

# **Bell Helicopter** **TEXTRON**

A Subsidiary of Textron, Inc.

8/27/99

**TO: All 407 Helicopter Owners/Operators**

**SUBJECT: REVISION "A" TO TECHNICAL BULLETIN 407-99-19,  
ENGINE OIL SYSTEM FLEXIBLE HOSES 70-  
079K000Z232 AND 70-061J000V204A, INTRODUCTION  
OF.**

Revision "A" to this Technical Bulletin corrects an error in part number for the lubrication decal, 31-033-3A1. The hardware kit number changes to CT-407-99-19A. A one foot strip of the new decal is included with this revision.

**TECHNICAL BULLETIN**  
**Bell Helicopter** **TEXTRON**  
A Subsidiary of Textron Inc.

**NO** 407-99-19

**DATE** 07-09-99

**PAGE NO.** 1 of 7

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|----------------------|
| <b>DATE</b> 09-03-99 |
| <b>REV.</b> "A"      |

**MODELS AFFECTED:** 407

**SUBJECT:** **ENGINE OIL SYSTEM FLEXIBLE HOSES  
70-079K000Z232 AND 70-061J000V204A,  
INTRODUCTION OF.**

**HELICOPTERS AFFECTED:** 407, Serial Numbers 53000 through 53292.

[Helicopters Serial Numbers 53293 and subsequent will have the intent of this bulletin completed before delivery.]

**COMPLIANCE:** At the option of the customer.

**DESCRIPTION:**

Bell Helicopter has found that cracks on the aft engine firewall can be caused by vibration transmitted by the rigid oil tubes 407-062-659-101 and 407-062-523-101. This bulletin introduces two new flexible oil lines, 70-079K000Z232 and 70-061J000V204A, to replace the installed rigid oil tubes and isolate this vibration.

**APPROVAL:**

The engineering design aspects of this Technical Bulletin are Transport Canada approved.

**MANPOWER:**

Approximately 1.0 man-hour is necessary to do this bulletin. The man-hours are based on hands-on time and can change due to the personnel and facilities available.

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**WARRANTY:**

Owners/operators who comply with the instructions given in this bulletin are eligible for a special 100% warranty credit toward the kit specified in the "Required Material" section of this bulletin.

To receive this credit:

1. Customers must order the replacement hardware kit from an approved BHTI spares supply source.
2. Comply with the instructions given in this bulletin and install the listed parts no later than 31 January 2000.
3. The owner/operator must send a completed Malfunction Report (MR) to BHT Warranty Administration within 30 days after the completion of this Technical Bulletin. A copy of the BHTI invoice that refers to the hardware kit used to accomplish this Technical Bulletin must be attached to the Malfunction Report (MR).

- NOTE -

Customers who comply with the instructions in this bulletin after 31 January 2000, are **not** eligible for the special warranty credit provisions listed above.

**MATERIAL:**

**Required Material:**

The material that follows is necessary to complete this bulletin and can be procured through Bell Helicopter Textron Supply Center.

Order **hardware kit CT-407-99-19A** that consists of the parts that follow:

| <u>PART NUMBER</u> | <u>NOMENCLATURE</u> | <u>QUANTITY</u> |
|--------------------|---------------------|-----------------|
| 70-079K000Z232     | FLEXIBLE HOSE       | 1               |
| 70-061J000V204A    | FLEXIBLE HOSE       | 1               |
| AN815-8D           | UNION               | 1               |
| M83248/1-908       | PACKING             | 1               |

| <u>PART NUMBER</u> | <u>NOMENCLATURE</u>   | <u>QUANTITY</u> |
|--------------------|-----------------------|-----------------|
| MS9596-024         | BRACKET               | 1               |
| MS21919WDG11       | CLAMP                 | 1               |
| MS27039-1-08       | SCREW                 | 2               |
| MS21042L3          | NUT                   | 2               |
| NAS1149F0332P      | WASHER                | 2               |
| MS21919WDG13       | CLAMP                 | 1               |
| MS21919WDG8        | CLAMP                 | 1               |
| 31-033-3A1         | I.D. TAPE DECAL, LUB  | 1               |
| 31-032-29A1        | I.D. TAPE DECAL, VENT | 1               |
| 31-032-28A1        | I.D. TAPE DECAL, FLOW | 1               |

“A”

**SPECIAL TOOLS:**

None.

**WEIGHT AND BALANCE:**

Not affected.

**ELECTRICAL LOAD DATA:**

Not affected

**REFERENCES:**

BHT-407-MM-2, Rev. 7, 01 May 1998:

Chapter 12, Servicing.

BHT-407-MM-5, Rev. 6, 14 April 1998:

Chapter 53, Fuselage.

BHT-407-MM-9, Rev. 7, 01 May 1998:

Chapter 79, Engine Oil System.

BHT-407-IPB, Rev. 2, 01 June 1996:

Chapter 53, Fuselage.

**PUBLICATIONS AFFECTED:**

BHT-407-MM-9, Rev. 7, 1 May 1998:

Chapter 79, Engine Oil System.

BHT-407-IPB, Rev. 4, 1 May 1998:

Chapter 79, Engine Oil System.

