

R66 Inlet Barrier Filter (IBF) Installation Kit Instructions

Kit upgrades standard engine air induction G057-1 cage assembly to optional IBF engine air induction G058-3 cage assembly. KI-248-A includes required 146150-101 filter assemblies & filter oil. To source oil & filter assemblies locally, order KI-248-B.

NOTE

Visit www.robinsonheli.com to verify kit instructions are current revision. Review instructions before installation; contact RHC Technical Support with questions. Verify kit contents match list; contact RHC Customer Service if parts are missing or damaged.

ITEM	PART NUMBER	KIT CONTENTS	QTY PER KI-248-A	QTY PER KI-248-B
1	KI-248Instr.	Kit Instructions	1	1
2	A701-5-1.5	Tape – Urethane, 2-inch wide (1.5-inch length)	2	2
3	F037-2A	Filter Maintenance Indicator Assembly	1	1
4	G058-3	Cage Assembly – IBF	1	1
5	100100-045	Filter oil (4.5 oz.)	2	0
6	146150-101	Filter Assembly	2	0
7	MS27039C0806	Screw	7	7

Kit Instructions

1. Remove tailcone cowling assembly per MM § 53-23.
2. To maintain same orientation during reassembly and facilitate balancing, mark and record positions of:
 - fan shaft weldment-to-forward flex plate.
 - fanwheel-to-fan shaft attachment.
 - fan shaft weldment-to-intermediate flex plate.
 - intermediate flex plate-to-forward yoke of tail rotor drive shaft.
 - balance washers.

NOTE

If difficulty is encountered removing fan shaft due to air conditioning drive pulley, slide fan shaft aft into tailcone until fan shaft forward flange is flush with front of scroll; allow fan shaft to remain in place.

3. Remove G057-1 cage assembly per MM § 71-22.
4. Refer to Figure 1. Transfer G738-1 nozzle from G057-1 cage to G058-3 cage assembly and special torque nozzle per MM § 20-33. Verify security.
5. Remove G735-7 angle from G058-3 cage assembly and remove MS21919WDG18 clamps from angle, retaining all hardware.

Kit Instructions (continued)

6. Refer to Figure 2. Release G735-8 straps (hook-end) from B774-10 springs and remove 146150-101 filters from cage assembly, if installed. Service filters per MM § 71-21 D steps 4 thru 6.
7. Refer to Figure 2. Remove protective barrier from engine inlet. Install cage assembly to firewall using (7) MS27039C0806 screws as shown; verify security.
8. Attach A729-42 tube to nozzle using B227-4 clamp; verify security.
9. Refer to Figure 1. Connect F049-08 (bypass switches) harness assembly to airframe connector; verify security.

