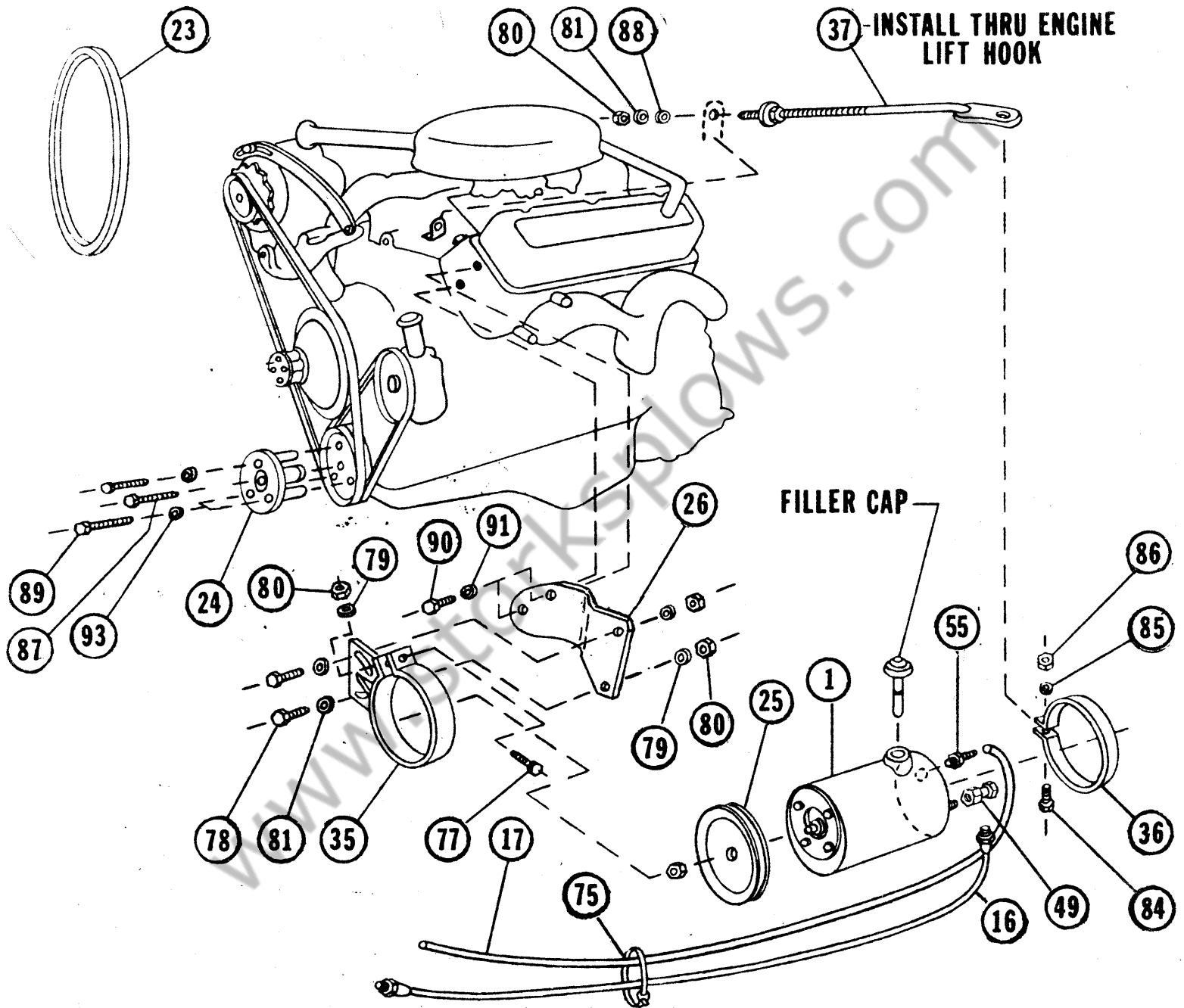
