0 General

0.1 Amendments

No.	Page	Description	Date
0.1	all	Combination of the initial Maintenance Manuals of the Variants DG-300, DG-300 ELAN, DG-300 ELAN ACRO, DG-300 Club ELAN and DG-300 Club ELAN ACRO, new standardized format	December 2009
0.2	0.7, 1.10, 1.12, 2.1, 2.4, 3.2, 4.1, 4.2, 5.1, 5.2, 6.1, 6.2	Miscellaneous changes to the contents of the latest amendments of the initial maintenance manuals	December 2009
1	0.1, 0.3 – 0.8, 1.4, 2.1, 6.3, 8.8 – 8.12, 9.9 – 9.12	TN DG-SS-05 Manual revision Inclusion of TN359/4 and TN359/24	August 2020
2	0.1, 0.3, 1.2, 1.3	TN DG-SS-09 adjustment of elevator free play	December 2023
3	0.1, 0.4, 6.3	TMDG-G-16 Accelerometer LXNAV G-meter	April 2024
4	0.1,0.3, 0.4, 0.6, 4.6, 6.1, 8.8 - 8.14	TN 359/17 Revision 1 Wingtips with winglets and TN DG-SS-08 neo winglets	November 2024

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0.2 List of effective pages

Section	page	issued	replaced	replaced	replaced
0	0.0	December 09			
	0.1	see manual amendments			
	0.2	"			
	0.3	"			
	0.4	"			
	0.5	December 09	August 20		
	0.6	"	August 20	November 24	
	0.7	"	August 20		
	0.8	August 20			
1	1.1	December 09			
	1.2	"	December 23		
	1.3	"	December 23		
	1.4	"	August 20		
	1.5	"			
	1.6	"			
	1.7	"			
	1.8	"			
	1.9	"			
	1.10.	"			
	1.11	"			
	1.12	"			
2	2.1	December 09	August 20		
	2.2	"			
	2.3	"			
	2.4	"			
	2.5	"			
	2.6	"			
3	3.1	December 09			
	3.2	"			
	3.3	"			

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List of effective pages (cont.)

Section	page	issued	replaced	replaced	replaced
4	4.1	December 09			
	4.2	"			
	4.3	"			
	4.4	"			
	4.5	"			
	4.6	"	November 24		
	4.7	"			
	4.8	"			
5	5.1	December 09			
	5.2	"			
6	6.1	December 09			
	6.2	"			
	6.3	"	August 20	April 24	
7	7.1	December 09			
Diagrams					
8	8.1	December 09			
	8.2	"			
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	8.4	"			
	8.5	"			
	8.6	"			
	8.7	"			
	8.8	"	August 20	November 24	
	8.9	"	August 20	November 24	
	8.10	"	August 20	November 24	
	8.11	"	August 20	November 24	
	8.12	August 20	November 24		
	8.13	November 24			
Enclosures					
9	9.1	31.01.84			
	9.2	19.08.87			
	9.3	December 09			
	9.4	"			
	9.5	"			
	9.6	"			
	9.7	Dec. 84			
	9.8	Oct. 87			
	9.9	August 20			
	-9.12				

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Only DG-300 Club ELAN and DG-300 Club ELAN ACRO:

A. Removal

1. Remove the glasfibre cover plate from the wingshell at the outboard end of the aileron cutout using a knife or a chisel.
2. Tear off the tape from the wing lower surface.
3. Remove the selflocking nut and the washer at the outboard aileron hinge.
4. Remove the stop-bolt at the wing root.
5. Remove the spring pin from the sliding latch of the Hotellier connector at the aileron drive push rod. Disconnect the push rod.
6. Displace the aileron fully down and remove it from the wing by sliding in outboard sence.

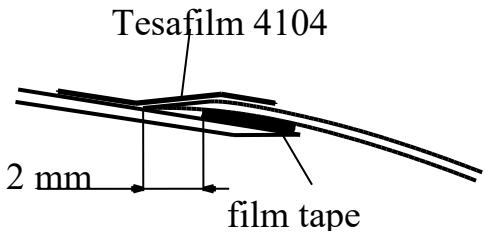
B. Reinstallation of the ailerons

1. Reinstall the aileron. Use a new selflocking nut(M 5 DIN 985-8 zn). Connect the push rod again and secure with the spring pin. Reinstall the stop-bolt at the wing root.
2. Clean off surplus film tape (if there is any) with petroleum ether (pure petroleum spirit).
3. Reinstall the coverplate see A 1. with contact adhesive (e.g. Pattex).
4. Seal the gap between aileron and wing on the lower surface with tape (Tesaband 651 white, 30 mm(1.2 in.) wide). Therefor displace the aileron fully upward.
5. Finally check that you can reach the max. upward aileron displacement (min. 65 mm, 2 18/32 in. measured at the inboard aileron trailing edge).