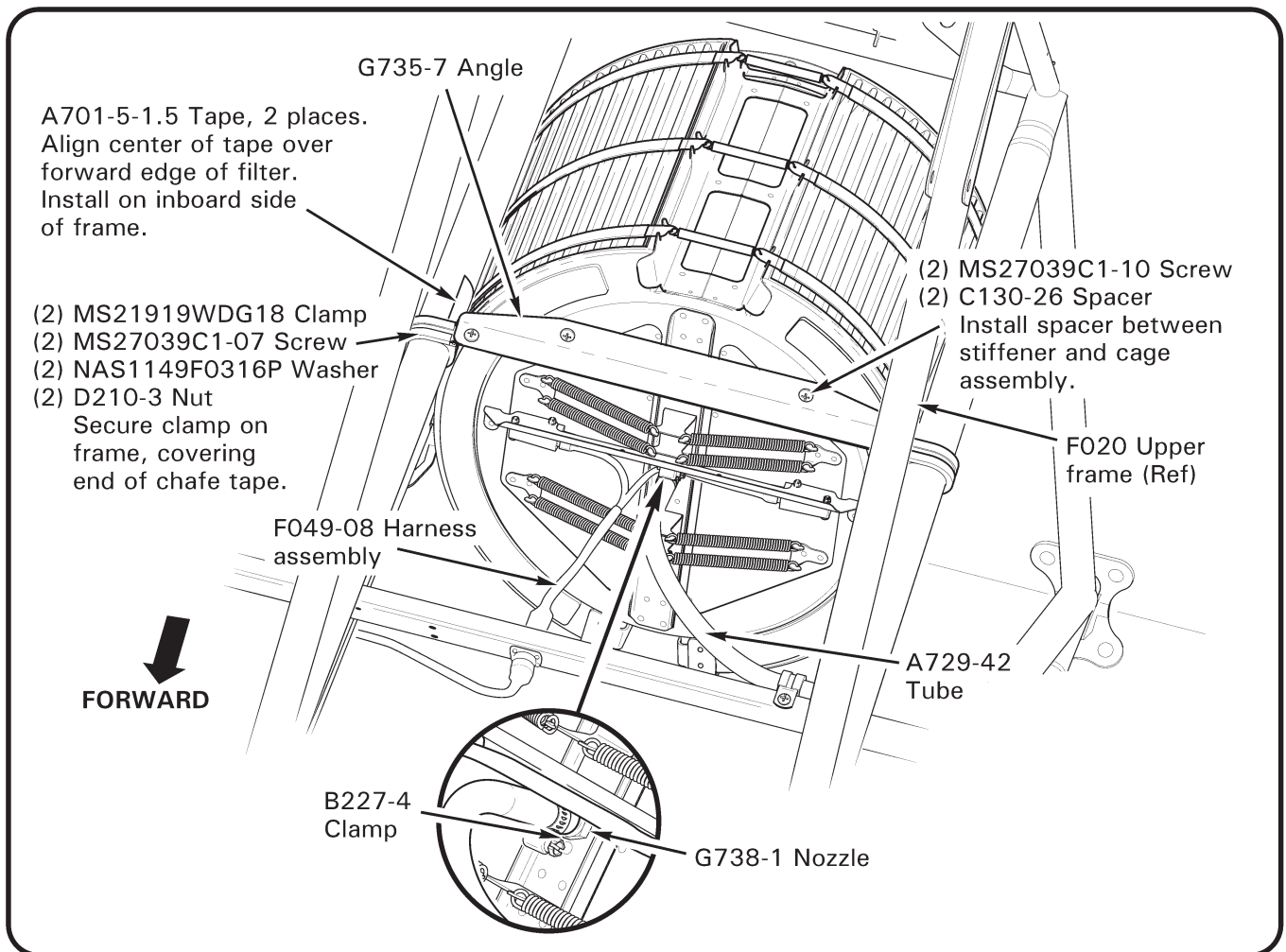


FIGURE 1
(view looking aft)