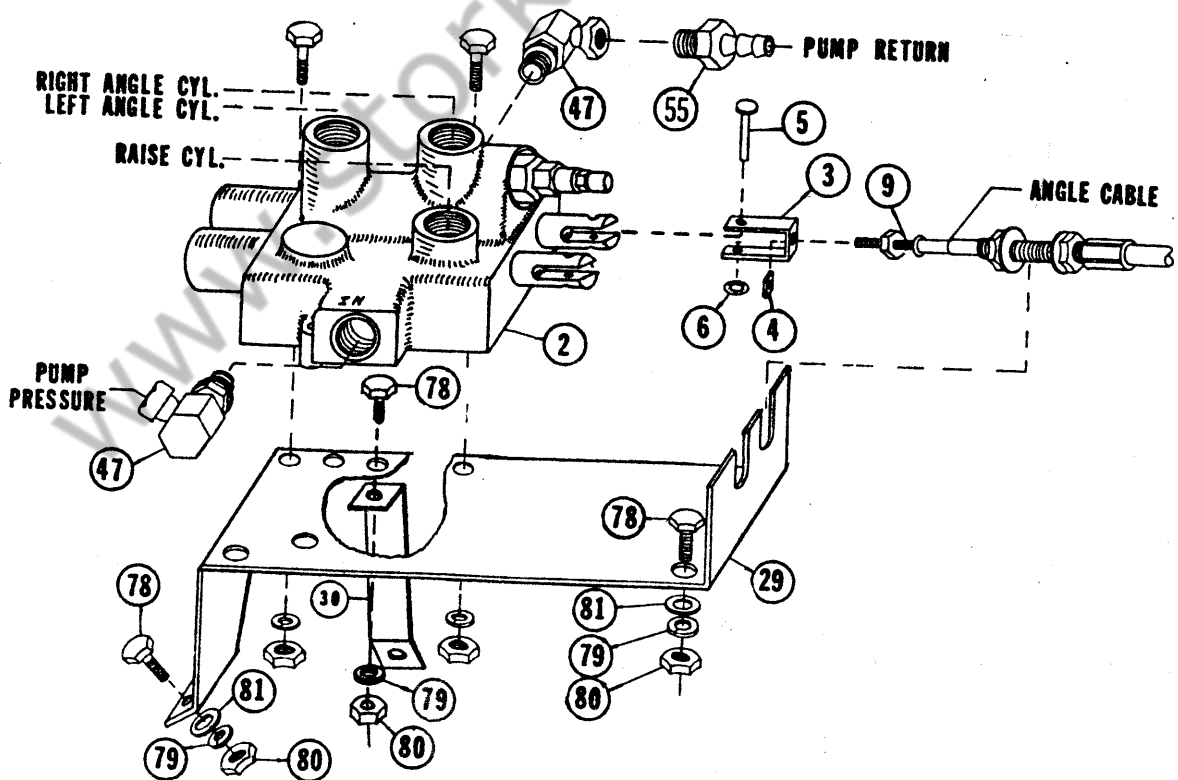