**ACCOMPLISHMENT INSTRUCTIONS:**

1. To get access to the oil cooler, remove the aft fairing assembly (BHT-407-MM-5, Chapter 53).
2. Drain the engine oil system (BHT-407-MM-2, Chapter 12).
3. Remove and discard the engine oil outlet tube 407-062-523-101 (BHT-407-MM-9, Chapter 79, Figure 79-1, Item 7).
4. Remove and discard the oil tank vent tube 407-062-659-101 (BHT-407-MM-9, Chapter 79, Figure 79-3, Item 24), the elbow AN833-8D (23), the nut AN924-8D (25), and the packing (26).
5. Install the packing (4) and union (3).
6. Use bracket (5, Figure 1), clamp (6), screw (7), nut (8), and washer (9) to install the oil tank vent flexible hose (2).
7. Use the screw (7), nut (8), washer (9), and clamps (10 and 11) to install the engine oil-return flexible-hose (1).
8. Install the line identification tape decals (12, 13, and 14).
9. Fill the engine oil tank (BHT-407-MM-2, Chapter 12).
10. Install the aft fairing assembly (BHT-407-MM-5, Chapter 53).
11. Before you fly the helicopter, make sure that the oil lines and the mating surfaces of the oil cooler, the oil tank, and the firewall fittings do not have leaks (BHT-407-MM-9, Chapter 79).

12. Make an entry in the helicopter historical records to show that you have completed this bulletin.
13. Make an entry in the record of the Technical Bulletins in the Illustrated Parts Breakdown.

