Publication No. KLP-26-01

PUBLICATION INDEX

FOR

SGS 1-26

K & L SOARING, LLC

5996 STATE ROUTE 224

CAYUTA, NY 14824

Issued: 15 Feb 2010
Revised: 20 June 2010

PUBLICATION INDEX

REVISION PAGE

Change Description	Revision Date
Publication Issuance	15 Feb 2010
Revised to Change to SA-001.6 from SA-001.5	20 June 2010

1-26 Publication List

Publication No.	Title	Date Issued	Revised/ Reissued
SSP-PH-2	SGS 1-26 A thru E Flight – Erection – Maintenance Manual	Jan 1978	

Note: The following list provides a complete catalog of publications available to support all models of the 1-26 Sailplane.

1-26 Service Bulletin Index

Number	Subject	Revision Date
102-26-1	Tow Release Mechanism Springs	Not Dated
102-26-2	1-26 Wheel Assembly	Not Dated
102-26-3	Elevator Control Rod	03 Jan 1958
102-26-4	Seat Back	17 Aug 1962
102-26-5	Forward Control Tube Bearing Bracket	20 Aug 1965
102-26-6	Rudder Cable Fairlead Bracket	30 Dec 1968
102-26-7	Rudder Hinge, Lower, Attachment to Fin Spar	11 Feb 1971
102-26-8	Inspection of Control Stick Pivot Bolt	18 Dec 1975
SA-001.6	Inspection of Tow Release Assembly	29 Dec 2009
SA-003	Aerobatics in Schweizer Sailplane	25 Mar 1987
SA-004	Inspection of Elevator Pushrod	16 Jun 1987
SA-005.1	Identification and Possible Replacement of Tow Release Arm	31 Jan 1988
SA-006	Installation of Seat Adjustment Bracket	01 Feb 1989

1-23 Service Letter Index

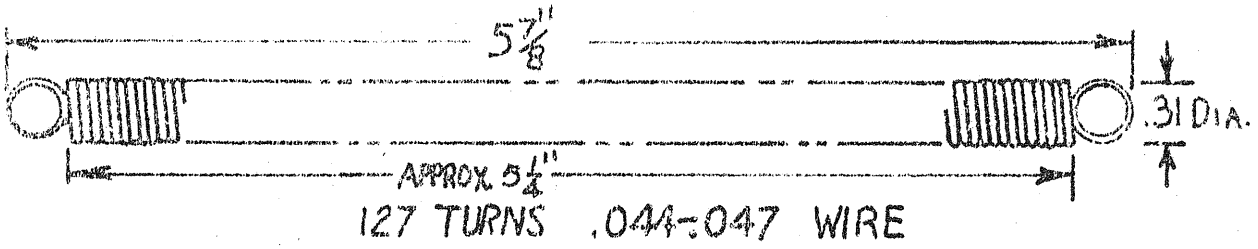
Number	Subject	Revision Date
SL-102-14	Seat Back Adjustment vs. C.G. Aft Limit	21 Aug 1978
SL-001	Annual Disassembly of Aircraft	01 Jun 1987

102-26-1

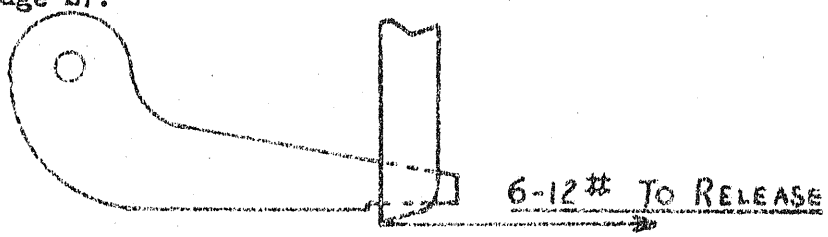
Service Bulletin No. 1

SGS 1-26, A, B, C

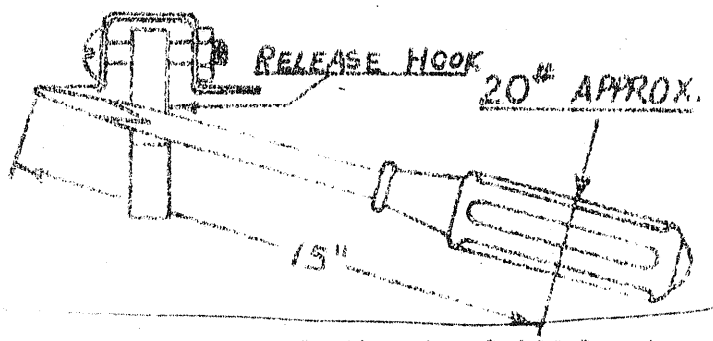
1. There are three alternate springs used in the 1-26 tow release mechanism. From field reports from owners, it appears there are cases of excessively high release operating loads. We have run tests and have determined that the best spring is our No. 1A113-1 shown below.



All 1-26's should be equipped with this spring. The installation should be checked by pulling on the release arm just below the hook with a small spring scale. This should require from 6-12 lbs. pressure to release. **(See note on page 2).**



The force required at the release control should be moderate. Check your control system if you feel the operating force is excessive. An additional check which is used at the factory is to operate the release while load is applied at the hook. This is done by applying pressure with a large screw driver or small bar (see sketch). Pilot should be able to release under this condition--it will, however, take more force.



ADD THIS ITEM TO 1-26 MANUAL. PG IV-10.3

If you have another type of spring in your ship than the 1A113-1, please advise us and we will ship one at no charge.

An alternate release system using cable and pulleys is now available which we have had approved for sale. Write for price and details.

Service Bulletin No. 1 (cont'd.)

2. The use of adequate tow rings also affects the safety of operation. We have a report from one group who experienced several release jams. Investigation showed this to be caused by the use of an oval ring which was also used on DVL type release. We recommend the use of a 2" OD ring made of 1/4" round rod--preferably alloy steel. These are available from Schweizer Aircraft if you wish to purchase them. Soft harness rings will elongate and possibly cause jamming and should be avoided. A slightly heavier ring 5/16 x 2 to 2-1/2 OD will also work and can be made of softer steel.

The release mechanism and rings are very important to safety--do not use makeshifts. If you are using a very strong tow cable as on winches, use a safety link of 5/16" or 3/8" single manilla rope. (Use correct rings.) The only other known case of release jamming on a Schweizer tow hook occurred when a crewman hooked a small DVL ring on a TG-2 hook. The winch surge locked the ring on the hook making it impossible to release. The pilot realized that the line had not been released and made a safe landing by spiraling down around the winch.

In the interest of all 1-26 owners, we appreciate prompt reporting of any operating difficulty that you encounter.

Yours for more safe Soaring,

SCHWEIZER AIRCRAFT CORPORATION

Ernest Schweizer
Chief Engineer

ES/ach

Note: The only condition at which the higher release arm pressure is desireable is in aero tow in turbulent air such as in wave flying where the glider may overtake the tow line and cause inadvertent release. The heavier springs may be used for such conditions as long as the operating loads are satisfactory. If the pulley type release control is used, this will be quite satisfactory.

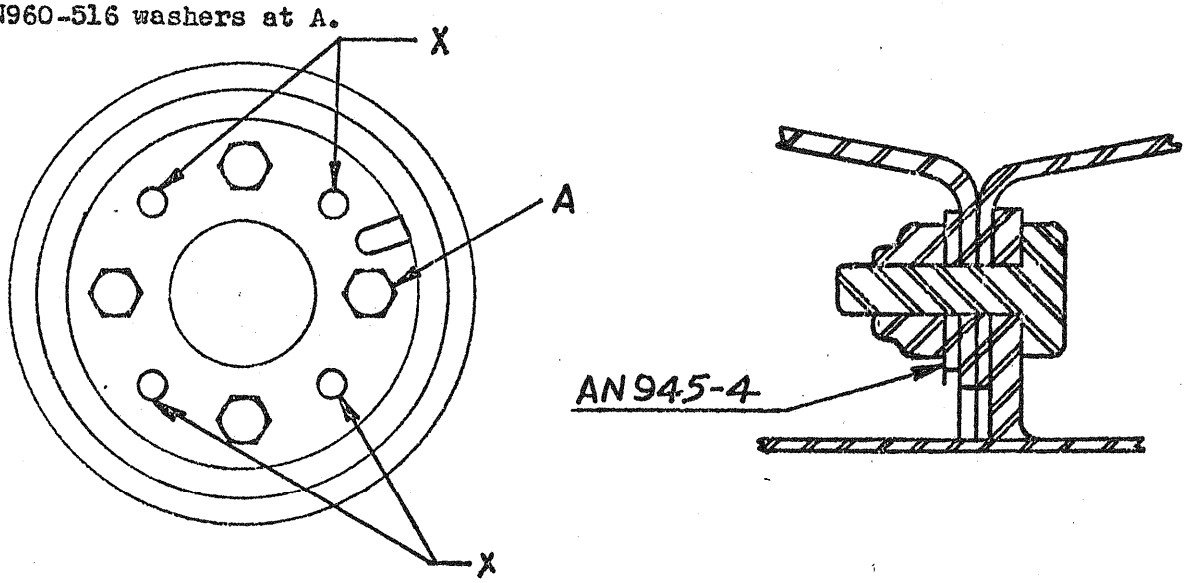
CHG. TEXT IN 1-26 MANUAL TO REFLECT THE DWG CHG ON THIS. WORK

Service Bulletin No. 2

SGS 1-26, A, B, C

A few failures have occurred in the field to the 1-26 Wheel Assembly--26B201. This failure has occurred in the stamped flange at the edge of the bolt heads. To eliminate this condition, the following procedure should be used. This is not a safety of flight item, but it will eliminate the possibility of a wheel failure. The change is being incorporated in new production 1-26 sailplanes.

Procedure: Take the wheel assembly out of the ship and drill thru the four holes at X that do not have bolts with a 5/16" drill, install an AN 5-6A bolt, AN945 washer, and AN365-524 nut. Then remove the original four bolts and reinstall with AN945-4 washers. Note that all bolts will be installed with the washer between the nut and the wheel flange. (See sketch below). The one bolt next to the valve stem does not have room for the AN945 washer. On this bolt use one of the existing AN960-516 washers at A.



