

# TECHNICAL BULLETIN

**Bell Helicopter** **TEXTRON**

A Division of Textron Canada Ltd.

NO. 407-97-7

DATE 10-15-97

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DATE

REV.

12, 800 Rue de l'Avenir, Mirabel, Quebec J7J 1R4

**MODELS AFFECTED:** 407

**SUBJECT:** THROTTLE GRIP FRICTION, INSPECTION AND MODIFICATION OF.

**HELICOPTERS AFFECTED:** 407, Serial Numbers 53000 through 53045.  
[Helicopters Serial Numbers 53046 and subsequent will have the intent of this bulletin completed before delivery.]

**COMPLIANCE:** At customers option, but recommended at the next scheduled inspection.

**DESCRIPTION:** Bell Helicopter has found that some throttle friction assemblies setscrew may not have the self-locking feature. This difference can permit the setscrew to turn freely and create a loss of throttle friction.  
  
This bulletin describes a one-time inspection of the throttle friction setscrew to make sure that a teflon locking element is installed.

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

**MANPOWER:** Approximately 0.5 man-hours are necessary to complete 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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**MATERIAL:**

**Required Material:**

The material that follows may be necessary to complete this Bulletin and can be procured through your Bell Helicopter Textron Supply Center.

**- NOTE -**

Only make an order for the setscrew if the old setscrew does not have a teflon locking element.

Only make an order for the spring washers if they are damaged or lost during removal/installation.

<u>PART NUMBER</u>	<u>NOMENCLATURE</u>	<u>QUANTITY</u>
NAS1081-6B8	SETSCREW	1
M12133/1-1P	WASHER, SPRING	7

**Consumable Material:**

None required.

**SPECIAL TOOLS:**

None required.

**WEIGHT AND BALANCE:**

Not affected.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

BHT-407-MM, rev.4 - 16 December 1996:

Chapter 76, Engine controls.

BHT-407-IPB, rev.3 - 16 December 1996:

Chapter 67, Flight controls.

**PUBLICATIONS AFFECTED:**

BHT-407-MM, rev.4 - 16 December 1996

Chapter 76, Engine controls.

**ACCOMPLISHMENT INSTRUCTIONS:**

1. With the use of a 3/16 inch allen key, remove the throttle friction adjustment setscrew (1, Figure 1). Remove the spring tension washers (2), and the plug (3).
2. Examine the setscrew (1) to see if there is a teflon locking element.

**- CAUTION -**

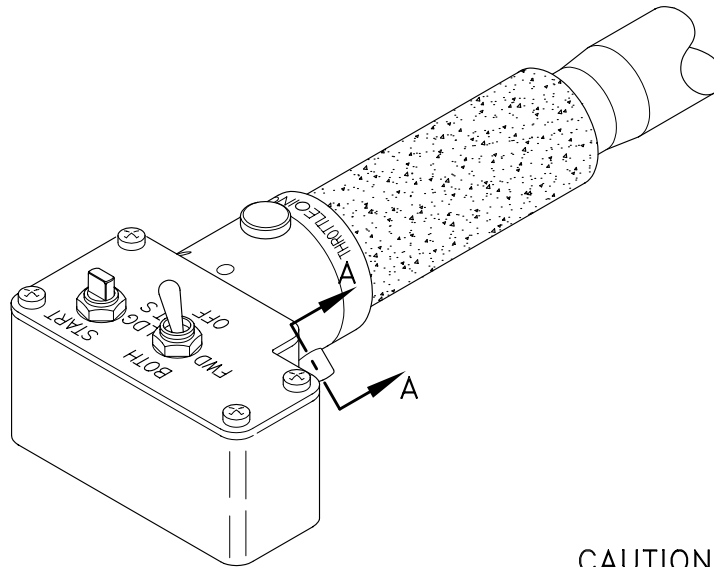
DO NOT ADJUST THE SETSCREW IN TOO FAR.  
DAMAGE TO THE SPRING WASHERS WILL OCCUR  
WHICH WILL REQUIRE TO REMOVE THE SPRING  
TENSION WASHERS TO RESTACK OR REPLACE  
THEM.

