

**KI-248 R66 Inlet Barrier Filter (IBF) Installation Kit Instructions**

**NOTE**

Visit [www.robinsonheli.com](http://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
1	KI-248Instr.	Kit Instructions . . . . .	1
2	A701-5-1.5	Tape (1.5-inch length) . . . . .	2
3	F037-2A	Filter Maintenance Indicator Assembly . . . . .	1
4	G058-2	Cage Assembly – IBF . . . . .	1
5	100100-045	Filter oil (4.5 oz.) . . . . .	2
6	MS27039C0806	Screw . . . . .	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.
3. Remove G057-1 cage assembly per MM § 71-22.

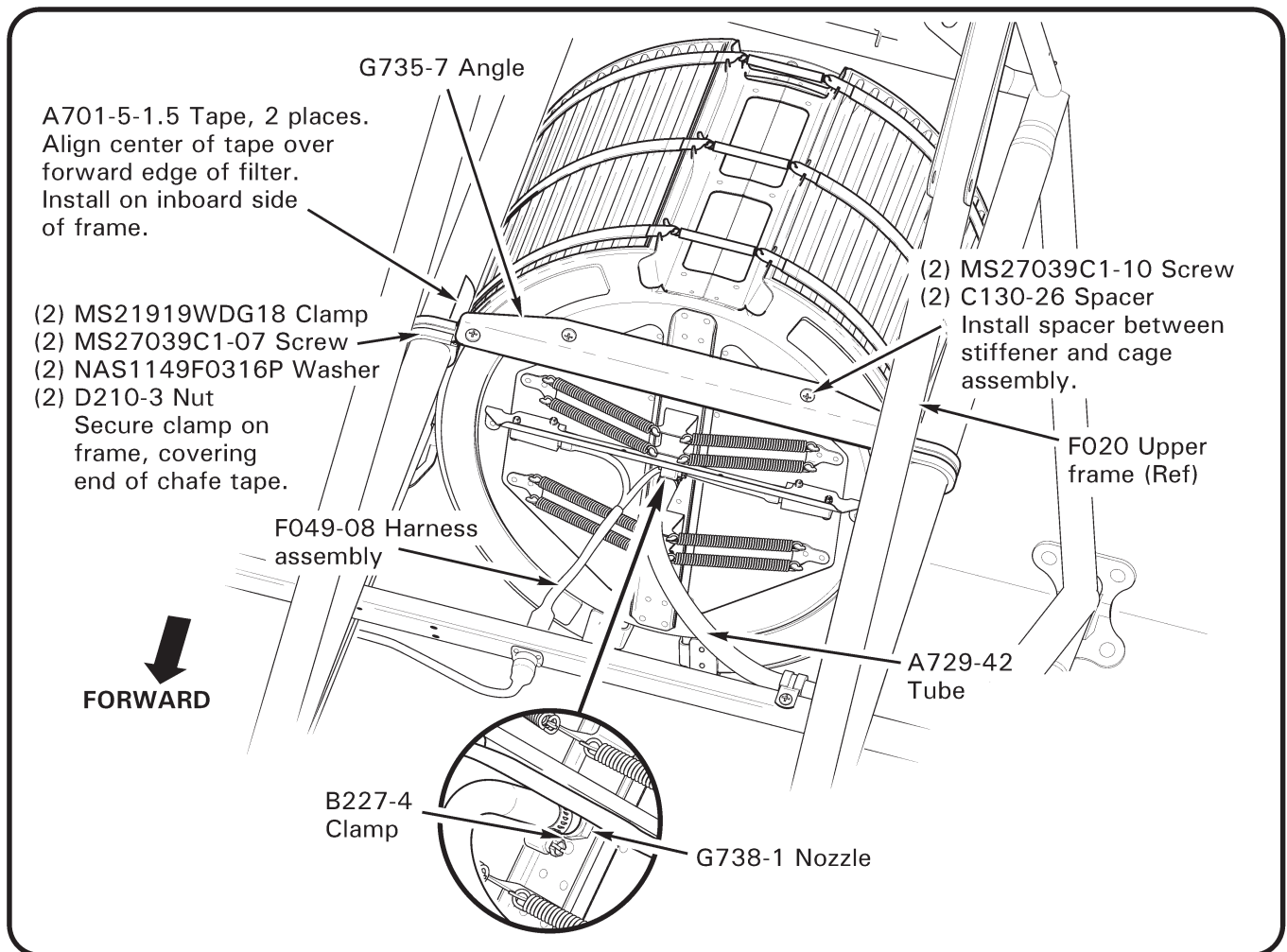
**NOTE**

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.

