

AD COMPLIANCE

Aircraft Make *SGS* Model *1-26 F* Reg. No. *N33917* Serial No. *637*

AD Number	Subject	Effective Date	Due At	Method of Compliance	Date of Compliance	Time at Compliance	Next Due at.
87-02-01	To prevent the possibility of The tow hook inadvertently Slipping out of the release arm	01/21/87	< 5Tows & Ea100Hr	SB SA-001 Dtd. 10/03/86 Parts 3B, 3C & Fig. 4	<i>10/13/00</i>	<i>990.66</i>	<i>1090.66</i>
87-17-01	To prevent the possibility of The tow release assembly creating a jammed condition During towing	08/19/88	< Next Flight	Check for proper arm per SB-SA-005.1 Dtd. 01/31/88 Operational check per Fig. 4	<i>10/13/00</i>	<i>990.66</i>	
<i>87-02-01</i>	<i>Reviewed - OK</i> <i>RD Burchard AP 1701249</i>				<i>12/14/01</i>		
<i>87-17-01</i>	<i>Reviewed - OK</i> <i>RD Burchard AP 1701249</i>				<i>12/14/01</i>		
<i>87-02-01</i>	<i>Tow Hook Insp & operation</i>			<i>INSPECTION</i> <i>RD Burchard</i> <i>AP 1701249</i>	<i>11/9/02</i>	<i>1005:87</i>	<i>1105 HR</i>
<i>87-02-01</i>	<i>Tow Hook Insp.</i>		<i>100HR</i>	<i>INSPECTION - RD Burchard</i> <i>AP 1701249</i>	<i>11/18/03</i>	<i>1005.87</i>	<i>1105 HR</i>
<i>87-02-01</i> <i>87-17-01</i>	<i>Tow Hook</i> <i>Release Arm</i>		<i>100HR</i>	<i>INSPECTION - RD Burchard</i> <i>AP 1701249</i>	<i>10/7/06</i>	<i>1014:37</i>	<i>1114:37</i>

FAA AD NOTES: MFGR'S SERVICE BULLETINS
AND SERVICE LETTERS APPLICABLE TO SCHWEIZER AIR/SAILPLANES

MODEL	FAA AD NOTES		MFGR'S SERVICE BULLETIN		MFG'S SERVICE LETTER	
	NUMBER	SUBJECT	NUMBER	SUBJECT	NUMBER	SUBJECT
SGU 2-22	none		102-22-100	Handling/wind damage to short aileron push rod	SL-102-3	Fire potential - fabric cover aircraft
			102-22-101	" " "		
2-22A, 2-22C, CK, E, EK	76-13-11	Internal Rust	102-33-1	Internal Rust, (S/N's 98-258) Fuse frame	"	" " "
SGS 1-23 thru G	none		102-23-1	Jamming of spoiler controls	SL-102-7	Vertical surface flutter
SGS 1-23 H and H15	71-17-9	Worn fin & rudder hinge	102-23-2	Worn fin/rudder hinges	"	" " "
SGS 1-26, & Model A thru C	none		102-26-1	High release-operating load	SL-102-3	Fire potential - fabric cover
			102-26-2	Failure in stamped wheel flg.		
			102-26-3	Elev. cable routing at fin spar		
			102-26-4	Seat back disengagement		
			102-26-5	Failure, torque tube brg's supp't		
SGS 1-26D	none		102-26-6	Mislocated rudder fairlead, (S/N's 404 thru 409)		
SGS 1-26B	none		102-26-7	Lw'r rudder hinge, swept tail		
SGS 1-26D, E	none		102-26-8	Stick-attach bolt should be AN6-21	SL-102-14	Seat ajust vs. C.G. aft limit
SGS 2-32	none		none		SL-102-8	Oversize main wing pins

FAA AD NOTES: MFGR'S SERVICE BULLETINS
AND SERVICE LETTERS APPLICABLE TO SCHWEIZER AIR/SAILPLANES

MODEL	FAA AD NOTES		MFGR'S SERVICE BULLETIN		MFGR'S SERVICE LETTERS	
	NUMBER	SUBJECT	NUMBER	SUBJECT	NUMBER	SUBJECT
SGS 2-33, A, AK	76-13-11	Internal rust, fuselage frame.	102-26-7	Lw'r rudder hinge, swept tail	SL-102-1	Water in pitot-static syst.
			102-33-1	Internal rust, Fuselage frame (S/N's 1 thru 200)	SL-102-2	Possible tow ring foul
	77-23-10	Attach Bolts, Fin Spar	102-33-2	Attach Bolts, Fin Spar (S/N 1 Thru 507)	SL-102-3	Fire potential-fabric cover
			102-33-4	Removable Ballast Instl.	SL-102-4	Conversion to SGS 2-33A
					SL-102-9	Rel. control - Instrum. Pan
					SL-102-12	Wing-Strut Attachment
					SL-102-13	Aileron Security at Tie-down
					SL-102-15	Spring Assy-Ratchet Lock Tr
					SL-102-16	Fuse. Fabric Separation
					SL-102-17	Aileron Bellcrank Corrosion
					SL-102-18	Tow Release Slot - Cracks
SGS 1-34, R	none		none		SL-102-5	Retrofit - dive brake control
					SL-102-6	Retrofit - trim control
SGS 1-35	none		none		SL-102-10	Flap Flutter, S/N's 2 - 35
					SL-102-11	Guard for canopy latch, S/N's 1-69
SGS 1-35A	none		none		none	
SGS 1-35C	none		none		none	
SGS 1-36	none		none		none	
SGM 2-37	none		none		none	

NOTE: The above information is valid as of _____
(Date)

PUBLICATION INDEX

FOR

SCHWEIZER SAILPLANES

**REVISION 1 TO PUBLICATION INDEX
NO. SSP-I-1 ISSUED 1 JUNE 1988
INSERT APPLICABLE PAGE(S) INTO
PUBLICATION INDEX**

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

SAILPLANE SERVICE BULLETIN INDEX

Number	Subject	Date	SGU	SGU	SGU	SGU	SGU	SGU	SGS	SGS	SGS	SGS	SGS	SGS	SGS	SGS	SGS
			1-7	2-8	2-12	1-19	1-20	1-21	2-22	1-23	1-24	1-26	2-32	2-33	1-34	1-35	1-36
SA-004	Inspection of Elevator Pushrod	16 Jun 1987										X					
SA-005.1	Identification and Possible Replacement of Tow Release Arm	31 Jan 1988	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SA-006	Installation of Seat Adjustment Bracket	01 Feb 1989										X					

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

Bulletin No. SA-006
Date: 1 March 1989
Page 1 of 1

c/w 11/89

B
U
L
L
E
T
I
N

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 100 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.

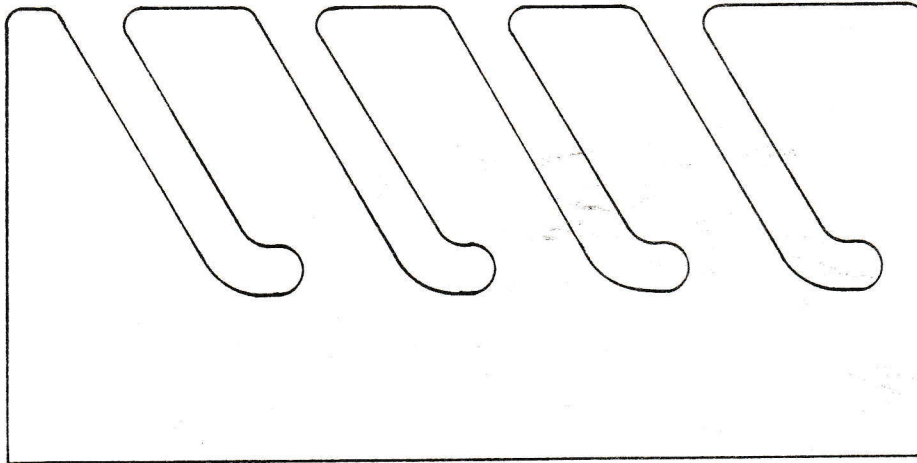
PARTS LISTS

NOMENCLATURE	PART NO.	QUANTITY
Bracket	26245D-3	2
Spacer	26245D-5	2
Rivet	MS20426AD4	10

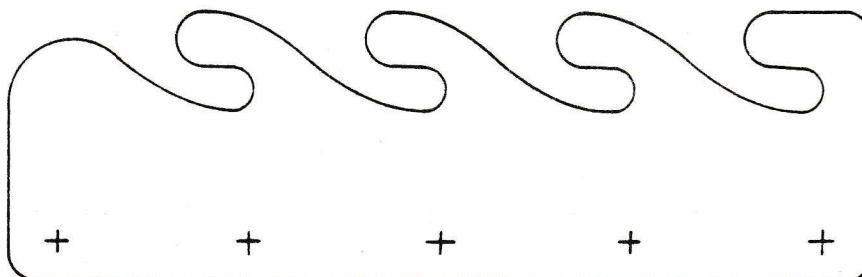
PROCEDURE

- Drill out rivets securing existing seat adjustment brackets. Remove brackets.
- Clean up bracket mount area removing any burrs and sharp edges.
- Paint bracket mount areas with a thin coat of Zinc Chromate or equivalent primer to prevent corrosion.
- Place the spacer between the inside fuselage wall and the lower edge of bracket.
- Mark the mount area and drill holes as per old bracket using a #30 drill bit and secure with Cleco.
- Install rivets (MS20426AD4) (5) places on each bracket and spacer kit.
- Paint exterior of rivet heads.
- Record compliance with this service bulletin in the aircraft log book.

SEAT ADJUSTMENT BRACKET



NEW DESIGN 26245D-3 BRACKET



OLD DESIGN 26350D BRACKET



U.S. Department
of Transportation
**Federal Aviation
Administration**

AIRWORTHINESS DIRECTIVE

AVIATION STANDARDS NATIONAL FIELD OFFICE
P.O. BOX 26460
OKLAHOMA CITY, OKLAHOMA 73125

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Federal Aviation Regulations, Part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety. They are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (FAR 39.3).

87-17-01 SCHWEIZER AIRCRAFT CORP: Amendment 39-5973. Final copy of priority letter AD issued August 18, 1987. Applies to models (including kit built) 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) gliders, certificated in any category.

Compliance is required prior to the next flight after the effective date of this AD, unless already accomplished.

To prevent the possibility of the tow release assembly creating a jammed condition during towing and subsequent failure of the tow line to release, which could result in a forced landing, accomplish the following:

(a) Inspect the tow release installation to determine if any of the following release arms are installed:

P/N 1D217-13, 1D222-15, 1D222-17 or 34017D-15.

NOTE: The above arms can be identified by a lug which is welded on the front face of the release arm as shown in Figure 1 of Schweizer Service Bulletin (SB) No. SA-005.1, dated January 31, 1988.

(b) Tow release installations which have any of the release arms listed in (a) must have the arms replaced in the following manner:

P/N 1D217-13 replace with 1D217-09
P/N 1D222-15 replace with 1D222-11
P/N 1D222-17 replace with 1D222-13
P/N 34017D-15 replace with 34017D-11

(c) Perform the operational check in accordance with Figure 4 in Schweizer SB No. SA-001.3, dated January 31, 1988, following release arm replacement.

(d) Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, New York Aircraft Certification Office, Federal Aviation Administration (FAA), New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

Schweizer Aircraft Corporation SB No's. SA-005.1, and SA-001.3, both dated January 31, 1988, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1).

All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request from Schweizer Aircraft Corporation, P.O. Box 147, Elmira, New York 14902; telephone (607) 739-3821. These documents may also be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Room 311, Docket No. 87-ANE-29, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except federal holidays.

This amendment, 39-5973, becomes effective on August 19, 1988, as to all persons except those persons to whom it was made immediately effective by individual priority letter AD 87-17-01, issued August 18, 1987, which contained this amendment.

FOR FURTHER INFORMATION CONTACT:

C. Kallis, ANE-173, New York Aircraft Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; telephone (516) 791-6428.

4910-13

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket Number 87-ANE-29; Amendment 39-5973]

Airworthiness Directives; Schweizer Aircraft Corporation Glider Models
SGS and SGU Series.

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action publishes in the FEDERAL REGISTER and makes effective to all persons an amendment adopting a new airworthiness directive (AD) which was previously made effective to all known U.S. owners and operators of Schweizer Glider Models SGS and SGU Series by individual priority letters. Because typographical errors occurred in the part numbers (P/N) in priority letter AD 87-17-01, they are corrected. The AD requires inspection, and replacement if necessary, of the tow-release arm in the tow-release system prior to the next flight, unless already accomplished. The AD is needed to prevent jamming of the tow-release mechanism which could result in failure of the tow-line to release from the glider and result in an unsafe condition during landing.

DATES: Effective August 19, 1988, to all persons except those to whom it was made immediately effective by individual priority letter AD 87-17-01, issued August 18, 1987, which contained this amendment.

Compliance - As required in the body of the AD.

Incorporation by Reference - Approved by the Director of the FEDERAL REGISTER as of August 19, 1988.

ADDRESSES: Schweizer Aircraft Corporation Service Bulletin (SB) No. SA-005.1, dated January 31, 1988, SB No. SA-001.3, dated January 31, 1988, and replacement parts specified in this AD may be obtained from Schweizer Aircraft Corporation, P.O. Box 147, Elmira, New York 14902; telephone (607) 739-3821.

Copies of SB No. SA-005.1 and SB No. SA-001.3 are contained in the Rules Docket, Docket No. 87-ANE-29, Office of the Regional Counsel, Federal Aviation Administration, 12 New England Executive Park, Room 311, Burlington, Massachusetts 01803, and may be examined between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except federal holidays.

FOR FURTHER INFORMATION CONTACT: C. Kallis, ANE-173, New York Aircraft Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Division, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; telephone (516) 791-6428.

SUPPLEMENTARY INFORMATION: On August 18, 1987, priority letter AD 87-17-01, was issued and made effective immediately to all known U.S. owners/operators of certain Schweizer Aircraft Corporation Glider Models SGS and SGU Series. AD action resulted from two reports that reflects that certain Schweizer tow-hooks with release arms P/N's 1D217-13, 1D222-15, 1D222-17 or 34017D-15 used on the above Schweizer Aircraft Corporation gliders, can create a jamming condition of the tow-line ring during towing, when an input by the glider pilot commands release of the tow-line. Schweizer Aircraft Corporation has issued SB No. SA-005.1, dated January 31, 1988, which calls for inspection of the tow-release installations, and replacement if necessary with new parts. Failure to release the tow-line while towing one of these gliders may result in an unsafe condition during landing.

Since it was found that immediate corrective action was required, notice and public procedure thereon were impracticable and contrary to public interest, and good cause existed to make the AD effective immediately by individual priority letter AD issued, August 18, 1987, to all known U.S. owners and operators of certain Schweizer gliders. These conditions still exist, and the AD with typographical corrections to the P/N's, is hereby published in the FEDERAL REGISTER as an amendment to Section 39.13 of Part 39 of the Federal Aviation Regulations to make it effective as to all persons.

The regulations set forth in this amendment are promulgated pursuant to the authority in the Federal Aviation Act of 1958, as amended (49 U.S.C. 1301, et seq.), which statute is construed to preempt state law regulating the same subject. Thus, in accordance with Executive Order 12612, it is determined that such regulations do not have federalism implications warranting the preparation of a Federalism Assessment.

CONCLUSION: The FAA has determined that this regulation is an emergency regulation that is not considered to be major under Executive Order 12291. It is impracticable for the agency to follow the procedures of Executive Order 12291 with respect to this rule since the rule must be issued immediately to correct an unsafe condition in aircraft. It has been further determined that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). If this action is subsequently determined to involve a significant/major regulation, a final regulatory evaluation or analysis, as appropriate, will be prepared and placed in the regulatory docket (otherwise, an evaluation or analysis is not required). A copy of it when filed, may be obtained by contacting the person identified under the caption "FOR FURTHER INFORMATION CONTACT".

