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## TYPE-CERTIFICATE DATA SHEET

**UK.TC.A.00055**

for  
LS Sailplanes

Type Certificate Holder  
**DG Aviation GmbH**  
Otto-Lilienthal-Weg 2  
76646 Bruchsal  
Germany

Model(s):	LS1-0	LS4
	LS1-a	LS4-a
	LS1-b	LS4-b
	LS1-c	LS6
	LS1-d	LS6-a
	LS1-e	LS6-b
	LS1-f	LS6-c
	LS1-f (45)	LS6-c18
	LS3	LS6-18w
	LS3-a	LS7
	LS3-17	LS7-WL

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## SECTION A: LS1-0

### A.I. General

Allgemeines

- |  |   |
|--|---|
| 1. Variant: (Baureihe)                                   | LS1-0   |
| 2. Airworthiness Category:<br>Lufttüchtigkeitskategorie: | Sailplane, - Utility "U"<br>Segelflugzeug – Utility „U“ |
| 3. Manufacturer:<br>Hersteller:                          | Mühlstr. 10<br>6073 Egelsbach Germany                   |
| 4.   | 25. November 1965                                       |
| 5.   | 23. January 1970  |
| 6. This TCDS cancels and replaces LBA TCDS No 262        |   |

### A.II. Certification Basis

- |  |   |
|--|---|
| 1. Reference Date for determining the applicable requirements:<br>Zulassungsbasis: | Defined by LBA letter I 4-262/65, dated 10. December 1965   |
| 2. Airworthiness Requirements:<br>Lufttüchtigkeitsforderungen:                     | Airworthiness Requirements for Sailplanes (LFS), 1966<br>Lufttüchtigkei   |
| 3. Special Conditions:<br>Sonderforderungen:                                       | None  |
| 4. Exemptions:<br>Ausnahmen:   | None  |
| 5. Deviations:<br>Abweichungen:  | None  |
|  | None  |
| 7. Requirements elected to comply:<br>Freiwillige Zusatzforderungen:               | Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965 |
| 8. Environmental Standards:<br>Umweltforderungen:                                  | - - -   |

### A.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Internal Description, issued 21. January 1970  
Musterdefinition:
  
2. Description: Single-seat, shoulder-winged sailplane in GRP- composite  
Beschreibung construction, T-type all flying horizontal tailplane, airbrakes  
(flap at trailing edge), fixed or retractable landing gear with  
wheel brake
  
3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 250 km/h)  
1 Parachute or back cushion (thickness compressed  
~10cm/4in)  
Additional Equipment refer to Flight and Maintenance  
Manual
  
4. Dimensions: Length 15,00 m  
Abmessungen: Länge:  
9,74 m<sup>2</sup>  
6,93 m
  
5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „Europa G 88 “, LBA Datasheet No.  
60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1  
Bug-Kupplung “E 72“, LBA-Kennblattnummer 60.230/1  
  
Note: Hooks 2-6 optional
  
6. Weak links: Ultimate Strength:  
Bruchfestigkeit  
- for winch and auto-tow launching max. 500 daN

7. Air Speeds: Geschwindigkeiten:	Never Exceed Speed - in rough air	$V_{NE}$ $V_{RA}$	220 km/h 150 km/h
8. Operations Capability:	Approved for VFR-flying in daytime only. Cloud flying according to the specifications in the Flight Manual		
9. Maximum Weights:	Max. Mass of Non-Lifting Parts		212 kg
10. Centre of Gravity Range: Schwerpunktsbereich::	Forward Limit Rearward Limit	210 mm aft of datum point 350 mm aft of datum point	
11. Datum:	wing leading edge at wing root rib		
12. Levelling Means:	lower side of rear fuselage boom horizontal		
13. Control surface deflections: Ruderausschläge:	Refer to Flight Manual Siehe Flughandbuch		
14. Minimum Flight Crew: Flugbesatzung:	1		
15. Maximum Passenger Seating Capacity: Max. Passagierkapazität:	Single seater		
16. Baggage/Cargo Compartments: Gepäck/Laderaum:			
17. Lifetime limitations: Lebensdauerbegrenzte Teile	Refer to Maintenance Manual Siehe Wartungshandbuch		



#### **A.IV. Operating and Service Instructions**

##### 1. Flight Manual:

Flight Manual for the sailplane LS1-0, issued September 1969 LBA-approved.

Or

oder

Flight Manual for the sailplane LS1, issued May 2011 as amended.

Note: In this document the variants LS1-0, LS1-a, LS1-b, LS1-c, LS1-d are combined in one document.

##### 2. Technical Manual:

Maintenance Manual for the sailplane LS1-0, issued September 1969.

Or

oder

Maintenance Manual for the sailplane LS1, issued May 2011 as amended.

Note: In this document the variants LS1-0, LS1-a, LS1-b, LS1-c, LS1-d are combined in one document.

##### 3. Repair Manual:

###### a. Included in maintenance manual.

Enthalten im Wartungshandbuch

##### 4. Manual for Operation:

###### a. Operating Instructions for the Tost release, latest approved version

#### **A.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. The type certification is valid from ser. no. 2 on
4. Installation of a nose release is permitted according to TN 58, LBA-approved.  
58, LBA-anerkannt, ist zulässig



## SECTION B: LS1-a

### B.I. General

Allgemeines

- |  |   |
|--|---|
| 1. Variant: (Baureihe)                                   | LS1-a   |
| 2. Airworthiness Category:<br>Lufttüchtigkeitskategorie: | Sailplane, - Utility "U"<br>Segelflugzeug – Utility „U“ |
| 3. Manufacturer:<br>Hersteller:                          | Mühlstr. 10<br>6073 Egelsbach Germany                   |
| 4.   | 25. November 1965                                       |
| 5. Type Certificate Date:<br>Datum der Musterulassung:   | 23. January 1970  |
| 6. This TCDS cancels and replaces LBA TCDS No 262        |   |

### B.II. Certification Basis

- |  |   |
|--|---|
| 1. Reference Date for determining the applicable requirements:<br>Zulassungsbasis: | Defined by LBA letter I 4-262/65, dated 10. December 1965   |
| 2. Airworthiness Requirements:<br>Lufttüchtigkeitsforderungen:                     | Airworthiness Requirements for Sailplanes (LFS), 1966<br>Lufttüchtigkei   |
| 3. Special Conditions:<br>Sonderforderungen:                                       | None  |
| 4. Exemptions:<br>Ausnahmen:   | None  |
| 5. Deviations:<br>Abweichungen:  | None  |
|  | None  |
| 7. Requirements elected to comply:<br>Freiwillige Zusatzforderungen:               | Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965 |
| 8. Environmental Standards:<br>Umweltforderungen:                                  | - - -   |

### B.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Internal Description, issued 21. January 1970  
Musterdefinition:
  
2. Description: Single-seat, shoulder-winged sailplane in GRP- composite  
Beschreibung construction, T-type all flying horizontal tailplane, Schempp-  
Hirth airbrakes, retractable landing gear with wheel brake
  
3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 250 km/h)  
1 Parachute or back cushion (thickness compressed  
~10cm/4in)  
Additional Equipment refer to Flight and Maintenance  
Manual
  
4. Dimensions: Length 15,00 m  
Abmessungen: Länge:  
9,74 m<sup>2</sup>  
6,93 m
  
5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „Europa G 88“, LBA Datasheet No.  
60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1  
Bug-Kupplung „E 72“, LBA-Kennblattnummer 60.230/1  
  
Note: Hooks 2-6 optional
  
6. Weak links: Ultimate Strength:  
Bruchfestigkeit  
- for winch and auto-tow launching max. 500 daN

7. Air Speeds: Geschwindigkeiten:	Never Exceed Speed - in rough air	$V_{NE}$ $V_{RA}$	220 km/h 150 km/h
8. Operations Capability: Betriebsarten	Approved for VFR-flying in daytime only. Cloud flying according to the specifications in the Flight Manual		
9. Maximum Weights: Höchstzulässige Massen:	Max. Mass of Non-Lifting Parts	212 kg	
10. Centre of Gravity Range: Schwerpunktsbereich:	Forward Limit	210 mm aft of datum point	
	Rearward Limit	350 mm aft of datum point	
11. Datum: Bezugsebene:	wing leading edge at wing root rib		
12. Levelling Means: Flugzeuglage:	lower side of rear fuselage boom horizontal		
13. Control surface deflections: Ruderausschläge:	Refer to Flight Manual Siehe Flughandbuch		
14. Minimum Flight Crew: Flugbesatzung:	1		
15. Maximum Passenger Seating Capacity: Max. Passagierkapazität:	Single seater		
16. Baggage/Cargo Compartments: Gepäck/Laderaum:			
17. Lifetime limitations: Lebensdauerbegrenzte Teile	Refer to Maintenance Manual Siehe Wartungshandbuch		

#### **B.IV. Operating and Service Instructions**

##### 1. Flight Manual:

Flight Manual for the sailplane LS1-a, issued September 1969 LBA-approved.

Or

oder

Flight Manual for the sailplane LS1, issued May 2011 as amended.

Note: In this document the variants LS1-0, LS1-a, LS1-b, LS1-c, LS1-d are combined in one document.

## 2. Technical Manual:

Maintenance Manual for the sailplane LS1-a, issued September 1969.

Or

oder

Maintenance Manual for the sailplane LS1, issued May 2011 as amended.

Note: In this document the variants LS1-0, LS1-a, LS1-b, LS1-c, LS1-d are combined in one document.

## 3. Repair Manual:

- a. Included in maintenance manual.

Enthalten im Wartungshandbuch

## 4. Manual for Operation:

- a. Operating Instructions for the Tost release, latest approved version

## B.V. Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. The type certification is valid from ser. no. 2 on
4. Installation of a nose release is permitted according to TN 58, LBA-approved.  
58, LBA-anerkannt, ist zulässig

## SECTION C: LS1-b

### C.I. General

Allgemeines

- |   |   |
|---|---|
| 1. Variant: (Baureihe)  | LS1-b   |
| 2. Airworthiness Category:<br>Lufttüchtigkeitskategorie:        | Sailplane, - Utility "U"<br>Segelflugzeug – Utility "U" |
| 3. Manufacturer:<br>Hersteller:                                 | Mühlstr. 10<br>6073 Egelsbach Germany                   |
| 4. Certification Application Date:<br>Datum der Antragstellung: | 25. November 1965                                       |
| 5.  | 23. January 1970  |
| 6. This TCDS cancels and replaces LBA TCDS No 262               |   |

### C.II. Certification Basis

- |  |   |
|--|---|
| 1. Reference Date for determining the applicable requirements:<br>Zulassungsbasis: | Defined by LBA letter I 4-262/65, dated 10. December 1965   |
| 2. Airworthiness Requirements:<br>Lufttüchtigkeitsforderungen:                     | Airworthiness Requirements for Sailplanes (LFS), 1966<br>Lufttüchtigkeit  |
| 3. Special Conditions:<br>Sonderforderungen:                                       | None  |
| 4. Exemptions:<br>Ausnahmen:   | None  |
| 5. Deviations:<br>Abweichungen:  | None  |
|  | None  |
| 7. Requirements elected to comply:<br>Freiwillige Zusatzforderungen:               | Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965 |
| 8. Environmental Standards:<br>Umweltforderungen:                                  | - - -   |

TCDS No.: UK.TC.A.00055

Date: 19 December 2022

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### C.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Internal Description, issued 21. March 1970  
Musterdefinition:
  
2. Description: Single-seat, shoulder-winged sailplane in GRP- composite  
Beschreibung construction, T-type all flying horizontal tailplane, airbrakes  
on upper wing surface, retractable landing gear with wheel  
brake
  
3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 250 km/h)  
1 Parachute or back cushion (thickness compressed  
~10cm/4in)  
Additional Equipment refer to Flight and Maintenance  
Manual
  
4. Dimensions: Length 15,00 m  
Abmessungen: Länge:  
9,74 m<sup>2</sup>  
6,93 m
  
5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „Europa G 88 “, LBA Datasheet No.  
60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1  
Bug-Kupplung “E 72“, LBA-Kennblattnummer 60.230/1  
  
Note: Hooks 2-6 optional
  
6. Ultimate Strength:  
Bruchfestigkeit



	- for winch and auto-tow launching		max. 500 daN
<b>7. Air Speeds:</b>	<b>Never Exceed Speed</b>	$V_{NE}$	220 km/h
Geschwindigkeiten:	- in rough air	$V_{RA}$	150 km/h
<b>8. Operations Capability:</b>	Approved for VFR-flying in daytime only.		
Betriebsart:	Cloud flying according to the specifications in the Flight Manual		
<b>9. Maximum Weights:</b>	<b>Max. Mass of Non-Lifting Parts</b>		212 kg
Höchstzulässige Massen:			
<b>10. Centre of Gravity Range:</b>	<b>Forward Limit</b>	210 mm aft of datum point	
Schwerpunktsbereich:	<b>Rearward Limit</b>	350 mm aft of datum point	
<b>11. Datum:</b>	wing leading edge at wing root rib		
Bezugsebene:			
<b>12. Levelling Means:</b>	lower side of rear fuselage boom horizontal		
<b>13. Control surface deflections:</b>	Refer to Flight Manual		
Ruderausschläge:	Siehe Flughandbuch		
<b>14. Minimum Flight Crew:</b>	1		
Flugbesatzung:			
<b>15. Maximum Passenger Seating Capacity:</b>	Single seater		
Max. Passagierkapazität:			
<b>16. Baggage/Cargo Compartments:</b>			
Gepäck/Laderaum:			
<b>17. Lifetime limitations:</b>	Refer to Maintenance Manual		
Lebensdauerbegrenzte Teile	Siehe Wartungshandbuch		

## C.IV. Operating and Service Instructions

Flight Manual for the sailplane LS1-b, issued September 1969 LBA-approved.