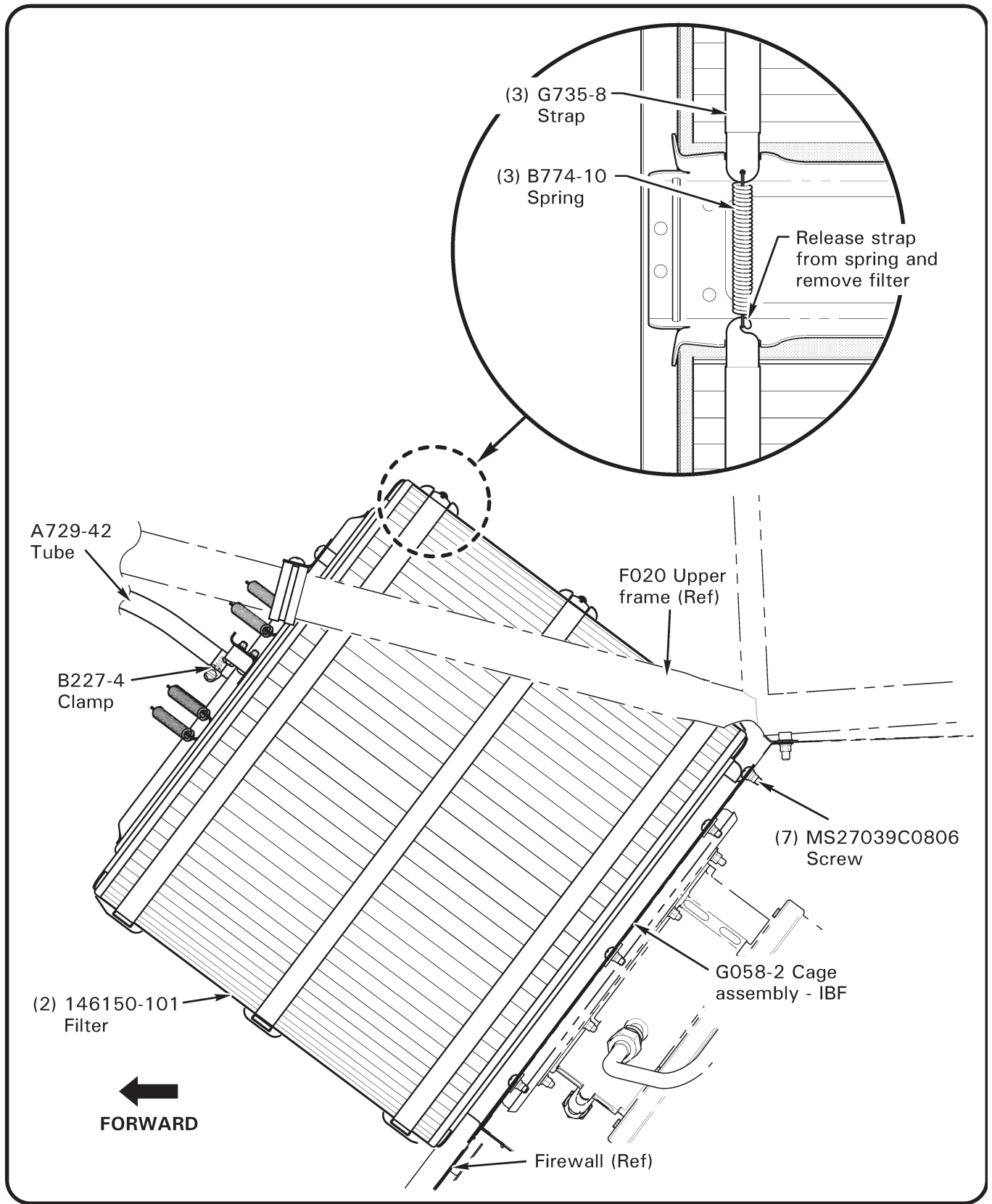
4. Refer to Figure 1. Transfer G738-1 nozzle from G057-1 cage to G058-2 cage assembly and special torque nozzle per MM § 20-33. Verify security.
5. Remove G735-7 angle from G058-2 cage assembly and remove MS21919WDG18 clamps from angle, retaining all hardware.
6. Refer to Figure 2. Release G735-8 straps (hook-end) from B774-10 springs and remove 146150-101 filters from cage assembly. Service filters per MM § 71-21 D steps 4 & 5.

**Kit Instructions (continued)**

- 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.
- 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.



