

FUEL RESERVOIR - MAINTENANCE PRACTICES

1. General

- A. The fuel reservoir is located under the floor between stations 168.70 and 194.40 on the Model 208 airplanes, and between stations 188.70 and 214.40 on Model 208B airplanes. An auxiliary fuel pump, ejector pump and a low fuel level switch are located in the reservoir. The low fuel level switch actuates a red warning light located in the annunciator panel, labeled "RESERVOIR LOW".

NOTE: Airborne fuel pump (2C6-8) may be used as an alternate for Dukes fuel pump (1613-00-1) (19). Airborne pump (2C6-8) does not require a pump seal drain line. If the airplane does not have a cargo pod, remove drain line (30A) and adapter (30B). If airplane has a cargo pod remove drain lines (26A), (58), elbow (28A), and adapter. In either case after removing adapter from reservoir, plug port from which adapter was removed.

2. Reservoir Components Removal/Installation

- A. Remove Reservoir Components (Refer to Figure 201).
- (1) Remove access cover in fuselage below reservoir.
 - (2) Defuel and purge fuel system.
 - (3) Remove bolts (28) and lockwashers (29) from plate (27). Detach cover (27) and gasket (26) from reservoir (1).
 - (4) Detach tube (9) from adapter (8) and check valve (10) and remove tube (9) from reservoir (1).
 - (5) Remove nut (6) and O-ring (5), detach ejector pump (4) from reservoir (1). Discard O-ring (5).
 - (6) Remove adapter (8) and O-ring (7) from ejector pump (4). Discard O-ring (7).
 - (7) Remove nut (30), detach check valve (10) and O-ring (11) from reservoir (1). Discard O-ring (11).
 - (8) Loosen nut (13), remove adapter (14), nut (13), and O-ring (12) from reservoir (1).
 - (9) Remove bolts (22) and lockwashers (21), detach auxiliary fuel pump (19) and gasket (20) from reservoir (1). Discard gasket (20) from reservoir (1). Discard gasket (20).
 - (10) Remove nut (15), retainer (16), and O-rings (17) from float switch (18). Discard O-rings (17) and detach float switch (18) from reservoir (1).
 - (11) Remove auxiliary pump seal drain line (30A) and adapter (30B) from reservoir (1).
 - (12) Disconnect plug (32) from connector (31), detach pressure switch (36A) from manifold (36B.)
 - (13) Disconnect tubes (45), (47), and (51) from manifold (36B). Remove manifold (36B) from reservoir (1).
 - (14) Remove check valve adapters (46), reducer (50), O-rings (52) and (53) from manifold (36B). Discard O-rings (52) and (53).
 - (15) Loosen clamps (48), detach hose (49) from fuel line (47) and adapter (54).
 - (16) Remove screws (39) and washers (40) and detach swing check valves (38) from reservoir (1).
- NOTE:** If nutplate (37) is damaged, or fuel leaks are noted, it must be removed, replaced and resealed.
- (17) Remove nut (23), detach drain valve (25) and O-ring (24) from plate (27). Discard O-ring (24)