3. If the setscrew (1) has a locking element, install the removed components in the reverse order of step 1 and go to step 5 (Figure 1).
4. If the setscrew has no locking element, replace the setscrew (1) with a new self-locking setscrew.
5. Do the throttle grip friction adjustment as follows:
  - 5a. Tighten the throttle grip friction setscrew (1) until a slight friction is detected when the throttle grip is rotated.
  - 5b. Install a suitable length of cord (C-471, BHT-ALL-SPM) around the throttle grip and attach a fish scale to the cord.
  - 5c. Pull the fish scale to turn the throttle grip from the cutoff position to the full throttle position. Make sure that the fish scale indicates a maximum of  $10 \pm 0.5$  pounds

(4.5 ± 0.23 Kg) after the initial breakaway force. The operation must be smooth throughout the entire range. Carefully adjust the throttle setscrew as required to get the correct value.

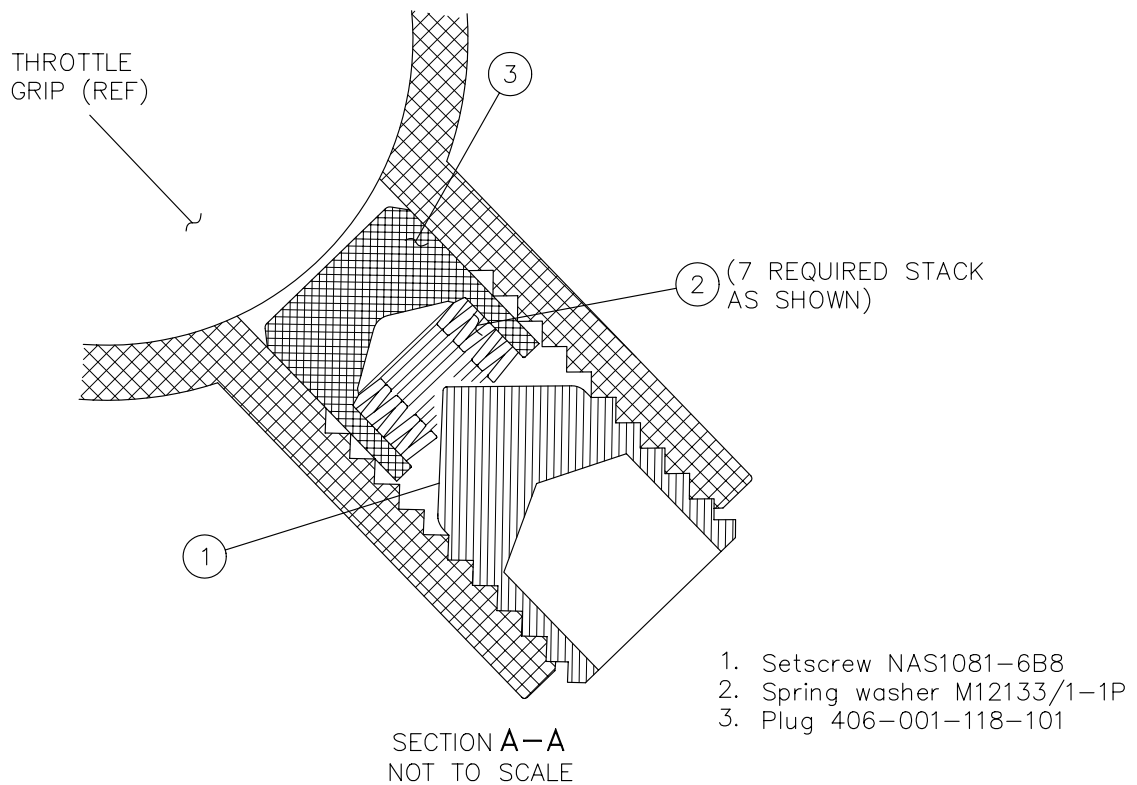
6. Make an entry in the helicopter historical record to show that this Technical Bulletin is completed.

7. Make an entry in the Record of Technical Bulletins in the Maintenance Manual.



**CAUTION**

DO NOT ADJUST THE SETSCREW IN TOO FAR. DAMAGE TO THE SPRING WASHERS WILL OCCUR WHICH WILL REQUIRE TO REMOVE THE SPRING TENSION WASHERS TO RESTACK OR REPLACE THEM.



**Figure 1. Setscrew replacement**