Or

oder

Flight Manual for the sailplane LS1, issued May 2011 as amended.

Note: In this document the variants LS1-0, LS1-a, LS1-b, LS1-c, LS1-d are combined in one document.

### 2. Technical Manual:

Maintenance Manual for the sailplane LS1-b, issued September 1969.

Or

oder

Maintenance Manual for the sailplane LS1, issued May 2011 as amended.

Note: In this document the variants LS1-0, LS1-a, LS1-b, LS1-c, LS1-d are combined in one document.

### 3. Repair Manual:

- a. Included in maintenance manual.

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### 4. Manual for Operation:

- a. Operating Instructions for the Tost release, latest approved version

## C.V. Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. The type certification is valid from ser. no. 2 on
4. Installation of a nose release is permitted according to TN 58, LBA-approved.  
58, LBA-anerkannt, ist zulässig

## SECTION D: LS1-c

### D.I. General

Allgemeines

- |  |   |
|--|---|
| 1. Variant: (Baureihe)                                   | LS1-c   |
| 2. Airworthiness Category:<br>Lufttüchtigkeitskategorie: | Sailplane, - Utility "U"<br>Segelflugzeug – Utility „U“ |
| 3. Manufacturer:<br>Hersteller:                          | Mühlstr. 10<br>6073 Egelsbach Germany                   |
| 4.   | 25. November 1965                                       |
| 5.   | 23. January 1970  |
| 6. This TCDS cancels and replaces LBA TCDS No 262        |   |

### D.II. Certification Basis

- |  |   |
|--|---|
| 1. Reference Date for determining the applicable requirements:<br>Zulassungsbasis: | Defined by LBA letter I 4-262/65, dated 10. December 1965   |
| 2. Airworthiness Requirements:<br>Lufttüchtigkeitsforderungen:                     | Airworthiness Requirements for Sailplanes (LFS), 1966<br>Lufttüchtigkei   |
| 3. Special Conditions:<br>Sonderforderungen:                                       | None  |
| 4. Exemptions:<br>Ausnahmen:   | None  |
| 5. Deviations:<br>Abweichungen:  | None  |
|  | None  |
| 7. Requirements elected to comply:<br>Freiwillige Zusatzforderungen:               | Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965 |
| 8. Environmental Standards:<br>Umweltforderungen:                                  | - - -   |

TCDS No.: UK.TC.A.00055

Date: 19 December 2022

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### D.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Internal Description, issued 21. March 1970  
Musterdefinition:
  
2. Description: Single-seat, shoulder-winged sailplane in GRP- composite  
Beschreibung construction, T-type all flying horizontal tailplane, airbrakes  
on upper wing surface, retractable landing gear with wheel  
brake, enlarged Rudder.
  
3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 250 km/h)  
1 Parachute or back cushion (thickness compressed  
~10cm/4in)  
Additional Equipment refer to Flight and Maintenance  
Manual
  
4. Dimensions: Length 15,00 m  
Abmessungen: Länge:  
9,74 m<sup>2</sup>  
7,03 m
  
5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „Europa G 88 “, LBA Datasheet No.  
60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1  
Bug-Kupplung “E 72“, LBA-Kennblattnummer 60.230/1  
  
Note: Hooks 2-6 optional
  
6. Ultimate Strength:  
Bruchfestigkeit

- for winch and auto-tow launching max. 500 daN

7. **Air Speeds:** Never Exceed Speed  $V_{NE}$  220 km/h  
Geschwindigkeiten: - in rough air  $V_{RA}$  150 km/h
8. **Operations Capability:** Approved for VFR-flying in daytime only.  
Betriebsarten Cloud flying according to the specifications in the Flight Manual
9. **Maximum Weights:** Max. Mass of Non-Lifting Parts 212 kg  
Höchstzulässige Massen:
10. **Centre of Gravity Range:** Forward Limit 210 mm aft of datum point  
Schwerpunktsbereich: Rearward Limit 350 mm aft of datum point
11. **Datum:** wing leading edge at wing root rib  
Bezugsebene:
12. **Levelling Means:** lower side of rear fuselage boom horizontal  
Flugzeuglage:
13. **Control surface deflections:** Refer to Flight Manual  
Ruderausschläge: Siehe Flughandbuch
14. **Minimum Flight Crew:** 1  
Flugbesatzung:
15. **Maximum Passenger Seating Capacity:** Single seater  
Max. Passagierkapazität:
16. **Baggage/Cargo Compartments:**  
Gepäck/Laderaum:
17. **Lifetime limitations:** Refer to Maintenance Manual  
Lebensdauerbegrenzte Teile Siehe Wartungshandbuch

#### **D.IV. Operating and Service Instructions**

##### 1. Flight Manual:

Flight Manual for the sailplane LS1-c, issued September 1969 LBA-approved.

Or

oder

Flight Manual for the sailplane LS1, issued May 2011 as amended.

Note: In this document the variants LS1-0, LS1-a, LS1-b, LS1-c, LS1-d are combined in one document.

##### 2. Technical Manual:

Maintenance Manual for the sailplane LS1-c, issued September 1969.

Or

oder

Maintenance Manual for the sailplane LS1, issued May 2011 as amended.

Note: In this document the variants LS1-0, LS1-a, LS1-b, LS1-c, LS1-d are combined in one document.

##### 3. Repair Manual:

###### a. Included in maintenance manual.

Enthalten im Wartungshandbuch

##### 4. Manual for Operation:

###### a. Operating Instructions for the Tost release, latest approved version

#### **D.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. The type certification is valid from ser. no. 2 on
4. Conversion into variant LS1-d is permitted according to TN No. 8 of Rolladen-Schneider.
5. Installation of a nose release is permitted according to TN 58, LBA-approved.

58, LBA-anerkannt, ist zulässig

## SECTION E: LS1-d

### E.I. General

1. Variant: (Baureihe) LS1-d
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility "U"
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach  
Germany
4. 03. January 1972
5. 21. June 1972
6. This TCDS cancels and replaces LBA TCDS No 262

### E.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 3-262/72, dated 07. January 1972  
Zulassungsbasis:
2. Airworthiness Requirements: Airworthiness Requirements for Sailplanes (LFS), 1966  
Lufttüchtigkeitsforderungen: Lufttüchtigkei
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:  
  
None
7. Requirements elected to comply: Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965  
Freiwillige Zusatzforderungen:
8. Environmental Standards: - - -  
Umweltforderungen:

### E.III. Technical Characteristics and Operational Limitations

TCDS No.: UK.TC.A.00055

Date: 19 December 2022

AW-DAW-TP-004

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Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Internal Description, issued 16. November 1971  
Musterdefinition:
2. Description: Single-seat, shoulder-winged sailplane in GRP- composite  
Beschreibung construction, T-type all flying horizontal tailplane, airbrakes on upper wing surface, retractable landing gear with wheel brake, enlarged rudder, wingwaterballast (optional)
3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 250 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
Additional Equipment refer to Flight and Maintenance Manual
4. Dimensions: 15 m  
Abmessungen  
9,74 m<sup>2</sup>  
7,03 m
5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „Europa G 88“, LBA Datasheet No. 60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1  
Bug-Kupplung „E 72“, LBA-Kennblattnummer 60.230/1
- Note: Hooks 2-6 optional
6. Ultimate Strength:  
Bruchfestigkeit  
- for winch and auto-tow launching max. 500 daN

7. Air Speeds: Geschwindigkeiten:	Never Exceed Speed - in rough air	$V_{NE}$ $V_{RA}$	240 km/h 160 km/h
8. Operations Capability: Betriebsarten:	Approved for VFR-flying in daytime only. Cloud flying according to the specifications in the Flight Manual		
9. Maximum Weights: Höchstzulässige Massen:	Max. Mass of Non-Lifting Parts		212 kg
10. Centre of Gravity Range: Schwerpunktsbereich:	Forward Limit Rearward Limit	210 mm aft of datum point 350 mm aft of datum point	
11. Datum: Bezugsebene:	wing leading edge at wing root rib		
12. Levelling Means: Flugzeuglage:	lower side of rear fuselage boom horizontal		
13. Control surface deflections: Ruderausschläge:	Refer to Flight Manual Siehe Flughandbuch		
14. Minimum Flight Crew: Flugbesatzung:	1		
15. Maximum Passenger Seating Capacity: Max. Passagierkapazität:	Single seater		
16. Baggage/Cargo Compartments: Gepäck/Laderaum:	1 compartment max. 12 kg 1 Gepäckfach      max. 12 kg		
17. Lifetime limitations: Lebensdauerbegrenzte Teile	Refer to Maintenance Manual Siehe Wartungshandbuch		

#### **E.IV. Operating and Service Instructions**

1. Flight Manual:

Flight Manual for the sailplane LS1-d, issued May 1972, LBA-approved.

Or

oder

Flight Manual for the sailplane LS1, issued May 2011 as amended.

Note: In this document the variants LS1-0, LS1-a, LS1-b, LS1-c, LS1-d are combined in one document.

2. Technical Manual:

Maintenance Manual for the sailplane LS1-d, issued May 1972.

Or

oder

Maintenance Manual for the sailplane LS1, issued May 2011 as amended.

Note: In this document the variants LS1-0, LS1-a, LS1-b, LS1-c, LS1-d are combined in one document.

3. Repair Manual:

a. Included in maintenance manual.

Enthalten im Wartungshandbuch

4. Manual for Operation:

a. Operating Instructions for the Tost release, latest approved version

#### **E.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. Installation of waterballast tanks is permitted according to TN 12, LBA-approved.
4. Installation of a nose release is permitted according to TN 58, LBA-approved.  
58, LBA-anerkannt, ist zulässig

## SECTION F: LS1-e

### F.I. General

1. Variant: (Baureihe) LS1-e
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach  
Germany
4. 13. February 1973
5. 12. May 1986
6. This TCDS cancels and replaces LBA TCDS No 262

### F.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 30-262/73, dated 23. February 1973  
Zulassungsbasis:
2. Airworthiness Requirements: Airworthiness Requirements for Sailplanes (LFS), 1966  
Lufttüchtigkeitsforderungen: Lufttüchtigkeit
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:
6. None
7. Requirements elected to comply: Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965  
Freiwillige Zusatzforderungen:
8. Environmental Standards: - - -  
Umweltforderungen:

### F.III. Technical Characteristics and Operational Limitations

TCDS No.: UK.TC.A.00055

Date: 19 December 2022

AW-DAW-TP-004

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1. **Type Design Definition:** Drawing List, issued 1. April 1986  
Musterdefinition: Zeichnungsliste, 1.4.1986
2. **Description:** Single-seat, shoulder-winged sailplane in GRP- composite construction, T-type horizontal tail plane with fin and elevator, enlarged rudder, airbrakes on upper wing surface, retractable landing gear with wheel brake, wingwaterballast  
Beschreibung
3. **Equipment:** Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 250 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
Additional Equipment refer to Flight and Maintenance Manual
4. **Dimensions:** 15 m  
Abmessungen  
9,74 m<sup>2</sup>  
7,03 m
5. **Launching Hooks:** 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „Europa G 88 “, LBA Datasheet No. 60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1  
Bug-Kupplung “E 72“, LBA-Kennblattnummer 60.230/1  
Note: Hooks 2-6 optional
6. **Ultimate Strength:**  
Bruchfestigkeit  
- for winch and auto-tow launching max. 500 daN

7. Air Speeds: Geschwindigkeiten:	Never Exceed Speed - in rough air	$V_{NE}$ $V_{RA}$	240 km/h 160 km/h
8. Operations Capability: Betriebsart:	Approved for VFR-flying in daytime only. Cloud flying according to the specifications in the Flight Manual		
9. Maximum Weights: Höchstzulässige Massen:	Max. Mass of Non-Lifting Parts		212 kg
10. Centre of Gravity Range: Schwerpunktsbereich:	Forward Limit Rearward Limit	210 mm aft of datum point 400 mm aft of datum point	
11. Datum: Bezugsebene:	wing leading edge at wing root rib		
12. Levelling Means: Flugzeuglage:	lower side of rear fuselage boom horizontal		
13. Control surface deflections: Ruderausschläge:	Refer to Flight Manual Siehe Flughandbuch		
14. Minimum Flight Crew: Minimale Flugbesatzung:	1		
15. Maximum Passenger Seating Capacity: Max. Passagierkapazität:	- - -		
16. Baggage/Cargo Compartments: Gepäck/Laderaum:			
17. Lifetime limitations: Lebensdauerbegrenzte Teile	Refer to Maintenance Manual Siehe Wartungshandbuch		

#### **F.IV. Operating and Service Instructions**

1. Flight Manual:

Flight Manual for the sailplane LS1-e, issued 1. April 1986, LBA-approved.

