0.1 Log 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.	Pages affected	Description	Date of issue	Approval	Date of approval
1	0-1, 0-2, 4-1, 4-2	15m Dillinger Winglets TN 6041	Dec. 2016	EASA	Feb. 1st, 2017

LS6-c18 manuals can be ordered from:

DG Flugzeugbau GmbH
Otto-Lilienthal-Weg 2
76646 Bruchsal
Germany

0.2 List of effective pages

Page		Issue Date
0-1	LBA-appr.	Dec.2016 / 6041
0-2	LBA-appr.	Dec.2016 / 6041
0-3	LBA-appr.	March 30,1994
1-1		March 30,1994
1-2		March 30,1994
2-1	LBA-appr.	March 30,1994
2-2	LBA-appr.	March 30,1994
2-3	LBA-appr.	March 30,1994
2-4	LBA-appr.	March 30,1994
2-5	LBA-appr.	March 30,1994
2-6	LBA-appr.	March 30,1994
2-7	LBA-appr.	March 30,1994
2-8	LBA-appr.	March 30,1994
2-9	LBA-appr.	March 30,1994
3-1	LBA-appr.	March 30,1994
3-2	LBA-appr.	March 30,1994
3-3	LBA-appr.	March 30,1994
3-4	LBA-appr.	March 30,1994
3-5	LBA-appr.	March 30,1994
4-1	LBA-appr.	Dec.2016 / 6041
4-2	LBA-appr.	Dec.2016 / 6041
4-3	LBA-appr.	March 30,1994
4-4	LBA-appr.	March 30,1994
4-5	LBA-appr.	March 30,1994
4-6	LBA-appr.	March 30,1994
4-7	LBA-appr.	March 30,1994
4-8	LBA-appr.	March 30,1994
4-9	LBA-appr.	March 30,1994
4-10	LBA-appr.	March 30,1994
4-11	LBA-appr.	March 30,1994
4-12	LBA-appr.	March 30,1994
4-13	LBA-appr.	March 30,1994
4-14	LBA-appr.	March 30,1994
4-14	LBA-appr.	March 30,1994
4-15	LBA-appr.	March 30,1994
4-16	LBA-appr.	March 30,1994
4-17	LBA-appr.	March 30,1994
5-1	LBA-appr.	March 30,1994
5-2	LBA-appr.	March 30,1994
6-1		March 30,1994
6-2		March 30,1994
7-1		March 30,1994
7-2		March 30,1994
7-2		March 30,1994
7-3		March 30,1994
7-4		March 30,1994
7-5		March 30,1994
8-1		March 30,1994
8-2		March 30,1994
8-3		March 30,1994
8-4		March 30,1994
8-5		March 30,1994
8-6		March 30,1994
9-1		March 30,1994

SECTION 4

		Page
4.1	Introduction	4-1
4.2	Rigging and De-rigging	4-2
	Conversion from 15 m span to 18 m span	
4.3	Daily Inspection	4-3, 4-4
4.4	Preflight Check	4-5
4.5	Normal Procedures	
4.5.0	Cockpit Checklist	4-6
4.5.1	Adjustment of Rudder Pedals	4-6
4.5.2	Adjustment of Backrest	4-6
4.5.3	Automatic Parachute Ripcord	4-6
4.5.4	Retractable Landing Gear	4-6
4.5.5	Wheel Brake	4-6
4.5.6	Trim System	4-7
4.5.7	Baggage Compartment Loading	4-7
4.5.8	Balancing of Pilots with insufficient Weight	4-7
4.5.9	Water Ballast Loading Procedure	4-7, 4-8
4.5.9a	Maximum Water Ballast (Loading Plan for Wing Tank only, no Tail Tank)	4-9, 4-10
4.5.9b	Maximum Water Ballast, Loading Instructions for Wing and Tail Tanks in use	4-11
4.5.9c	Maximum Water Ballast (Loading Plan for Wing and Tail Tanks in use)	4-11, 4-12
4.5.10	Vertical Tail Fin Water Ballast Loading Instructions and Plan	4-13
4.5.11	Winch Launch / Auto Tow	4-14
4.5.12	Aero Tow	4-14
4.5.13	Free Flight	4-15
4.5.14	High Altitude Flights	4-16
4.5.15	Sideslip	4-16
4.5.16	Landing	4-16
4.5.17	Flight in Rain	4-17
4.6	Postflight Check	4-17

4.1 INTRODUCTION

Section 4 provides checklist and amplified procedures for the conduct of normal operation. Normal operations associated with optional systems can be found in Section 9.

