SERIES HS & G V6 3.9L

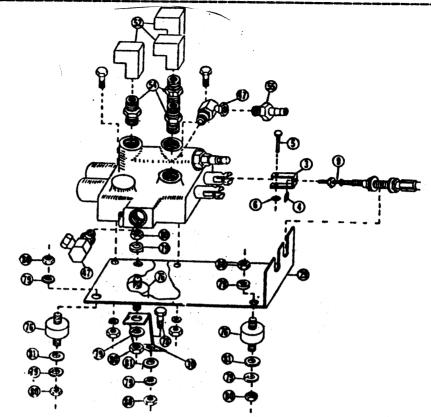
DODGE DAKOTA 1987-19\_\_

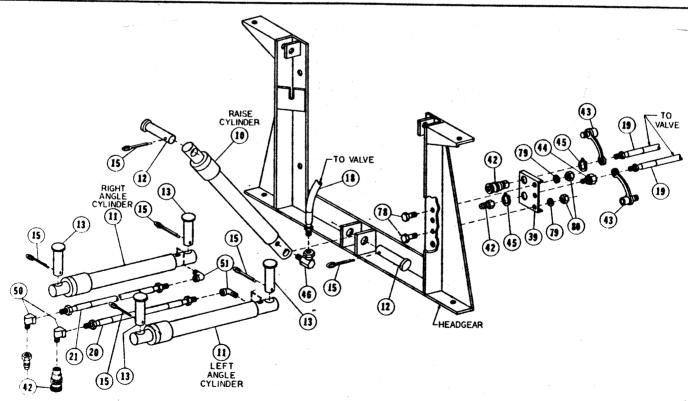
PECULIAR HYDRAULICS BELT DRIVE, SLC UNDERHOOD VALVE

HP84584 REV. C

1989-19 VEHICLES MUST HAVE AUTOMATIC TRANSMISSION 6303 SERIES HS & 6

HP84584 REV. C





SERIES HS & 6

# HYDRAULICS PARTS LIST

HP84584 REV C A5092-25

1989-19\_\_ MUST HAVE AUTOMATIC TRANSMISSION

1787-17 NOS! NHVE MUIUNHIIC !KMNSNISSIUN											
REF#		QTY IN KIT A5092-25 HPS4584		DESCRIPTION * PART OF 6924 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						
6 7	2		4493		3/16 PUSH NUT						
é		1	4419		SINGLE LEVER CONTROL HEAD						
9		2			40" CONTROL CABLE, SLC						
10	1		A5096		6" LIFT CYLINDER ASSEMBLY						
11	2		A318		10" ANGLE CYLINDER ASSEMBLY						
12	2				CLEVIS PIN						
13	4		6816		ANCHOR PIN						
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		ī	4471		26" L.P. HOSE						
18		ī	5193		54" H.P. HOSE, 1/4P TO 1/4P						
19		2			48" H.P. HOSE, 1/4P TO 1/4P						
20		2 1	3074		22" H.P. HOSE, 1/4P TO 1/4P						
21		ī	376		32" H.P. HOSE, 1/4P TO 1/4P						
22 23			400	,	PAN DELT ADD II DELT AND DIMINI						
23 24		1 1	400		FAN BELT 48" V-BELT (NOT SHOWN)						
25		1	6519		DRIVE SHEAVE						
25 26		1			PUMP SHEAVE						
26 27		1			PUMP BRACKET						
28		1			BATTERY TRAY						
29		1			BRACKET						
30		1			VALVE PLATE PRACE						
30 31		1	4476		VALVE PLATE BRACE						
32		2			HOSE PROTECTOR						
32 33		2	7727	*	HOLD DOWN BOLT - BATTERY						
34											
35		1	4921		BADDLE BRACKET, UNIVERSAL						
36	1	<b>#</b>	2036		REAR TANK STRAP						
37	i		2116		UNIVERSAL BRACE ROD						
38	*	2	2115								
3 <del>9</del>		1	4467		UNIVERSAL BRACE TAB						
40		1	440/		DISCONNECT MOUNTING PLATE						
41											
42	2		A1507	•	DICCONNECT ACCEMBLY						
43	2		A1587		DISCONNECT ASSEMBLY						
43 44	4	4	1588		DUST PLUG						
44 45		1 2	4486		BULKHEAD ADAPTER						
46	4	1	4485		7/8" SNAP RING						
40 47	1 2	1	319		1/4" X 90 SWIVEL ADAPTER						
47 48	2		2315	•	9/16 O.R. TO 3/8P X 90 SWL.ADPT.						
48 49		1	1659	* 4	ADAPTER UNION,1/4 N.P.T.BOTH ENDS						
		ہ عربے جی جیت بنت بنت بنت جیت جیت جیت جیت جیت جیت ہے۔		·· r	imin imin minkmingky T ing a labolit bilbo						

