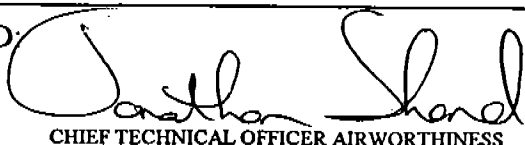


GFA AIRWORTHINESS DIRECTIVE

- TYPE AFFECTED:** Twin Astir (including Trainer) All Serial Numbers
G 103 Twin II All Serial Numbers
G 103 Twin II Acro All Serial Numbers
- SUBJECT:** Ultrasonic Inspection and possible replacement of the spar spigots.
- BACKGROUND:** During overseas fatigue testing a spar spigot failed at about 14000 simulated winch launches. This led to a world wide inspection program and a significant number of gliders were found to have cracked spigots.
- In Australia 5 out of 18 gliders were found to be cracked.
- Issue 4 has been prepared to remove any confusion over the glider types affected and to make it clear that gliders which have had their spigots replaced are not required to undergo further ultrasonic inspections. The maintenance requirements for gliders which still have the original spigots have not changed.
- DOCUMENTATION:** Grob Technical Information TM 315-36.
- ACTION REQUIRED:**
1. Before 30 October, 1990 the spar spigots must be inspected in accordance with Appendix A. If cracks are found the spigots must be replaced before next flight in accordance with Grob Repair Instruction No 315-36 or to a scheme acceptable to the CTOA.
- Note for issue 4. It is not necessary to repeat the inspection provided log book evidence can be found to show it has been completed within the last 500 hours.
2. The spar spigots must be reinspected in accordance with Appendix A at intervals not exceeding 500 hours until the spigots are replaced.
- WEIGHT AND BALANCE:** Not affected.
- IMPLEMENTATION:** Ultrasonic inspections must be performed by persons or organisations holding approval for this class of work from the CASA or the GFA.

SIGNED:


CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

THE GLIDING FEDERATION
OF AUSTRALIA

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Replacement of the spigots must be performed by persons rated for Major Repairs FRP.

COMPLIANCE:

The requirements of this GFA Airworthiness Directive are mandatory. This Directive is issued pursuant to the Rules and Regulations of the Gliding Federation of Australia.

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APPENDIX A

ULTRASONIC INSPECTION PROCEDURE.

EQUIPMENT:	<p>Krautkramer ultrasonic flaw detector USM2 or equivalent. Probe SMWB45-6 Serial number 55996. Test Standard TA 1.</p>
CALIBRATION/SET UP:	<p>Connect probe to instrument and calibrate the screen for 50 mm metal travel distance.</p> <p>Set the indication from the 45° notch at 50% horizontal position and 80% full screen height - no reject used.</p> <p>Shift the probe forward to show the reflection from the end of the counter bore and note the position shift.</p> <p>Scan further forward to show the reflection from the top of the counter bore and note the position.</p>
PREPARATION:	<p>Clean all dirt and foreign material from the spigot and apply couplant. Use SAE 30 oil or equivalent.</p>
INSPECTION:	<p>Carefully scan the spigot at the 12 and 6 o'clock positions identifying the counter bore and weld root from each side of each plate.</p>
DISPOSITION:	<p>All indications from cracks require further investigation.</p> <p>Correlation between cracks and the reference standard have been such that the standard represents a crack approximately 0.020" deep.</p> <p>Report crack sizes by length of circumference and \pm gain in dB compared to standard.</p>

