

**R44-series Full-Flow Oil Filter Installation Kit Instructions**

*For use on helicopters without a previously installed oil filter adapter. Refer to R44 Illustrated Parts Catalog Chapter 79 if removing Lycoming (P/N 54J21208) oil filter adapter. Compliance with R44 Service Bulletin SB-25 & replacement of oil cooler out/return lines may be required.*

**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-163Instr.	Kit Instructions . . . . .	1
2	B123-2	Oil Filter . . . . .	1
3	D723-1	Filter Adapter . . . . .	1
4	STD-160	Lockwasher . . . . .	4
5	15-724	Gasket – Oil Temperature Sender . . . . .	1
6	61173	Gasket – Adapter . . . . .	1
7	76510	Gasket – Bypass Valve . . . . .	1

**Consumables**

Refer to R44 Maintenance Manual (MM) § 23-70 for approved materials.

- A257-19 Valve lubricant & sealant compound or A257-16 Engine oil
- B270-1 Sealant
- Paint primer

**Special Tools**

- Hacksaw blade, minimum 24 teeth per inch

**Kit Instructions**

1. Turn battery switch off. Refer to Illustrated Parts Catalog (IPC) Figures 53-1 & 53-5. Remove D040-1 (aft), C377 (LH), and C378 (RH) cowling assemblies.
2. Refer to Figure 1. Loosen STD-1204 bolt securing (engine-right) magneto cooling hose, clamp and clip at engine accessory housing.
3. Protect C046-7 frame tube, A785-19 hose, and 10-600646-201 engine-right magneto with temporary sheet metal guards (not supplied).
4. Cut C046-11 frame tube from C046-1 lower left frame assembly 0.50 ±0.25 inch forward of NAS6608-39 left engine mount bolt using a hacksaw blade with a minimum of 24 teeth per inch.

**Kit Instructions (continued)**

5. Remove and discard C046-11 frame tube by removing NAS6604-2 bolt and attaching hardware at horizontal firewall. Bolthead is accessed from main rotor gearbox compartment. Re-install bolt and attaching hardware. Torque to 120 in-lb and torque stripe per MM Figure 2-1.

**CAUTION**

NAS6604-2 bolt must be re-installed to avoid possible fuel leaking into engine area.

6. Deburr remaining C046-11 tube and clean up debris. Apply primer paint to cut edge of remaining tube. Seal remaining portion of tube with B270-1 sealant (do NOT use silicone sealant). Remove temporary sheet metal guards. Position magneto cooling hose to provide clearance from casing. Special torque STD-1204 bolt to 96 in-lb and torque stripe per MM Figure 2-1.
7. Refer to Figure 2. Remove wire terminal from A760-1 oil temperature sender; retain nut. Remove sender and gasket. Cut and discard safety wire securing 53E22144 bypass valve; remove valve and 76510 gasket. Discard gaskets.
8. Remove 69510 screen housing, 62817 screen, 61173 gasket, and installation hardware. Discard STD-160 lockwashers and gasket; retain remaining hardware.
9. Refer to Figure 3. Install (supplied) D723-1 adapter on engine accessory housing using retained hardware and new STD-160 lockwashers & 61173 gasket. Verify straight side of gasket is oriented toward oil filter flange as shown. Special torque screws to 96 in-lb and torque stripe per MM Figure 2-1.
10. Install bypass valve into adapter with new 76510 gasket. Special torque valve to 300 in-lb and torque stripe per MM Figure 2-1.
11. Install temperature sender into adapter with new 15-724 gasket. Special torque sender to 300 in-lb and torque stripe per MM Figure 2-1. Secure temperature sender to bypass valve using 0.032-inch diameter safety wire. Connect wire terminal to temperature sender using retained nut; special torque nut to 20 in-lb. Position nipple over terminal.
12. Install filter per instructions on filter housing.
13. With an appropriately qualified person at the controls, perform helicopter start, run-up, and shut-down procedures per Pilot's Operating Handbook (POH).
14. Inspect engine for oil leaks. Correct any discrepancies noted, then repeat step 13. Verify no oil leaks.
15. Check engine oil quantity; adjust as required.
16. Install D040-1 (aft), C377 (LH), and C378 (RH) cowling assemblies.

