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MANDATORY

# **Service Bulletin**

# Subject

Rudder Hinge Bush Replacement

# Applicability

This Service Bulletin is applicable to the aircraft serial numbers identified in Table 1.

**Table 1: Applicability** 

AIRCRAFT MODEL	AIRCRAFT SERIAL NUMBERS	
GA8	GA8-16-235, GA8-16-236, GA8-16-237, GA8-16-240, GA8-17-244.	
GA8-TC 320	GA8-TC 320-16-238, GA8-TC 320-16-239, GA8-TC 320-17-241, GA8-TC 320-18-245, GA8-TC 320-18-246, GA8-TC 320-18-247.	

# Amendments

Issue 1: Initial Issue. Refer to GAE11#2277.

# Background

GippsAero has identified that during manufacture specific Rudder Hinge Bushes (GA8-554021-025) have been inadvertently omitted from the Nickel Plating process. Safe flight with the identified Rudder Hinge Bushes can continue as their strength is unaffected, however there may be an increase to wear rates of the rudder hinge pivot assemblies. As a precaution GippsAero is mandating replacement of these parts as detailed in this Service Bulletin.

# Compliance

For applicable aircraft, within one calendar year from issuance of this Service Bulletin.

#### Weight and Balance

There is no effect to the empty weight or empty weight centre of gravity of the aircraft or the mass and balancing of the rudder control surface.

# Approval

This Service Bulletin has been approved in accordance with the requirements of Australian Civil Aviation Safety Regulation 21.095 (1998).

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# Parts and Materials:

The spare parts required to complete this Service Bulletin are detailed in Table 2.

#### Table 2: Parts Required

ITEM	PART NUMBER	DESCRIPTION	QTY
1	GA8-554021-025	RUDDER BUSH	3

### Parts Availability:

Parts can be obtained directly from GippsAero using the following contact details.

Tel: +61 (0)3 5172 1200 Fax: +61 (0)3 5172 1201 Email: PARTS@gippsaero.com.au

#### Labour:

2 hours should be allocated for completing the work detailed in this Service Bulletin.

These estimates do not include time required to do normal maintenance preparation or set up equipment.

#### Warranty:

Aircraft covered by warranty may claim the direct cost of incorporating the requirements of this Service Bulletin by contacting GippsAero Customer Service:

Tel: +61 (0)3 5172 1200 Fax: +61 (0)3 5172 1201 Email: <u>SUPPORT@gippsaero.com.au</u>

#### **Accomplishment Instructions**

#### WARNING:

IT IS THE RESPONSIBILITY OF ALL PERSONNEL TO ENSURE WORK HEALTH AND SAFETY REQUIREMENTS ARE MET AT ALL TIMES. ALL PERSONNEL MUST COMPLY WITH ALL WORK HEALTH AND SAFETY REQUIREMENTS AS DEFINED OR RECOMMENDED BY:

- AIRCRAFT MAINTENANCE AND OPERATION MANUALS;

- RELEVANT NAA REGULATIONS AND ADVISORY DOCUMENTATION;
- ORGANISATION MANUALS, INCLUDING NAA ENDORSED
- OPERATIONAL AND MAINTENANCE MANUALS; AND
- RELEVANT LOCAL, STATE AND FEDERAL GOVERNMENT REQUIREMENTS.

#### WARNING:

READ THE APPLICABLE MATERIAL SAFETY DATA SHEET (MSDS) FOR ANY CONSUMABLE USED DURING THE ACCOMPLISHMENT OF THIS SERVICE BULLETIN AND EMPLOY ANY RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT (PPE) CONTAINED THEREIN.

#### NOTE:

Unless otherwise specified, reference to the GA8 or GA8-TC 320 Service Manual and FAA Advisory Circular (AC) 43.13-18 & -2B should be made when carrying out the procedures prescribed in this Service Bulletin. In case of a discrepancy between the Service Manual and the AC, the Service Manual takes precedence.

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- 1. Remove item 1 in Figure 1, the Rudder Assembly (GA8-554011-011), from the aircraft in accordance with the GA8 Service Manual section 27-20-10. Retain items 3 and 4, the hinge bolts, and items 5,6, and 7, the associated washers and nuts, for re-installation, if serviceable.
- 2. Referring to Figure 1, remove item 2 the three (3) Rudder Hinge Bushes (GA8-554021-025) from the rudder assembly and discard.
- 3. Inspect the adjacent aluminum bronze bushes (GA8-553021-275 and GA8-553021-279) visually for any corrosion and replace as required.
- 4. Prepare the three replacement Rudder Hinge Bushes, (GA8-554021-025), item 1 from Table 2, for installation by lubricating with general purpose grease such as MIL-PRF-81322 or equivalent.
- 5. Install item 1 in Figure 1, the Rudder Assembly (GA8-554011-011), into the aircraft in accordance with the GA8 Service Manual section 27-20-15, fitting the replacement Rudder Hinge Bushes (GA8-554021-025), item 1 from Table 2, and using serviceable hardware. Apply lubrication in accordance with the GA8 Service Manual section 12-20-30. Ensure the mass balance is fitted and confirm correct locking of the hinge and cable attachment fasteners.
- 6. Inspect the directional control system for correct safetying, smooth operation, full and free movement in the correct sense. Perform duplicate inspections as required by local operating regulations.

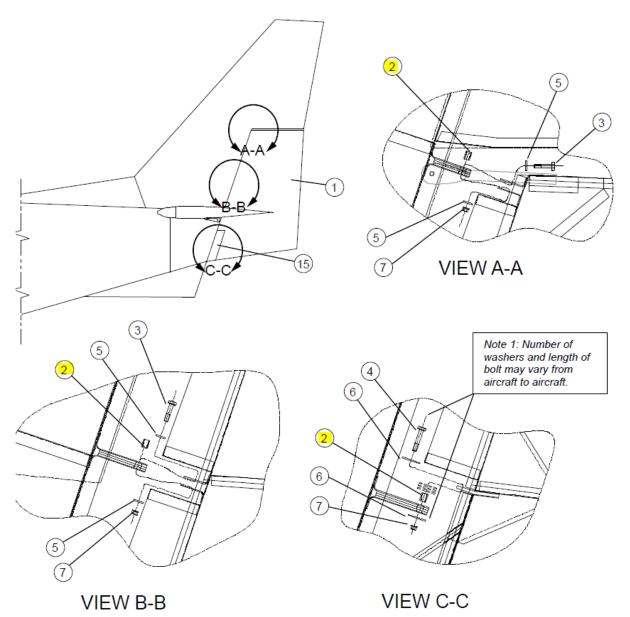


Figure 1: Rudder Hinge Bush Installation

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# Documentation

Update aircraft logbook to reflect incorporation of this Service Bulletin.

# **Continuing Airworthiness**

Once this Service Bulletin has been complied with there are no recurring requirements for continued airworthiness introduced by this Service Bulletin.

#### **Compliance Notice**

Complete the Document Compliance Notice and return to GippsAero by mail, fax or email.

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# DOCUMENT COMPLIANCE NOTICE



Document:

A Mahindra Aerospace Company

Issue 1

SB-GA8-2018-181

Aircraft Serial Number:

GA8-\_\_\_\_\_

Service Bulletin SB-GA8-2018-181 Issue 1 has been incorporated in the above aircraft.

Date of Incorporation:\_\_\_\_\_

Signed

Print Name: \_\_\_\_\_

Please post, fax or email this compliance notice to:

GippsAero Technical Services P.O. Box 881 Morwell Victoria 3840 Australia Fax.: +61 03 5172 1201 Email: <u>TECHPUBS@gippsaero.com.au</u>