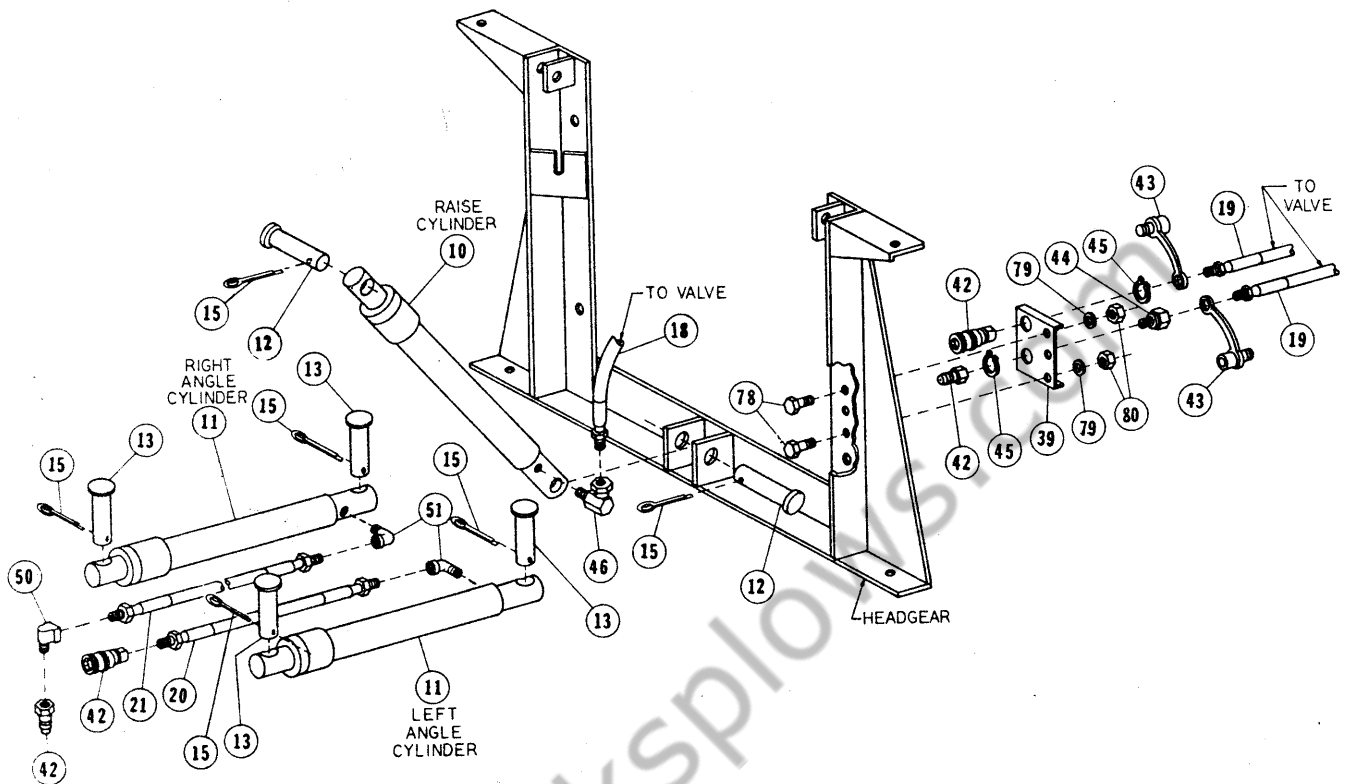