**FIGURE 1**  
(view looking aft)



**FIGURE 2**  
(view looking inboard)

**Kit Instructions (continued)**

- 11. Refer to Figure 2. Insert 146150-101 filter in G058-2 cage assembly brackets. Install second filter; verify filters are properly seated. Hook G735-8 straps to B774-10 springs, 3 places; verify security.
- 12. Refer to Figure 3. Open left-side access door to main rotor gearbox compartment. Lay out dimensions on G235-1 bulkhead for installation of bracket of filter maintenance indicator assembly. 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 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:

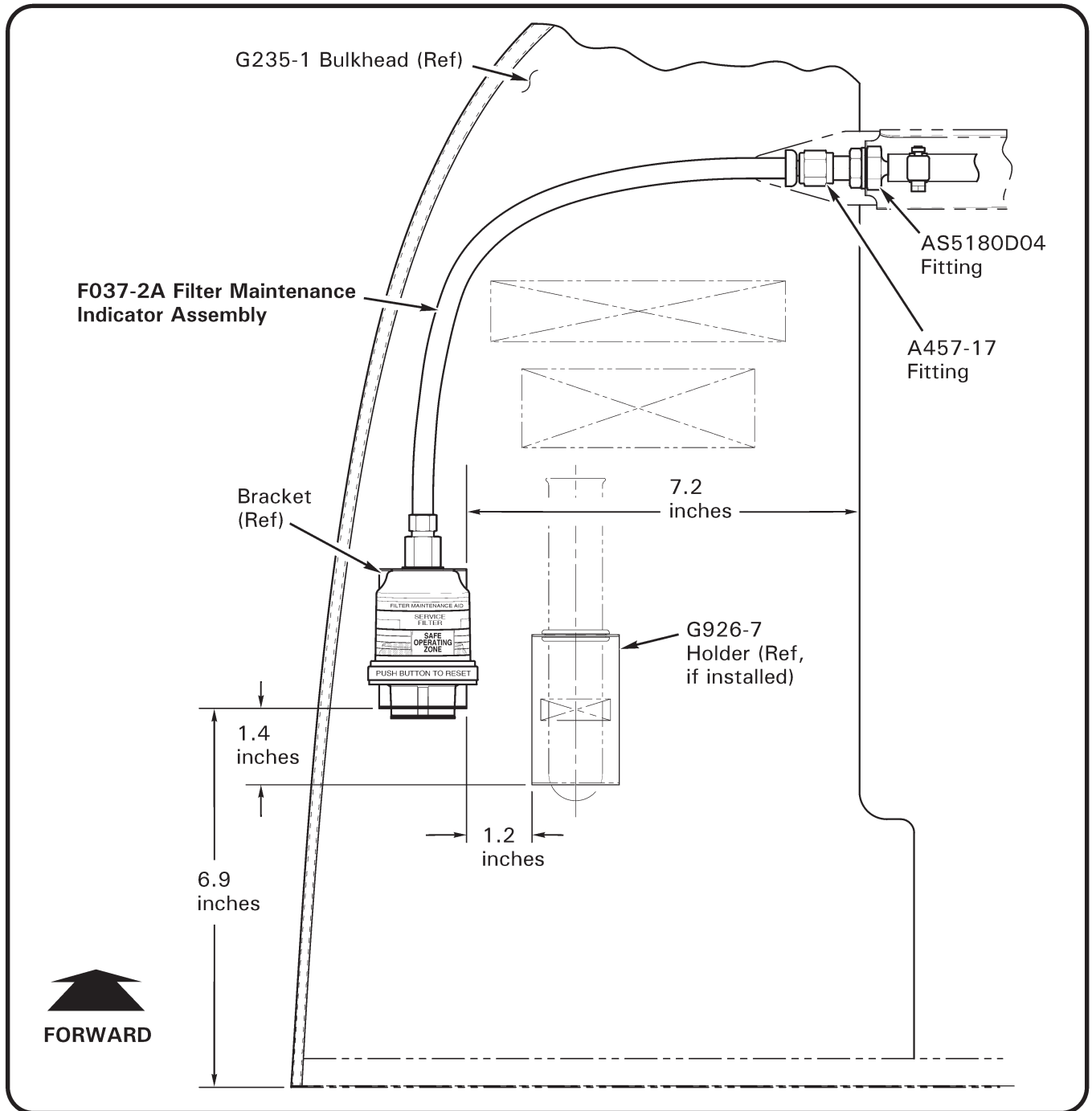
**Remove:**

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
G058-2 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 3**  
(view looking forward)