FISHER ENGINEERING, ROCKLAND, ME 04841 SUBJ TO CHANGE. 10/01/90

		HYDRA	ULICS PAF	RTS	LIST HPS4584	REV. C	F	AGE 2	eth timb	
REF#	QTY IN A5092-25		PART#		DESCRIPTION * PART OF 692	<del>-</del>	BAG		<b></b>	
50 51	2	2	765 2780		1/4" BRASS BAR ! 1/4" BRASS BAR	STREET		FORGE	 >>	
<b>5</b> 2 53		3	2318	*	1/4" BRASS BAR I					
54 55	2	3	3058 1658	*	9/16 O-RING TO : QUILL	L/4P AD	APTER			
56	•••		the South South		Tarif Serif ets Serie Suces	FASTENER TORQUE (FT-LB)				
57							GRADI	E DESIGNATIO	)N	
58 59		1	6054		3/4" RUBBER HOSE	DIAMETER- THREADS PER INCH	0	0	₩	
60		•				1/4 - 20	GRADE 2	GRADE 5	GRADE 8	
61						5/16 - 18	6	9	13	
62 63						3/8 - 16	11	18	28	
64							19	31	46	
65						7/16 - 14	30	<u> 50</u>	75	
~66						1/2 - 13	45.	75	115	
67	•					9/16 - 12	66	110	165	
68 69						5/8 - 11	93	150	225	
70						3/4 - 10	150	250	370	
71						7/8 - 9	150	378	591	
72		1	5704		SAFETY DECAL	1 - 8	220	583	893	
73	2		3042		GROMMET		•	-		
74	1		4477		SPLIT HOSE GROWN	ET				
75	3	1	3666		TIE WRAPS					
76		3	5529	*	RUBBER SHOCK MOL					
77	1	_	90054		5/16 X 1-1/2 (NO			SCREW		
78	4	. 7	90042		5/16 X 1 (NC) GF	.5 CAPS	SCREW			
79	6	13	90360		5/16 LOCKWASHER		1			
80	7	9	90332		5/16 (NC) NUT					
81	4	6	90313	*	5/16 FLATWASHER					
84	1		90614		1/4 X 1-1/4 (NC)	GR.5 (	CAPSCI	REW		
85 86	1 1	-	90359		1/4 LOCKWASHER					
87	7	2	90330		1/4 (NC) NUT					
88		1	90103		3/8 X 1 (NC) GR.	5 CAPS	CREW			
89		2 2	90361		3/8 LOCKWASHER					
<del>9</del> 0			90334		3/8 NUT (NC)					
70 71		1 2	90315		3/8 FLATWASHER					
71 92		1	90311		1/4 FLATWASHER	- A	n, gra, past c .a			
93 94		Ţ	90170	**	3/8 X 6 (NC) GR.	o LAPSC	KEW			

# 1989-19\_\_ VEHICLES MUST HAVE AUTOMATIC TRANSMISSION

#### 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 22" H.P. HOSE (20), INSTALL BRASS BAR ELL (50) AND FEMALE HALF OF HOSE DISCONNECT ASSEMBLY (42) ON THE SAME HOSE END. THEN, HOLDING 32" 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 22" H.P. HOSE WITH FEMALE DISCONNECT HALF TO DRIVER'S 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 AND ONE 1/2" HOLE IN DASH FOR LIGHT SWITCH AND USE DRILLING GUIDE AS A REFERENCE ONLY. BE SURE BOTH SIDES OF FIREWALL AND DASH ARE CLEAR OF OBSTRUCTIONS BEFORE DRILLING.
- 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. INSTALL THREE 9/16 O-RINGS TO 1/4 PIP ADAPTORS (54) INTO LIFT AND ANGLE PORTS.

FISHER ENGINEERING, ROCKLAND, ME 04841 SUBJECT TO CHANGE 10/01/90

INSTALL THREE 9/16 O-RING TO 1/4 PIPE ADAPTORS (54) INTO LIFT AND ANGLE PORTS. INSTALL ONE 1/4" BRASS BAR ELL (52) TO EACH ADAPTOR. WHEN TIGHT, ELLS SHOULD POINT AWAY FROM CABLE END OF VALVE.