2. Technical Manual:

Maintenance Manual for the sailplane LS1-e, issued April 1986.

3. Repair Manual:

a. Included in maintenance manual.

Enthalten im Wartungshandbuch

4. Manual for Operation:

a. Operating Instructions for the Tost release, latest approved version

#### **F.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. This certification is valid for ser. no. 92 and 155
4. Installation of a nose release is permitted according to TN 58, LBA-approved.  
58, LBA-anerkannt, ist zulässig

## SECTION G: LS1-f

### G.I. General

Allgemeines

1. Variant: (Baureihe) LS1-f
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach Germany
4. Certification Application Date: 01. October 1973  
Datum der Antragstellung:
5. 30. August 1974
6. This TCDS cancels and replaces LBA TCDS No 262

### G.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 30-262/73, dated 19. October 1973  
Zulassungsbasis:
2. Airworthiness Requirements: Airworthiness Requirements for Sailplanes (LFS), 1966  
Lufttüchtigkeitsforderungen: Lufttüchtigkei
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:  
  
None
7. Requirements elected to comply: Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965  
Freiwillige Zusatzforderungen:
8. Environmental Standards: - - -  
Umweltforderungen:





7. Air Speeds: Geschwindigkeiten:	Never Exceed Speed - in rough air	$V_{NE}$ $V_{RA}$	250 km/h 170 km/h
8 Operations Capability: Betriebsart:	Approved for VFR-flying in daytime only. Cloud flying according to the specifications in the Flight Manual		
	Max. Mass of Non-Lifting Parts		230 kg
	Max. Mass of Non-Lifting Parts		250 kg
10. Centre of Gravity Range: Schwerpunktsbereich:	Forward Limit	220 mm aft of datum point	
	Rearward Limit	420 mm aft of datum point	
11. Datum: Bezugsebene:	wing leading edge at wing root rib		
12. Levelling Means: Flugzeuglage:	lower side of rear fuselage boom horizontal		
13. Control surface deflections: Ruderausschläge:	Refer to Flight Manual Siehe Flughandbuch		
14. Minimum Flight Crew: Minimale Flugbesatzung:	1		
15. Maximum Passenger Seating Capacity: Max. Passagierkapazität:	- - -		
16. Baggage/Cargo Compartments: Gepäck/Laderaum:			
17. Lifetime limitations: Lebensdauerbegrenzte Teile	Refer to Maintenance Manual Siehe Wartungshandbuch		

## **G.IV. Operating and Service Instructions**

### 1. Flight Manual:

Flight Manual for the sailplane LS1-f, issued July 1974; LBA-approved.

Or

Oder

Flight Manual for the sailplane LS1-f, issued May 2011 as amended.

Note: In this document the variants LS1-f, LS1-f (45) are combined in one document.

### 2. Technical Manual:

Maintenance Manual for the sailplane LS1-f, issued July 1974.

Or

Oder

Maintenance Manual for the sailplane LS1-f, issued May 2011 as amended.

Note: In this document the variants LS1-f, LS1-f (45) are combined in one document.

### 3. Repair Manual:

- a. Included in maintenance manual.

Enthalten im Wartungshandbuch

### 4. **Manual for Operation:**

- a. Operating Instructions for the Tost release, latest approved version

## **G.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. Installation of a nose release is permitted according to TN 59, LBA-approved.  
59, LBA-anerkannt, ist zulässig

4. Installation of winglets at the wing tips, increase of max. Mass of the non-lifting parts, improved wing-fuselage junctions and aileron end plates are permitted to TN 63-LS, EASA approved.

## SECTION H: LS1-f(45)

### H.I. General

Allgemeines

1. Variant: (Baureihe) LS1-f (45)
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach  
Germany
4. Certification Application Date: 17. March 1976  
Datum der Antragstellung:
5. 21. May 1976
6. This TCDS cancels and replaces LBA TCDS No 262

### H.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 311-262/76, dated 29. March 1976  
Zulassungsbasis:
2. Airworthiness Requirements: Airworthiness Requirements for Sailplanes (LFS), 1966  
Lufttüchtigkeitsforderungen: Lufttüchtigkeit
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:
6. None
7. Requirements elected to comply: Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965  
Freiwillige Zusatzforderungen:
8. Environmental Standards: - - -  
Umweltforderungen:

### H.III. Technical Characteristics and Operational Limitations

TCDS No.: UK.TC.A.00055

Date: 19 December 2022

AW-DAW-TP-004

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Technische Merkmale und Betriebsgrenzen

1. **Type Design Definition:** Technical Description by Rolladen-Schneider, issued 16. March 1976  
Musterdefinition:
  
2. **Description:** Single-seat, shoulder-winged sailplane in GRP- composite construction, T-type enlarged horizontal tail plane with fin and elevator, airbrakes on upper wing surface, spring mounted retractable landing gear with wheel brake, larger wingwaterballast  
Beschreibung
  
3. **Equipment:** Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
Additional Equipment refer to Flight and Maintenance Manual
  
4. **Dimensions:** 15 m  
Abmessungen 9,75 m<sup>2</sup>  
6,60 m
  
5. **Launching Hooks:** 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „Europa G 88 “, LBA Datasheet No. 60.230/2  
Note: Hooks 2-3 optional

6.	Ultimate Strength: Bruchfestigkeit		
	- for winch and auto-tow launching daN		max. 500
7. Air Speeds:	Never Exceed Speed	$V_{NE}$	270 km/h
Geschwindigkeiten:	Never Exceed Speed (see H.V.4)	$V_{NE}$	250 km/h
	- in rough air	$V_{RA}$	170 km/h
	- for gear operating (see H.V.4)	$V_{LO}$	250 km/h
8. Operations Capability:	Approved for VFR-flying in daytime only.		
Betriebsart:	Cloud flying according to the specifications in the Flight Manual		
	(option H.V.4) Approved for VFR-flying in daytime only.		
	Cloud flying prohibited		
9. Maximum Weights:	Max. Mass of Non-Lifting Parts		230 kg
Höchstzulässige Massen:	Max. Mass of Non-Lifting Parts (see H.V.4)		250 kg
10. Centre of Gravity Range:	Forward Limit	220 mm aft of datum point	
Schwerpunktsbereich:	Rearward Limit	420 mm aft of datum point	
11. Datum:	wing leading edge at wing root rib		
Bezugsebene:			
12. Levelling Means:	lower side of rear fuselage boom horizontal		
Flugzeuglage:			
13. Control surface deflections:	Refer to Flight Manual / Operating Manual		
Ruderausschläge:	Siehe Flughandbuch / Betriebshandbuch		
14. Minimum Flight Crew:	1		
Minimale Flugbesatzung:			
15. Maximum Passenger Seating Capacity:	- - -		
Max. Passagierkapazität:			
16. Baggage/Cargo Compartments:			
Gepäck/Laderaum:			

17. Lifetime limitations:  
Lebensdauerbegrenzte Teile

Refer to Maintenance Manual  
Siehe Wartungshandbuch



## H.IV. Operating and Service Instructions

### 1. Flight Manual:

Flight Manual for the sailplane LS1-f (45), issued July 1974; LBA-approved.

Or

Oder

Flight Manual for the sailplane LS1-f, issued May 2011 as amended.

Note: In this document the variants LS1-f, LS1-f (45) are combined in one document.

### 2. Technical Manual:

Maintenance Manual for the sailplane LS1-f, issued July 1974.

Or

Oder

Maintenance Manual for the sailplane LS1-f, issued May 2011 as amended.

Note: In this document the variants LS1-f, LS1-f (45) are combined in one document.

### 3. Repair Manual:

#### a. Included in maintenance manual.

Enthalten im Wartungshandbuch

### 4. Manual for Operation:

#### a. Operating Instructions for the Tost release, latest approved version

## H.V. Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. This certification is valid for ser. no. 432 and 443
4. Installation of winglets at the wing tips, increase of max. Mass of the non-lifting parts, improved wing-fuselage junctions and aileron end plates are permitted to TN 63-LS, EASA approved.  
Der Einbau von Winglets an den Flügelenden, Erhöhung der Masse der Nichttragenden Teile, Flügel-Rumpf Übergänge und Querruder-Endscheiben sind nach Angaben der TM 63-LS, EASA anerkannt zulässig.

## SECTION I: LS3

### I.I. General

Allgemeines

1. Variant: (Baureihe) LS3
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach  
Germany
4. Application Date: 15. October 1975  
Datum der Antragstellung:
5. 28. January 1977
6. This TCDS cancels and replaces LBA TCDS No 317

### I.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 3-317/75, dated 28. November 1975  
Zulassungsbasis:
2. Airworthiness Requirements: Airworthiness Requirements for Sailplanes and powered Sailplanes (LFSM), issue 1975  
Lufttüchtigkeitsforderungen:
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:  
  
None
7. Requirements elected to comply: Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965  
Freiwillige Zusatzforderungen:

8. Environmental Standards: - - -  
Umweltforderungen:

### I.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Drawing List, issue 3. December 1976  
Musterdefinition:
2. Description: Single-seat, midwing sailplane in GRP- composite construction,  
Beschreibung T-type horizontal tailplane with fin and elevator, airbrakes on upper wing surface, spring mounted retractable landing gear with wheel brake, flaperons, waterballast in the wings
3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4 in)  
Additional Equipment refer to Flight and Maintenance Manual
4. Dimensions: 15 m  
Abmessungen 10,50 m<sup>2</sup>  
6,75 m
5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „ Europa G 88 “, LBA Datasheet No. 60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1
6. Weak links: Ultimate Strength:  
Bruchfestigkeit  
- for winch and auto-tow launching max. 600 daN

7. Air Speeds: Geschwindigkeiten:	Never Exceed Speed - in rough air bei starker Turbulenz - with flaps at 0° and -7° - with flaps at +10° - in aero-tow	V <sub>NE</sub> V <sub>RA</sub> V <sub>FE</sub> V <sub>FE</sub> V <sub>T</sub>	270 km/h 190 km/h 270 km/h 190 km/h 190 km/h
8. Operations Capability: Betriebsart:	Approved for VFR-flying in daytime only. Cloud flying according to the specifications in the Flight Manual		
9. Maximum Weights: Höchstzulässige Massen:	Max. Mass of Non-Lifting Parts		240 kg
10. Centre of Gravity Range: Schwerpunktsbereich:	Forward Limit Rearward Limit	250 mm aft of datum point 400 mm aft of datum point	
11. Datum: Bezugsebene (BE):	wing leading edge at wing root rib		
12. Levelling Means: Flugzeuglage:	lower side of rear fuselage boom horizontal		
13. Control surface deflections: Ruderausschläge:	Refer to Maintenance Manual Siehe Wartungshandbuch		
14. Minimum Flight Crew: Minimale Flugbesatzung:	1		
15. Maximum Passenger Seating Capacity: Max. Passagierkapazität:	- - -		
16. Baggage/Cargo Compartments: Gepäck/Laderaum:			
16. Lifetime limitations: Lebensdauerbegrenzte Teile	Refer to Maintenance Manual Siehe Wartungshandbuch		

#### I.IV. Operating and Service Instructions

##### 4. Flight Manual:

Flight Manual for the sailplane LS3, Issued December 1976 LBA-approved.

5. Technical Manual:

Maintenance Manual for the sailplane LS3, issued December 1976.

Or

oder

Maintenance Manual for the sailplane LS3, issued December 2009 as amended.

Note: In this document the variants LS3, LS3-a, LS3-17, are combined in one document.

6. Repair Manual:

- a. Included in maintenance manual.

