

**MU-2**

SERVICE RECOMMENDATION

MITSUBISHI HEAVY INDUSTRIES, LTD.
NAGOYA AEROSPACE SYSTEMS WORKS
10, OYE-CHO, MINATO-KU, NAGOYA, JAPAN

No.049/76-002	DATE: Jun. 29, 2018
Subject:	Propeller Pitch Control Lever Secondary Retention Feature, Installation of
Effectivity:	MU-2B-25/-26/-26A/-40: S/N 313SA, 321SA, 348SA through 459SA MU-2B-36A/-60: S/N 661SA, 697SA through 1569SA
Purpose:	To add a secondary retention method to secure the Propeller Pitch Control (PPC) lever, install the secondary retention feature (screw, washer(s), spacer, and safety wire) in the threaded end of the PPC input shaft.
Compliance:	Optional
Approval:	Engineering aspects of this Service Recommendation are FAA approved.
Responsible Agency of Compliance :	MU-2 Owners/Operators
Disposition of Removed Parts:	Scrap
Spare Parts Affected:	Yes
Required Man Hours:	Approximately 2 man hours
Special Tools Required:	None
Weight and Balance Change:	None
Flight Manual Revision:	None

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ACCOMPLISHMENT INSTRUCTIONS

Most of the production PPC cam assemblies currently supplied by Honeywell have a threaded hole in the vertical Propeller Pitch Control Input Shaft. However, this threaded hole feature is dependent upon when shafts were manufactured. If the Propeller Pitch Control Input Shaft does not have threaded holes, comply with Honeywell Service Bulletin TPE331-72-2190¹ before accomplishing this Service Recommendation or replace the original PPC CAM ASSY with the new production PPC CAM ASSY, which already has the threaded hole.

If MHI Service Bulletin 106/76-004 has not been complied with, comply with MHI Service Bulletin 106/76-004 before accomplishing this Service Recommendation.

PARTS AND MATERIAL REQUIRED

The following parts and material are required to comply with this Service Recommendation, including adjustment washers (one NAS620C10 and one NAS620C10L per engine).

<u>PART NUMBER</u>	<u>PART NAME</u>	<u>QTY</u>	<u>REMARKS</u>
NAS1802-3D19	Screw	1 ea. per engine	
NAS1587A3C	Washer	1 ea. per engine	
NAS620C10	Washer	3 ea. per engine	
NAS620C10L	Washer	1 ea. per engine	
NAS1057T3-084	Spacer	1 ea. per engine	
MS20995C32	Safety Wire	As Required	

INSTRUCTIONS

Refer to the applicable MU-2 Maintenance Manual (MM) and Illustrated Parts Catalog (IPC) to comply with this Service Recommendation.

1. PREPARATION

Open engine nacelle upper cowlings and remove the engine starter unit to gain access to the PPC lever.

2. INSTALLATION

- (1) Remove the existing safety wire (MS20995C32) between the Lever (022A-43111-3) and the clamping bolt (MS20073-03-05).

¹ MHI recommends that the modification of the Propeller Pitch Control Input Shaft be accomplished by a Honeywell authorized service center.

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- (2) Re-torque the clamping bolt (MS20073-03-05) to 20 to 25 lbs.
- (3) Install screw (NAS1802-3D19), counter washer (NAS1587A3C), gap adjustment washers (NAS620C10 and NAS620C10L), and spacer (NAS1057T3-084) to the threaded end of PPC shaft. (Ref to Figure. 1)
 - 1) Gap adjustment for Woodward Fuel Control Pointer:
 - Use one (1) NAS620C10 and zero (0) NAS620C10L for nominal
 - 2) Gap adjustment for Bendix Fuel Control Pointer:
 - Use two (2) NAS620C10 and zero (0) NAS620C10L for nominal

NOTE:

BOTH THREAD ENGAGEMENT SPECIFIED IN (4) AND GAP SPECIFIED IN (5) MUST BE MET WITH THE SCREW AND WASHER COMBINATION CHOSEN.

- (4) Verify that there are at a minimum two (2) full turns of engagement between screw (NAS1802-3D19) and Propeller Pitch Control Input Shaft threaded hole. Torque the screw (NAS1802-3D19) to 10 to 15 in-lbs. Screw (NAS1802-3D19) does not bottom out inside the threaded shaft once required torque is achieved. 1/16" longer or shorter screw may be installed instead of screw (NAS1802-3D19) to obtain required thread engagement.
- (5) Measure the gap "G" (Ref to Figure. 2). If the gap measures $0 < G \leq 2.0$ mm, go to step (7). If out of range, go to step (6).
- (6) Add or remove washers (NAS620C10 and/or NAS620C10L) and repeat steps (3) to (5) until the gap "G" measures $0 < G \leq 2.0$ mm. 1/16" longer or shorter screw may be installed instead of the screw (NAS1802-3D19) for gap adjustment.
- (7) Install the safety wire (MS20995C32) between screw (NAS1802-3D19) and clamp bolt (MS20073-03-05).
- (8) Pull the PPC lever upward by hand and ensure that PPC lever is tightly secured.
- (9) Make sure smooth movement of the PPC lever.