CHEV/GMC V8-305,350
V6-4.3L W/O AC
BLAZER, JIMMY, SUB W/350
R30,V30/ R35/V35 W/350

1986-87 PECULIAR HYDRAULICS HPS4571
1986-87 BELT DRIVE, SLC
1988 UNDERHOOD VALVE
1988-__



6283






HYDRAULIC INSTALLATION INSTRUCTIONS

HPS4571

REF#	QTY IN KIT A4468-40 HPS4571	PART#	DESCRIPTION * PART OF 6895 BOLT BAG
1	1	A2311	PUMP TANK ASSEMBLY
2	1	A4466	CONTROL VALVE ASSEMBLY
3	2	4483	CLEVIS
4	2	4494	10-32 SQUARE NUT
5	2	4491	CLEVIS PIN - 3/16 X 1
6	2	4493	3/16 PUSH NUT
7	1	8764	FILTER KIT (AT END OF INSTRUCT.)
8		1	4419 SINGLE LEVER CONTROL HEAD
9		2	4488 40" CONTROL CABLE, SLC
10	1	A318	10" LIFT CYLINDER ASSEMBLY
11	2	A3660	12" ANGLE CYLINDER ASSEMBLY
12	2	6814	CLEVIS PIN - 1 X 3-5/16
13	4	6816	ANCHOR PIN - 1 X 4
14			
15	6	90601	1/4 X 1-1/2 COTTER PIN
16		1	2707 26" H.P. HOSE, 1/4P TO 3/8P
17		1	4471 26" L.P. HOSE
18		1	1665 60" H.P. HOSE, 9/16 O-RING TO 1/4P
19		2	1664 54" H.P. HOSE, 9/16 O-RING TO 1/4P
20		1	376 32" H.P. HOSE, 1/4P TO 1/4P
21		1	4424 36" H.P. HOSE, 1/4P TO 1/4P
22			
23		1	358 FAN BELT, 51"
24		1	5961 DRIVE SHEAVE
25		1	3696 PUMP SHEAVE
26		1	5029 PUMP BRACKET
27			
28			
29		1	5780 VALVE PLATE
30		1	5781 VALVE PLATE BRACE
31			
32			
33			
34			
35		1	4921 SADDLE BRACKET
36	1	2036	REAR TANK STRAP
37	1	2116	UNIVERSAL BRACE ROD
38			
39		1	4467 DISCONNECT MOUNTING PLATE
40			
41			
42	2	A1587	DISCONNECT ASSEMBLY
43	2	1588	DUST PLUG
44		1	* 4486 BULKHEAD ADAPTOR
45		2	* 4485 7/8" SNAP RING
46	1	319	1/4" X 90 SWIVEL ADAPTOR
47	2	2315	9/16 O.R. TO 3/8P X 90 SWL.ADPT.
48			
49		1	* 1659 ADAPTOR UNION, 1/4 F.P.T. BOTH ENDS

REF	QTY IN KIT A4468-40 HPS4571		PART#	DESCRIPTION * PART OF 6895 BOLT BAG
50		1	* 765	1/4" BRASS BAR STREET ELL
51	2		2780	1/4" BRASS BAR STREET ELL (FORGED)
52				
53				
54				
55	2		1658	QUILL
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72		1	5704	SAFETY DECAL
73	2		3042	GROMMET
74	1		4477	SPLIT HOSE GROMMET
75	3		3666	TIE WRAPS - 3/16 X 8
76				
77	1		90054	5/16 X 1-1/2 (NC) GR. 5 CAPSCREW
78	4	2	* 90042	5/16 X 1 (NC) GR.5 CAPSCREW
79	6	2	* 90360	5/16 LOCKWASHER
80	7	2	* 90332	5/16 (NC) NUT
81	4	3	* 90313	5/16 FLATWASHER
82				
83				
84	1		90614	1/4 X 1-1/4 (NC) GR.5 CAPSCREW
85	1		90359	1/4 LOCKWASHER
86	1		90330	1/4 (NC) NUT
87		1	* 90202	7/16 X 5-1/4 (NF) GR. 5 CAPSCREW
88		2	* 90317	7/16 FLATWASHER
89		3	* 90158	3/8 X 4-1/4 (NF) GR. 5 CAPSCREW
90		2	* 90103	3/8 X 1 (NC) GR.5 CAPSCREW
91		2	* 90361	3/8 LOCKWASHER
92				
93		3	* 4268	SPACER WASHER
94				

FASTENER TORQUE (FT-LB)			
DIAMETER- THREADS PER INCH	GRADE DESIGNATION		
	 GRADE 2	 GRADE 5	 GRADE 8
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

1. CYLINDER AND CYLINDER HOSE ASSEMBLY

A. USING BENCH VISE TO HOLD LIFT CYLINDER (10), REMOVE CLOSURE FROM PORT. SCREW 90 DEGREE SWIVEL ADAPTOR (46) INTO PORT. PLACE LIFT CYLINDER WITH INSTALLED ADAPTOR BETWEEN EARS ON UNDERSIDE OF LIFT ARM AND LOWER HEADGEAR EARS. ATTACH CYLINDER TO EARS USING CLEVIS PINS (12) AND COTTER PINS (15).

