

**KI-196 R44-series Bladder Fuel Tank Installation Kit Instructions**  
*For compliance with R44 Service Bulletin SB-78*

**NOTE**

Visit [www.robinsonheli.com/servletlib.htm](http://www.robinsonheli.com/servletlib.htm) and verify kit instructions are current revision.

**NOTE**

If aircraft is equipped with C259-5 & -6 cabin bulkhead stiffeners (see Kit Instructions, step 8) aft cabin foam insulation will be removed. Order new foam as required; reuse of foam is not recommended.

ITEM NUMBER	PART NUMBER	DESCRIPTION	QTY PER KI-196-1 (R44)	QTY PER KI-196-2 (R44 II)
<b>KIT CONTENTS</b>				
1	A226-11	Trim (4 in. length) . . . . .	1	1
2	A701-1.5FT	Aluminum Tape - 1 in. wide (5 ft length) . . . . .	2	2
3	A729-7	Tube - Drain . . . . .	1	1
4	A729-47	Tygon Tube - Vent . . . . .	2	2
5	A729-48	Vent Tube . . . . .	2	2
6	A729-49	Vent Tube - Interconnecting . . . . .	1	1
7	A738-7	Gang Channel . . . . .	1	1
8	A761-1	Drain Valve Assembly . . . . .	1	1
9	B161-8-3	Spirap - 0.5 in. (3 in. length) . . . . .	1	1
10	B161-8-6	Spirap - 0.5 in. (6 in. length) . . . . .	1	1
11	B161-8-12	Spirap - 0.5 in. (12 in. length) . . . . .	1	1
12	B277-4	Clamp . . . . .	6	6
13	C010-6	Fuel Tank Assembly - Main . . . . .	1	1
14	C130-17	Spacer . . . . .	1	1
15	C654-3	Decal - "Fuel 100 OCT Min..." . . . . .	1	1
16	C654-4	Decal - "Fuel 100 OCT Min..." . . . . .	1	1
17	C654-5	Decal - "Aux Fuel 100 OCT..." . . . . .	1	1
18	C654-6	Decal - "Aux Fuel 100 OCT..." . . . . .	1	1
19	D042-4	Door Assembly - Small . . . . .	1	1
20	D043-5	Fuel Tank Assembly - Aux . . . . .	1	1
21	D205-28	Hose Assembly (tank-to-valve) . . . . .	1	1
22	D205-29	Hose Assembly (tank interconnect) . . . . .	1	1

ITEM NUMBER	PART NUMBER	DESCRIPTION	QTY PER KI-196-1 (R44)	QTY PER KI-196-2 (R44 II)
KIT CONTENTS (Cont'd)				
23	D205-30	Hose Assembly (main tank sump drain) . . . . .	1	1
24	D205-31	Hose Assembly (relief valve-to-tee) . . . . .	0	1
25	D251-1	Valve Assembly - Rollover . . . . .	2	2
26	D255-1	Connector - Drain . . . . .	1	1
27	D255-2	Angle - Drain Bracket . . . . .	1	1
28	D453-2	Jet . . . . .	0	1
29	D453-3	Tee . . . . .	0	1
30	D663-1	Clamp . . . . .	2	2
31	D819-1	Decal - Fuel Quantity, Main . . . . .	1	1
32	D819-2	Decal - Fuel Quantity, Aux . . . . .	1	1
33	F654-13	Decal - "Hydraulic Fluid..." . . . . .	1	1
34	AN924-3D	Nut (drain; or P/N AS5178D03) . . . . .	1	1
35	DC30	Cobalt Job Drill . . . . .	2	2
36	DC40	Cobalt Job Drill . . . . .	2	2
37	DC50	Cobalt Job Drill . . . . .	2	2
38	KI-196 INSTR	Kit Instructions . . . . .	1	1
39	MS20426AD3-3	Rivet . . . . .	25	25
40	MS20470AD3-2.5	Rivet . . . . .	25	25
41	MS20470AD3-3.5	Rivet . . . . .	25	25
42	MS20615-3M3	Rivet . . . . .	25	25
43	MS20615-4M4	Rivet . . . . .	25	25
44	MS21042L08	Nut . . . . .	7	7
45	MS21069L08	Nutplate . . . . .	7	7
46	MS21919WDG3	Clamp . . . . .	1	1
47	MS21919WDG14	Clamp . . . . .	1	1
48	MS27039C0806	Screw . . . . .	1	1
49	MS27039C0821	Screw . . . . .	1	1
50	MS3367-5-9	Ty-rap . . . . .	30	30
51	NAS1149FN816P	Washer . . . . .	2	2
52	NAS1149F0632P	Washer (drain) . . . . .	1	1
53	900506	Elbow . . . . .	1	0

### Consumables

- B270-1 sealant (Ref R44 Maintenance Manual [MM] § 1.480).
- B270-6 sealant & lubricant, thread.
- 0.032-inch diameter safety wire.
- Alodine 1122, or Alodine 1201
- Epoxy primer

### 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 kit contents match above list. Contact RHC Customer Service if parts are missing or damaged.
2. Review instructions before installation. Contact RHC Technical Support if you have questions.
3. Perform R44 Service Bulletin SB-67 and SB-69, if not previously accomplished.
4. Remove mast fairing, tailcone cowling, left, right, & aft cowlings, aft belly panel, C474 trim & cover between aft seat backs, and left & right aft seat back assemblies. R44 II only: remove air box assembly.
5. Remove main & auxiliary fuel tanks (non-bladder) per MM § 12. Remove D042-5 door assembly.
6. For helicopters that have complied with R44 Service Bulletin SB-68, remove and discard D205-26 (tank-to-valve), D205-27 (tank-interconnect), and D205-31 (relief valve-to-tee, R44 II only) hose assemblies. Thoroughly clean horizontal firewall. Proceed to step 8.
7. For helicopters that have not complied with R44 Service Bulletin SB-68, remove and discard C726-2 (tank-to-valve), C726-1 (tank-interconnect), and C726-7 (relief valve-to-tee, R44 II only) line assemblies. Thoroughly clean horizontal firewall. Perform the following steps:
  - a. Refer to Figure 1. Lay out hole locations on C259-2 bulkhead panel and C351-1 brace. Drill four 0.170-inch diameter holes and deburr. Clean up debris.

Instructions (continued)

7. b. Refer to Figure 2. Between aft seats, remove two MS21919WDG clamps (if installed) and hardware securing static line and horizontal wire bundle to vertical firewall. Discard clamps and screw. If required, lay out hole location on C233-1 vertical firewall and drill 0.170-inch diameter hole; deburr hole and clean up debris.
  - c. Move static line to wire bundle, install MS21919WDG-8 thru -16 clamp (as required to eliminate play within harness, included -14 clamp is typical) with noted hardware. Install MS3367-5-9 ty-raps on static line and wire bundle as required.
  - d. Refer to Figure 1. Cut a 1.55/1.65-inch length of A226-11 trim and install on bulkhead lip. Clean junction of C351-1 brace & C259-1 panel with solvent, and wrap two layers A701-1 aluminum tape around vertical corner. Press tape smooth.
  - e. R44 II only: Refer to Figure 3. Loosen B283-11 hose assembly at connector under horizontal firewall, then loosen AN316-7R nut. Rotate relief valve so fitting points  $80^{\circ} \pm 5^{\circ}$  aft and special torque AN316-7R nut to 150 in.-lb. Special torque B283-11 hose assembly nut to 135-150 in.-lb, and torque stripe both nuts per MM Figure 2-1.
8. Refer to Figure 4 and R44 Illustrated Parts Catalog (IPC) Figure 1-9 dated JUL 2008 (or subsequent). If aircraft is equipped with C259-5 (LH) and -6 (RH) cabin bulkhead stiffeners, remove C003-2 or -18 foam insulation by hand and remove remnants using non-metallic scraper. Drill out rivets securing C259-5 & -6 stiffeners and C435-3 channel to bulkhead; remove and discard stiffeners and channel. Remove residual sealant from bulkhead panels. Install MS20470AD3-2.5 rivets in holes previously used by stiffener and channel rivets.
9. Drill out rivets securing C384-3 (forward, LH) stiffener to horizontal firewall. Remove and retain stiffener. Remove residual sealant from firewall and stiffener and thoroughly clean underside of firewall.
10. Cleco (sheet metal fastener) retained C384-3 (forward, LH) stiffener to underside of horizontal firewall per Figure 5, Detail A. Progressively remove clecos and install MS20615-3M3 rivets (15). Verify stiffener security.
11. Lay out hole locations in C259-1 (LH) bulkhead panel per Figure 4, Detail A. Drill four 0.130-inch diameter holes and deburr.
12. Lay out cut-away dimensions in C385-1 horizontal firewall doubler per Figure 4, Detail B. Cut 1.80-inch notch in doubler and rework vertical flange as shown. Remove hardware securing upper frame to C259-1 bulkhead and/or horizontal firewall, as required. Smooth reworked edges and coat bare metal with primer. Apply B270-1 sealant to cover edge of reworked notch as shown. Install removed hardware as required, standard torque bolts per MM § 1.320, and torque stripe per Figure 2-1.
13. Lay out hole location in C234-1 horizontal firewall (forward) per Figure 4, Detail C. Drill 0.170-inch diameter hole and deburr.