We are furnishing the following items to complete this modification--4 AN5-6A, 7 AN945-4, 4 AN365-5.

SCHWEIZER AIRCRAFT CORPORATION

Ernest Schweizer
Chief Engineer

ES/ach

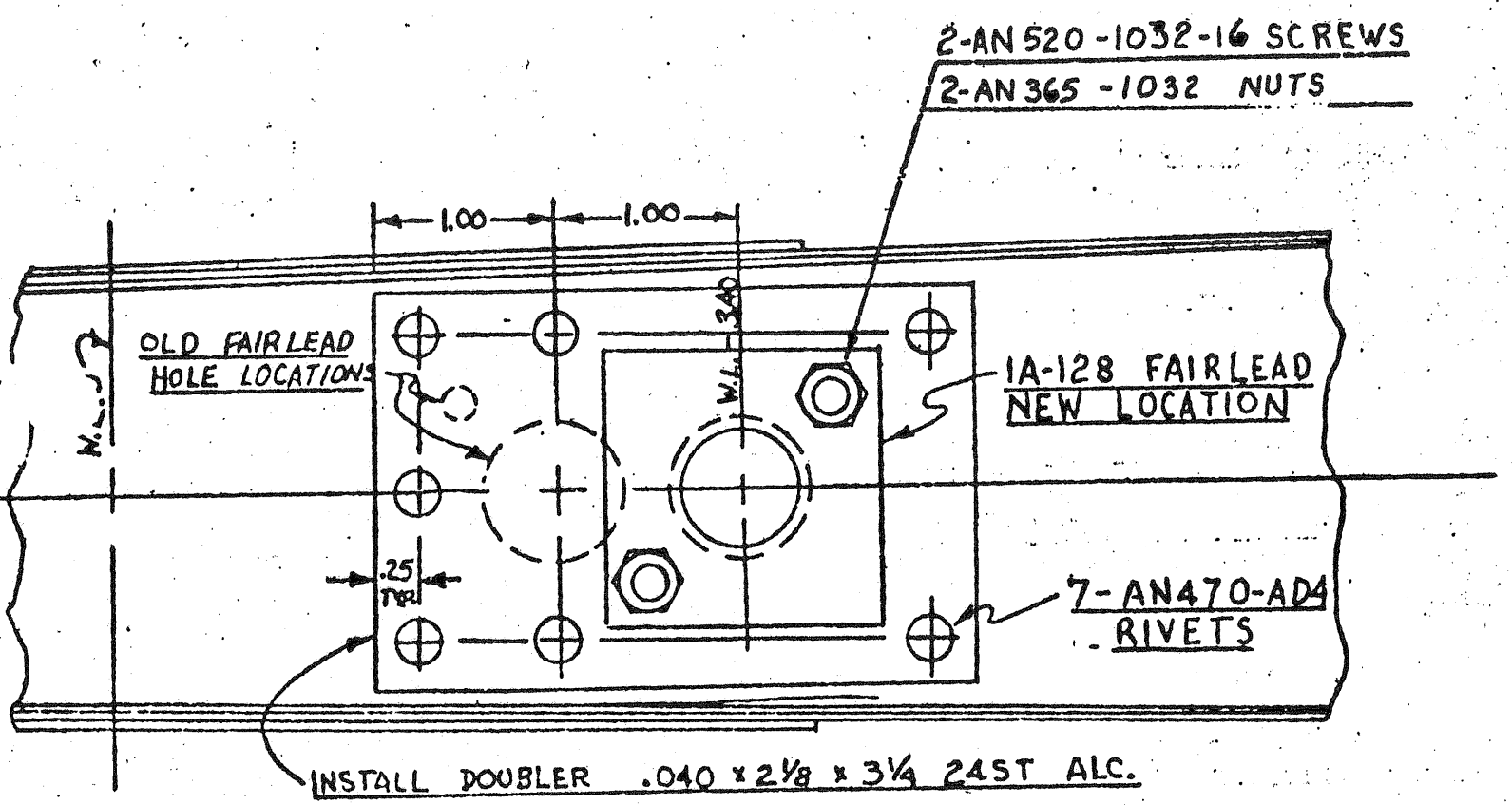
SCHWEIZER AIRCRAFT CORP., ELMIRA, N. Y.

Service Bulletin No. 102-26-3

SGS 1-26, A, B, C

A condition has been discovered which could cause excessive wear on the 26B120-2A Elevator Control Cable at the 1A-128 Fairlead on the Fin Spar. This wear would be induced by the location of the 1A-128 Fairlead at W.L.--2.40. This condition exists on all ships to and including Ship No. 75.

The condition noted may be eliminated by relocation of the 1A-128 Fairlead to W.L. 3.40 according to the attached sketch. Material kits for this work are available upon request.



We recommend the accomplishment of this relocation at the earliest convenience and thorough inspection of the area and parts for indications of wear, each 25 hours until the relocation is made.

SCHWEIZER AIRCRAFT CORPORATION

W.H. McClure

Warren H. McClure
Quality Control Supervisor
January 3, 1958

WHM/mch

Schweizer Aircraft Corporation
Elmira, New York

August 17, 1962

SERVICE BULLETIN NO. 102-26-4

SGS 1-26 SEAT BACK

There have been cases reported where the seat back, which is held at the bottom end by aluminum clips, has disengaged and moved back suddently. This is disconcerting to the pilot and could cause loss of control at a critical flight condition.

It is recommended that as a routine preflight check that this seat back be checked to see that it is secure in its normal position. If the clips, 26D-315-4 are distorted, they should be reworked or replaced. If they are reworked, check carefully for cracks. An alternate design is being investigated and you will be advised if this becomes available.

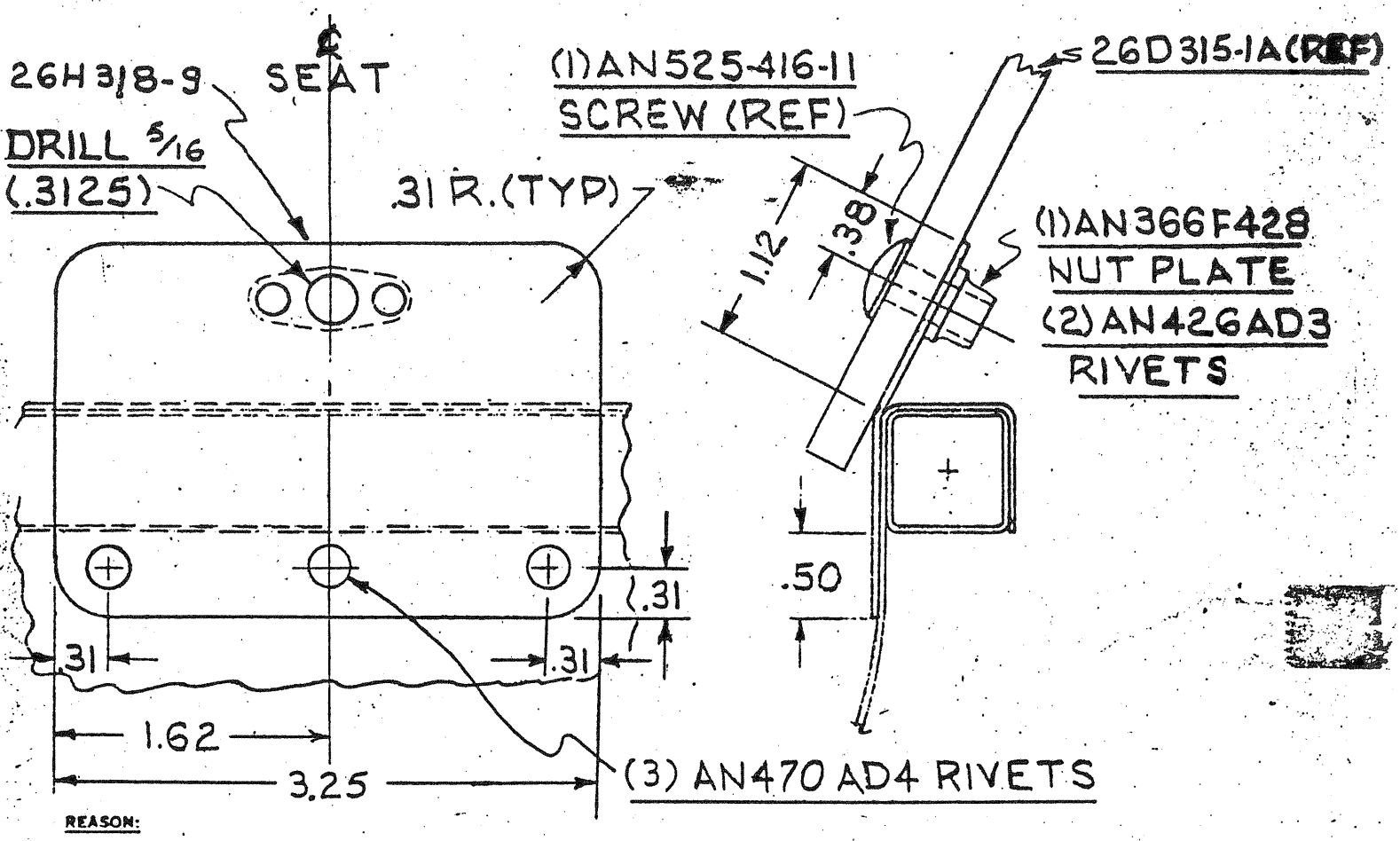
As an additional precaution, E.C.O. 26-259 is enclosed. Installation of this is optional, and we will furnish at no charge the necessary parts if you request them.

Ernest Schweizer,
Chief Engineer

SCHWEIZER AIRCRAFT CORP.