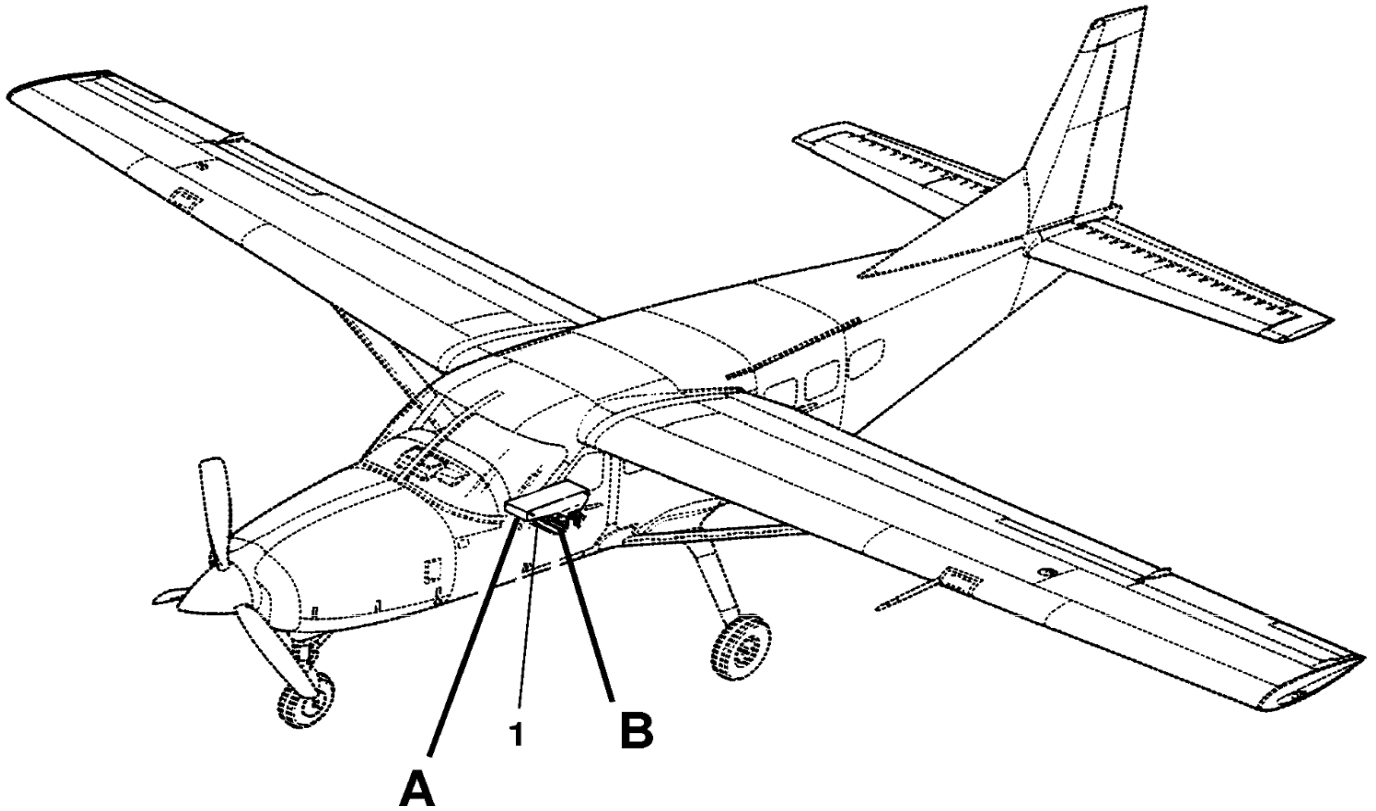
- B. Install Reservoir Components (Refer to Figure 201).

- (1) Attach drain valve (25) and O-ring (24) to plate (27). Replace and tighten nut (23).
- (2) Attach swing check valves (38) to reservoir (1), replace washers (40) and screws (39).
- (3) Attach hose (49) to tube (47) and adapter (54). Install and tighten clamps (48).
- (4) Replace O-rings (52) and (53), check valve adapters (46), and reducer (50) on manifold (36B).
- (5) Connect tubes (45), (47), and (51) to manifold (36B).
- (6) Connect pressure switch (36A) to manifold (36B). Attach plug (32) to connector (31).
- (7) Replace adapter (30B) in reservoir (1). Attach auxiliary pump seal drain line (30A) to adapter (30B).
- (8) Attach float switch (18) and O-ring (17) to reservoir (1). Replace O-ring (17), retainer (16), and nut (15). Tighten nut (15).
- (9) Attach auxiliary fuel pump (19) and gasket (20) to reservoir (1). Replace lockwashers (21) and bolts (22).
- (10) Attach adapter (14), nut (13), and O-ring (12) to reservoir (1) and electric fuel pump (19). Tighten nut (13).

