Twin Commander Aircraft, LLC
Maintenance Alert

3 AUGUST 22

SUBJECT: Part Number 420077 Rudder Torque Tube Horn Assembly

EFFECTIVITY: 685/A, 690/A/B/C/D, 695/A/B

REASON FOR PUBLICATION: It has been brought to our attention that the rivets in the rudder torque tube can shear without it being readily visible on inspection. This shear has occurred on one occasion that we know of during a high wind when the plane was tied down. The rivet heads remained in place and the tube turned only slightly, so even though the plane was inspected prior to flight the sheared rivets weren't noticed. This maintenance alert is to advise operators how to mark and inspect the torque tube assembly to prevent the above-described occurrence.

Always use a Rudder Gust Lock to prevent uncommand movement of the rudder when the aircraft is moored. Gust Locks are available commercially.

REMOVE GUST LOCK BEFORE FLIGHT

Compliance:

Initially: At the next inspection interval or if the rudder is driven hard against the rudder stop or by strong winds or jet blast.

Repetitive: At each annual or if the rudder is driven hard against its stop.
BY WHOM WORK WILL BE ACCOMPLISHED: Airframe and Power plant technician or equivalent

APPROVAL: Quality Assurance personnel or person designated by the Director of Maintenance

REQUIRED TOOLS: As required or required by the applicable Maintenance Manual

RELATED PUBLICATIONS: Applicable Maintenance Manual

1. Gain access to the rudder torque tube and torque arm so it can be viewed at the attachment point

2. Secure the rudder torque arm against the rudder stop so it is held stationary.

3. Holding the Rudder trailing edge gently attempt to move the rudder back and forth have a second person observe the rudder torque tube where it attaches to the torque arm fitting. There should be no movement at the attaching rivets for the torque tube.

4. Using a .005-feeler gage check under the rivet heads looking for gaps between the tube and the rivets. If no torque tube movement or loose rivets are found, go to step 6.

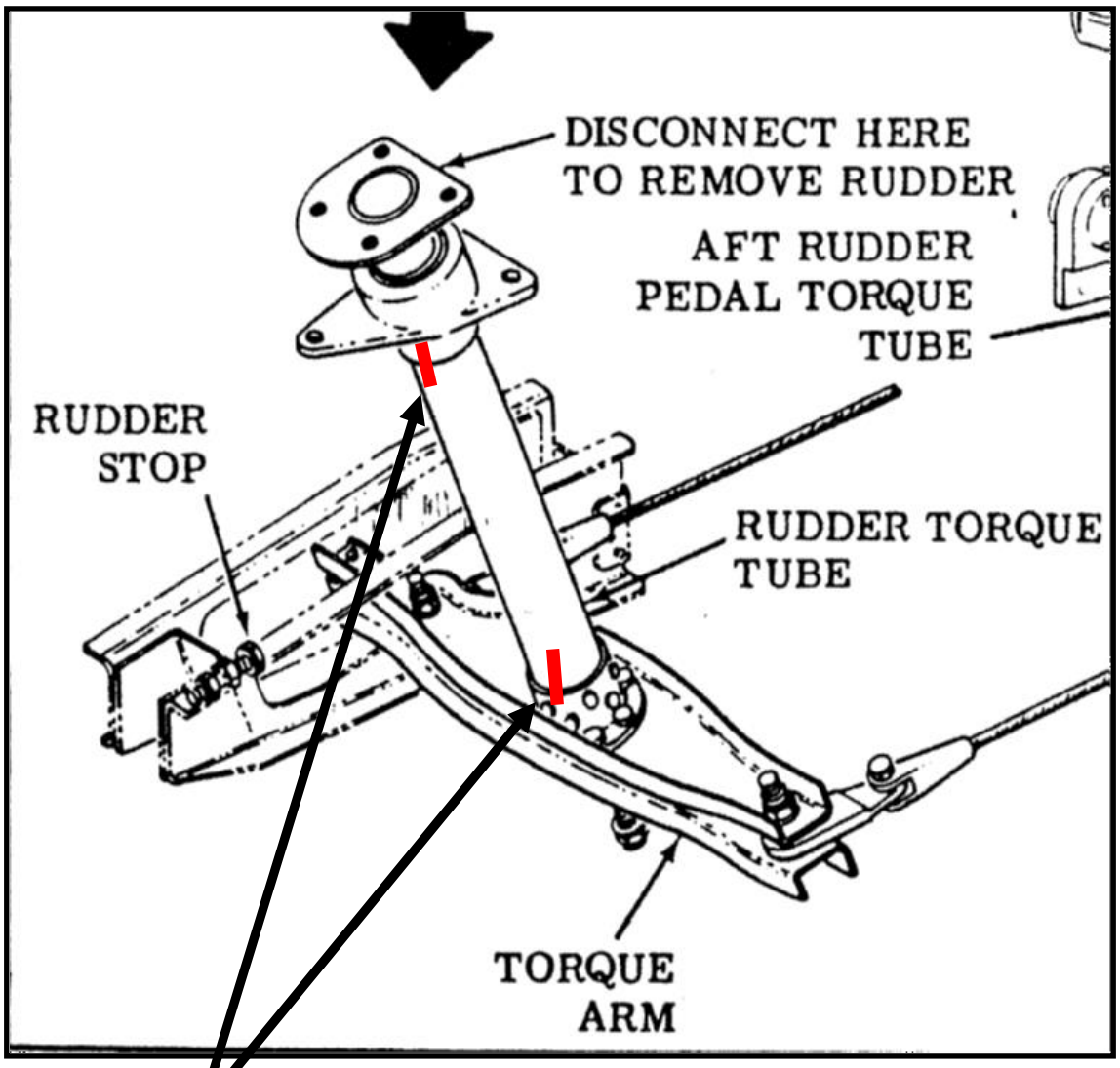
5. If movement of the tube or loose rivets are detected, remove torque tube assembly per maintenance manual instructions and remove all fasteners connecting tube to fittings. Replace parts that have out-of-tolerance rivet or bolt holes. Reassemble and reinstall torque tube assembly per applicable maintenance manual. Notify Twin Commander of damage found.

6. Use torque seal paste or equivalent to mark across either end of the tube and fittings so that future movement of tube, should it occur, can be more easily detected (see figure below).

7. Close access panels after inspection.

8. Make a log entry in the aircraft logbook denoting that the rudder torque tube fastener inspection has been performed in accordance with this alert.

FWD



***WITNESS* MARK**