List of Subjects in 14 CFR Part 39:

Air Transportation, Aircraft, Aviation Safety, Incorporation by Reference.

ADOPTION OF THE AMENDMENT

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration (FAA) amends Part 39 of the Federal Aviation Administration (FAR) as follows:

1. The authority citation for Part 39 continues to read as follows:
Authority: 49 U.S.C. 1354(a), 1421, and 1423; 49 U.S.C. 106(g)
(Revised Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.
2. By adding to Section 39.13 the following new airworthiness directive (AD):



U.S. Department
of Transportation
Federal Aviation
Administration

EMERGENCY AIRWORTHINESS DIRECTIVE

AVIATION STANDARDS NATIONAL FIELD OFFICE
P.O. BOX 25082
OKLAHOMA, CITY OKLAHOMA 73125

AUGUST 18, 1987

This emergency priority letter **Airworthiness Directive (AD)** No. 87-17-01, applicable to owners and operators of certain Schweizer Aircraft Corporation glider Models SGS and SGU series with **tow release installations** which use redesigned release arms, is effective immediately upon receipt. This priority letter AD is required because the tow line could fail to release on gliders equipped with tow release installations which use redesigned release arms that have an additional lug welded on the face of the release arm. This priority letter AD requires the inspection and replacement, if necessary, of the tow release arm in the tow release system prior to the next flight after receipt of this priority letter AD, unless already accomplished.

Pursuant to the authority of the Federal Aviation Act of 1958, delegated to me by the Administrator, the following priority letter AD is issued and made applicable to all of the following models of Schweizer Aircraft Corporation gliders (including kit built) certificated in any category: 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).

87-17-01 **SCHWEIZER**: Priority letter issued August 18, 1987. Applies to models (including kit built) 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).

This priority letter AD is effective immediately upon receipt.

Compliance is required prior to the next flight after the effective date of this priority letter AD, unless already accomplished.

To prevent the possibility of the tow release assembly creating a jammed condition during towing and subsequent failure of the tow line to release, which could result in a forced landing, accomplish the following:

(a) **Inspect the tow release installation** to determine if any of the following release arms are installed:

P/N 1D217-13, 1D222-15, 1D222-17 or 34017-13.

EMERGENCY AIRWORTHINESS DIRECTIVE

NOTE: The above arms can be identified by a lug which is welded on the front face of the release arm as shown in Figure 1 of Schweizer Service Bulletin (SB) SA-005, dated June 1, 1987.

(b) Tow release installations which have any of the release arms listed in (a) must have the arms replaced in the following manner:

P/N 1D217-13 replace with 1D-217-11
P/N 1D222-15 replace with 1D-222-11
P/N 1D222-17 replace with 1D-222-13
P/N 34017-13 replace with 34017D-11

(c) Perform the operational check in accordance with Figure 4 in Schweizer SB SA-001.2, dated May 19, 1987, following release arm replacement.

Upon request, an equivalent means of compliance with the requirements of this priority letter AD may be approved by the Manager, New York Aircraft Certification Office, Federal Aviation Administration (FAA), New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

Documents pertinent to this priority letter AD may be obtained, upon request, from Schweizer Aircraft Corporation, P.O. Box 147, Elmira, N.Y. 14902; telephone 607-739-3821, or may be examined at the Office of the Regional Counsel, FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket No. 87-ANE-29.

Federal Register publication to follow.

This priority letter AD 87-17-01 issued August 18, 1987, is effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT:

Constantine Kallis, FAA, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581; telephone 516-791-6427.

MASTER

SERVICE

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

BULLETIN NO. SA-001.3*

DATE: 31 January 1986

PAGE: 1 of 13

* Supersedes Service Bulletin
No. SA-001.2, Dated 19 May 1987

SUBJECT: ONE-TIME INSPECTION OF TOW RELEASE ASSEMBLY; DAILY INSPECTION OF TOW RELEASE ASSEMBLY; PILOT'S PREFLIGHT INSPECTION OF TOW RELEASE ASSEMBLY; 100 HOUR 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 COMPLIANCE: 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-001.2, or prior revision).

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

PART III: Shall be accomplished at each Pilot's Pre-flight inspection.

PART IV: Shall be accomplished at each 100 hour inspection.

DATE: 31 January 1988

PAGE 2 of 13

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

PREFACE: Field reports indicate that it is possible for the tow hooks on the affected aircraft to release during towing operations without any input from the sailplane pilot. Thorough analysis of this situation has allowed Schweizer Aircraft Corp. (SAC) 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 Pilot's Preflight Inspection, and a 100 hour 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 a 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.

DATE: 31 January 1988

PAGE 3 of 13

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 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 2-8 (TG-2)	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 2-12 (TG-3)	R-200-9A or 1A-218-1A or 1B-221-3	12B-141 or 1B-217-1A	1D-217-9
SGU 1-19	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGU 1-20	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGU 1-21	R-200-9A or 1A-218-1A 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 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 1-23 (All models)	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 1-24	R-200-9A or 1A-218-1A 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 1A-218-1A 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

DATE: 31 January 1988

PAGE 4 of 13

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 RELEASE ARM AT A LOCATION FURTHER FORWARD ON THE AIRCRAFT. BE SURE TO CONTACT SAC 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 hook 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 engages properly 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.

DATE: 31 January 1988

PAGE 5 of 13

- 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 or 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 the 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 THE GUIDELINES SPECIFIED IN AC 43.13.

- b. If any defects are noted, repair or replace faulty component(s) prior to next flight.

DATE: 31 January 1988

PAGE 6 of 13

TABLE 2
DAILY AND 100-HOUR INSPECTION

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

DATE: 31 January 1988

PAGE 7 of 13

PART III - PILOT'S PREFLIGHT INSPECTION OF TOW RELEASE ASSEMBLY.

PROCEDURE

NOTE

- Figure 1 shows 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 the 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 line to tow hook and check for positive 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.

DATE: 31 January 1988

PAGE 8 of 13

PART IV - 100 HOUR INSPECTION OF TOW RELEASE ASSEMBLY.

PROCEDURE

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

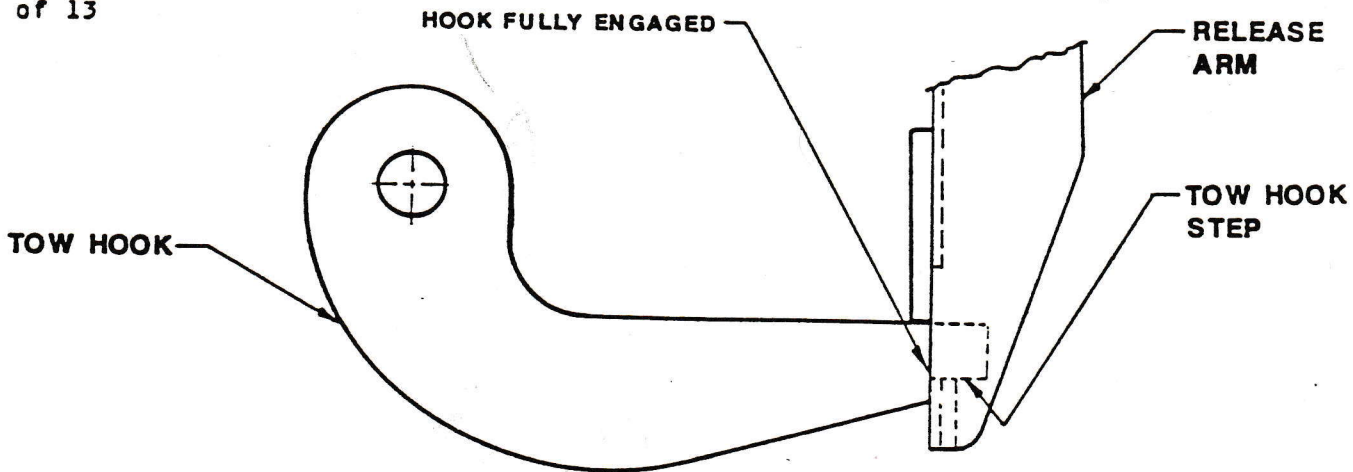
CAUTION

ALL AIRCRAFT REPAIRS MUST BE PERFORMED IN ACCORDANCE WITH AC 43.13.

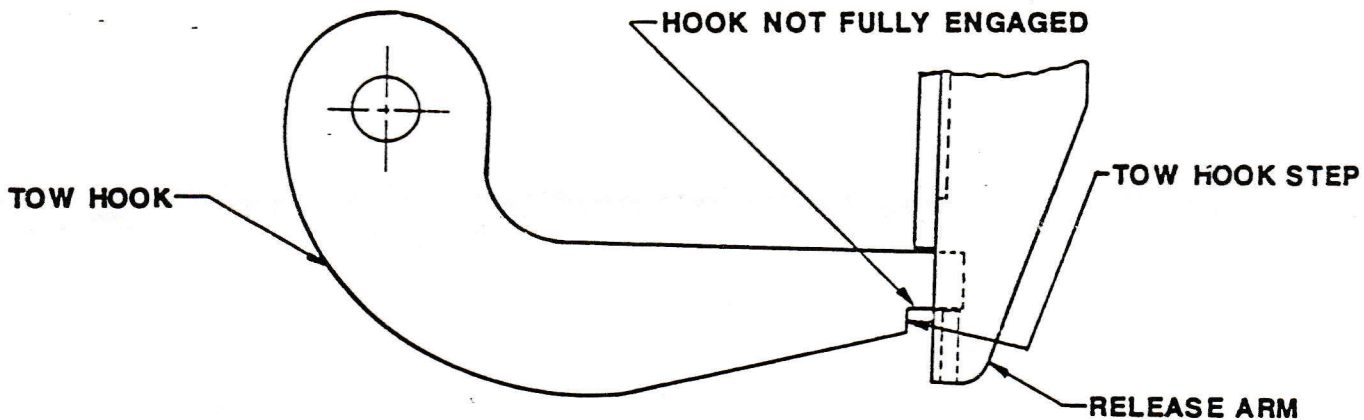
- b. If defects are noted, repair or replace faulty component(s).
- c. Record compliance with Part IV of this Service Bulletin in Aircraft Log Book.

WEIGHT AND BALANCE DATA

Weight and Balance not affected.



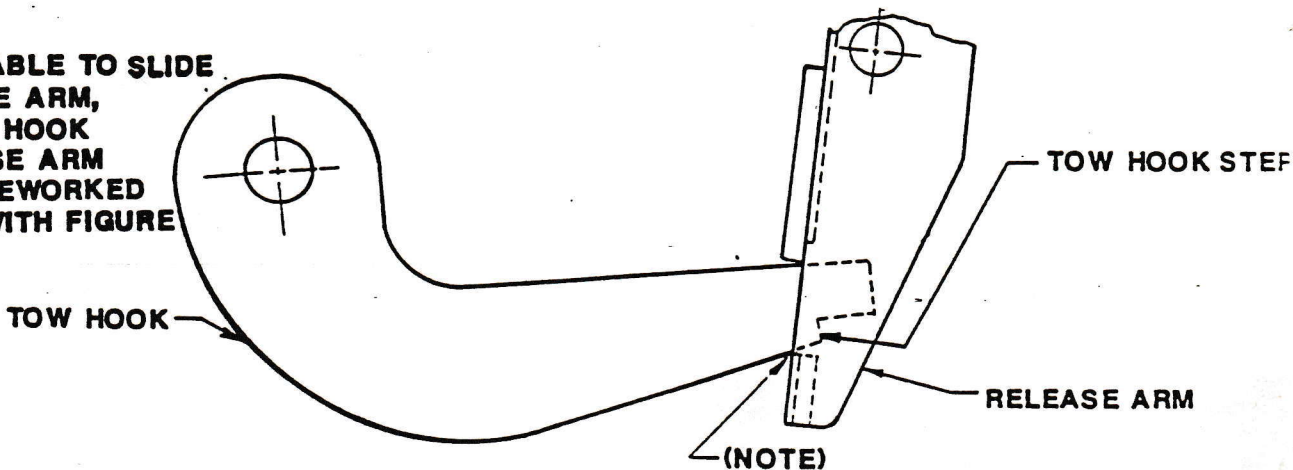
VIEW A. PROPER ENGAGEMENT



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

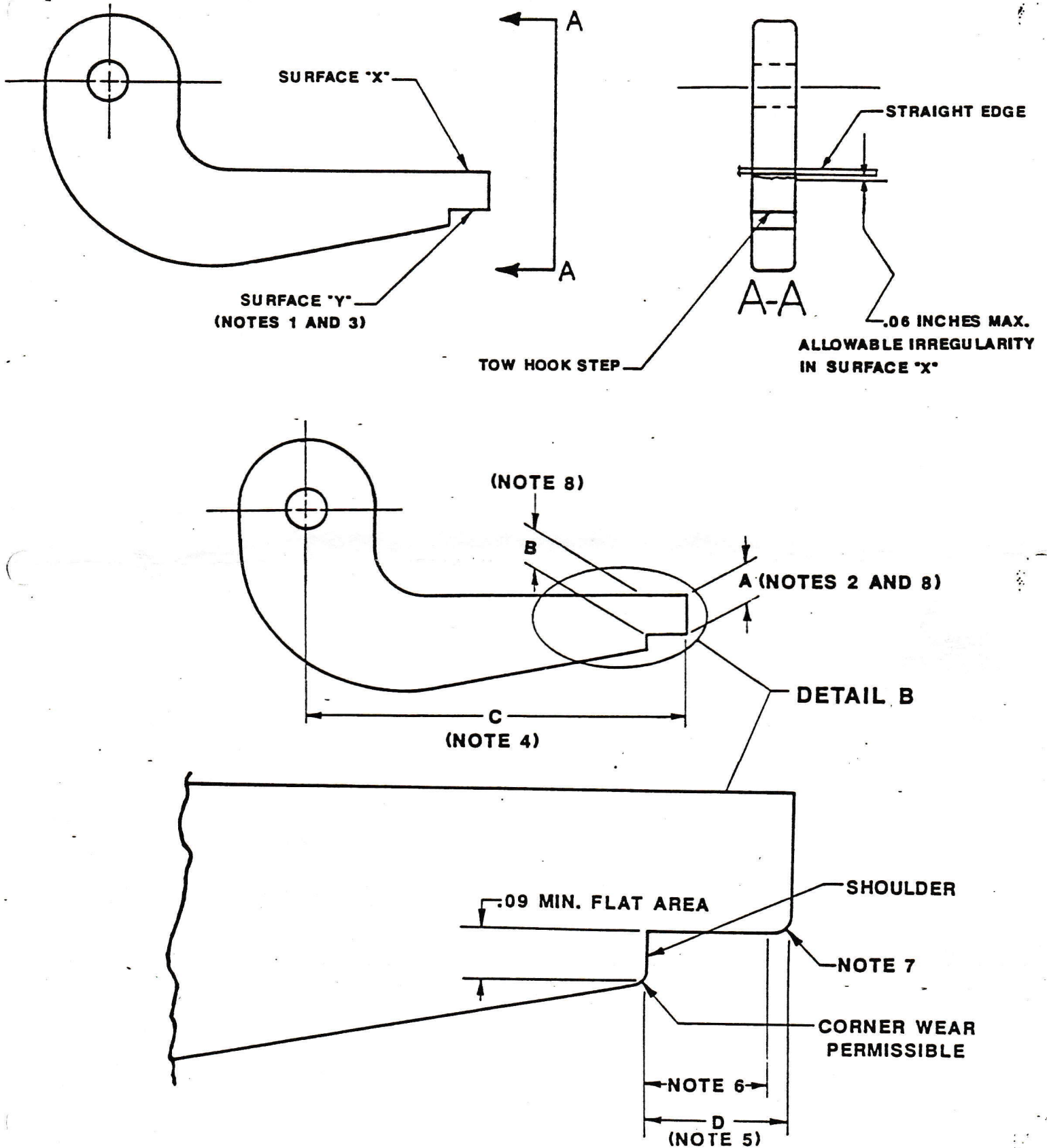


FIGURE 2. TOW HOOK INSPECTION AND REWORK (SHEET 1 OF 2)

