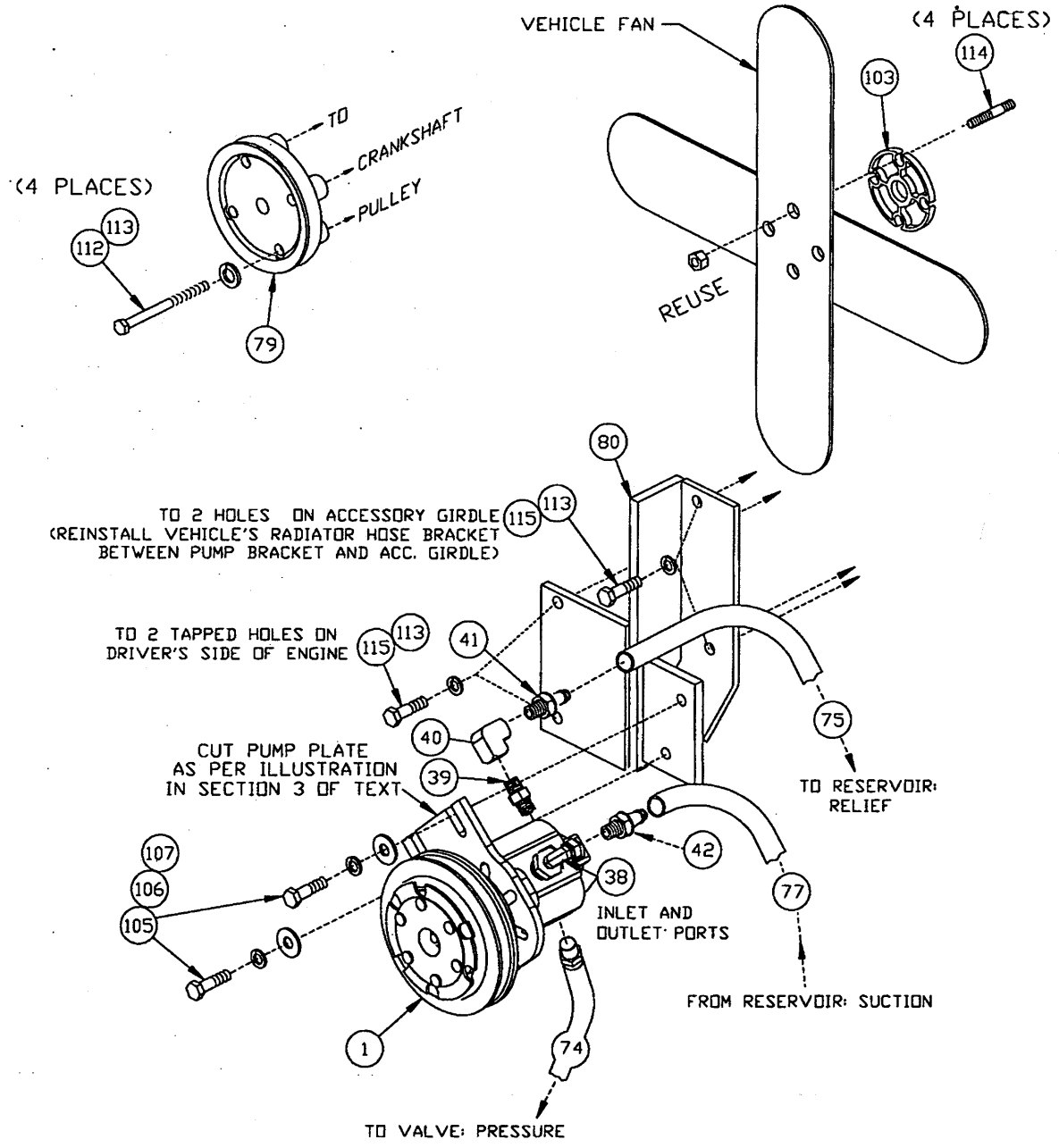
Minute Mount SYSTEM

**Chev/GMC**
**V8 6.5L Diesel**
**w-w/o AC, w/ ABS**

**1996 - 19__**

**7555**
**Belt Drive Hydraulics**
**Electric Clutch**
**Solenoid Valve**
**Remote Reservoir**

## PUMP/CLUTCH & DRIVE SHEAVE INSTALLATION: VIEWED FROM FRONT/DR. SIDE OF VEHICLE

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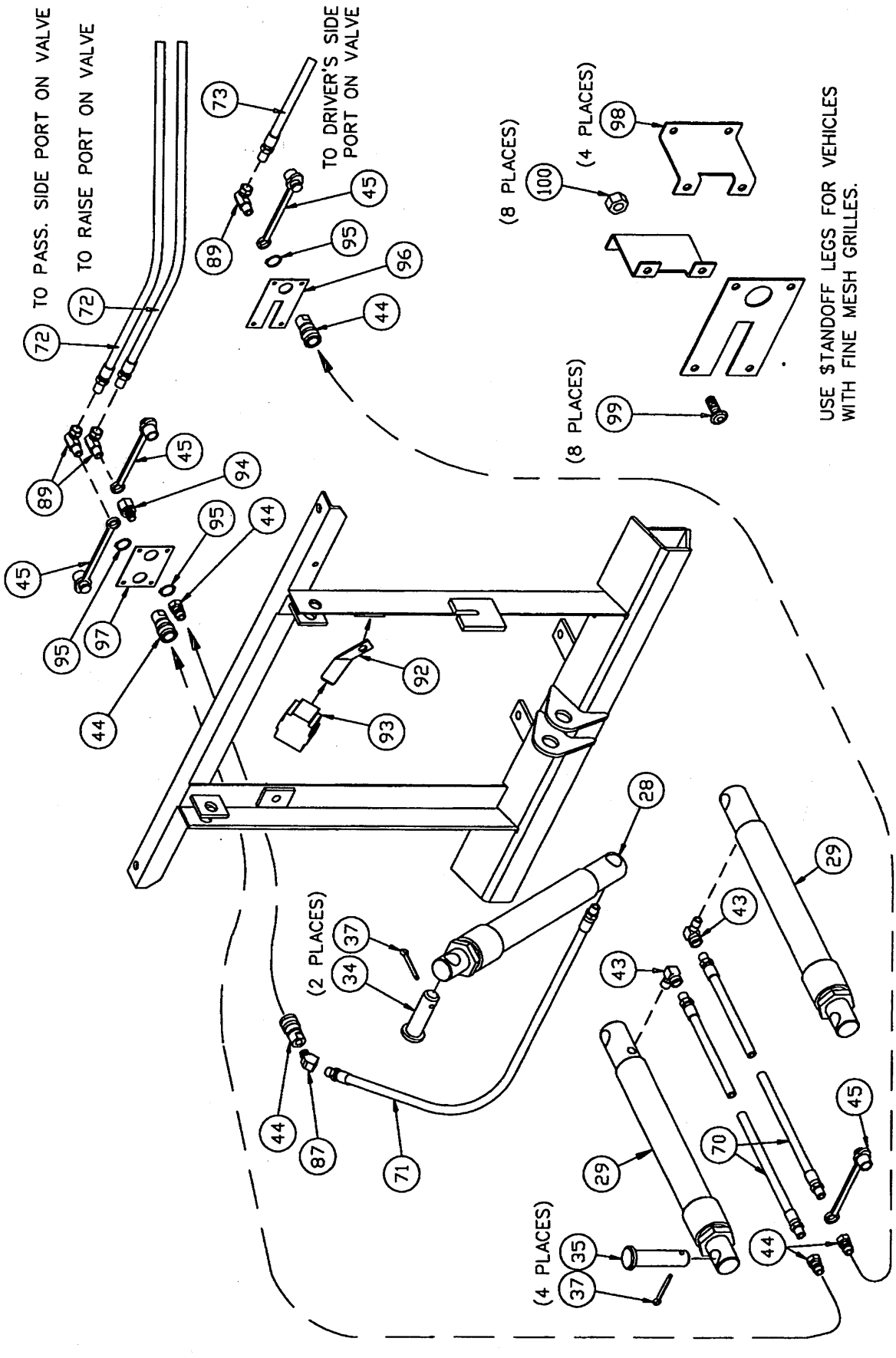
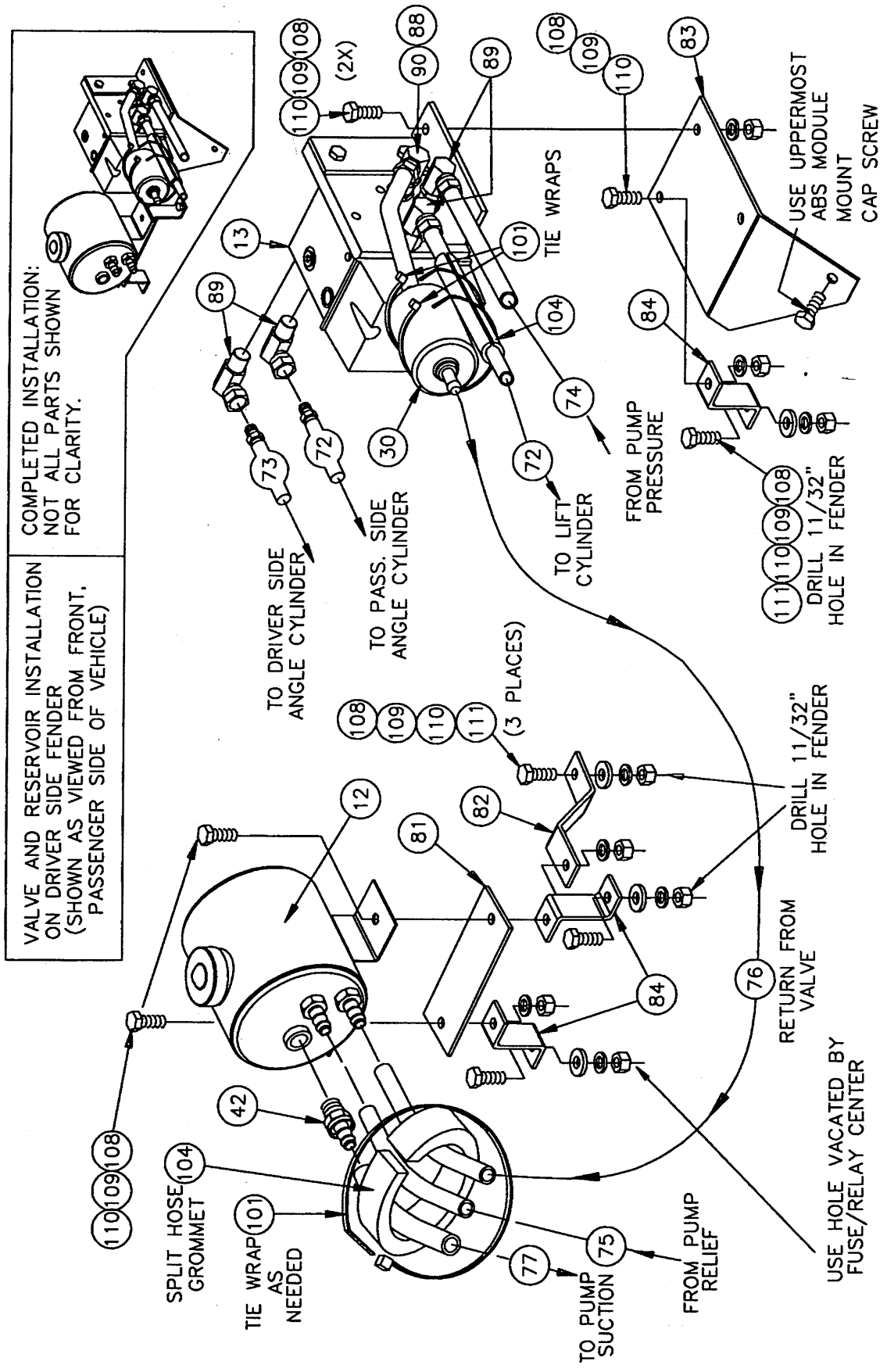
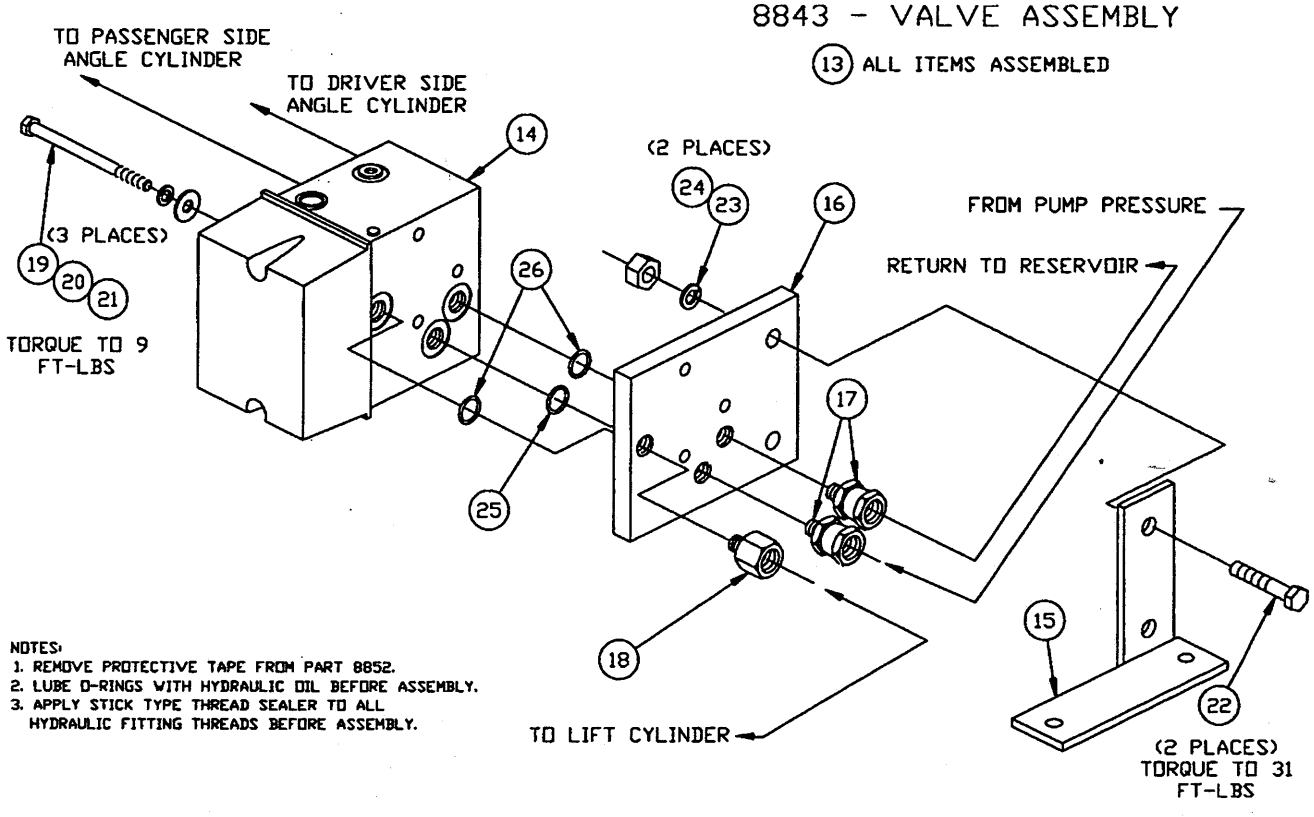