- INSTALL TWO RUBBER SHOCK MOUNTS (76) TO THE BOTTOM OF THE VALVE PLATE ON THE DRIVER'S SIDE AT THE FOREMOST AND REARMOST HOLES. A THIRD SHOCK MOUNT ON THE PASSENGER'S SIDE AT THE MIDDLE HOLE. ALL THREE WITH 5/16 LOCKWASHERS (79) AND NUTS (80). INSTALL THE VALVE PLATE BRACE (30) TO THE BOTTOM OF THE THIRD SHOCK MOUNT AND FASTEN WITH A 5/16 LOCKWASHER (79) AND NUT (80). MOUNT VALVE TO VALVE PLATE USING TWO 1/4 X 1-1/4 CAPSCREWS. LOCKWASHERS AND NUTS FOUND IN VALVE BAG. CONNECT CONTROL CABLES TO VALVE PLATE AND VALVE BEFORE FASTENING VALVE 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 AND REMOVE PLASTIC PLUG FROM HOLE IN DRIVER'S SIDE INNER FENDER BELOW WATER BOTTLE AND REAM TO 11/32". PLACE HOLE IN VALVE PLATE BRACE OVER THIS HOLE AND LOCATE VALVE PLATE ON TOP OF FENDERWELL. CHECK TO SEE THAT CABLES RUN IN AS SMOOTH A PATH AS POSSIBLE AND THAT HYDRAULIC HOSES WILL CLEAR WATER BOTTLE. USING SHOCK MOUNTS AS GUIDES, MARK AND DRILL TWO 11/32 HOLES. PLACE SHOCK MOUNTS THROUGH FENDERWELL AND FASTEN WITH TWO 5/16 FLATWASHERS (81), LOCKWASHERS (79) AND NUTS (80). INSERT ONE 5/16 X 1 (NC) CAPSCREW (78) DOWN THROUGH VALVE PLATE BRACE AND REAMED HOLE AND FASTEN WITH ONE 5/16 FLATWASHER (81), LOCKWASHER (79) AND NUT (80).
- D. WITH VALVE PLATE FASTENED TO INNER FENDER, READJUST 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.

<u>CAUTION:</u> 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.

# FOR 1991-19 VEHICLES ONLY:

REMOVE BATTERY AND BATTERY TRAY. SAVE FASTENERS AND TOP OF BATTERY STRAP. REMOVE THREADED CLIP FROM VEHICLE TRAY AND REINSTALL ONTO REPLACEMENT TRAY (27). DISCARD VEHICLE TRAY. INSTALL BRACKET (28) TO FRONT BULKHEAD USING PREVIOUSLY REMOVED FASTENER. INSTALL REPLACEMENT BATTERY IN THE SAME POSITION AS ORIGINAL WITH PREVIOUSLY REMOVED FASTENERS. ATTACH BRACKET TO TRAY FRONT WITH ONE 5/16 X 1 (NC) GR.5 CAPSCREW (78), FLATWASHER (81), LOCKWASHER (79), AND NUT (80). ATTACH

EXTRA HOLE ON FENDER WITH ONE 5/16 X 1 GR.5 (NC) CAPSCREW (78), TWO 5/16 FLATWASHERS (81), ONE 5/16 LOCKWASHER (79) AND NUT (NC)(80). TIGHTEN ALL FASTENERS. REINSTALL BATTERY WITH PREVIOUSLY REMOVED STRAP AND TWO BATTERY HOLD-DOWN J-BOLTS (32), 1/4 FLATWASHERS (91) AND NUTS (86).

RE-INSTALL BATTERY WITH PREVIOUSLY REMOVED STRAP AND TWO BATTERY HOLD DOWN BOLTS (32). 1/4 FLATWASHERS (91) AND NUTS (86).

### 4. DRIVE SHEAVE INSTALLATION

- A. REMOVE AND DISCARD CAPSCREWS AND WASHERS THAT FASTEN FAN TO WATER PUMP. REMOVE FAN.
- B. INSTALL DRIVE SHEAVE (24) (WITH FACING PLATE TOWARDS FRONT OF VEHICLE) ONTO WATER PUMP SHAFT. REPLACE FAN AND FASTEN WITH FOUR 5/16 X 1 (NC) GR.5 CAPSCREWS (78) AND LOCKWASHERS (79). TORQUE THESE FASTENERS TO 18 FT. POUNDS.

