GLIDING FEDERATION OF AUSTRALIA

AD 195
(ISSUE 4)

AIRWORTHINESS DIRECTIVE

TYPE AFFECTED: Jantar Standard 2 SZD 48 and SZD 48-1

SUBJECT: Modification of the lower rudder hinge support strut mount.

BACKGROUND 1981: Following a recent incident and an accident involving the SZD 48 Jantar Standard glider investigation revealed failure of the attachment of the lower rudder hinge support strut to the fuselage shell structure. It was not possible to determine positively whether the failure was a cause of or a result of the incident and/or the accident, however the attachment relies on an adhesive bond for which quality control and inspection is difficult for proof of integrity.

Issue 2 contained a correction to Issue 1 but not the full text of Issue 1

BACKGROUND 1986: This AD was modified to incorporate an inspection for cracking of the steel strut.

BACKGROUND 1991: The strut inspection was removed and placed in AD 385. The full text of Issue 1 with the relevant changes from issue 2 was re-introduced.

DOCUMENTATION: Earlier issues of AD 195 and the relevant defect reports. SZD service bulletin SZD 12.

ACTION REQUIRED: Before 30 march 1981 modify the fuselage attachment of the rudder hinge strut as detailed below.

1. Remove the rudder.
2. The modification will be more easily carried out with the fuselage in the inverted position.
3. Carefully remove the external paint finish from the outside of the fuselage shell in the vicinity of the lower rudder hinge support bracket for an area of approximately 150 mm x 100 mm.
4. By means of a bright light or by drilling small pilot holes locate one of the holes in the bottom of the strut. There are two holes in the strut approximately 20 mm apart. Enlarge

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For and on behalf of:
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the chosen hole to suit an M6 or 1/4" truss head machine screw.

5. Make up a saddle plate to the dimensions shown in figure 1. Use material 16.G (1.6 mm) stainless steel sheet A1.5.1 grade 304, 321 or 316 full hard temper or alternatively 4130 chrome molybdenum steel. Bend saddle plate to conform to fuselage shell.

6. Clean and roughen the outside surface of the fuselage shell where the paint was removed and bond on 2 layers of interglass 92110 glass cloth using Shell Epikote 162 and Shell Epikune 113 or Laromin C260 in the ratio of 100 to 38. Before the resin has cured , clamp the saddle plate in place with resin and cotton floc between the plate and the fuselage shell using M6 or 1/4" truss head machine screws.

7. When resin has cured, replace the rudder and check for full and free movement and if necessary trim the rudder leading edge fairing to avoid any interference.

8. Restore the paint finish.

9. Enter details of the modification in the gliders log book.

IMPLEMENTATION: This modification is the be carried out by persons endorsed Minor repairs FRP.

WEIGHT AND BALANCE: Negligible effect.

COMPLIANCE: The requirements of this Airworthiness Directive are mandatory. This Directive is issued pursuant to the Australian Civil aviation Regulations under the delegated authority of the Civil Aviation Authority (CEO42/90).

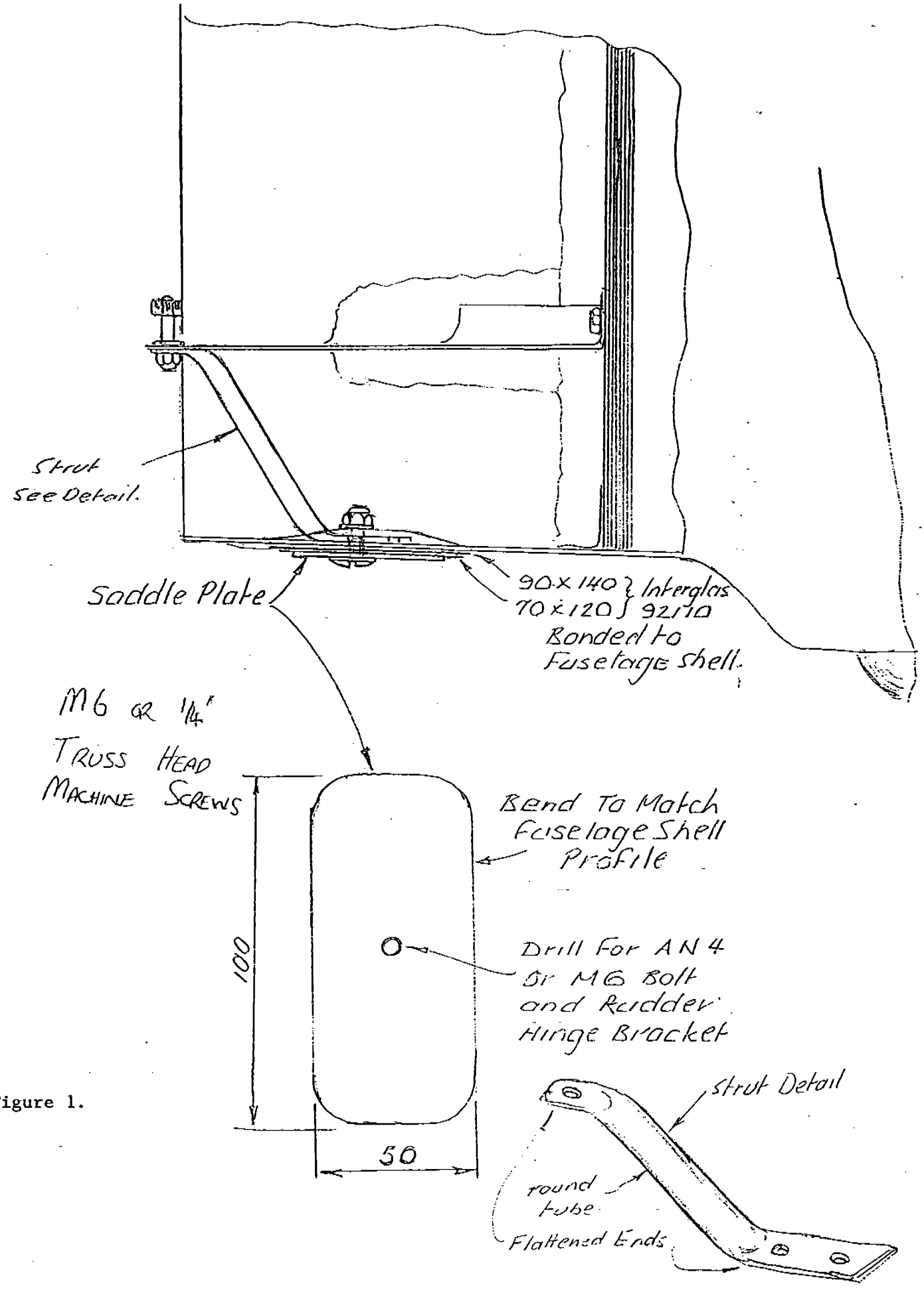
Strut
See Detail.
Saddle Plate
90 x 140 } Interglas
70 x 120 } 92110
Bonded to
Fuselage Shell.
M6 OR 1/4"
TRUSS HEAD
MACHINE SCREWS
Bend To Match
Fuselage Shell
Profile
100
Drill For AN 4
Or M6 Bolt
and Rudder
Hinge Bracket
50
Strut Detail
round
tube
Flattened Ends

Figure 1.