TO PASS. SIDE PORT ON VALVE
TO RAISE PORT ON VALVE
TO DRIVER'S SIDE PORT ON VALVE
(8 PLACES)
(4 PLACES)
(8 PLACES)
USE STANDOFF LEGS FOR VEHICLES WITH FINE MESH GRILLES.
(2 PLACES)
(4 PLACES)
72
73
89
45
95
96
44
94
97
92
93
28
29
43
34
37
87
71
70
35
98
100
99


VALVE AND RESERVOIR INSTALLATION ON DRIVER SIDE FENDER (SHOWN AS VIEWED FROM FRONT, PASSENGER SIDE OF VEHICLE)
COMPLETED INSTALLATION: NOT ALL PARTS SHOWN FOR CLARITY.
(2X)
TIE WRAPS
USE UPPERMOST ABS MODULE MOUNT CAP SCREW
TO DRIVER SIDE ANGLE CYLINDER
TO PASS. SIDE ANGLE CYLINDER
TO LIFT CYLINDER
FROM PUMP PRESSURE
DRILL 11/32" HOLE IN FENDER
(3 PLACES)
DRILL 11/32" HOLE IN FENDER
RETURN FROM VALVE
USE HOLE VACATED BY FUSE/RELAY CENTER
SPLIT HOSE GROMMET
TIE WRAP AS NEEDED
TO PUMP SUCTION
FROM PUMP RELIEF

