

R66 Aux Tank Fuel Flow Sensor Upgrade Kit Instructions

Kit replaces discontinued G768-3 fuel-flow sensor assembly with G768-11 sensor assembly. Includes replacing F250-7 cover assembly with F250-10 cover assembly.

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 |
|------|----------------|--|-----|
| 1 | KI-239-6Instr. | Kit Instructions | 1 |
| 2 | A215-015 | O-ring | 1 |
| 3 | A729-65 | Tube | 1 |
| 4 | D277-8 | Clamp | 2 |
| 5 | F250-10 | Cover Assembly | 1 |
| 6 | G764-7 | Shield (Rev D) | 1 |
| 7 | G768-11 | Sensor Assembly (supersedes G768-3) | 1 |
| 8 | AN806-6D | Plug | 2 |
| 9 | MS29512-05 | Packing | 1 |
| 10 | MS29512-06 | Packing | 2 |
| 11 | MS29513-270 | Packing | 1 |
| 12 | MS3367-4-9+ | Ty-Rap (Note: "+" in contents part number indicates 20-qty pack) | 1 |

Consumables

Refer to R66 Maintenance Manual (MM) § 20-70 for approved materials list.

- A257-6 Grease
- A257-9 Anti-seize

Kit Instructions

CAUTION

Flexible hoses kink easily; handle them with care.

CAUTION

Temporarily cap fuel fittings when opened.

WARNING

Fuel vapors are explosive. Do not use electric tools in vicinity of an opened fuel system.

1. Verify main fuel tank is half full or less. If necessary, defuel main fuel system to half tank or less per MM § 12-42 A.

Kit Instructions (continued)**CAUTION**

Rotation of stud or lower nut on fuel quantity sender is not permitted. Always use a backup wrench when removing or installing F049-04 fuel quantity sender harness.

2. Refer to R66 Illustrated Parts Catalog (IPC) Figure 28-1. Loosen G254-6 retainer and remove D277-8 clamps securing A729-65 tube to vent weldment and remove tube (tube may be cut to facilitate removal). Remove and retain screws securing G271-1 guard to F250-7 cover assembly and remove guard. Using a backup wrench, disconnect F049-04 harness assembly from fuel quantity sender terminals.
3. Refer to IPC Figure 28-21. Remove and retain screws securing G764-7 shield to cover assembly; remove and discard shield. Disconnect G768-3 sensor assembly from main harness at D269-2 receptacle and pull wires (with grommet) thru hole in G257-1 shield.
4. Using a backup wrench, disconnect D205-36 (vent/return) and D205-36 (pump) hose assemblies from fittings. Install AN806-6D plugs on hose fittings. Remove and retain AN815-6D fittings; discard o-rings. Remove and retain screws securing F250-7 cover to bladder and remove cover, exercising care to prevent damage to fuel quantity sender. Cover bladder opening with paper. Close fuel door.
5. Refer to IPC Figure 28-1. Move cover assembly to a clean work surface. Remove and retain B289-4 bolts securing F550-1 fuel quantity sender and remove sender and gasket. Remove G254-6 retainer and discard o-ring. Remove G254-7 fitting. Carefully remove B208-5 and B208-6 balls. Remove F689-1 fuel cap. Discard F250-7 cover and G768-3 sensor assembly.
6. Refer to Figure 1 and IPC Figure 28-1. Place new F250-10 cover assembly on clean work surface. Using lint-free wipe, clean G254-6 retainer, G254-7 fitting, and B208 balls and verify no nicks, scratches, gouges, dents, cracks or corrosion.
7. Install G254-7 fitting on G254-6 retainer. Install new A215-015 o-ring in retainer groove. Carefully install B208-6 (red, solid ball), followed by B208-5 (gold or blue, hollow) ball, then install combined retainer & fitting finger-tight. Install fuel quantity sender and gasket on cover using (5) B289-4 bolts, securing hand-tight.
8. Open fuel door and remove paper from bladder opening. Lubricate (new) MS29513-270 packing using A257-6 grease and install packing in recess surrounding port opening. Install new F250-10 cover assembly using (24) retained MS27039C1-06 screws, applying A257-9 anti-seize to threads as necessary. Install F689-1 fuel cap.
9. Install MS29512-05 packing on G768-11 sensor assembly and install into F250-10 cover assembly finger-tight, route wiring thru G257-1 shield, and install grommet as shown. Connect wiring to airframe harness and install ty-rap in connector. Install new (Rev D) G764-7 shield using retained MS27039C1-07 screws, applying A257-9 anti-seize to threads.