Enthalten im Wartungshandbuch

4. Manual for Operation:

- a. Operating Instructions for the Tost release, latest approved version

**I.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. Installation of a nose release is permitted according to TN 3052, LBA-approved.
4. For ser. no. 454 different limits and operating and service instructions are valid:

Air Speeds: Manoeuvring Speed	V <sub>A</sub>	180 km/h
- in rough air	V <sub>RA</sub>	180 km/h
bei Flugzeugschlepp		

Operating and service instructions:

Flight Manual for the sailplane LS3/V1, Issue February 1978

Maintenance Manual for the sailplane LS3/V1, Issue February 1978

## SECTION J: LS3-a

### J.I. General

Allgemeines

1. Variant: (Baureihe) LS3-a
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach Germany
4. Application Date: 02. November 1977  
Datum der Antragstellung:
5. Type Certificate Date: 14. April 1978  
Datum der Musterzulassung:
6. This TCDS cancels and replaces LBA TCDS No 317

### J.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 3-317/77, dated 21. November 1977  
Zulassungsbasis:
2. Airworthiness Requirements: Airworthiness Requirements for Sailplanes and powered Sailplanes (LFSM), issue 1975  
Lufttüchtigkeitsforderungen:
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:
6. Deviations: None
7. Requirements elected to comply: Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965  
Freiwillige Zusatzforderungen:
8. Environmental Standards: - - -  
Umweltforderungen:

### J.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1) Type Design Definition: Drawing List, issue 7. April 1978

Musterdefinition:

2) Description:

Beschreibung

Single-seat, midwing sailplane in GRP- composite construction, T-type horizontal tailplane with fin and elevator, airbrakes on upper wing surface, spring mounted retractable landing gear with wheel brake, separate flaps and ailerons, waterballast in the wings

3) Equipment:

Ausrüstung

Min. Equipment:

Mindestausrüstung

1 Air speed indicator (up to 300 km/h)

1 Parachute or back cushion (thickness compressed ~10cm/4in)

Additional Equipment refer to Flight and Maintenance Manual

4) Dimensions:

Abmessungen

15 m

10,50 m<sup>2</sup>

6,86 m

5) Launching Hooks:

Schleppkupplungen:

1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2

2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2

3) Safety hook „ Europa G 88 “, LBA Datasheet No. 60.230/2

4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1

5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1

6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1

6. Weak links:

Ultimate Strength:

Bruchfestigkeit

- for winch and auto-tow launching

max. 600 daN

7. Air Speeds:

Geschwindigkeiten:

Never Exceed Speed

V<sub>NE</sub>

270 km/h

- in rough air bei starker Turbulenz	$V_{RA}$	190 km/h
- with flaps at 0° and -7°	$V_{FE}$	270 km/h
- with flaps at +5°, +10°	$V_{FE}$	190 km/h
- in aero-tow	$V_T$	190 km/h

8. **Operations Capability:** Approved for VFR-flying in daytime only.  
 Betriebsart: Cloud flying according to the specifications in the Flight Manual
9. **Maximum Weights:** Max. Mass of Non-Lifting Parts 230 kg  
 Höchstzulässige Massen:
10. **Centre of Gravity Range:** Forward Limit 250 mm aft of datum point  
 Schwerpunktsbereich: Rearward Limit 400 mm aft of datum point
11. **Datum:** wing leading edge at wing root rib  
 Bezugsebene (BE):
12. **Levelling Means:** lower side of rear fuselage boom horizontal  
 Flugzeuglage:
13. **Control surface deflections:** Refer to Maintenance Manual  
 Ruderausschläge: Siehe Wartungshandbuch
14. **Minimum Flight Crew:** 1  
 Minimale Flugbesatzung:
15. **Maximum Passenger Seating Capacity:** - - -  
 Max. Passagierkapazität:
16. **Baggage/Cargo Compartments:**  
 Gepäck/Laderaum:
17. **Lifetime limitations:** Refer to Maintenance Manual  
 Lebensdauerbegrenzte Teile: Siehe Wartungshandbuch

#### J.IV. Operating and Service Instructions

##### 5. Flight Manual:

Flight Manual for the sailplane LS3-a, issue June 1978, LBA-approved



## 6. Technical Manual:

Maintenance Manual for the sailplane LS3-a, issued June 1978.

Or

oder

Maintenance Manual for the sailplane LS3, issued December 2009 as amended.

Note: In this document the variants LS3, LS3-a, LS3-17, are combined in one document.

## 7. Repair Manual:

- a. Included in maintenance manual.

Enthalten im Wartungshandbuch

## 4. Manual for Operation:

- a. Operating Instructions for the Tost release, latest approved version

## J.V. Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. Installation of a nose release is permitted according to TN 3052, LBA-approved.
4. For ser. no. 3400 the following different description, limits, operating and service instructions are valid:

**J.I. 5.Type Certificate Date:** *Mai 27th, 1982*

*Datum der Musterzulassung:*

**J.II.1 Reference Date for** *Defined by LBA letter I 3-317/79, dated 11. January 1979*

**Applicable requirm.:**

*Zulassungsbasis:*

**J.III.1. Type Design Def.:**

*Musterdefinition:*

„Bauzeichnungen LS3-a, Werk-Nr. 3400“, vom 1.4.1079, LBA-  
anerkannt.

**2. Description:**

*Beschreibung:*

Single-seat, midwing sailplane in GRP- composite  
construction, T-type horizontal tailplane with fin and elevator,  
airbrakes on upper wing surface, spring mounted retractable  
landing gear with wheel brake, fixed wing profile, reduced  
aileron span, waterballast in the wings, modified fuselage and  
control system.

**9. Maximum Weights:**

*Höchstzulässige Massen:*

Max. Mass of Non-Lifting Parts

210 kg

**13. Control surface  
deflections:**

*Ruderausschläge:*

Aileron up 56 +/- 7 mm

Querruder down 27 +/- 5 mm

Survey point from  
the centerline of the  
control surface 130 mm

*Abstand zur Ruderachse*

Elevator up 56 +/- 5 mm

Höhenruder down 56 +/- 5 mm

Survey point from  
the centerline of the  
control surface 130 mm

*Abstand zur Ruderachse*

Rudder to both sides 185 +/- 10 mm

*Seitenruder*

Survey point from  
the centerline of the  
control surface 362 mm

*Abstand zur Ruderachse*

**J.IV. 1. *Flughandbuch für das Segelflugzeug LS3-a, Werk-Nr. 3400, Ausgabe April 1979, LBA-anerkannt (nur in Deutsch; only in German Language).***

**2. *Wartungshandbuch für das Segelflugzeug LS3-a, Werk-Nr. 3400, Ausgabe Januar 1982 (nur in Deutsch; only in German Language).***

## SECTION K: LS3-17

### K.I. General

Allgemeines

1. Variant: (Baureihe) LS3-17
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach Germany
4. 02. November 1977
5. 11. May 1979
6. This TCDS cancels and replaces LBA TCDS No 317

### K.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 3-317/77, dated 21. November 1977  
Zulassungsbasis:
2. Airworthiness Requirements: Airworthiness Requirements for Sailplanes and powered Sailplanes (LFSM), issue 1975  
Lufttüchtigkeitsforderungen:
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:  
  
None
7. Requirements elected to comply: Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965  
Freiwillige Zusatzforderungen:
8. Environmental Standards: - - -  
Umweltforderungen:

### K.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Overall document list, including LS3-17 Drawing List, issued  
Musterdefinition: 1. March 1979
2. Description: Single-seat, midwing sailplane in GRP- composite  
Beschreibung construction, T-type horizontal tailplane with fin and elevator,  
airbrakes on upper wing surface, spring mounted retractable  
landing gear with wheel brake, separate flaps and ailerons,  
waterballast in the wings, wing tip extensions.
3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed  
~10cm/4in)  
Additional Equipment refer to Flight and Maintenance  
Manual
4. Dimensions: 15 m 17 m  
Abmessungen  
10,50 m<sup>2</sup> 11,22 m<sup>2</sup>  
6,86 m 6,86 m
5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „ Europa G 88 “, LBA Datasheet No.  
60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1
6. Weak links: Ultimate Strength:  
Bruchfestigkeit  
- for winch and auto-tow launching max. 600 daN

7. Air Speeds: Geschwindigkeiten:	Never Exceed Speed	$V_{NE}$	270 km/h
	- in rough air bei starker Turbulenz	$V_{RA}$	190 km/h
	- with flaps at $0^\circ$ and $-7^\circ$	$V_{FE}$	270 km/h
	- with flaps at $+5^\circ$ , $+10^\circ$	$V_{FE}$	190 km/h
	- in aero-tow	$V_T$	190 km/h
	Never Exceed Speed	$V_{NE}$	250 km/h
	- in rough air bei starker Turbulenz	$V_{RA}$	160 km/h
	- with flaps at $0^\circ$	$V_{FE}$	250 km/h
	- with flaps at $+10^\circ$	$V_{FE}$	160 km/h
	- in aero-tow	$V_T$	160 km/h
8. Operations Capability: Betriebsart:	Approved for VFR-flying in daytime only. Cloud flying according to the specifications in the Flight Manual		
9. Maximum Weights: Höchstzulässige Massen:	Max. Mass of Non-Lifting Parts		230 kg
10. Centre of Gravity Range: Schwerpunktsbereich:	Forward Limit	250 mm aft of datum point	
	Rearward Limit	400 mm aft of datum point	
11. Datum: Bezugsebene (BE):	wing leading edge at wing root rib		
12. Levelling Means: Flugzeuglage:	lower side of rear fuselage boom horizontal		
13. Control surface deflections: Ruderausschläge:	Refer to Maintenance Manual Siehe Wartungshandbuch		
14. Minimum Flight Crew: Minimale Flugbesatzung:	1		
15. Maximum Passenger Seating Capacity: Max. Passagierkapazität:	- - -		
16. Baggage/Cargo Compartments: Gepäck/Laderaum:			
17. Lifetime limitations:	Refer to Maintenance Manual		

#### **K.IV. Operating and Service Instructions**

##### 7. Flight Manual:

Flight Manual for the sailplane LS3-17, issue December 1979, LBA-approved

##### 8. Technical Manual:

Maintenance Manual for the sailplane LS3-17, issued December 1979.

Or

oder

Maintenance Manual for the sailplane LS3, issued December 2009 as amended.

Note: In this document the variants LS3, LS3-a, LS3-17, are combined in one document.

##### 9. Repair Manual:

- a. Included in maintenance manual.

Enthalten im Wartungshandbuch

##### 4. Manual for Operation:

- a. Operating Instructions for the Tost release, latest approved version

#### **K.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. Usage of waterballast is not permitted with 17, 0 m wing span
4. Installation of a nose release is permitted according to TN 3052, LBA-approved.

## SECTION L: LS4

### L.I. General

Allgemeines

1. Variant: (Baureihe) LS4
2. Airworthiness Category:  
Lufttüchtigkeitskategorie: Sailplane, - Utility "U"  
Segelflugzeug – Utility "U"
3. Manufacturer:  
Hersteller: Mühlstr. 10  
6073 Egelsbach;  
Germany
4. 09. January 1980
5. 17. December 1980
6. This TCDS cancels and replaces LBA TCDS No 345

### L.II. Certification Basis

1. Reference Date for determining the applicable requirements:  
Zulassungsbasis: Defined by LBA letter I 3-345/80, dated 18. January 1980
2. Airworthiness Requirements:  
Lufttüchtigkeitsforderungen: Airworthiness Requirements for Sailplanes and powered Sailplanes (LFSM), issue 1975
3. Special Conditions:  
Sonderforderungen: None
4. Exemptions:  
Ausnahmen: None
5. Deviations:  
Abweichungen: None
7. Requirements elected to comply:  
Freiwillige Zusatzforderungen: None
7. Requirements elected to comply:  
Freiwillige Zusatzforderungen: Standards for Structural Substantiation of Glass Fibre Reinforced Plastic Components for Sailplanes, March 1965
8. Environmental Standards: ---

TCDS No.: UK.TC.A.00055

Date: 19 December 2022

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Umweltforderungen:

### L.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Master drawing list LS4, issued 01. October 1980, LBA approved  
Musterdefinition:
  
2. Description: Single-seat, shoulder-winged sailplane in GRP-composite construction, T-type horizontal tail plane with fin and elevator, Schempp-Hirth airbrakes on upper wing surface, water ballast tanks in wings, spring mounted retractable landing gear.  
Beschreibung
  
3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
Additional Equipment refer to Flight and Maintenance Manual
  
4. Dimensions: 15 m  
Abmessungen  
  
10,50 m<sup>2</sup>  
  
6,66 m
  
5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „ Europa G 88 “, LBA Datasheet No. 60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1
  
6. Ultimate Strength:  
Bruchfestigkeit  
- for winch and auto-tow launching max. 600 daN

7. Air Speeds: Never Exceed Speed  $V_{NE}$  270 km/h  
 Geschwindigkeiten: - in rough air  $V_{RA}$  180 km/h

8. Operations Capability: Approved for VFR-flying in daytime only.  
 Betriebsart: Cloud flying according to the specifications in the Flight Manual

9. Maximum Weights: Max. Mass of Non-Lifting Parts 230 kg \*)  
 Höchstzulässige Massen: Höchstzulässige Masse der nichttragenden Teile

\*) Max. mass of the non-lifting parts may be higher, refer to Flight Manual, page 1-6 and Maintenance Manual, section 2. TN 4049 (neo-winglets) has been performed

10. Centre of Gravity Range: Forward Limit 225 mm aft of datum point  
 Schwerpunktsbereich: Rearward Limit 375 \*\*) mm aft of datum point  
 Hintere Grenze 375 mm hinter Bezugspunkt

\*\*) According technical note TN LS-S-01 the rearward limit is 400 mm aft of datum point

Gemäß

11. Datum: wing leading edge at wing root rib  
 Bezugsebene (BE):

12. Levelling Means: lower side of rear fuselage boom horizontal  
 Flugzeuglage:

13. Control surface deflections: Refer to Maintenance Manual  
 Ruderausschläge: Siehe Wartungshandbuch

14. Minimum Flight Crew: 1  
 Minimale Flugbesatzung:

15. Maximum Passenger Seating Capacity: - - -  
 Max. Passagierkapazität:

16. Baggage/Cargo Compartments:  
 Gepäck/Laderaum:

17. Lifetime limitations: Refer to Maintenance Manual  
 Lebensdauerbegrenzte Teile: Siehe Wartungshandbuch

#### **L.IV. Operating and Service Instructions**

1. Flight Manual:

Flight Manual for the sailplane LS4, issue January 1981, LBA-approved

2. Technical Manual:

Maintenance Manual for the sailplane LS4, issued August 1983.

Or

Oder

Maintenance Manual for the sailplane LS4, issued May 2011 as amended.