- (11) Attach O-ring (7) and adapter (8) to ejector pump (4). Tighten adapter (8).
- (12) Attach O- ring (11), check valve (10), and nut (30) to reservoir (1). Tighten nut (30).
- (13) Attach tube (9) to adapter (8) and check valve (10). Tighten tube nuts.
- (14) Attach gasket (26) and plate (27) to reservoir (1). Replace lockwashers (29) and bolts (28). Tighten bolts (28) in sequence to 18-20 inch-pounds.
- (15) Refuel system and check for fuel leaks.
- (16) Replace fuselage access cover below reservoir.

Figure 201 : Sheet 1 : Fuel Reservoir Components Installation

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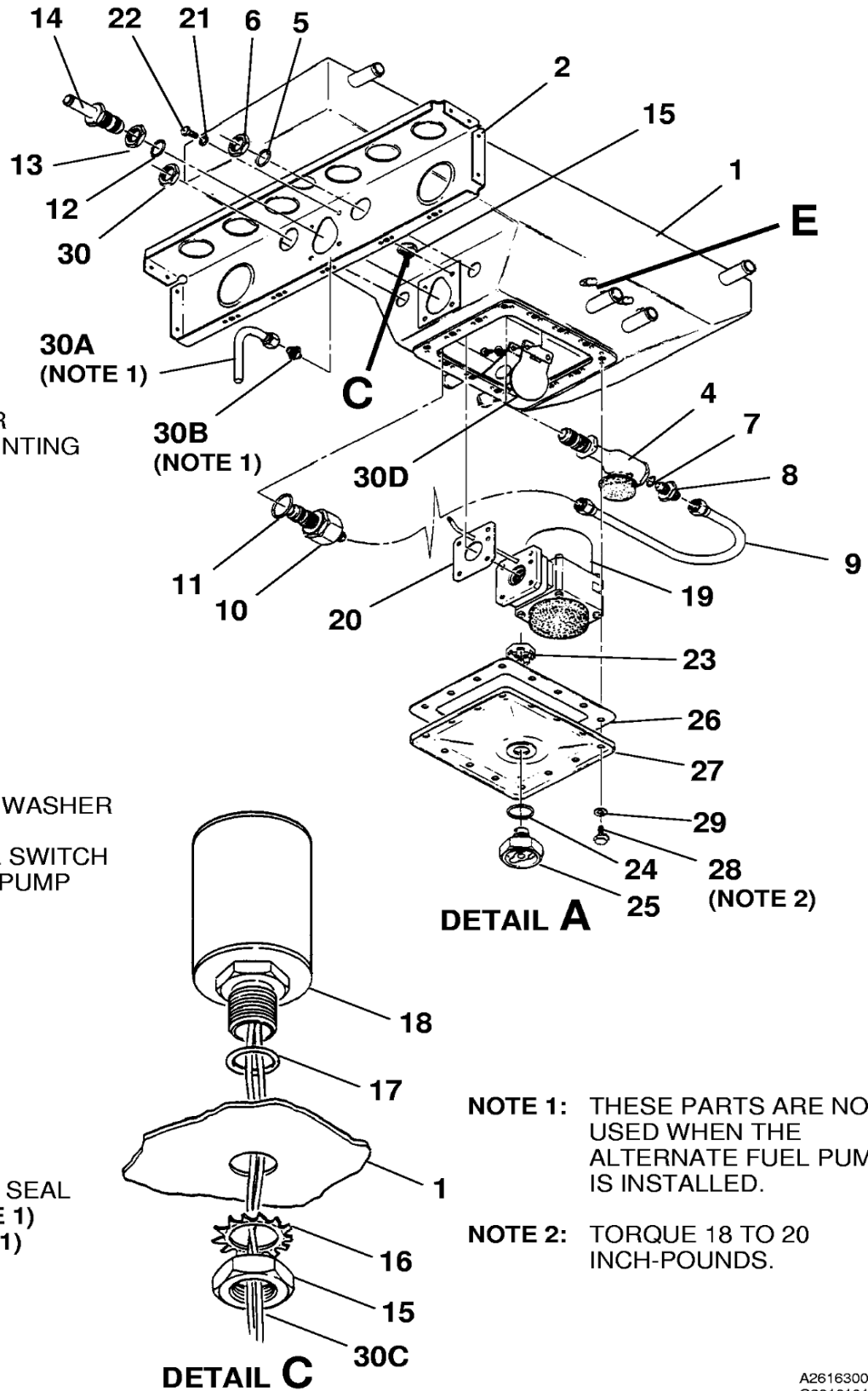