## 8843 - VALVE ASSEMBLY

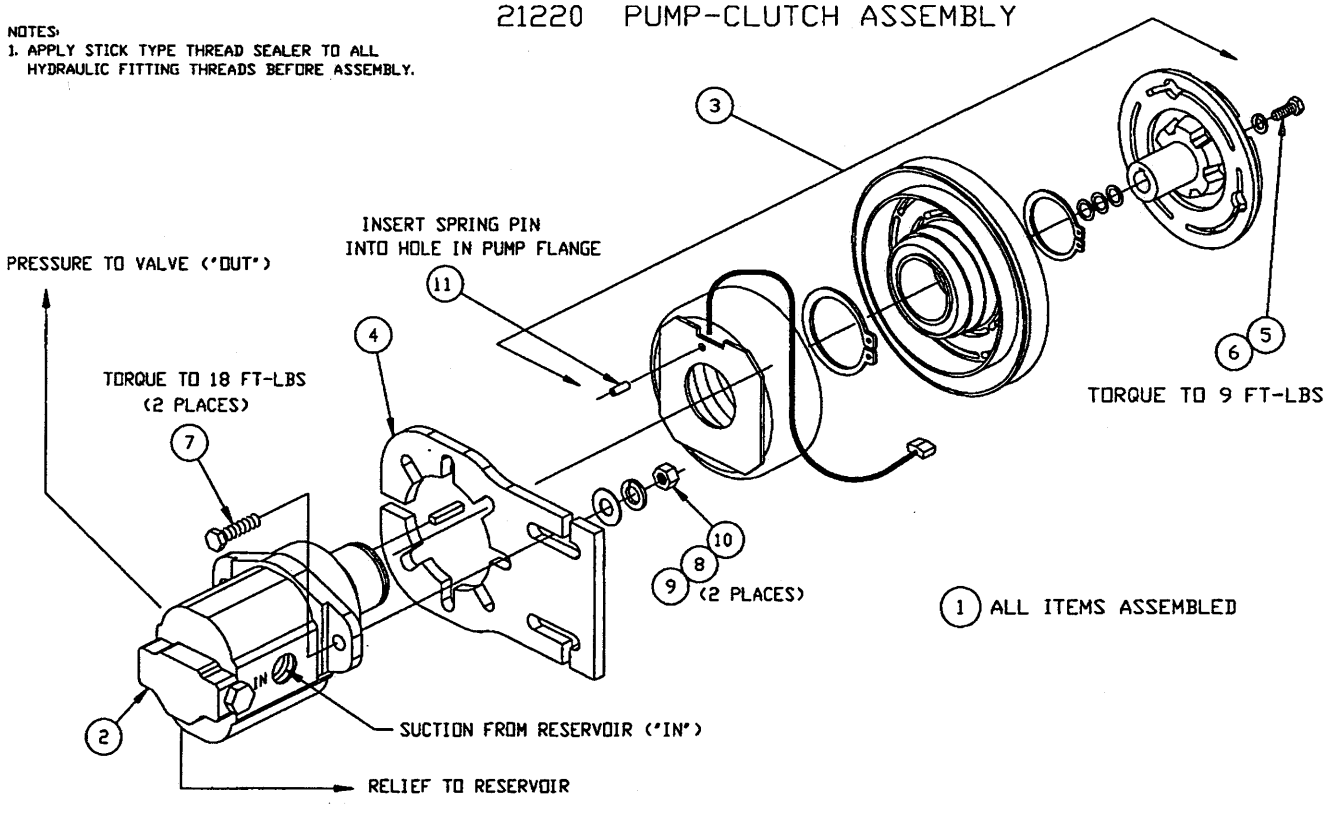
(13) ALL ITEMS ASSEMBLED




NOTES:
1. REMOVE PROTECTIVE TAPE FROM PART 8852.
2. LUBE O-RINGS WITH HYDRAULIC OIL BEFORE ASSEMBLY.
3. APPLY STICK TYPE THREAD SEALER TO ALL HYDRAULIC FITTING THREADS BEFORE ASSEMBLY.

## 21220 PUMP-CLUTCH ASSEMBLY

NOTES:
1. APPLY STICK TYPE THREAD SEALER TO ALL HYDRAULIC FITTING THREADS BEFORE ASSEMBLY.



## Parts List
## 8840-40B Electric Clutch Common Hydraulic Kit

| Ref # Assy | Comp | Qty | Part # | Description |
|---|---|---|---|---|
| 1 | | 1 | 21220 | Pump-Clutch Assembly |
| | 2 | 1 | 21221 | Pump Assembly |
| | 3 | 1 | 21222 | Electric Clutch |
| | 4 | 1 | 21219 | Pump Plate |
| | 5 | 1 | 90461 | 1/4 x 3/4 (NC) Gr.5 Cap Screw |
| | 6 | 1 | 90359 | 1/4 Lock Washer |
| | 7 | 2 | 90048 | 5/16 x 1-1/4 (NF) Gr.5 Cap Screw |
| | 8 | 2 | 90360 | 5/16 Lock Washer |
| | 9 | 2 | 90313 | 5/16 Plain Washer |
| | 10 | 2 | 90332 | 5/16 Hex Nut |
| | 11 | 1 | 90707 | 5/32 x 1/2 Spring Pin |
| 12 | | 1 | 8389 | Oil Reservoir |
| 13 | | 1 | 8843 | Valve Assembly--Elec Clutch/Sol |
| | 14 | 1 | 7921 | Valve Manifold Assy Sol - 4000 |
| | 15 | 1 | 8851 | Valve Bracket |
| | 16 | 1 | 8852 | Mounting Plate - Valve |
| | 17 | 2 | 8849 | 1/8 Nptm to 1/4 NPT Swivel Adapter |
| | 18 | 1 | 8848 | 1/8 Nptm to 1/4 NPT Reducing Adapt |
| | 19 | 3 | 90696 | 1/4 x 3-1/2 (NC) Gr.5 Cap Screw |
| | 20 | 3 | 90359 | 1/4 Lock Washer |
| | 21 | 3 | 90311 | 1/4 Plain Washer |
| | 22 | 2 | 90111 | 3/8 x 1-1/2 (NC) Gr.5 Cap Screw |
| | 23 | 2 | 90361 | 3/8 Lock Washer |
| | 24 | 2 | 90334 | 3/8 (NC) Nut |
| | 25 | 1 | 3719 | O-Ring - 013 |
| | 26 | 2 | 5827 | O-Ring - 012 |
| 27 | | 1 | 7714 | Dash Bracket Bag (not shown) |
| 28 | | 1 | 20116 | 10" Lift Cylinder Assy - XL |
| 29 | | 2 | 20117 | 12" Angle Cylinder Assy - XL |
| 30 | | 1 | 8764 | Filter Kit |
| 31 | | 1 | 20040 | Control Harness--Clutch & Solenoid Valve |
| 32 | | 1 | 8292 | Solenoid Control |
| 33 | | 1 | 21295 | Bolt Bag for 8840-40B |
| | 34 | 2 | 6814 | Clevis Pin - 1 OD x 3-5/16 |
| | 35 | 4 | 6816 | Anchor Pin - 1 OD x 4 |
| | 36 | 1 | 21296 | Bolt Bag - Part of 21295 |
| | 37 | 6 | 90601 | 1/4 x 1-1/2 Cotter Pin |
| | 38 | 2 | 21270 | 3/4-16 O-Ring to 3/8 NPT Swivel Elbow |
| | 39 | 1 | 5804 | 1/4" Hex Male Nipple |
| | 40 | 1 | 2318 | 1/4 NPT x 90° Union Elbow |
| | 41 | 1 | 8850 | Quill - 1/4 NPT to 3/8 ID Hose |
| | 42 | 2 | 8391 | Quill - 3/8 NPT to 1/2 ID Hose |
| | 43 | 2 | 2780 | 1/4 Npt x 90° Street Elbow |
| | 44 | 3 | A1587 | Hose Disconnect Assembly |
| | 45 | 4 | 1588 | Dust Plug - Closure/Male |
| | 46 | 1 | 3042 | Grommet - Rubber, Split |
| | 47 | 1 | 4477 | Grommet - Split Hose (not shown) |
| | 48 | 1 | 8329K | Dielectric Grease Tube (not shown) |
| | 49 | 1 | 4302 | 3M 560 in-line Connector |
| | 50 | 1 | 4303 | Female Connector (not shown) |
| | 51 | 1 | 5048 | Male Connector (not shown) |