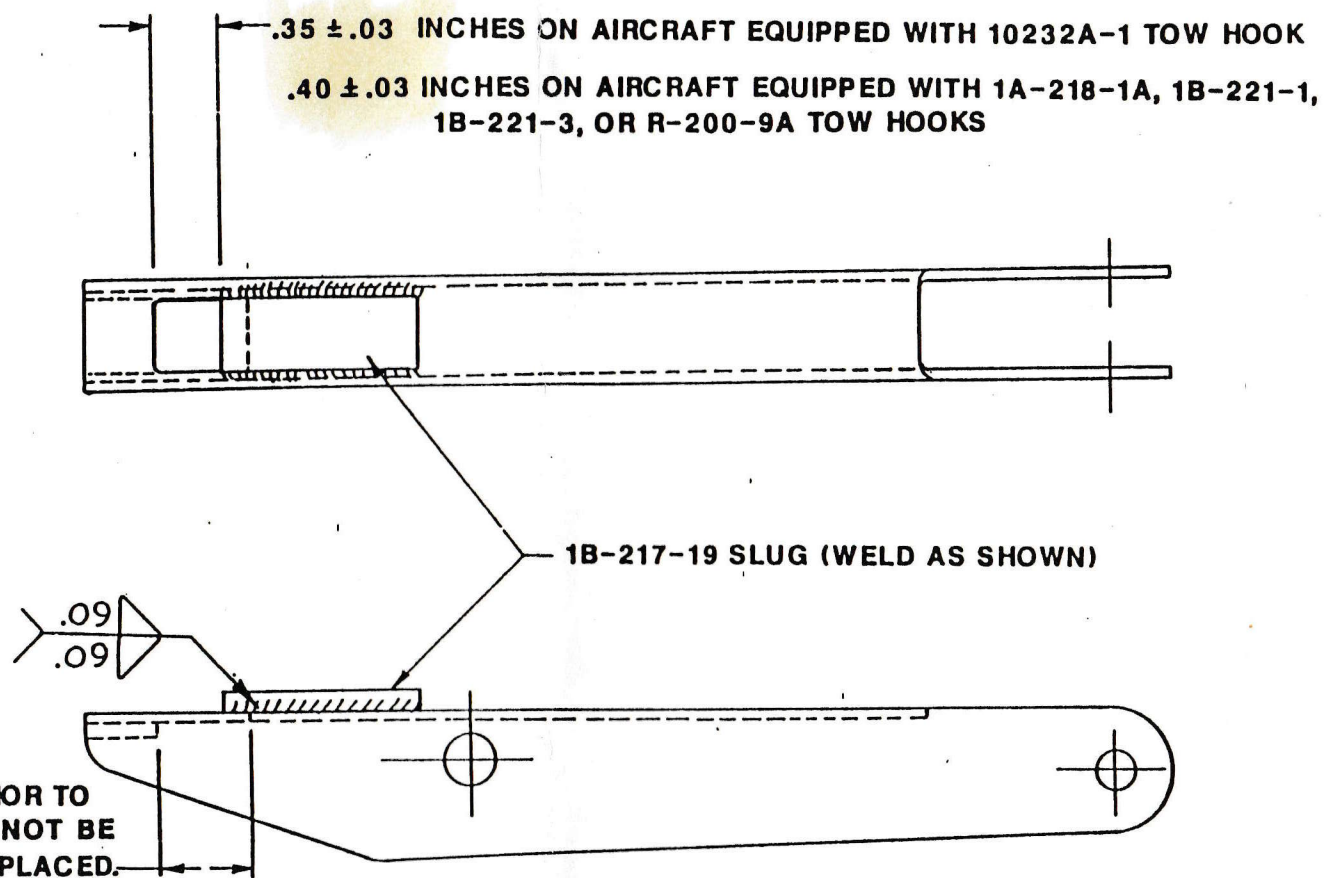
DATE: 31 January 1988

PAGE 11 of 13

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 10232A-1 HOOK SHALL BE .21 INCHES MIN. & .28 INCHES MAX. DIMENSION "A" ON 1A-218-1A, 1B-221-1, 1B-221-3, & 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 10232A-1 HOOK SHALL BE $2.06 \pm .03$ INCHES. DIMENSION "C" ON 1A-218-1A, 1B-221-1, 1B-221-3, & R-200-9A SHALL BE $3.00 \pm .03$ INCHES.
5. DIMENSION "D" SHALL BE $.31 \pm .03$ 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 PERMISSIBLE.
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 FILED TO OBTAIN REQUIRED DIMENSIONS.

NOTE: 1B-217-19 SLUG IS AVAILABLE FROM SCHWEIZER AIRCRAFT CORP.
0.125 X 0.5 X 1.0 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

SERVICE BULLETIN SA-005

DATE: 1 June 1987

PAGE 1 of 3

SUBJECT: ONE-TIME INSPECTION AND POSSIBLE REPLACEMENT OF TOW RELEASE ARM.

MODELS AFFECTED: All Schweizer manufactured and kit built Schweizer gliders and sailplane models listed below. All Serial numbers of each model. Also affected are all sailplanes retrofitted with a Schweizer tow hook installation.

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)

NOTE

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

- TIME OF COMPLIANCE:
1. Must be completed prior to the next auto or winch tow of any sailplane equipped with the affected release arm.
 2. Must be completed within 60 days on all sailplanes equipped with an affected release arm.
 3. Affected release arms in spares inventory must not be installed on sailplanes and are to be returned to Schweizer Aircraft for warranty replacement.

PREFACE: Reports indicate the possibility that the tow line could fail to release properly from Schweizer sailplanes equipped with a new tow release arm part number 1D217-13, 1D222-15, 1D222-17, or 34017-13. The possibility of this incident occurring greatly increases during auto and winch tow operations or during an overrun of the tow line. This Bulletin requires replacement of the affected tow release arms with a new arm.

DATE: 1 June 1987

PAGE 2 of 3

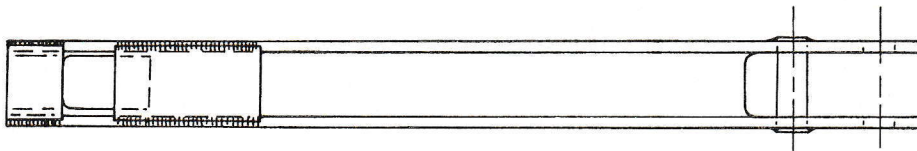
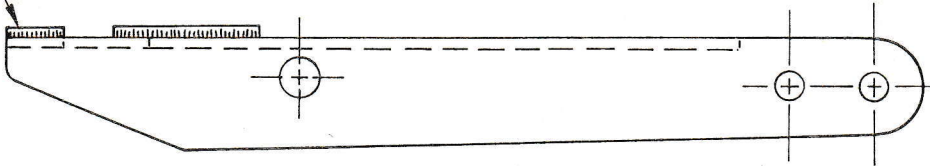
PROCEDURE

1. Inspect release arm for lug welded on front, below tow hook slot as shown in Figure 1. Any affected release arm must be removed and replaced within the time of compliance stated on this Bulletin. Return affected release arms to Schweizer Aircraft within 90 days of the date of this notice for free warranty replacement. Contact Schweizer Sailplane Product Support Department for exchange information. Arms received after 90 days will not be given warranty consideration.
2. 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-001.2.
3. Record Compliance with this Notice in the aircraft log book.

DATE: 1 June 1987

PAGE 3 of 3

ANY RELEASE ARM WITH THIS LUG WELDED ON FRONT SURFACE AS SHOWN MUST BE REPLACED.



RELEASE ARMS WITH THIS LUG WELDED ON THE INSIDE AS SHOWN ARE NOT AFFECTED BY THIS BULLETIN.

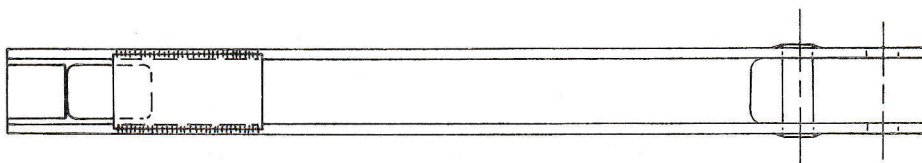
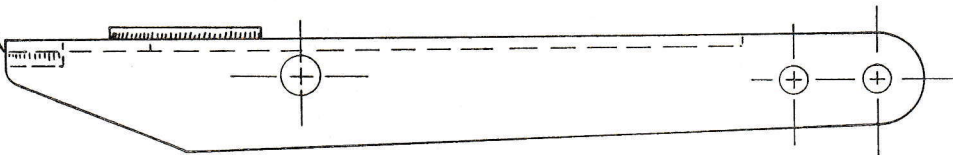


FIGURE 1. RELEASE ARM

BULLETIN NO. SA-001.2*

DATE: 19 May 1987

PAGE: 1 of 12

* Supersedes Service Bulletin
No. SA-001.1, Dated 2 Feb 1987

SUBJECT: SCHWEIZER SAILPLANE TOW RELEASE, PROPER ATTACHMENT OF TOW LINE,
INSPECTION, MAINTENANCE PROCEDURES AND REWORK OF TOW HOOK, RELEASE
ASSEMBLY AND RELEASE DAMPER.

AFFECTED AIRCRAFT: All Schweizer manufactured and Kit built Schweizer gliders
and sailplane models listed below. All Serial numbers of
each model. Also affected are all sailplanes retrofitted
with a Schweizer tow hook installation.

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)

NOTE

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

(■) - Denotes a change.

DATE: 19 May 1987

PAGE: 2 of 12

NOTE

It is absolutely necessary that all pilots and ground personnel received proper training with respect to the subject matter of this bulletin prior to flight.

PREFACE: Reports indicate that a possibility exists that the sailplane tow hook may inadvertently release during tow without any input by the sailplane pilot on the tow release control.

This Service Bulletin lists possible causes, precautions, maintenance practices, inspection and corrective action to be taken in order to minimize this situation.

NOTE

An inadvertent release can occur due to various conditions such as improper hookups, towing equipment failures, as well as improper maintenance practices. Also, the tow hook is of the overriding type so that the tow line will release if overrun due to pilot error or under conditions which could leave the tow line attached to the sailplane without the pilot's knowledge.

NOTE

As compliance with this bulletin could not completely eliminate the possibility of an inadvertent release due to pilot error, rope break, or abort of tow, any sailplane operation must be carried out so that there is sufficient airfield available to accommodate these not uncommon situations. Also, proper pilot instruction in dealing with these situations is an essential part of all pilot training programs. In any event a premature release and properly executed recovery procedure should in no way result in damage to the aircraft or injury to any of its occupants or ground personnel.

DATE: 19 May 1987

PAGE: 3 of 12

NOTE

Excessive tow release wear can result during all tow operations when the tow line is released under full towing pressure. This should not be done since proper piloting practice requires easing off the tow line pressure before releasing.

CAUTION

AT RELEASE THE PILOT SHOULD HOLD THE RELEASE KNOB FOR 3 TO 5 SECONDS TO ALLOW ADEQUATE TIME FOR THE TOW LINE TO CLEAR THE SAILPLANE AND WATCH FOR VISUAL CONFIRMATION OF TOW LINE RELEASE.

* TIME OF COMPLIANCE:

- Part 1: Must be completed prior to the first flight of the aircraft each day
- Part 2: Must be completed prior to every flight of the aircraft
- Part 3: Must be completed within 30 days of this notice or at the next 100 hour inspection, whichever is first
- Part 4: Must be completed at every 100 hour inspection

PROCEDURES:

- Part 1: Perform a daily visual inspection of the tow release assembly and its components in accordance with Table 2 of this Service Bulletin.

NOTE

This inspection does not require disassembly of the aircraft or release assembly. However, if a component fails to pass the inspection as outlined, the aircraft must be removed from service and receive proper maintenance procedures to correct the problem prior to further flight of the aircraft.

DATE: 19 May 1987

PAGE: 4 of 12

Part 2: A release check is to be made by the pilot prior to takeoff. To accomplish this have the ground personnel attach the tow line to the tow hook and apply a light pull on the line in the direction of tow. The pilot should then pull the release control to check for proper release of the tow line. After reattachment of the tow line to the sailplane, a check should be made for positive attachment of the tow line to the sailplane by applying a moderate jerk on the tow line in the direction of the tow. The release assembly should then be inspected to insure that it has remained completely closed. If the release is found to be opened, even partially, inspection and maintenance procedures must be performed to correct the problem prior to continuing with operation of the aircraft.

NOTE

Figure 1 shows the positions for the tow hook and release arm when correctly hooked-up. Note that the step of the tow hook should be tight against the release arm assembly. The tow hook step must fully engage the release arm to allow the release assembly to work properly. The tow hook must not be allowed to extend through the release arm beyond the step on the hook since this creates a condition which defeats the design of the release and increases the possibility of an inadvertent release.

NOTE

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.

Part 3:

- A. Several tow release arms and hooks have been manufactured for use on Schweizer gliders. Table 1 lists the proper hook/release combinations for each model sailplane. Each aircraft must be inspected to insure that it is equipped with the proper tow hook and release arm as indicated in Table 1.

DATE: 19 May 1987

PAGE: 5 of 12

- B. Wear of the tow hook step will cause improper engagement of the hook and release. The tow hook must be inspected in accordance with Figure 2. Any tow hook which does not meet the minimum specified dimensions, after inspection and/or rework, as listed in Figure 2 must be replaced.

NOTE

Tow hook must engage release arm in accordance with Figure 1A & Figure 4. If hook is able to pass through release arm beyond step as shown in Figure 1C, release arm and/or hook must be reworked with slug or replaced.

NOTE

If tow hook fails to engage completely as shown in Figure 1B, check release control rigging. Shortening the rubber bumper stop between the release knob and instrument panel will allow the release assembly to close further.

- C. All tow release arms must be reworked in accordance with Figure 3 or replaced with a new superseding Schweizer release arm as listed in Table 1. If the release arm wear exceeds the dimensions given in Figure 3, rework is NOT allowed and replacement is MANDATORY.
- D. Perform complete inspection in accordance with Item 4 of this bulletin.

NOTE

All repairs must be conducted in accordance with AC43.13 by an authorized, licensed mechanic.

NOTE

If excessive or accelerated wear of the release mechanism is evident a review and correction of piloting practices and ground personnel tow line attachment procedures is in order.

- Part 4: Conduct inspection of tow release at 100 hour intervals in accordance with Table 2 and Figure 4 of this bulletin.

Record compliance with Part 3 and keep a copy of this Service Bulletin in the Aircraft Log Book. If a flight manual or pilot's handbook is provided with the aircraft, a copy of this notice should be kept with that manual until incorporated into the text.

Aircraft Weight and Balance not affected.

The operational checks, rework and inspection procedures given in this Bulletin comply with Federal Aviation Regulations and are FAA approved.

