



AIRWORTHINESS DIRECTIVE


THE GLIDING FEDERATION OF AUSTRALIA Inc

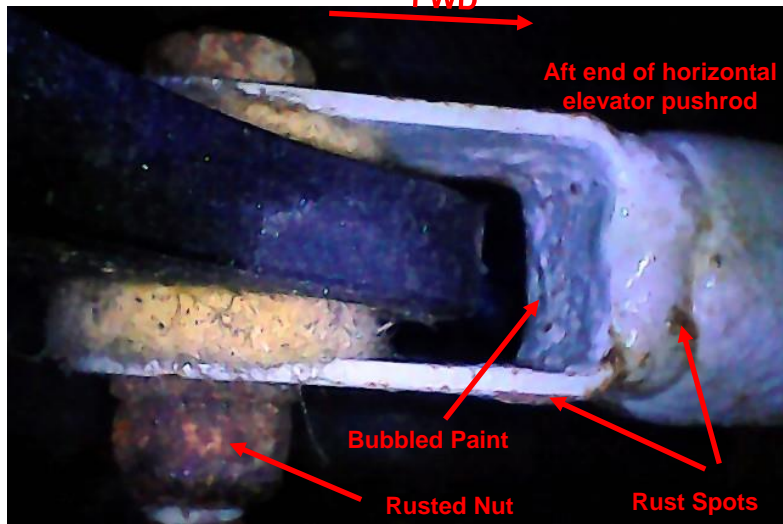
GFA AD 688 Issue 1

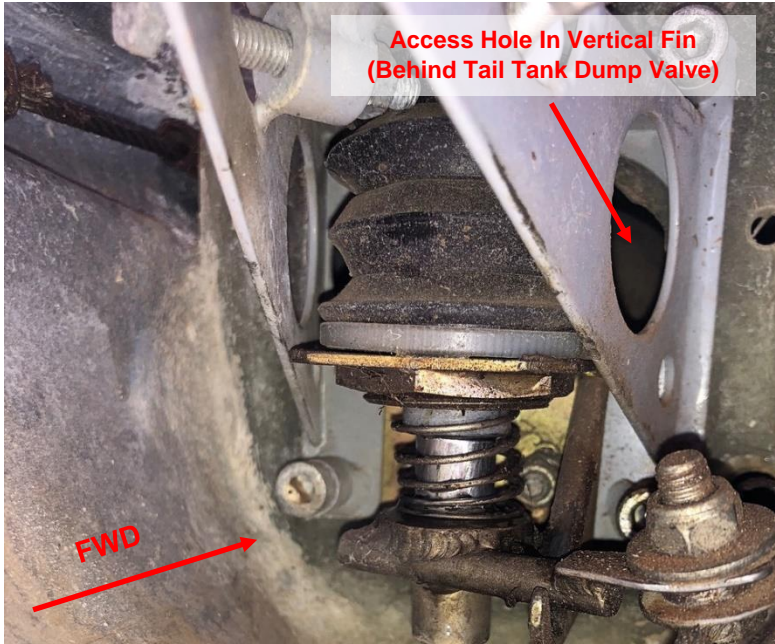
Date: 29 Jun 2020


Note: This Airworthiness Directive is issued by the Gliding Federation of Australia

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Type Certificate Holder	Various
Manufacturer(s)	Various
Types/Models Affected	All aircraft fitted, or previously fitted, with a relief tube
Serial Numbers	All
Subject	Corrosion of Controls and Fittings in Aft Fuselage
Implementation	MANDATORY
Background	<p>An owner of a Schempp Hirth aircraft identified corrosion on the aft end of the elevator pushrod in the fuselage. On removal of the pushrod, the aft end of the rod broke off completely.</p>  <p>Figure 1: Elevator Pushrod Failure</p>

	<p>Other signs of corrosion were seen on nearby fittings.</p> <p>The cause is likely to be urine from the relief tube or water from water ballast flowing along the underside of the fuselage and being drawn back into the fuselage through the drain hole in front of the tail wheel. The area is difficult to inspect and was found by looking down the fin through the slot for the vertical pushrod in the bottom fin rib.</p> <p>This Airworthiness Directive mandates a visual inspection of all metal pushrods and fittings in the bottom of the fin and aft end of the fuselage for corrosion.</p>
Documentation	N/A
Required Action(s)	<p>1. Annual Inspector: By no later than 20 Jul 2020 or before next flight whichever is the latest, visually inspect all metal pushrods and fittings in the bottom of the fin and aft end of the fuselage for corrosion.</p> <p>Tools Required Torch Mirror on extendable handle Inspection camera or boroscope</p> <p>a. For many T-tailed aircraft, inspection can be achieved by removal of the horizontal tail and unsealing the boot around the elevator vertical pushrod (if fitted). Direct a suitable inspection camera or boroscope down the vertical pushrod and inspect the bottom end of the vertical pushrod, the bell crank, the aft end of the horizontal pushrod for the elevator and any mounting brackets.</p>  <p>Figure 2: View of Elevator Pushrod Via Inspection Camera Down Through Vertical Fin (Ventus 2)</p> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p style="text-align: center;">CAUTIONS:</p> <p style="text-align: center;">Underside of pushrod may be in worse condition. Bubbled paint may hide corrosion pits.</p> </div>

	<p>b. For other aircraft, inspection can be achieved by removal of the rudder and using a torch and mirror with extendable handle or inspection camera to view the pushrod and fittings either through an access hole in the fin spar or through rudder pushrod / cable hole(s). This may require removal of the lower rudder mounting bracket and / or the dump valve for the tail ballast tank (if fitted).</p>  <p>Figure 3: View of Access Hole Through Bottom of Vertical Fin (Behind Tail Tank Dump Valve)</p> <p>c. The maintenance manuals for some aircraft allow for inspection holes to be drilled in specific locations of the fuselage. Consult your aircraft maintenance manual or the aircraft type certificate holder prior to drilling holes for the correct size and location.</p> <p>2. If corrosion is found it must be report to the CTO cto@glidingaustralia.org. The annual inspector must make a judgement as to whether the aircraft is safe to continue operation in its current condition. If the aircraft is allowed to continue operation with rust in situ and without immediate repair, the aircraft is to be reinspected at each annual inspection to determine corrosion growth and continuing safety.</p>
<p>Compliance, Compliance Time(s) and Frequency</p>	<p>Compliance with this Airworthiness Directive is mandatory and compliance, including action taken pursuant to this Airworthiness Directive must be recorded in the aircraft log book.</p> <p>Compliance must be carried out by no later than 20 Jul 2020 or before next flight whichever is the latest.</p>

Effect on Weight and Balance	No effect on W&B.
Issuing Authority	<p>Issued for and on behalf of The Gliding Federation of Australia Inc.</p> <p>Signed:</p>  <p>..... Chief Technical Officer</p>
Effective Date	29 Jun 2020