Instructions (continued)

14. Lay out hole location in C385-1 horizontal firewall doubler per Figure 4, Detail D. Drill 0.170-inch diameter hole and deburr. Install 2-inch length A226-11 trim on doubler, centered above drilled hole.
15. Lay out hole locations in C259-2 (RH) bulkhead panel per Figure 4, Detail E. Using new D255-2 angle as template, drill two 0.10-inch diameter holes and deburr.
16. Clean up drilling and cutting debris.
17. Install new MS27039C0806 screw, new MS21919WDG3 clamp, new NAS1149FN316P washer, and new MS21042L08 nut to horizontal firewall per Figure 5, Detail B.
18. Cleco new D255-2 angle to C259-2 (RH) bulkhead panel per Figure 5, Detail C. Progressively remove clecos and install MS20470AD3-3.5 rivets (2). Verify angle security.
19. Refer to Figure 6, Detail C & D. Draw longitudinal lines from center of (3) bulkhead channel nut holes onto exterior skins, on both sides of helicopter, as shown (noted channel nut holes are not accessible from inside cabin). Measure and record distances.
20. On underside of new C010-6 main fuel tank, loosen (6) screws securing D248-8 angle to tank and slide angle to forward-most position. Tighten screws.
21. Refer to Figure 6, Detail A. Mark main fuel tank bottom flange with a line, 0.32 inch below and parallel to, tank skin edge as shown.
22. Position main fuel tank in helicopter. Tank bottom flange (forward corner) must be between exterior skin and horizontal firewall flange. Lower edge of tank aft vertical panel must be between upper frame tabs and horizontal firewall flange; panel edge must be flush or below frame tab bottom edge.
23. Align marked line with rearmost channel nut on horizontal firewall flange per Figure 6, Detail A; align aft panel of tank with intermediate bulkhead per Detail B. Secure tank position by clamping vertical panel to frame tabs.
24. Install aft cowling assembly; install left cowling assembly, but do not install top row of screws. Adjust tank position as required for approximately 0.020 inch gap between tank exterior skin and left cowling upper edge.
25. Refer to Figure 6, Detail D. Estimate material to be removed for fitting tank forward edge with cabin exterior skin aft edge; file or cut tank forward edge to create a gap of no more than 0.065 inch between tank and skin. Deburr trimmed edge with 220-grit or finer wet-or-dry aluminum oxide abrasive paper.
26. Solvent-clean tank deburred forward edge and apply Alodine 1122 or Alodine 1201 in accordance with [chemical] manufacturer's instructions. Epoxy prime dry forward edge after alodizing.

Instructions (continued)**CAUTION**

Forward edge of tank must be fitted and finished before proceeding to next step.

27. From inside cabin, begin at the lowest nutplate and drill a 0.170-inch hole through tank skin (using existing nutplate as drill guide), and install cleco. Moving upward, repeat step for remaining nutplates.
28. Transfer longitudinal lines and recorded distances from exterior skin to tank forward edge, and lay out (3) drill marks. Using a drill stop, drill 0.170-inch holes through tank skin.
29. From inside cabin, gently lift foam and match-drill 0.170-inch holes in D248-8 angle through (4) holes in C259-1 bulkhead panel.

**CAUTION**

Protect drive belts from drilling debris.

30. Match-drill 0.170-inch holes in tank aft vertical panel through (3) holes in intermediate bulkhead. Match-drill 0.250-inch holes in panel through upper frame tab holes; temporarily install bolts.
31. Using a drill stop, progressively match-drill and cleco 0.170-inch holes in tank lower flange, on marked line, through left cowling upper holes.
32. Refer to Figure 7, Detail A. Mark horizontal centerline of new D043-1 auxiliary (aux) fuel tank channel doubler.
33. Position aux fuel tank in helicopter. Align marked line with center of upper frame attachment hole per Figure 7, Detail A; align fuel tank exterior skin aft edge with aft edge of latched D042-4 door assembly per Detail B. Secure tank position by clamping channel to frame at attachment hole.
34. Refer to Figure 6, Detail D. Estimate material to be removed for fitting tank forward edge with cabin exterior skin aft edge; file or cut tank forward edge to create a gap of no more than 0.065 inch between tank and skin. Deburr trimmed edge with 220-grit or finer wet-or-dry aluminum oxide abrasive paper.
35. Solvent-clean tank deburred forward edge and apply Alodine 1122 or Alodine 1201 in accordance with [chemical] manufacturer's instructions. Epoxy prime dry forward edge after alodizing.

Instructions (continued)**CAUTION**

Forward edge of tank must be fitted and finished before proceeding to next step.

36. From inside cabin, begin at the lowest nutplate and drill a 0.170-inch hole through tank skin (using existing nutplate as drill guide), and install cleco. Moving upward, repeat step for remaining nutplates.
37. Transfer longitudinal lines and recorded distances from exterior skin to tank forward edge, and lay out (3) drill marks. Using a drill stop, drill 0.170-inch holes through tank skin.
38. Match-drill 0.250/0.256-inch hole in fuel tank channel through upper frame attachment hole; temporarily install bolt.
39. Refer to Figure 7. Open D042-4 door. Using a drill stop, match-drill 0.170-inch holes in C259-2 bulkhead panel through (4) holes in D253-3 angle. Close and latch door.
40. Install D042-5 door assembly and (2) aft screws securing door to intermediate bulkhead, and latch door. Adjust door position for no more than 0.050-inch gap between door forward edge and tank skin aft edge; simultaneously adjust door vertically to match fuel tank contour. Lay out hole location on C245-8 clip and verify drill hole on clip will have minimum 0.12-inch edge distance. Match-drill 0.170-inch hole in clip through door; install and secure screw.
41. Match-drill 0.170-inch holes in tank channel through (3) holes in D042-5 door assembly.
42. Refer to Figures 6 & 7. Cleco C347-1 channel to cabin. Match-drill 0.170-inch holes in main and aux tank inboard flanges through (2) remaining holes in channel.
43. Refer to IPC Figure 7-55 issued JUL 2008 (or subsequent). Position C347-6 panel between tanks and temporarily install spacers and bolt through D202-2 bracket and aft servo. Position aft servo C130-14 spacer 1.10 inch aft from mast tube and clamp panel to tanks. Match-drill 0.170-inch holes in tank inboard flanges through (2) forward holes in panel, and install clecos. Using a drill stop, match-drill 0.170-inch holes in tank inboard flanges through (4) remaining holes in panel, and install clecos.
44. Cleco C706-1 tailcone cowling to helicopter. Match-drill 0.170-inch hole in main tank aft flange through remaining hole in tailcone cowling. Remove tailcone cowling.
45. Remove clecos and hardware securing tanks to helicopter and remove tanks. Deburr new holes in fuel tanks and on helicopter. Clean up drilling and cutting debris.
46. Install (7) MS21069L08 nutplates on main and aux tank flanges at holes noted in Figure 7.