TABLE I

AIRCRAFT	TOW HOOK	STANDARD RELEASE ARM	SUPERSEDING/REPLACEMENT RELEASE ARM
SGU 1-7	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 2-8 (TG-2)	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 2-12 (TG-3)	R-200-9A or 1A-218-1A or 1B-221-3	12B-141 or 1B-217-1A	1D-217-9
SGU 1-19	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGU 1-20	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGU 1-21	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGU 2-22 (All models)	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 1-23 (All models)	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9
SGS 1-24	R-200-9A or 1A-218-1A 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 1A-218-1A 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 (CG Hook)	1B-221-1	1D-222-1	1D-222-11
SGS 1-26E (opt.)	10232A-1	1B-217-5	1B-217-11
SGS 2-32	1B-221-1	1D-222-1	1D-222-11
SGS 2-33, 2-33A, 2-33AK	1A-218-1A or 1B-221-3	1B-217-1A	1D-217-9
SGS 2-33, 2-33A, 2-33AK (opt.)	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

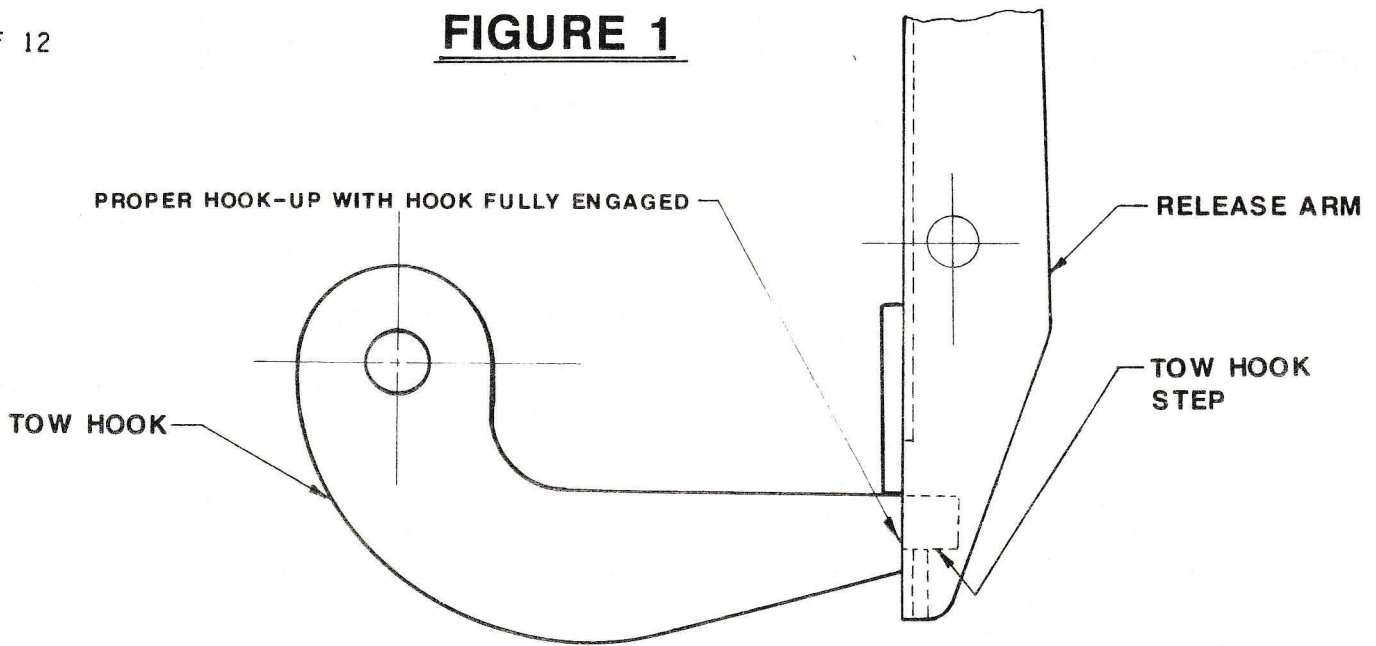
CAUTION

INSTALLATION OF THE SMALL TOW HOOK #10232A-1 AND APPROPRIATE RELEASE ARM REQUIRES RELOCATION OF THE RELEASE ARM ON THE AIRCRAFT. CONTACT SCHWEIZER AIRCRAFT FOR THE INSTALLATION DRAWING REQUIRED FOR YOUR AIRCRAFT TO INSURE PROPER INSTALLATION.

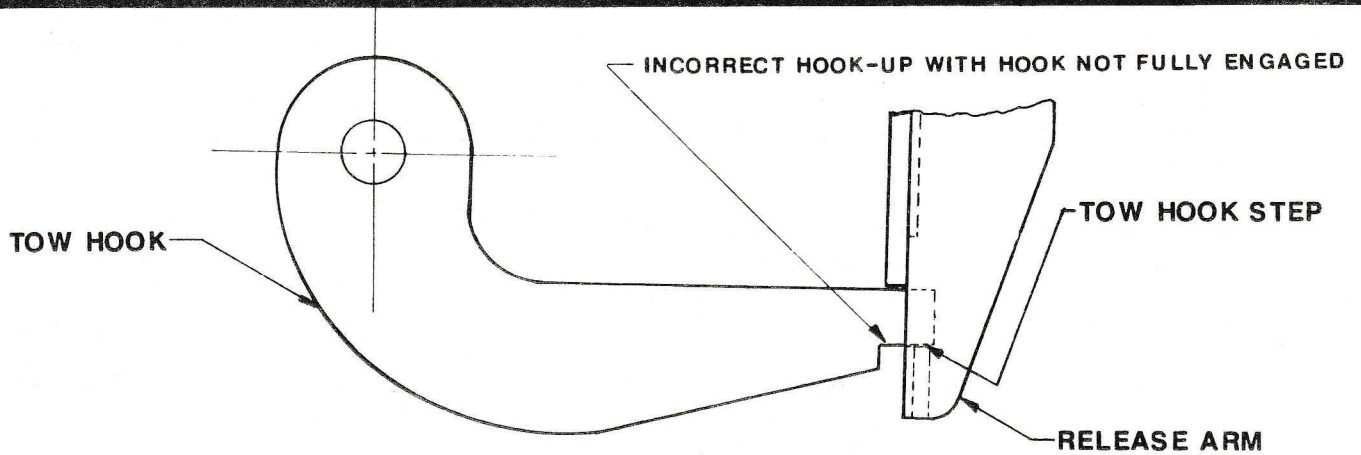
TABLE 2
DAILY AND 100-HOUR INSPECTION

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

FIGURE 1

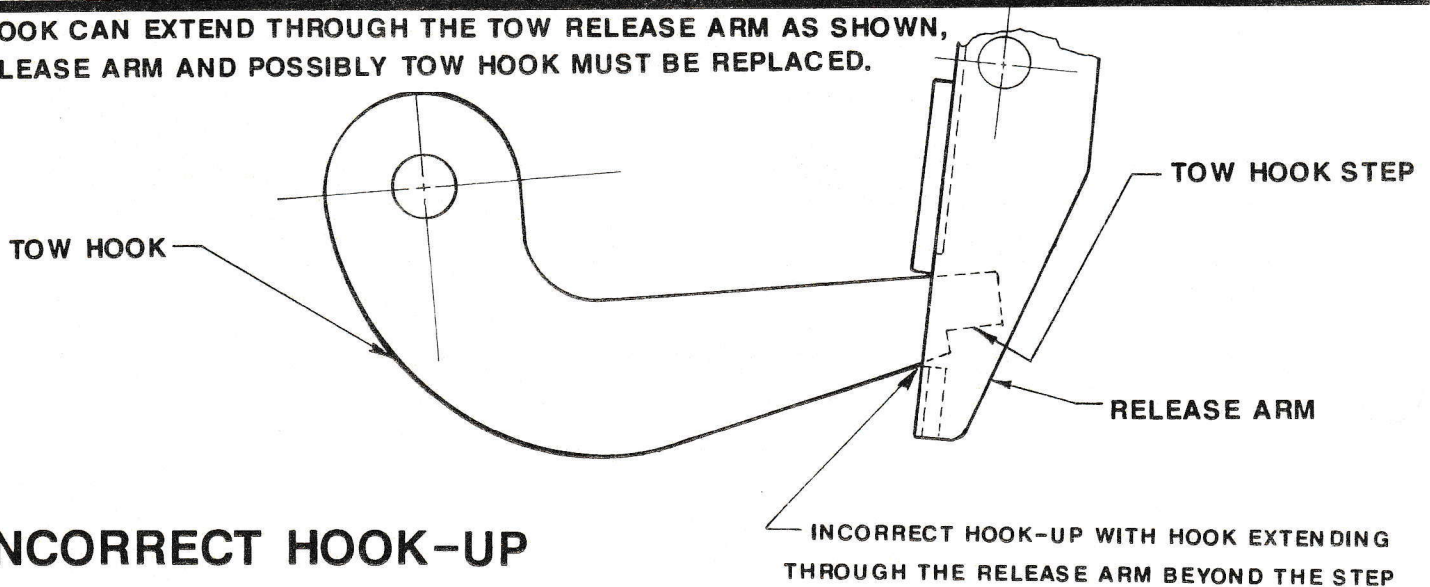


A. CORRECT HOOK-UP



B. INCORRECT HOOK-UP

IF TOW HOOK CAN EXTEND THROUGH THE TOW RELEASE ARM AS SHOWN, RELEASE ARM AND POSSIBLY TOW HOOK MUST BE REPLACED.



C. INCORRECT HOOK-UP

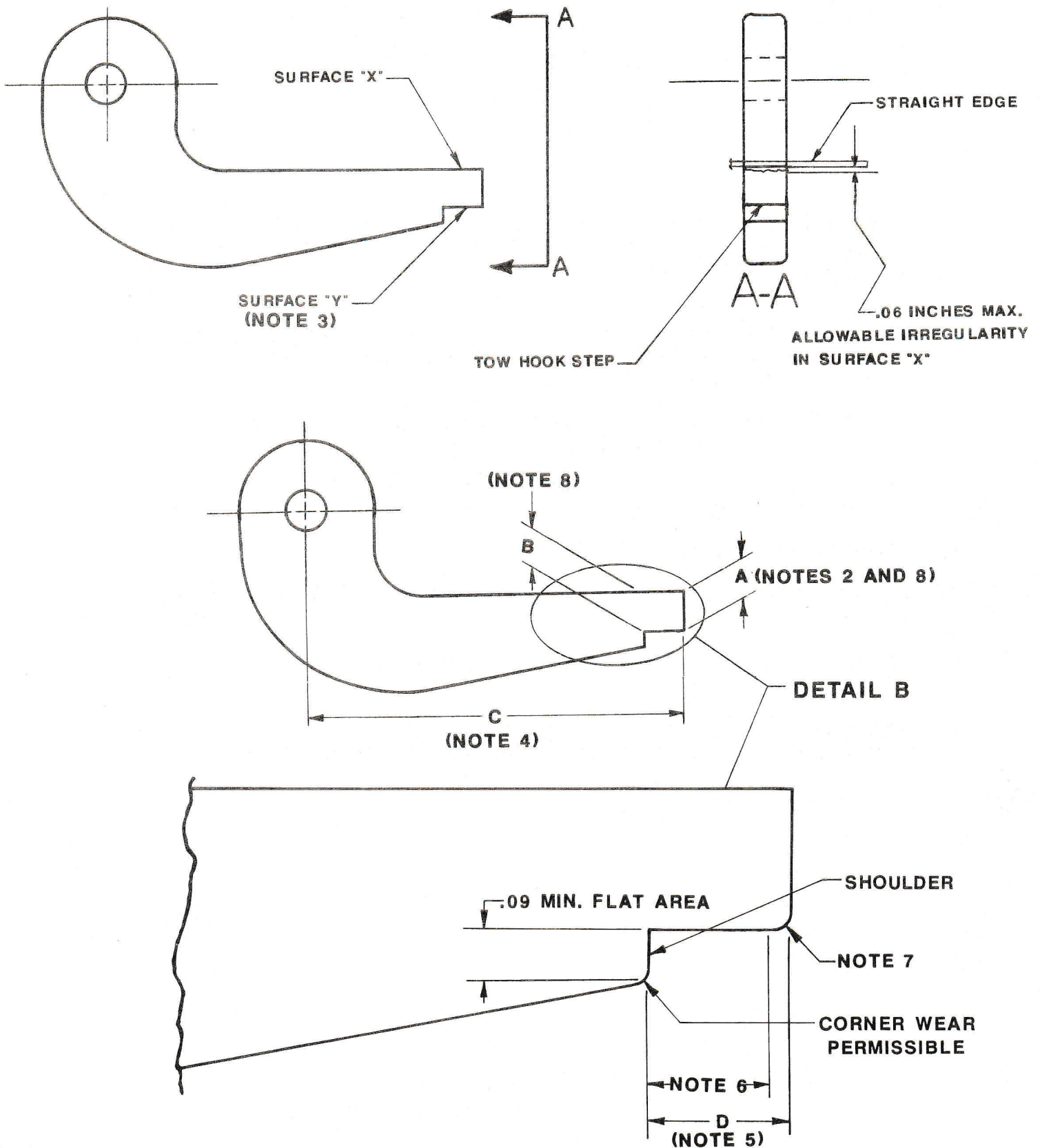


FIGURE 2. TOW HOOK INSPECTION AND REWORK (SHEET 1 OF 2)

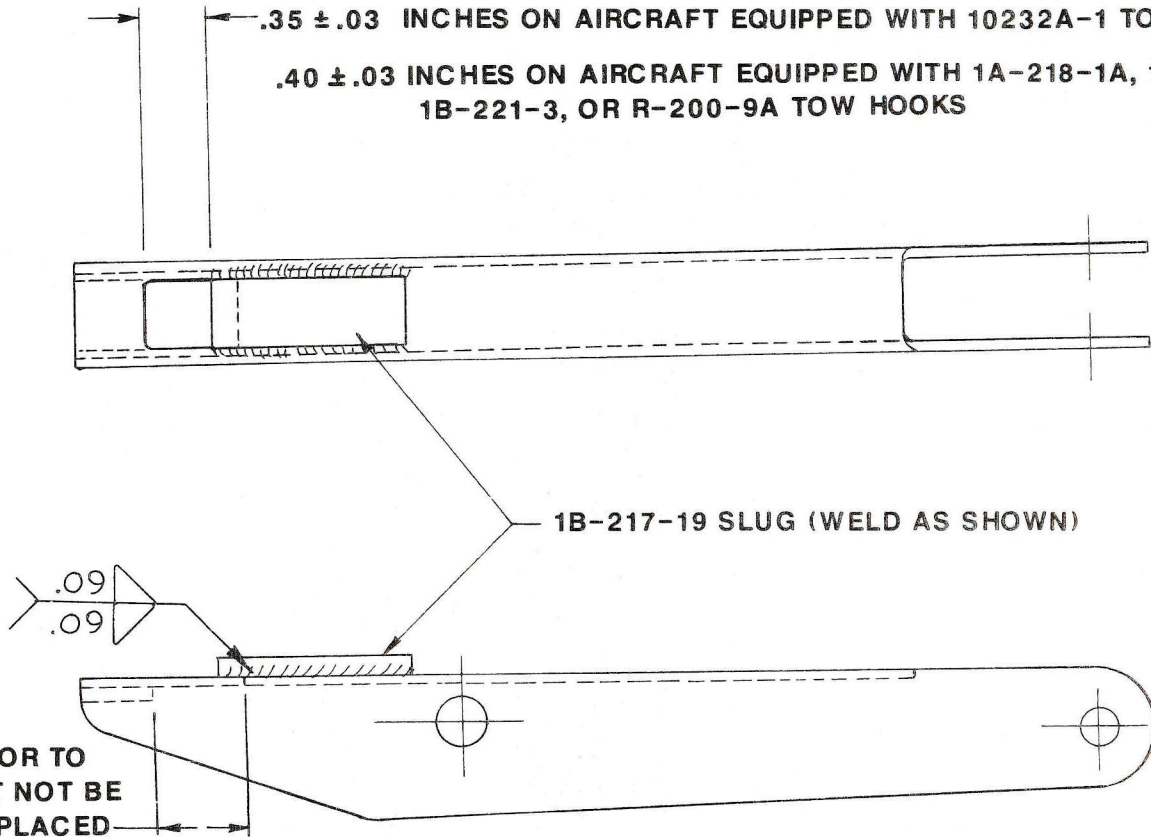
DATE: 19 May 1987

PAGE: 10 of 12

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 10232A-1 HOOK SHALL BE .21 INCHES MIN. & .28 INCHES MAX. DIMENSION "A" ON 1A-218-1A, 1B-221-1, 1B-221-3, & 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 10232A-1 HOOK SHALL BE $2.06 \pm .03$ INCHES. DIMENSION "C" ON 1A-218-1A, 1B-221-1, 1B-221-3, & R-200-9A SHALL BE $3.00 \pm .03$ INCHES.
5. DIMENSION "D" SHALL BE $.31 \pm .03$ 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 PERMISSIBLE.
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".

