

Issued: 07/25/88
 Revised: 04/12/07



WATEROUS
 SOUTH ST. PAUL, MINNESOTA

Priming Valve and Piping Assembly

REF NO.	DESCRIPTION	REF NO.	DESCRIPTION
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Valve Sub-Assembly Details 3

Valve Piping Details:

Pump Model	Eclipse CAFS	Valve Actuation	L.H. Rear Intake Adapter	See Page
CM, CMU, CMH, CMUH	No	Pull and Push	With or Without	4
	Yes	Pull	With or Without	5
		Push	With or Without	6
CS, CSU, CSH, CSUH	No	Pull and Push	With or Without	7
	Yes	Pull	Without	8
			With	9
		Push	Without	10
			With	11

Wiring Connection to Priming Pump Motor Solenoid

Metal Can Style Solenoid, Used Prior to 6/15/2000 12

Plastic Case Solenoid, Used After 6/15/2000

Manual / Electric Priming Valves 13

12 Volt or 24 Volt Solenoid Priming Valves 14

PLEASE NOTE
WHEN ORDERING PARTS PLEASE SUPPLY PUMP SERIAL NUMBER

W A T E R O U S

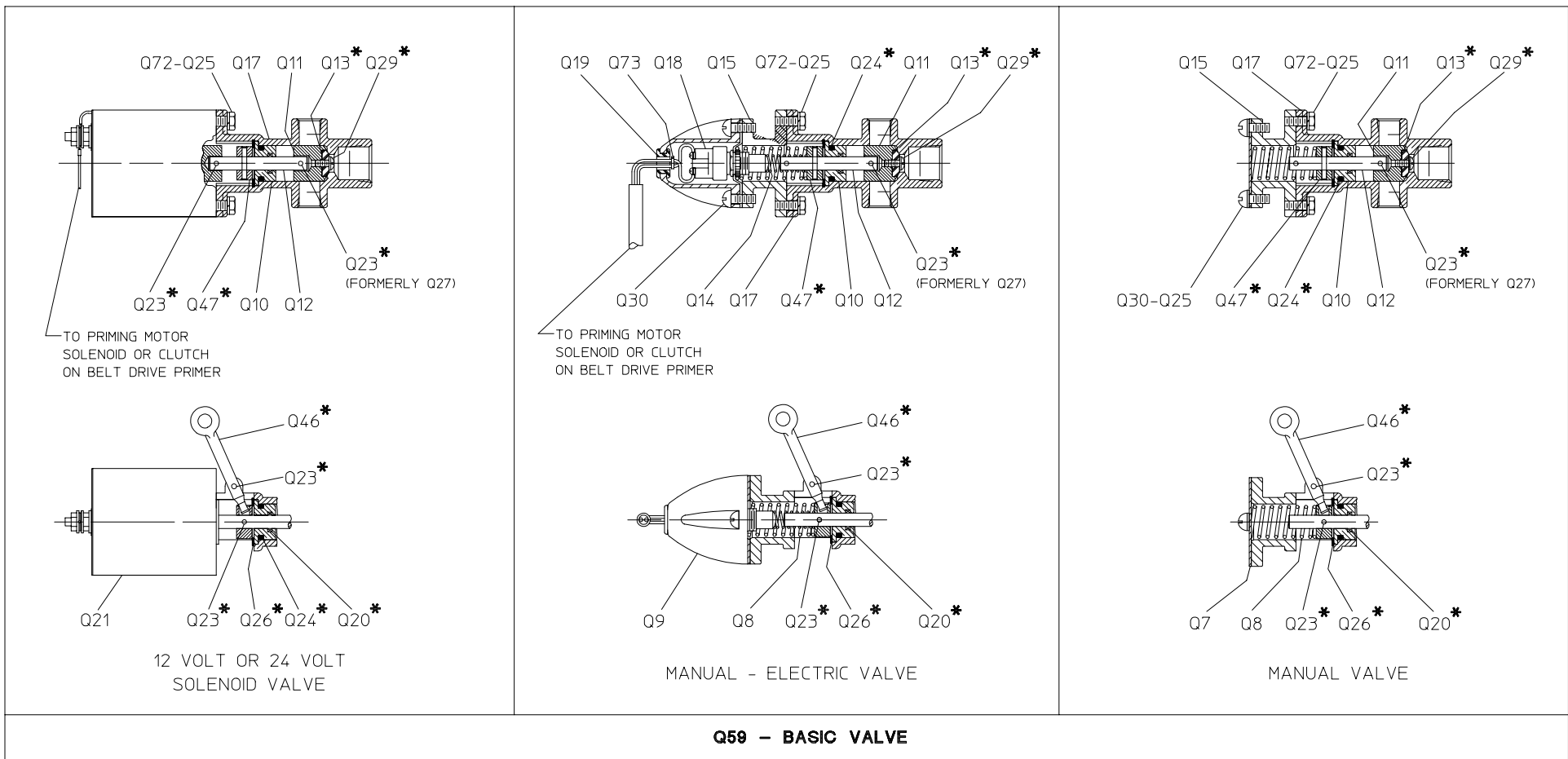
WATEROUS
SOUTH ST. PAUL, MINNESOTA

Priming Valve and Piping Assembly

REF NO.	DESCRIPTION	REF NO.	DESCRIPTION
Q1	Hose	Q40	Street elbow, 90°, 3/8 in.
Q2	Hose assembly, 3/4 NPT	Q41	Street elbow, 90°, 3/4 in.
Q3	Priming switch wire assembly	Q46	Actuating arm
Q4	Power cable	Q47	Actuating arm socket
Q5	Panel plate	Q48	Priming valve repair kit (consists of Q13, Q20, Q23, Q24, Q26, Q29, Q46 & Q47)
Q6	Wiring assembly	Q59	Priming valve assembly
Q7	Cover plate	Q60	Pipe elbow, 90°, 3/4 in.
Q8	Priming valve spring	Q61	Pipe nipple, 3/4 x 1-3/8 in.
