



TECHNICAL BULLETIN

SU-15-08
21 April 2015

MODEL AFFECTED: UH-1H

SUBJECT: ALTERNATE SPARE PART; SWASHPLATE GIMBAL RING ASSEMBLY P/N 212-010-416-101

HELICOPTERS AFFECTED: UH-1H helicopters which are non-type certificated and owned and operated by other than an Armed Service of the United States.

COMPLIANCE: At customer's option, use Gimbal Ring Assembly P/N 212-010-416-101 as an alternate spare part in lieu of Gimbal Ring Assembly P/N 204-010-404-003.

DESCRIPTION:

This Special Use (SU) Technical Bulletin (TB) provides authorization to UH-1H helicopter operators, as described in the **HELICOPTERS AFFECTED** block above, who wish to use Swashplate Gimbal Ring Assembly P/N 212-010-416-101 as an alternate spare part in lieu of Swashplate Gimbal Ring Assembly P/N 204-010-404-003.

The assigned retirement life for the P/N 212-010-416-101 Swashplate Gimbal Ring Assembly when installed on the UH-1H is 9,000 hours.

APPROVAL:

Bell Helicopter does not authorize use of this bulletin to obtain approval from any civil regulatory authority for installation of P/N 212-010-416-101 Swashplate Gimbal Ring Assembly on any type certificated UH-1 helicopter.

The engineering design aspects of this bulletin are Bell Helicopter Engineering approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Helicopter Product Support Engineering - Medium Military Helicopters
Tel: 817-280-3548 / mts-medium@bh.com

MANPOWER:

Approximately 3.0 man-hours are required to complete this bulletin. This estimate is based on hands-on time, and may vary with personnel and facilities available.

No additional man hours are required when carried out at overhaul.

WARRANTY:

There is no warranty credit applicable for parts or labor associated with this bulletin.

MATERIAL:**Required Material:**

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty</u>
204-011-457-003	Washer	6
204-011-463-001	Bolt	2
204-011-463-003	Bolt	2
212-010-416-101	Gimbal Ring Assembly	1

Consumable Material:

The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty</u>	<u>Reference *</u>
MIL-R-46082,TYI50CC	Sealant	AR	C-352
MILS46163TY11GRM	Sealant	AR	C-299
MS14145L5	Nut	4	
MS21318-13	Drive Screw	2	
MS24665-155	Cotter Pin	4	
NAS1149F0563P	Washer	2	

* C-XXX numbers refer to the consumables list in BHT-ALL-SPM Standard Practices Manual

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not Affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

TM 55-1520-210-23-1 AVUM & AVIM Maintenance Instructions
TM 55-1520-210-23P-1 AVUM & AVIM Repair Parts and Special Tools List
DMWR 55-1520-210 Aircraft Depot Maintenance Work Requirement
DMWR 55-1615-221, Swashplate and Support Assembly
Alert Service Bulletin UH-1H-15-12
Technical Bulletin SU-95-4, Rev B

PUBLICATIONS AFFECTED:

TM 55-1520-210-23P-1 AVUM & AVIM Repair Parts and Special Tools List

ACCOMPLISHMENT INSTRUCTIONS:

1. Place swashplate and support assembly on a suitable work table.
2. If the gimbal ring assembly is being replaced as part of a complete assembly overhaul, refer to DMWR 55-1615-221, Swashplate and Support Assembly, for procedures except as noted in steps 3.b. and 3.c. below.
3. If the gimbal ring assembly is being replaced only, disassemble and reassemble swashplate and support assembly only as necessary to remove and replace the gimbal ring. Refer to DMWR 55-1615-221 for procedures except as noted in steps 3.a, 3.b, and 3.c below.
 - a. Refer to Figure 1. Visually inspect all parts for serviceability or evidence of damage; repair and/or replace unserviceable parts as required. Parts noted on Figure 1 as **REPLACE** are to be replaced regardless of serviceability.
 - b. After removal of the old gimbal ring and verifying the shimming requirements of the bearing and liner assemblies of the P/N 212-010-416-101 Gimbal Ring:

