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LBA anerkannter Herstellungsbetrieb IB 25
LBA anerkannter Luftfahrttechnischer Betrieb IIA 279

Technical note
No. 370/4

SUBJECT : Installation of winglets to 17m wingtip extensions

EFFECTIVITY : Models DG-600 and DG-600/18, on choice

ACCOMPLISHMENT: ./.

REASON : Winglets may be installed to the 17m wingtip extensions to improve performance.

INSTRUCTIONS :

1. Installation of the winglets to the 17m wingtip extensions according to working instruction 6FA25 and drawing 6F45.
2. Exchange page 9.1 of the flight manual to pages 9.1, 9.2 and 9.3, issued february 1994.
3. Install the following placard besides the data placard on the left cockpit side cover.

Max. mass with 17m span with winglets 480 kg (1058 lbs.)

4. Inspection at large modification
   This inspection consists of the following items:
   a) Inspect instructions 1 up to 3
   b) Write an inspection report with the following note: Inspection after retrofit of winglets to 17m wingtip extensions according to Glaser-Dirks technical note No. 370/4

MATERIAL : Manual pages see above
1 pair of winglet shells
working instruction 6FA25
drawing 6F45

WEIGHT AND BALANCE : influence negligible

REMARKS : Instruction 1 can only be executed at the manufacturer or by an approved repair station.
To execute instruction 1 only the 17m wingtip extensions are needed.
Instructions must be inspected by a licensed inspector and are to be entered in the aircraft logs.

Bruchsal 4, date March 16.1995

Author:

W. Dirks

Dipl.-Ing. W.Dirks

LBA - approved:
The German original of this TN has been approved by LBA under the date of 31. Mai 1995 and is signed by Mr. Fendt. The translation into English has been done by best knowledge and judgement.

Type certification inspector:

A. Rau

Dipl.-Ing. A. Rau

0.1 Record of revisions

Any revision of the present manual, except actual weighing data, must be recorded in the following table and in case of approved sections endorsed by the responsible airworthiness authority.

The new or amended text in the revised page will be indicated by a black vertical line in the left hand margin, and the Revision No. and the date will be shown on the bottom left hand of the page.

Rev. No.	Affected Pages	Description	Issue Date	LBA Approval Date	Inserted Date Signature
1	0.1, 4.1, 4.4, 4.5, 4.7, 4.9, 4.11, 4.13, 4.14, 5.5, 5.6, 6.3, 6.9, 7.4, 7.7-7.9, 8.2, 8.3	TN 370-1 Manual-revision	July 90	13.07.90	
2	0.4, 9.1, 9.2, 9.3	Installation of winglets to 17 m wing tip extensions TN 370/4	Febr. 94	March 95	

0.2 List of effective pages (cont.)

Section		page	issued	replaced	replaced
5	App.	5.1	April 88		
	"	5.2	"		
	"	5.3	"		
	App.	5.4	"		
		5.5	July 90		
		5.6	"		
		5.7	April 88		
6		6.1	"		
		6.2	"		
		6.3	July 90		
		6.4	April 88		
		6.5	"		
		6.6	"		
		6.7	"		
		6.8	"		
		6.9	July 90		
		6.10	April 88		
7		7.1	"		
		7.2	"		
		7.3	"		
		7.4	July 90		
		7.5	April 88		
		7.6	"		
		7.7	July 90		
		7.8	"		
		7.9	"		
8		8.1	April 88		
		8.2	July 90		
		8.3	"		
		8.4	April 88		
		8.5	"		
9		9.1	April 88		
	with TN 370/4 (optional)				
		9.1	Febr.94		
		9.2	"		
		9.3	"		

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Rev. No.	Affected Pages	Description	Issue Date	LBA Approval Date	Inserted Date Signature
1	0.4, 9.1, 9.2, 9.3	Installation of winglets to 17 m wing tip extensions TN 370/4	March 95 Febr. 94	May 31. 1995	

0.2 List of effective pages (cont.)

Section		page	issued	replaced	replaced
5	App.	5.1	Dec. 91		
	"	5.2	"		
	"	5.3	"		
	App.	5.4	"		
		5.5	"		
		5.6	"		
		5.7	"		
6		6.1	"		
		6.2	"		
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		6.6	"		
		6.7	"		
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		6.10	"		
		6.11	"		
7		7.1	"		
		7.2	"		
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8		8.1	"		
		8.2	"		
		8.3	"		
		8.4	"		
		8.5	"		
9		9.1	"		
	with TN 370/4 (optional)				
		9.1	Febr.94		
		9.2	"		
		9.3	"		

Section 9

9. Supplements

9.1 Winglets at the 17m wingtip extensions

9.1 Winglets at the 17m wingtip extensions

Section 1

Introduction

In the following text the changes to those sections of the flight manual will be given which are effected by the installation of winglets at the 17m wingtip extensions.

Brief description

In addition to the wingtips described in sections 1 up to 8 of the flight manual, wingtips with 17m span and winglets are approved.
The installation of the winglets to the 17m wingtips must be executed according to the technical notes:
TN 370/4 for the DG-600 versions and
TN 866/3 for the DG-600M versions.

The height of the winglets is 0,30m (11.81 in.).

Section 2

Limitations

The max. take-off mass is reduced from 525kg (1157lbs.) to 480kg (1058lbs.).
The max. mass for selflaunch is unchanged at 440kg (970lbs.)!

Limitation placards

The placard shown below must be installed beside the limitation placard on the left cockpit side cover.

Max. mass with 17m span with winglets 480 kg (1058 lbs.)

9.1 Winglets at the 17m wingtip extensions

Section 5

Gliding performance

Comparison with 17m span:

Thanks to the winglets the max. L/D is increased by approx. one point.
The min. sink is reduced by approx. 0.015 m/s (0.3 ft/min.).