

WPR22LA333

AIRWORTHINESS

Specialist's Factual Report - Attachment 2

Bell 407 Maintenance Manual Excerpt - Throttle/Fly Detent Friction Adjustment

THROTTLE/FLY DETENT

Friction Adjustment

Applicable to: SN: 53390-54303 or 54305-54566 or 54568-54800

(DMC-407-A-76-04-00-00A-271A-A, Issue 001 - 2020/01/06, ECCN EAR99)

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Preliminary requirements

Required Conditions

Action/Condition	Data module/Technical Publication	Applicability
None.		

Support equipment

Name	Identification/References	Quantity	Remark	Applicability
None.				

Consumables, materials and expendables

Name	Identification/References	Quantity	Remark	Applicability
		AR		

Spares

Name	Identification/References	Quantity	Remark	Applicability
None.				

Safety conditions

None.

Procedure

NOTE

For SN: 53390-54303 or 54305-54566 or 54568-54800

The following information is only applicable to those that have complied with ASB 407-99-31. Copilot throttle friction will be higher than pilot throttle friction due to gearing in back of pilot collective assembly. With dual controls installed, pilot's throttle friction may be set to a minimum of 5 inch-pounds (0.56 Nm) to obtain a maximum resultant copilot throttle friction of 16.5 inch-pounds (1.86 Nm) after break-away torque.

- 1 Adjust ball plunger (6, Figure 1) so that it does not contact face of detent block (8). If ball plunger has lost its thread locking capability, replace with new unit.

- 2 With the use of a 3/16 inch allen key, remove the throttle friction adjustment setscrew (1, Figure 2). Remove spring washers (2) and plug (3). Inspect washers and plug for condition. If washers are flat, cracked, or broken, replace with serviceable washers. Inspect plug for wear. Face of plug is to be flat. If groove is worn into face of plug, replace with serviceable unit.

- 3 Examine the setscrew (1) to see if there is a teflon locking element.

NOTE

Do not adjust the setscrew in too far. Damage to the spring washers will occur, which will require removal of spring tension washers to restack or replace them.

- 4 If the setscrew (1) has a locking element, install the removed components in the reverse order of Step 2 and go to Step 6.
- 5 If the setscrew has no locking element, it is recommended to replace the setscrew (1) with a new self-locking setscrew (P/N NAS1081-6B8).
- 6 Tighten setscrew (1) until you have a slight friction when the throttle grip is turned.

NOTE

If dual controls installed, pilot throttle friction may be set to a minimum of 5 inch-pounds to obtain a maximum resultant copilot throttle friction of 16.5 inch-pounds after break-away torque.

- 7 To adjust the throttle friction grip setscrew (1) to get a fish scale value of 10 ± 0.5 pounds (4.5 ± 0.23 kg), after the initial breakaway force, do the procedure that follows:
 - 7.1 Wrap a suitable length of , or equivalent around the pilot's throttle grip and attach a fish scale to the cord.
 - 7.2 Depress the Idle detent button and pull the fish scale to rotate the throttle from the Closed position to the Full open position.
 - 7.3 Adjust setscrew (1) to get the required friction value.
- 8 Adjust the ball plunger (6, Figure 1) to a depth that lets it lightly contact the face of detent block (8).
- 9 To adjust ball plunger (6) to get a peak rotational value of between 4 to 5 pounds (1.8 to 2.3 kg) in excess of throttle friction adjustment in Step 7, when the ball plunger rides through groove of the FLY detent (7), do the procedure that follows:
 - 9.1 Turn the throttle grip assembly (1) to put the ball plunger (6) near the groove of the FLY detent (7).
 - 9.2 Wrap a suitable length of , or equivalent around the pilot's throttle grip assembly (1) and attach a fish scale to the cord.
 - 9.3 Pull the fish scale to move the ball plunger (6) in and out of the groove. Adjust ball plunger to make sure the fish scale value is 14 to 15 ± 0.5 pounds (6.3 to 6.8 ± 0.23 kg) when the plunger is pulled through groove of the FLY detent (7).
- 10 Following the throttle and FLY detent friction adjustments, make sure the operation of the throttle is smooth and that a positive indication is felt when the ball plunger (6) is engaged in the FLY detent (7). If applicable, also use the copilot's throttle to confirm a positive indication is felt in the FLY Detent.
- 11 Perform Check Run Procedure (DMC-407-A-76-01-00-00A-320A-A).

Requirements after job completion
Required Conditions

Action/Condition	Data module/Technical Publication	Applicability
None.		