ENGINEERING CHANGE ORDER							CHG. LET.	
TITLE:	SEAT BOTTOM							
CHG. INC.		EFFECTIVITY	OPT	PARTS AFFECTED		ECO. SERIAL	26-259	
BY	W.E.F.	CARD POSTED	7.20.62	TOOLS AFFECTED		D.C.R. SERIAL	—	
DATE	7.20.62	CHECKED	ES 7/15/62 KEV ES 9/10/62	STOCK DISPOSITION	—	DWG. NO.	26H-318	

CHANGE: 1. ADD ATTACH PLATE TO SEAT AS SHN.
MAKE FROM .040 2024-T3 ALC



REASON:

1. TO PROVIDE ADDITIONAL ATTACHMENT FOR SEAT BACK.

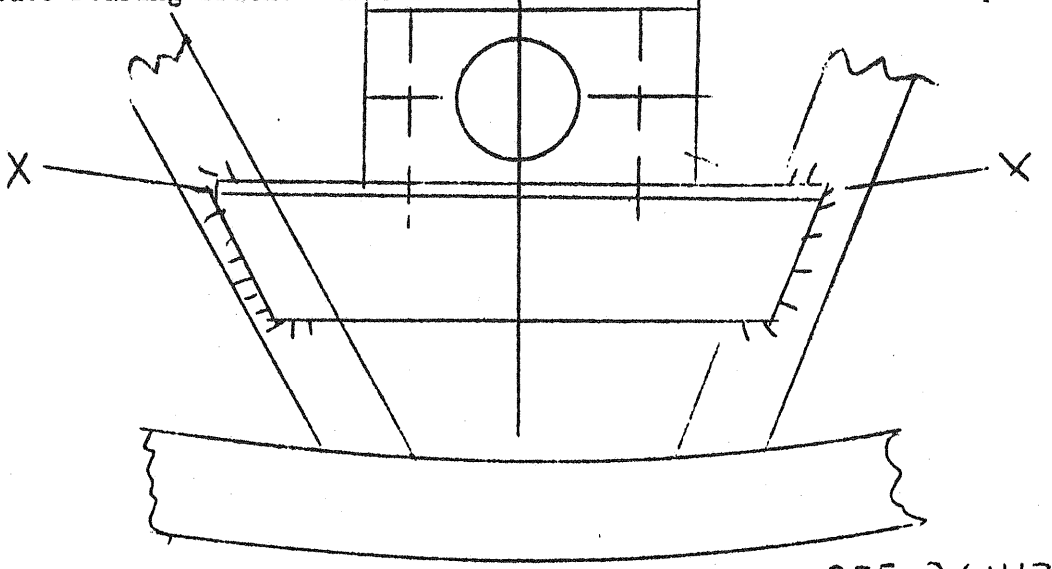
Schweizer Aircraft Corporation
P.O. Box 147
Elmira, New York 14902

August 20, 1965

SERVICE BULLETIN NO. 102-26-5

Models S.G.S. 1-26, A, B, C

We have a field report of a weld failure at the forward Control Torque Tube Bearing Bracket marked "X". Effective Serial No. 2 and up.



REF 2GH136

While we believe this to be an isolated case, we feel that this point should be checked before flight by all owners. It is readily accessible for inspection. If any cracks are found, please advise us.

SCHWEIZER AIRCRAFT CORPORATION

Milton A. Courtright

Milton A. Courtright,
Quality Control Supv.

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Schweizer Aircraft Corporation
P. O. Box 147
Elmira, New York 14902

December 30, 1968

SERVICE BULLETIN NO. 102-26-6

Model Affected: SGS 1-26D
Serial No.'s Affected: 404 through 409

It has been established that several SGS 1-26D fuselage frames were built with the rudder cable fairlead bracket, R. H., welded to the upper cross member, P/N 26H001-14 at fuselage Station 194.25, rather than to the R. H. vertical member as per drawing.

This put the fairlead location approximately 1.0 high and 3/4 inboard of its proper location. This mislocation raises the right hand rudder cable enough to rub slightly on the upper horizontal diagonal tube, P/N 26H001-13 located between the upper R. H. cluster at Fuselage Sta. 194.25 and the upper L. H. cluster at Fuselage Sta. 216.0.

Correction of the rudder cable rubbing on the listed ships can be corrected by the installation of a rudder cable guard installed per Schweizer Drawing No. 4656D.

A standard hand-hole, with reinforcing ring (P/N 1A903-1) and cover (P/N 1B913-1), may be installed in R. H. fuselage fabric at approximate Station 200.0, W. L. -2.50, to facilitate installation of the guard.

Materials for this installation will be furnished upon request without charge. Mail requests to Schweizer Aircraft Corporation, P. O. Box 147, Elmira, New York 14902. Mention Service Bulletin 102-26-6 and the affected ship serial number, or registration number, in your request.

This Service Bulletin should be accomplished at the next 100-Hour Inspection or at the next Annual Inspection, whichever shall occur first.

SCHWEIZER AIRCRAFT CORPORATION

Milton A. Courtright

Milton A. Courtright,
Quality Control Supv.

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SCHWEIZER AIRCRAFT CORP.
P. O. Box 147
Elmira, New York 14902

February 11, 1971

SERVICE BULLETIN NO. 102-26-7

MODELS AFFECTED: SGS 1-26B and C, Ser. No.'s 289 thru 399 which have Swept-back Vertical Tail Surfaces
SGS 1-26D, Ser. No.'s 400 thru 475
SGS 2-33 and 2-33A, Ser. No.'s 1 thru 196

SUBJECT: Rudder Hinge, Lower, Attachment to Fin Spar

A report from the field has been received indicating failure of both AN3-7A bolts attaching the lower rudder hinge to the fin spar. This report was from one aircraft only.

One bolt only, of the two which failed, was found and, under a 50X magnification, an apparent defect in the bolt itself was noted. Whether this bolt was the first to fail, leading to the failure of the second, is not known. However, it was stated that a rudder lock was not used during periods of tie-down which may have been a contributing factor, as flight loads are very low on these bolts.

To assure that a similar failure has not occured on ships in service -

1. Preflight inspect the aircraft to assure the bolts are in place.

2. Accomplish the following at the first 100-hour or Annual Inspection, whichever occurs first. One at a time, remove each AN3-7A bolt (these bolts have a one quarter inch long, 3/8 diameter x .090 wall, aluminum bushing under the bolt head). Solvent-clean and inspect, especially at the thread and shank intersection, for damaged threads or cracks. Magnetic particle inspection is recommended, if available. Otherwise a magnifying glass of 3.5X to 5X should be used.

   Replace the bolts with new bolts, when:

   a. Inspection equipment is not available.
   b. Aircraft has been in service for more than either 200 hours, or three years.
   c. Inspection reveals any defect in the bolt (s).

Use a torque-value of 20 to 25 inch-pounds when reinstalling the bolts, and insure that the bushings are transferred to the new bolts.

RECOMMENDATION: Since wind-gust loads are usually much greater than flight loads, it is strongly recommended that control chocks be used during all periods of tie-down.

SCHWEIZER AIRCRAFT CORP.

Milton A. Courtright

Milton A. Courtright
Quality Control Supervisor

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Schweizer Aircraft Corporation
P. O. Box 147
Elmira, New York 14902

December 18, 1975

SERVICE BULLETIN NO. 102-26-8

SUBJECT: Inspection of Control Stick Pivot Bolt

MODELS AFFECTED: SGS 1-26D & E

SERIAL NO.'s AFFECTED: (D Model) 400 thru 481
(E Model) 500 thru 642

TIME OF COMPLIANCE: Within 10 Hours Flight Time

It has been determined that an incorrect length bolt has been installed on some SGS 1-26D and E Models at the attachment of the control-stick-yoke weldment to the aileron control torque tube.

The correct bolt, as specified on drawings, is AN6-21.

INSPECTION: On ships having the (optional) aft floorboard and stick boot, it will be necessary to remove this.

1. Scale-measure the length of the bolt installed. If the length of the bolt, from beneath the head to the end, is 2.20 no further action is required, other than a logbook entry of compliance.
2. Should the bolt be shorter than the 2.20 length -
   a. Remove the bolt.
   b. Reinstall the yoke on the torque tube using an AN6-21 bolt (2.20 long, with 1-9/16 grip) using (2) AN960-616 Washers under the nut and safety. Replace stick boot, as applicable.
   c. Check the side-play at the top of the control stick.
      If 1/8" or less, the installation is satisfactory.
      If greater than 1/8", contact Schweizer Aircraft Corp. for method of repair.

SCHWEIZER AIRCRAFT CORP.

SERVICE

BULLETIN

BULLETIN NO. SA-001.6*
DATE: Dec 29, 2009

* Supercedes Service Bulletin
No. SA-001.5, Dated Oct 16, 2009

SUBJECT: ONE-TIME INSPECTION OF TOW RELEASE ASSEMBLY; DAILY INSPECTION OF TOW RELEASE ASSEMBLY: PILOT'S PREFLIGHT INSPECTION OF TOW RELEASE ASSEMBLY; 100 HOUR/ANNUAL INSPECTION OF TOW RELEASE ASSEMBLY.

AIRCRAFT AFFECTED: All the following Schweizer Sailplane Models
SGU 1-7
SGS 2-8 (TG-2)
SGS 2-12 (TG-3)
SGU 1-19
SGU 1-20
SGU 1-21
SGU 2-22, 2-22A, 2-22C, 2-22CK, 2-22E, 2-22EK
SGS 1-23, 1-23B, 1-23C, 1-23D, 1-23E, 1-23F, 1-23G, 1-23H, 1-23H15
SGS 1-24
SGS 1-26, 1-26A, 1-26B, 1-26C, 1-26D, 1-26E
SGS 2-32
SGS 2-33, 2-33A, 2-33AK
SGS 1-34, 1-34R
SGS 1-35C
SGS 1-36 (Sprite)

All Schweizer Sailplanes field retrofitted to incorporate a tow release assembly

TIME OF COMPLAINCE:

PART I: Shall be accomplished on a one-time basis within 30 days of issue date of this bulletin or at next 100 hour inspection, whichever occurs first (unless already accomplished in accordance with Part III of SA-001.4 or prior revision)

PART II: Shall be accomplished prior to the first flight of each day

PART III: Shall be accomplished at each Preflight inspection

PART IV: Shall be accomplished at each 100 hour/Annual inspection

REFERENCE: Schweizer Service Bulletin SA-005.1, 31 January 1988 AC 43.13-1A

OVERVIEW: The .5 revision is the same as the .4 revision except changes to Figures 1, 3, & 4. Figure 1 has changed to add View D to show improper engagement. Figure 3 has been changed to show proper release arm cutout. Figure 4 has been changed to show proper readings for the C.G. hook install.