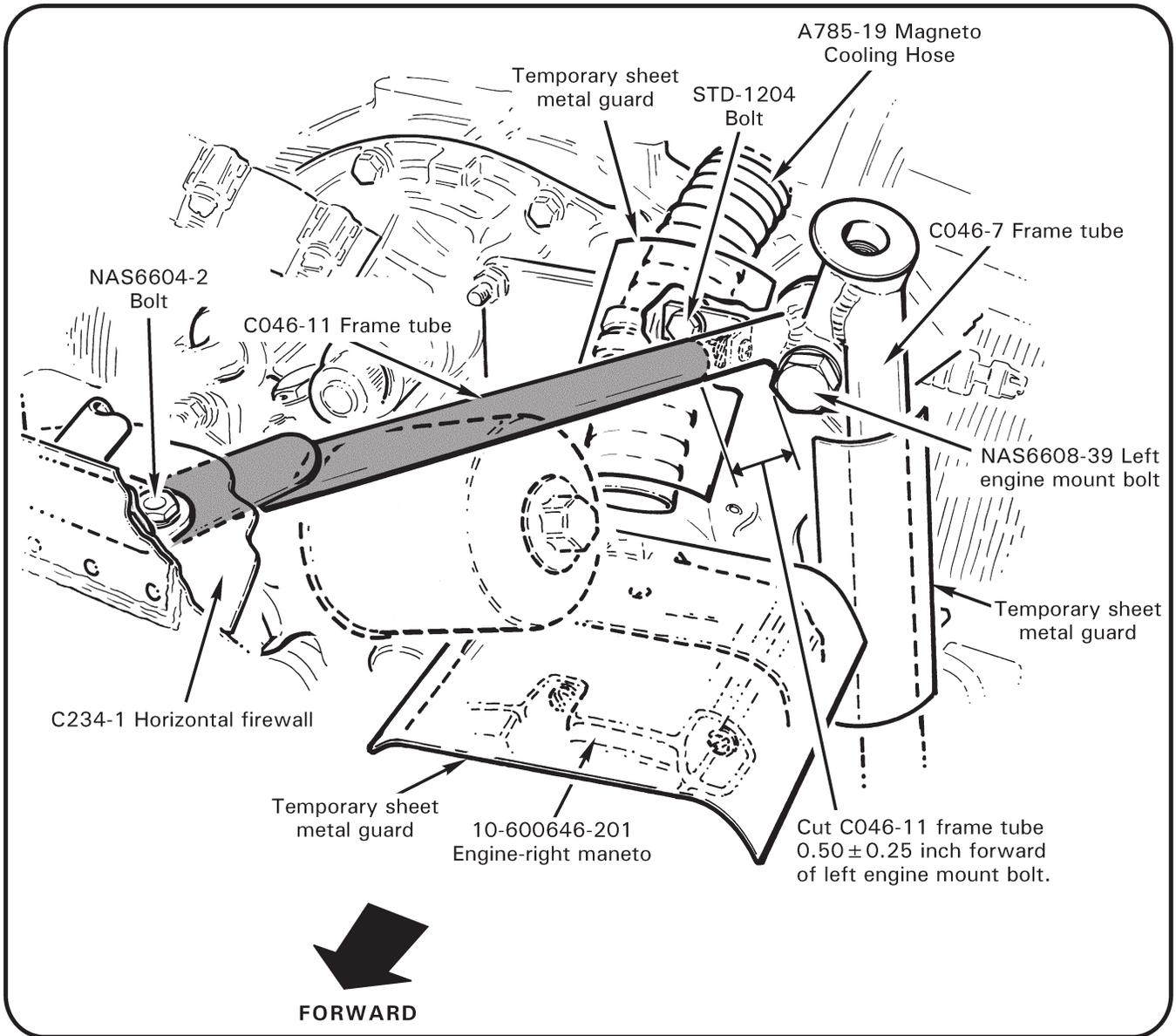
**Kit Instructions (continued)**

17. Revise helicopter's Weight & Balance Record in POH Section 6 to reflect this installation by incorporating the following data:

