

TECHNICAL BULLETIN
Bell Helicopter **TEXTRON**

A Subsidiary of Textron Inc.

No. 214ST-02-171

Date 11-04-02

Page 1 of 5

DATE
REV

MODEL AFFECTED: 214ST

SUBJECT: INTRODUCTION OF NEW TAIL ROTOR BLADE
RETAINING BOLT AND WASHER HARDWARE.

HELICOPTERS AFFECTED: All Model 214ST Helicopters

COMPLIANCE: At Customer's Option

DESCRIPTION:

Service experience indicates that certain combinations of existing tail rotor blade retaining bolt, P/N 20-065H, and washer, P/N 140-007-41, hardware on the P/N 214-011-801 Tail Rotor Hub Assembly could create an interference between the washer's inner diameter and the bolt head radius. New hardware has been identified which removes this interference when properly installed.

This bulletin describes installation of the new hardware and outlines procedures for replacement of the old part number bolts and washers.

APPROVAL:

The engineering design aspects of this bulletin are FAA/DER approved.

MANPOWER:

Approximately 4.0 man-hours are required to complete this bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

MATERIALS:

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>Quantity*</u>
20-065H10052**	Bolt	4
20-065H10054	Bolt	4
20-065H10056	Bolt	4
20-065H10058	Bolt	4
20-065H10060	Bolt	4
20-065H10062	Bolt	4
140-007-41R38F7	Washer	8

*Quantities listed are maximum. Actual usage to be as required. Refer to appropriate maintenance publications.

**Existing serviceable P/N 20-065H10052 Bolts may be reused. Refer to Accomplishment Instructions.

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not Affected

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-214ST-IPC Illustrated Parts Breakdown
BHT-214ST-MM Maintenance Manual
BHT-214ST-CR&O Component Repair and Overhaul

PUBLICATIONS AFFECTED:

BHT-214ST-IPC Illustrated Parts Breakdown
BHT-214ST-CR&O Component Repair and Overhaul

ACCOMPLISHMENT INSTRUCTIONS:

1. Refer to Figure 1. Replace existing tail rotor blade retaining bolts, P/N 20-065H10048, 20-065H10050, and 20-065H10052, and washers, P/N 140-007-41-38C4, as a unit if either the bolt or washer are unserviceable or if there is evidence of interference between the washer and the bolt head radius. To aid in choosing the correct hardware, washer thickness and bolt grip length are provided in Tables 1 and 2.
 - a. Following initial installation as a unit, the P/N 20-065H10052, 20-065H10054, 20-065H10056, 20-065H10058, 20-065H10060, or 20-065H10062 Bolts and the P/N 140-007-41R38F7 Washers may be replaced individually as serviceability dictates.
 - b. Existing P/N 20-065H10052 Bolts may be used with new P/N 140-007-41R38F7 washers as long as the existing bolts meet serviceability criteria. Refer to the 214ST maintenance publications.
 - c. Install large balance washers (Figure 1, item 3), when required, between the P/N 140-007-41 Washer (item 2) and the retaining nut (item 5) with the heaviest balance washer against the P/N 140-007-41 Washer. When required install item/s 4 between items 3 and 5. For nut torque and safetying requirements refer to the 214ST maintenance publications.
2. It is permissible to replace one or more retaining bolt and washer set as a unit without replacing the other sets at the same time. However to minimize any possible effect on static or dynamic balance of the hub assembly, BHT recommends replacing all 4 sets at the same time. If less than all 4 retaining bolt and washer sets are replaced at any one time, the tail rotor hub and blade assembly dynamic balance should be accomplished. Refer to the 214ST maintenance publications.

Replace existing: P/N 140-007-41-38C4 Washers and
P/N 20-065H10048
P/N 20-065H10050 or
P/N 20-065H10052* } Bolts

As a unit with: P/N 140-007-41R38F7 Washers and
P/N 20-065H10052*
P/N 20-065H10054
P/N 20-065H10056
P/N 20-065H10058
P/N 20-065H10060 or
P/N 20-065H10062 } Bolts

*Existing serviceable P/N 20-065H10052 Bolts
may be used with P/N 140-00741R38F7 Washers.