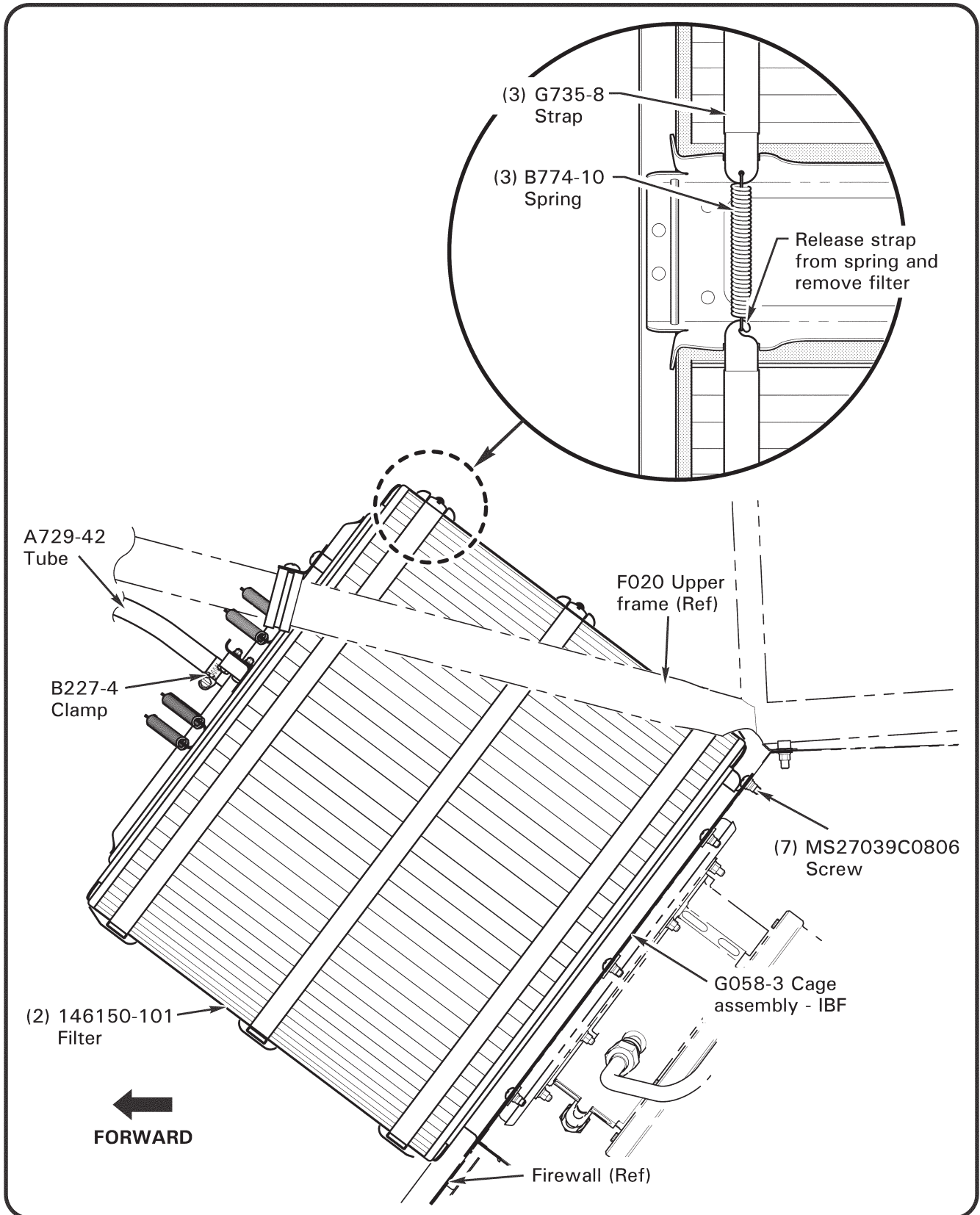


FIGURE 2
(view looking inboard)

Kit Instructions (continued)

10. Using cloth dampened with acetone, clean indicated upper frame tubes for protective tape installation. Install (2) A701-5-1.5 tape on inboard side of left-side and right-side frame tubes, aligning center lines of tape over closest forward edge of [installed] filters. Install angle on cage using retained screws and spacers; verify security. Secure clamps to angle using hardware as shown, repositioning clamps as necessary to minimize preload on angle; verify security and clamps cover edge of tape.
11. Refer to Figure 2. Insert 146150-101 filter in G058-3 cage assembly brackets. Install second filter; verify filters are properly seated. Hook G735-8 strap to B774-10 spring, 3 places; verify security.
12. Refer to Figure 3A or 3B. Open left-side access door to airframe engine oil tank. Lay out dimensions on G235-1 bulkhead for installation of filter maintenance indicator assembly bracket. Clean bulkhead using cloth dampened with acetone. Peel off tape liners and firmly press bracket to bulkhead; verify security. Remove and discard cap from AS5180D04 fitting. Connect A457-17 fitting to AS5180D04 fitting and special torque per MM § 20-33 (engine induction); verify security. Close access door.

NOTE
 If G926-7 or G926-10 holder not installed, lay out dimensions on G235-1 bulkhead using 7.2 inches and 6.9 inches.

13. Maintaining orientation noted in step 2, install fan shaft weldment per MM § 65-10 B. Check fanwheel-to-inlet gaps per MM § 79-11.
14. Rotate drive train by hand and verify operating clearance.
15. Perform fan shaft and engine shaft balance procedure per MM § 18-70.
16. Install tailcone cowling assembly per MM § 53-23.
17. Revise helicopter’s Weight and Balance Record in R66 Pilot’s Operating Handbook (POH) Section 6 to reflect this installation by incorporating the following data:

Remove:

Item	Weight	Long. Arm	Long. Moment	Lat. Arm	Lat. Moment
G057-1 Cage Assembly, Air Filter, Std	-2.03 lb	+125.7 in.	-255.2 in.-lb	0 in.	0 in.-lb