PREFACE: Field reports indicate that it is possible for the tow hooks on the affected aircraft to release during towing operations without input from the sailplane pilot. Thorough analysis of this situation has allowed K & L Soaring, LLC (K & L) to attribute such incidents to (1) improper combinations of tow hooks and release arms, (2) improper installation of the tow hook into the release arm, or (3) excessive wear of the tow hook or release arm.

Parts I through IV of this Service Bulletin list instructions for a one-time inspection, a daily inspection, a Preflight inspection, and a 100 hour/Annual inspection of the tow release assemblies used on the affected aircraft. It should be noted that Part I of this bulletin need not be accomplished if Part III of Service Bulletin SA-001.() was previously accomplished. Any discrepancies observed while performing the inspection procedures listed in this bulletin requires the aircraft to be grounded until the situation is resolved.

In addition, since there is always the possibility of improper release of the tow hook, sailplane tow operations must always be performed where there is sufficient airfield available to accommodate such occurrences. Premature release of the tow hook from the release arm should not result in damage to the aircraft or injury of its occupants, if the recovery is executed properly.

PART I – ONE-TIME INSPECTION OF TOW RELEASE ASSEMBLY.

PROCEDURE

NOTE

Many different versions (Part Numbers) of tow hooks and release arms have been manufactured for Schweizer Sailplanes. However, as specified in Table 1 of this bulletin, only certain tow hooks/release arm combinations are compatible with each model sailplane. Unacceptable combinations must be replaced.

a. Use Table 1 of this bulletin to determine if an acceptable tow hook and release arm are installed

TABLE 1 - ACCEPTABLE TOW HOOK / RELEASE ARM COMBINATIONS

Aircraft	Tow Hook	Standard Release Arm	Superseding/ Replacement Release Arm
SGU 1-7	R-200-9A or 1A218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 2-8 (TG-2)	R-200-9A or 1A218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 2-12 (TG-3)	R-200-9A or 1A218-1A or 1B-221-3	12B-141 or 1B-217-1A	1D-217-9
SGU 1-19	R-200-9A or 1A218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGU 1-20	R-200-9A or 1A218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGU 1-21	R-200-9A or 1A218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGU 2-22 (All Models) (C.G. Hook)	R-200-9A or 1A218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 1-23 (All Models)	R-200-9A or 1A218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 1-24	R-200-9A or 1A218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 1-26, A, B, C, & C.G. Hook	R-200-9A or 1A218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 1-26 D, E	1A-218-1A or 1B-221-1	1D-222-7	1D-222-13
SGS 1-26 D & E (C.G. Hook)	1B-221-1	1D-222-1	1D-222-11
SGS 1-26E (opt.)	10232A-1	1B-217-5	1D-217-11
SGS 2-32	1B-221-1	1D-222-1	1D-222-11
SGS 2-33, 2-33A, 2-33AK (C.G. Hook)	1A-218-1A or 1B-221-3	1B-217-1A	1D-217-9
SGS 2-33, 2-33A, 2-33AK (opt.) (C.G. Hook)	10232A-1	1B-217-5	1D-217-11
SGS 1-34, 1-34R	1A-218-1A or 1B-221-1	34017D-1	34017D-11
SGS 1-35C	1A-218-1A or 1B-221-1	1D-222-7	1D-222-13
SGS 1-35C (opt.)	10232A-1	1B-217-5	1D-217-11
SGS 1-36	10232A-1	1B-217-5	1D-217-11

CAUTION

THE 10232A-1 TOW HOOK IS PHYSICALLY SMALLER THAN THE OTHER TOW HOOKS. FIELD RETROFIT TO THE 10232A-1 TOW HOOK REQUIRES INSTALLATION OF A 1B-217-11 ARM AT A LOCATION FURTHER FORWARD ON THE AIRCRAFT. BE SURE TO CONTACT K & L FOR INSTALLATION INSTRUCTIONS BEFORE FIELD RETROFITTING SAILPLANE TO INCORPORATE 10232A-1 TOW HOOK

b. Replace tow hook and/or release arm as required to obtain an acceptable combination (as specified in Table 1) for sailplane in question.

NOTE

- Proper engagement of the tow hook into the release arm is shown in Figure 1, View A, and Figure 4. Excessive wear of the tow hook step could result in improper engagement. Figure 2 of this bulletin provides inspection data and wear limits for the tow hook. Tow hooks which do not meet the specified limits must either be reworked to obtain dimensions (as specified in Figure 2) or replaced.

- If tow hooks is able to slide into the release arm, beyond the tow hook step, as shown by Figure 1, View C, the release arm must either be reworked with a slug as specified in Figure 3, or replaced.

c. Inspect tow hook for wear in accordance with Figure 2 of this bulletin.

CAUTION

ALL AIRCRAFT REPAIRS AND REWORK MUST BE ACCOMPLISHED WITHIN THE GUIDELINES ESTABLISHED BY AC 43.13

d. If tow hook dimensions are not within limits specified in Figure 2, either rework the tow hook to obtain dimensions (as specified in Figure 2) or replace it with a new or serviceable, used tow hook

e. Engage tow hook into release arm. Ensure that the tow hook properly engages as shown in Figure 1, View A.

f. If tow hook is unable to completely engage (shown by Figure 1, View B) shorten the rubber bumper stop between the release knob and the instrument panel to allow the release assembly to close further.

g. If tow hook is able to travel too far inboard as shown in Figure 1, View C, disengage tow hook from release arm and measure the length of the release arm slot

h. If dimension is less than 0.66 inch, rework release arm by welding on 1B-217-19 slug at location shown in Figure 3. (Release arm may be replaced as an alternate to welding on slug)

i. If length of release arm slot is greater than 0.66 inch, replace release arm.

j. Perform a thorough inspection of the tow hook installation in accordance with the 100 hour inspection requirements listed in Table 2 of this bulletin.

k. Repair of replace unserviceable component(s), as required

l. Record compliance with Part I of this Service Bulletin in Aircraft Log Book.

PART II – DAILY INSPECTION OF TOW RELEASE ASSEMBLY.

PROCEDURE

NOTE

The following inspection does not require any disassembly of the aircraft or release assembly. However, if any defects are noted during inspection, the problem(s) must be resolved prior to next flight.

a. Perform a thorough visual inspection of the tow release assembly and associated components in accordance with the daily inspection requirements listed in Table 2 of this bulletin.

CAUTION

ALL AIRCRAFT REPAIR AND REWORK MUST BE ACCOMPLISHED WITHIN GUIDELINES SPECIFIED IN AC43.13.

b. If any defects are noted, repair or replace faulty components prior to next flight.

TABLE 2 – DAILY, 100-HOUR, & ANNUAL INSPECTION

	Daily	100 Hour	Annual
Visually inspect release arm for damage, cracks, deformation, and freedom of movement on pivot bolt.	X	X	X
Visually and physically inspect release arm slot for excessive wear which would allow the tow hook to engage beyond hook step. (See Figure 1, Item C.)	X	X	X
Dimensionally measure the slot in the release arm to insure that it is within tolerance as shown on Figure 3.			X
Visually check tow hook for damage, cracks, deformation, and freedom of movement on pivot bolt.	X	X	X
Visually check tow hook to insure that surface "x" and "y" of step shown in Figure 2 are flat, smooth, and properly engages release arm.	X	X	X
Dimensionally check tow hook to insure all dimensions are within tolerances in accordance with Figure 2 and for elongation of attach holes in accordance with Figure 4.			X
Inspect release damper for general condition and proper engagement of tow hook.	X	X	X
Perform operational check per Part III.	X	X	X
Perform a release check for proper release tension in accordance with Figure 4.			X
Lubricate attach hardware for tow hook and release arm.		X	X
Lubricate guide-tubes in release control with dry stick type lubricant.		X	X
Insure that tow hook moves freely on pivot bolt.	X	X	X

PART III – PREFLIGHT INSPECTION OF TOW RELEASE ASSEMBLY.

PROCEDURE

NOTE

- Figure 1 shows the proper attachment of the tow hook into the release arm. Note that the step of the tow hook should seat against the release arm. The tow hook step must fully engage the release arm to allow the release assembly to function properly. The tow hook must not be allowed to extend through the release arm beyond the step on the hook as shown in Figure 1, View C.
- The tow rope must not be allowed to wrap around the release arm or any part of the sailplane. It must extend, unobstructed, directly forward from the sailplane to the tow vehicle.

a. Attach tow line to tow hook and apply tension on line in direction of tow.

b. With tension on tow line, pull the release control on the instrument panel and check for proper release of tow line.

c. If tow line does not release properly, troubleshoot tow release assembly and perform necessary repairs.

d. Reattach tow lines to tow hook and check for retention of tow line as follows.

    1) Apply a moderate tug on the tow line in the direction of tow.
    2) Inspect the release assembly to ensure that it has remained completely closed.
    3) If the release assembly has opened, even partially, ground aircraft and troubleshoot release assembly. Repair or replace faulty component (s) as required.

PART IV – 100 HOUR/ANNUAL INSPECTION OF TOW RELEASE ASSEMBLY

PROCEDURE

a. Perform a thorough inspection of tow release assembly in accordance with 100 hour/annual inspection requirements listed in Table 2.