All DG-300 versions:

Note: The installation of a Mylar sealing on the wing upper side is acceptable.
Sealing: As sealing 0.19 mm thick and 30 mm (1.2 in.) wide curved Mylar seals with scarfed leading edge are used, so that no step occurs. They are fixed with film tape Tesafix 4965, 9 mm wide.

Glue the film tape 2mm behind the leading edge of the seal. The scarfed leading edge of the seals must be pressed to the wing surface by a Tesafilm 4104 tape. Prior to removing the sealing, mark the leading edge with a pencil to the wing surface.



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6 Instrument- und equipment list

6.1 Air speed indicator (0 - 300 km/h, 165 kts)

Manufacturer	Type	Certification No.
Winter	6 FMS 4(diam. 80mm)	TS 10.210/15
	0-300 km/h Ident.No. 6421177	
	0-160 kts Ident.No. 6423177	
Winter	7 FMS 4(diam. 58mm)	TS 10.210/19
	0-300 km/h Ident.No. 7421177	
	0-160 kts Ident.No. 7423177	

The airspeed indictor must have colour coded speed ranges marked as indicated in the flight manual section 2.3.

Caution: As long as the DG-300 is operated with the reduced operation limitations according to TN 359/24 the colour marking must be modified. The last 3 digits of the ASI Ident No. are then 527 instead of 177.
The same applies if the DG-300 is equipped with winglets, see TM359/17 Revision 1 and TN DG-SS-08.

6.2 Altimeter

Manufacturer	Type	Certification No.
Winter	4 FGH 10 (diam. 80mm)	TS 10.220/46
	1.000-10.000m Ident.No.4110	
	3.000-30.000ft Ident.No.4330	
Winter	4 FGH 20 (diam.58mm)	TS 10.220/47
	1.000-10.000m Ident.No.4220	
Winter	4 FGH 40 (diam.58mm)	TS 10.220/48
	1.000-20.000ft Ident.No.4550	

Or any other TSO C 10b specified and approved altimeter with fine range pointer 1 turn max. 1000 m, 3000 ft.

6.3 Harness (seat)

Manufacturer	Type	Certification No.
Gadringer	BAGU 5202	40.070/32
	SCHUGU 2700	40.071/05
Gadringer	BAGU 5202 G	40.070/32
	SCHUGU 2700 G	40.071/05
	rubber coated adjuster bars	
Autoflug	BAGU FAG-7 H-O	40.070/30
	SCHUGU FAG-7 D-O	40.071/21
	BAGU FAG-12 H-O	40.070/47
	SCHUGU FAG-12 D-O	40.071/25
Schroth	4-01-0104	40.073/11
Schroth	4-01-0108 with Option NOAH	40.073/11

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Diagram 8 Placards DG-300 & DG-300 ELAN

Caution: Placards 12 and 15 are only applicable if TN359/24 instruction B is applicable and if the DG-300 is not equipped with winglets, otherwise see diagram 12 resp. 13 or 14.

