



## THE GLIDING FEDERATION OF AUSTRALIA INC

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### **Airworthiness Alert 2017-3** **DG-500/1000 (all variants) Rudder Travel** **Restriction**

#### **Overview**

A Service Difficulty Report has been received on a DG-1000 which reported restricted rudder travel when the front rudder pedals are in the full forward position. This would mean tall pilots may not have full rudder deflection required to effect spin recovery.

#### **Investigation**

The GFA airworthiness team has now examined a DG-500 and other DG-1000 sailplanes and found:

1. VH-DGZ, older DG-1000S - rudder pedals contact top and bottom of fuselage when full forward. Top of rudder pedals contacts fuselage and restricts rudder travel. May have been caused by maintenance.
2. VH-GTO, newer DG1000S - does not contact, no rudder travel restriction.
3. VH-NDU, newer DG1000S - pedals are touching fuselage at bottom and scrapping fuselage at top left but not restricting rudder travel.
4. VH-NGN, DG-500 Elan Orion (similar fuselage) - scrapes at bottom but not at top. No control restriction.

It appears the occasional DG-500 and DG-1000 may have restricted rudder travel when the front pedals are locked in the full forward position because of a more forward rudder pedal rigging angle/ alignment likely due to cable stretch. This angle may be exacerbated when replacing cables and using the old cables for length reference.

#### **Recommendation/Action**

All DG-500 and DG-1000 sailplanes are to be examined before next flight. Ensure full rudder deflection is obtained when the rudder pedals are locked in the fully forward position.

#### **Report**

Please report back to the CTO if there is any restriction to rudder travel. If a restriction is identified, record a minor defect in the sailplanes maintenance release and placard 'full forward front pedal position is not to be used until rectified'. Investigate cause and submit a SDR on any occurrence noted and how the defect was cleared.

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