CAUTION

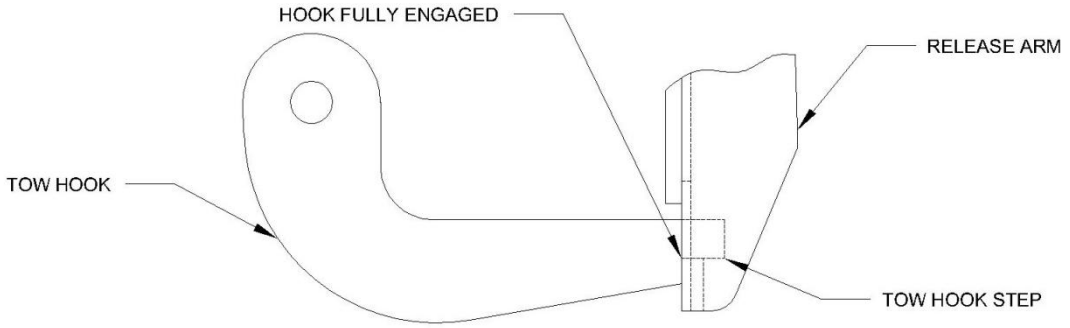
ALL AIRCRAFT REPAIRS MUST BE PERFORMED IN ACCORDANCE WITH AC43.13

b. If defects are noted, repair or replace faulty component (s).

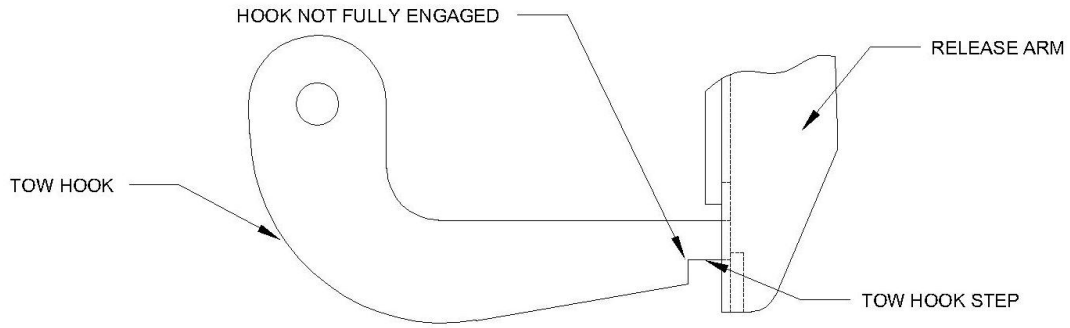
c. Record compliance with Part IV of this Service Bulletin in Aircraft Log Book

WEIGHT & BALANCE DATA

Weight & Balance not affected.

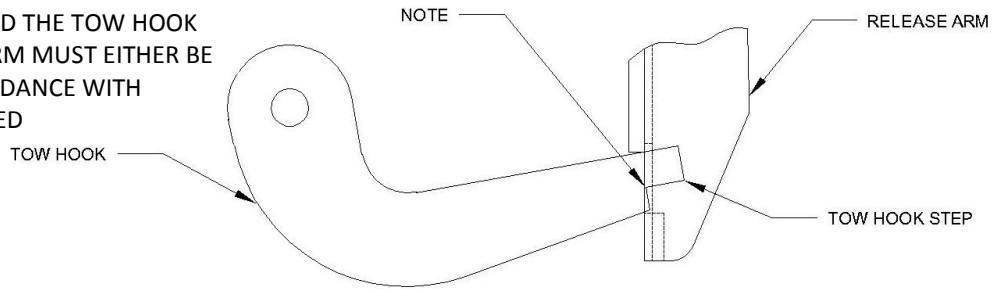


VIEW A – PROPER ENGAGEMENT



VIEW B – IMPROPER ENGAGEMENT

NOTE:
IF TOW HOOK IS ABLE TO SLIDE THROUGH RELEASE ARM, BEYOND THE TOW HOOK STEP, THE RELEASE ARM MUST EITHER BE REWORKED IN ACCORDANCE WITH FIGURE 3, OR REPLACED



VIEW C – IMPROPER ENGAGEMENT

FIGURE 1 – ENGAGEMENT OF TOW HOOK INTO RELEASE ARM

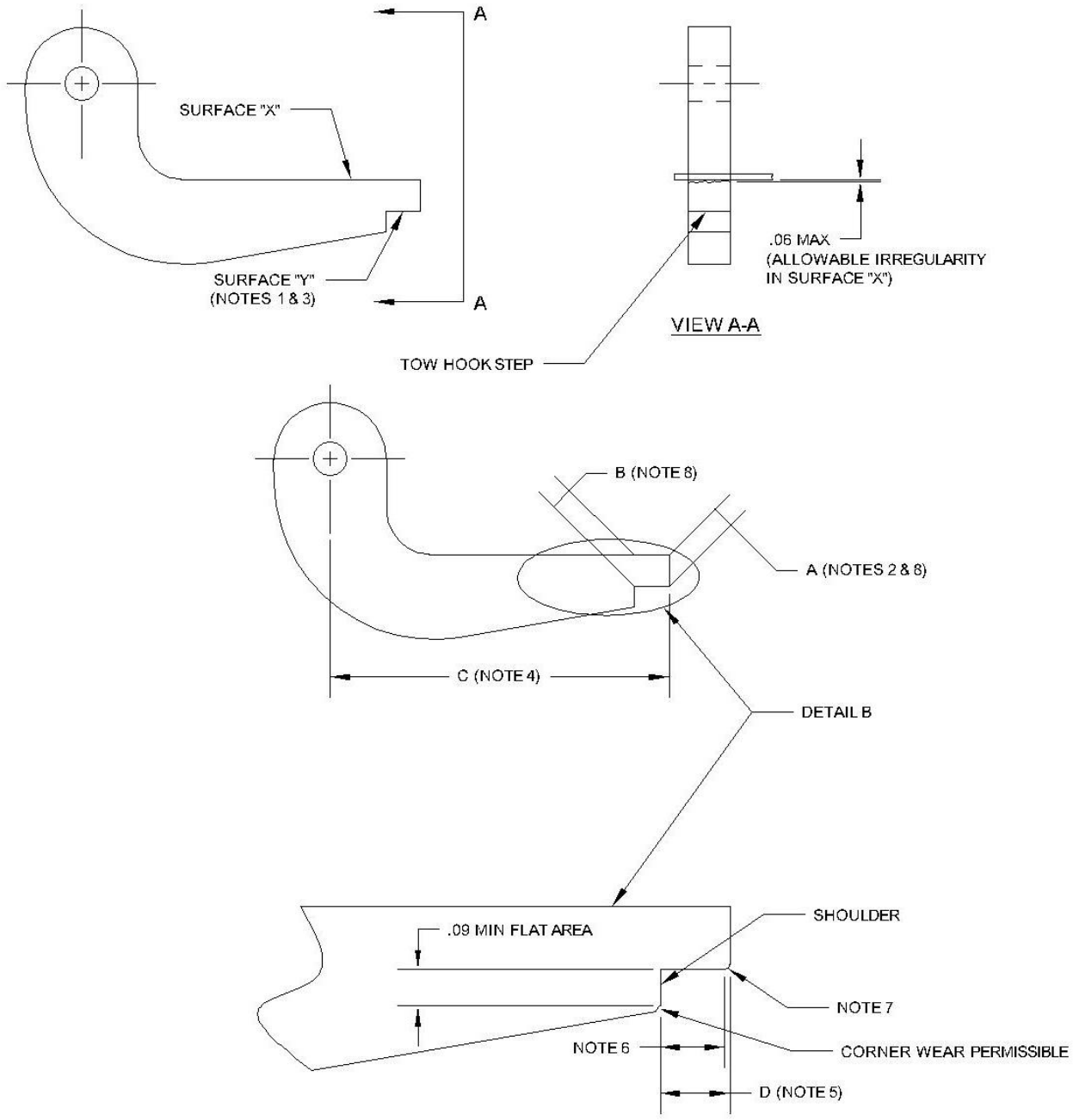


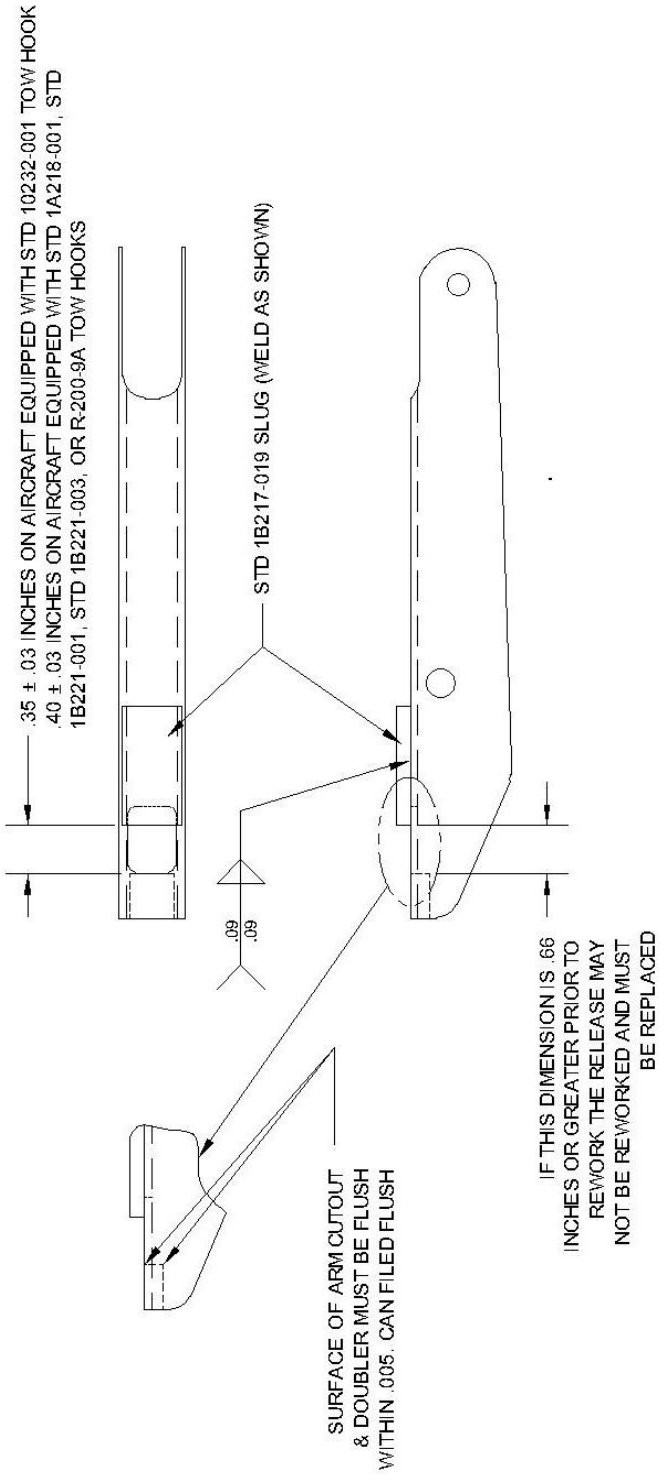
FIGURE 2 – TOW HOOK INSPECTION AND REWORK (SHEET 1 OF 2)

