THE GLIDING FEDERATION OF AUSTRALIA

GFA AN 128
(ISSUE 2)

AIRWORTHINESS ADVICE NOTICE

TYPE AFFECTED: ASW 20, ASW 20L, ASW 20B, ASW 20BL, ASW 20C and ASW 20CL.

SUBJECT: Miscellaneous airworthiness information.

BACKGROUND: This AN records airworthiness information which is useful to know.

Copies of any documents should be obtained from the Schleicher website as this provides the latest versions.

Note that the ASW 20F has a French Type Certificate and was built by Centrair whereas the other ASW-20s are all EASA or LBA. This makes it a very different sailplane and it must be treated as such. Do not mix the ADs, designs, manuals and parts except as specifically authorized by approved data, refer GFA AN 174. The AS TN below and the ASW 20 ADs do not generally apply to the ASW 20F or FL but can be taken as good advice and could be approved for use by Engineering Order by GFA if necessary.

APPROVED MODIFICATIONS:

1. Alexander Schleicher (AS) TN 9 for the ASW 20 describes the optional modification of the wheel brake system such that the brake is operated by the dive brake lever rather than by a separate lever on the control column.

2. AS TN 13 for the ASW 20 and ASW 20L describes the optional installation of a tailwheel.

3. AS TN 16 for all ASW 20 models describes optional installation of a nose hook. Most ASW 20 series gliders were required to have a nose hook under MAR 2 and as such will already have a nose hook fitted. It is strongly recommended that a nose hook be fitted to all gliders which do not already have one.

4. AS TN 18 for the ASW 20 allows the use of an ASW 20C fuselage when repairing an ASW 20. Before commencing such a repair Alexander Schleicher and the CTO must be contacted.

SIGNED: CHIEF TECHNICAL OFFICER	For and on behalf of: **THE GLIDING FEDERATION OF AUSTRALIA**

5. AS TNs 8a, 8b, 19a, 19b, 20a and 20b allow the conversion of ASW 20 to ASW 20L, ASW 20B to ASW 20BL and ASW 20C to ASW 20CL. As changing the type designation requires reissuing of the Certificate of Registration and the Certificate of Airworthiness the CTO must be contacted before commencing this modification.

6. AS TNs 22 and 26 for the ASW 20 and ASW 20L describes the installation of an upward swinging instrument panel. TN 26 is a simpler design requiring no modification of the canopy latches or the jettison system.

7. AS TN 27 describes the optional installation of improved aerodynamic seals on all ASW 20 variants.

8. AS TN 28 allows the use of ASW 20C wings to repair the ASW 20 and ASW 20CL wings to repair the ASW 20L. Before commencing such a repair Alexander Schleicher and the CTO must be contacted.

9. AS TN 29 allows the optional installation of automatic elevator connection of ASW 20 and ASW 20L gliders. Installation of the modification is strongly recommended.

10. AS TN 35 for the ASW 20B and ASW 20BL allows the maximum weight of non lifting parts to be increased by 10 kg to 245 kg. To take advantage of this increase the Registered Operator must have the Certificate of Airworthiness reissued to reflect the increase, amend the Flight and Maintenance Manuals in accordance with the Technical Note and have the weight and balance recalculated by someone rated for Weight and Balance.

11. AS TN 36 allows the installation of Wedekind safety sleeves on all ASW 20 series gliders.

12. AS TN 37 allows the installation of winglets on all ASW 20 series gliders when flown in 15 m configuration.

13. EO MB17-10-2 Interchangeability of flight control surfaces outlines and authorizes the interchange of ailerons, elevators, rudders and horizontal tailplanes between ASW20 and ASW20F sailplanes. EO is attached.

DEFECTS: One case has been reported of a broken bulkhead which supports the aileron bellcrank adjacent to the control column. The bulkhead also tore away from fuselage shell. Inspection of this part is a normal Annual Inspection item.

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ENGINEERING ORDER …. MB17-10-2 (Issue 1)

GFA PROJECT REGISTER NO 2017-11

SUBJECT:	Interchangeability of flight control surfaces.
APPLICABLE TO:	All serial numbers of the Schleicher ASW20 and Centrair ASW20F sailplanes on the GFA register at the date of this Engineering Order.
PREPARED FOR:	Mr. John Ridge (Applicant and design approval holder)

All work performed under this engineering order is to be done in accordance with good aeronautical practice and where necessary comply with the GFA Inc. Manual of Standard Procedures Part 3 (current issue) and all of that document's subsidiary publications and references. Persons carrying out this work program must be appropriately authorized by the GFA Inc.

(1) GENERAL

This engineering order outlines and authorizes the interchange of ailerons, elevators, rudders and horizontal tailplanes between the sailplane types listed above.

(2) RELEVANT DOCUMENTS

The current issue maintenance manuals for each type are to be used as sole reference for all relevant aspects of maintenance.

(3) COMPONENT PREPARATION

Before installation each component must be processed to an acceptable airworthiness level by application of the following as needed:

- Confirm compliance with all prior airworthiness directives and service bulletins
- Inspection for condition, including hinges and surface finish.
- Sufficient internal ventilation to prevent altitude pressurization.
- Confirm weight and balance meets the maker's specifications. The component may have to be stripped and re-finished to match the receiving sailplane. GFA guidelines for re-finishing must be observed.
- Compare the weight of the removed components to the replacements (See 7 below)

(4) COMPONENT INFORMATION

The following history is to be sourced, where possible, for inclusion in the log book entry that certifies compliance with this E.O. (See 9 below)

- The original manufacturer.
- The original serial number.
- The registration / serial number of the sailplane from which the component is sourced.
- Total flight time and landings.

(5) INSTALLATION

Each installation must include the following:

- Inspection of the airframe hinges and attachment point to which the surface will be installed.
- Once installed check free play on the hinges to meet maker's limits, if provided and overall system free play.
- There must be clearance between the ends of each control surface and the fixed structure as set by the maker or 3 mm whichever the greater.
- Final surface sealing is to be done by incorporating the maker's recommended seal system or an acceptable equivalent.
- Control surface deflections to be set to maker's specifications.
- For ailerons, the wing frequency is to be measured and recorded in the log book entry. (See 9 below) There should be little or no change in frequency.

(6) FLIGHT TEST

Flight test is required to confirm airworthiness. If this exchange is done as part of an annual Form 2 inspection. the Form 2 flight test requirements are sufficient, including the run to Vne.

(7) WEIGHT AND BALANCE

Where the replacement component/s essentially match the original components, there will be no change in overall weight and balance. However, a total re-weigh at the inspector's discretion is recommended. A log book entry by a GFA authorized person is required.

(8) MAINTENANCE MANUAL / FLIGHT MANUAL AMENDMENTS

No amendment required.

(9) LOG BOOK ENTRY

On completion of this exchange a log book entry is to be made by a person authorized by the Gliding Federation of Australia Inc. to carry out both Form 2 inspections and minor modifications and repairs on sailplanes of FRP construction, certifying compliance with this Engineering Order. The log book entry is to include all of the component information sourced in (4).

FINAL DESIGN APPROVAL

Engineering Order MB17-10-2 (issue 1, pages 1 and 2) is Design Approved pursuant to CASR 21.437.
(under CASA IOA A&E 15/001)

Signed: ……M P Burns…… M P Burns ARN 524173 Date: November 21st 2017