Note: In this document the variants LS4, LS4-a and LS4-b are combined in one document.

3. Repair Manual:

a. Included in maintenance manual.

Enthalten im Wartungshandbuch

4. Manual for Operation:

a. Operating Instructions for the Tost release, latest approved version

#### **L.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. According to the technical bulletin TB-No. 4030 of Rolladen-Schneider it is possible to modify the glider optionally with a nose tow hook “E 85” and/or a winch tow hook “G 88”.
4. According to the technical bulletin TB-No. 4041 of Rolladen-Schneider it is possible to retrofit the glider optionally with a nose tow hook.

5. According to the technical bulletin TB-No. 4018 of Rolladen-Schneider a conversion of the glider into variant LS4-a is allowed.
  
6. According to the technical bulletin TB-No. 4047 of Rolladen-Schneider it is possible to increase the max. mass of non-lifting parts in order to allow full maximum cockpit load of 110 kg.

## SECTION M: LS4-a

### M.I. General

Allgemeine

1. Variant: (Baureihe) LS4-a
2. Airworthiness Category:  
Lufttüchtigkeitskategorie: Sailplane, - Utility "U"  
Segelflugzeug – Utility „U“
3. Manufacturer:  
Hersteller: Mühlstr. 10  
6073 Egelsbach;  
Germany
4. 14. January 1983
5. 31. May 1983
6. This TCDS cancels and replaces LBA TCDS No 345

### M.II. Certification Basis

1. Reference Date for determining  
the applicable requirements: Defined by LBA letter I 3-345/83, dated 24. January  
1983  
Zulassungsbasis:
2. Airworthiness Requirements: Joint Airworthiness Requirements for Sailplanes and  
Lufttüchtigkeitsforderungen: Powered Sailplanes (JAR 22), Change 2, September  
1982
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:
7. Requirements elected to  
comply: None  
Freiwillige Zusatzforderungen: Preliminary Standards for Structural Substantiation of  
Glass and Carbon Fibre Reinforced Plastic  
Components for Sailplanes and Powered Sailplanes,  
January 1981
8. Environmental Standards: - - -  
Umweltforderungen:

TCDS No.: UK.TC.A.00055

Date: 19 December 2022

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### M.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition:  
Musterdefinition: Master drawing list LS4, issued 01. October 1980, amended LBA approved
  
2. Description:  
Beschreibung: Single-seat, shoulder-winged sailplane in GRP-composite construction, T-type horizontal tail plane with fin and elevator, Schempp-Hirth airbrakes on upper wing surface, water ballast tanks in wings, spring mounted retractable landing gear.
  
3. Equipment:  
Ausrüstung: Min. Equipment:  
Mindestausrüstung  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
Additional Equipment refer to Flight and Maintenance Manual
  
4. Dimensions:  
Abmessungen: 15 m  
10,50 m<sup>2</sup>  
6,66 m
  
5. Launching Hooks:  
Schleppkupplungen: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „ Europa G 88 “, LBA Datasheet No. 60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1
  
6. Weak links:  
Ultimate Strength:  
Bruchfestigkeit  
- for winch and auto-tow launching max. 600 daN

7. Air Speeds: Geschwindigkeiten:	Never Exceed Speed - in rough air	$V_{NE}$ $V_{RA}$	280 km/h 190 km/h
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8. Operations Capability: Betriebsart:	Approved for VFR-flying in daytime only. Cloud flying according to the specifications in the Flight Manual		
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9. Maximum Weights: Höchstzulässige Massen:	Max. Mass of Non-Lifting Parts Höchstzulässige Masse der nichttragenden Teile	230 kg *)
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\*) Max. mass of the non-lifting parts may be higher, refer to Flight Manual, page 1-6 and Maintenance Manual, section 2.

Max. Mass of Non-Lifting Parts in case TN 4049 (neo-winglets) has been performed	250 kg
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10. Centre of Gravity Range: Schwerpunktsbereich:	Forward Limit Rearward Limit	225 mm aft of datum point 400 mm aft of datum point
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11. Datum: Bezugsebene (BE):	wing leading edge at wing root rib
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12. Levelling Means: Flugzeuglage:	lower side of rear fuselage boom horizontal
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13. Control surface deflections: Ruderausschläge:	Refer to Maintenance Manual Siehe Wartungshandbuch
--	---

14. Minimum Flight Crew: Minimale Flugbesatzung:	1
---	---

15. Maximum Passenger Seating Capacity: Max. Passagierkapazität:	- - -
---	-------

16. Baggage/Cargo Compartments: Gepäck/Laderaum:	
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17. Lifetime limitations: Lebensdauerbegrenzte Teile:	Refer to Maintenance Manual Siehe Wartungshandbuch
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#### M.IV. Operating and Service Instructions

TCDS No.: UK.TC.A.00055

Date: 19 December 2022

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1. Flight Manual:

Flight Manual for the sailplane LS4-a, issued January 1984

2. Technical Manual:

Maintenance Manual for the sailplane LS4-a, issued November 1983.

Or

Oder

Maintenance Manual for the sailplane LS4, issued Mai 2011 as amended.

Note: In this document the variants LS4, LS4-a, LS4-b are combined in one document.

3. Repair Manual:

a. Included in maintenance manual.

Enthalten im Wartungshandbuch

4. Manual for Operation:

a. Operating Instructions for the Tost release, latest approved version

**M.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. According to the technical bulletin TB-No. 4030 of Rolladen-Schneider it is possible to modify the glider optionally with a nose tow hook “E 85” and/or a winch tow hook “G 88”.
4. According to the technical bulletin TB-No. 4041 of Rolladen-Schneider it is possible to retrofit the glider optionally with a nose tow hook.
5. According to the technical bulletin TB-No. 4018 of Rolladen-Schneider a conversion of the glider LS4 into variant LS4-a is allowed.



6. According to the technical bulletin TB-No. 4047 of Rolladen-Schneider it is possible to increase the max. mass of non-lifting parts in order to allow full maximum cockpit load of 110 kg.

Gemäß Technischer Mitteilung TM-Nr. 4047 von Rolladen-Schneider kann das höchstzulässige Gewicht der nichttragenden Teile erhöht werden und damit die Zuladungsgrenze von 110 kg ausgenutzt werden.

## SECTION N: LS4-b

### N.I. General

Allgemeines

1. Variant: (Baureihe) LS4-b
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: for LS4-b from serial No. 4830 to 41056:  
Hersteller: Mühlstr. 10  
6073 Egelsbach  
Germany  
  
AMS-Flight d.o.o.  
Kavčičeva 4  
1000 Ljubljana Slovenia
4. Certification Application Date: 28. May 1991  
Datum der Antragstellung:
5. 31. August 1992
6. This TCDS cancels and replaces LBA TCDS No 345

### N.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 3-345/83, dated 24. January 1983  
Zulassungsbasis:
  2. Airworthiness Requirements: Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), Change 2, September 1982  
Lufttüchtigkeitsforderungen:
  3. Special Conditions: None  
Sonderforderungen:
  4. Exemptions: None  
Ausnahmen:
  5. Deviations: None  
Abweichungen:
- None

7. Requirements elected to comply:

Freiwillige Zusatzforderungen:

Preliminary Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, January 1981

Additional requirements for the installation of a water ballast system into the fin (for compensating the nose heavy moment of the pilot mass).

LBA-Ref.: I 4-I 413/89, dated October 25<sup>th</sup> 1989.

Pilotenmasse (I 4-I 413/89 vom 25.10.1989).

Additional requirements for the installation of a water ballast system into the fin (for compensating the nose heavy moment of water ballast in wing tanks). LBA-Ref.: I 4-I 413/89, dated October 25<sup>th</sup> 1989.

8. Environmental Standards:

- - -

Umweltforderungen:

### N.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition:

Musterdefinition:

Master drawing list LS4-b, issued June 26<sup>th</sup> 1992, amended 28<sup>th</sup> April 1995, LBA approved

2. Description:

Beschreibung

Single-seat, shoulder-winged sailplane in GRP-composite construction, T-type horizontal tail plane with fin and elevator, Schempp-Hirth airbrakes on upper wing surface, automatic control hook-ups, water ballast tanks in wings and optional in tail fin, spring mounted retractable landing gear.

3. Equipment:

Ausrüstung

Min. Equipment:

Mindestausrüstung

1 Air speed indicator (up to 300 km/h)

1 Parachute or back cushion (thickness compressed ~10cm/4in)

additionally if tail water ballast system is fitted:

1 Thermometer

Thermometer

1 Filling tube for tail tank

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions: 15 m  
Abmessungen 10,50 m<sup>2</sup>  
6,66 m
5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „ Europa G 88 “, LBA Datasheet No. 60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1
6. Weak links: Ultimate Strength:  
Bruchfestigkeit  
- for winch and auto-tow launching max. 670 daN
7. Air Speeds: Never Exceed Speed V<sub>NE</sub> 280 km/h  
Geschwindigkeiten: - in rough air V<sub>RA</sub> 190 km/h
8. Operations Capability: Approved for VFR-flying in daytime only.  
Betriebsart: Cloud flying according to the specifications in the Flight Manual
9. Maximum Weights: Max. Mass of Non-Lifting Parts 230 kg \*)  
Höchstzulässige Massen: Höchstzulässige Masse der nichttragenden Teile

\*) Max. mass of the non-lifting parts may be higher according to Flight Manual and Maintenance Manual as well as the below mentioned SB's.

Note: According to TN 4046 and TN 4047 (modification of the waterballast system) the max. mass of the non-lifting parts may be max. 267 kg.

Bemerkung: Durch wahlweise Änderung des Wasserballastsystems gem. TM 4046 und 4047 kann die MMax. Mass of in case TN 4049 (neo-winglets) 505 kg

Max. Mass of Non-Lifting Parts in case 250 kg  
TN 4049 (neo-winglets) has been performed

10. Centre of Gravity Range: Forward Limit 225 mm aft of datum point  
Schwerpunktsbereich: Rearward Limit 400 mm aft of datum point

11. Datum: wing leading edge at wing root rib  
Bezugsebene (BE):

12. Levelling Means: lower side of rear fuselage boom horizontal  
Flugzeuglage:

13. Control surface deflections: Refer to Maintenance Manual  
Ruderausschläge: Siehe Wartungshandbuch

14. Minimum Flight Crew: 1  
Minimale Flugbesatzung:

15. Maximum Passenger Seating Capacity: - - -  
Max. Passagierkapazität:

16. Baggage/Cargo Compartments:  
Gepäck/Laderaum:

17. Lifetime limitations: Refer to Maintenance Manual  
Lebensdauerbegrenzte Teile: Siehe Wartungshandbuch

## **N.IV. Operating and Service Instructions**

### 1. Flight Manual:

Flight Manual for the sailplane LS4-b, issued March 1992

In combination with TB 4034 (installed waterballast system in the vertical fin):

Flight Manual for the sailplane LS4-b, issued January 1995

### 2. Technical Manual:

Maintenance Manual for the sailplane LS4-b, issued April 1992.

In combination with TB 4034 (installed waterballast system in the vertical fin):

In Kombination mit der Technischen Mitteilung 4034 (Installation eines Wasserballastsystems in der Seitenflosse):

Maintenance Manual for the sailplane LS4-b, issued January 1995.

Or

Oder

Maintenance Manual for the sailplane LS4, issued Mai 2011 as amended.

Note: In this document the variants LS4, LS4-a and LS4-b are combined into one document.

### 3. Repair Manual:

#### a. Included in maintenance manual.

Enthalten im Wartungshandbuch

### 4. Manual for Operation:

#### a. Operating Instructions for the Tost release, latest approved version

## **N.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. According to the technical bulletin TB-No. 4034 of Rolladen-Schneider it is possible to modify the glider optionally with a tail water ballast system (tail tank).

Related Operating and Service Instructions see: N.IV.1. and N.IV.2.

.IV.1. und N.IV.2.

4. According to the technical bulletin TB-No. 4041 of Rolladen-Schneider it is possible to retrofit the glider optionally with a nose tow hook.
  
5. According to the technical bulletin TB-No. 4047 of Rolladen-Schneider it is possible to increase the max. mass of non-lifting parts in order to allow full maximum cockpit load of 110 kg.

## SECTION O: LS6

### O.I. General

Allgemeines

1. Variant: (Baureihe) LS6
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach  
Germany
4. Certification Application Date: 19. November 1981  
Datum der Antragstellung:
5. 15. May 1985
6. This TCDS cancels and replaces LBA TCDS No 357

### O.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 3-357/81, dated 25. November 1981  
Zulassungsbasis:
2. Airworthiness Requirements: Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), Change 2, September 1982  
Lufttüchtigkeitsforderungen:
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:
7. Requirements elected to comply: Preliminary Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, January 1981  
Freiwillige Zusatzforderungen:



8. Environmental Standards:        - - -  
Umweltforderungen:

### O.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition:        Master drawing list LS6, issued 15. May 1985, LBA approved  
Musterdefinition:

2. Description:                      Single-seat, shoulder-winged sailplane in GRP-CRP  
Beschreibung                      composite construction, T-type horizontal tail plane with fin  
and elevator, Schempp-Hirth airbrakes on upper wing  
surface, water ballast tanks in wings, spring mounted  
retractable landing gear.