End of data module

Figure 1. Rigging Fly Detent (S/N 53390 through 54303, 54305 through 54566 and 54568 through 54800) (Sheet 1 of 2)

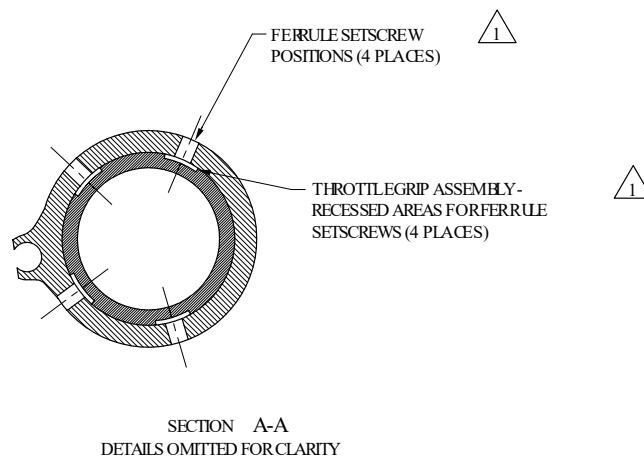
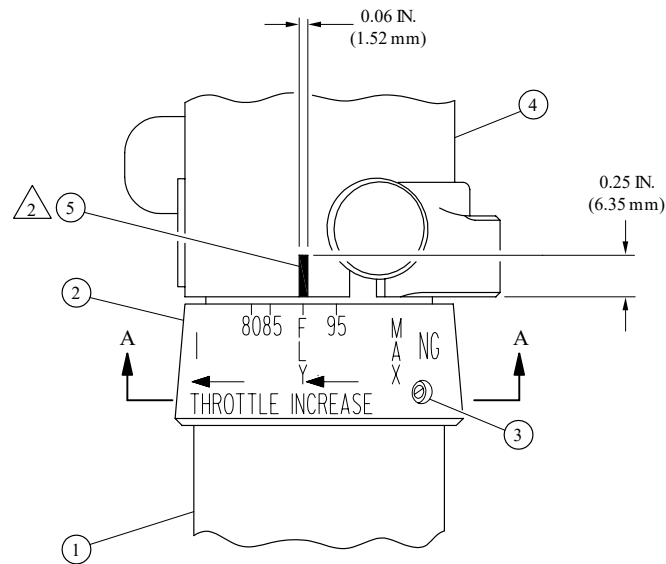
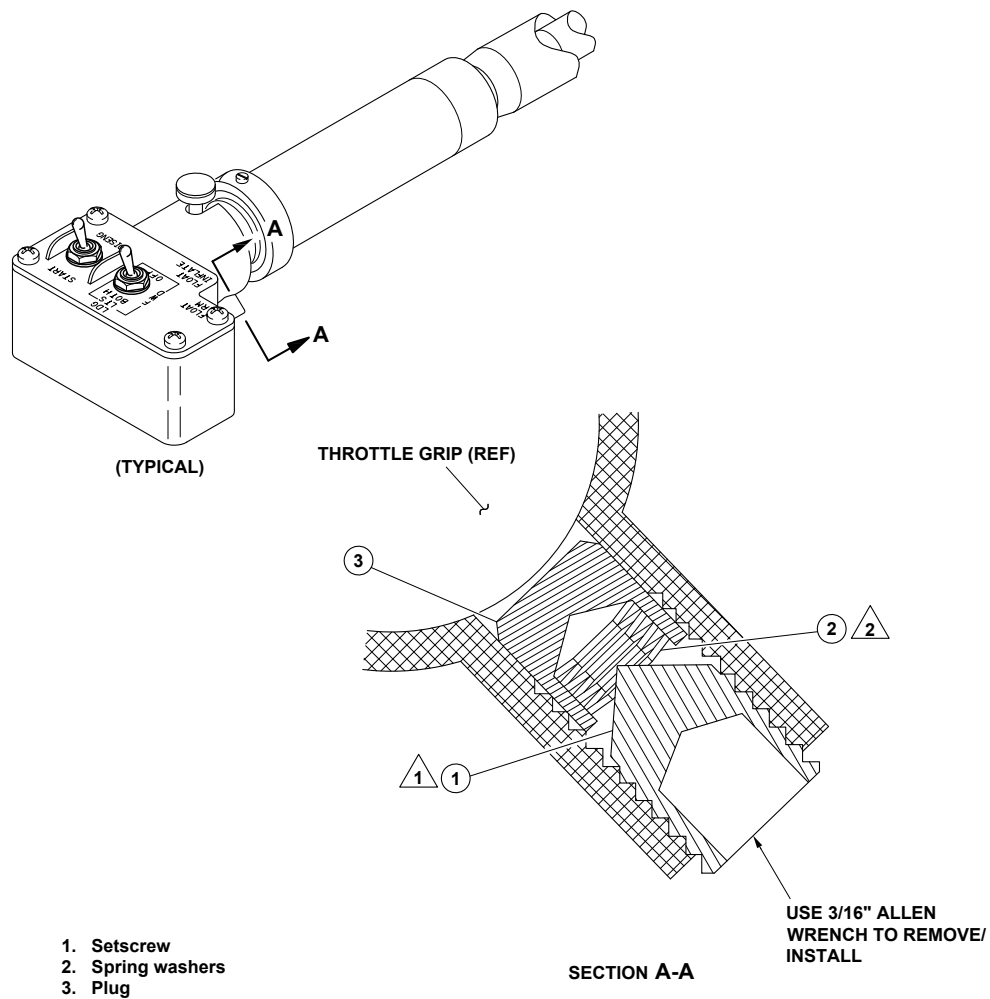


Figure 2. Collective Throttle Friction (Sheet 1 of 1)

**NOTES**

- 1 Do not adjust the setscrew in too far. Damage to the spring washers will occur which will require removal of the spring tension washers to restack or replace them.
- 2 Stack washers as shown to create spring assembly.