### Instructions (continued)

47. Refer to Figure 10. Install A738-7 gang channel on aft side of main fuel tank D248-8 angle using (2) MS20426AD3-3 rivets, countersunk heads forward.
48. Connect new D205-30 hose assembly to main tank drain union. Special torque hose nut to 100 in.-lb and torque stripe per MM Figure 2-1.
49. Route hose assembly (drain) thru notch in C385-1 doubler and position main fuel tank in helicopter. Verify hose is not pinched. Install screws securing tank to cabin bulkhead and horizontal firewall.
50. Install (2) aft bolts securing main tank to horizontal firewall and upper frame. As required, install (maximum 2) NAS1149F0432P and/or NAS1149D0416J washers between frame and tank to fill gap at each bolt. Standard torque bolts per MM § 1.320 and torque stripe per Figure 2-1.
51. Install (3) aft screws securing main tank to intermediate bulkhead.
52. From aft left seat, gently lift foam and install (4) screws securing main tank to cabin bulkhead.
53. a. Refer to Figure 1. Connect new D205-28 hose assembly to main tank outlet (forward fitting) and fuel shut-off valve. Special torque hose nuts to 120 in.-lb and torque stripe per MM Figure 2-1. Install MS3367-5-9 ty-rap around hose thru drilled holes in C351-1 brace. Cinch ty-rap until snug without over-tightening, and trim tip flush with head.  
  
b. Electric-trim R44s only: Refer to Figure 2. Install supplied 1-foot long B161-8 spirap tubing on lower end of D205-28 hose assembly to prevent chafing by collective trim spring.
54. Refer to Figure 5, Detail D. Install new D255-1 connector, new NAS1149F0632P washer, and new AN924-3D nut in D255-2 angle and special torque nut to 100 in.-lb. Apply B270-6 sealant sparingly to A761-1 drain valve tapered threads (do not apply sealant to first thread) and connect valve to connector. Hold connector, special torque valve to 60 in.-lb, and torque stripe per MM Figure 2-1. Install A729-7 tube, wrap two turns 0.032-inch diameter lockwire around tube and valve, and safety tube tight to valve. Install D663-1 clamp.
55. Install 3-inch length B161-8 spirap around new D205-30 hose assembly (drain) where hose routes near C385-1 doubler left-side vertical flange, to prevent chafing. Install 6-inch length B161-8 spirap where hose routes near doubler right-side vertical flange. Connect hose to bulkhead-mounted drain, special torque nut to 100 in.-lb, and torque stripe per MM Figure 2-1. Install MS3367-5-9 ty-rap around hose through firewall clamp. Cinch ty-rap until snug without over-tightening, and trim tip flush with head. Install MS3367-5-9 ty-rap around trim through C385-1 doubler drilled hole; install MS3367-5-9 ty-rap around hose through doubler ty-rap. Cinch ty-raps until snug without over-tightening, and trim tips flush with heads.
56. Position aux fuel tank in helicopter and install screws securing tank to cabin bulkhead.

Instructions (continued)

57. Install aft bolt securing aux tank channel to upper frame. Standard torque bolt per MM § 1.320 and torque stripe per Figure 2-1 (palnut not required).
58. From aft right seat, gently lift foam and install (4 each) screws, nuts, and washers securing tank to cabin bulkhead.
59. Refer to Figure 3. Connect new D205-29 hose assembly to main tank AN816-6D union (aft fitting) and aux tank elbow (R44) or tee (R44 II). Special torque nuts to 120 in.-lb. and torque stripe per MM Figure 2-1. Install MS3367-5-9 ty-rap around hose thru drilled holes in bulkhead. Cinch ty-rap until snug without over-tightening, and trim tip flush with head.
60. R44 II only: Refer to Figure 3. Verify new D453-2 jet inside diameter is 0.160/0.166-inch and install in tee inlet (outboard side). Connect D205-31 hose assembly straight fitting to pressure relief valve, and elbow fitting to tee inlet. Special torque hose assembly nuts to 120 in.-lb and torque stripe per MM Figure 2-1.
61. Refer to IPC Figure 8-1 dated JUL 2008 (or subsequent). Cut & discard safety-wire securing (3) A729 yellow vent tubes (and internal springs) to C731-1 vent lines and discard tubes and springs. Remove & retain (2) MS21919WDG4 clamps and hardware securing vent lines to middle rib. Cut & discard ty-raps securing vent lines to pitot line. Slowly pull vent lines thru lower rib grommets and remove vent lines.
62. Refer to Figure 8. Lay out new vent line dimension, cut lines square, and deburr inside and outside circumference.
63. Refer to Figure 9. Install vent lines, attach clamps, and install new MS3367-5-9 ty-raps. Trim tips flush with heads. Verify vent line security.
64. Observe orientation markings and install (2) D251-1 rollover vent valve assemblies through lower rib grommets. Connect (2) A729-48 vent tubes to tank upper vent fittings and valve assemblies; connect A729-49 tube to lower vent fittings on both tanks. Tighten (6) B277-4 clamps until snug.
65. Refer to Figure 9, Detail A. Attach MS21919WDG3 clamp to lower rib forward fastener. Install MS3367-5-9 ty-rap around A729-49 tube through clamp. Cinch ty-rap until snug without over-tightening, and trim tip flush with head. Verify security.
66. Connect (2) new A729-47 vent tubes to each vent line and valve assembly. Wrap two turns 0.032-inch diameter lockwire and safety tubes tight to lines and valves (4 places).
67. Reroute airframe wiring harness to main and aux tank fuel quantity senders and main tank low-fuel (warning light) switch assembly. Connect senders and switch to airframe harness and secure with ty-raps. Verify clearance to flight controls and rotating drive train.
68. Add at least 20 pounds of fuel to main fuel tank. Verify no fuel leaks.

### Instructions (continued)

69. Perform fuel flow check of carbureted R44 per MM Section 12.260. Perform fuel-flow check of fuel-injected R44 II as follows:

- a. Electrically ground the helicopter.
- b. Remove gascolator sediment bowl, gasket, and screen. Turn MASTER switch ON and defuel helicopter thru gascolator top into an approved, electrically grounded container until LOW FUEL light illuminates then turn MASTER switch and fuel shut-off valve OFF.
- c. Electrically ground to helicopter a container of known volume, as listed below. Turn fuel shut-off valve ON, fill container thru gascolator top, then turn fuel shut-off valve OFF. Verify filling time does not exceed maximum listed.

<u>Quantity</u>	<u>Maximum Time</u>
1 U.S. Gallon	90 seconds
4 Liters	95 seconds
1 Imperial Gallon	108 seconds

- d. If fuel flow is insufficient (maximum time is exceeded), check for obstructions in fuel tank vents, fuel tank outlet strainer, fuel line, and hoses.
- e. Reinstall gascolator screen, gasket, and sediment bowl, and safety with 0.032-inch diameter lockwire.

70. Install aft cabin foam insulation per MM § 15.420, as required.

71. Install aft belly panel and left & right seat back assemblies. Secure access doors.

72. Run-up helicopter per Pilot's Operating Handbook.

73. Verify no fuel leaks. Install engine right cowling, and C474 trim & cover.

74. Install D819-1 decal so it overlays the previous main tank quantity description printed on the D193 plate. Install D819-2 decal so it overlays the previous aux tank quantity description printed on the D193 plate.

75. If desired, paint (top coat) tanks to match helicopter (paint codes are on inside cover of factory-issued airframe logbook).

76. Install C654-3 or C654-4 decal (as appropriate) near main tank filler cap. Install C654-5 or C654-6 decal (as appropriate) near aux tank filler cap.

Instructions (continued)

77. Revise helicopter's Weight and Balance Record in Pilot's Operating Handbook Section 6 to reflect this installation by incorporating following data as appropriate:

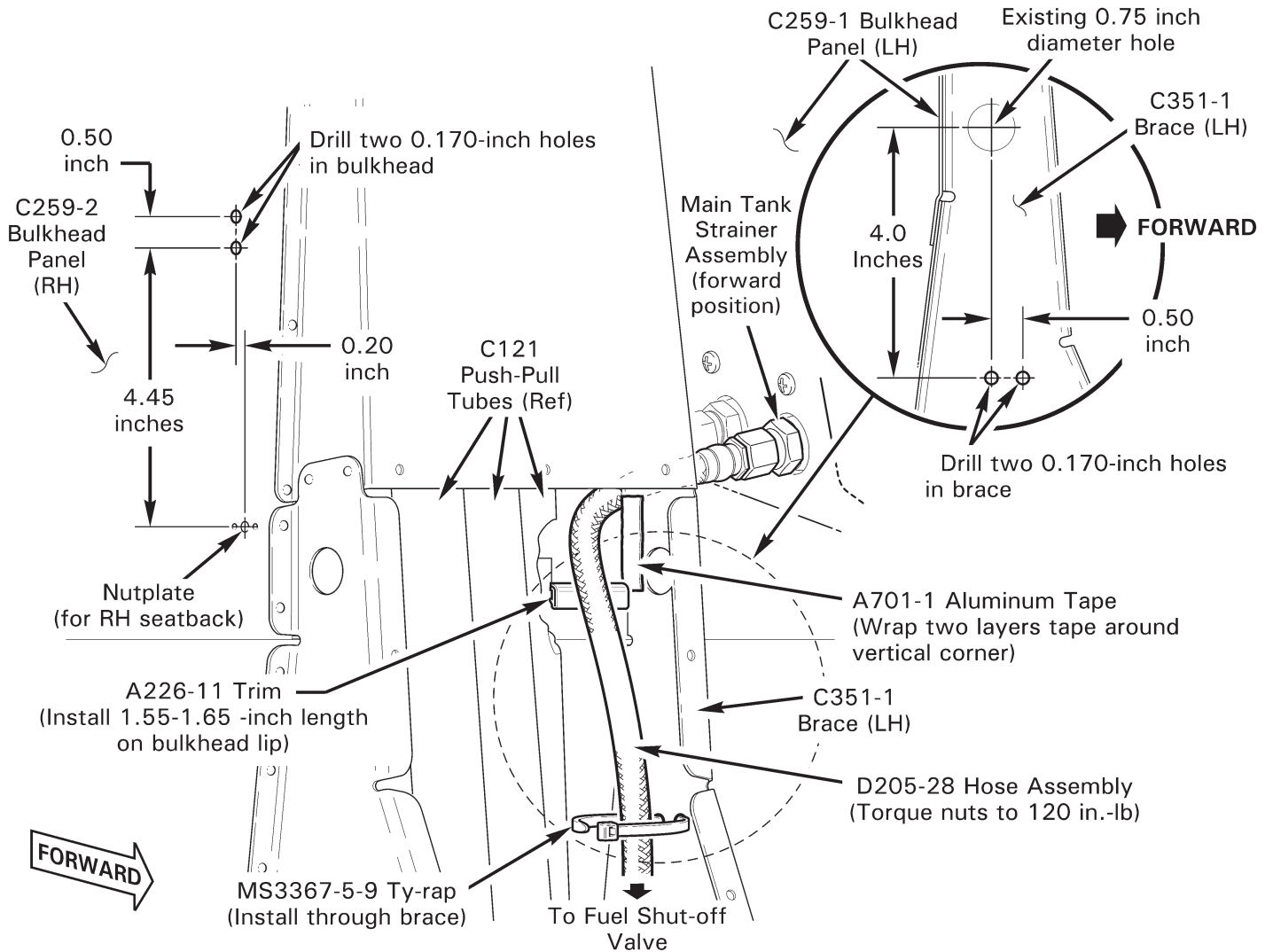
**For helicopters that have not previously complied with R44 Service Bulletin SB-68:**