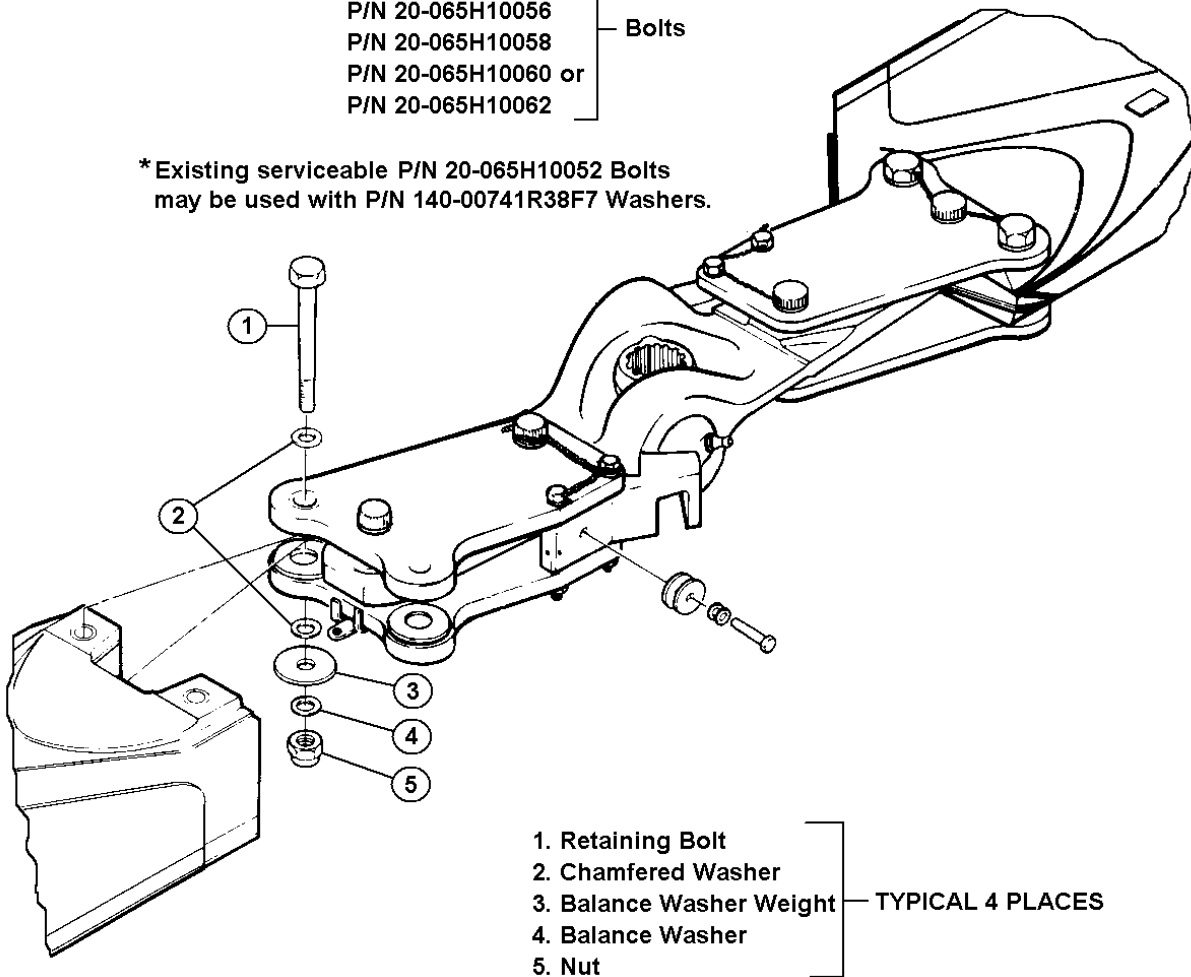


FIGURE 1

Tail Rotor Blade Retaining Bolt and Washer Replacement

WASHER PART NUMBER	NOMINAL THICKNESS (INCHES)
140-007-41-38C4	0.1250
140-007-41R38F7	0.2187

TABLE 1

BOLT PART NUMBER		NOMINAL GRIP LENGTH (INCHES)
20-065H10	048	3.000
	050	3.125
	052	3.250
	054	3.375
	056	3.500
	058	3.625
	060	3.750
	062	3.875

TABLE 2