1. FUEL RESERVOIR

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Figure 201 : Sheet 2 : Fuel Reservoir Components Installation

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- 1. FUEL RESERVOIR
- 2. RESERVOIR MOUNTING BRACKET
- 4. EJECTOR PUMP
- 5. O-RING
- 6. NUT
- 7. O-RING
- 8. ADAPTER
- 9. TUBE
- 10. CHECK VALVE
- 11. O-RING
- 12. O-RING
- 13. NUT
- 14. ADAPTER
- 15. NUT
- 16. EXTERNAL STAR WASHER
- 17. O-RING
- 18. LOW FUEL LEVEL SWITCH
- 19. AUXILIARY FUEL PUMP
- 20. GASKET
- 21. LOCKWASHER
- 22. SCREW
- 23. NUT
- 24. O-RING
- 25. DRAIN VALVE
- 26. GASKET
- 27. PLATE
- 28. BOLT (NOTE 2)
- 29. LOCKWASHER
- 30. NUT
- 30A. AUXILIARY PUMP SEAL DRAIN LINE(NOTE 1)
- 30B. ADAPTER (NOTE 1)
- 30C. SWITCH WIRES
- 30D. CHECK VALVE

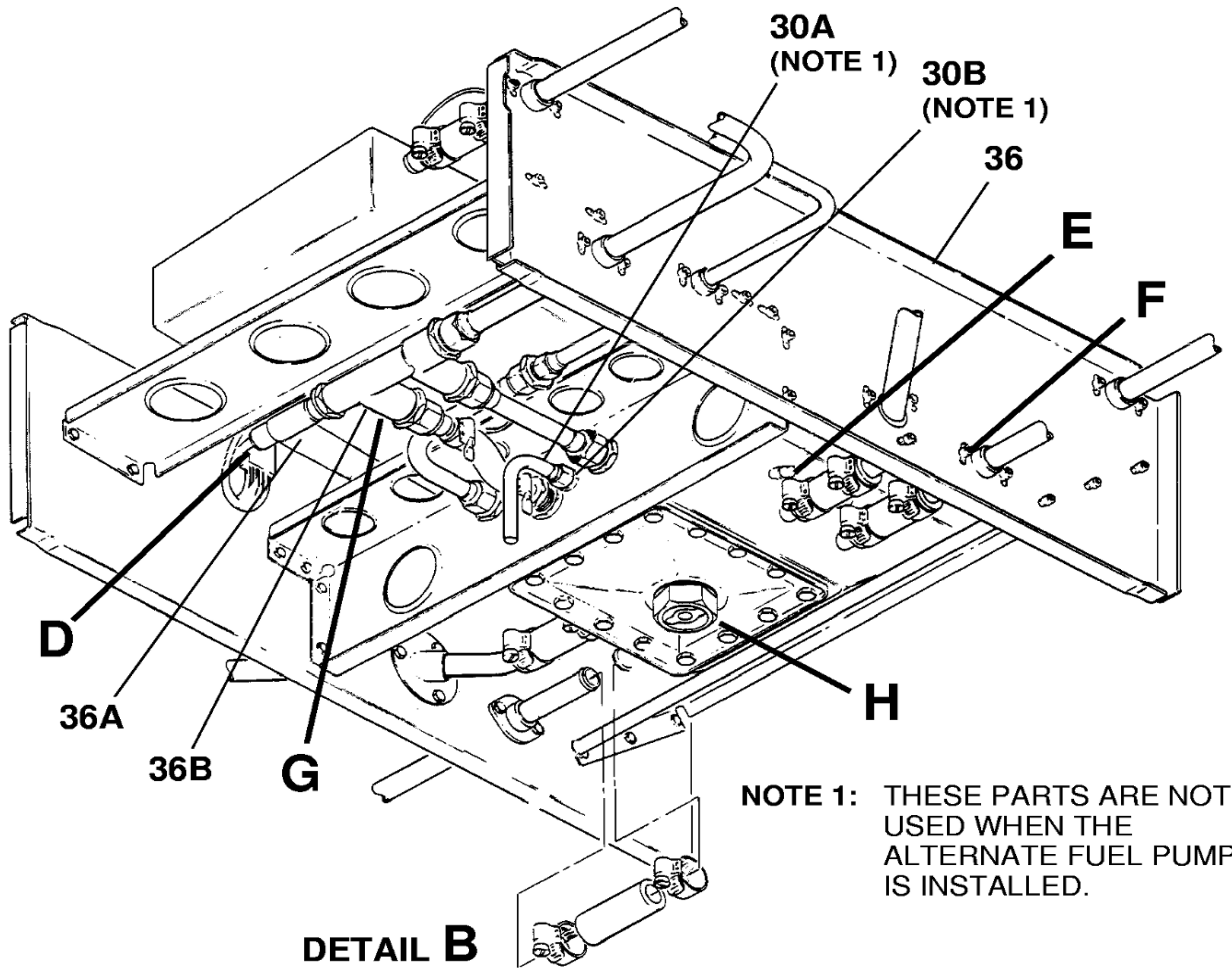
NOTE 1: THESE PARTS ARE NOT USED WHEN THE ALTERNATE FUEL PUMP IS INSTALLED.