	Weight (lb)	Longitudinal Arm (inches)	Longitudinal Moment (in.-lb)	Lateral Arm (inch)	Lateral Moment (in.-lb)
R44 Fuel Tank (Bladder Tank)	14.77	-0.22	1531.89	+0.31	-29.35
R44 II Fuel Tank (Bladder Tank)	14.92	-0.23	1546.40	+0.36	-26.9

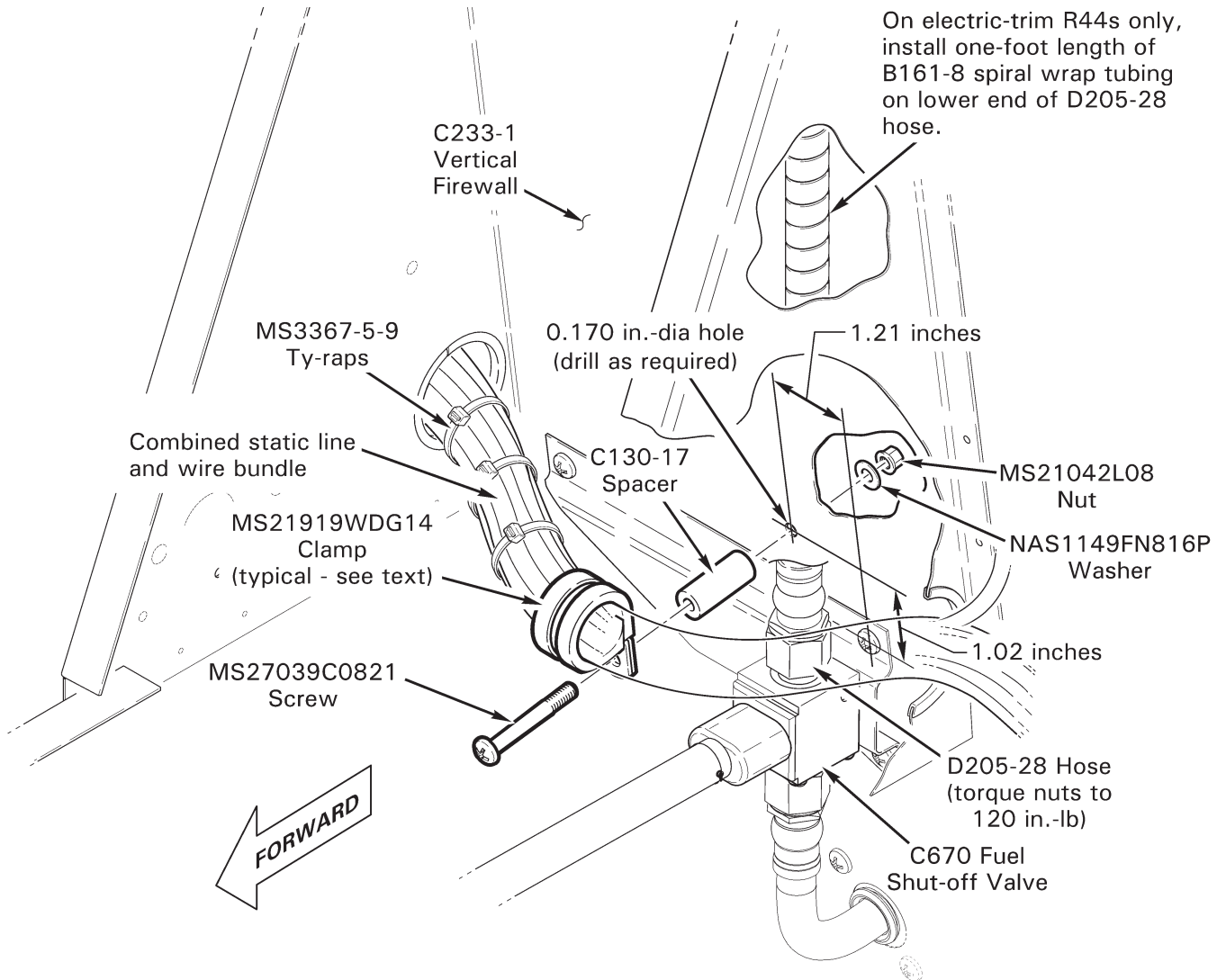
**For helicopters having previously complied with R44 Service Bulletin SB-68:**

	Weight (lb)	Longitudinal Arm (inches)	Longitudinal Moment (in.-lb)	Lateral Arm (inch)	Lateral Moment (in.-lb)
R44 Fuel Tank (Bladder Tank)	14.49	-0.08	1505.97	+0.26	-29.83
R44 II Fuel Tank (Bladder Tank)	14.47	-0.12	1528.16	+0.38	-25.70

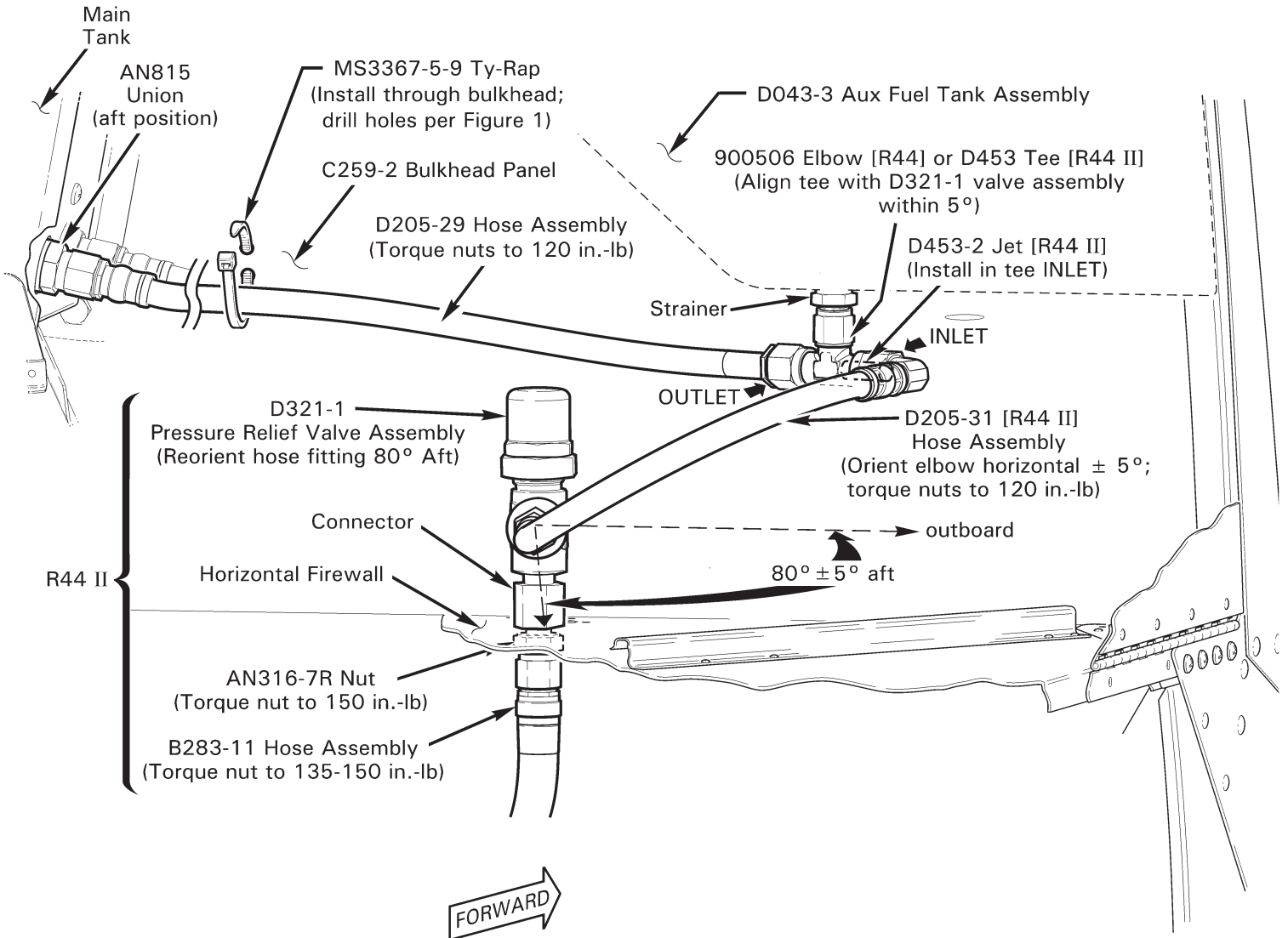
78. Make appropriate maintenance record entries.