NOTE: 1B-217-19 SLUG IS AVAILABLE FROM SCHWEIZER AIRCRAFT CORP.
0.125 X 0.5 X 1.0 4130N

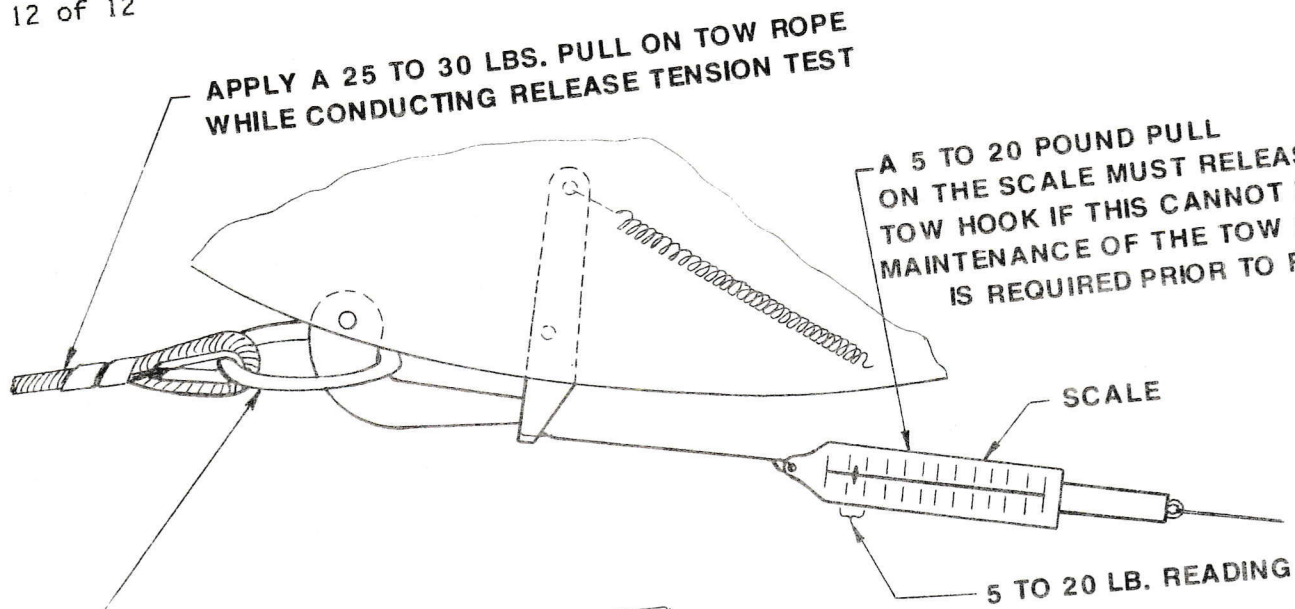
.35 ± .03 INCHES ON AIRCRAFT EQUIPPED WITH 10232A-1 TOW HOOK
.40 ± .03 INCHES ON AIRCRAFT EQUIPPED WITH 1A-218-1A, 1B-221-1,
1B-221-3, OR R-200-9A TOW HOOKS



IF THIS DIMENSION IS
.66 INCHES OR GREATER PRIOR TO
REWORK THE RELEASE MUST NOT BE
REWORKED AND MUST BE REPLACED

NOTICE...ALL TOW RELEASE ARMS MUST BE REWORKED AS SHOWN
ABOVE OR REPLACED WITH THE PROPER SUPERSEDING
UNIT PER TABLE 1

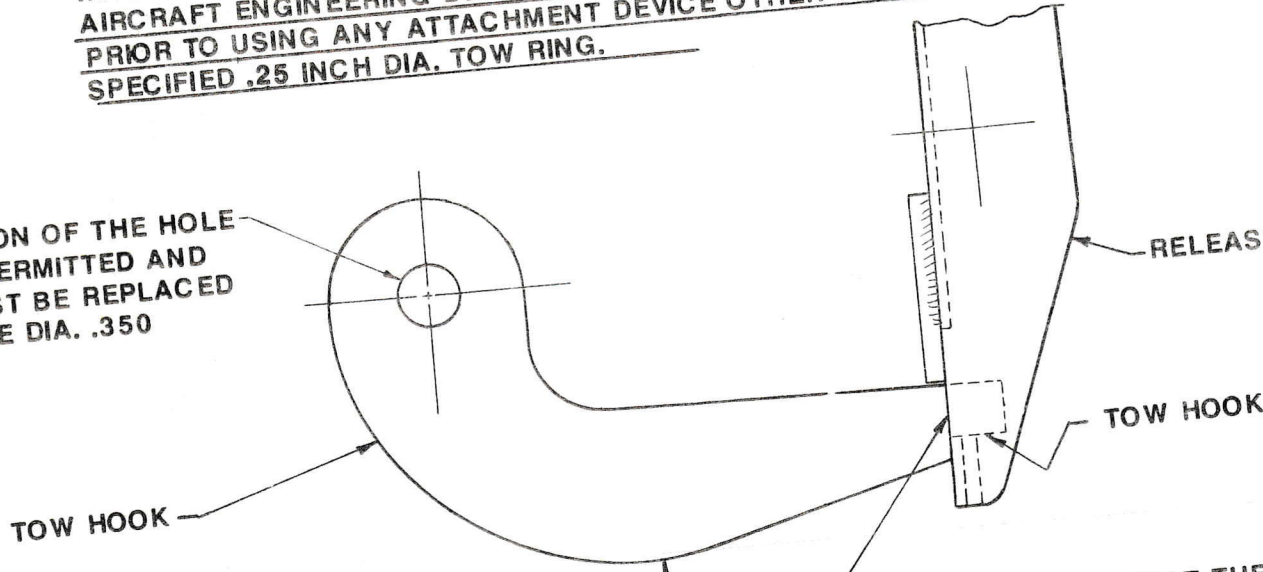
FIGURE 3
REWORK OF RELEASE ARM



CAUTION

SCHWEIZER TOW RELEASES ARE DESIGNED TO OPERATE WITH A .25 INCH DIA. TOW RING. CHECK WITH SCHWEIZER AIRCRAFT ENGINEERING DEPARTMENT FOR WRITTEN APPROVAL PRIOR TO USING ANY ATTACHMENT DEVICE OTHER THAN THE SPECIFIED .25 INCH DIA. TOW RING.

ELONGATION OF THE HOLE IS NOT PERMITTED AND HOOK MUST BE REPLACED MAX. HOLE DIA. .350



ANY ROUGH EDGES MUST BE POLISHED SMOOTH AND BLENDED WITH EXISTING CONTOUR

CHECK TO INSURE THAT THE CANNOT PASS THROUGH THE RELEASE ARM BEYOND THE ON THE HOOK

IF TOW HOOK CAN EXTEND THROUGH THE TOW RELEASE ARM, RELEASE ARM AND POSSIBLY TOW HOOK MUST BE REPLACED.

REFER TO FIGURE 1

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

SERVICE

AD 87-02-01

B
U
L
L
E
T
I
N

BULLETIN NO. SA-001.1*

DATE: 2 Feb 1987

PAGE: 1 of 12

* Supersedes Service Bulletin
No. SA-001, Dated Oct. 3, 1986

SUBJECT: SCHWEIZER SAILPLANE TOW RELEASE, PROPER ATTACHMENT OF TOW LINE,
INSPECTION, MAINTENANCE PROCEDURES AND REWORK OF TOW HOOK, RELEASE
ASSEMBLY AND RELEASE DAMPER.

AFFECTED AIRCRAFT: All Schweizer manufactured and Kit built Schweizer gliders
and sailplane models listed below. All Serial numbers of
each model. Also affected are all sailplanes retrofitted
with a Schweizer tow hook installation.

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)

NOTE

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

(■) - Denotes a change.

BULLETIN NO. SA-001.1*

DATE: 2 Feb 1987

PAGE: 2 of 12

NOTE

It is absolutely necessary that all pilots and ground personnel received proper training with respect to the subject matter of this bulletin prior to flight.

PREFACE: Reports indicate that a possibility exists that the sailplane tow hook may inadvertently release during tow without any input by the sailplane pilot on the tow release control.

This Service Bulletin lists possible causes, precautions, maintenance practices, inspection and corrective action to be taken in order to minimize this situation.

NOTE

An inadvertent release can occur due to various conditions such as improper hookups, towing equipment failures, as well as improper maintenance practices. Also, the tow hook is of the overriding type so that the tow line will release if overrun due to pilot error or under conditions which could leave the tow line attached to the sailplane without the pilot's knowledge.

NOTE

As compliance with this bulletin could not completely eliminate the possibility of an inadvertent release due to pilot error, rope break, or abort of tow, any sailplane operation must be carried out so that there is sufficient airfield available to accommodate these not uncommon situations. Also, proper pilot instruction in dealing with these situations is an essential part of all pilot training programs. In any event a premature release and properly executed recovery procedure should in no way result in damage to the aircraft or injury to any of its occupants or ground personnel.

DATE: 2 Feb 1987

PAGE: 3 of 12

NOTE

Excessive tow release wear can result during all tow operations when the tow line is released under full towing pressure. This should not be done since proper piloting practice requires easing off the tow line pressure before releasing.

CAUTION

AT RELEASE THE PILOT SHOULD HOLD THE RELEASE KNOB FOR 3 TO 5 SECONDS TO ALLOW ADEQUATE TIME FOR THE TOW LINE TO CLEAR THE SAILPLANE AND WATCH FOR VISUAL CONFIRMATION OF TOW LINE RELEASE.

* TIME OF COMPLIANCE:

- Part 1: Must be completed prior to the first flight of the aircraft each day
- Part 2: Must be completed prior to every flight of the aircraft
- Part 3: Must be completed within 30 days of this notice or at the next 100 hour inspection, whichever is first
- Part 4: Must be completed at every 100 hour inspection

PROCEDURES:

- Part 1: Perform a daily visual inspection of the tow release assembly and its components in accordance with Table 2 of this Service Bulletin.

NOTE

This inspection does not require disassembly of the aircraft or release assembly. However, if a component fails to pass the inspection as outlined, the aircraft must be removed from service and receive proper maintenance procedures to correct the problem prior to further flight of the aircraft.

DATE: 2 Feb 1987

PAGE: 4 of 12

Part 2: A release check is to be made by the pilot prior to takeoff. To accomplish this have the ground personnel attach the tow line to the tow hook and apply a light pull on the line in the direction of tow. The pilot should then pull the release control to check for proper release of the tow line. After reattachment of the tow line to the sailplane, a check should be made for positive attachment of the tow line to the sailplane by applying a moderate jerk on the tow line in the direction of the tow. The release assembly should then be inspected to insure that it has remained completely closed. If the release is found to be opened, even partially, inspection and maintenance procedures must be performed to correct the problem prior to continuing with operation of the aircraft.

NOTE

Figure 1 shows the positions for the tow hook and release arm when correctly hooked-up. Note that the step of the tow hook should be tight against the release arm assembly. The tow hook step must fully engage the release arm to allow the release assembly to work properly. The tow hook must not be allowed to extend through the release arm beyond the step on the hook since this creates a condition which defeats the design of the release and increases the possibility of an inadvertent release.

NOTE

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.

Part 3:

- A. Several tow release arms and hooks have been manufactured for use on Schweizer gliders. Table 1 lists the proper hook/release combinations for each model sailplane. Each aircraft must be inspected to insure that it is equipped with the proper tow hook and release arm as indicated in Table 1.

- B. Wear of the tow hook step will cause improper engagement of the hook and release. The tow hook must be inspected in accordance with Figure 2. Any tow hook which does not meet the minimum specified dimensions, after inspection and/or rework, as listed in Figure 2 must be replaced.

NOTE

Tow hook must engage release arm in accordance with Figure 1A & Figure 4. If hook is able to pass through release arm beyond step as shown in Figure 1C, release arm and/or hook must be reworked with slug or replaced.

NOTE

If tow hook fails to engage completely as shown in Figure 1B, check release control rigging. Shortening the rubber bumper stop between the release knob and instrument panel will allow the release assembly to close further.

- C. All tow release arms must be reworked in accordance with Figure 3 or replaced with a new superseding Schweizer release arm as listed in Table 1. If the release arm wear exceeds the dimensions given in Figure 3, rework is NOT allowed and replacement is MANDATORY.
- D. Perform complete inspection in accordance with Item 4 of this bulletin.

NOTE

All repairs must be conducted in accordance with AC43.13 by an authorized, licensed mechanic.

NOTE

If excessive or accelerated wear of the release mechanism is evident a review and correction of piloting practices and ground personnel tow line attachment procedures is in order.

- Part 4: Conduct inspection of tow release at 100 hour intervals in accordance with Table 2 and Figure 4 of this bulletin.

Record compliance with Part 3 and keep a copy of this Service Bulletin in the Aircraft Log Book. If a flight manual or pilot's handbook is provided with the aircraft, a copy of this notice should be kept with that manual until incorporated into the text.

DATE: 2 Feb 1987

PAGE: 6 of 12

Aircraft Weight and Balance not affected.

The operational checks, rework and inspection procedures given in this Bulletin comply with Federal Aviation Regulations and are FAA approved.

TABLE I

AIRCRAFT	TOW HOOK	STANDARD RELEASE ARM	SUPERSEDING/REPLACEMENT RELEASE ARM
SGU 1-7	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9 or 1D-217-13
SGS 2-8 (TG-2)	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9 or 1D-217-13
SGS 2-12 (TG-3)	R-200-9A or 1A-218-1A or 1B-221-3	12B-141 or 1B-217-1A	1D-217-9 or 1D-217-13
SGU 1-19	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9 or 1D-217-13
SGU 1-20	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9 or 1D-217-13
SGU 1-21	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9 or 1D-217-13
SGU 2-22 (All models)	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9 or 1D-217-13
SGS 1-23 (All models)	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9 or 1D-217-13
SGS 1-24	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9 or 1D-217-13
SGS 1-26, A, B, C, & C.G. Hook	R-200-9A or 1A-218-1A or 1B-221-3	R-200-12A or 1B-217-1A	1D-217-9 or 1D-217-13
SGS 1-26 D, E	1A-218-1A or 1B-221-1	1D-222-7	1D-222-13 or 1D-222-17
SGS 1-26 D & E (CG Hook)	1B-221-1	1D-222-1	1D-222-11 or 1D-222-15
SGS 1-26E (opt.)	10232A-1	1B-217-5	1B-217-11 or 1D-217-15
SGS 2-32	1B-221-1	1D-222-1	1D-222-11 or 1D-222-15
SGS 2-33, 2-33A, 2-33AK	1A-218-1A or 1B-221-3	1B-217-1A	1D-217-9 or 1D-217-8
SGS 2-33, 2-33A, 2-33AK (opt.)	10232A-1	1B-217-5	1D-217-11 or 1D-217-15
SGS 1-34, 1-34R	1A-218-1A or 1B-221-1	34017D-1	34017D-13
SGS 1-35C	1A-218-1A or 1B-221-1	1D-222-7	1D-222-13 or 1D-222-17
SGS 1-35C (opt.)	10232A-1	1B-217-5	1D-217-11 or 1D-217-15
SGS 1-36	10232A-1	1B-217-5	1D-217-11 or 1D-217-15