NOTE 2: TORQUE 18 TO 20 INCH-POUNDS.

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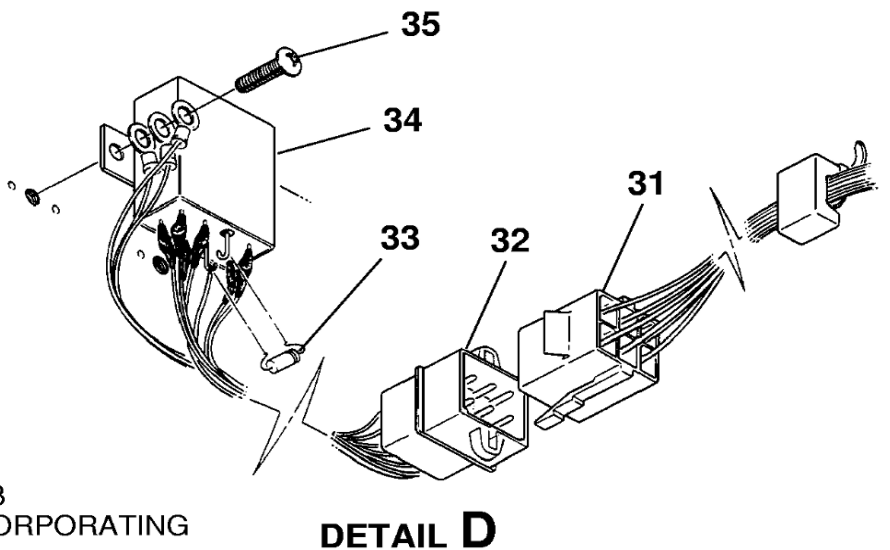
Figure 201 : Sheet 3 : Fuel Reservoir Components Installation

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- 30A. AUXILIARY PUMP SEAL DRAIN LINE (NOTE 1)
- 30B. ADAPTER (NOTE 1)
- 31. CONNECTOR
- 32. PLUG
- 33. DIODE (NOTE 2)
- 34. RELAY
- 35. SCREW
- 36. SUPPORT
- 36A. PRESSURE SWITCH
- 36B. MANIFOLD