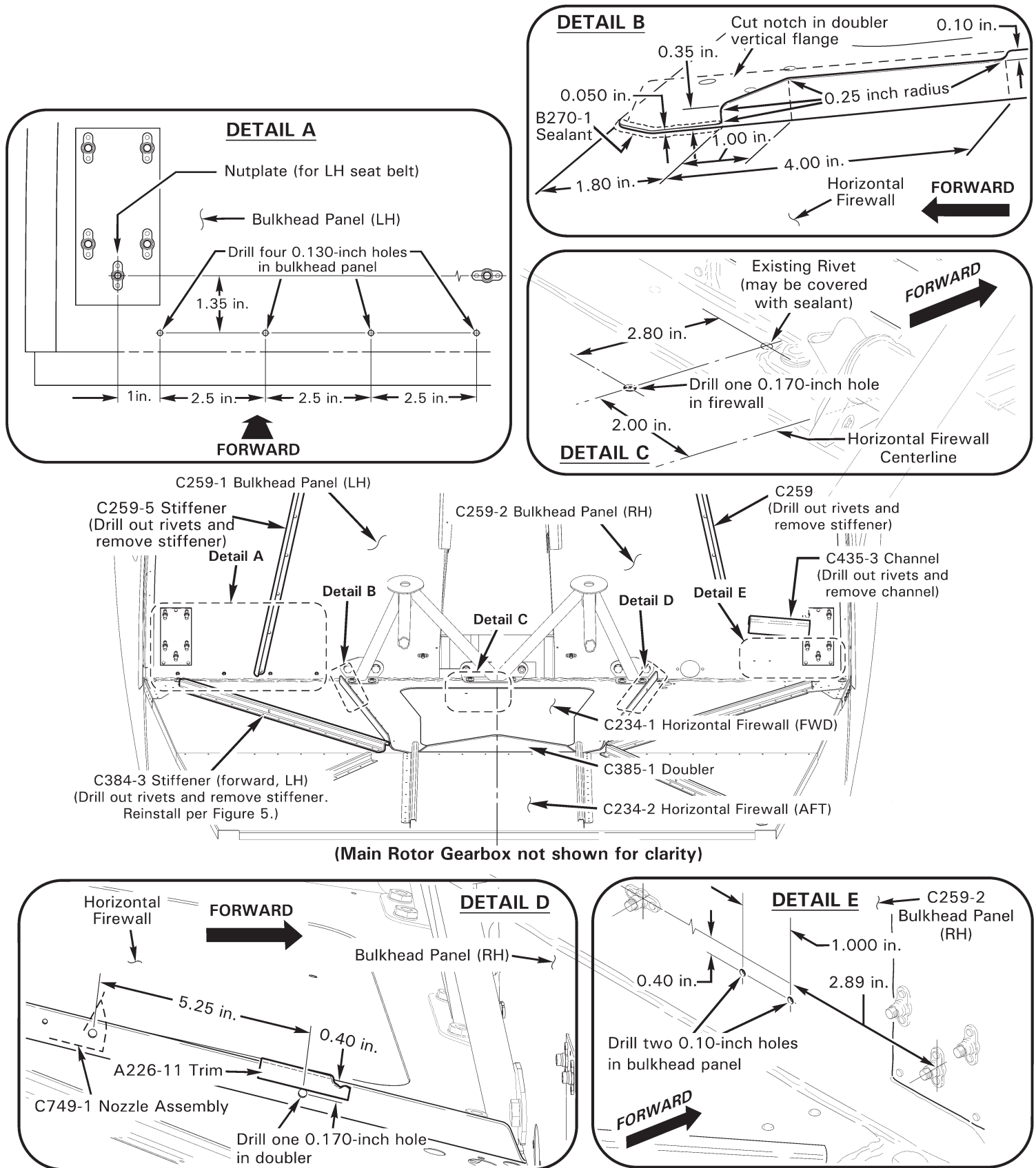
**FIGURE 1**



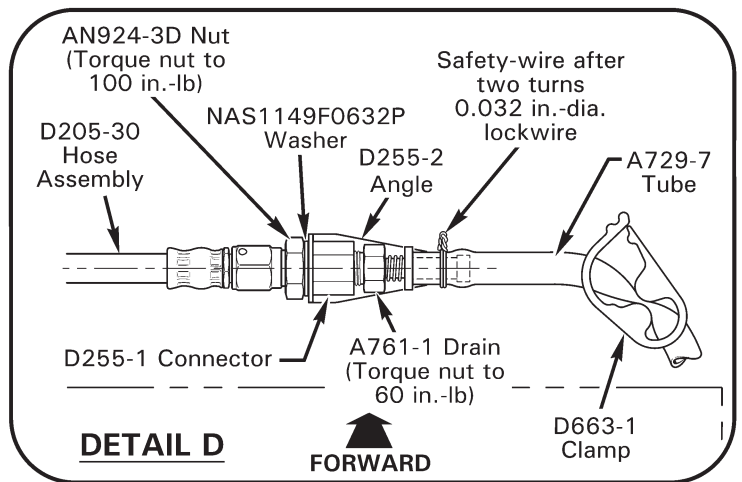
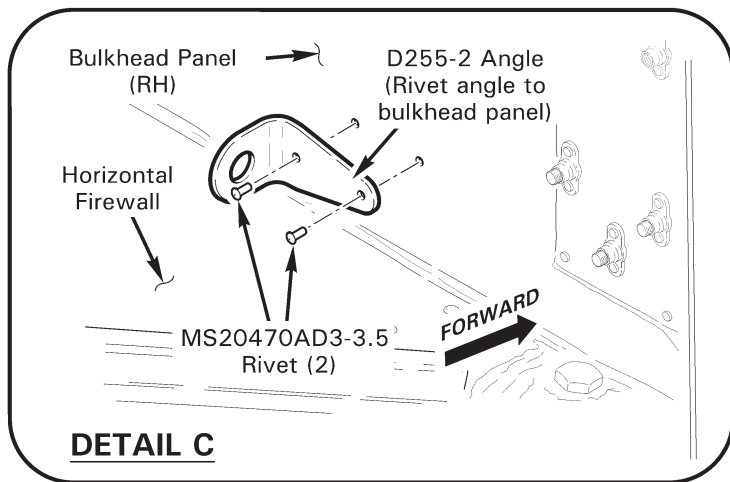
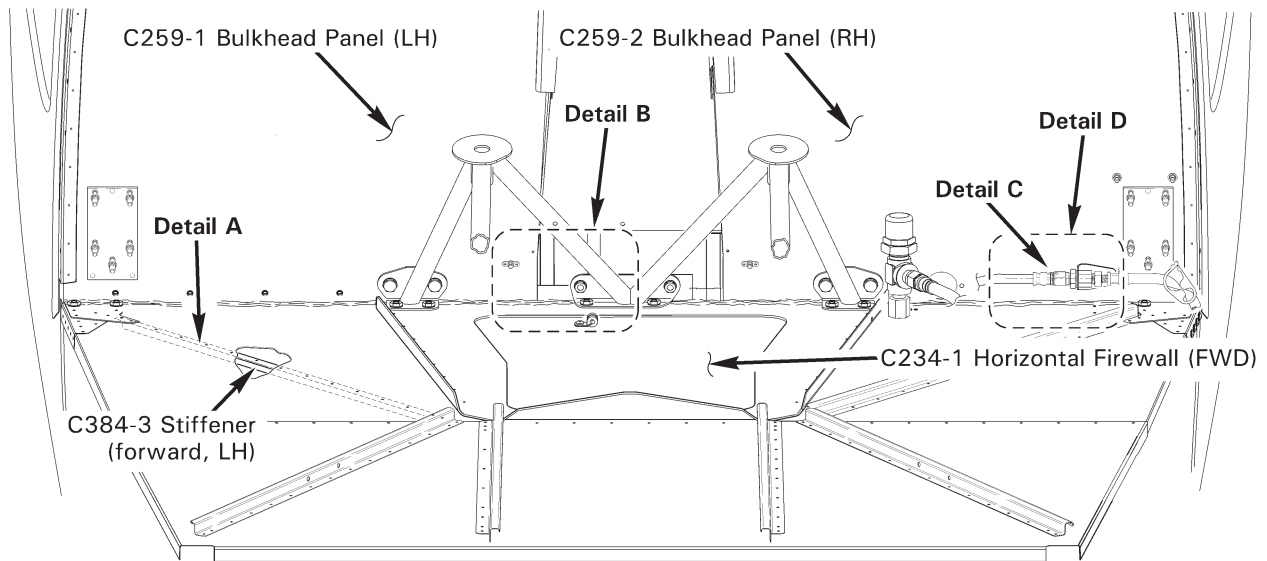
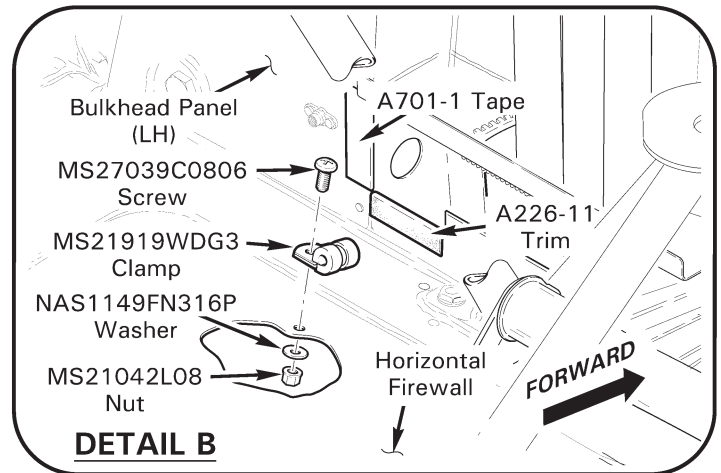
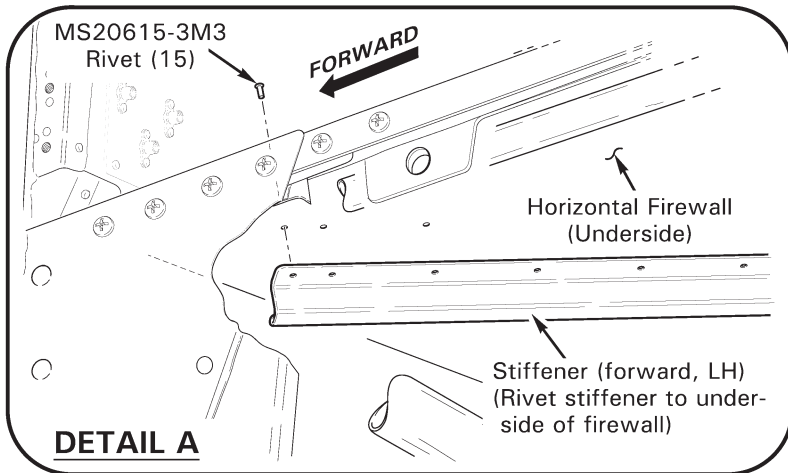
**FIGURE 2**