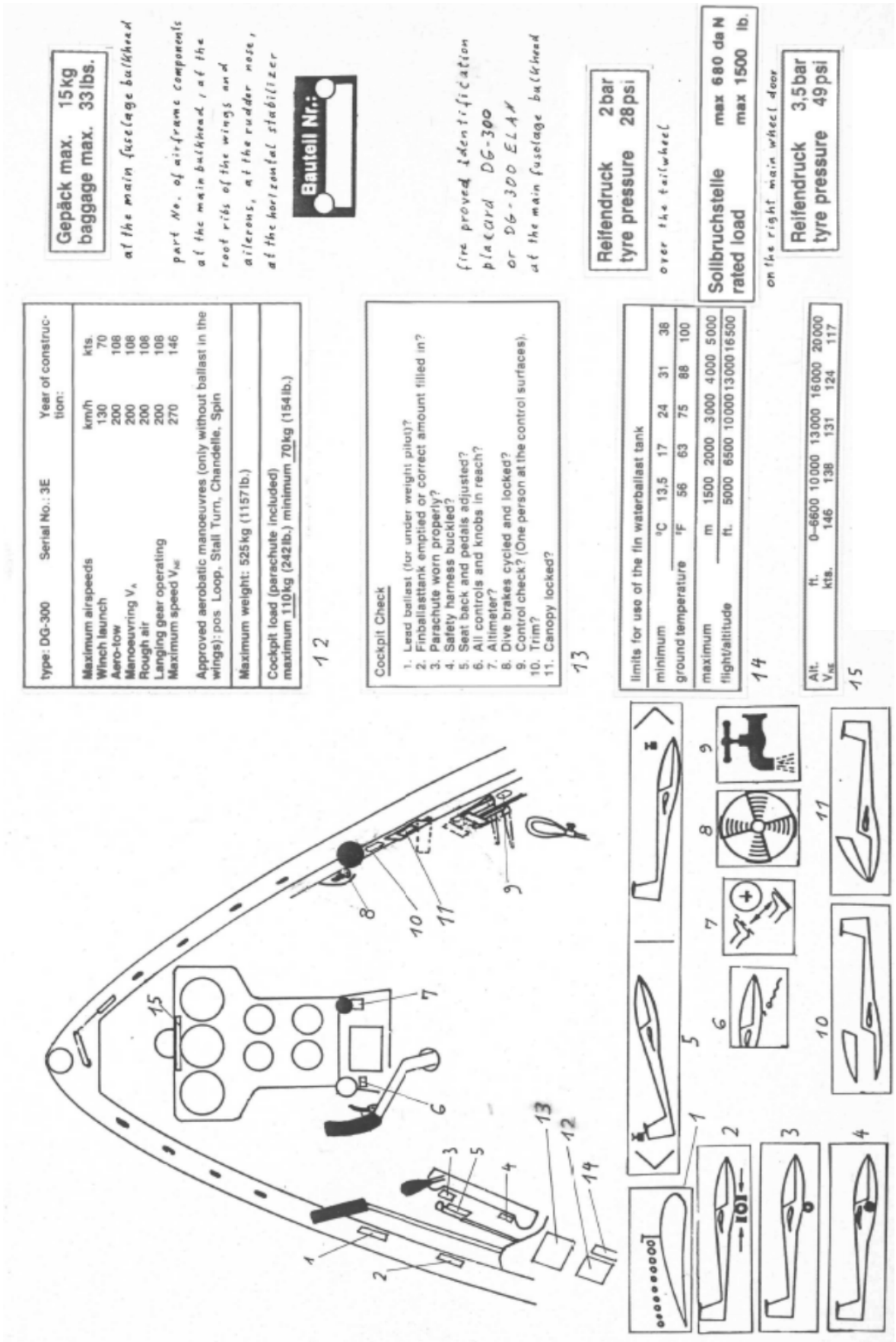


Diagram 9 Placards DG-300 ELAN ACRO

Caution: Placards 12 and 15 are only applicable if TN359/24 instruction B is applicable and if the DG-300 is not equipped with winglets, otherwise see diagram 12 resp. 13 or 14.