3. Equipment:                        Min. Equipment:  
Ausrüstung                        Mindestausrüstung  
  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed  
~10cm/4in)  
  
Additional Equipment refer to Flight and Maintenance  
Manual

4. Dimensions:                        15 m  
Abmessungen  
  
10,50 m<sup>2</sup>  
  
6,66 m

5. Launching Hooks:                1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen:                2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „ Europa G 88 “, LBA Datasheet No.  
60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1

6. Weak links:                        Ultimate Strength:  
Bruchfestigkeit

	- for winch and auto-tow launching	max. 800 daN
<b>7. Air Speeds:</b>	Never Exceed Speed	$V_{NE}$ 270 km/h
Geschwindigkeiten:	- with flaps at -5	$V_{FE}$ 270 km/h
	- with flaps at L	$V_{FE}$ 160 km/h
<b>8. Operations Capability:</b>	Approved for VFR-flying in daytime only.	
Betriebsart:	Cloud flying according to the specifications in the Flight Manual	
<b>9. Maximum Weights:</b>	Max. Mass of Non-Lifting Parts	230 kg *)
Höchstzulässige Massen:	Höchstzulässige Masse der nichttragenden Teile	
	*) Max. mass of the non-lifting parts may be higher, refer to Flight Manual, page 1-5 and Maintenance Manual, section 2.	
<b>10. Centre of Gravity Range:</b>	Forward Limit	250 mm aft of datum point
Schwerpunktsbereich:	Rearward Limit	400 mm aft of datum point
<b>11. Datum:</b>	wing leading edge at wing root rib	
Bezugsebene (BE):		
<b>12. Levelling Means:</b>	lower side of rear fuselage boom horizontal	
Flugzeuglage:		
<b>13. Control surface deflections:</b>	Refer to Maintenance Manual	
Ruderausschläge:	Siehe Wartungshandbuch	
<b>14. Minimum Flight Crew:</b>	1	
Minimale Flugbesatzung:		
<b>15. Maximum Passenger Seating Capacity:</b>	---	
Max. Passagierkapazität:		
<b>16. Baggage/Cargo Compartments:</b>		
Gepäck/Laderaum:		
<b>17. Lifetime limitations:</b>	Refer to Maintenance Manual	
Lebensdauerbegrenzte Teile:	Siehe Wartungshandbuch	

#### **O.IV. Operating and Service Instructions**

1. Flight Manual:

Flight Manual for the sailplane LS6, issued May 1985, LBA-approved

2. Technical Manual:

Maintenance Manual for the sailplane LS6, issued November 1985.

Or

Oder

Maintenance Manual for the sailplane LS6, issued Mai 2011 as amended.

Note: In this document the variants: LS6, LS6-a, LS6-b, LS6-c, LS6-c18, LS6-18w are combined in one document.

3. Repair Manual:

a. Included in maintenance manual.

Enthalten im Wartungshandbuch

4. Manual for Operation:

a. Operating Instructions for the Tost release, latest approved version

#### **O.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. According to the technical bulletin TB-No. 6005 of Rolladen-Schneider it is allowed to modify the glider into the variant LS6-a optionally. The bulletin TB-No. 6005 of Rolladen-Schneider is LBA-approved.
4. According to the technical bulletin TB-No. 6018 of DG Flugzeugbau it is possible to retrofit the glider optionally with a nose tow hook.

## SECTION P: LS6-a

### P.I. General

1. Variant: (Baureihe) LS6-a
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach  
Germany
4. 12. June 1986
5. 04. September 1986
6. This TCDS cancels and replaces LBA TCDS No 357

### P.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 3-357/86, dated 19. June 1986  
Zulassungsbasis:
2. Airworthiness Requirements: Joint Airworthiness Requirements for Sailplanes and  
Lufttüchtigkeitsforderungen: Powered Sailplanes (JAR 22), Change 2, September 1982
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:  
  
None
7. Requirements elected to comply: Preliminary Standards for Structural Substantiation of  
Freiwillige Zusatzforderungen: Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, January 1981
8. Environmental Standards: - - -  
Umweltforderungen:

### P.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. **Type Design Definition:**  
Musterdefinition: Master drawing list LS6-a, issued 04. September 1986, LBA approved
2. **Description:**  
Beschreibung: Single-seat, shoulder-winged sailplane in GRP-CRP composite construction, T-type horizontal tail plane with fin and elevator, Schempp-Hirth airbrakes on upper wing surface, water ballast tanks in wings and optionally in the tail fin, spring mounted retractable landing gear.
3. **Equipment:**  
Ausrüstung: **Min. Equipment:**  
Mindestausrüstung  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
Additional Equipment refer to Flight and Maintenance Manual
4. **Dimensions:**  
Abmessungen: 15 m  
10,50 m<sup>2</sup>  
6,66 m
5. **Launching Hooks:**  
Schleppkupplungen: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „ Europa G 88 “, LBA Datasheet No. 60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1
6. **Weak links:**  
Ultimate Strength:  
Bruchfestigkeit  
- for winch and auto-tow launching max. 800 daN
7. **Air Speeds:**  
Geschwindigkeiten: Never Exceed Speed  $V_{NE}$  270 km/h  
- with flaps at -5  $V_{FE}$  270 km/h

- with flaps at L

V<sub>FE</sub>

160 km/h

8. Operations Capability:  
Betriebsart: Approved for VFR-flying in daytime only.  
Cloud flying according to the specifications in the Flight Manual
9. Maximum Weights:  
Höchstzulässige Massen: Max. Mass of Non-Lifting Parts 230 kg \*)  
Höchstzulässige Masse der nichttragenden Teile
- \*) Max. mass of the non-lifting parts may be higher, refer to Flight Manual, page 1-5 and Maintenance Manual, section 2-2.
10. Centre of Gravity Range:  
Schwerpunktsbereich: Forward Limit 250 mm aft of datum point  
Rearward Limit 400 mm aft of datum point
11. Datum:  
Bezugsebene (BE): wing leading edge at wing root rib
12. Levelling Means:  
Flugzeuglage: lower side of rear fuselage boom horizontal
13. Control surface deflections:  
Ruderausschläge: Refer to Maintenance Manual  
Siehe Wartungshandbuch
14. Minimum Flight Crew:  
Minimale Flugbesatzung: 1
15. Maximum Passenger Seating Capacity:  
Max. Passagierkapazität: - - -
16. Baggage/Cargo Compartments:  
Gepäck/Laderaum:
17. Lifetime limitations:  
Lebensdauerbegrenzte Teile: Refer to Maintenance Manual  
Siehe Wartungshandbuch

#### P.IV. Operating and Service Instructions

##### 1. Flight Manual:

Flight Manual for the sailplane LS6-a, issued October 1986, LBA-approved

##### 2. Technical Manual:

TCDS No.: UK.TC.A.00055

Date: Enter date

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Maintenance Manual for the sailplane LS6-a, issued January 1987.

Or

Oder

Maintenance Manual for the sailplane LS6, issued May 2011 as amended.

Note: In this document the variants: LS6, LS6-a, LS6-b, LS6-c, LS6-c18, LS6-18w are combined in one document.

### 3. Repair Manual:

- a. Included in maintenance manual.

Enthalten im Wartungshandbuch

### 4. Manual for Operation:

- a. Operating Instructions for the Tost release, latest approved version

### P.V. Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. According to the technical bulletin TB-No. 6005 of Rolladen-Schneider it is allowed to convert the glider LS6 into the variant LS6-a optionally. The bulletin TB-No. 6005 of Rolladen-Schneider is LBA-approved.
4. According to the technical bulletin TB-No. 6018 of DG Flugzeugbau it is possible to retrofit the glider optionally with a nose tow hook.

## SECTION Q: LS6-b

### Q.I. General

Allgemeines

1. Variant: (Baureihe) LS6-b
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach  
Germany
4. Certification Application Date: 29. September 1986  
Datum der Antragstellung:
5. 23. September 1987
1. This TCDS cancels and replaces LBA TCDS No 357

### Q.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 3-357/86, dated 02. October 1986  
Zulassungsbasis:
2. Airworthiness Requirements: Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), Change 2, September 1982  
Lufttüchtigkeitsforderungen:
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:
7. Requirements elected to comply: Preliminary Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, January 1981  
Freiwillige Zusatzforderungen:
8. Environmental Standards: - - -  
Umweltforderungen:



### Q.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Master drawing list LS6-b, issued 23. September 1987, LBA approved  
Musterdefinition:
  
2. Description: Single-seat, shoulder-winged sailplane in GRP-CRP composite construction, T-type horizontal tail plane with fin and elevator, Schempp-Hirth airbrakes on upper wing surface, water ballast tanks in wings and optionally in the tail fin, spring mounted retractable landing gear.  
Beschreibung
  
3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
Additional Equipment refer to Flight and Maintenance Manual
  
4. Dimensions: 15 m  
Abmessungen  
10,50 m<sup>2</sup>  
6,66 m
  
5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „ Europa G 88 “, LBA Datasheet No. 60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1
  
6. Weak links: Ultimate Strength:  
Bruchfestigkeit  
- for winch and auto-tow launching max. 800 daN

7. Air Speeds:	Never Exceed Speed	$V_{NE}$	270 km/h
Geschwindigkeiten:	- with flaps at -5	$V_{FE}$	270 km/h
	- with flaps at L	$V_{FE}$	160 km/h

8. Operations Capability:	Approved for VFR-flying in daytime only.		
Betriebsart:	Cloud flying according to the specifications in the Flight Manual		

9. Maximum Weights:	Max. Mass of Non-Lifting Parts	240 kg *)
Höchstzulässige Massen:	Höchstzulässige Masse der nichttragenden Teile	

\*) Max. mass of the non-lifting parts may be higher, refer to Flight Manual, section 2-4 and Maintenance Manual, chapter 2, but not more than 255 kg.

10. Centre of Gravity Range:	Forward Limit	250 mm aft of datum point
Schwerpunktsbereich:	Rearward Limit	400 mm aft of datum point

11. Datum:	wing leading edge at wing root rib
Bezugsebene (BE):	

12. Levelling Means:	lower side of rear fuselage boom horizontal
Flugzeuglage:	

13. Control surface deflections:	Refer to Maintenance Manual
Ruderausschläge:	Siehe Wartungshandbuch

14. Minimum Flight Crew:	1
Minimale Flugbesatzung:	

15. Maximum Passenger Seating Capacity:	- - -
Max. Passagierkapazität:	

16. Baggage/Cargo Compartments:	
Gepäck/Laderaum:	

17. Lifetime limitations:	Refer to Maintenance Manual
Lebensdauerbegrenzte Teile:	Siehe Wartungshandbuch

#### Q.IV. Operating and Service Instructions

##### 1. Flight Manual:

Flight Manual for the sailplane LS6-b, issued December 1987, LBA-approved

## 2. Technical Manual:

Maintenance Manual for the sailplane LS6-b, issued October 1987.

Or

Oder

Maintenance Manual for the sailplane LS6, issued May 2011 as amended.

Note: In this document the variants: LS6, LS6-a, LS6-b, LS6-c, LS6-c18, LS6-18w are combined in one document.

## 3. Repair Manual:

### a. Included in maintenance manual.

Enthalten im Wartungshandbuch

## 4. Manual for Operation:

### a. Operating Instructions for the Tost release, latest approved version

## Q.V. Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. According to the technical bulletin TB-No. 6018 of DG Flugzeugbau it is possible to retrofit the glider optionally with a nose tow hook.
4. For sailplane modified by TN-No 6043 the certification basis is amended as follows:  
JAR 22.49, 22.147, 22.177, 22.201, 22.203, 22.207, 22.221, 22.223, 22.251, 22.375, 22.601, 22.629 at Change 5.