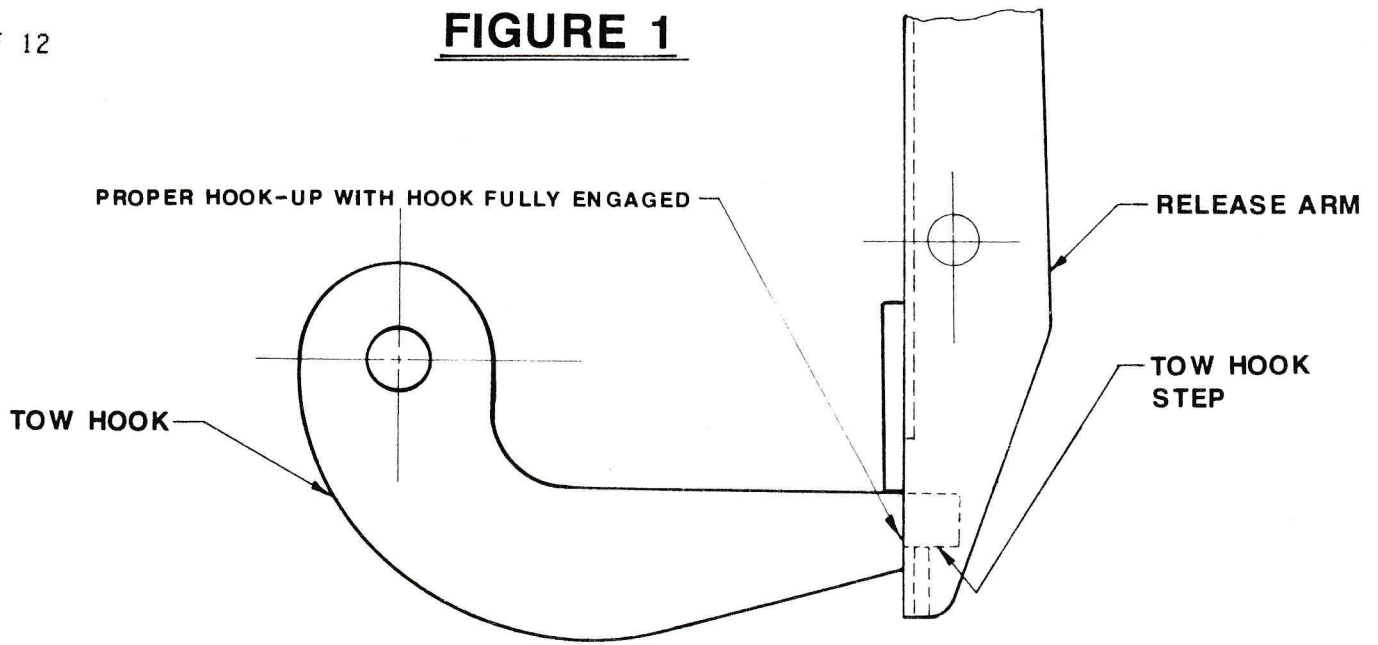
CAUTION

INSTALLATION OF THE SMALL TOW HOOK #10232A-1 AND APPROPRIATE RELEASE ARM REQUIRES RELOCATION OF THE RELEASE ARM ON THE AIRCRAFT. CONTACT SCHWEIZER AIRCRAFT FOR THE INSTALLATION DRAWING REQUIRED FOR YOUR AIRCRAFT TO INSURE PROPER INSTALLATION.

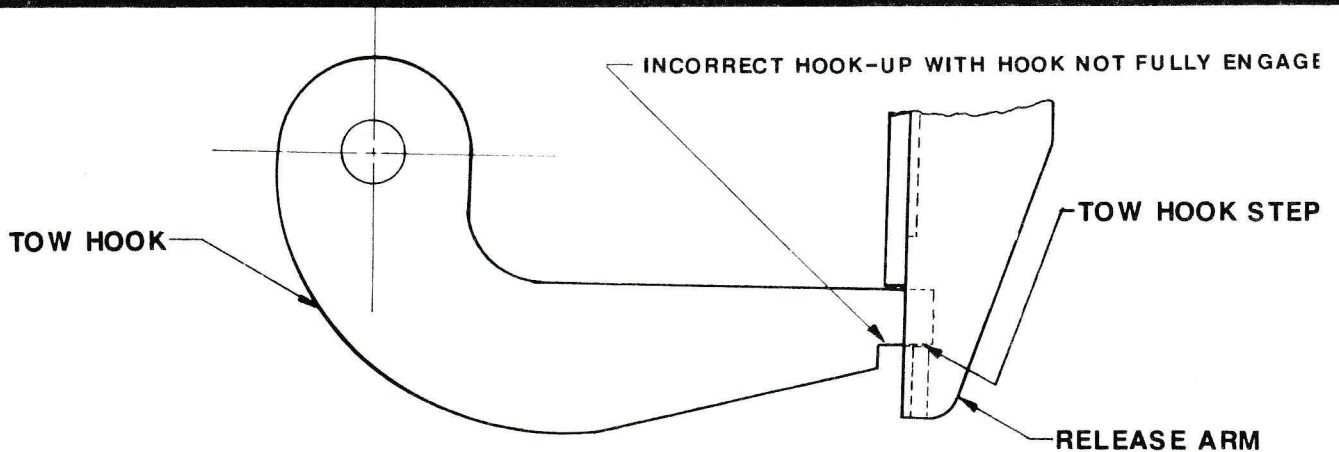
TABLE 2
DAILY AND 100-HOUR INSPECTION

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

FIGURE 1

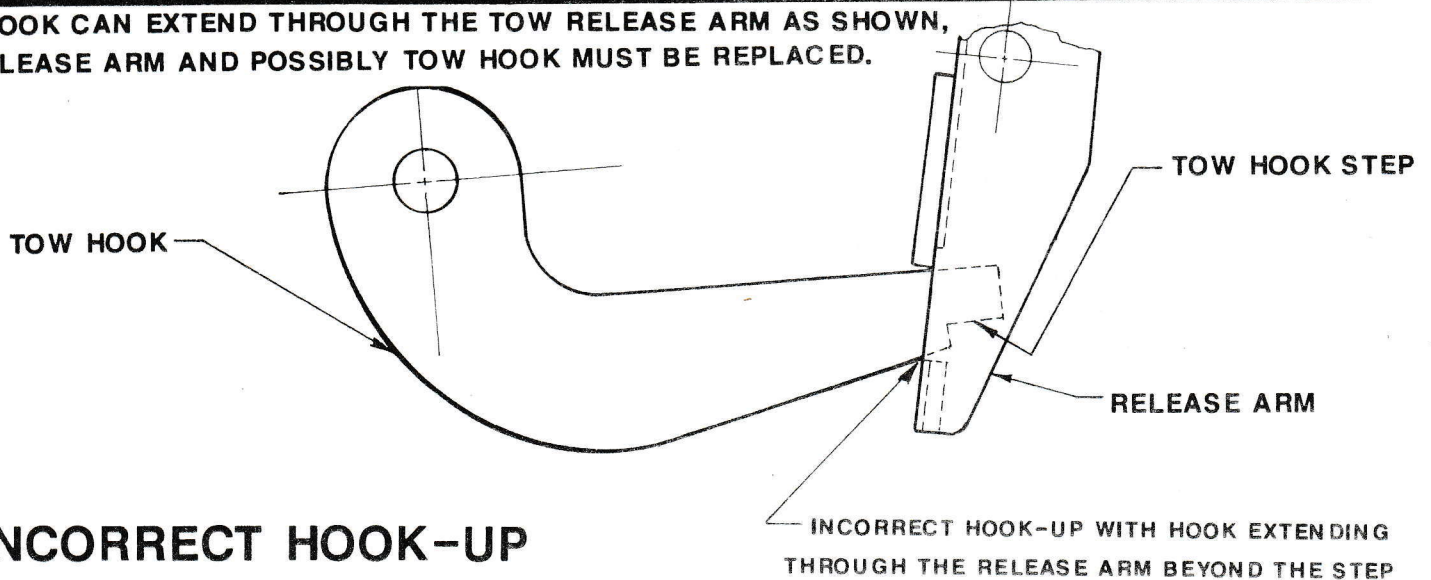


A. CORRECT HOOK-UP



B. INCORRECT HOOK-UP

IF TOW HOOK CAN EXTEND THROUGH THE TOW RELEASE ARM AS SHOWN, RELEASE ARM AND POSSIBLY TOW HOOK MUST BE REPLACED.



C. INCORRECT HOOK-UP

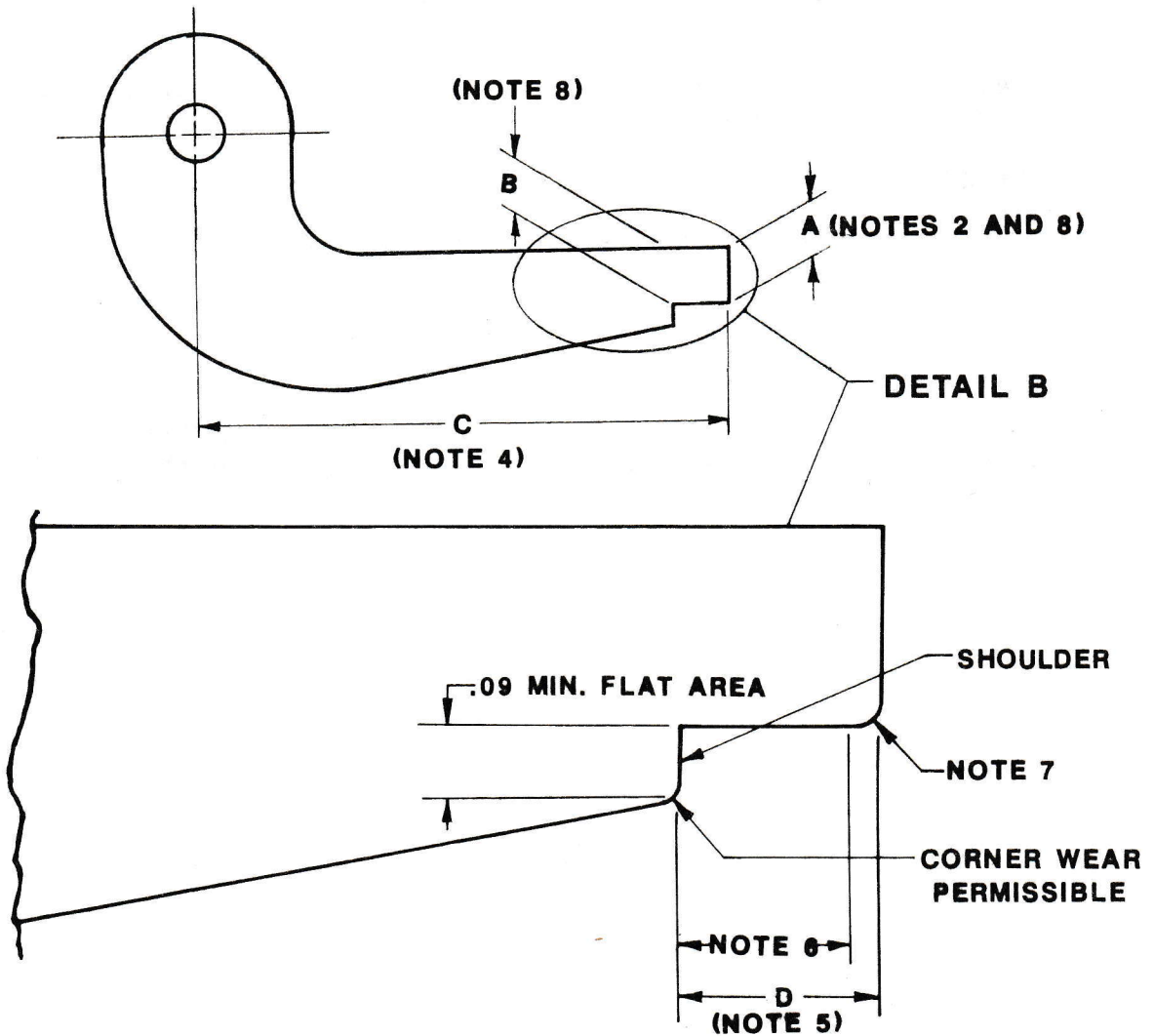
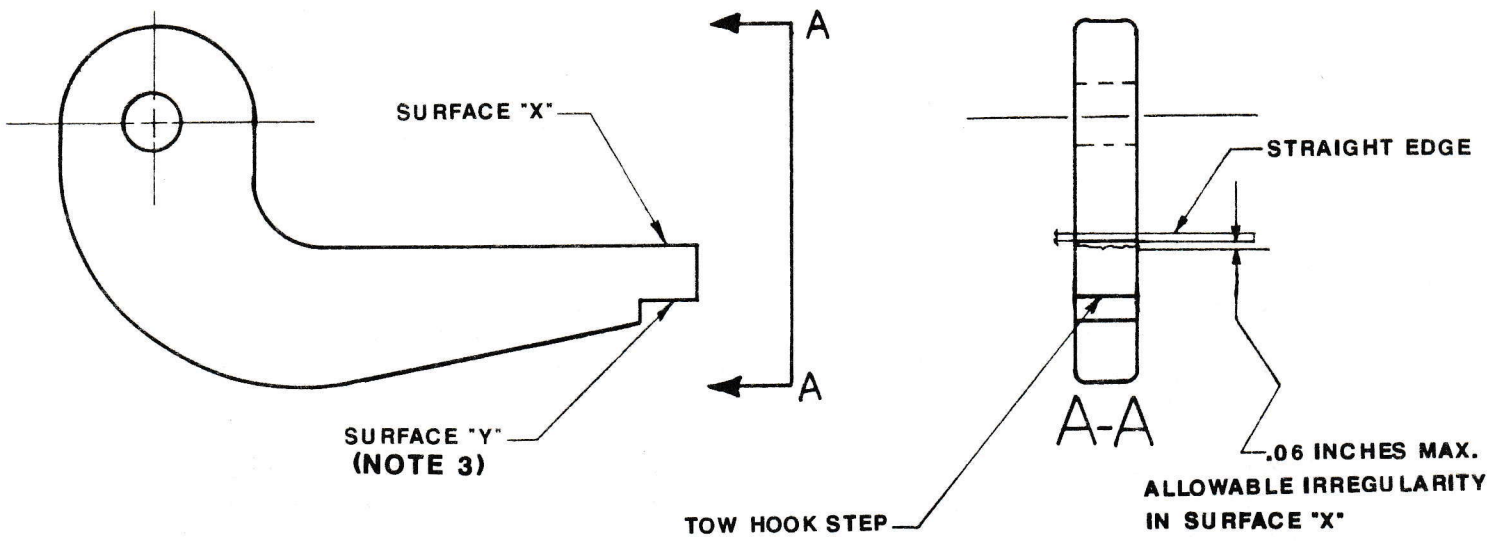
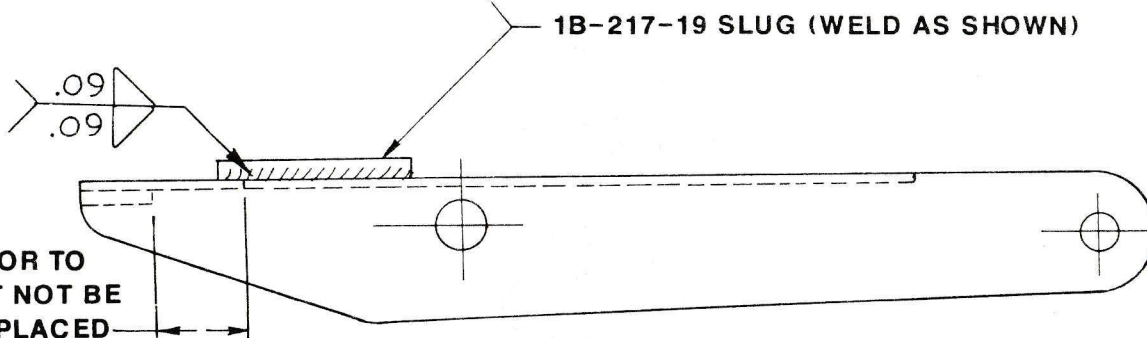
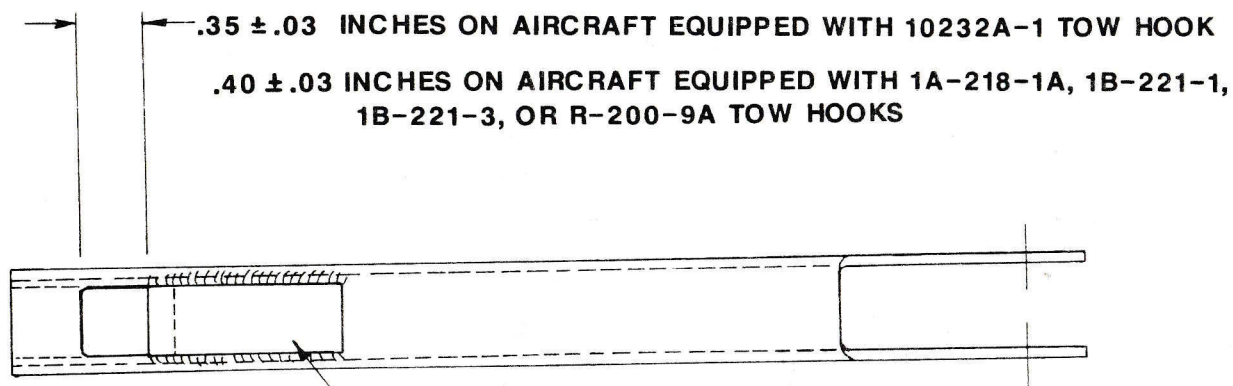


FIGURE 2. TOW HOOK INSPECTION AND REWORK (SHEET 1 OF 2)

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 10232A-1 HOOK SHALL BE .21 INCHES MIN. & .28 INCHES MAX. DIMENSION "A" ON 1A-218-1A, 1B-221-1, 1B-221-3, & 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 10232A-1 HOOK SHALL BE 2.06 \pm .03 INCHES. DIMENSION "C" ON 1A-218-1A, 1B-221-1, 1B-221-3, & R-200-9A SHALL BE 3.00 \pm .03 INCHES.
5. DIMENSION "D" SHALL BE .31 \pm .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 PERMISSIBLE.
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".