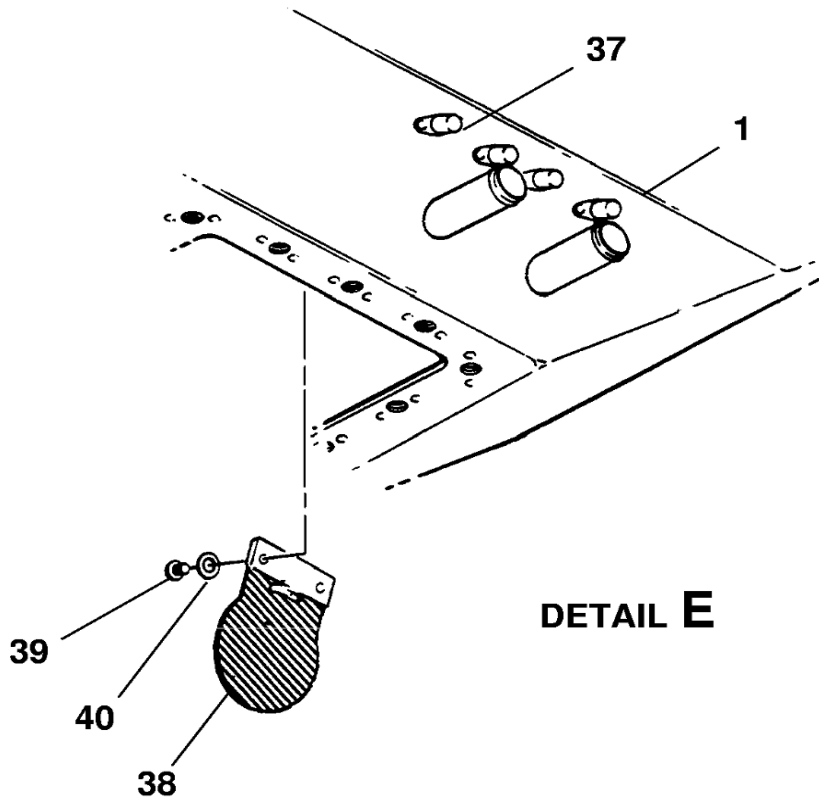
NOTE 2: AIRPLANES 20800001 THRU 20800236 AND 208B0001 THRU 208B0388 EXCEPT AIRPLANES INCORPORATING CAB 95-18



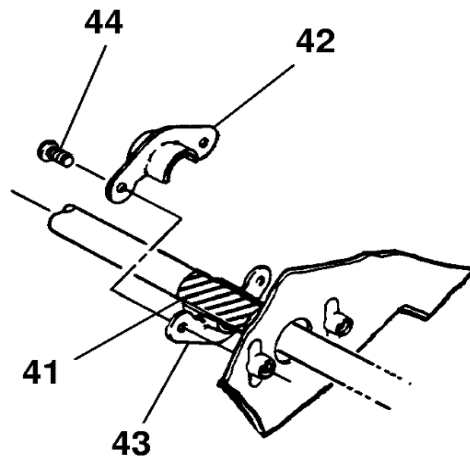
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Figure 201 : Sheet 4 : Fuel Reservoir Components Installation