4.2 RIGGING AND DE-RIGGING

1. Before extending landing gear check for adequate ground clearance.
2. Clean and grease all pins and matching bushes including main pins.
3. Position flap handle to flap position 0° or 5°.

IMPORTANT NOTE: Rig wings in 15 m <49 ft> version always without winglets; for winglet installation see Normal Procedures on page 4.2.

4. Insert right spar end into fuselage, flaperon must be about neutral and watch for angle of dihedral.
5. Insert left spar end into fuselage, flaperon must be about neutral and watch for angle of dihedral.

WARNING: When flaperons are deflected downward during rigging, then the automatic flaperon connector prevents rigging. Do not use brute force!

IMPORTANT NOTE: The flaperon sandwich is pressure sensitive, handle carefully!

6. Insert main pins, when bushes are lined up correctly.
7. Secure main pins by placing handles behind spring loaded pegs.

4.2 RIGGING AND DE-RIGGING continued

8. Insert battery into the place, which was used during the last weighing and calculation of load range (see Data Placard in cockpit or page 6-2), connect to system and check operation.
   The battery must be equipped with an appropriate main fuse!
9. Fill water ballast system (for loading instructions see also pages 4-7) and
   check: a) opening of wing dump valves?
   Only when using the tail fin tank:
   CHECK a) if tail fin valve really opens.
   b) wing system completely water tight?
10. Check forward horizontal tail attachment for ball being fixed.
    WARNING: When ball is loose refer to page 8-3
11. Install horizontal tail, secure with slotted nut against tapered pins (using supplied key or suitable coin) until free from play and red marking on attachment bracket is invisible.
12. Install total energy tube and temporary equipment (barograph etc.).
13. Connect automatic parachute ripcord to red marked portion at main bulkhead using special loop only.
14. Seal wing fuselage intersection by taping upper and lower sides and cutout on upper horizontal tail fin.
15. **Check control system functions using a helper.**

IMPORTANT NOTE: The aileron sandwich is pressure sensitive, handle carefully!
Sufficient strength for handling around drive brackets.

16. Perform Daily Inspection according to page 4-3.

IMPORTANT NOTE: When parking with canopy open, according to position relative to sun, this may result in cockpit region fire hazard due to convex lens effect induced by its curvature.

Conversion from 15 m to 18 m Wing Span or vice versa

1. Remove sealing tape from wing tip intersection.
2. Turn locking nut in such direction that wing-side nut pushes tip outward. Additionally, move tip fore and aft to ease sliding out.
3. Remove 15 m tip and insert 18 m tip until locking nut starts catching. Unless outer flaperon connection pins are positioned correctly, installation is not possible.
4. Turn nut in direction that it pulls tip into position.
5. Lock nut until tip is free from play: play is zero, when force increases remarkably during turning of nut with supplied key. Turn not further than next notch catching ratchet.
6. Tape wing tip intersection.

IMPORTANT NOTE: Due to flutter considerations it is not allowed to mount additional masses (e.g. cameras) on the winglets!

DE-RIGGING

* Reverse assembly sequence.
* Air brake system should be unlocked to avoid permanent pressure on flexible covers and resulting possible deformations (over-center in wing).

WARNING: With wings positioned vertical in trailers with hinged cover, the air brakes may turn open and be damaged when closing the lid.

WARNING: When de-rigging with water ballast bags filled, 18 m wing tip must be removed beforehand!