## SECTION R: LS6-c

### R.I. General

Allgemeines

- |  |   |
|--|---|
| 1. Variant: (Baureihe)                                   | LS6-c   |
| 2. Airworthiness Category:<br>Lufttüchtigkeitskategorie: | Sailplane, - Utility "U"<br>Segelflugzeug – Utility „U“ |
| 3. Manufacturer:<br>Hersteller:                          | Mühlstr. 10<br>6073 Egelsbach<br>Germany                |
| 4. Application Date:<br>Datum der Antragstellung:        | 04. January 1990  |
| 5.   | 12. September 1991                                      |
| 6. This TCDS cancels and replaces LBA TCDS No 357        |   |

### R.II. Certification Basis

- |  |   |
|--|---|
| 1. Reference Date for determining the applicable requirements:<br>Zulassungsbasis: | Defined by LBA letter I 412-357/90, dated 10. January 1990  |
| 2. Airworthiness Requirements:<br>Lufttüchtigkeitsforderungen:                     | Joint airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), Change 4, June 1989  |
| 3. Special Conditions:<br>Sonderforderungen:                                       | None  |
| 4. Exemptions:<br>Ausnahmen:   | None  |
| 5. Deviations:<br>Abweichungen:  | None  |
| 7. Requirements elected to comply:<br>Freiwillige Zusatzforderungen:               | Preliminary Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, January 1981<br><br>Additional requirements for the installation of a water ballast system into the fin (for compensating the nose heavy moment of water ballast in wing tanks). |
| 8. Environmental Standards:<br>Umweltforderungen:                                  | - - -   |

TCDS No.: UK.TC.A.00055

Date: Enter date

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### R.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Master drawing list LS6-c, issued 20. June 1991, LBA approved.  
Musterdefinition:
2. Description: Single-seat, shoulder-winged sailplane in GRP-CRP composite construction, T-type horizontal tail plane with fin and elevator, Schempp-Hirth airbrakes on upper wing surface, water ballast tanks in wings and optionally in the tail fin, wing span variable by use of different wing tips, spring mounted retractable landing gear.  
Beschreibung
3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung
- 1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
additionally if tail water ballast system is fitted:
- 1 Thermometer  
Thermometer
- 1 Filling tube for tail tank  
Seitenflossen-Füllschlauch
- Additional Equipment refer to Flight and Maintenance Manual
4. Dimensions: 15 m 17,50 m  
Abmessungen 10,50 m<sup>2</sup> 11,31 m<sup>2</sup>  
6,80 m
5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen: 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „Europa G 88“, LBA Datasheet No. 60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1

6. Weak links:	Ultimate Strength: Bruchfestigkeit		
	- for winch and auto-tow launching		max. 825 daN
7. Air Speeds:	Never Exceed Speed	$V_{NE}$	270 km/h
Geschwindigkeiten:	- with flaps at -5	$V_{FE}$	270 km/h
	- with flaps at L	$V_{FE}$	160 km/h
8. Operations Capability:	Approved for VFR-flying in daytime only.		
Betriebsart:	Cloud flying according to the specifications in the Flight Manual		
9. Maximum Weights:	Max. Mass of Non-Lifting Parts		240 kg *)
Höchstzulässige Massen:	Höchstzulässige Masse der nichttragenden Teile		
	*) Max. mass of the non-lifting parts may be higher, refer to Flight Manual, section 2.4 and Maintenance Manual, chapter 2, but not more than 255 kg.		
10. Centre of Gravity Range:	Forward Limit	250 mm aft of datum point	
Schwerpunktsbereich:	Rearward Limit	400 mm aft of datum point	
11. Datum:	wing leading edge at wing root rib		
Bezugsebene (BE):			
12. Levelling Means:	lower side of rear fuselage boom horizontal		
Flugzeuglage:			
13. Control surface deflections:	Refer to Maintenance Manual		
Ruderausschläge:	Siehe Wartungshandbuch		
14. Minimum Flight Crew:	1		
Minimale Flugbesatzung:			
15. Maximum Passenger Seating Capacity:	- - -		
Max. Passagierkapazität:			
16. Baggage/Cargo Compartments:			
Gepäck/Laderaum:			
17. Lifetime limitations:	Refer to Maintenance Manual		
Lebensdauerbegrenzte Teile:	Siehe Wartungshandbuch		

## **R.IV. Operating and Service Instructions**

### 1. Flight Manual:

Flight Manual for the sailplane LS6-c, issued November 1990, LBA-approved

### 2. Technical Manual:

Maintenance Manual for the sailplane LS6-c, issued November 1990.

Or

Oder

Maintenance Manual for the sailplane LS6, issued May 2011 as amended.

Note: In this document the variants: LS6, LS6-a, LS6-b, LS6-c, LS6-c18, LS6-18w are combined in one document.

### 3. Repair Manual:

#### a. Included in maintenance manual.

Enthalten im Wartungshandbuch

### 4. Manual for Operation:

#### a. Operating Instructions for the Tost release, latest approved version

## **R.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. According to the technical bulletin TB-No. 6040 of Rolladen-Schneider it is possible to retrofit the glider optionally with a nose tow hook.  
Gemäß Technischer Mitteilung TM-Nr. 6040 von Rolladen-Schneider können Luftfahrzeuge wahlweise mit einer Bugkupplung nachgerüstet werden.

## SECTION S: LS6-c18

### S.I. General

Allgemeines

1. Variant: (Baureihe) LS6-c18
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach  
Germany
4. 10. September 1993
5. Type Certificate Date: 31. January 1995  
Datum der Musterzulassung:
6. This TCDS cancels and replaces LBA TCDS No 357

### S.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 414-357/93, dated 20. September 1993  
Zulassungsbasis:
2. Airworthiness Requirements: Joint airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), Change 4, June 1989  
Lufttüchtigkeitsforderungen:  
  
Additionally:  
Zusätzlich:  
Requirement JAR22.375 Winglets from JAR 22 Amendment 22/90/1, issued June 1990
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:  
  
None
7. Requirements elected to comply: Preliminary Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, January 1981  
Freiwillige Zusatzforderungen:



Additional requirements for the installation of a water ballast system into the fin (for compensating the nose heavy moment of water ballast in wing tanks).

8. Environmental Standards: - - -  
Umweltforderungen:

### S.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Master drawing list LS6-c18, issued 05. January 1995, LBA approved.  
Musterdefinition:

2. Description: Single-seat, shoulder-winged sailplane in GRP-CRP composite construction, T-type horizontal tail plane with fin and elevator, Schempp-Hirth airbrakes on upper wing surface, water ballast tanks in wings and optionally in the tail fin, wing span variable by use of different wing tips (15m tips without and 18m tips with winglets), spring mounted retractable landing gear.  
Beschreibung

3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
additionally if tail water ballast system is fitted:  
1 Thermometer  
Thermometer  
1 Filling tube for tail tank  
Seitenflossen-Füllschlauch

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions:	15 m	18,00 m
Abmessungen	10,50 m <sup>2</sup>	11,417 m <sup>2</sup>
	6,80 m	
	1,43 m	

5. Launching Hooks: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
Schleppkupplungen:

- 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2
- 3) Safety hook „Europa G 88“, LBA Datasheet No. 60.230/2
- 4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1
- 5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1
- 6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1

6. Weak links: Ultimate Strength:  
 Bruchfestigkeit  
 - for winch and auto-tow launching max. 825 daN

7. Air Speeds: Never Exceed Speed  $V_{NE}$  280 km/h  
 Geschwindigkeiten:  
 - with flaps at -5  $V_{FE}$  280 km/h  
 - with flaps at L  $V_{FE}$  150 km/h

8. Operations Capability: Approved for VFR-flying in daytime only.  
 Betriebsart: Cloud flying according to the specifications in the Flight Manual

9. Maximum Weights: Max. Mass of Non-Lifting Parts 235 kg \*)  
 Höchstzulässige Massen: Höchstzulässige Masse der nichttragenden Teile

\*) Max. mass of the non-lifting parts may be higher, refer to Flight Manual, section 2.4 and Maintenance Manual, chapter 2, but not more than 251 kg.

10. Centre of Gravity Range: Forward Limit 250 mm aft of datum point  
 Schwerpunktsbereich: Rearward Limit 400 mm aft of datum point

11. Datum: wing leading edge at wing root rib  
 Bezugsebene (BE):

12. Levelling Means: lower side of rear fuselage boom horizontal  
 Flugzeuglage:

13. Control surface deflections: Refer to Maintenance Manual  
 Ruderausschläge: Siehe Wartungshandbuch

14. Minimum Flight Crew: 1  
 Minimale Flugbesatzung:

15. Maximum Passenger Seating Capacity: - - -  
 Max. Passagierkapazität:

16. **Baggage/Cargo  
Compartments:**

Gepäck/Laderaum:

17. **Lifetime limitations:**

Lebensdauerbegrenzte Teile:

**Refer to Maintenance Manual**

Siehe Wartungshandbuch

## S.IV. Operating and Service Instructions

### 1. Flight Manual:

Flight Manual for the sailplane LS6-c18, issued March 1994, LBA-approved

### 2. Technical Manual:

Maintenance Manual for the sailplane LS6-c18, issued March 1994.

Or

Oder

Maintenance Manual for the sailplane LS6, issued May 2011 as amended.

Note: In this document the variants: LS6, LS6-a, LS6-b, LS6-c, LS6-c18, LS6-18w are combined in one document.

### 3. Repair Manual:

#### a. Included in maintenance manual.

Enthalten im Wartungshandbuch

### 4. Manual for Operation:

#### a. Operating Instructions for the Tost release, latest approved version

## S.V. Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. According to the technical bulletin TB-No. 6040 of Rolladen-Schneider it is possible to retrofit the glider optionally with a nose tow hook.  
Gemäß Technischer Mitteilung TM-Nr. 6040 von Rolladen-Schneider können Luftfahrzeuge wahlweise mit einer Bugkupplung nachgerüstet werden.
4. According to the technical bulletin TB-No. 6031 of Rolladen-Schneider a conversion of the variant LS6-c into variant LS6-c18 is possible.  
Gemäß Technischer Mitteilung TM-Nr. 6031 von Rolladen-Schneider können Luftfahrzeuge wahlweise von der Baureihe LS6-c in die Baureihe LS6-c18 umgewandelt werden.

## SECTION T: LS6-18w

### T.I. General

1. Variant: (Baureihe) LS6-18w
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach  
Germany  
  
AMS-Flight d.o.o.  
Kavčičeva 4  
1000 Ljubljana  
Slovenien
4. 16. November 1993
5. 31. January 1995
6. This TCDS cancels and replaces LBA TCDS No 357

### T.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 414-357/93, dated 23. November 1993  
Zulassungsbasis:
2. Airworthiness Requirements: Joint airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), Change 4, June 1989  
Lufttüchtigkeitsforderungen:  
  
Additionally:  
Zusätzlich:  
Requirement JAR22.375 Winglets from JAR 22 Amendment 22/90/1, issued June 1990
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:  
  
None

7. Requirements elected to comply:  
Freiwillige Zusatzforderungen: Preliminary Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, January 1981  
Additional requirements for the installation of a water ballast system into the fin (for compensating the nose heavy moment of water ballast in wing tanks).
8. Environmental Standards: - - -  
Umweltforderungen:

### T.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. Type Design Definition: Master drawing list LS6-18w, issued 05. January 1995, LBA approved.  
Musterdefinition:
2. Description: Single-seat, shoulder-winged sailplane in GRP-CRP composite construction, T-type horizontal tail plane with fin and elevator, Schempp-Hirth airbrakes on upper wing surface, water ballast tanks in wings and optionally in the tail fin, wing span variable by use of different wing tips (with winglets for 15m and 18m wing span), spring mounted retractable landing gear.  
Beschreibung
3. Equipment: Min. Equipment:  
Ausrüstung Mindestausrüstung  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
additionally if tail water ballast system is fitted:  
1 Thermometer  
Thermometer  
1 Filling tube for tail tank  
Seitenflossen-Füllschlauch

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions: 15 m 18,00 m  
Abmessungen  
10,50 m<sup>2</sup> 11,417 m<sup>2</sup>  
6,80 m  
1,43 m

5. Launching Hooks: Schleppekupplungen:
- 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2
  - 2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2
  - 3) Safety hook „Europa G 88“, LBA Datasheet No. 60.230/2
  - 4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1
  - 5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1
  - 6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1

6. Weak links: Ultimate Strength:  
Bruchfestigkeit
- |                                    |              |
|------------------------------------|--------------|
| - for winch and auto-tow launching | max. 825 daN |
|------------------------------------|--------------|

7. Air Speeds: Geschwindigkeiten:
- |                    |          |          |
|--------------------|----------|----------|
| Never Exceed Speed | $V_{NE}$ | 280 km/h |
| - with flaps at -5 | $V_{FE}$ | 280 km/h |
| - with flaps at L  | $V_{FE}$ | 150 km/h |

8. Operations Capability: Betriebsart:
- Approved for VFR-flying in daytime only.  
Cloud flying according to the specifications in the Flight Manual

9. Maximum Weights: Höchstzulässige Massen:
- |  |           |
|--|-----------|
| Max. Mass of Non-Lifting Parts                 | 240 kg *) |
| Höchstzulässige Masse der nichttragenden Teile |           |

\*) Max. mass of the non-lifting parts may be higher, refer to Flight Manual, section 2.4 and Maintenance Manual, chapter 2, but not more than 256 kg.

10. Centre of Gravity Range: Schwerpunktsbereich:
- |                |                           |
|----------------|---------------------------|
| Forward Limit  | 250 mm aft of datum point |
| Rearward Limit | 400 mm aft of datum point |

11. Datum: Bezugsebene (BE):
- wing leading edge at wing root rib

12. Levelling Means: Flugzeuglage:
- lower side of rear fuselage boom horizontal

13. Control surface deflections: Ruderausschläge:
- Refer to Maintenance Manual  
Siehe Wartungshandbuch

14. Minimum Flight Crew: Minimale Flugbesatzung:
- 1

15. Maximum Passenger Seating Capacity: ---  
Max. Passagierkapazität:

16. Baggage/Cargo Compartments:  
Gepäck/Laderaum:

17. Lifetime limitations: Refer to Maintenance Manual  
Lebensdauerbegrenzte Teile: Siehe Wartungshandbuch



#### **T.IV. Operating and Service Instructions**

1. Flight Manual:

Flight Manual for the sailplane LS6-18w, issued March 1994, LBA-approved

2. Technical Manual:

Maintenance Manual for the sailplane LS6-18w, issued March 1994.

Or

Oder

Maintenance Manual for the sailplane LS6, issued May 2011 as amended.