3. RESTORATION

Restore the engine starter unit and engine nacelle upper cowlings, and lock the latches.

4. RECURRING INSPECTION

To verify the PPC lever retention, pull the PPC lever upward by hand and check the PPC lever security so that it does not detach from the PPC input shaft. Repeat this inspection every 100 flight hours Maintenance Requirements Manuals (MRM) will be revised to include this inspection requirement.

For continued airworthiness after completion of this Service Recommendation, recurring inspection must be conducted at every 100 flight hours in accordance with the revised MRM.

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5. LOGBOOK ENTRY

Upon completion of this modification, make an appropriate maintenance entry in the logbook similar to "Service Recommendation No. 049/76-002 complied with on (date) by (name)".

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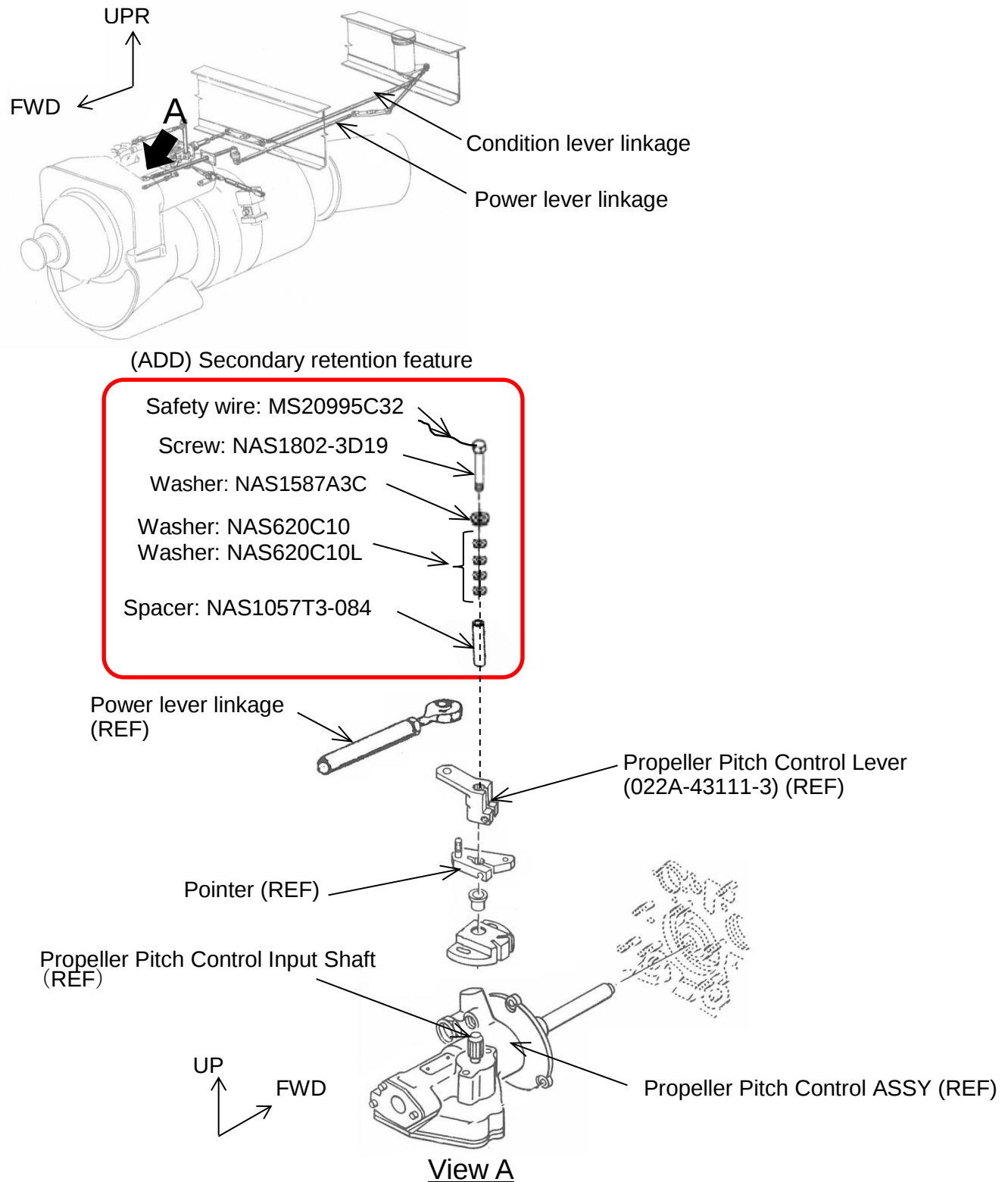