#### 5. PUMP TANK AND PUMP BRACKET

- A. REMOVE AND DISCARD THE THREE PLASTIC RADIATOR FLAPS. REMOVE AND DISCARD SMOG PUMP PIVOT BOLT. REPLACE SMOG PUMP PIVOT BOLT WITH A 3/8 X 6 (NC) GR.5 CAPSCREW (92). REMOVE FRONT DRIVER'S SIDE EXHAUST MANIFOLD NUT AND WASHER. DISCARD WASHER.
- B. PLACE END OF BRACE ON PUMP BRACKET (26) OVER EXHAUST MANIFOLD STUD AND FASTEN WITH PREVIOUSLY REMOVED NUT. INSTALL SLOT IN PUMP BRACKET UNDER HEAD OF 3/8 X 6 CAPSCREW. PLACE UNIVERSAL BRACE TAB (38) ONTO PREVIOUSLY INSTALLED 3/8 X 6 CAPSCREW ON THE BACK SIDE OF SMOG PUMP AND FASTEN WITH A 3/8 LOCKWASHER (88) AND NUT (89) (DO NOT TIGHTEN). INSTALL A 3/8 X 1 (NC) CAPSCREW (87) THROUGH CENTER HOLE OF PUMP BRACKET INTO THE BOTTOM OF THE SMOG PUMP ADJUSTING SLOT. FASTEN WITH A 3/8 FLATWASHER (90). LOCKWASHER (88) AND NUT (89).
- C. 1987 VEHICLES: BECAUSE OF INTERFERENCE PROBLEMS, SOME OF THE ANTISMOG EQUIPMENT MUST BE REDRIENTED. REMOVE AND DISCARD FASTENERS FROM
  THE AFT AIR RELEASE VALVE BRACKET. REMOVE LONG HOSE WHICH CONNECTS AFT
  AIR RELEASE VALVE TO TUBING. LOOSEN CLAMP ON FORWARD AIR RELEASE VALVE
  AND ROTATE HOSE AND AFT AIR RELEASE VALVE TO 10 O'CLOCK POSITION AND
  RETIGHTEN CLAMP. LOOSEN CLAMP ON REAR AIR RELEASE VALVE AND ROTATE SO
  LOWER OUTLET IS TOWARDS FRONT OF VEHICLE. REMOVE SMOG PUMP ADJUSTING
  BOLT AND INSTALL BRACE TAB (38) USING ORIGINAL FASTENER. ALIGN BOTTOM
  HOLE ON AIR RELEASE VALVE BRACKET WITH HOLE IN BRACE TAB. FASTEN WITH
  ONE 5/16 X 1 (NC) CAPSCREW (78), LOCKWASHER (79) AND NUT (80). INSTALL
  3/4" RUBBER HOSE (58) (USING CLAMPS FROM PREVIOUSLY REMOVED HOSE) TO
  CONNECT AFT AIR RELEASE VALVE TO TUBING.
- 1988 VEHICLES: REMOVE SMOG PUMP ADJUSTING BOLT AND INSTALL BRACE TAB (38) USING ORIGINAL FASTENER. ALIGN BOTTOM HOLE ON AIR RELEASE VALVE BRACKET WITH HOLE IN BRACE TAB. FASTEN WITH ONE  $5/16 \times 1$  (NC) CAPSCREW (78), LOCKWASHER (79) AND NUT (80).
- D. HOLDING PUMP TANK (1) IN BENCH VISE, SCREW STRAIGHT SWIVEL ADAPTOR (49) ONTO PRESSURE PORT OF PUMP AND SCREW QUILL (55) INTO RETURN PORT OF PUMP. INSTALL PUMP SHEAVE (25) ONTO PUMP SHAFT USING LOCKNUT AND KEY SUPPLIED WITH PUMP. REMOVE PUMP FROM VISE AND INSTALL SADDLE

BRACKET (35) ON OVER FRONT OF PUMP. SECURE WITH A  $5/16 \times 1-1/2 \text{ GR}$ . 5 CAPSCREW (77), LOCKWASHER (79) AND NUT (80). ATTACH SADDLE BRACKET AND PUMP TO PUMP BRACKET USING TWO  $5/16 \times 1 \text{ CAPSCREWS}$  (78), FLATWASHERS (81), LOCKWASHERS (79) AND NUTS (80).