Q9	Switch cover	Q63	Pipe tee, 3/8 in.
Q10	End cap	Q65	Street elbow, 45°, 3/4 in.
Q11	Plunger	Q66	Ground joint female union, 3/4 in.
Q12	Plunger rod	Q67	Self-tapping round head screw, 10-24 x 3/8 in.
Q13	Plunger insert	Q69	Pipe nipple, 3/4 x 2 in.
Q14	Priming valve spring	Q70	Pipe coupling, 3/4 in.
Q15	Spring housing	Q72	Hex hd screw, 1/4-20 x 5/8 in.
Q17	Priming valve body	Q73	Cable tie
Q18	Switch assembly	Q75	Wire assembly
Q19	Rubber grommet	Q76	Wire assembly
Q20	Quad ring	Q77	Wire assembly
Q21	Solenoid	Q78	Headless plug, 3/8 in.
Q23	Groove pin, 1/8 x 7/8 in.	Q79	Reducing bushing, 3/8 x 1/4 in.
Q24	O-ring	Q80	Pipe nipple, 1/4 x 7/8 in.
Q25	Lock washer, 1/4 in.	Q81	Pipe nipple, 3/8 x 1 in.
Q26	Retaining ring	Q82	Pipe elbow, 90°, 3/8 in.
Q28	Pipe plug, 3/8 in.	Q83	Male connector
Q29	Round hd screw, No. 10-32 x 5/8 in.	Q84	Swivel connector
Q30	Round hd screw, 1/4-20 x 5/8 in.	Q85	Hose, 48 in.
Q32	Push button switch	Q86	Pipe nipple, 1/4 x 1-1/2 in.
Q33	Male Connector - 3/8 NPT x 3/8 Tube	Q87	Hose, 19 in.
Q34	Male Elbow, 90°	Q88	Hose, 13-1/2 in.
Q35	Male Connector, 45°, 3/4 in.	Q89	Pipe Coupling, 3/8 in.
Q36	Wiring harness clamp	Q90	Push-mount cable tie
Q37	Straight male connector, 3/4 in.		
Q39	Pipe nipple, 3/8 x 1-1/2 in.		

PLEASE NOTE
WHEN ORDERING PARTS PLEASE SUPPLY PUMP SERIAL NUMBER

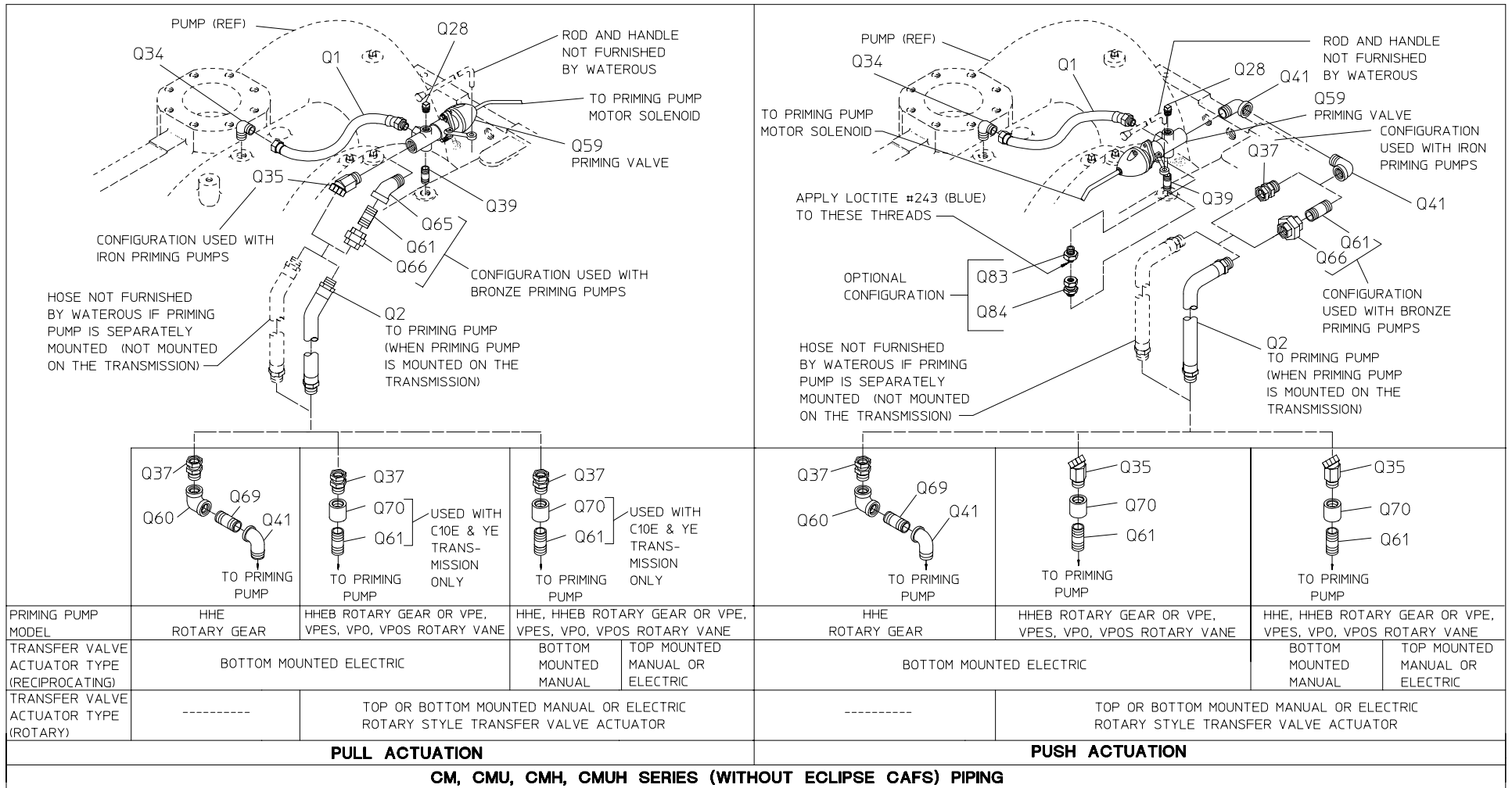
SPL 81602
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REV: 04/12/07