Install:

Item	Weight	Long. Arm	Long. Moment	Lat. Arm	Lat. Moment
G058-3 Cage Assembly, Air Filter, IBF	+6.12 lb	+125.7 in.	+769.3 in.-lb	0 in.	0 in.-lb

18. Make appropriate maintenance record entries.

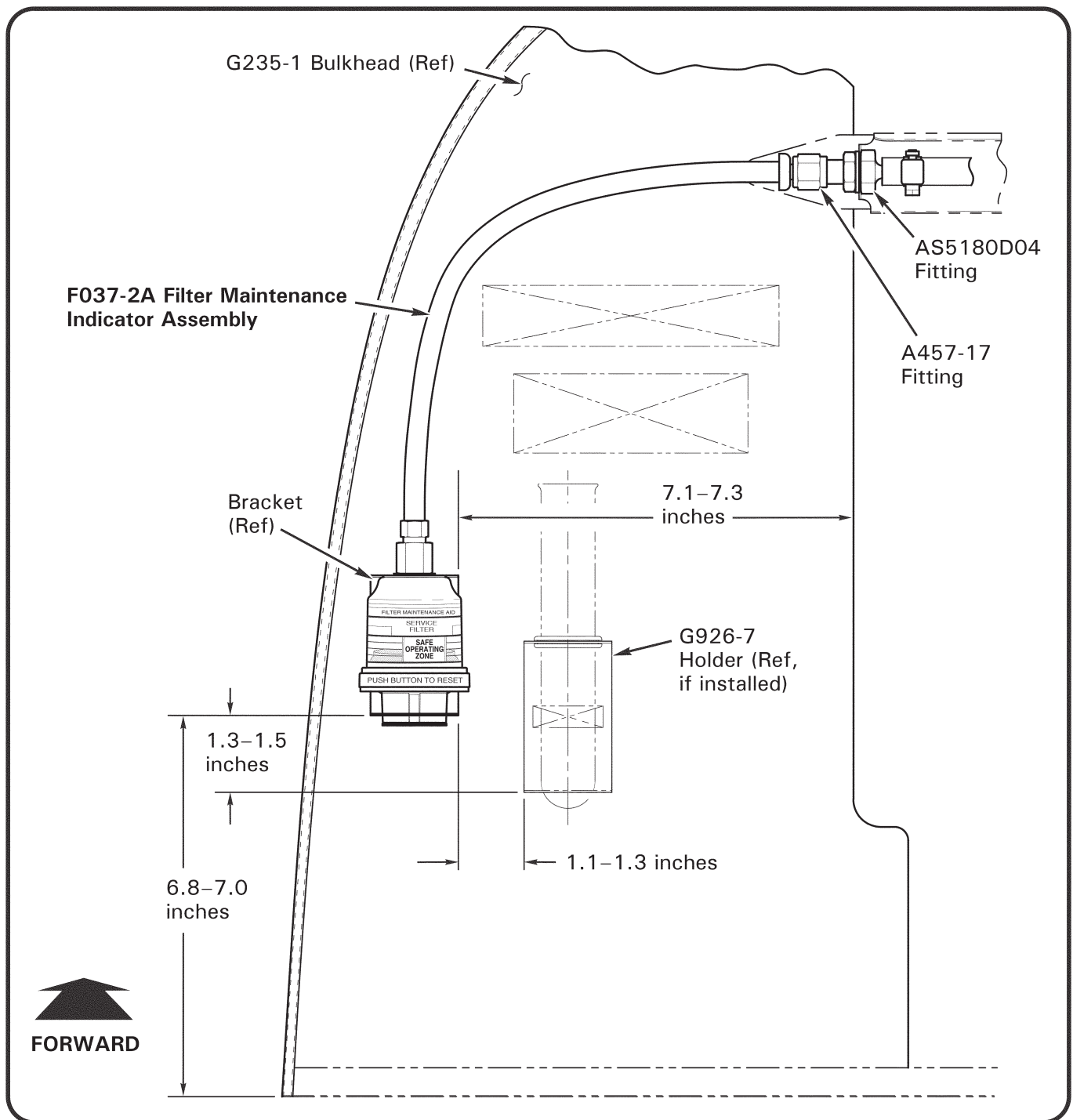


FIGURE 3A Earlier helicopters with G926-7 holder
(view looking forward)