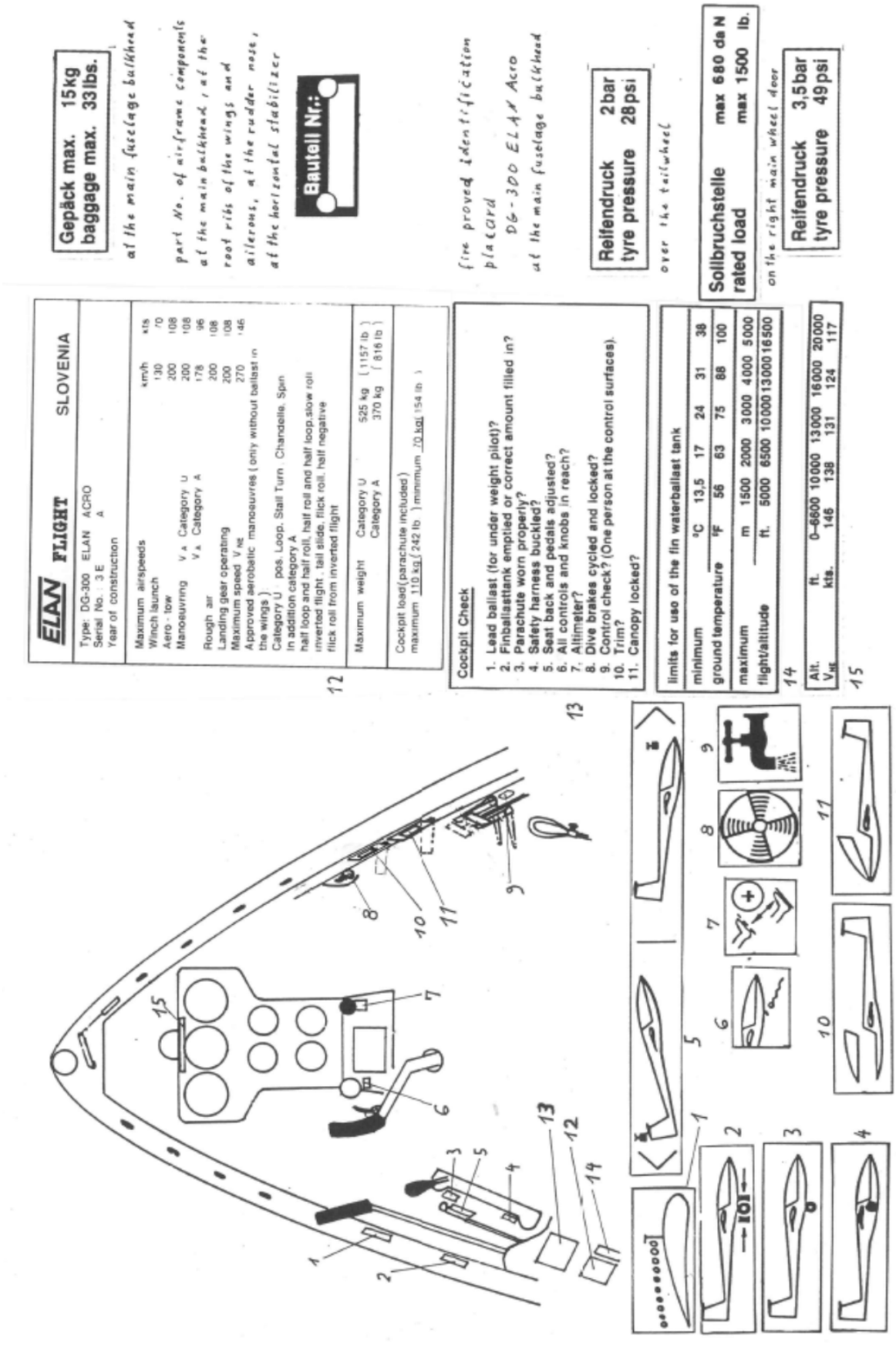


Diagram 10 Placards DG-300 Club ELAN

Caution: Placards 12 and 15 are only applicable if TN359/24 instruction B is applicable and if the DG-300 is not equipped with winglets, otherwise see diagram 12 resp. 13 or 14.