REPAIR
KIT

* COMPONENTS OF REPAIR KIT Q48

Q48



HOSE NOT FURNISHED BY WATEROUS IF PRIMING PUMP IS SEPARATELY MOUNTED (NOT MOUNTED ON THE TRANSMISSION)

ROD AND HANDLE NOT FURNISHED BY WATEROUS

TO PRIMING PUMP MOTOR SOLENOID

Q35

Q78

Q33

Q79

Q82

PRIMING VALVE Q59

Q83

Q63

Q40

APPLY LOCTITE #243 (BLUE) TO THESE THREADS

Q84

Q2
TO PRIMING PUMP
(WHEN PRIMING PUMP IS MOUNTED ON THE TRANSMISSION)

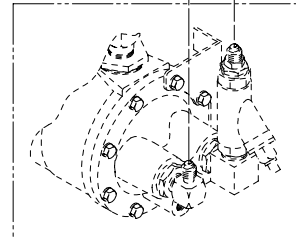
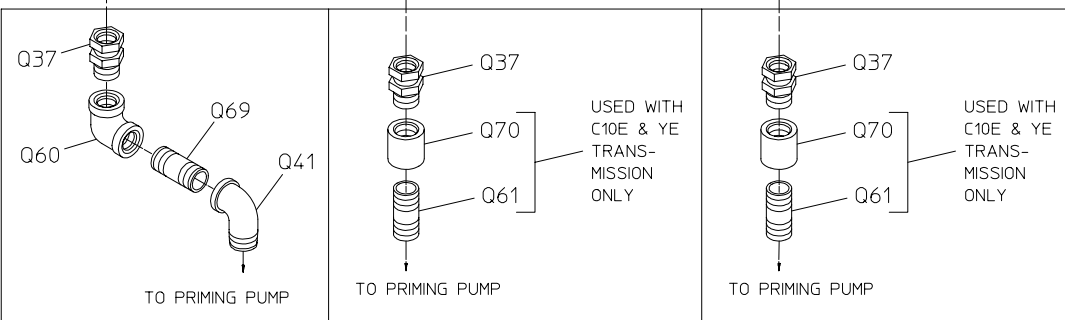
Q1

