

FEDERAL AVIATION AGENCY

161
 Sheet 1
 Revision 8
 SCHEMATIC
 SGS 1-23
 SGS 1-23D
 SGS 1-23F
 SGS 1-23H
 SGS 1-23H-15
 September 7, 1961

GLIDER SPECIFICATION NO. 161

Manufacturer Schweizer Aircraft Corporation
 County Airport
 Elmira, New York

I - Model SGS 1-23, 1 PCLM, Approved November 22, 1949; Model SGS 1-23D, 1 PCLM, Approved June 1, 1953; Models SGS 1-23F and SGS 1-23G, 1 PCLM, Approved June 12, 1958; Models SGS 1-23H and SGS 1-23H-15, 1 PCLM, Approved March 13, 1961.

Model SGS 1-23D same as SGS 1-23 Serial No. 12 and up except for increased maximum weight, wing, aileron, rudder and other minor changes.

Models SGS 1-23F and SGS 1-23G same as SGS 1-23D, Serial No. 25 and up, except for increase in wing span, minor wing detail construction, and incorporation of an enlarged vertical tail surface.

Model SGS 1-23H same as SGS 1-23G except for redesigned dive brakes and revised detachable wing tips. Model SGS 1-23H-15 same as SGS 1-23H except for shorter wing tips to reduce wing span to 15 meters (49 ft. 2 in.). Wing tips: Dwg. 23H-467 for SGS 1-23H and Dwg. 23D-472 for SGS 1-23H-15.

Type
 Airspeed limits

Class I

Serial Nos. 1 through 11:
 (See NOTE 2 for eligibility for increased glide and dive and spoiler speeds)

| | |
|------------------|-------------------|
| Glides or dive | 110 mph True Ind. |
| Airplane tow | 100 mph True Ind. |
| Auto-winch tow | 70 mph True Ind. |
| Spoiler extended | 110 mph True Ind. |

Serial Nos. 12 and up:

| | |
|------------------|-------------------|
| Glides or dive | 116 mph True Ind. |
| Airplane tow | 100 mph True Ind. |
| Auto-winch tow | 70 mph True Ind. |
| Spoiler extended | 116 mph True Ind. |

Serial Nos. 25 and up:

| | |
|------------------|-------------------|
| Glides or dive | 119 mph True Ind. |
| Airplane tow | 110 mph True Ind. |
| Auto-winch tow | 68 mph True Ind. |
| Spoiler extended | 119 mph True Ind. |

Serial Nos. 45 and up:

| | |
|----------------------|-------------------|
| Glides or dive | 110 mph True Ind. |
| Airplane tow | 110 mph True Ind. |
| Auto-winch tow | 68 mph True Ind. |
| Dive brakes extended | 110 mph True Ind. |

(terminal velocity)

(+12.9) to (+16). Serial Nos. 25 and up: (+12.8) to (+16).

Serial Nos. 1 through 11:

600 lbs. (See NOTE 2 for eligibility for increased weight).

Serial Nos. 12 and up: 660 lbs.

Serial Nos. 25 and up: 750 lbs.

1 at (-6.5 to -10.5 adjustable)

None

C.G. range
 Maximum weight

No. seats
 Baggage

Control surface movements

| | | | |
|-----------|-----------|--|----------|
| SGS 1-23: | | | |
| Elevator | 23° Up | | 23° Down |
| Rudder | 30° Right | | 30° Left |
| Aileron | 36° Up | | 18° Down |
| Spoilers | 80° Up | | 0° Down |

| | | | |
|------------|-----------|--|----------|
| SGS 1-23D: | | | |
| Elevator | 25° Up | | 25° Down |
| Rudder | 30° Right | | 30° Left |
| Aileron | 36° Up | | 18° Down |
| Spoilers | 80° Up | | 0° Down |

| | | | |
|--|-----------|--|----------|
| SGS 1-23F, SGS 1-23G, SGS 1-23H, and SGS 1-23H-15: | | | |
| Elevator | 25° Up | | 25° Down |
| Rudder | 28° Right | | 28° Left |
| Aileron | 36° Up | | 18° Down |
| Spoilers | 80° Up | | 0° Down |

Serial Nos. eligible

(SGS 1-23) 1 through 24.
 (SGS 1-23D) 25 through 33, 35 and 36.
 (SGS 1-23F) 34.
 (SGS 1-23G) 37 and up.

Required equipment

(SGS 1-23H and SGS 1-23H-15) 45 and up.
 Items 201(a) or (b), 401, 402 (SGS 1-23H, SGS 1-23H-15).

Specifications Pertinent to All Models

| | |
|---------------------|--|
| Datum | Wing leading edge at root . |
| Leveling means | Upper surface of stabilizer between front and rear spar near fuselage. |
| Certification basis | Glider Type Certificate No. 1G1 (CAR 5) |
| Production basis | Production Certificate No. 101 |

Equipment:

Landing Gear

201. Wheel

- (a) 5.00 x 4, Schweizer Model 1B213, with 4-ply rating tire
- (b) 5.00 x 4, Schweizer Model 1B216, with 4-ply rating tire

202. Schweizer circumferential brake

7 lbs. (+19)
 No weight change
 Neglect weight

Interior Equipment

401. Airspeed indicator

402. Shoulder harness installation according to Schweizer Aircraft Corporation Dwg. No. 23B-217

Neglect weight
 1.5 lbs. (+11)

Miscellaneous (not listed above)

601. Double spoilers installed according to Schweizer Aircraft Corporation Dwg. No. 23D-605 and 23D-606. Under wing spoiler movement 0° up 80° down.

1 lb. (+13)

NOTE 1. Suitable placards to cover the various pilot weights and positions must be installed in full view of the pilot as determined from the manufacturer's weight and balance report.

NOTE 2. Serial Nos. 1 through 11 also eligible at 660 lbs. maximum weight with the "Airspeed limits" indicated for Serial Nos. 12 and up, when the elevator is reinforced in accordance with Schweizer Aircraft Corporation's Drawing No. 23C304, change A.

Neglect weight change