B. USING BENCH VISE TO HOLD 32" H.P. HOSE (20), INSTALL FEMALE HALF OF HOSE DISCONNECT ASSEMBLY (42) DIRECTLY TO HOSE. THEN, HOLDING 36" H.P. HOSE (21), INSTALL BRASS BAR STREET ELL (50) AND MALE HALF OF HOSE DISCONNECT ASSEMBLY (42) ON THE SAME HOSE END.

C. USING BENCH VISE TO HOLD ANGLE CYLINDERS (11), REMOVE CLOSURES FROM PORTS AND SCREW BRASS FORGED STREET ELLS (51) INTO PORTS SO THAT ELLS ARE PARALLEL WITH CYLINDER AND POINT TOWARD LIVE END. INSTALL 32" H.P. HOSE WITH FEMALE DISCONNECT HALF TO DRIVE SIDE ANGLE CYLINDER STREET ELL. INSTALL OTHER H.P. HOSE WITH MALE DISCONNECT HALF TO PASSENGER SIDE ANGLE CYLINDER STREET ELLS. INSTALL ANGLE CYLINDERS TO "A" FRAME ON THEIR RESPECTIVE SIDES SO THAT ELLS ARE BETWEEN CYLINDERS AND "A" FRAME. SECURE CYLINDERS WITH ANCHOR PINS (13) AT PORT END AND RAM END. SECURE ANCHOR PINS WITH COTTER PINS (15).

2. CONTROL HEAD AND CONTROL CABLES

NOTE: DASH BRACKET, HARDWARE, DRILLING GUIDE AND MOUNTING INSTRUCTIONS WILL BE FOUND IN PECULIAR ATTACHING BOX.

A. DRILL THREE 5/8" HOLES IN FIREWALL FOR CONTROL CABLES AND WIRING HARNESS USING DRILLING GUIDE AS A REFERENCE ONLY. BE SURE BOTH SIDES OF FIREWALL ARE CLEAR OF OBSTRUCTIONS BEFORE DRILLING. DRILL 1/2" HOLE IN UNDERSIDE OF DASH AS SHOWN IN DASH ILLUSTRATION.

B. INSTALL DASH BRACKET AS PER DASH BRACKET INSTRUCTIONS.

C. LOOSEN JAM NUTS ON CONTROL HEAD END OF CABLES (9) AND INSTALL INTO SLOTS IN CONTROL HEAD (8). (RAISE CABLE CENTERS IN BEGINNING OF LOWER SLOT). SNAP CABLE ENDS ONTO BALL STUDS AND TIGHTEN JAM NUTS TO SECURE CABLES TO CONTROL HEAD. REMOVE THE NUTS AND WASHERS FROM THE VALVE END OF THE CABLES. ROUTE THE CABLES OUT THROUGH THE FIREWALL UP TO THE TOP OF THE DRIVER SIDE FENDERWELL. ATTACH CONTROL HEAD TO DASH BRACKET AS PER DASH BRACKET INSTRUCTIONS. INSTALL RUBBER GROMMETS (73) AROUND CABLES WHERE THEY PASS THROUGH FIREWALL.

3. VALVE AND VALVE PLATE

A. USING BENCH VISE TO HOLD CONTROL VALVE ASSEMBLY (2) REMOVE CLOSURES FROM VALVE PORTS. SCREW 90 DEGREE SWIVEL ADAPTOR UNIONS (47) INTO "IN" AND "OUT" PORTS. SCREW QUILL (55) INTO INSTALLED ADAPTOR IN "OUT PORT.

NOTE: VALVE FITTINGS ARE INSTALLED AS DESCRIBED TO INSURE PROPER INSTALLATION. FIRST INDICATION OF INCORRECT INSTALLATION IS FAILURE OF PLOW TO LIFT ALTHOUGH PLOW WILL ANGLE.