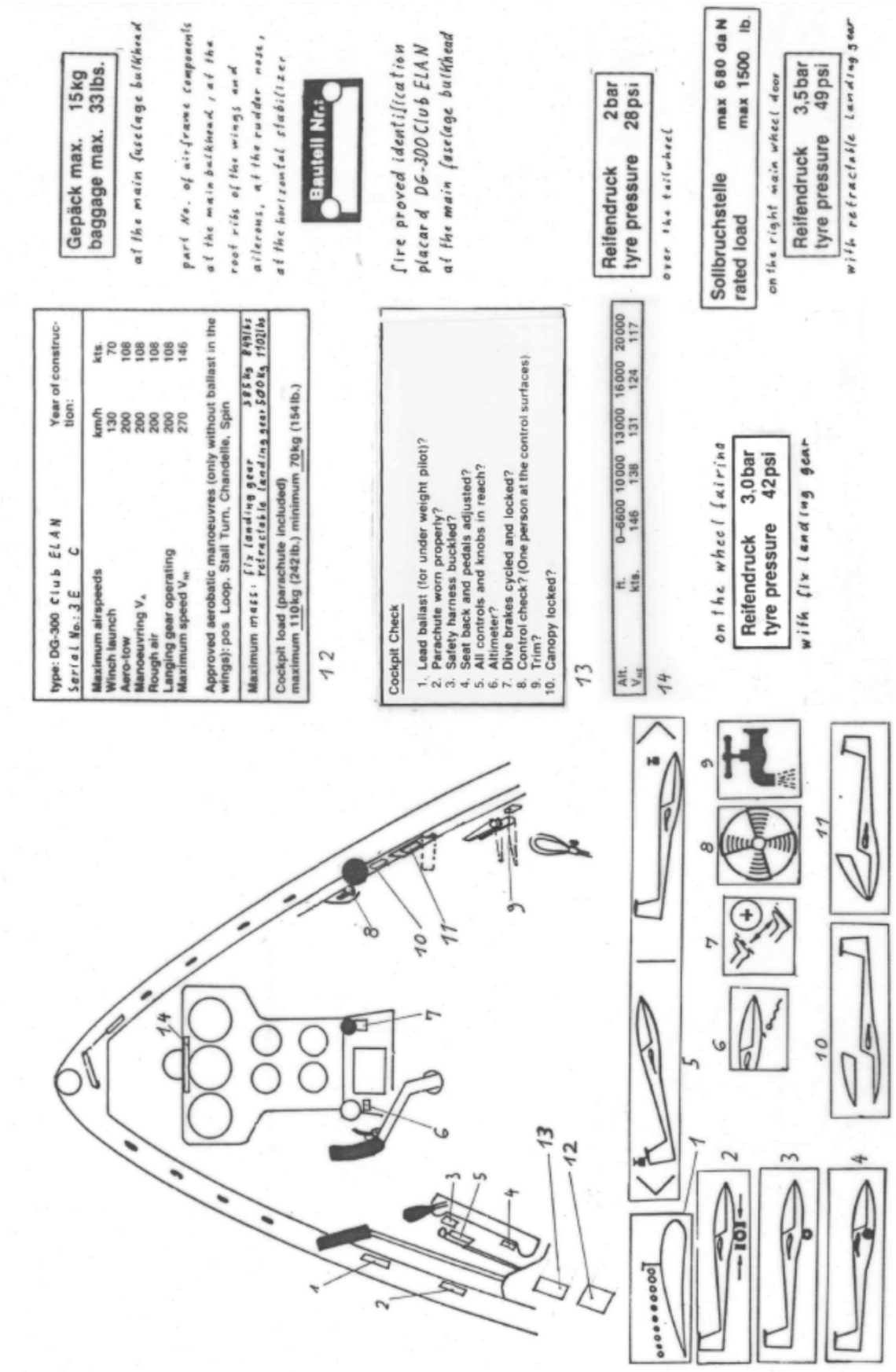


Diagram 11 Placards DG-300 Club ELAN ACRO

Caution: Placards 12 and 15 are only applicable if TN359/24 instruction B is applicable and if the DG-300 is not equipped with winglets, otherwise see diagram 12 resp. 13 or 14.