NOTE: 1B-217-19 SLUG IS AVAILABLE FROM SCHWEIZER AIRCRAFT CORP.
0.125 X 0.5 X 1.0 4130N



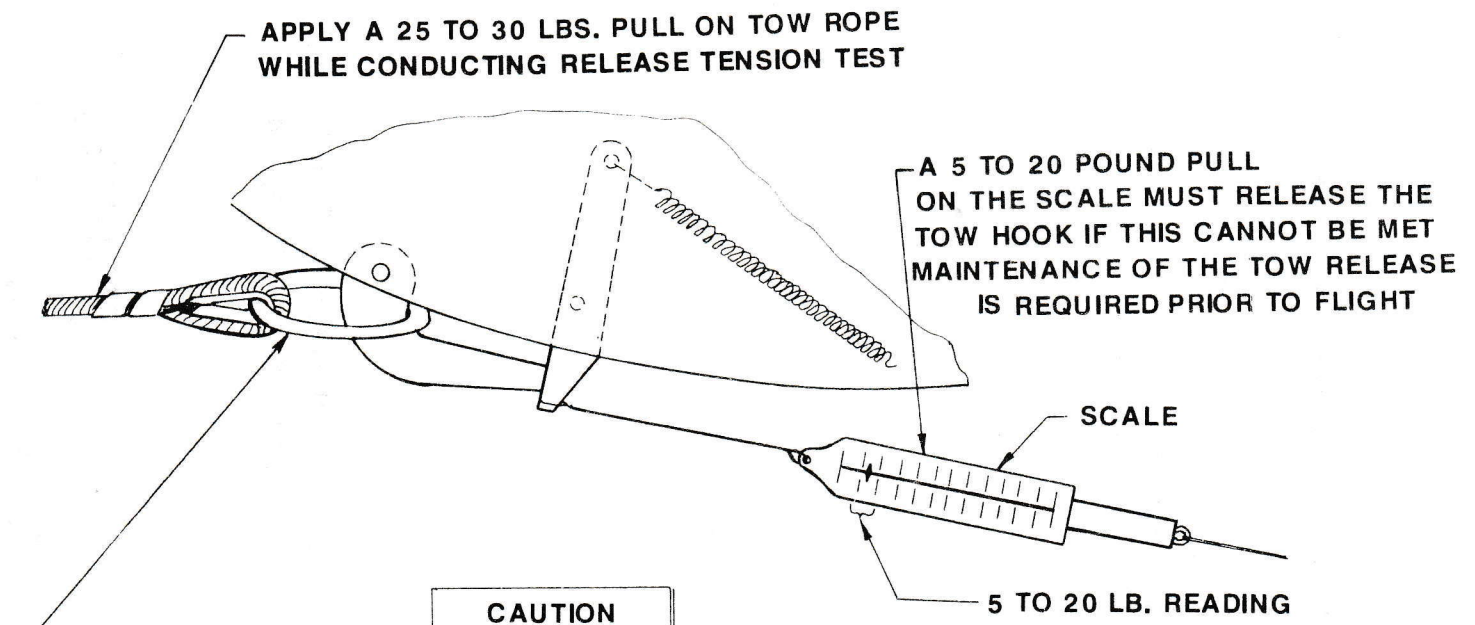
IF THIS DIMENSION IS
.66 INCHES OR GREATER PRIOR TO
REWORK THE RELEASE MUST NOT BE
REWORKED AND MUST BE REPLACED

This text is positioned to the left of the cross-sectional view, with a dimension line pointing to the length of the slug in that view.

NOTICE...ALL TOW RELEASE ARMS MUST BE REWORKED AS SHOWN
ABOVE OR REPLACED WITH THE PROPER SUPERSEDING
UNIT PER TABLE 1

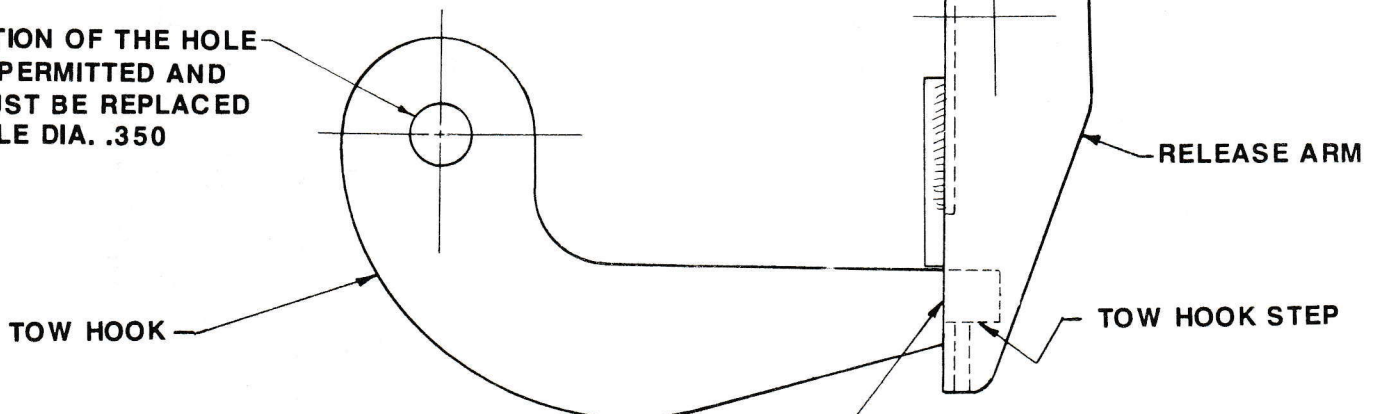
FIGURE 3
REWORK OF RELEASE ARM

FIGURE 4



SCHWEIZER TOW RELEASES ARE DESIGNED TO OPERATE WITH A .31 INCH DIA. TOW RING. CHECK WITH SCHWEIZER AIRCRAFT ENGINEERING DEPARTMENT FOR WRITTEN APPROVAL PRIOR TO USING ANY ATTACHMENT DEVICE OTHER THAN THE SPECIFIED .31 INCH DIA. TOW RING.

ELONGATION OF THE HOLE IS NOT PERMITTED AND HOOK MUST BE REPLACED MAX. HOLE DIA. .350



ANY ROUGH EDGES MUST BE POLISHED SMOOTH AND BLENDED WITH EXISTING CONTOUR

CHECK TO INSURE THAT THE HOOK CANNOT PASS THROUGH THE RELEASE ARM BEYOND THE STEP ON THE HOOK

IF TOW HOOK CAN EXTEND THROUGH THE TOW RELEASE ARM, RELEASE ARM AND POSSIBLY TOW HOOK MUST BE REPLACED.

REFER TO FIGURE 1

SERVICE BULLETIN SA-003

DATE: 25 March 1987

PAGE 1 of 2

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

DATE: 25 March 1987

PAGE 2 of 2

NOTE

For the purposes of this Service Bulletin, aerobatic flight means an intentional maneuver 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

SERVICE LETTER **SL-001**

DATE: 1 June 1987

PAGE 1 OF 1

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.

**L
E
T
T
E
R**



U.S. Department
of Transportation
**Federal Aviation
Administration**

AIRWORTHINESS DIRECTIVE

AVIATION STANDARDS NATIONAL FIELD OFFICE
P.O. BOX 26460
OKLAHOMA CITY, OKLAHOMA 73125

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Federal Aviation Regulations, Part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety. They are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (FAR 39.3).

87-02-01 SCHWEIZER AIRCRAFT CORP.: Amendment **39-5512**.

Applies to all Schweizer gliders (including kit built), all serial numbers certificated in any category, and all models listed below:

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)

Compliance is required as indicated unless already accomplished.

To prevent the possibility of the tow-hook inadvertently slipping out of the release-arm and releasing the tow-line, which could result in a forced landing, accomplish the following:

(a) Within the next 5 tow release actuations after the effective date of this AD, perform the following:

(1) Inspect the tow-release installation for proper part numbers, excessive wear, and possible rework or replacement of parts in accordance with Part 3A, 3B, and 3C in Schweizer Service Bulletin No. SA-001, dated October 3, 1986.

(2) Perform the operational check in accordance with Figure 4 in Schweizer Service Bulletin No. SA-001, dated October 3, 1986.

(b) Thereafter, at intervals not to exceed 100 hours time-in-service, accomplish the steps in Part 3B, and 3C, and Figure 4 in Schweizer Service Bulletin No. SA-001, dated October 3, 1986.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, New York Aircraft Certification Office, Aircraft Certification Division, Federal Aviation Administration, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone (516) 791-6680.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, New York Aircraft Certification Office, may adjust the compliance time specified in this AD.

Schweizer Service Bulletin No. SA-001, dated October 3, 1986, identified and described in this document, is incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not received this document from the manufacturer may obtain copies upon request to Schweizer Aircraft Corp., P.O. Box 147, Elmira, New York 14902, Telephone (607) 739-3821. This document also may be examined at the Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Rules Docket Number 86-ANE-46, Room 311, between the hours of 8:00 a.m. and 4:30 p.m. Monday through Friday, except Federal holidays.

This amendment becomes effective on January 21, 1987.

FOR FURTHER INFORMATION CONTACT:

C. Kallis, New York Aircraft Certification Office, Aircraft Certification Division, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone (516) 791-6428.

4910-13

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 86-ANE-46; Amendment 39-5512

Airworthiness Directives; Schweizer Aircraft Corp. Model SGS and
SGU Series Gliders

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) which requires certain Schweizer Aircraft Corp. tow-release installations installed on glider Models SGS and SGU series to be inspected to ascertain that the proper release arm has been mated with the tow-hook on the aircraft. Inspection will include wear limit measurements for determining if the hook and/or the release-arm can be repaired or replaced with new superseding parts. This AD is needed to prevent the possibility of an inadvertent tow-hook release during towing operations, resulting in a forced landing.

DATES: Effective January 21, 1987.

Compliance Schedule - As prescribed in the body of the AD.

Incorporation by Reference - Approved by the Director of the
FEDERAL REGISTER on

ADDRESSES: The technical information (Service Bulletin No. SA-001) and modification parts specified in this AD may be obtained from

Schweizer Aircraft Corp., P. O. Box 147, Elmira, New York 14902,
Telephone (607) 739-3821. A copy of the technical note is contained in
the Rules Docket No. 86-ANE-46, Office of the Regional Counsel, Federal
Aviation Administration, New England Region, 12 New England Executive
Park, Burlington, Massachusetts 01803.

FOR FURTHER INFORMATION CONTACT:

C. Kallis, New York Aircraft Certification Office, Aircraft
Certification Division, 181 South Franklin Avenue, Room 202, Valley
Stream, New York 11581, Telephone (516) 791-6428.

SUPPLEMENTARY INFORMATION: Reports have been received that the
Schweizer R-200, 1A-218, 1B-221, and 10232A-1 tow-hooks used on
Schweizer Aircraft Corp. Models SGU and SGS series gliders can
inadvertently release the cable during towing without any input to the
release handle by the glider pilot. Schweizer Aircraft Corp. has
issued Service Bulletin No. SA-001, dated October 3, 1986, which calls
for inspection of the tow-release installations, and possible repair or
replacement with new parts. Premature release of the cable while
towing one of these gliders may result in a forced landing. The FAA
has examined the available information related to the issuance of the
above service bulletin and has determined that the condition addressed
by Schweizer's bulletin is an unsafe condition that may exist on the
above type certificated gliders. Therefore, an AD is being issued to
require inspection and possible repair or replacement of the
tow-release installation parts.

Since a situation exists that requires the immediate adoption of this regulation, it is determined that notice and public procedure are impracticable, and good cause exists for making this amendment effective in less than 30 days.

CONCLUSION: The FAA has determined that this regulation is an emergency regulation that is not considered to be major under Executive Order 12291. It is impracticable for the agency to follow the procedures of Order 12291 with respect to this rule since the rule must be issued immediately to correct an unsafe condition in aircraft. It has been further determined that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). If this action is subsequently determined to involve a significant/major regulation, a final regulatory evaluation or analysis, as appropriate, will be prepared and placed in the regulatory docket (otherwise, an evaluation or analysis is not required). A copy of it, when filed, may be obtained by contacting the person identified under the caption "FOR FURTHER INFORMATION CONTACT".

List of Subjects in 14 CFR Part 39:

Air Transportation, Aircraft, Aviation Safety, and Incorporation by Reference.

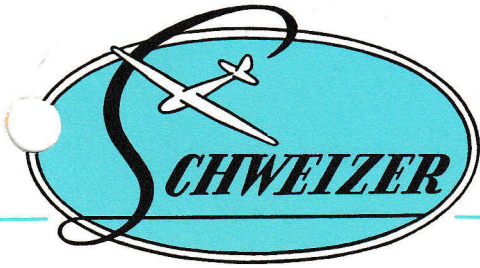
ADOPTION OF THE AMENDMENT

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration (FAA) amends Part 39 of the Federal Aviation Regulations (FAR) as follows:

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421, and 1423; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.

2. By adding to Section 39.13 the following new airworthiness directive (AD):



TELEX NO. 932459

AIRCRAFT CORP. - P. O. BOX 147 - ELMIRA, N. Y. 14902 - (607) 739-3821

July 27, 1984

Mr. Dave Wilke
Powell Aviation
Manfield Airport
Manfield, MA. 02048

Dear Mr. Wilke:

As per our telecon of last week about the 1-26E Model aircraft which the MIT Soaring Club owns, we recommend using the next size bolt and hardware in the attachment of the rear spar plate to the machined rear spar fitting to remove the play at the T.E. of the wing.

This would involve increasing the bolt from an AN5 to an AN6. The bolt also should be brought up to .373 - .375 for the 26B415-1 fitting, 26B439-1 friction plate and the 26B416-1 fitting. A new AN5 bolt and a 1/32 wall bushing made from 4130N heat-treated to 125,000 psi can be used in lieu of the oversize bolt but from a cost point of view, it does not usually make sense.

I hope this data will solve your problem.

Sincerely yours,

SCHWEIZER AIRCRAFT CORP.

Leslie E. Schweizer
Vice Pres - Engineering

ern

cc: John Braun

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

G. BSC
1-2CE
S/N 637

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 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

N/A
GBSC 1-80 E

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 occurred 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 checks be used during all periods of tie-down.

ern

Bolts Replaced
Steve Busselard
12 MAR 1978

SCHWEIZER AIRCRAFT CORP.