Note: In this document the variants: LS6, LS6-a, LS6-b, LS6-c, LS6-c18, LS6-18w are combined in one document.

3. Repair Manual:

a. Included in maintenance manual.

Enthalten im Wartungshandbuch

4. Manual for Operation:

a. Operating Instructions for the Tost release, latest approved version

#### **T.V. Notes**

1. Manufacturing is confined to industrial production.

2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.

3. According to the technical bulletin TB-No. 6040 of Rolladen-Schneider it is possible to retrofit the glider optionally with a nose tow hook.

Gemäß Technischer Mitteilung TM-Nr. 6040 von Rolladen-Schneider können Luftfahrzeuge wahlweise mit einer Bugkupplung nachgerüstet werden.

4. According to the technical bulletin TB-No. 6032 of Rolladen-Schneider a conversion of the variant LS6-c into variant LS6-18w is possible.

Gemäß Technischer Mitteilung TM-Nr. 6032 von Rolladen-Schneider können Luftfahrzeuge wahlweise von der Baureihe LS6-c in die Baureihe LS6-18w umgewandelt werden.

## SECTION U: LS7

### U.I. General

Allgemeines

- |  |   |
|--|---|
| 1. Variant: (Baureihe)                                   | LS7   |
| 2. Airworthiness Category:<br>Lufttüchtigkeitskategorie: | Sailplane, - Utility "U"<br>Segelflugzeug – Utility „U“ |
| 3. Manufacturer:<br>Hersteller:                          | Mühlstr. 10<br>6073 Egelsbach<br>Germany                |
| 4.   | 11. November 1987                                       |
| 5.   | 07. February 1989                                       |
| 6. This TCDS cancels and replaces LBA TCDS No 375        |   |

### U.II. Certification Basis

- |  |  |
|--|--|
| 1. Reference Date for determining the applicable requirements:<br>Zulassungsbasis: | Defined by LBA letter I 4-375/87, dated 19. November 1987  |
| 2. Airworthiness Requirements:<br>Lufttüchtigkeitsforderungen:                     | Joint airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), Change 3, September 1982  |
| 3. Special Conditions:<br>Sonderforderungen:                                       | None   |
| 4. Exemptions:<br>Ausnahmen:   | None   |
| 5. Deviations:<br>Abweichungen:  | None   |
| 7. Requirements elected to comply:<br>Freiwillige Zusatzforderungen:               | Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, May 1986. |
| 8. Environmental Standards:<br>Umweltforderungen:                                  | - - -  |

### U.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. **Type Design Definition:**  
Musterdefinition: Master drawing list LS7, issued 1. November 1988, LBA approved.
  
2. **Description:**  
Beschreibung: Single-seat, midwing sailplane in GRP-CRP- AFRP-composite construction, T-type horizontal tail plane with fin and elevator, airbrakes on upper wing surface, water ballast tanks in wings and optional in tail fin, spring mounted retractable landing gear.
  
3. **Equipment:**  
Ausrüstung  
**Min. Equipment:**  
Mindestausrüstung  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
additionally if tail water ballast system is fitted:  
1 Thermometer  
Thermometer  
1 Filling tube for tail tank  
Seitenflossen-Füllschlauch  
  
Additional Equipment refer to Flight and Maintenance Manual
  
4. **Dimensions:**  
Abmessungen  
  
15 m  
  
9,73 m<sup>2</sup>  
  
6,66 m
  
5. **Launching Hooks:**  
Schleppkupplungen:  
1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „ Europa G 88 “, LBA Datasheet No. 60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1
  
6. **Weak links:**  
Ultimate Strength:  
Bruchfestigkeit

- for winch and auto-tow launching max. 825 daN

7. Air Speeds: Never Exceed Speed  $V_{NE}$  270 km/h  
Geschwindigkeiten: - in rough air  $V_{RA}$  190 km/h

8. Operations Capability: Approved for VFR-flying in daytime only.  
Betriebsart: Cloud flying according to the specifications in the Flight Manual

9. Maximum Weights: Max. Mass with water ballast 486 kg  
Höchstzulässige Massen: Max. Mass of Non-Lifting Parts 235 kg \*)  
Höchstzulässige Masse der nichttragenden Teile

\*) Max. mass of the non-lifting parts may be higher, refer to Flight Manual, section 2.4 and Maintenance Manual, chapter 2, but not more than 249 kg.

10. Centre of Gravity Range: Forward Limit 250 mm aft of datum point  
Schwerpunktsbereich: Rearward Limit 400 mm aft of datum point

11. Datum: wing leading edge at wing root rib  
Bezugsebene (BE):

12. Levelling Means: lower side of rear fuselage boom horizontal  
Flugzeuglage:

13. Control surface deflections: Refer to Maintenance Manual  
Ruderausschläge: Siehe Wartungshandbuch

14. Minimum Flight Crew: 1  
Minimale Flugbesatzung:

15. Maximum Passenger Seating Capacity: - - -  
Max. Passagierkapazität:

16. Baggage/Cargo Compartments: -  
Gepäck/Laderaum:

17. Lifetime limitations: Refer to Maintenance Manual  
Lebensdauerbegrenzte Teile: Siehe Wartungshandbuch

#### U.IV. Operating and Service Instructions

##### 1. Flight Manual:

TCDS No.: UK.TC.A.00055

Date: Enter date

AW-DAW-TP-004

Copies of this document are not controlled.

Issue: 1

Page 100 of 107

Flight Manual for the sailplane LS7, issued April 1989, LBA-approved

2. Technical Manual:

Maintenance Manual for the sailplane LS7, issued April 1989.

Or

Oder

Maintenance Manual for the sailplane LS7, issued December 2009 as amended.

Note: In this document the variants LS7 and LS7-WL are combined in one document.

3. Repair Manual:

a. Included in maintenance manual.

Enthalten im Wartungshandbuch

4. Manual for Operation:

a. Operating Instructions for the Tost release, latest approved version

**U.V. Notes**

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. According to the technical bulletin TB-No. 7008 of Rolladen-Schneider a conversion of the glider into variant LS7-WL is possible.
4. For sailplane modified by TN-No 7018 the certification basis is amended as follows:  
JAR 22.49, 22.147, 22.177, 22.201, 22.203, 22.207, 22.221, 22.223, 22.251, 22.375, 22.601, 22.629 at Change 5.

## SECTION V: LS7-WL

### V.I. General

Allgemeines

1. Variant: (Baureihe) LS7-WL
2. Airworthiness Category: Sailplane, - Utility "U"  
Lufttüchtigkeitskategorie: Segelflugzeug – Utility „U“
3. Manufacturer: Mühlstr. 10  
Hersteller: 6073 Egelsbach  
Germany
4. Application Date: 02. March 1992  
Datum der Antragstellung:
5. 22. December 1992
6. This TCDS cancels and replaces LBA TCDS No 375

### V.II. Certification Basis

1. Reference Date for determining the applicable requirements: Defined by LBA letter I 414-375/92, dated 04. March 1992  
Zulassungsbasis:
2. Airworthiness Requirements: Joint airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), Change 4, June 1989, incl. Amendment 22/90/1  
Lufttüchtigkeitsforderungen:
3. Special Conditions: None  
Sonderforderungen:
4. Exemptions: None  
Ausnahmen:
5. Deviations: None  
Abweichungen:  
  
None
7. Requirements elected to comply: Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, July 1991  
Freiwillige Zusatzforderungen:
8. Environmental Standards: - - -

Umweltforderungen:

### V.III. Technical Characteristics and Operational Limitations

Technische Merkmale und Betriebsgrenzen

1. **Type Design Definition:**  
Musterdefinition: Master drawing list LS7 with amendment (wl), issued 16. November 1992, LBA approved.
  
2. **Description:**  
Beschreibung: Single-seat, midwing sailplane in GRP-CRP- AFRP-composite construction, T-type horizontal tail plane with fin and elevator, airbrakes on upper wing surface, water ballast tanks in wings and optional in tail fin, winglets, spring mounted retractable landing gear.
  
3. **Equipment:**  
Ausrüstung: **Min. Equipment:**  
Mindestausrüstung  
1 Air speed indicator (up to 300 km/h)  
1 Parachute or back cushion (thickness compressed ~10cm/4in)  
additionally if tail water ballast system is fitted:  
1 Thermometer  
Thermometer  
1 Filling tube for tail tank  
Seitenflossen-Füllschlauch  
  
Additional Equipment refer to Flight and Maintenance Manual
  
4. **Dimensions:**  
Abmessungen: 15 m  
  
9,73 m<sup>2</sup>  
  
6,66 m
  
5. **Launching Hooks:**  
Schleppkupplungen: 1) Safety hook „Europa G 72“, LBA Datasheet No. 60.230/2  
2) Safety hook „Europa G 73“, LBA Datasheet No. 60.230/2  
3) Safety hook „ Europa G 88 “, LBA Datasheet No. 60.230/2  
4) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1  
5) Nose tow hook „E 75“, LBA Datasheet No. 60.230/1  
6) Nose tow hook „E 72“, LBA Datasheet No. 60.230/1

6. Weak links:	Ultimate Strength: Bruchfestigkeit		
	- for winch and auto-tow launching		max. 825 daN
7. Air Speeds:	Never Exceed Speed	$V_{NE}$	270 km/h
Geschwindigkeiten:	- in rough air	$V_{RA}$	190 km/h
8. Operations Capability:	Approved for VFR-flying in daytime only.		
Betriebsart:	Cloud flying according to the specifications in the Flight Manual		
9. Maximum Weights:	Max. Mass with water ballast		486 kg
Höchstzulässige Massen:	Max. Mass of Non-Lifting Parts		235 kg *)
	Höchstzulässige Masse der nichttragenden Teile		
	*) Max. mass of the non-lifting parts may be higher, refer to Flight Manual, section 2.4 and Maintenance Manual, chapter 2, but not more than 249 kg.		
10. Centre of Gravity Range:	Forward Limit	250 mm aft of datum point	
Schwerpunktsbereich:	Rearward Limit	400 mm aft of datum point	
11. Datum:	wing leading edge at wing root rib		
Bezugsebene (BE):			
12. Levelling Means:	lower side of rear fuselage boom horizontal		
Flugzeuglage:			
13. Control surface deflections:	Refer to Maintenance Manual		
Ruderausschläge:	Siehe Wartungshandbuch		
14. Minimum Flight Crew:	1		
Minimale Flugbesatzung:			
15. Maximum Passenger Seating Capacity:	- - -		
Max. Passagierkapazität:			
16. Baggage/Cargo Compartments:			
Gepäck/Laderaum:			
17. Lifetime limitations:	Refer to Maintenance Manual		
Lebensdauerbegrenzte Teile:	Siehe Wartungshandbuch		



#### **V.IV. Operating and Service Instructions**

1. Flight Manual:

Flight Manual for the sailplane LS7-WL, issued October 1992, LBA-approved

2. Technical Manual:

Maintenance Manual for the sailplane LS7-WL, issued October 1992.

Or

Oder

Maintenance Manual for the sailplane LS7, issued December 2009 as amended.

Note: In this document the variants LS7 and LS7-WL are combined in one document.

3. Repair Manual:

a. Included in maintenance manual.

Enthalten im Wartungshandbuch

4. Manual for Operation:

a. Operating Instructions for the Tost release, latest approved version

#### **V.V. Notes**

1. Manufacturing is confined to industrial production.

2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.

3. According to the technical bulletin TB-No. 7008 of Rolladen-Schneider a conversion of the glider LS7 into variant LS7-WL is possible.

4. According to the technical bulletin TB-No. 7012 of Rolladen-Schneider it is possible to retrofit the glider optionally with a nose tow hook.

Gemäß Technischer Mitteilung TM-Nr. 7012 von Rolladen-Schneider können Luftfahrzeuge wahlweise mit einer Bugkupplung nachgerüstet werden.

5. For sailplane modified by TN-No 7018 the certification basis is amended as follows:

JAR 22.49, 22.147, 22.177, 22.201, 22.203, 22.207, 22.221, 22.223, 22.251, 22.375, 22.601, 22.629 at Change 5.

## Administration

### Acronyms and Abbreviations

Acronym / Abbreviation	Definition
AFRP	Aramid Fibre Reinforced Plastic
CAA	Civil Aviation Authority
CS	Certification Specification
CFRP	Carbon Fibre Reinforced Plastic
EASA	European Union Aviation Safety Agency
g	Load Factor
Kg	Kilogram
L	Litres
LBA	Luftfahrt-Bundesamt
RPM	Revolutions per minute
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TCH	Type Certificate Holder
VFR	Visual Flight Rules

## Type Certificate Holder Record

TCH Record	Period
DG Aviation GmbH Otto-Lilienthal-Weg 2 76646 Bruchsal Germany	Present. No changes.

## Amendment Record

TCDS Issue No.	TCDS Issue Date	Changes	TC Issue and Date
1	13 Dec 2022	This certificate supersedes EASA.A.095. All technical data taken from EASA.A.095 Issue 11. Change to section Q.V.4, U.V.4, V.V.5 for TN 6043 and TN 7018 (winglets) and amendment of certification basis (EASA.A.095 Issue 10). Change of TC Holder (EASA.095 Issue 11).	Issue 1 13 Dec 2022

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