B. MOUNT VALVE TO VALVE PLATE (29) USING TWO 1/4 X 1-1/4 CAPSCREWS, LOCKWASHERS AND NUTS FROM VALVE BAG. CONNECT CONTROL CABLES TO VALVE PLATE BEFORE FASTENING VALVE PLATE TO VEHICLE. BEGIN BY REINSTALLING JAM NUTS AND WASHERS ON CABLES. PLACE CONTROL CABLES IN RESPECTIVE SLOTS OF VALVE PLATE BULKHEAD WITH ONE NUT AND ONE WASHER ON EACH SIDE OF BULKHEAD. CENTER CABLES IN SLOTS SO THAT THEY ARE EXACTLY IN LINE WITH VALVE SPOOL CENTERS. ATTACH CABLE CLEVIS (3) TO CABLES USING SQUARE NUTS (4). SLIP CABLE CLEVISES OVER SPOOLS. INSTALL CLEVIS PIN (5) THROUGH CLEVIS AND SPOOL AND SECURE WITH PUSHNUT (6) ON CLEVIS PIN. TEMPORARILY ADJUST CABLES SO THAT CONTROL LEVER IS SOMEWHERE NEAR CENTERED IN CONTROL HEAD.

C. LOCATE VALVE PLATE, WITH VALVE AND CABLES ATTACHED, ON TOP OF DRIVER'S SIDE INNER FENDERWELL SO THAT VALVE IS NEAR LEVEL AND CABLES RUN IN AS SMOOTH A PATH AS POSSIBLE. USING THE HOLES IN EACH END OF VALVE PLATE AS A GUIDE, DRILL TWO 11/32" HOLES THROUGH THE FENDERWELL. FASTEN THE VALVE PLATE TO THE FENDERWELL WITH TWO 5/16 X 1 CAPSCREWS (78), FLATWASHERS (81), LOCKWASHERS (79) AND NUTS (80). ATTACH 90 DEGREE BENT END OF VALVE PLATE BRACE (30) TO VALVE PLATE AS SHOWN IN ILLUSTRATION WITH A 5/16 X 1 CAPSCREW (78), FLATWASHER (79) AND NUT (80). USING HOLE IN OTHER END OF BRACE AS A GUIDE, DRILL ANOTHER 11/32" HOLE THROUGH THE FENDERWELL AND FASTEN WITH A 5/16 X 1 CAPSCREW (78), FLATWASHER (81), LOCKWASHER (79) AND NUT (80).

D. WITH VALVE PLATE FASTENED TO INNER FENDER, RE-ADJUST CONTROL CABLES SO THAT CONTROL HEAD LEVER IS CENTERED BETWEEN BOTH ANGLE AND RAISE/LOWER POSITIONS. IF CABLE CLEVIS DOES NOT ALLOW ENOUGH ADJUSTMENT, REPOSITION CABLE AT VALVE PLATE BULKHEAD. AFTER CHECKING TO SEE THAT THE VALVE SPOOLS ARE IN THE CENTERED POSITION, TIGHTEN CABLE CLEVIS NUTS.

CAUTION: VALVE SPOOLS MUST BE FREE AND SELF CENTERING WHEN CABLES AND CONTROL HEAD ARE ATTACHED. FAILURE TO CENTER SPOOLS WILL RESTRICT FLUID FLOW THROUGH VALVE. THIS MAY CAUSE HYDRAULIC FLUID TO OVERHEAT RESULTING IN PUMP DAMAGE AND OR HYDRAULIC HOSE FAILURE. HOSE FAILURES CAN CAUSE ENGINE FIRES.

WHEN ADJUSTED, THE CONTROL LEVER MUST BE IN THE NEUTRAL POSITION TO ALLOW ENOUGH SPOOL TRAVEL EACH WAY FOR PROPER VALVE ACTUATION.

4. DRIVE SHEAVE INSTALLATION

A. LOOSEN ALTERNATOR AND POWER STEERING BELTS. REMOVE AND DISCARD THE THREE CAPSCREWS HOLDING VEHICLE CRANK PULLEY TO VIBRATION DAMPER. REMOVE AND DISCARD CAPSCREW AND FLATWASHER HOLDING VIBRATION DAMPER TO CRANKSHAFT, IF VEHICLE IS SO EQUIPPED. CHECK VEHICLE CRANK PULLEY AND REMOVE ANY BURRS AROUND THE HOLES THAT THE CAPSCREWS WERE REMOVED FROM.