Q80

Q81

Q85

Q85

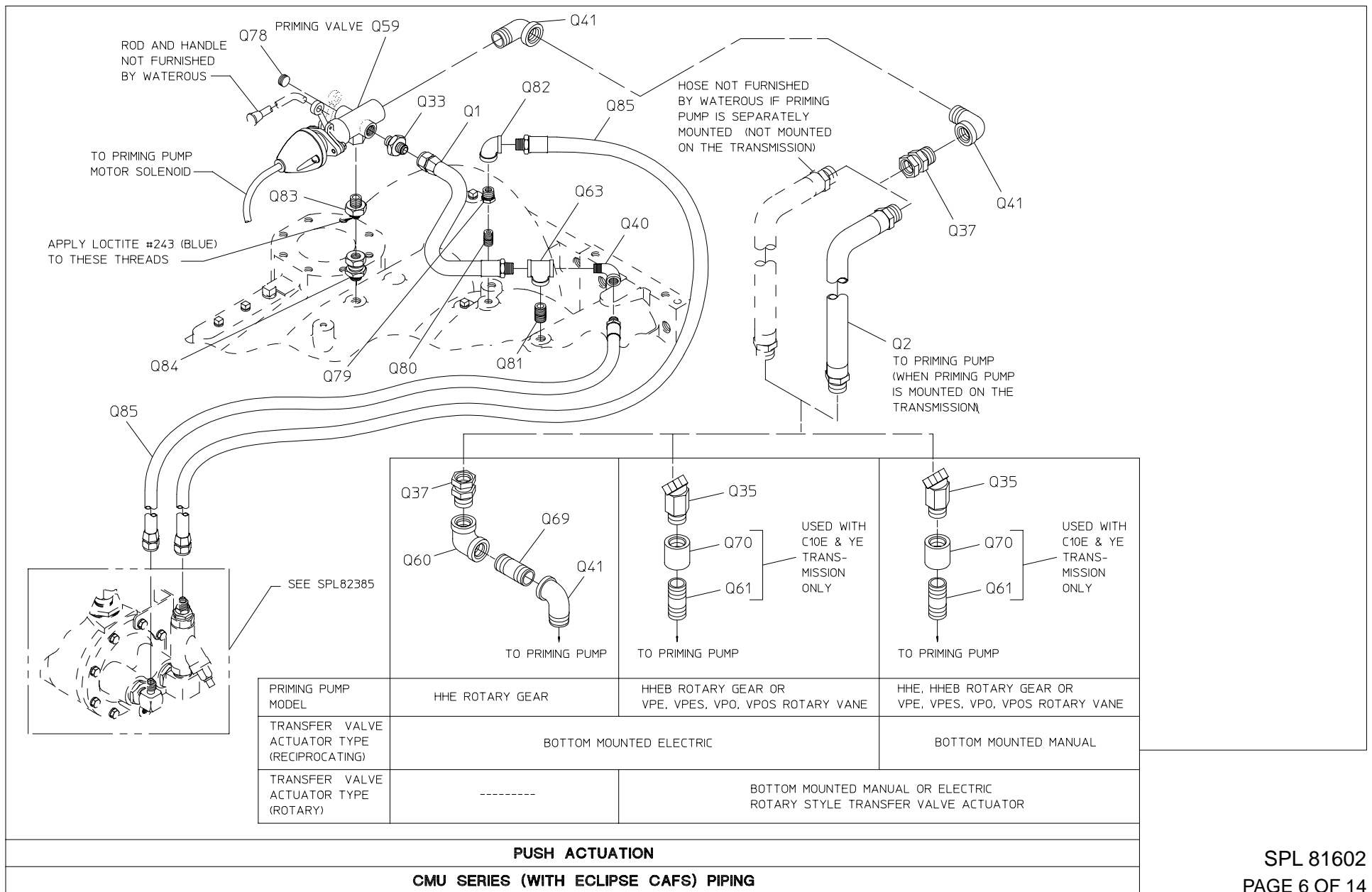


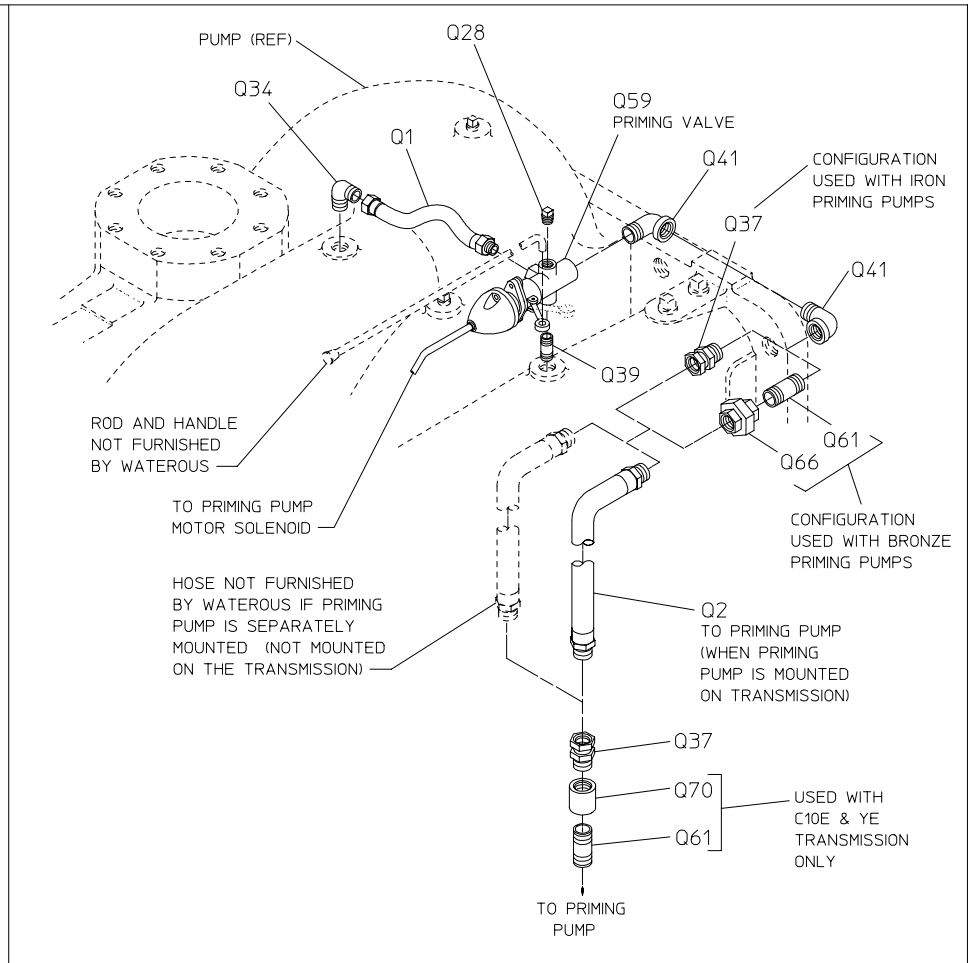
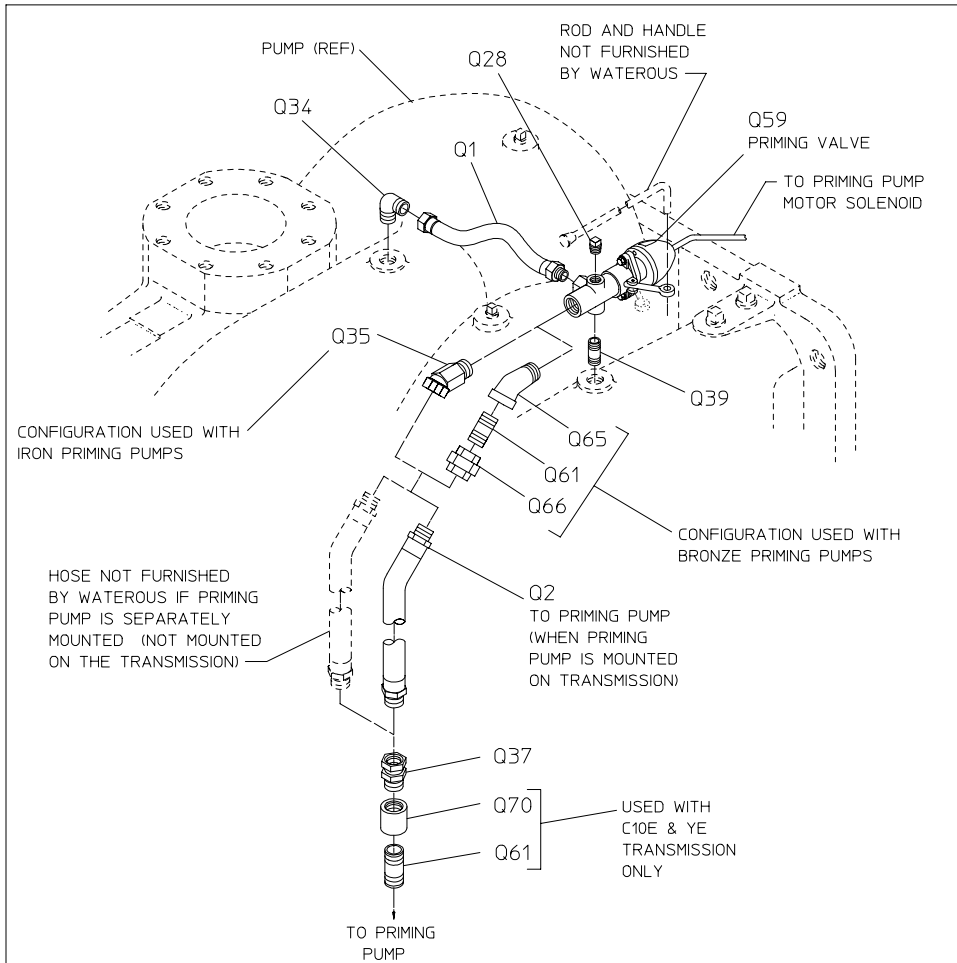
SEE SPL82385