NOTES:

1. IF WEAR OCCURS ON SURFACE “Y” IT MUST BE POLISHED FLAT WITHIN TOLERANCES PROVIDED IN FIGURE 2 (SHEET 1). IF THE HOOK CANNOT MEET THESE REQUIRED DIMENSIONS IT MUST BE REPLACED. UNDER NO CONDITIONS SHOULD SURFACE “X” BE POLISHED OR MACHINED TO CHANGE ITS ANGLE.
2. DIMENSION “A” ON STD 10232-001 HOOK SHALL BE .21 INCHES MIN. & .28 INCHES MAX. DIMENSION “A” ON STD 1A218-1A, STD 1B221-3, & R-200-9A HOOKS SHALL BE .25 INCHES MIN. & .31 INCHES MAX.
3. SURFACE “Y” MUST REMAIN FLAT, SMOOTH, AND WITHIN TOLERANCES SHOWN ON SHEET 1. (SEE ILLUSTRATION).
4. DIMENSION “C” ON STD 10232-001 HOOK SHALL BE 2.06 ± .03 INCHES. DIMENSION “C” ON STD 1A218-1A, STD 1B221-3, & R-200-9A SHALL BE 3.00 ± .03 INCHES.
5. DIMENSION “D” ON STD 10232-001 HOOK SHALL BE .25 ± .03 INCHES. DIMENSION “D” ON STD 1A218-1A, STD 1B221-3, & R-200-9A SHALL BE .31 ± .03 INCHES.
6. HOOK MUST REMAIN FLAT IN THIS AREA FOR A MIN. OF .21 INCHES FROM SHOULDER OF HOOK.
7. WEAR OUTSIDE OF THE .21 MIN. FLAT AREA IS PERMISSABLE.
8. DIMENSION “B” MUST BE EQUAL TO DIMENSION “A”, OR LESS THAN DIMENSION “A” BY NO MORE THAN .015 INCHES AND CANNOT BE GREATER THAN DIMENSION “A”.
9. ALL SURFACES EXCEPT SURFACE “X” MAY BE FILLED TO OBTAIN REQUIRED DIMENSIONS.

FIGURE 2 – TOW HOOK INSPECTION AND REWORK (SHEET 2 OF 2)

NOTE: STD 1B217-019 SLUG IS AVAILABLE FROM K & L SOARING, LLC
0.125 X 0.5 X1.0 4130N STEEL



NOTE: ALL TOW RELEASE ARMS MUST BE REWORKED AS SHOWN ABOVE OR REPLACED WITH THE PROPER SUPERSEDING ARM AS SPECIFIED IN TABLE 1

FIGURE 3 - REWORK OF RELEASE ARM

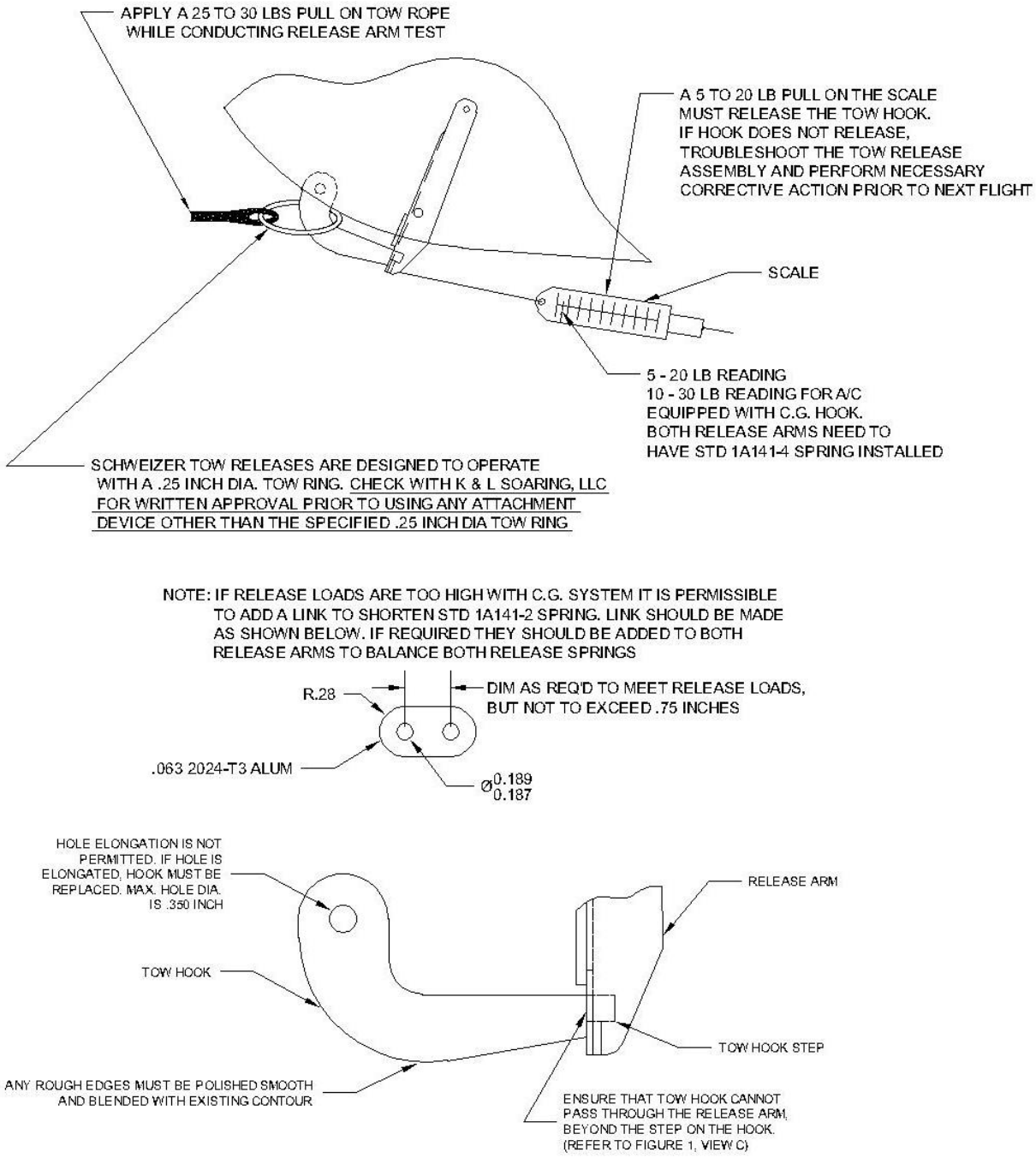


FIGURE 4 - PULL TEST OF TOW RELEASE ASSEMBLY

SERVICE BULLETIN

SERVICE BULLETIN SA-003

DATE: 25 March 1987

SUBJECT: AEROBATICS IN SCHWEIZER SAILPLANE MODELS LISTED BELOW.

MODELS AFFECTED:
SGU 1-7
SGS 2-8 (TG2)
SGS 2-12 (TG3)
SGU 1-19
SGU 1-20
SGU 1-21
SGU 2-22, 2-22A, 2-22C, 2-22CK, 2-22E, 2-22EK
SGS 1-23, 1-23B, 1-23C, 1-23D, 1-23E, 1-23F, 1-23G, 1-23H, 1-23H15
SGS 1-24
SGS 1-26, 1-26A, 1-26B, 1-26C, 1-26D, 1-26E
SGS 2-32
SGS 2-33, 2-33A, 2-33AK
SGS 1-34, 1-34R
SGS 1-35, 1-35A, 1-35C
SGS 1-36 (Sprite)

NOTE

In the text of this writing, the terms "GLIDER" and "SAILPLANE" are to be considered synonymous.

REFERENCE:
2-32 Flight-Erection-Maintenance Manual ..... Page 1-10
2-22 Flight-Erection-Maintenance Manual ..... Page 5
2-33 Flight-Erection-Maintenance Manual ..... Pages 1-5
1-26 Flight-Erection-Maintenance Manual ..... Page 5
1-34 Flight-Erection-Maintenance Manual ..... Pages 1-7
1-36 "Sprite" Pilot's Operating Manual ..... Page 23

NOTE

For the purposes of this Service Bulletin, areobatic flight means an intentional manueuver involving an abrupt change in an aircraft's attitude, an abnormal attitude, or abnormal acceleration, not necessary for normal flight. (Refer to FAR 91.71 for further information.)

PREFACE: Schweizer Aircraft Corporation DOES NOT APPROVE OR RECOMMEND that aerobatics of any kind be performed in any of the Schweizer sailplane models affected by this Service Bulletin, despite any language to the contrary in any of the Flight-Erection and Maintenance Manuals or Pilot's Operating Manual referenced herein.

Although there is language in the referenced publications that various levels of aerobatics are permitted, Schweizer Aircraft Corporation RECOMMENDS that NO TYPE of aerobatics be performed in these model sailplanes since in doing so, the structural design levels of the sailplane could be exceeded, which may result in serious personal injury to the occupants of the aircraft.

The only exception to this recommendation is spins when performed within the guidelines of, and as approved in, the Flight Manual or Pilot's Operating Handbook for the aircraft being operated. However, before performing spins in the aircraft, each pilot must receive complete instructions and training as to the proper execution of this maneuver, as well as the characteristics of the aircraft during the spin and recovery therefrom.