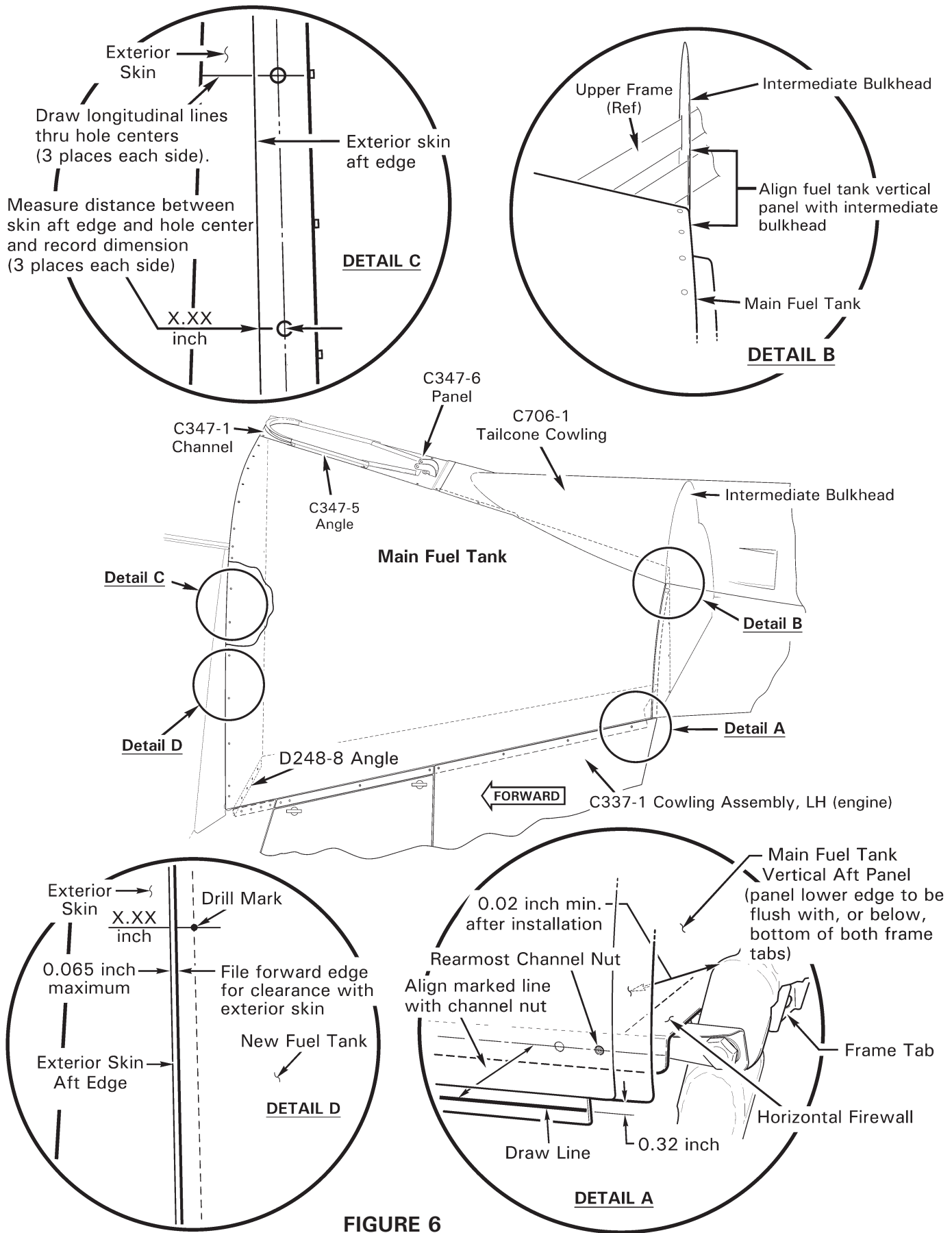
**FIGURE 3**

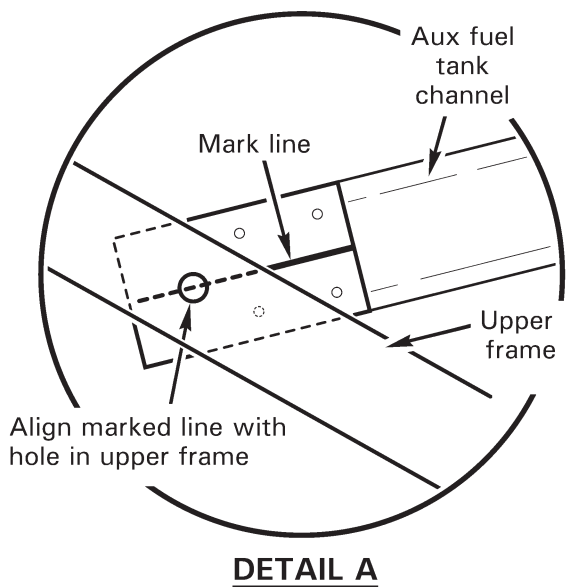
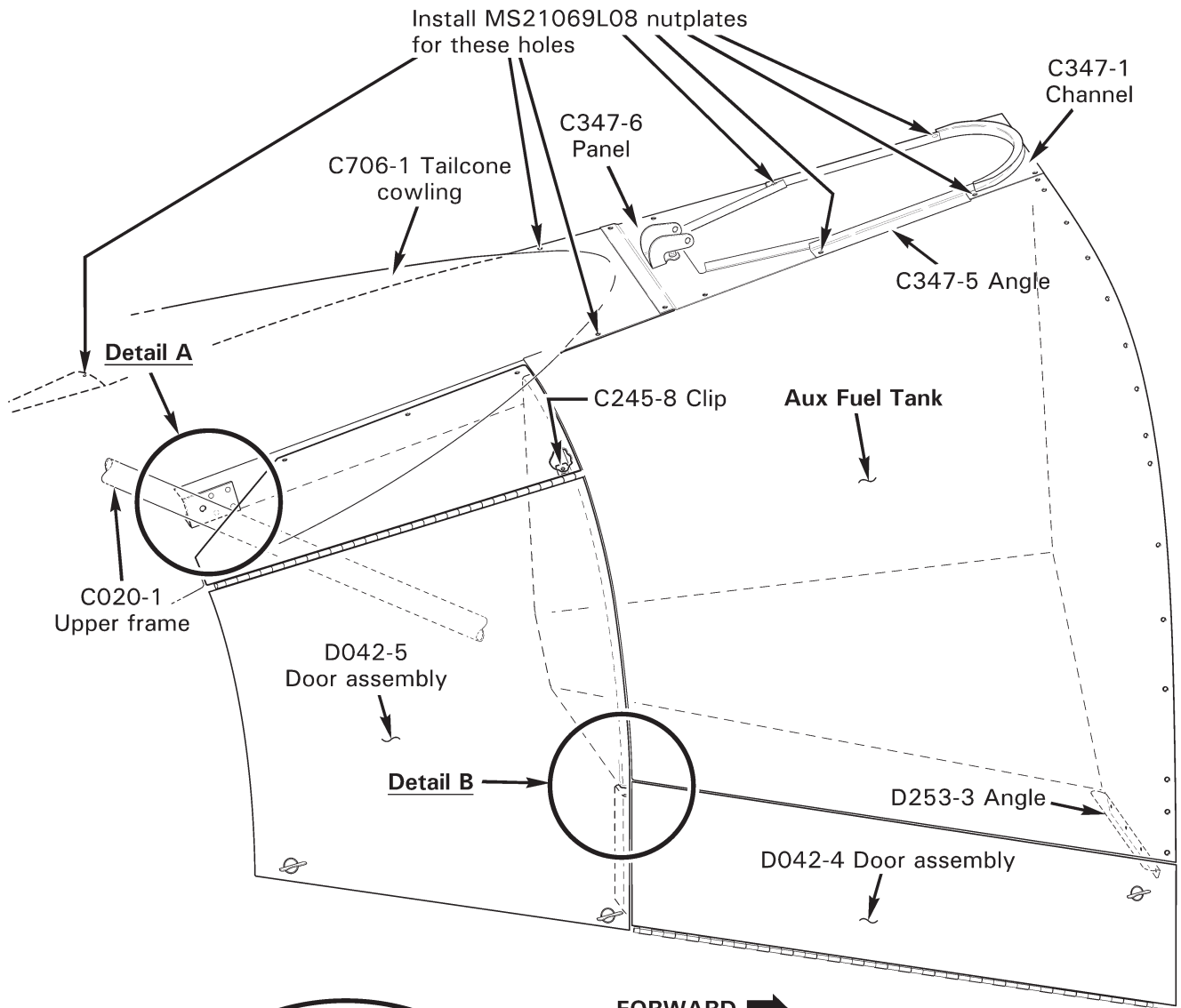