PRIMING PUMP MODEL	HHE ROTARY GEAR	HHEB ROTARY GEAR OR VPE, VPES, VPO, VPOS ROTARY VANE	HHE, HHEB ROTARY GEAR OR VPE, VPES, VPO, VPOS ROTARY VANE
TRANSFER VALVE ACTUATOR TYPE (RECIPROCATING)	BOTTOM MOUNTED ELECTRIC		BOTTOM MOUNTED MANUAL
TRANSFER VALVE ACTUATOR TYPE (ROTARY)	-----	BOTTOM MOUNTED MANUAL OR ELECTRIC ROTARY STYLE TRANSFER VALVE ACTUATOR	

PULL ACTUATION

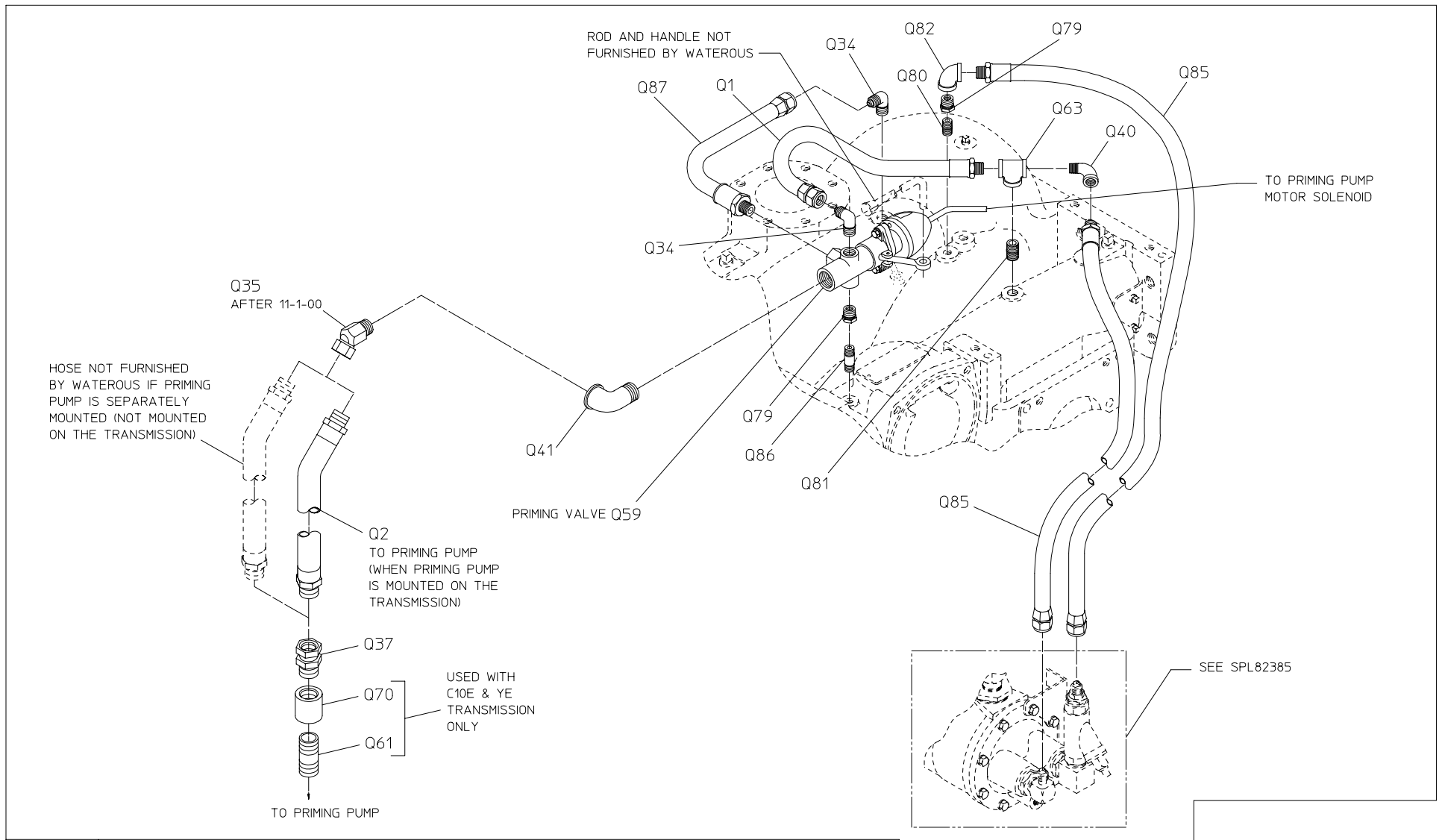
CMU SERIES (WITH ECLIPSE CAFS) PIPING





PRIMING PUMP MODEL	HHE, HHEB ROTARY GEAR OR VPE, VPES, VPO, VPOS ROTARY VANE	HHE, HHEB ROTARY GEAR OR VPE, VPES, VPO, VPOS ROTARY VANE
	PULL ACTUATION	PUSH ACTUATION