Schweizer Aircraft Corp.
Post Office Box 147
Elmira, New York 14902

SERVICE

BULLETIN

SERVICE BULLETIN SA-004

DATE: 16 June 1987

SUBJECT: VISUAL INSPECTION OF 26B-123-1A ELEVATOR PUSH ROD ASSEMBLY FOR CORROSION; POSSIBLE REPLACEMENT OF 26B-123-1A PUSH ROD WITH 26147B PUSH ROD.

MODELS AFFECTED: All Model SGS 1-26, SGS 1-26A, SGS 1-26B, and SGS 1-26C Schweizer Sailplanes equipped with a 26B-123-1A Push Rod Assembly.

TIME OF COMPLIANCE: Shall be accomplished prior to next flight of aircraft and at each annual inspection until replacement of 26B-123-1A push rod with 26147B-1 push rod.

PREFACE: Field reports have indicated a possibility of corrosion of the subject 26B-123-1A push rod assembly. This corrosion, if left uncorrected, could lead to failure of the push rod, resulting in a loss of control of the elevator. This Service Bulletin provides instructions for a repetitive visual inspection of the subject push rod assembly. Any corrosion (no matter how slight) found during the inspection is cause for removal of the push rod assembly (PN 26B-123-1A) from service. 26B-123-1A push rods which are found to be completely free of corrosion may be returned to service after a coat of hot linseed oil is applied to the push rod interior surface, as set forth here in. It should be noted that the 26147B push rod is made from an improved design and is not subject to the inspection specified in the below procedure.

PARTS LIST

NOMENCLATURE	PART NUMBER	QTY	SOURCE
Push rod assembly	26147B-1	1 (A/R)	SAC

MATERIALS

NOMENCLATURE	SOURCE
Linseed oil	Commercial

PROCEDURE

a. Remove cotter pin, nut, washers, and bolts securing push rod at each end.
b. Remove push rod.
c. Inspect exterior of push rod for corrosion. No exterior corrosion is allowed. (Refer to Figure 1.)
d. If no exterior corrosion is found, use a high intensity light to inspect the push rod interior surface through the open end of the tube. (Refer to Figure 1.) No interior corrosion is allowed.
e. If any interior or exterior corrosion is found, replace push rod with a serviceable 26147B-1 push rod. If there is any question whether interior or exterior corrosion exists, replace push rod or consult the factory.
f. Inspect attaching hardware for corrosion and general condition. Replace hardware as required.
g. If no interior or exterior corrosion is found, invert push rod and pour hot linseed oil into open end of tube, until entire push rod is filled with linseed oil. Pour out linseed oil and allow inside surface to dry for one hour.
h. Repeat step g. and reinstall push rod.
h. Check installation for defects and flight controls for proper operation.
i. Record compliance with this Service Bulletin in the aircraft log book.

NOTES: 1. INSPECT EXTERIOR OF PUSHROD FOR CORROSION.
NO CORROSION IS ALLOWED.

2. INSPECT INTERIOR SURFACE OF PUSHROD FOR CORROSION BY SHINING HIGH INTENSITY LIGHT THROUGH OPEN END OF TUBE.
NO INTERIOR CORROSION IS ALLOWED.

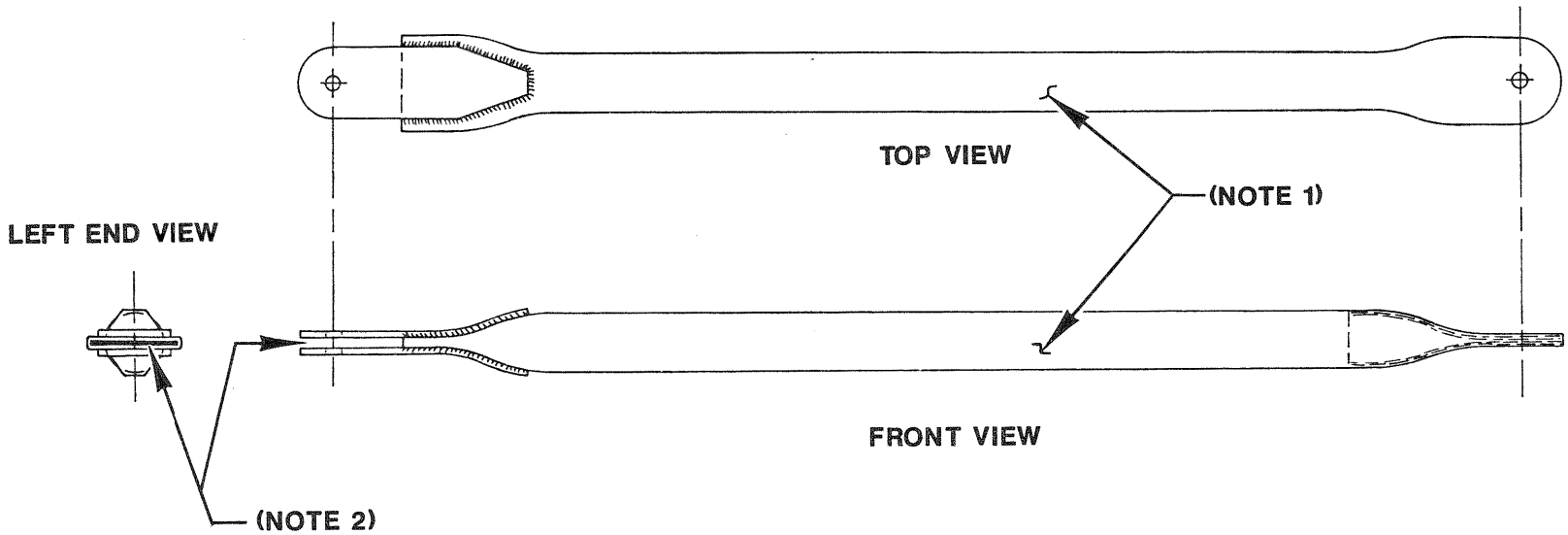


FIGURE 1. ELEVATOR PUSHROD (P/N 26B-12 -1A

Schweizer Aircraft Corp.
Post Office Box 147
Elmira, New York 14902

SERVICE BULLETIN

SERVICE BULLETIN SA-005.1*

DATE: 31 January 1988

* Superseded Service Bulletin
NO. SA-005, Dated 1 June 1987

SUBJECT: IDENTIFICATION AND POSSIBLE REPLACEMENT OF TOW RELEASE ARM.

MODELS AFFECTED:

- All the following Schweizer manufactured and kit built Schweizer gliders and sailplane models.
  - SGU 1-7
  - SGS 2-8 (TG-2)
  - SGS 2-12 (TG-3)
  - SGU 1-19
  - SGU 1-20
  - SGU 1-21
  - SGU 2-22, 2-22A, 2-22C, 2-22CK, 2-22E, 2-22EK
  - SGS 1-23, 1-23B, 1-23C, 1-23D, 1-23E, 1-23F, 1-23G, 1-23H, 1-23H15
  - SGS 1-24
  - SGS 1-26, 1-26A, 1-26B, 1-26C, 1-26D, 1-26E
  - SGS 2-32
  - SGS 2-33
  - SGS 2-33, 2-33A, 2-33AK
  - SGS 1-34, 1-34R
  - SGS 1-35C
  - SGS 1-36 (Sprite)
- All Schweizer Sailplanes field retrofitted to incorporate a tow hook installation

TIME OF COMPLIANCE: Shall be accomplished on affected aircraft prior to next auto or winch tow , or within 60 days of issue date of this bulletin, whichever occurs first.

PREFACE: Reports indicate that part number 1D217-13, 1D222-15, 1D222-17, and 34017D-15 tow release arms may fail to properly disengage the tow hook from the sailplane during tow operations. The possibility of this incident occurring greatly increases during auto and winch tow operations or during an overrun of the tow line. This Service Bulletin requires the replacement of the above mentioned release arms with new or serviceable, used release arms (part numbers specified within procedure).

PROCEDURE

a. Visually check release arms on the affected aircraft for the presence of a lug welded to the front of the arm, below tow hook slot. (Refer to Figure 1.)

NOTE

- The suspect release arms (PN's 1D217-13, 1D222-15, 1D222-17, and 34017-15) may be identified by the presence of a lug welded on the front of the arm, below the tow hook slot. (Refer to Figure 1.)
- Replace suspect release arms as follows:
  (1) Replace 1D217-13 arm with 1D217-9 arm,
  (2) Replace 1D222-15 arm with 1D222-11 arm,
  (3) Replace 1D222-17 arm with 1D222-13 arm,
  (4) Replace 34017D-15 arm with 34017D-11 arm.

b. Remove and replace all suspect release arms (arms which incorporate lug welded to front, below tow hook slot) with acceptable replacement arm as specified in preceding NOTE.

c. Return suspect release arms to Schweizer Aircraft Corp. within 90 days of issue date of this bulletin for free warranty replacement. Contact Sailplane Product Support Department for exchange information.

d. Upon replacement of release arm, perform an operations check and maintain periodic and preflight inspections in accordance with the procedures outlined in Schweizer Bulletin SA-006.

e. Record Compliance with this Service Bulletin in aircraft log book.