## Parts List
## 7555 Electric Clutch Peculiar Hydraulic Kit

| Ref # Assy | Comp | Qty | Part # | Description |
|---|---|---|---|---|
| 70 | | 2 | 4424 | Hose - 36" HP, 1/4P to 1/4P |
| 71 | | 1 | 3074 | Hose - 22" HP, 1/4P to 1/4P |
| 72 | | 2 | 8632 | Hose - 78" HP 1/4P to 1/4P |
| 73 | | 1 | 6066 | Hose - 66" HP 1/4P to 1/4P |
| 74 | | 1 | 2502 | Hose - 42" HP 1/4P to 3/8P |
| 75 | | 1 | 1687 | 3/8" Hose - 42" LP |
| 76 | | 1 | 1681 | 3/8" Hose - 24" LP |
| 77 | | 1 | 8393 | 1/2" Hose - 19" LP |
| 78 | | 1 | 1674 | 54" V-Belt (not shown) |
| 79 | | 1 | 6589 | Drive Sheave |
| 80 | | 1 | 21106 | Pump Bracket |
| 81 | | 1 | 21597 | Reservoir Plate |
| 82 | | 1 | 21600 | Brace |
| 83 | | 1 | 21599 | Valve Plate |
| 84 | | 3 | 21598 | Brace - Short |
| 86 | | 1 | 21593 | Bolt Bag for 7555 |
| | 87 | 1 | 8476 | 1/4 x 45 Deg Street Elbow |
| | 88 | 1 | 8850 | Quill - 1/4 Nptf to 3/8 ID Hose |
| | 89 | 7 | 319 | 1/4 NPT x 90 Deg SWV ADT Union |
| | 90 | 1 | 2780 | 1/4 NPT x 90 Deg Street Elbow |
| | 92 | 1 | 8741 | Bracket - Cable Boot |
| | 93 | 1 | 8284 | Cable Boot |
| | 94 | 1 | 4486 | Bulkhead Adapter |
| | 95 | 3 | 4485 | 7/8" Snap Ring - External Bowed |
| | 96 | 1 | 8688 | QD/Electric Grille Plate (short) |
| | 97 | 1 | 8686 | 2 QD Grille Plate (short) |
| | 98 | 4 | 8687 | Stand off Leg |
| | 99 | 8 | 90687 | 1/4 x 1/2 (NC) Button Head Cap Screw |
| | 100 | 8 | 90350 | 1/4 (NC) Locknut |
| | 101 | 8 | 8324 | Tie Wrap - 3/16 x 14 |
| | 102 | 8 | 3666 | Tie Wrap - 3/16 x 8 (not shown) |
| | 103 | 1 | 8244 | Fan Spacer -.25 |
| | 104 | 3 | 4477 | Split Hose Grommet (3/8 x 6) |
| | 105 | 2 | 90106 | 3/8 x 1-1/4 (NC) Gr.5 Cap Screw ZP |
| | 106 | 2 | 90361 | 3/8 Lock Washer |
| | 107 | 2 | 90315 | 3/8 Plain Washer |
| | 108 | 9 | 90042 | 5/16 x 1 (NC) Gr.5 Cap Screw |
| | 109 | 9 | 90360 | 5/16 Lock Washer |
| | 110 | 9 | 90332 | 5/16 (NC) Nut |
| | 111 | 4 | 90313 | 5/16 Plain Washer |
| | 112 | 4 | 90579 | M10 x 1.5 x 90 Hx CS Gr. 10.9 Ny Pl |
| | 113 | 8 | 90429 | M10 SP Lock Washer ZP |
| | 114 | 4 | 5939 | M8 x 1.25 x 50 Dbl End Stud G10.9 |
| | 115 | 4 | 90391 | M10 x 1.5 x 30 HX CS G8.8 ZP/PL |

**Note: The 20850 Fish-Stik™/Clutch Relay Kit is required for installations that will use the 9400 Fish-Stik Push Button Hand-Held Control.**

## 1. Cylinder and Cylinder Hose Assembly

**A.** Attach female half of disconnect (44) and a 1/4" Npt 45° street elbow (87) to 22" Hp Hose (71). Using bench vise to hold lift cylinder (28), remove closure from port and screw the other end of the hose directly into this port. Place lift cylinder with hose pointing to passenger-side into ears on lift arm and upper gear. Secure with clevis pins (34) and cotter pins (37).

**B.** Attach male half of quick disconnect (44) to one end of a 36" Hp hose (70). Place a dust cover (45) on the end of the other 36" Hp Hose (70) and put another male half of a disconnect (44) on this hose.