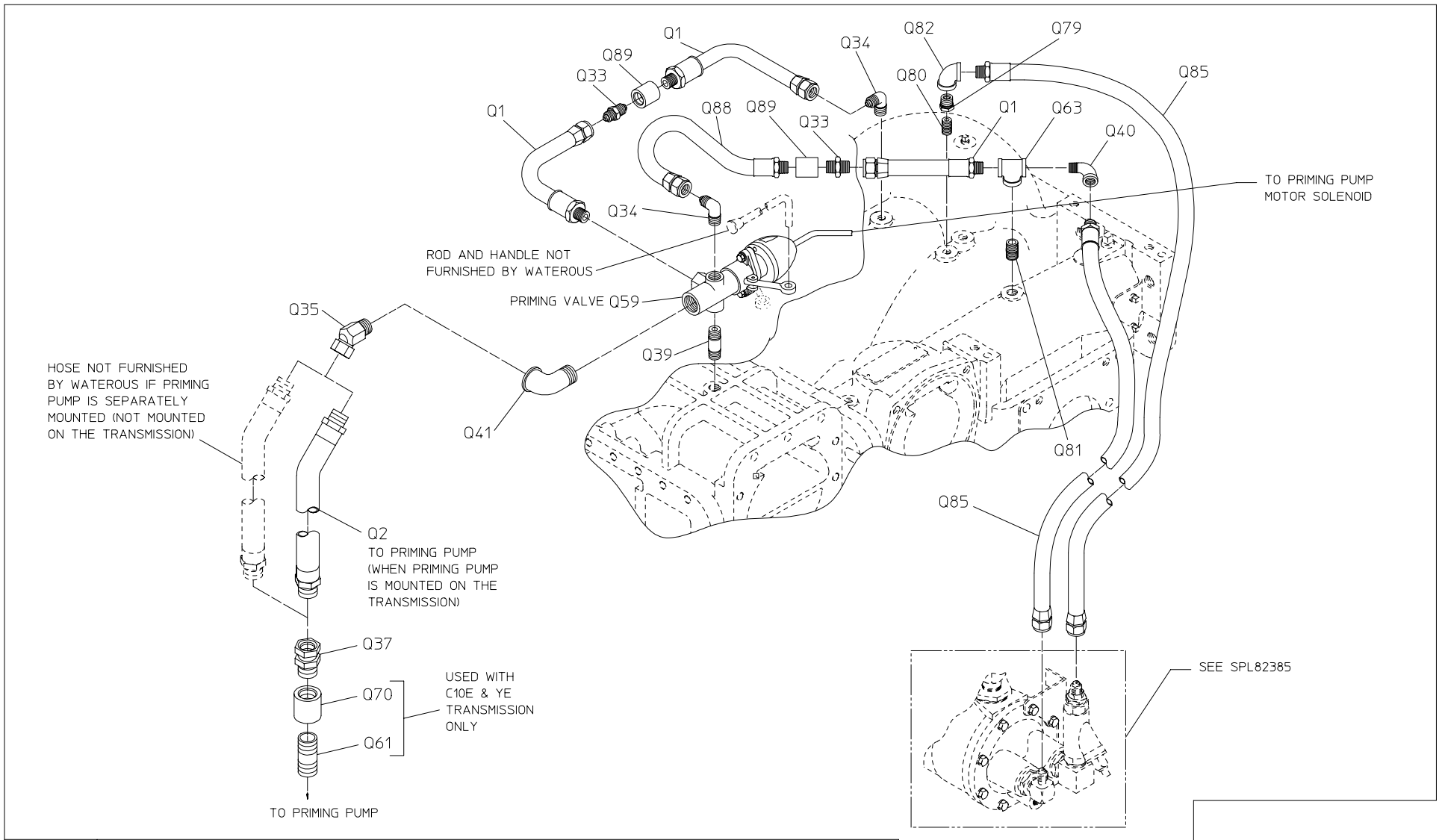
CS, CSU, CSH, CSUH SERIES (WITHOUT ECLIPSE CAFS) PIPING



PRIMING PUMP MODEL	HHE, HHEB ROTARY GEAR OR VPE, VPES, VPO, VPOS ROTARY VANE
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PULL ACTUATION