**FIGURE 4**

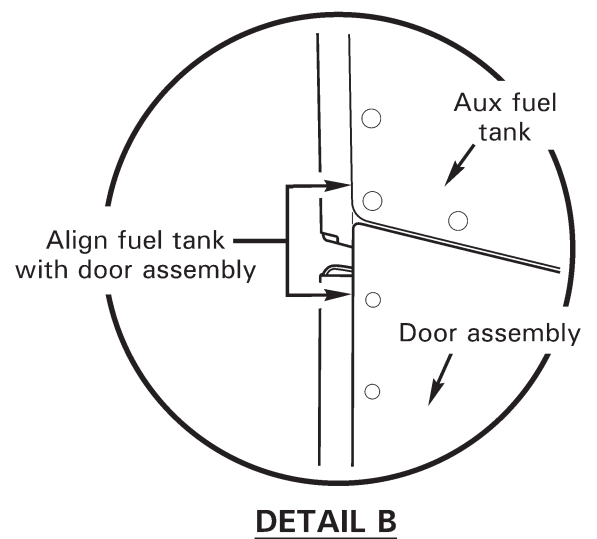


**FIGURE 5**

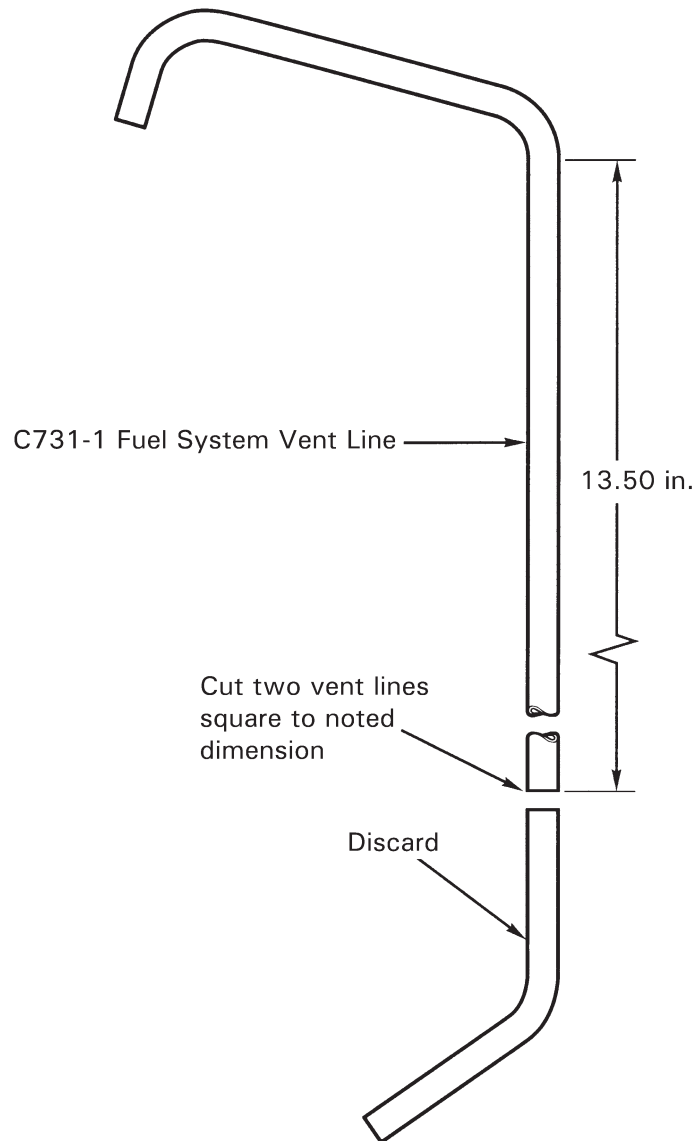




FORWARD →

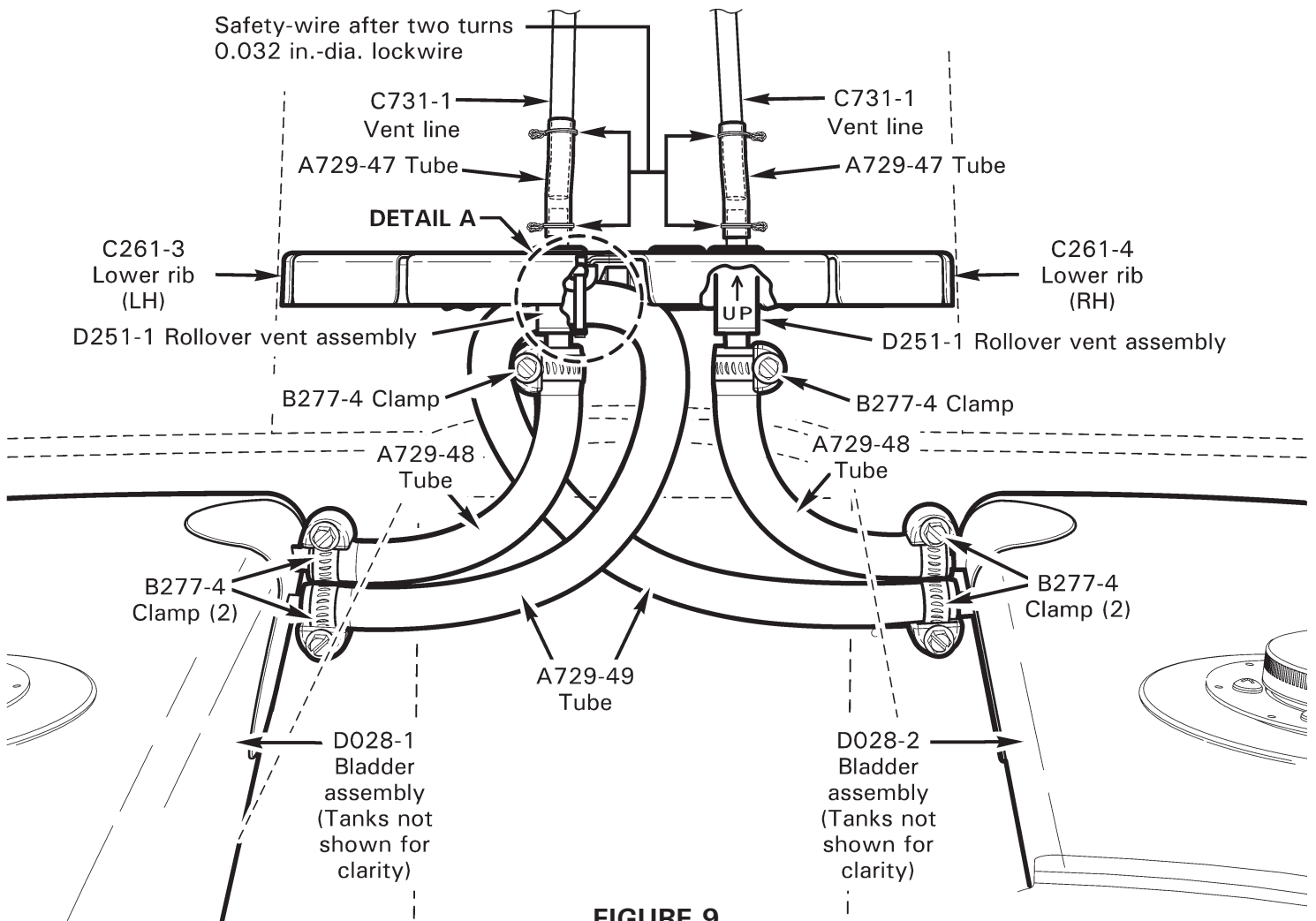