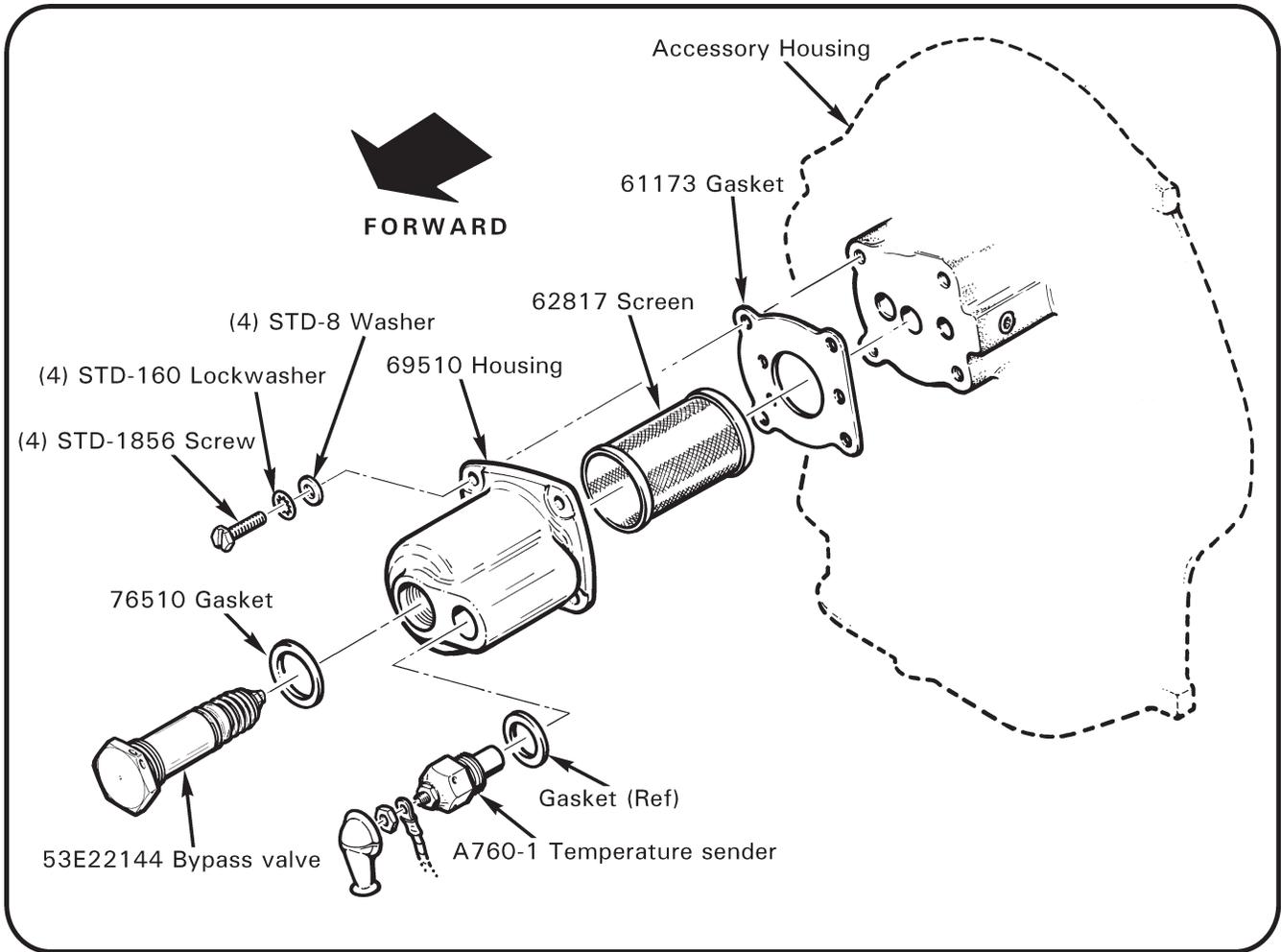
**Install:**

Item	Weight	Long. Arm	Long. Moment	Lat. Arm	Lat. Moment
Oil Filter Installation	2.27 lb	97.70 in.	221.78 in-lb	-3.0 in.	-6.81 in-lb