**C.** Using a bench vise to hold angle cylinders (29), remove closures from ports. Screw brass forged street ells (43) into ports. Ells should point forward toward live end of cylinder and slightly upward as they will be installed on the A-frame. The driver-side cylinder uses the 36" HP hose with the dust cover and male disconnect half. The passenger-side uses the 36" Hp hose with the male disconnect half and no dust cover. This male half will be plugged into the female half on the lift cylinder for storage. Install cylinders to their respective sides so that ells are between the cylinders and the A-frame. Secure cylinders with anchor pins (35) at both ends, with cotter pins (37) in each anchor.

## 2. Drive Sheave Installation

**Note: Apply a *removable* loosening prevention compound (such as "Lock-tite") to all drive sheave fasteners prior to installation.**

**A.** Remove top section of fan shroud, loosen serpentine belt from idler pulley and remove fan. Save fasteners. Remove and discard cap screws holding the vehicle crank pulley to the crankshaft. Position drive sheave (79) over holes in crank pulley and fasten drive sheave and crank pulley to crankshaft using four M10 x 1.5 x 90 Gr. 10.9 Nylock cap screws (112) and four M10 lock washers (113). Torque these fasteners to 72 N-m (53 ft-lbs) while making sure lock washers seat properly on the sheave.

**Caution: Before inserting bushing, check center of crankshaft for rust or any foreign material and remove.**

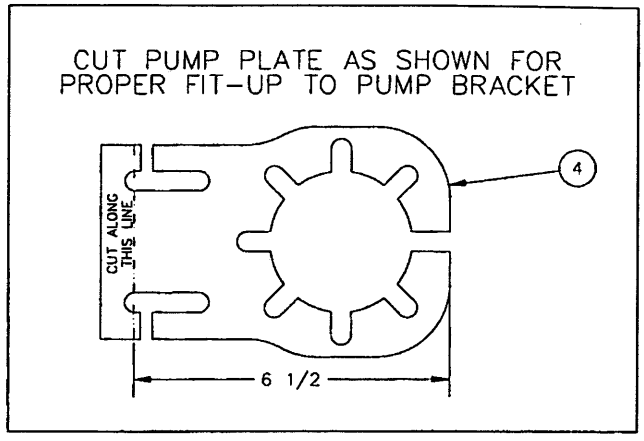
**B.** Remove and discard the four studs from the water pump shaft flange. Install the four longer M8 studs (114) by screwing the end with the short thread into the holes in the water pump shaft flange. Replace the water pump sheave over the studs, add the fan spacer (103) and reinstall the fan with the original nuts torqued to 36 N-m (27 ft-lbs).

METRIC - COARSE FASTENER TORQUE (N-M)

| NOM. SIZE - PITCH | GRADE 8.8 | 10.9 | 12.9 |
|---|---|---|---|
| 6 - 1 | 11 | 15 | 18 |
| 8 - 1.25 | 26 | 36 | 43 |
| 10 - 1.5 | 51 | 72 | 87 |
| 12 - 1.75 | 89 | 125 | 150 |
| 14 - 2 | 141 | 198 | 240 |
| 16 - 2 | 215 | 305 | 365 |
| 20 - 2.5 | 420 | 590 | 710 |
| 22 - 2.5 | 570 | 800 | 960 |
| 24 - 3 | 725 | 1020 | 1220 |
| 27 - 3 | 1070 | 1510 | 1810 |

## 3. Pump–Clutch Assembly and Pump Bracket

**A.** The pump plate (4) needs to be modified. Cut the end of the pump plate off as shown in the illustration. Remove any slag or burrs left on the plate from the cutting process. Remove and save the two bolts holding the pump to the pump plate. Rotate the pump in the plate as shown in the illustration on page 1. The relief port should point toward the mounting slots. Attach the pump plate to the pump.




**B.** Looking down on the pump-clutch assembly (1) with the 'in' suction port up, install a 3/4 o-ring to 3/8 Npt swivel elbow (38) into the pressure 'out' port. Position the 3/8 Npt swivel elbow (38) to 6:00 with the pump shaft as a 12:00 reference. Install the other 3/4 o-ring to 3/8 Npt swivel elbow (38) into the suction 'in' port. Position it to 6:00. Lock the fittings in their proper orientation with the jam nuts. Attach a 1/2" quill (42), from the common kit, into the suction fitting. Install the 19" long 1/2" LP hose (77) onto the quill. Install the 1/4" hex male pipe nipple (39) into the relief port and attach the 1/4" union elbow (40) so that the elbow outlet points toward the back of the pump and up at a 45° angle. Insert the 3/8 quill (41) into the elbow (40). Attach the 42" long 3/8" LP hose (75) onto the quill. Screw the 3/8" end of the 42" 1/4" to 3/8" HP hose (74) into the pressure fitting. Make sure all fittings are tight.

**C.** Remove and discard the two vehicle fasteners on the driver-side of the engine that are holding the top radiator hose bracket. Align the pump bracket (80) over the two unused tapped holes and the two holes just vacated. Position the radiator hose bracket between the pump bracket and the accessory girdle and attach the pump bracket using four M10 x 1.50 x 30 cap screws (115) and M10 lock washers (113). Tighten all fasteners.

**D.** Mount the pump-clutch assembly to the pump bracket using the bottom 3/8 x 1-1/4 (NC) Gr. 5 cap screw (105), 3/8 flat washer (107) and 3/8 lock washer (106) only at this time. Place the 54" V-belt (78) over the drive sheave, rotate the pump assembly down and place the belt over the clutch sheave. Rotate the pump assembly back up and install the top 3/8 x 1-1/4 (NC) Gr. 5 cap screw (105), 3/8 flat washer (107) and 3/8 lock washer (106). Tighten the V-belt being careful to position the pump plate so as to leave adequate space between the V-belt and other engine components, particularly the center hub of the power steering sheave. Tighten all fasteners.

