

Rolladen Schneider Flugzeugbau GmbH	Technische Mitteilung Technical Bulletin	No.4022	Blatt 1 von 1 Page 1 of 1
			Ausgabe Edition 10.1.84

Gegenstand: Flughandbuch

Betroffen: Segelflugzeug LS4-a

Dringlichkeit: Sofort

Vorgang: Angabe der Vorbedingungen für Wolkenflug-Zulassung

Maßnahmen und Material: Austausch von Blatt 1-10 gegen Ausgabe Jan.84

Gewicht und SP.-Lage: Nicht betroffen

Hinweise: 1) Austausch Blatt 1-10 durch den Halter  
2) Eintrag des neuen Ausgabedatums in Blatt 0-5, Blätterverzeichnis und Änderungsstand  
3) Eintrag der Durchführung der TM im Wartungshandbuch Blatt 14-1, TM-LTA-Durchführungsbeleg, durch den Halter

Anhang: Blatt 1-10 Ausgabe Jan. 84

Anerkannt:



*J. J. J.*  
19. Jan. 1984

Subject: Flight Manual, Use of USA-version for other countries

Effectivity: Sailplane model LS4-a

Accomplishment: Immediately

Reason: Specifications of conditions for certification of cloud flying

Instructions and Material: Exchange Cover Page and pages 1-1. 1-2, 2-4 and 2-5 of USA-manual against Edition Jan.5, 1984

Weight and Balance: Not affected

Remarks: 1) Exchange pages  
2) Enter accomplishment on page 6-1 of Maintenance Manual, TB-AD-Accomplishment List

Approval of translation has been done by best knowledge and judgement.- In any case the original text in German language is authoritative.

Erstellt:	Ersetzt:	Geprüft:
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Betriebsgrenzen

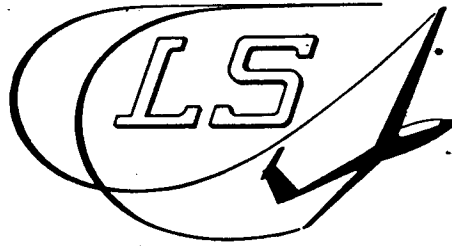
Betriebsarten: Sichtflug (VFR-Flug) ja

Wolkenflug ja, wenn aufgrund der vorhandenen Mindestausrüstung im  
Prüfschein vom Prüfer bestätigt und

- a) mit leeren Wassertanks bei LS4-a Tanks, Fassungsvermögen 80-85 Liter pro Flügel
- b) mit vollen Wassertanks nach Durchführung der TM 4023, Einbau von LS4 Tanks, Fassungsvermögen 65-70 Liter pro Flügel

Mindestausrüstung: für Sicht- und Wolkenflug im Wartungshandbuch Blatt 12-1 angegeben

Sollbruchstelle: für Windenschlepp und Flugzeugschlepp max. 600 kg



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## FLIGHT MANUAL

# LS4-a

This manual should be carried in the sailplane at all times.

Registration Signs: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Owner: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

German edition of Flight Manual approved under § 12(1)2. LuftGerPO.  
Published - 5. 1. 84

Because of responsibility of information a change of ownership should be reported to the manufacturer immediately.

Approval of translation has been done by best knowledge and judgement.  
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LOG OF REVISIONS

Revision No.	Pages affected	Description	LBA approval signature	Date
1	Cover, 1-1,1-2, 2-4,2-5	Modification for use for other countries than USA, especially cloud flying conditions and water ballast		

LS4-a Manuals can be ordered from

Rolladen Schneider Flugzeugbau GmbH or agent  
Mühlstrasse 10  
D-6073 Egelsbach  
Fed.Rep.of Germany

Edition - 5. 1. 84 *He*



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Page 1-1

Erstellt: 12. 4. 83 *He*

Ersetzt:

Gepprüft: 15. 4. 83 *Ukapha*

PAGES INCLUDED

Cover page		6-6	Nov 15, 1983
1-1	Jan 5, 1984	7-1	Nov 15, 1983
1-2	Jan 5, 1984	7-2	Nov 15, 1983
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1-4	Nov 15, 1983	8-2	Nov 15, 1983
1-5	Nov 15, 1983	8-3	Nov 15, 1983
1-5	Nov 15, 1983	8-4	Nov 15, 1983
1-6	Nov 15, 1983	8-5	Nov 15, 1983
1-7	Nov 15, 1983	8-6	Nov 15, 1983
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Edition - 5. 1. 84 *Le*



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Page 1-2

Erstellt: *10. 11. 83* *Heub*

Ersetzt:

Geprüft: *10. 11. 83* *Heub*

CENTER OF GRAVITY LIMITS

Position of C.G. in flight (without water ballast)

Maximum allowable:

forward C.G. position . . . . . 225 mm (8.86 in) aft of DP

rearward C.G. position . . . . . 400 mm (15.75 in) aft of DP without  
water ballast

. . . . . 330 mm (13 in) aft of DP with  
170 kg (375 lbs) water ballast

Datum Point (DP): Leading edge of wing at root, when under side  
of fuselage boom placed horizontal.

NOTE: Loading ballast will move the plane's C.G. forward, unless the C.G.  
is already at its maximum forward position.

MANOEUVRE LIMITS

Acrobatic manoeuvres not approved.

Spins not approved.

FLIGHT LOAD FACTOR LIMITS

At 190 km/h (103 kts, 118 mph) 5.3 G positive and 2.65 G negative.

At 280 km/h (151 kts, 174 mph) 4.0 G positive and 1.5 G negative.

KINDS OF OPERATION LIMITS

VFR-Flight permitted, minimum equipment see page 2-5.

Cloud Flying permitted, if sailplane is appropriately equipped, certified  
by inspector and

a) water ballast tanks are empty (LS4-a tanks, volume  
80-85 liters per wing <17.6-18.7 Imp.Gal, 21.1-22.4 US-Gal>)

b) water ballast tanks are filled after performing TB 4023,  
Installation of LS4 tanks (volume 65-70 liters per wing  
<14.3-15.4 Imp.Gal, 17.1-18.5 US-Gal>)

Minimum equipment see page 2-5.

Flight into known icing not approved.

Use of water ballast limited to non-freezing conditions.

CATEGORY OF AIRWORTHINESS

U (Utility) according to JAR 22.

Edition - 5. 1. 84



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Page 2-4

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MINIMUM EQUIPMENT LIST

1. Airspeed Indicator, scale 50-300 km/h (27-162 kts, 31-186 mph)  
Colour marking see page 2-2  
Approved types see Master Equipment List page 9-4  
Pressure pick-ups: Fuselage nose pitot (without nose release) or vertical tail fin pitot (with nose release) and forward fuselage side statics.
  2. Altimeter
  3. Magnetic compass
  4. Four piece seat belt harness
  5. Back cushion or parachute in compressed form should not be thinner than 80-100 mm (3-4 in)
  6. Checklist, type placard, data and loading placard, operating placards. For placards see pages 2-6 and 2-7.
  7. LS4-a Flight Manual
- Additionally for cloud flying:
8. Turn and bank indicator
  9. Variometer

} See Master Equipment List  
on pages 9-4 to 9-6

BREAK AWAY LINK IN TOW CABLE

Break away link in tow cable for winch launch and aero tow maximum 600 kg (1323 lbs).

Edition - 5. 1. 84 -



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Page 2-5

Erstellt: 5. 1. 84 *Geulke*

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Geprüft:

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