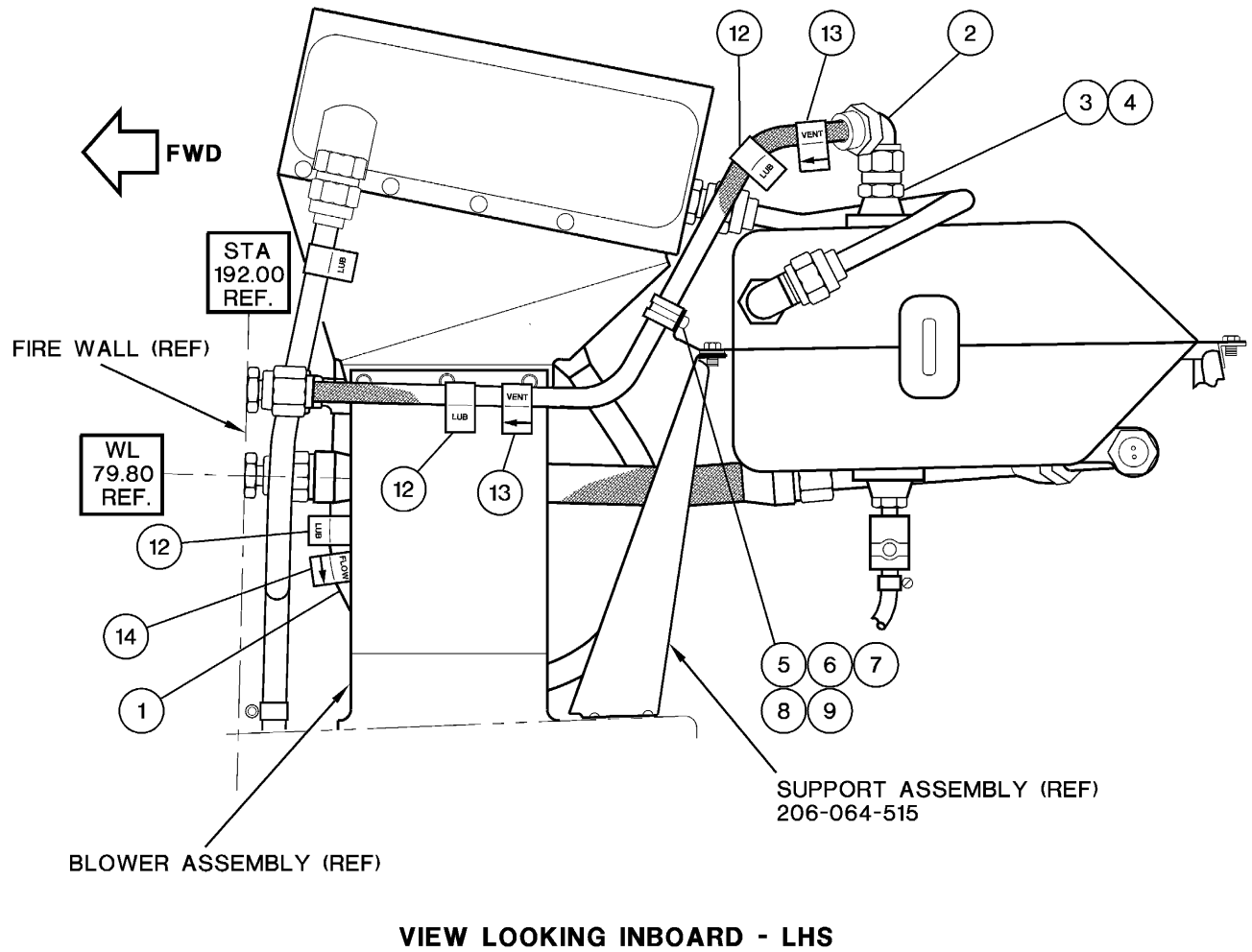
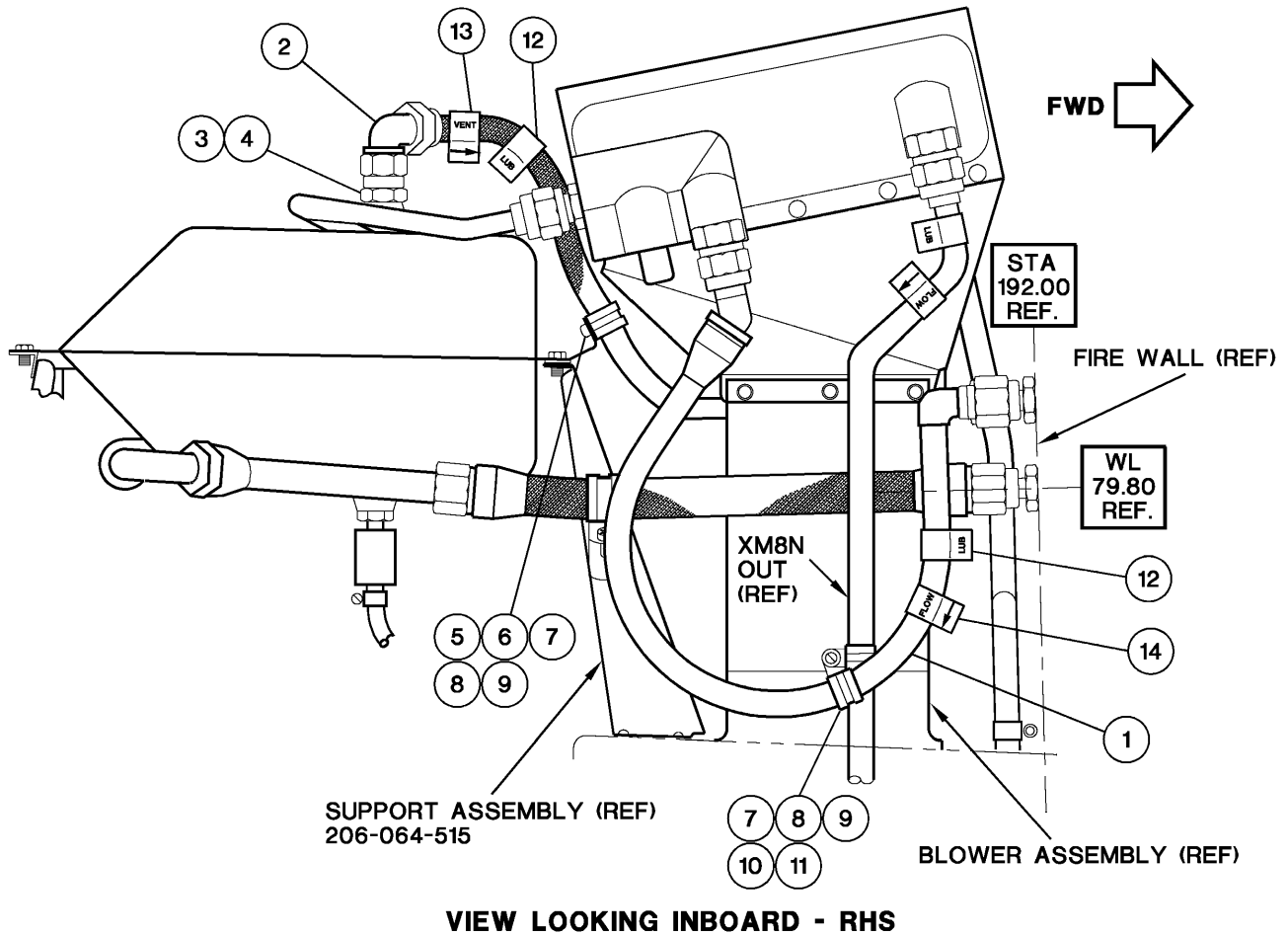


Figure 1. Flexible Oil Hoses and Union – Installation (Sheet 1)



**LEGEND**

- 1. Flexible hose (70-079K000Z232)
- 2. Flexible hose (70-061J000V204A)
- 3. Union (AN815-8D)
- 4. Packing (NAS617-8)
- 5. Bracket (MS9596-024)
- 6. Clamp (MS21919WDG11)
- 7. Screw (MS27039-1-08)
- 8. Nut (MS21042L3)
- 9. Washer (NAS1149F0332P)
- 10. Clamp (MS21919WDG13)
- 11. Clamp (MS21919WDG8)
- 12. I.D. tape decal, Lubrication (31-033-3A1)
- 13. I.D. tape decal, Vent ← (31-032-29A1)
- 14. I.D. tape decal, Flow → (31-032-28A1)

**NOTE**

Extraneous equipment omitted for clarity.

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**Figure 1. Flexible Oil Hoses and Union – Installation (Sheet 2)**