## 4. Solenoid Control and Harness Installation

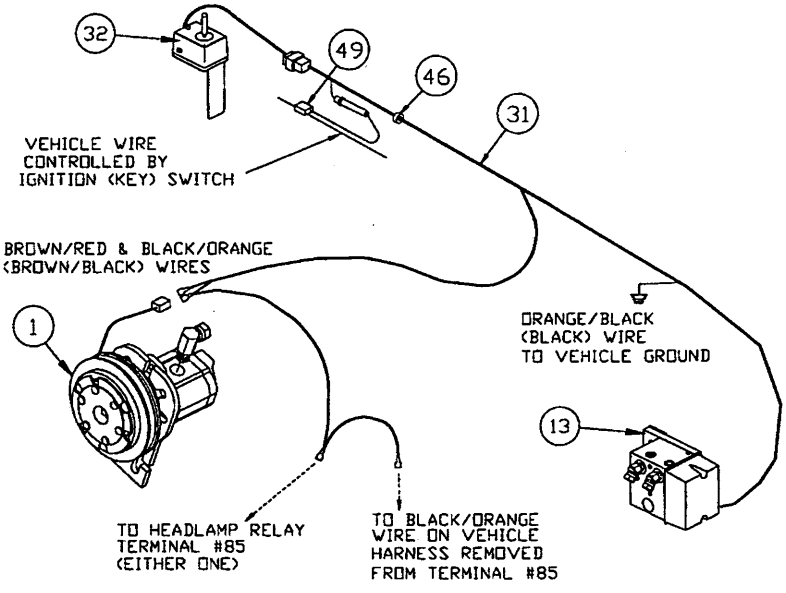
**Note: Use dielectric grease (48) to prevent corrosion on all under hood electrical connections. Fill receptacles and lightly coat ring terminals and blades before assembly.**

**A.** Check both sides of fire wall for wires and hot or moving engine parts. Then, on the driver side, drill a 5/8" hole in the fire wall for the control harness (31).

**B.** Install the solenoid control (32) and dash bracket as per the instructions found in the dash bracket bag (27) located in the common hydraulic bolt bag.

**C.** Remove negative battery cable from battery. Warning! **Disconnect battery before installing, removing or replacing electrical components.**

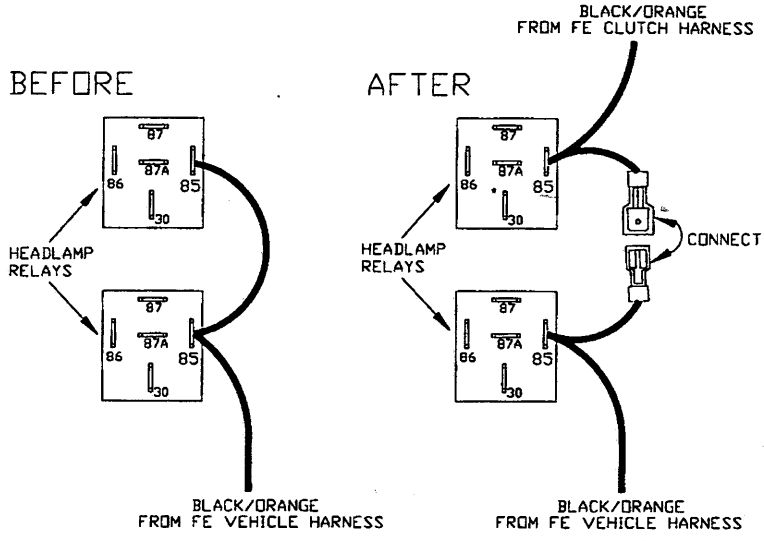
**D.** Insert the control harness (31) through the hole drilled in the fire wall. Attach the connector to the plug on the solenoid control. Connect the red wire from the fuse holder to a circuit which is on only



when the ignition key is on. Use an in-line connector (49). Route the main portion of harness (white, green, blue and black wires) to the valve. Place a grommet (46) around control harness where it passes through fire wall. Remove the plastic cover from the valve. Install the solenoid wires according to the instructions inside the cover. Install the cover with the harness strain relief in place inside. Attach orange/black (black) wire with ring terminal exiting loom near valve to a good vehicle ground. Route the portion of the harness with the brown/red and black/orange wires with female spade terminals to electric clutch.

**Note: Install the 20850 Fish-Stik™/Clutch Relay Kit at this time, if necessary.**

Attach female spade terminals to clutch plug (brown/red to black with white stripe and black/orange to black). Fasten other black/orange wire with female spade connector to head lamp relay and male spade connector to black/orange ground wire from vehicle harness. See Diagram 1.
**Note: The relay and vehicle harness are found in the peculiar light kit.**




**E.** Install plow headlamps according to the light kit instructions. Stretch the rectangular opening of the plug cover strap (from light kit) over grille connector ends of the long battery cable (from hydraulics box) and vehicle harness (from light kit). Place the plug cover over the mold on the harness.

**F.** Reconnect negative battery cable to battery terminal.

## 5. Valve and Valve Plate

**A.** Prior to installing valve (13) on truck, install hydraulic fittings onto valve. Screw 90° swivel fittings (89) into the DS angle, PS angle, lift, and pump pressure ports on the valve as per illustration. Fittings must be aimed to allow for horizontal (low) hose routings. Screw a 90° street elbow (90) into the return port on the valve. Screw a 3/8" quill (88) into the street elbow.

NC FASTENER TORQUE (FT-LB)

| DIAMETER-THREADS PER INCH | GRADE G2 | G5 | G8 |
|---|---|---|---|
| 1/4 - 20 | 6 | 9 | 13 |
| 5/16 - 18 | 11 | 18 | 28 |
| 3/8 - 16 | 19 | 31 | 46 |
| 7/16 - 14 | 30 | 50 | 75 |
| 1/2 - 13 | 45 | 75 | 115 |
| 9/16 - 12 | 66 | 110 | 165 |
| 5/8 - 11 | 93 | 150 | 225 |
| 3/4 - 10 | 150 | 250 | 370 |
| 7/8 - 9 | 150 | 378 | 591 |
| 1 - 8 | 220 | 583 | 893 |

**B.** Fasten the valve assembly (13) to the valve plate (83) with two 5/16 x 1 (NC) Gr. 5 cap screws (108), lock washers (109), and nuts (110) as per illustration. Fasten short brace (84) to corner of valve plate using 5/16 x 1 (NC) Gr. 5 cap screw (108), lock washer (109), and nut (110) but do not tighten at this time.