Milton A. Courtright
Milton A. Courtright
Quality Control Supervisor

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

GBSC
N/A 1-26E

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 in-board 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.

meg

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

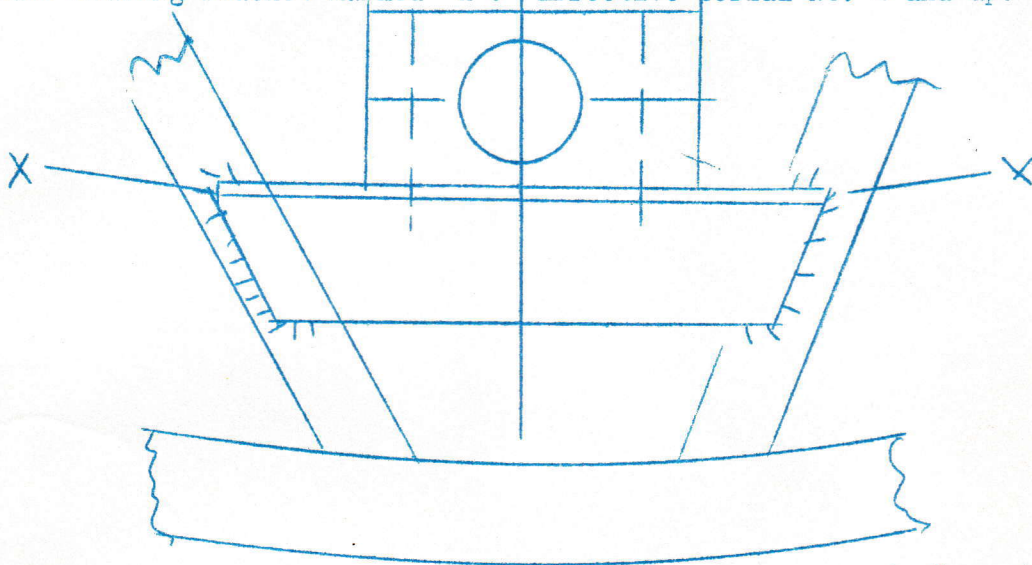
August 20, 1965

SERVICE BULLETIN NO. 102-26-5

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

N/A
GASC 1-26 E

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 264136

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.

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 suddenly. 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.

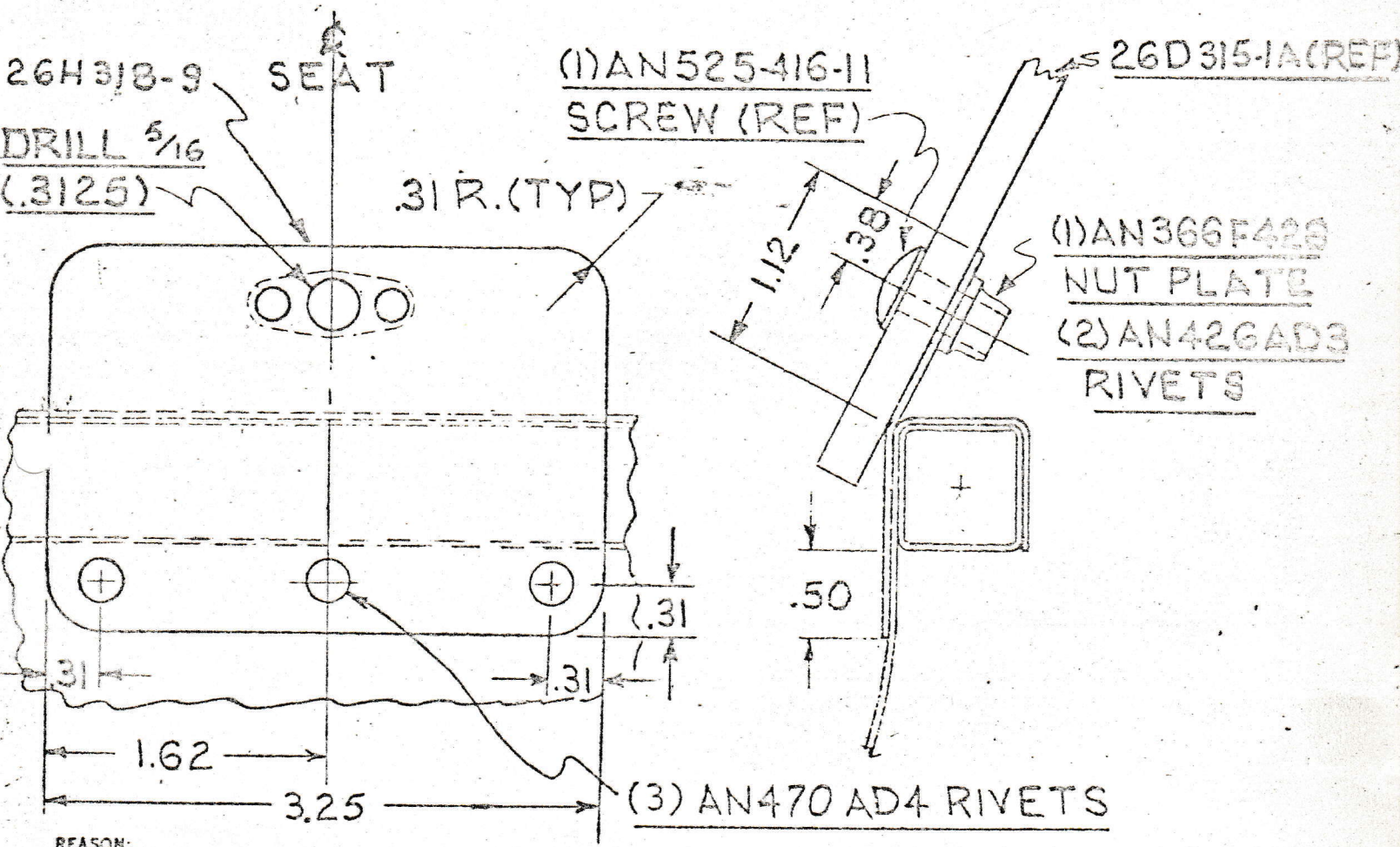
~~# 308 (H 6890)
HAS A BELT WHICH HOLDS
THE SEAT BACK ON AS WELL AS
THE CLIPS.
STEVE BOSSOLARI
12 May 1978~~


Ernest Schweizer,
Chief Engineer

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 2/15/62	STOCK DISPOSITION	—	DWG. NO.	26H-318

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

REV ES 9/10/62



REASON:

I. TO PROVIDE ADDITIONAL ATTACHMENT FOR SEAT BACK.

Service Bulletin No. 102-26-5

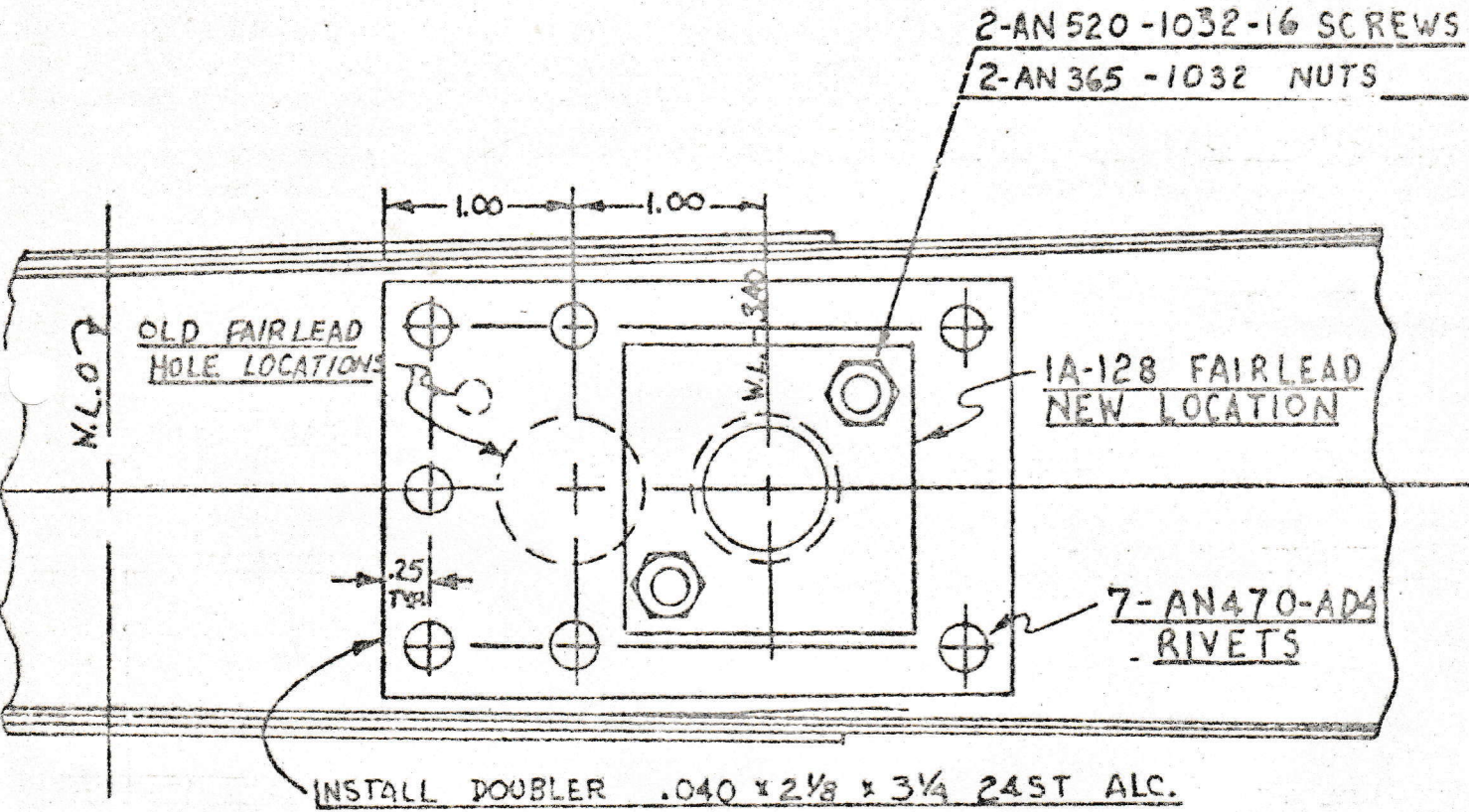
SGS 1-26, A, B, C

N/A GBSC 1-26 E

~~NOT Applicable~~
To # 308
STEVE BOSSO/AE
12 MAY 1978

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, 1968

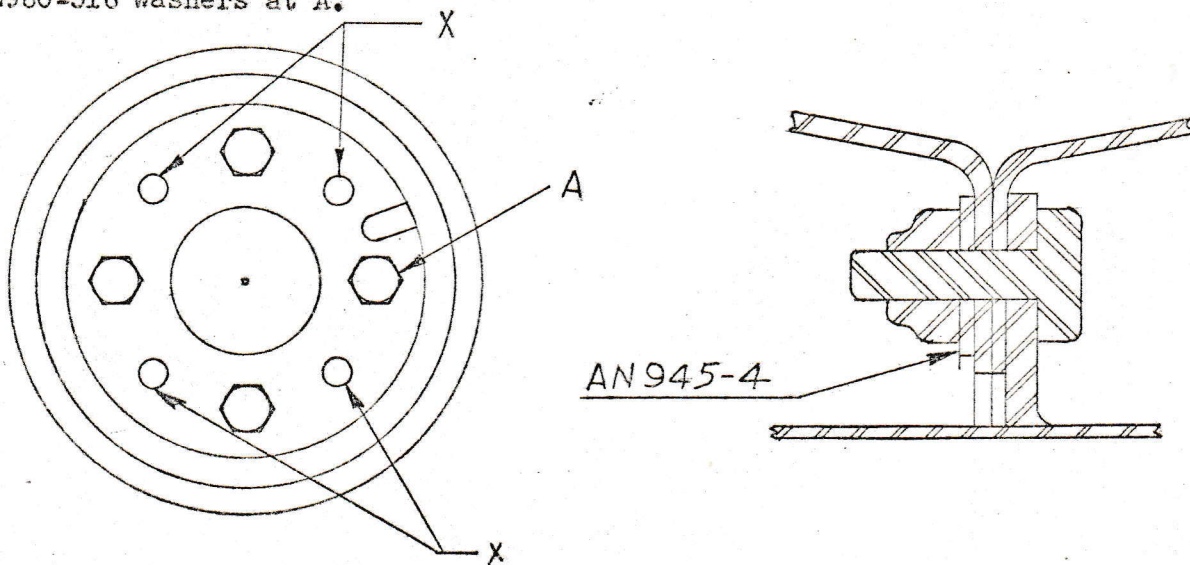
WHM/ach

Service Bulletin No. 102-26-2SGS 1-26, A, B, C

N/A GBSC 1-26E

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
Ernest Schweizer
Chief Engineer

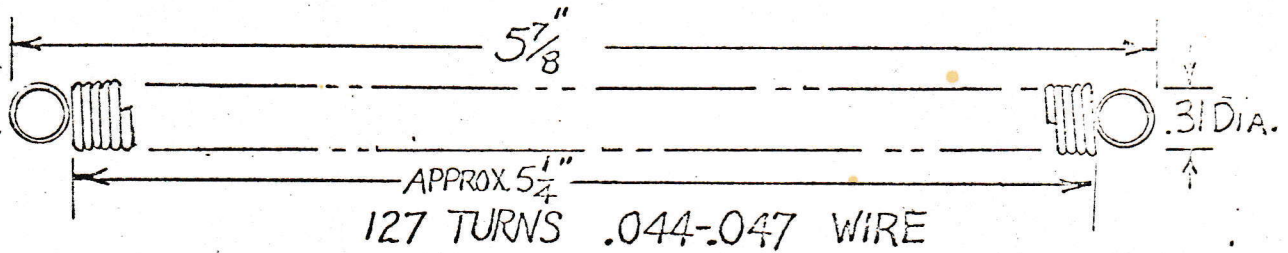
ES/ach

Service Bulletin No. 102-26-1

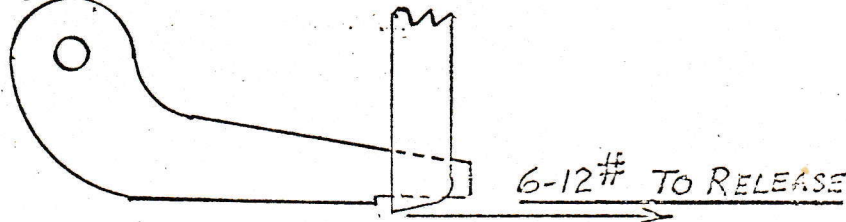
SSS 1-26, A, B, C

N/A GBSC 1-26 E

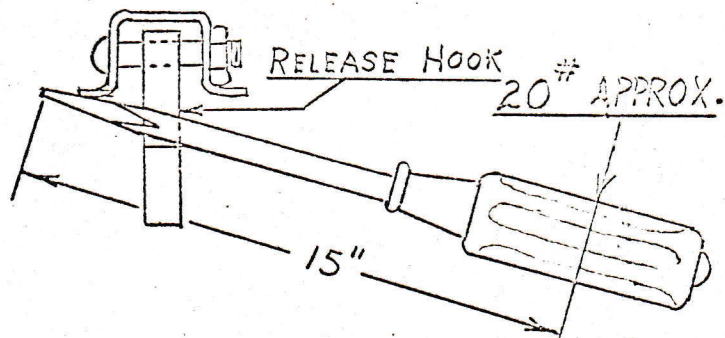
- There are three alternate springs used in the 1-26 tow release mechanism. From field reports from owners, it appears there are cases of excessively high release operating loads. We have run tests and have determined that the best spring is our No. 1A113-1 shown below.



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.



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 since we have had requests for this. Write for price and details.

Service Bulletin No. 103-26-2 (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. 6

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 desirable 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.