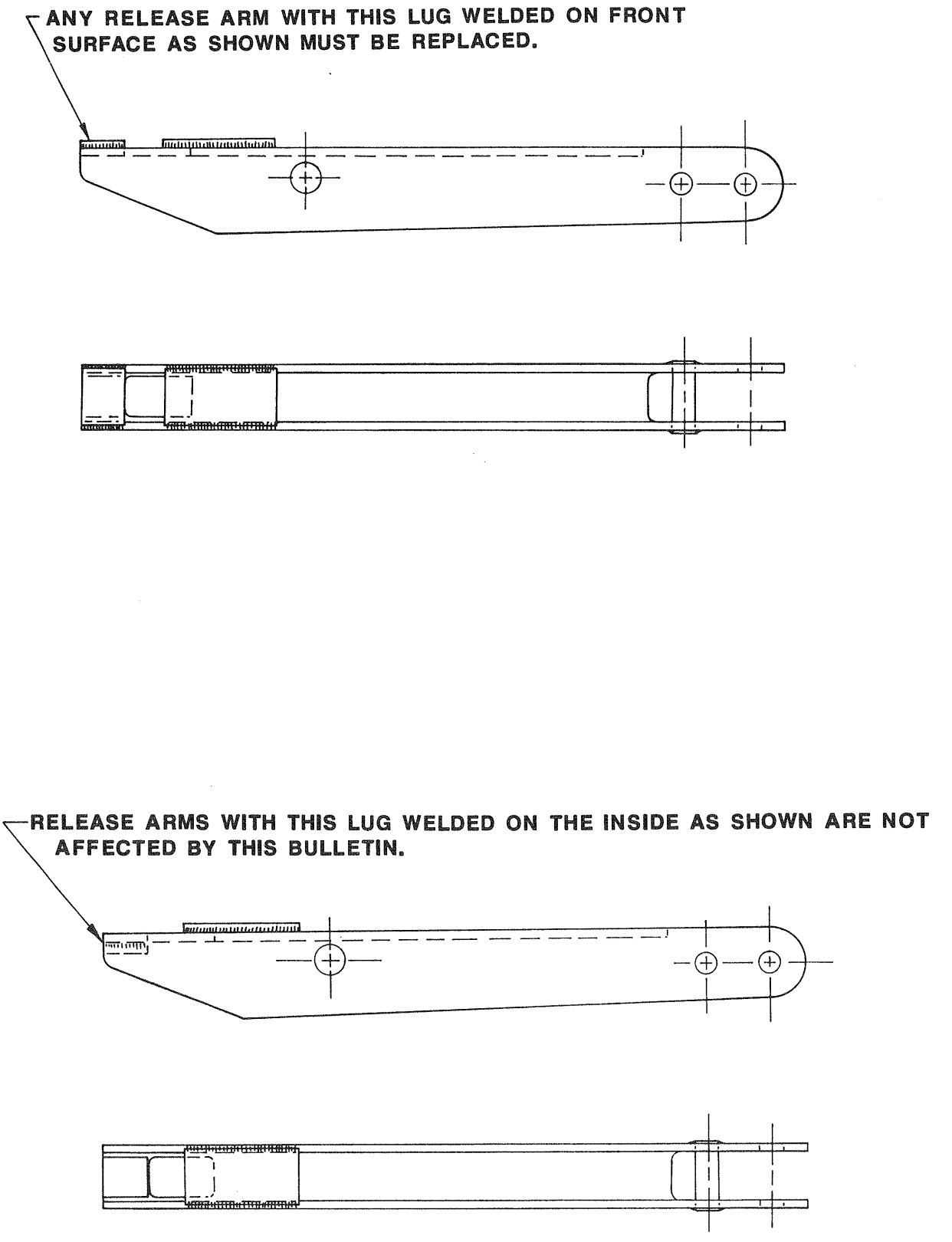


FIGURE 1. RELEASE ARM

SERVICE

Schweizer Aircraft Corp.
Post Office Box 147
Elmira, New York 14902

BULLETIN

Bulletin No.SA-ØØ6
Date: 1 March 1989

SUBJECT: Replacement of Seat Back Adjustment Bracket

MODELS AFFECTED: All SGS 1-26D and SGS 1-26E

TIME OF COMPLIANCE: Shall be accomplished within next 1ØØ Hours of operation, or within 12 months of issue date of this bulletin whichever occurs first.

PREFACE: Reports indicate that on the affected aircraft, the pilot's seat back could inadvertently slide back during tow, when experiencing turbulence or during certain flight attitudes where a negative g condition may exist.
A new bracket, (PN26245D-3), and spacer, (PN26245D-5), has been designed to resolve this problem. This service bulletin lists instructions to install this improved seat back adjustment bracket. This improved bracket should reduce the possibility of sudden seat back movement.

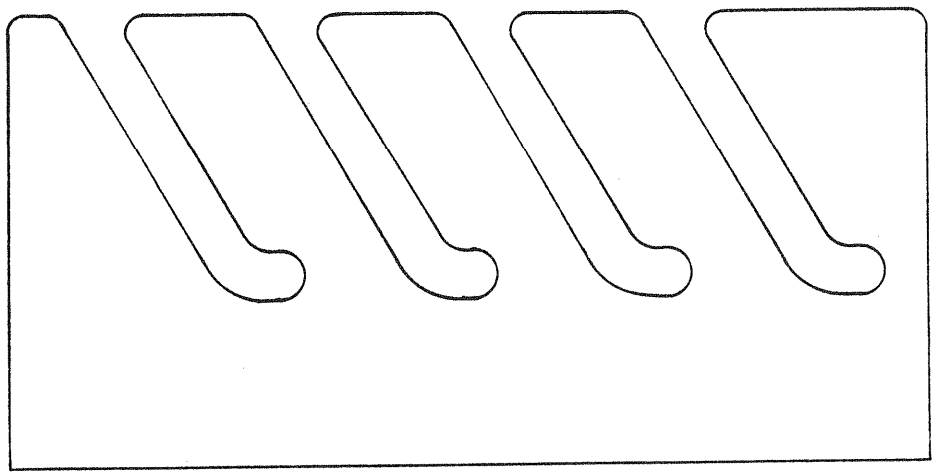
PARTS LISTS

NOMENCLATURE	PART NO.	QUANITY
Bracket	26245D-3	2
Spacer	26245D-5	2
Rivet	MS2Ø426AD4	1Ø

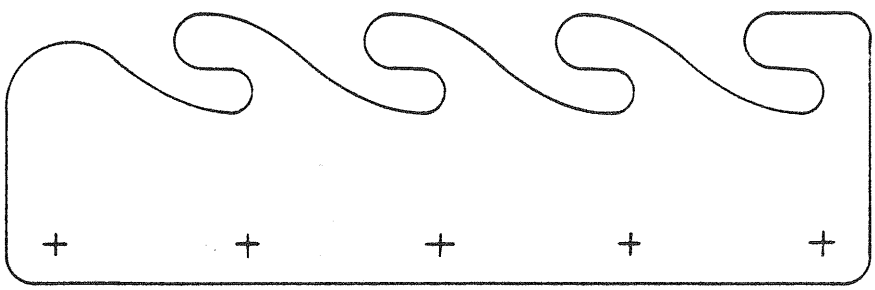
PROCEDURE

a. Drill out rivets securing existing seat adjustment brackets. Remove brackets.
b. Clean up bracket mount area removing any burrs and sharp edges.
c. Paint bracket mount areas with a thin coat of Zinc Chromate or equivalent primer to prevent corrosion.
d. Place the spacer between the inside fuselage wall and the lower edge of bracket.
e. Mark the mount area and drill holes as per old bracket using a #3Ø drill bit and secure with Cleco.
f. Install rivets (MS2Ø426AD4) (5) places on each bracket and spacer kit.
g. Paint exterior of rivet heads.
h. Record compliance with this service bulletin in the aircraft log book.

SEAT ADJUSTMENT BRACKET



NEW DESIGN 26245D-3 BRACKET



OLD DESIGN 26350D BRACKET

Schweizer Aircraft Corp.
Elmira, New York 14902

SL-102-14
Aug. 21, 1978

SERVICE LETTER

Service Letter No. SL-102-14
Model/Ser. No's Affected: SGS 1-26E, Ser. No's 500 and up
Subject: Seat-Back Adjustment vs C.G. Aft Limit

It has come to our attention that certain seat-back adjustments on the SGS 1-26E might result in a condition of the sailplane aft CG limit being exceeded, with a pilot at, or near, the minimum-pilot-weight.

The seat back on the model SGS 1-26E is ground-adjustable only, at both top and bottom. The adjustment was provided for accomodation of large-frame pilots and to allow the use of a back-pack parachute or back cushion.

While it is difficult to foretell the actual center of gravity of a given pilot - considering body structure, height and development - it must be noted that, in some combinations of pilot configuration and seat-back location, an adverse effect on the flight C.G. (aft limit) could occur. This would most likely be that of a tall, slender pilot having adjusted the seat-back to the most aft position, rather than adjusting the rudder pedals to the forward position.

Without the back cushion, or parachute, the C.G. of a minimum-weight pilot would move significantly aft, which would appreciably increase the minimum pilot-weight requirement.

For this reason, a pilot near the minimum pilot-weight should extend the rudder pedal adjustment to the forward position rather than adjusting the seat-back aft. The most effective method to avoid skirting the aft C.G. limit, however, is the use of the manufacturer's removable ballast weight.

Schweizer Aircraft Corporation
P. O. Box 147
Elmira, New York 14902

NOTE:

It is recommended that this service letter be inserted in the Sailplane Flight Manual - attached to page 23.

SERVICE

Schweizer Aircraft Corp.
Post Office Box 147
Elmira, New York 14902

LETTER

SERVICE LETTER SL-001

DATE: 1 June 1987

TO: All owners and operators of Schweizer Sailplanes.

SUBJECT: ANNUAL DISASSEMBLY OF AIRCRAFT.

MODELS AFFECTED: All Model SGS 1-23, SGS 1-26, SGS 2-32, and SGS 1-34 Schweizer Sailplanes.

Reports indicate that failure to disassemble the subject sailplanes periodically (removal of wings and stab) could result in corrosion buildup on the attach fittings and hardware, making disassembly difficult or even impossible without damage to the aircraft. For this reason, Schweizer Aircraft Corp. suggests that the affected sailplanes be disassembled at each 12-month calendar interval. After disassembly, inspect the wing and stab attachment fittings and trunnions for corrosion. Cleanup light corrosion with abrasive paper and wipe surfaces with a clean, soft, lint-free cloth. Apply light grease to all attaching fittings and parts. Ensure that all attaching parts are free of dirt, grit, and contamination, prior to reassembly. Failure to comply with this Service Letter could lead to a difficult-to-disassemble condition.