**C.** Remove and save the forward uppermost ABS mount cap screw. Locate the valve assembly so the valve plate aligns over this hole. Reinstall removed ABS mount cap screw and mark fender through hole in short brace (84). Drill 11/32" hole as marked and fasten the brace to fender using 5/16 x 1 (NC) Gr. 5 cap screw (108), flat washer (111), lock washer (109) and nut (110). Tighten all fasteners at this time.

## 6. Oil Reservoir

**Caution: Reservoir tank fill must be vertical to engine.**

**A.** The fuse-relay center on the driver-side fender will have to be moved to accommodate the oil reservoir (12). Remove and save the three fuse-relay center fasteners. Locate the fuse-relay center roughly 1-1/2" toward the

cab so there is adequate room for the reservoir next to the valve. Mark the locations for the new mounting holes. Drill the holes with 11/32" bit and remount the unit using original fasteners.

**B.** Assemble the oil reservoir (12) and its mounting braces as per illustration (reservoir plate (81), two short braces (84), and brace (82)). Do not tighten fasteners at this time.

**C.** Locate right short brace over hole vacated by fuse/relay center. Locate other two braces and mark the fender for the location of these mounting holes (making sure reservoir ports are aimed so that hoses will run just in front of the brake fluid reservoir). Drill two 11/32" holes in the fender and attach reservoir assembly to fender using three 5/16 x 1 (NC) Gr. 5 cap screws (108), flat washers (111), lock washers (109) and nuts (110). Tighten all fasteners.

**D.** Screw a 1/2" quill (42) into the threaded port on the reservoir.

## 7. Hydraulic Hose Installation

**Caution: Keep hoses away from hot or moving engine components. Failure to do so may cause hose to burst resulting in a possible engine fire.**

**A.** Route the loose end of the pump pressure hose (74) to the 90° swivel fitting in the pressure port on the valve and tighten the fitting. Route the loose end of the pump relief hose to the top 3/8" quill on the reservoir. Cut this hose to the proper length, if necessary. Route the pump suction hose (77) up to the reservoir and install it onto the 1/2" quill. Install one end of the 24" 3/8" LP hose (76) onto the bottom 3/8" quill of the reservoir. Route the loose end to the valve and install it onto the quill in the return port. Use a plastic tie (101) and split hose grommet (104) combination to bundle the three hoses attached to the reservoir. Tie off and isolate these hoses from the vehicle's master cylinder.

**B.** Remove the grille and route the three cylinder hoses (72, 72, 73) through the gap between the headlamp webbing and the driver-side fender. Route the three hoses over the driver-side battery to the valve. The 66" hose (73) goes to the driver-side angle cylinder port. The two 78" hoses (72) go to the passenger-side angle port and the lift cylinder port. Place split hose grommet (104) around the driver-side angle hose close to valve to prevent chafing against other hoses. Tie off three working hoses in a bundle to vehicle radiator hose using plastic tie (101). When the hoses are tightened into the appropriate valve ports, place a length of the split radiator hose (47), from the common kit, between the cylinder hoses and the head lamp webbing. **This is very important due to the sharp edge of the head lamp webbing.**

**Note: Some GMC models with a fine mesh grille may have to use stand off legs (86) fastened with four 1/4 x 1/2 socket head cap screws (92) and locknuts (93) on each grille plate.**

**C.** Attach the female half of a quick disconnect (QD) (44) to one hole in the two QD grille plate (97) with a snap ring (95). Attach the bulk head adapter (94) to the other hole in this grille plate with another snap ring (95). If the vehicle does not need the stand off legs on the grille plates, install a 1/4 x 90 degree swivel fitting (89), with dust plug (45), into the female QD. Install a 1/4 x 90° swivel fitting (89), with dust plug (45), into the bulk head adapter. Install a male QD half (44) to the bulk head adapter (94). Attach the passenger-side angle cylinder hose to the female QD and the lift cylinder hose to the bulk head adapter. Attach the grille plate assembly to the grille with plastic ties (102). The female QD should be placed toward the outside of the vehicle.

**D.** Attach a female QD half (44) to the QD/Electric grille plate (96) with a snap ring (95). If the vehicle does not need the stand off legs on the grille plates, put a dust plug (45) on the end of a 90 degree swivel fitting (89) and screw it into the female QD. Screw the driver-side angle cylinder hose (73) into the 90° fitting. Slide the head lamp connector into the slot on this grille plate. Attach the grille plate assembly to the grille with plastic ties. The QD should be placed to the outside of the vehicle. Reinstall the grille.

E. Install the in-line return filter according to the instructions located in the filter kit (30). The filter kit is located in the common hydraulic kit. The best location for the filter is roughly 4" from the return line quill on the valve. Place an anti-chafing 3/8 x 6 split hose grommet (104) over the lift hose just beneath the filter. Use two plastic ties (101) to fasten the filter in place to the lift hose with grommet.

F. Install cable boot bracket (92) on driver-side headgear brace, between brace and fasteners. Insert cable boot (93) on over bracket.

G. Align all the fittings on the valve and make sure they are tight.

## 8. OPERATIONS

A. Check all fittings and fasteners for tightness. Secure hoses with nylon tie wraps (101).

B. Attach the hose disconnects, push lift arm all the way down and fill reservoir with FISHER® High Performance Hydraulic Fluid (recommended for superior cold-weather performance) or type "A" automatic transmission fluid. Start engine. Lift and angle blade several times. If blade angles opposite from control lever position, reverse the two angle hoses at the valve. Raise front end of vehicle until plow is clear of ground, with lift cylinder fully retracted. Check reservoir oil level. Angle blade (with lift cylinder retracted) to remove air from system. Recheck reservoir oil level.

> **Note: The installer must inform the end user of the proper procedure for removing any residual hydraulic pressure that may be trapped in the raise or angle hoses. The plow will be much easier to install or remove if the proper procedures are followed.**
>
> Before coupling or uncoupling the hydraulic disconnects you must turn off the engine and then turn the key to the "on" position (the red LED light will be lit). Move the control to the four plowing positions. Activate lower/float before removing or installing the plow.