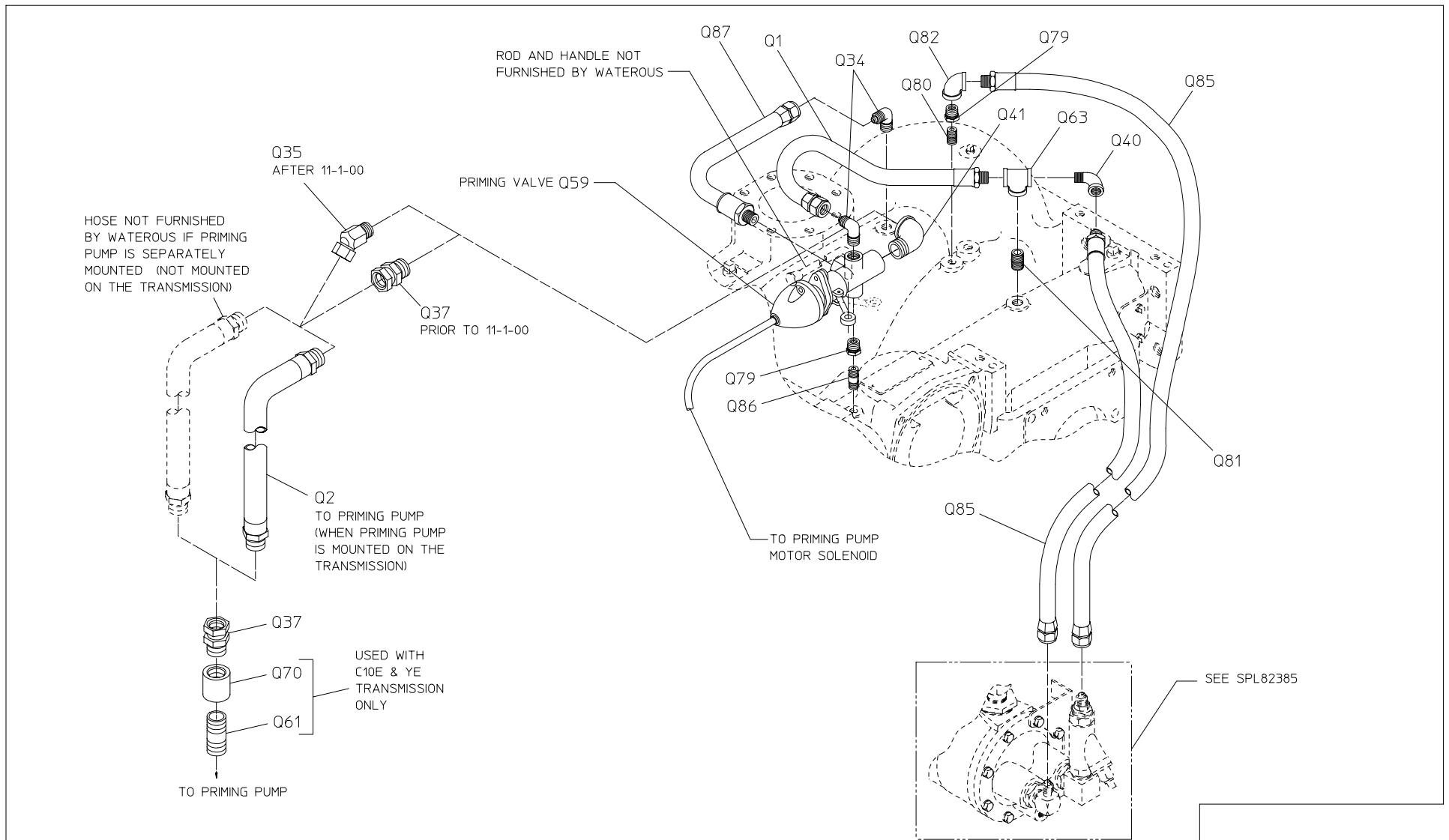
CS, CSU SERIES (WITH ECLIPSE CAFS) PIPING (WITHOUT L.H. REAR INTAKE ADAPTER)



PRIMING PUMP MODEL	HHE, HHEB ROTARY GEAR OR VPE, VPES, VPO, VPOS ROTARY VANE
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PULL ACTUATION

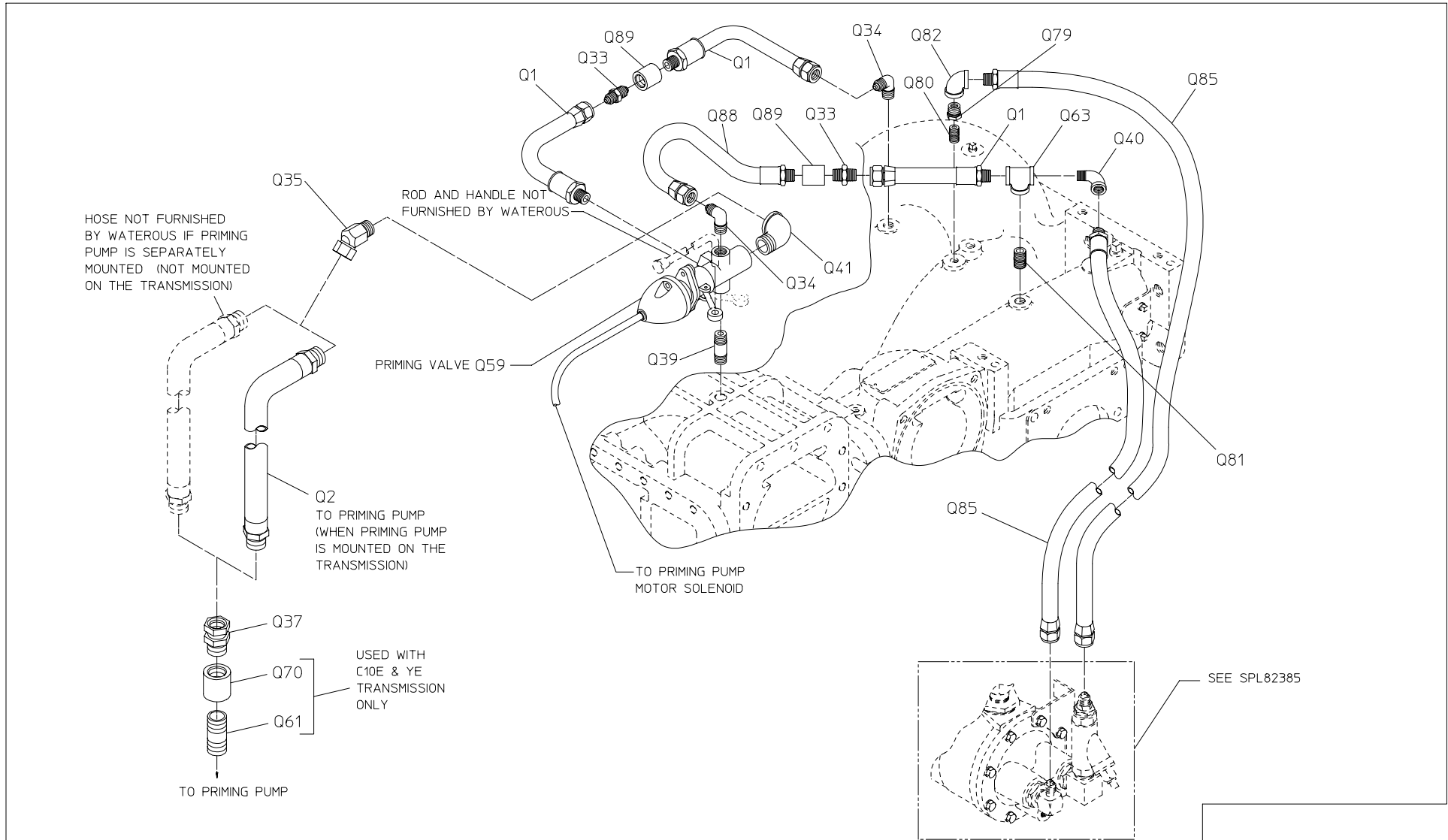
CS, CSU SERIES (WITH ECLIPSE CAFS) PIPING (WITH L.H. REAR INTAKE ADAPTER)