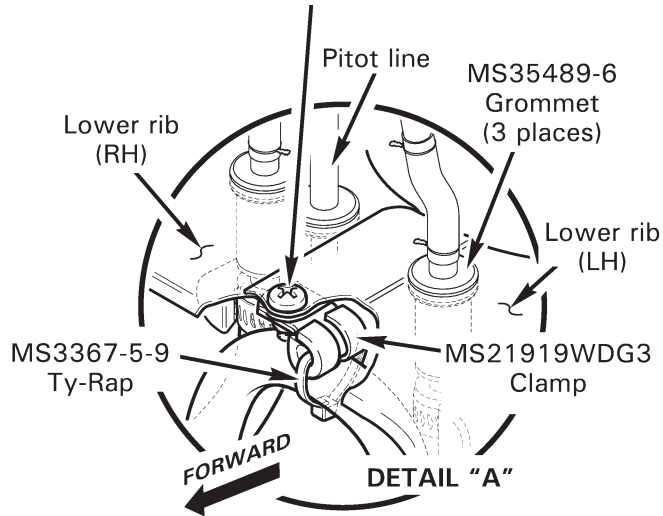


**FIGURE 7**

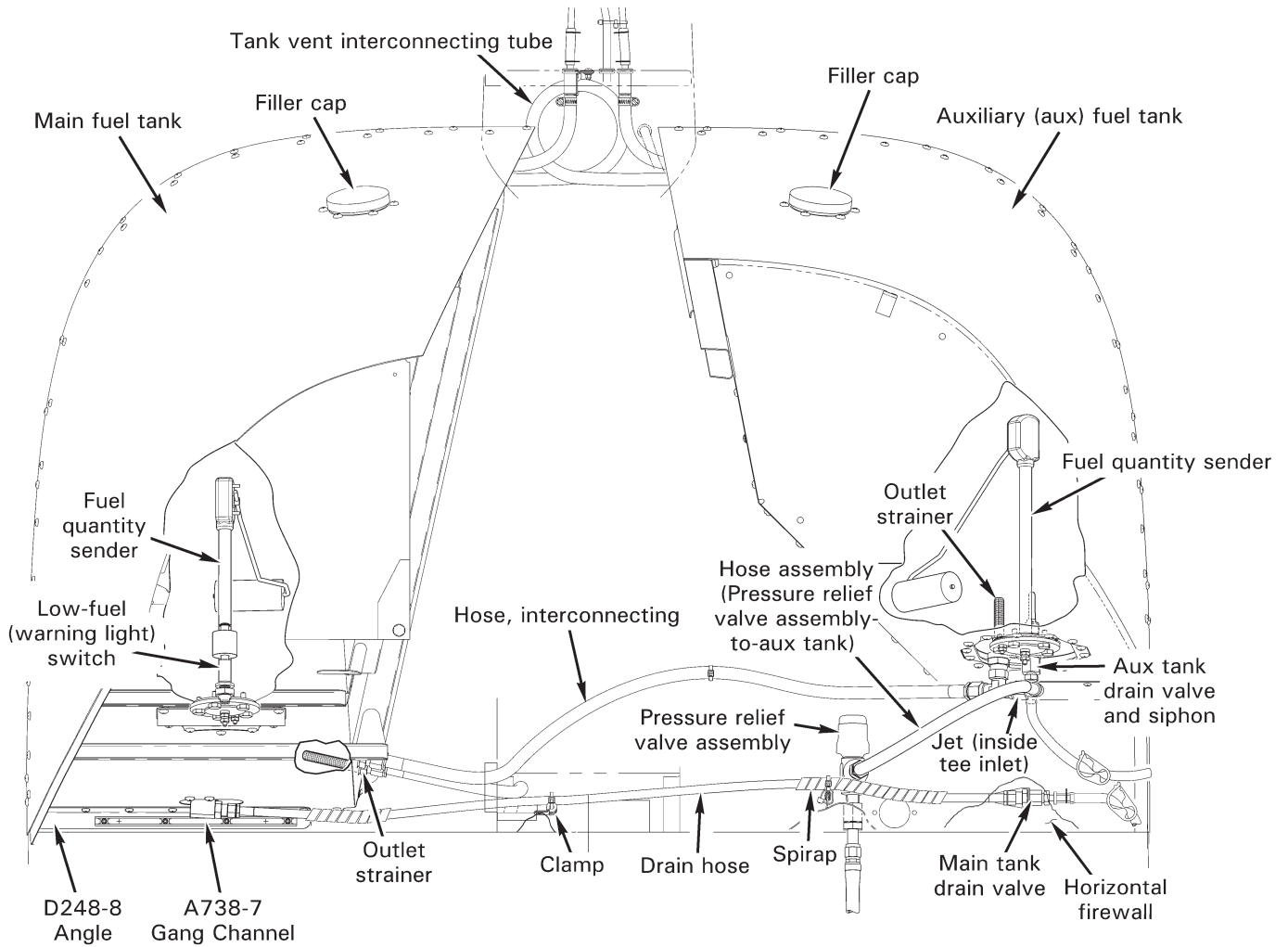


**FIGURE 8**

MS27039C0806 Screw  
 NAS1149FN816P Washer  
 MS21042LO8 Nut



**FIGURE 9**



**FIGURE 10**