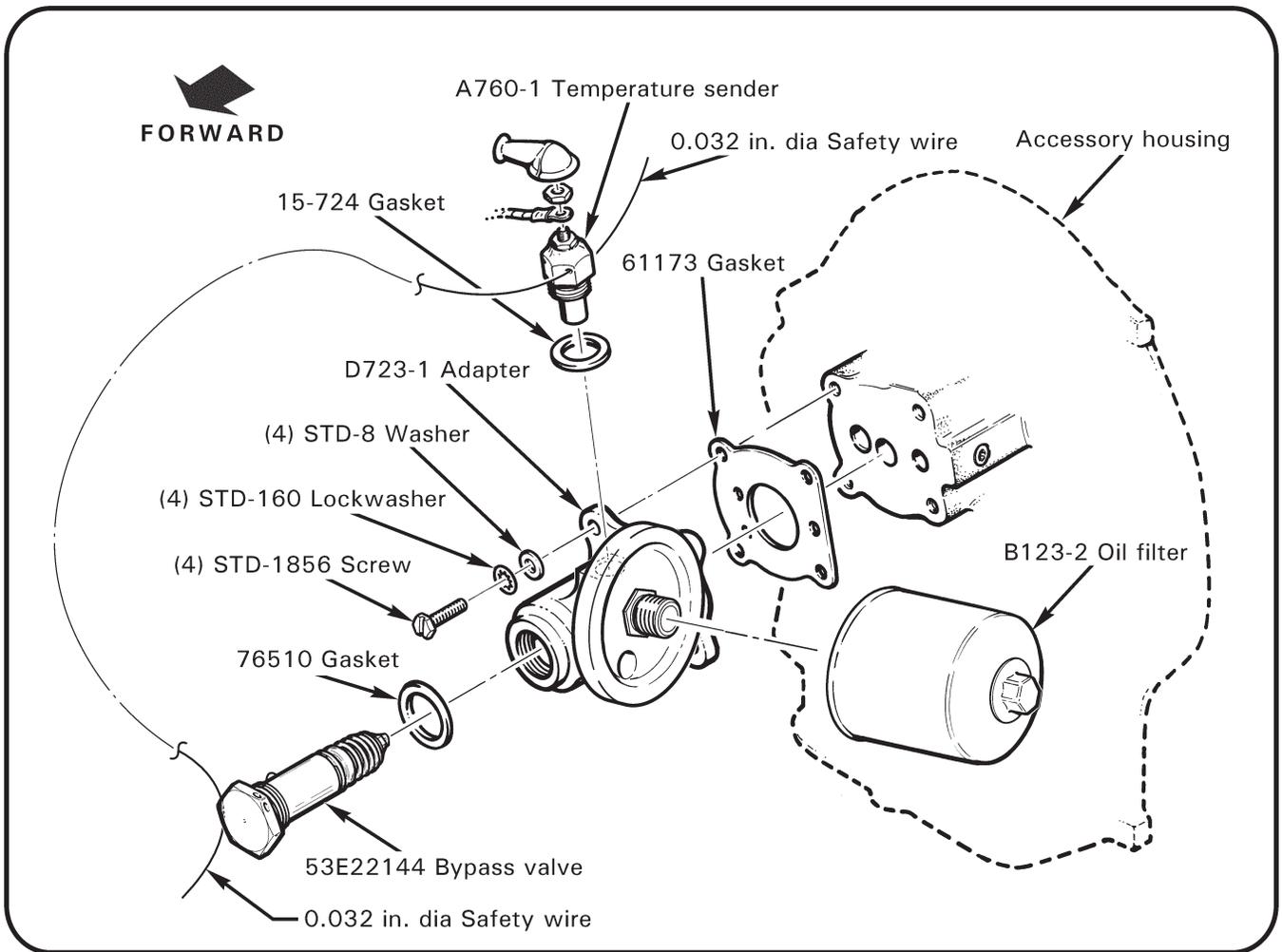
18. Make appropriate maintenance record entries.



**FIGURE 1**  
(view looking aft)



**FIGURE 2**  
(view looking aft)



**FIGURE 3**  
(view looking aft)