NOTE: TIGHTEN 7/16 X 5-1/4 CENTER CAPSCREW BEFORE TIGHTENING THE THREE 3/8 X 4-1/4 CAPSCREWS DO NOT ATTEMPT TO USE FLATWASHER UNDER 7/16" CAPSCREW. USE OF THIS FLATWASHER, AS WE HAVE DONE IN YEARS PAST, WILL PREVENT CAPSCREW FROM ADEQUATELY ENGAGING THREADS IN CRANKSHAFT.

B. INSTALL DRIVE SHEAVE (24) TO INSIDE OF CRANK SHEAVE AND FASTEN WITH A 7/16 X 5-1/4 CAPSCREW (87) TORQUED TO 50 FT. LBS., PLUS THREE 3/8 X 4-1/4 CAPSCREWS (89) WITH SPACER WASHERS (93) TORQUED TO 31 FT. LBS.

5. PUMP TANK AND PUMP BRACKET

A. REMOVE CAPSCREW AND EXISTING TUBE SPACER FROM BEHIND THE VEHICLE POWER STEERING BRACKET, UPPER HOLE. INSTALL PUMP BRACKET (26) AND A 3/8" LOCKWASHER (91) BEHIND THE POWER STEERING BRACKET. FASTEN WITH THE PREVIOUSLY REMOVED CAPSCREW AND A 3/8 X 1 GR. 5 CAPSCREW (90) WITH LOCKWASHER (91).

B. HOLDING PUMP TANK (1) IN BENCH VISE, SCREW 1/4" SWIVEL ADAPTOR UNION (49) ONTO PRESSURE PORT AND SCREW QUILL (55) INTO RETURN PORT. INSTALL PUMP SHEAVE (25) ONTO PUMP SHAFT USING LOCKNUT SUPPLIED WITH PUMP. REMOVE PUMP FROM VISE AND INSTALL SADDLE BRACKET (35) ON OVER FRONT OF PUMP. SECURE WITH A 5/16 X 1-1/2 GR. 5 CAPSCREW (77), LOCKWASHER (79) AND NUT (80). ATTACH SADDLE BRACKET AND PUMP TO PUMP BRACKET USING TWO 5/16 X 1 CAPSCREWS (78), FLATWASHERS (81), LOCKWASHERS (79) AND NUTS (80).

C. INSTALL 51" V-BELT (23) ON OVER INSTALLED DRIVE & PUMP SHEAVES. ALIGN SHEAVES & TIGHTEN 1-1/2" SADDLE BRACKET FASTENER. ADJUST FOR PROPER TENSION BY PIVOTING SADDLE BRACKET ON TOP BOLT. INSTALL REAR TANK STRAP (36) ON OVER REAR OF PUMP. INSTALL ONE 5/16 NUT (80), 5/16 FLATWASHER (81) AND 7/16 FLATWASHER (88) ONTO UNIVERSAL BRACE ROD (37). INSTALL BENT END OF BRACE ROD BETWEEN EARS OF TANK STRAP WHILE INSERTING OTHER END THROUGH LIFT HOOK ON ENGINE. FASTEN BRACE ROD TO EARS OF TANK STRAP WITH A 1/4 X 1-1/4 CAPSCREW (84), LOCKWASHER (85) AND NUT (86). FASTEN OTHER END OF BRACE ROD TO LIFT HOOK WITH A 7/16 FLATWASHER (88), 5/16 FLATWASHER (81), 5/16 LOCKWASHER (79) AND NUT (80). USE BRACE ROD TO ADJUST ALIGNMENT OF DRIVE AND PUMP SHEAVES. CHECK BELT FOR PROPER TENSION. TIGHTEN POWER STEERING AND ALTERNATOR BELTS.