Figure 1 Installation of Secondary Retention Feature

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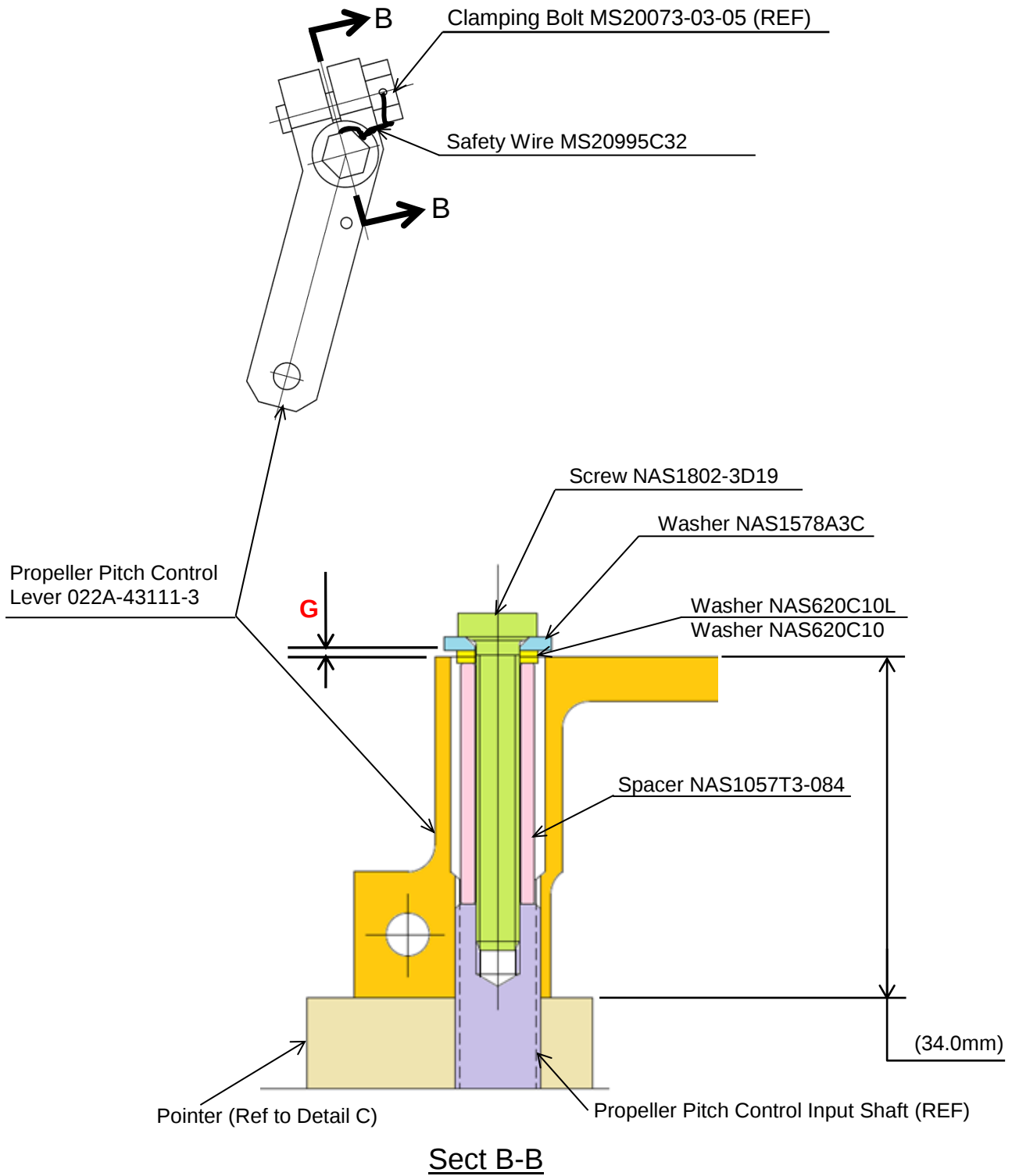


Figure 2 G: Gap between washer(NAS1578A3C) and PPC lever

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Pointer (Woodward)



Pointer (Bendix)

Detail C Pointer Type