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DETAIL E



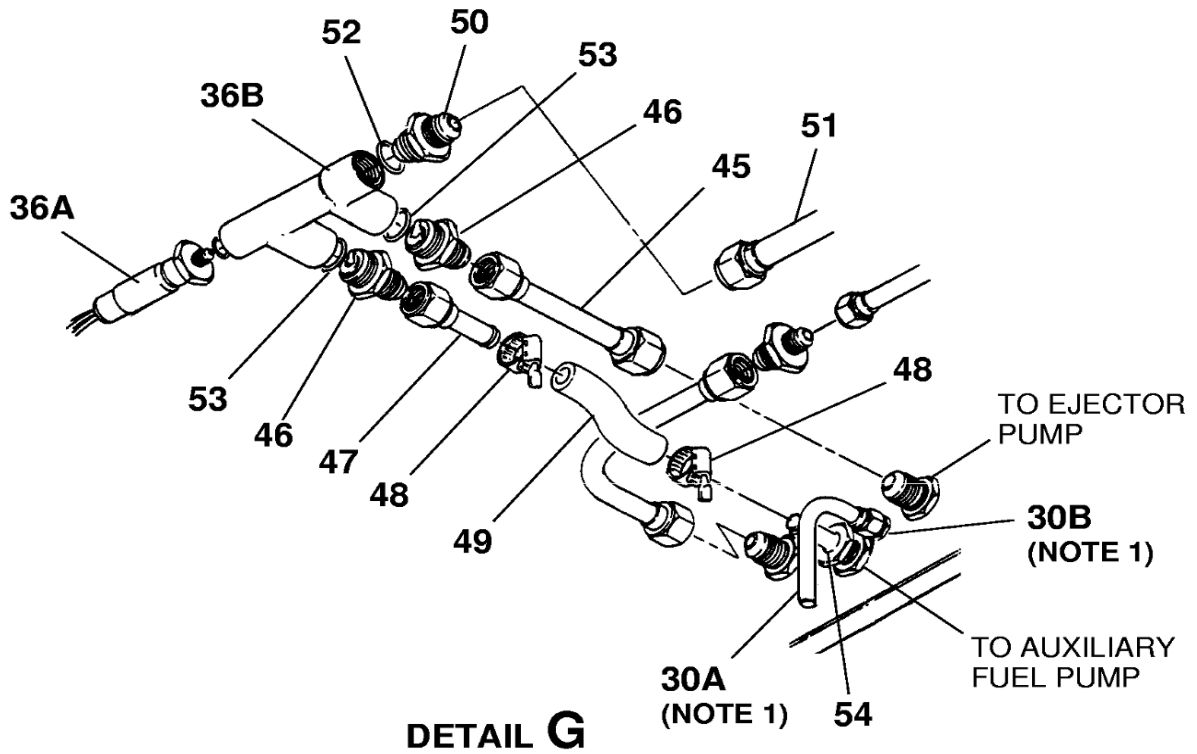
DETAIL F
TYPICAL

- 1. RESERVOIR
- 37. NUTPLATE
- 38. SWING CHECK VALVE
- 39. SCREW
- 40. WASHER
- 41. SEAL
- 42. UPPER SHIELD HALF
- 43. LOWER SHIELD HALF

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F2616X1027

Figure 201 : Sheet 5 : Fuel Reservoir Components Installation

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- 30A. AUXILIARY PUMP SEAL DRAIN LINE (NOTE)
- 30B. ADAPTER (NOTE)
- 36A. PRESSURE SWITCH
- 36B. MANIFOLD
- 45. FUEL LINE
- 46. CHECK VALVE ADAPTER
- 47. FUEL LINE
- 48. CLAMP
- 49. HOSE
- 50. REDUCER
- 51. TUBE
- 52. O-RING
- 53. O-RING
- 54. ADAPTER