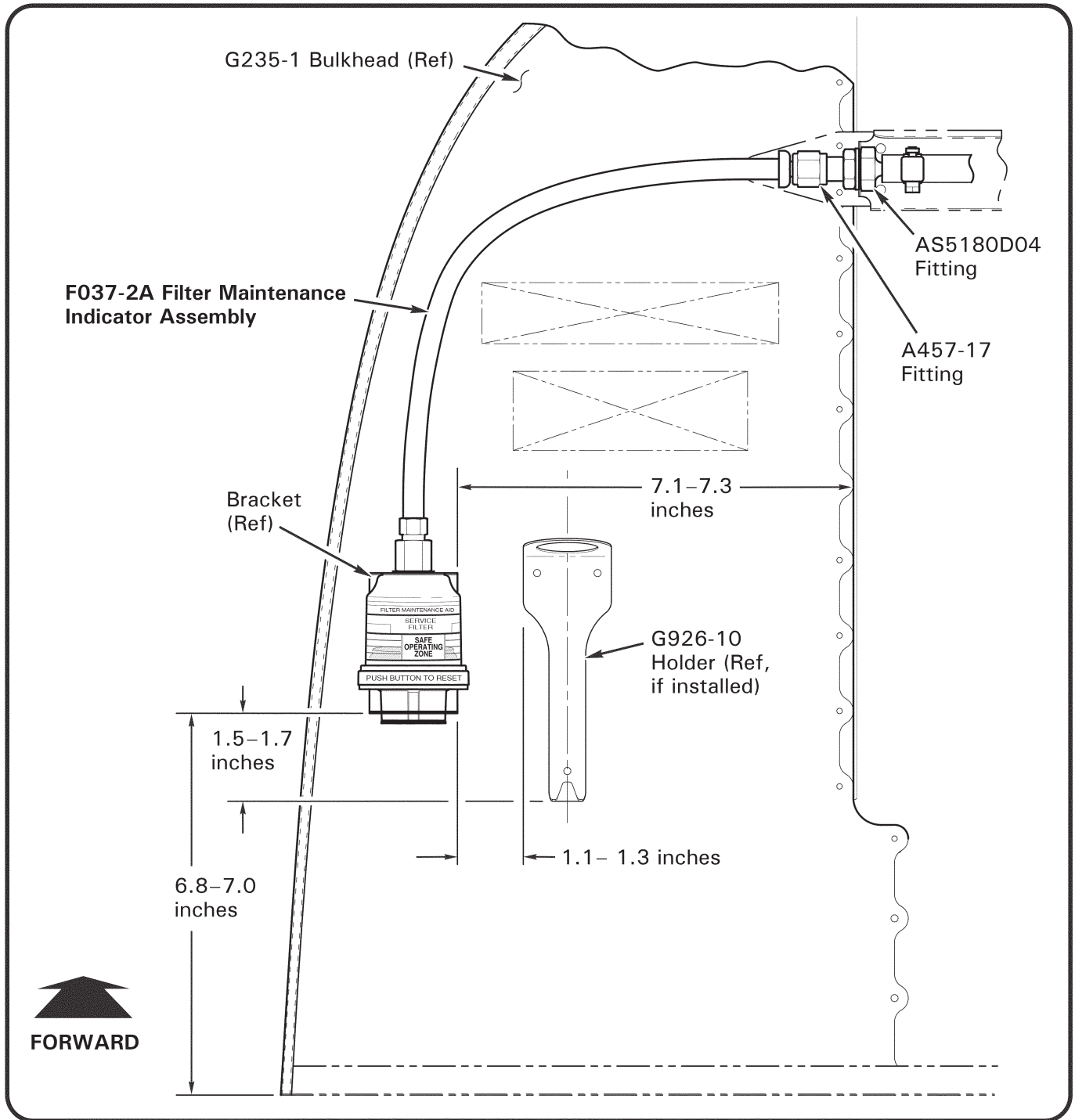


FIGURE 3B Later helicopters with G926-10 holder
(view looking forward)