the ribs with abresive paper.

1.12 Paint the spar-end receiver and rootribs with black nitro-paint.

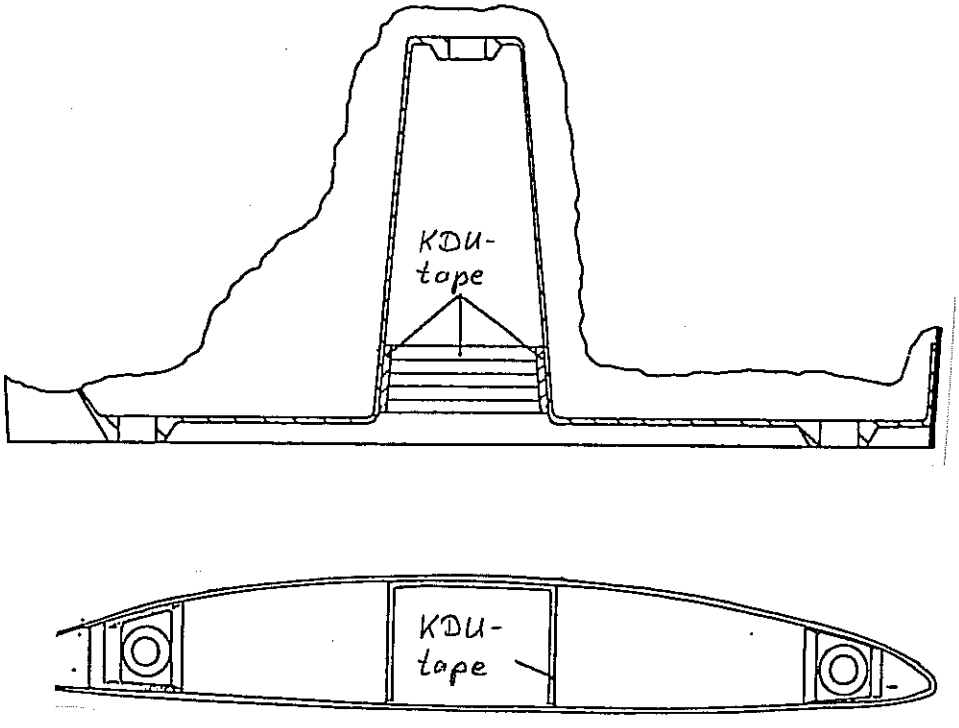
1.13 Check if all the wing tip extensions still fit.

Sketch 3:



Workinginstruction No. 1 for
Technical Note No. 370-3

Sketch 4:



Workinginstruction No. 1 for
Technical Note No. 370-3

Part 2: **Reduction of the wing flap movement to a range of -10° to L**

2. 1 Remove the left sidepanel.

2. 2 Place the airbrake control in the front position, and the wingflap control in the -10° position.

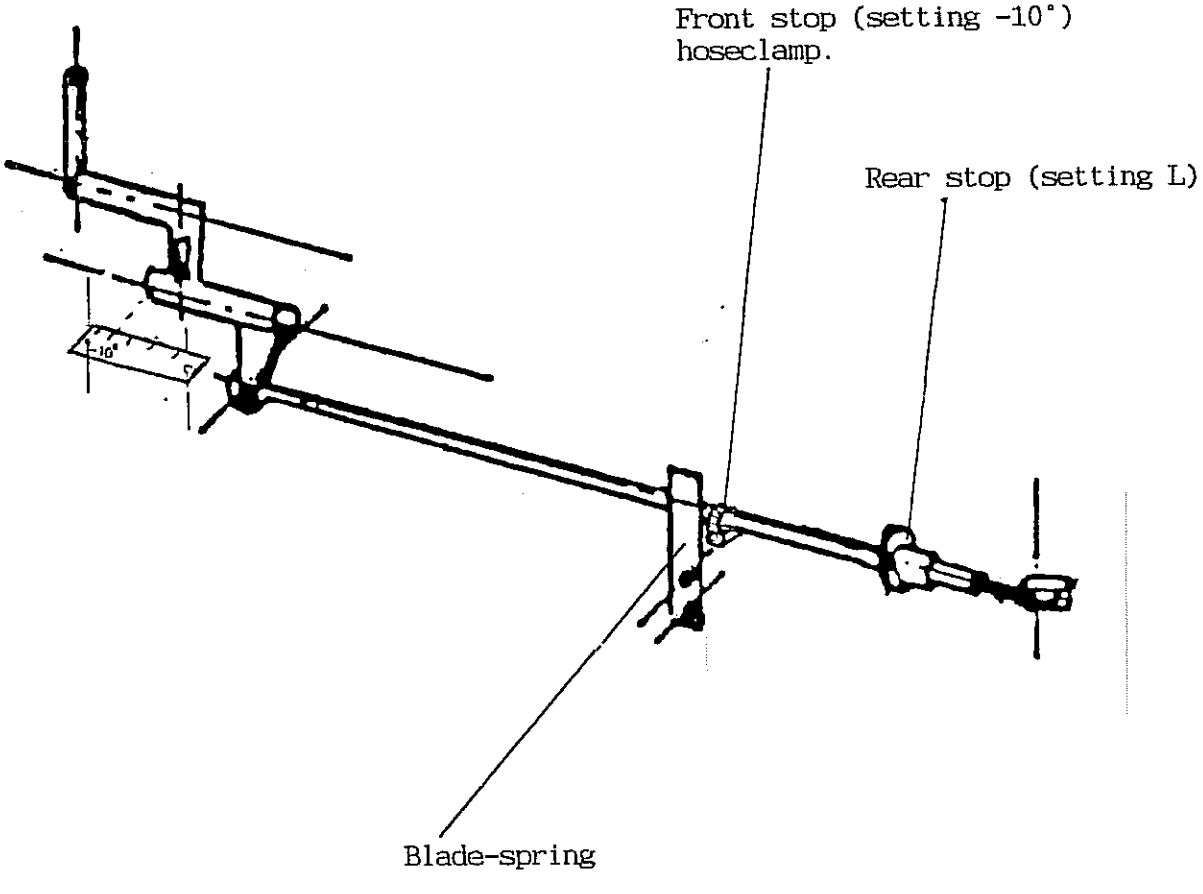
2. 3 Loosen the stop (hose-clamp) and reposition it, so that it touches the blade-spring. Fix the hose-clamp in this position with the screw pointing downwards. Clean the hose-clamp and rod with Aceton, and secure the hose-clamp with resin-hardener mixture, or Loctite 638.

2. 4 Check the proper function of the wing flap and airbrake controls

2. 5 Reinstall the left sidepanel.

2. 6 Remove the -15° markings.

Wingflap control



issued: Dec. 1991.