Kit Instructions (continued)

10. Install A729-65 tube between G254-6 retainer and vent weldment using (2) D277-8 clamps. Special torque retainer to 200 in.-lb. Special torque B289-4 bolts to 37 in.-lb in criss-cross pattern and torque stripe per MM Figure 5-1.
11. Connect F049-04 harness assembly to fuel sender, with wires angled inboard to provide clearance from guard. Using a back up wrench, torque 0044-00408 (larger) nut to 11 in.-lb and 44-121 (smaller) nut to 9 in.-lb. Install B330-6 palnut and torque to 6 in.-lb. Install B330-5 palnut and torque to 5 in.-lb. Apply torque stripe to all sender fasteners. Install G271-1 guard using retained MS27039C1-07 screws, applying A257-9 anti-seize to threads.
12. Refer to Figure 1. Install new MS29512-06 packings on AN815-6D fittings and install fittings in F250-10 cover assembly. Special torque fittings to 200 in.-lb. Remove plugs from D205-36 hoses and connect hoses to fittings. Special torque hose B-nuts per MM § 20-33 & torque stripe per MM Figure 5-1.
13. Perform main tank fuel indication check per MM § 28-21D and fuel flow check per § 28-40.
14. Install engine cowling per MM § 53-21.
15. Make appropriate maintenance record entries. No change to Weight and Balance.

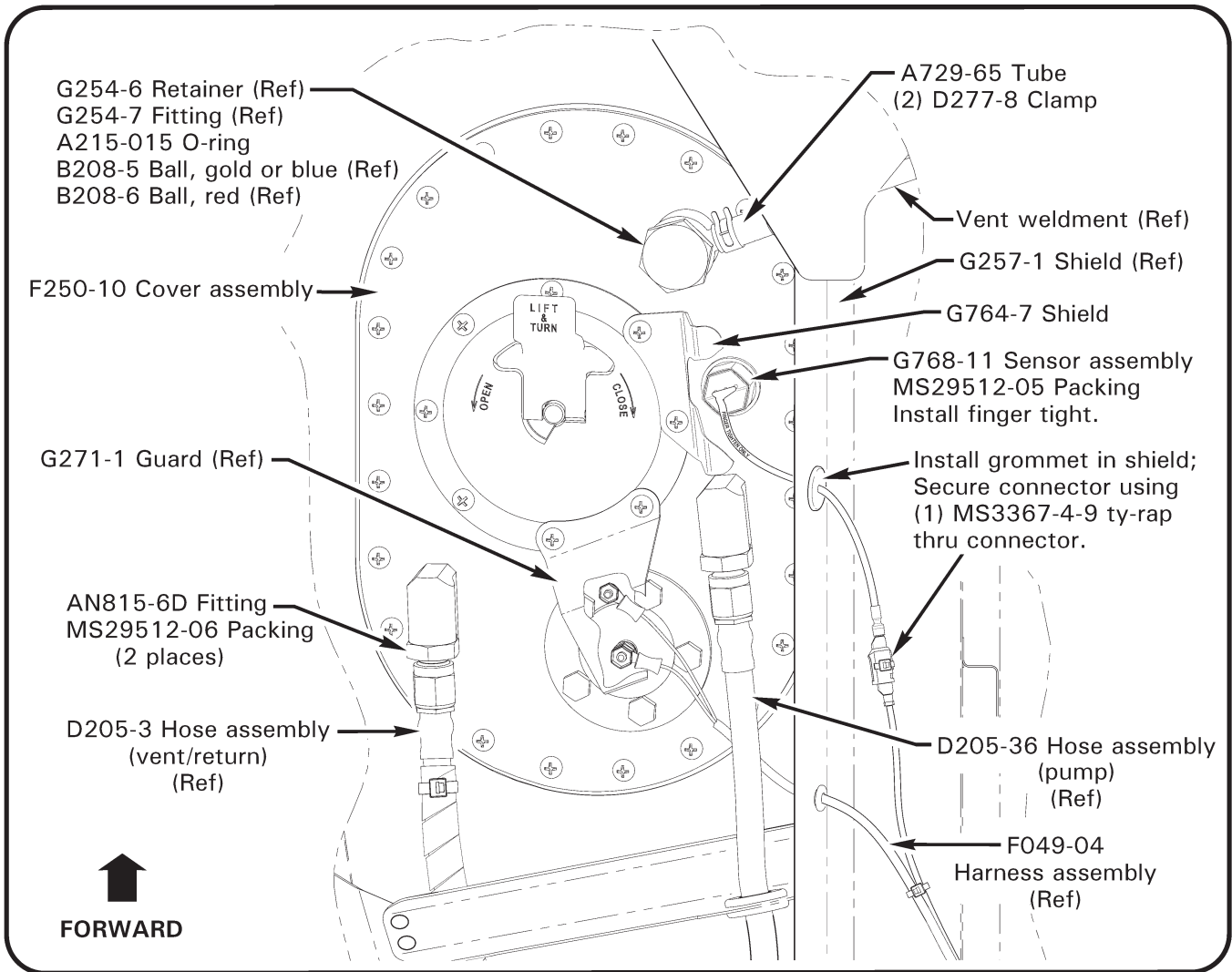


FIGURE 1