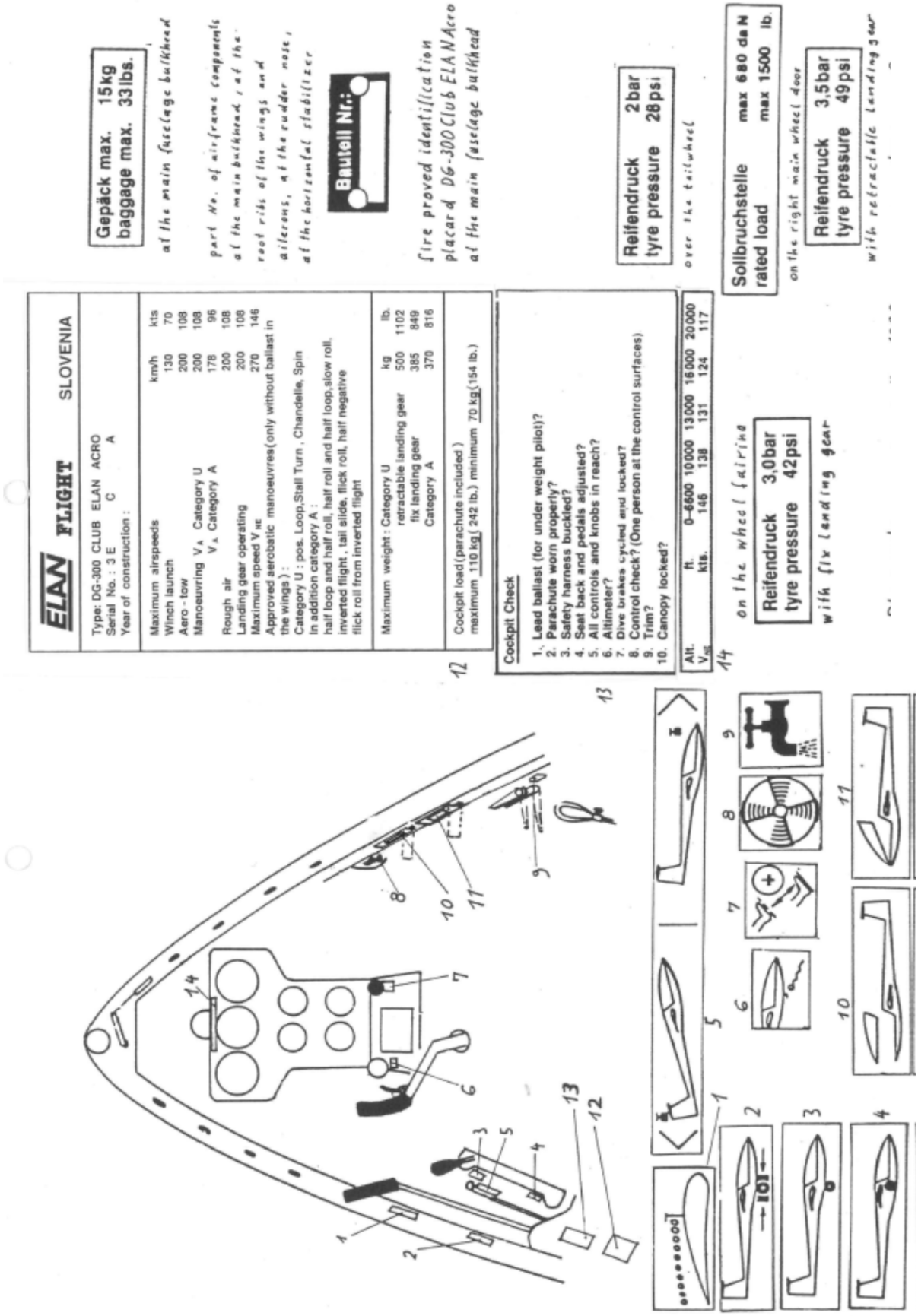


Diagram 12 Placards 12 and 15 for DG-300 all variants if TN359/4 instruction A (reduction of operating limitations) is applicable and if the DG-300 is not equipped with winglets, otherwise see diagram 13 or 14.

Type: DG – 300 Serial No.: 3E
Year of construction:

Maximum airspeeds	km/h	kts.
Winch launching	130	70
Aero-tow	175	95
Manoeuvring V_A	175	95
Rough air	175	95
Maximum speed V_{NE}	250	135

Aerobatics are not permitted

Maximum weights:
Category U 450 kg 992 lbs.

Cockpit load (parachute included)
Maximum: 110 kg (242 lbs.)
Minimum 70 kg (154 lbs.)

Type: DG – 300 ELAN ACRO Serial No.: 3E A
Year of construction:

Maximum airspeeds	km/h	kts.
Winch launching	130	70
Aero-tow	175	95
Manoeuvring V_A	175	95
Rough air	175	95
Maximum speed V_{NE}	250	135

Aerobatics are not permitted

Maximum weights:
Category U 450 kg 992 lbs.

Cockpit load (parachute included)
Maximum: 110 kg (242 lbs.)
Minimum 70 kg (154 lbs.)

Type: DG – 300 CLUB ELAN ACRO
Serial No.: 3E C A
Year of construction:

Maximum airspeeds	km/h	kts.
Winch launching	130	70
Aero-tow	175	95
Manoeuvring V_A	175	95
Rough air	175	95
Maximum speed V_{NE}	250	135

Aerobatics are not permitted

Maximum weights:
Category U retractable landing gear 450 kg 992 lbs.
Category U fixed landing gear 385 kg 849 lbs.