E. ALL VEHICLES: INSTALL 48" V-BELT (23) ON OVER INSTALLED DRIVE AND FUMP SHEAVES. ALIGN SHEAVES AND TIGHTEN 1-1/2" SADDLE BRACKET ADJUST FOR PROPER TENSION BY PIVOTING SADDLE BRACKET ON DRIVERS SIDE MOUNTING BOLT. INSTALL REAR TANK STRAP (36) ON OVER REAR OF PUMP TANK. ALIGN UNIVERSAL BRACE TAB WITH UNIVERSAL BRACE ROD. MEASURE OR GAUGE NEEDED LENGTH OF BRACE ROD AND CUT TO LENGTH. ONE 5/16 NUT (80) AND FLATWASHER (81) ONTO UNIVERSAL BRACE ROD AND INSERT BRACE ROD THROUGH UNIVERSAL BRACE CONNECT BRACE ROD TO TANK STRAP WITH ONE 1/4 X 1-1/4 CAPSCREW (84), LOCKWASHER (85) AND NUT (86). FASTEN OTHER END OF BRACE ROD TO BRACE TAB WITH A 5/16 FLATWASHER (81), LOCKWASHER (79) AND NUT (80). TIGHTEN 3/8 X 6 CAPSCREW. USE BRACE ROD TO ADJUST ALIGNMENT OF DRIVE AND PUMP SHEAVES. CHECK BELT FOR PROPER TENSION.

1988 VEHICLES: HOSE CONNECTING AIR RELEASE VALVE TO TUBING WILL NEED TO BE REDRIENTED AROUND THE BACK OF PUMP TANK AND UNDER BRACE ROD. CUT AND SPLIT 3/4" RUBBER HOSE (58) AS NECESSARY AND USE AS GUARDS BETWEEN BRACE ROD AND SMOG PUMP HOSE AND ALSO BETWEEN QUILL ON BACK OF PUMP AND SMOG PUMP HOSE.

## 6. HYDRAULIC HOSE INSTALLATION

A. ATTACH ONE END OF THE 26" H.P. HOSE (16) TO THE 1/4" SWIVEL ADAPTOR ON THE PUMP TANK AND PUSH THE 26" LP HOSE (17) ONTO THE 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 54" H.P. HOSE (18) TO LIFT CYLINDER PORT OF VALVE (SPOOL #1). INSTALL TWO 48" HOSES (19) TO ANGLE PORTS OF VALVE (SPOOL #2).

#### FOR PRE-1991 VEHICLES:

REMOVE GRILL AND DRILL A 1-7/8" HOLE THROUGH RADIATOR WEB ON DRIVER'S SIDE. (ALIGN TOP EDGE OF DRILLED HOLE WITH TOP EDGE OF PILOT HOLE ALREADY IN RADIATOR WEB.) INSTALL SPLIT HOSE GROMMET (74) AROUND HOLE. ROUTE THE 54" AND 48" HOSES THROUGH RADIATOR WEB. REINSTALL GRILL LEAVING HOSES BETWEEN GRILL AND BUMPER. ATTACH 54" HOSE TO PREVIOUSLY INSTALLED 90 DEGREE SWIVEL ADAPTOR ON LIFT CYLINDER.

### FOR 1991-19\_\_ VEHICLES:

ROUTE HOSES THROUGH SIDE OF RADIATOR TO GRILL. WRAP ALL THREE HOSES WITH HOSE PROTECTOR (31) WHERE THEY PASS BY RADIATOR AND SECURE WITH A TIE WRAP (75). ATTACH 54" HOSE TO PREVIOUSLY INSTALLED 90 DEGREE SWIVEL ADAPTOR ON LIFT CYLINDER.

#### 7. DISCONNECT ASSEMBLY

A. WITH DISCONNECT MOUNTING PLATE (39) HELD IN BENCH VISE, INSTALL DISCONNECT HALVES AS SHOWN IN ILLUSTRATION. BULKHEAD ADAPTOR (44) AND

FISHER ENGINEERING, ROCKLAND, ME 04841 SUBJ TO CHANGE 10/01/90

MALE DISCONNECT HALF (42) GO IN BOTTOM HOLE. FEMALE DISCONNECT HALF (42) GOES IN TOP HOLE. SECURE BOTH WITH 7/8" SNAP RINGS (45). INSTALL 90 DEGREE SWIVEL ADAPTOR (46) TO BULKHEAD ADAPTOR. 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 42" RIGHT ANGLE HOSE (SPOOL #2, CYL. B) TO BACK OF FEMALE DISCONNECT INSTALLED IN TOP HOLE OF DISCONNECT BRACKET. CONNECT 42" LEFT ANGLE HOSE (SPOOL #2, CYL. A) TO 90 DEGREE SWIVEL ADAPTOR ON BOTTOM (MALE) DISCONNECT. TIGHTEN ALL FASTENERS.

#### 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.