CAUTION

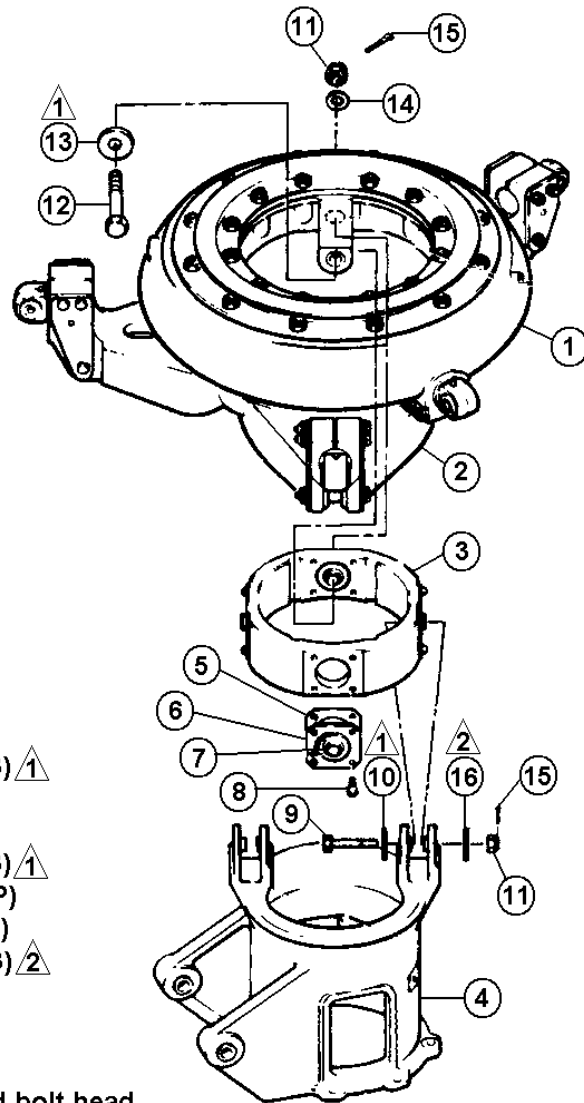
In the following steps, ensure that no sealant is allowed to enter bearings.

- (1) Apply sealant (C-352) sparingly to the faying surfaces of the bearing and liner assemblies and shims.
- (2) Apply sealant (C-299) sparingly to the faying surfaces of the P/N NAS6203-1H Bolts.

-NOTE-

Refer to Figure 1, notes 1 and 2. Install P/N 204-011-457-003 Washer with chamfer toward bolt head and, when installed under nut, install with chamfer toward lug.

- c. Install bearing liner assemblies and shims, and torque bolts while sealant remains wet.
- d. Reassemble remainder of Swashplate and Support Assembly as required.
4. Ensure P/N 212-010-416-101 Gimbal Ring Assembly historical record card (HRC) shows the airworthiness life as 9,000 hours.
5. Revise swashplate and support assembly historical records to show installation of the 212-010-416-101 gimbal ring and its retirement life.
8. Make an entry in helicopter historical service records indicating compliance with this Technical Bulletin.
7. Refer to BHT-205A1-CR&O for P/N 212-010-416-101 Gimbal Ring Assembly damage repair limits and repair procedures. Damage limits noted in TM 55-1520-210-23-1, DMWR 55-1520-210, and/or DMWR 55-1615-221 apply only to P/N 204-010-404-003.
8. Refer to Figure 1 for P/N 212-010-416-101 Gimbal Ring Assembly detail parts and attaching hardware.



- 1. Outer Ring
- 2. Inner Ring
- 3. Gimbal Ring (212-010-416-101)
- 4. Support
- 5. Shim (212-010-418-101)
- 6. Bearing & Liner Assy (212-010-417-101)
- 7. Bearing (MS27640-5)
- 8. Bolt (NAS6203-1H)
- 9. Bolt (REPLACE with 204-011-463-003)
- 10. Washer (REPLACE with 204-011-457-003) ¹
- 11. Nut (REPLACE with MS14145L5)
- 12. Bolt (REPLACE with 204-011-463-001)
- 13. Washer (REPLACE with 204-011-457-003) ¹
- 14. Washer (REPLACE with NAS1149F0563P)
- 15. Cotter Pin (REPLACE with MS24665-155)
- 16. Washer (REPLACE with 204-011-457-003) ²

NOTES:

- ¹ Install washer with chamfer side toward bolt head.
- ² Install washer with chamfer side toward lug.

FIGURE 1