Cockpit load (parachute included)
Maximum: 110 kg (242 lbs.)
Minimum 70 kg (154 lbs.)

Type: DG – 300 CLUB ELAN
Serial No.: 3E C
Year of construction:

Maximum airspeeds	km/h	kts.
Winch launching	130	70
Aero-tow	175	95
Manoeuvring V_A	175	95
Rough air	175	95
Maximum speed V_{NE}	250	135

Aerobatics are not permitted

Maximum weights:
Category U retractable landing gear 450 kg 992 lbs.
Category U fixed landing gear 385 kg 849 lbs.

Cockpit load (parachute included)
Maximum: 110 kg (242 lbs.)
Minimum 70 kg (154 lbs.)

Altitude	m	0-3000	4000	5000	6000
VNE indicated	km/h	250	243	230	218

Altitude	ft	0-10000	13000	16000	20000
VNE indicated	kts.	135	131	124	117

Diagram 13

All DG-300 variants which have been equipped with winglets according to TN359/17 or TN DG-SS-08 if TN359/4 instruction A (reduction of operating limitations) is applicable:

Placards 12 and 15 of the pages above must be exchanged against the following placards:

Type: DG – 300 XXX Serial No.: 3E
Year of construction:

Maximum airspeeds	km/h	kts.
Winch launching	130	70
Aero-tow	175	95
Manoeuvring VA	175	95
Rough air	175	95
Maximum speed VNE	250	135

Aerobatics not approved

Maximum weight: 450 kg 992 lbs.

No water ballast in the wings is allowed during operation with winglets.

Cockpit load (parachute included)
Maximum: 110 kg (242 lbs.)
Minimum 70 kg (154 lbs.)

XXX= DG-300 Variant e.g.
Club ELAN Acro

Altitude	m	0-3000	4000	5000	6000
VNE indicated	km/h	250	243	230	218

Altitude	ft	0-10000	13000	16000	20000
VNE indicated	kts.	135	131	124	117

Diagram 14

All DG-300 variants which have been equipped with winglets according to TN359/17 or TN DG-SS-08 if TN359/4 instruction A (reduction of operating limitations) is not applicable:

Placards 12 and 15 of the pages above must be exchanged against the following placards:

All variants except for → Only DG-300 ELAN Acro and Club Acro

Type: DG – 300 XXX Serial No.: 3E
Year of construction:

Maximum airspeeds	km/h	kts.
Winch launching	130	70
Aero-tow	175	95
Manoeuvring VA	175	95
Rough air	175	95
Maximum speed VNE	250	135

Approved Aerobatics manoeuvres (only without water ballast): Spins, inside loop, stall turn, lazy eight, chandelle

Maximum weight no winglets	525 kg	1157 lbs.
Maximum weight with winglets	450 kg	992 lbs.

No water ballast in the wings is allowed during operation with winglets.

Cockpit load (parachute included)
Maximum: 110 kg (242 lbs.)
Minimum 70 kg (154 lbs.)

XXX= DG-300 Variant e.g.
Club ELAN Acro

Type: DG – 300 XXX Serial No.: 3E A
Year of construction:

Maximum airspeeds	km/h	kts.
Winch launching	130	70
Aero-tow	175	95
Manoeuvring VA	175	95
Rough air	175	95
Maximum speed VNE	250	135

Approved Aerobatics manoeuvres (only without water ballast): Spins, inside loop, stall turn, lazy eight, chandelle
In addition, category A (only without water ballast and without winglets):
half loop and half roll, half roll and half loop, slow roll, inverted flight, tail slide, flick roll, half negative flick roll from inverted flight

Maximum weight CAT U no winglets	525 kg	1157 lbs.
Maximum weight CAT A	370 kg	816 lbs.
Maximum weight CAT U with winglets	450 kg	992 lbs.

No water ballast in the wings is allowed during operation with winglets.

Cockpit load (parachute included)
Maximum: 110 kg (242 lbs.)
Minimum 70 kg (154 lbs.)

Altitude	m	0-3000	4000	5000	6000
VNE indicated	km/h	250	243	230	218

Altitude	ft	0-10000	13000	16000	20000
VNE indicated	kts.	135	131	124	117