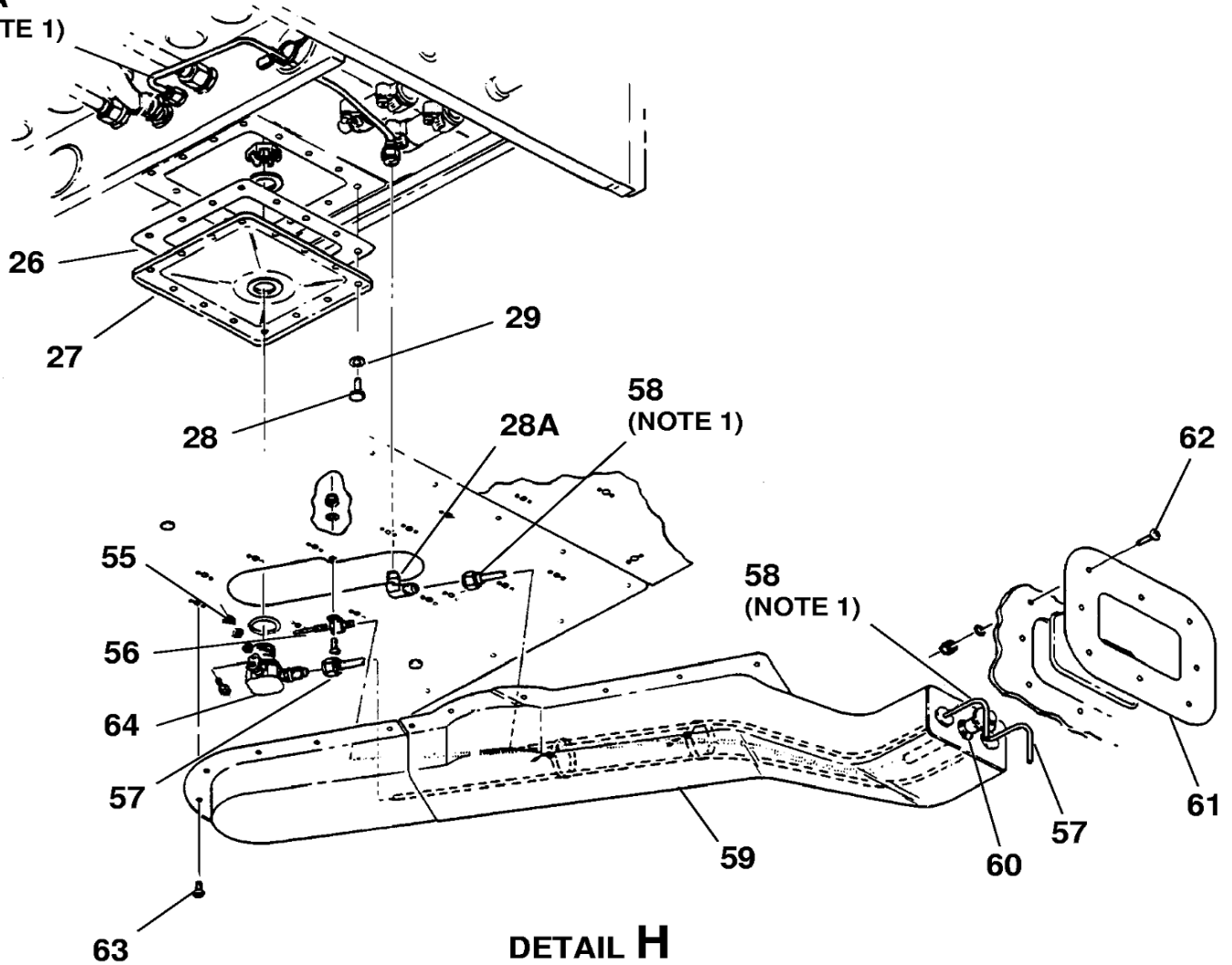
NOTE 1: THESE PARTS ARE NOT USED WHEN THE ALTERNATE FUEL PUMP IS INSTALLED.

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Figure 201 : Sheet 6 : Fuel Reservoir Components Installation

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26A
(NOTE 1)



- | | |
|---|--|
| 26. GASKET | 57. DRAIN |
| 26A. UPPER AUXILIARY PUMP SEAL
DRAIN LINE (NOTE 1) | 58. AUXILIARY PUMP SEAL
DRAIN LINE (NOTE 1) |
| 27. PLATE | 59. FUEL DRAIN LINE COVER |
| 28. BOLT | 60. DRAIN LINE CONTROL KNOB |
| 28A. ELBOW | 61. SLEEVE |
| 29. LOCKWASHER | 62. SCREW |
| 55. O-RING | 63. SCREW |
| 56. CONTROL CABLE | 64. FUEL DRAIN VALVE |

NOTE 1: THESE PARTS ARE NOT USED WHEN THE ALTERNATE FUEL PUMP IS INSTALLED.

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