6. HYDRAULIC HOSE INSTALLATION

A. ATTACH 26" H.P. HOSE (16) TO 1/4" SWIVEL ADAPTOR ON PUMP TANK AND PUSH 26" L.P. HOSE (17) ONTO QUILL ON PUMP TANK. ROUTE THESE HOSES TO THE CONTROL VALVE.

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.

PUSH L.P. HOSE ONTO QUILL AND SCREW H.P. HOSE INTO 90 DEGREE SWIVEL ADAPTOR. INSTALL 9/16 O-RING END OF 60" H.P. HOSE (18) TO LIFT CYLINDER PORT OF VALVE (SPOOL #1). INSTALL 9/16 O-RING END OF TWO 54" HOSES (19) TO ANGLE PORTS OF VALVE (SPOOL #2). DRILL A 1-7/8" HOLE THROUGH MIDDLE OF RADIATOR WEB ON DRIVERS SIDE, APPROXIMATELY 9-1/2" BELOW TOP OF RADIATOR. (NEWER VEHICLES MAY NOT REQUIRE DRILLING.) INSTALL SPLIT HOSE GROMMET (74) AROUND HOLE. ROUTE 60" AND 54" HOSES OUT THROUGH THIS HOLE AND THROUGH GRILL NEAR CENTER OF VEHICLE.

ATTACH 60" HOSE TO PREVIOUSLY INSTALLED 90 DEGREE SWIVEL ADAPTOR ON LIFT CYLINDER.

INSTALL INLINE OIL FILTER AS PER FILTER KIT (7) INSTRUCTIONS FOUND AT END OF THIS DOCUMENT.

7. DISCONNECT ASSEMBLY

A. WITH DISCONNECT MOUNTING PLATE (39) HELD IN BENCH VISE, INSTALL DISCONNECT HALVES AS SHOWN IN ILLUSTRATION. BULKHEAD ADAPTOR (44) AND MALE DISCONNECT HALF (42) GO IN BOTTOM HOLE. FEMALE DISCONNECT HALF (42) GOES IN TOP HOLE. SECURE BOTH WITH 7/8" SNAP RINGS (45). ATTACH MOUNTING PLATE TO BACK OF DRIVERS SIDE HEADGEAR POST WITH TWO 5/16 X 1 CAPSCREWS (78), LOCKWASHERS (79) AND NUTS (80). INSTALL DUST PLUGS (43) OVER ENDS OF HOSES ROUTED TO FRONT OF VEHICLE IN THE PREVIOUS STEP. CONNECT 54" RIGHT ANGLE HOSE (SPOOL #2, CYL. B) TO BACK OF FEMALE DISCONNECT INSTALLED IN TOP HOLE OF DISCONNECT BRACKET. CONNECT 54" LEFT ANGLE HOSE (SPOOL #2, CYL. A) TO BOTTOM (MALE) DISCONNECT. TIGHTEN BY HOLDING HOSES AND ROTATING THE DISCONNECT HALVES IN THE BRACKET.

8. OPERATIONS

A. CHECK ALL FITTINGS AND FASTENERS FOR TIGHTNESS. SECURE HOSES WITH NYLON TIE WRAPS (75). PLACE SAFETY DECAL (72) ON DASH BESIDE CONTROL HEAD.

B. FILL RESERVOIR WITH TYPE "A" AUTOMATIC TRANSMISSION FLUID. START ENGINE, LIFT AND ANGLE BLADE.

NOTE: IF BLADE ANGLES OPPOSITE FROM CONTROL LEVER POSITION, REVERSE THE TWO H.P. HOSE CONNECTIONS ON THE BACK OF THE DISCONNECT BRACKET.

RAISE FRONT END OF VEHICLE UNTIL PLOW IS CLEAR OF GROUND WITH THE LIFT CYLINDER FULLY RETRACTED. CHECK RESERVOIR OIL LEVEL. ANGLE BLADE (WITH LIFT CYLINDER RETRACTED) TO REMOVE AIR FROM SYSTEM. RECHECK RESERVOIR OIL LEVEL.