PRIMING PUMP MODEL	HHE, HHEB ROTARY GEAR OR VPE, VPES, VPO, VPOS ROTARY VANE
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PUSH ACTUATION

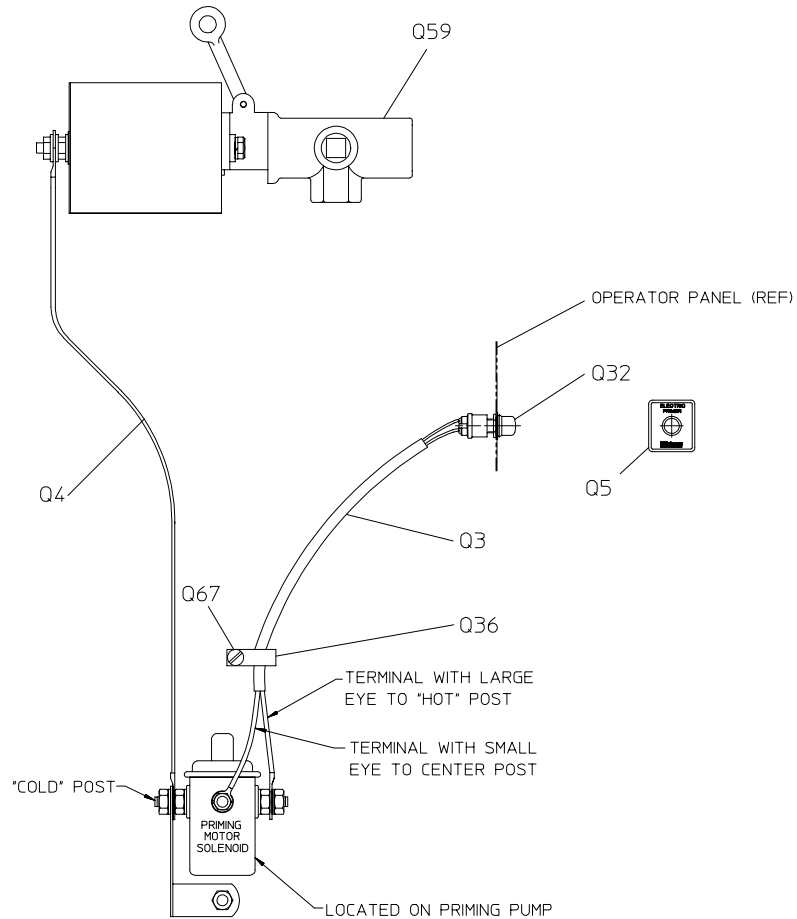
CS, CSU SERIES (WITH ECLIPSE CAFS) PIPING (WITHOUT L.H. REAR INTAKE ADAPTER)



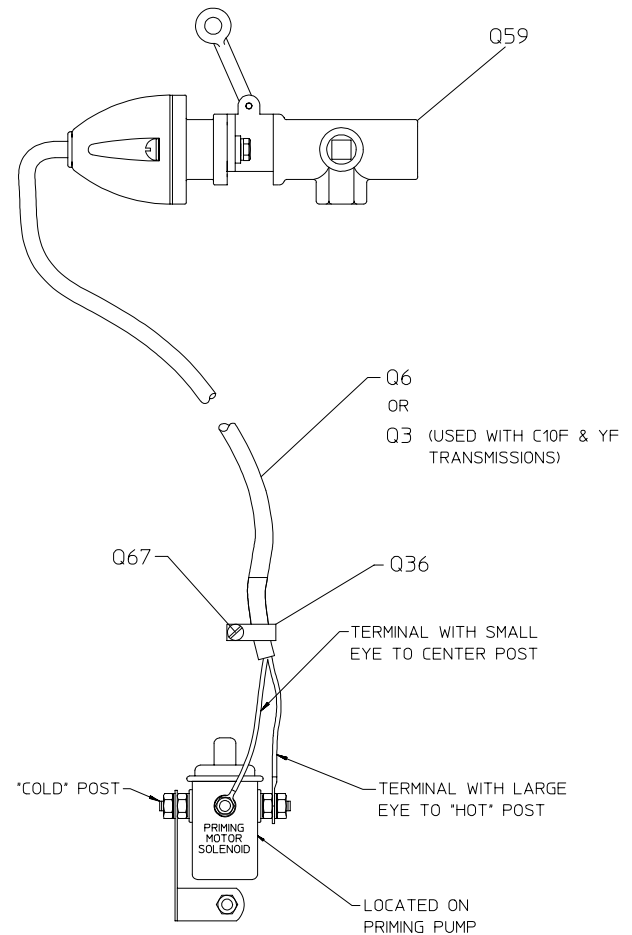
PRIMING PUMP MODEL	HHE, HHEB ROTARY GEAR OR VPE, VPES, VPO, VPOS ROTARY VANE
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PUSH ACTUATION

CS, CSU SERIES (WITH ECLIPSE CAFS) PIPING (WITH L.H. INTAKE ADAPTER)

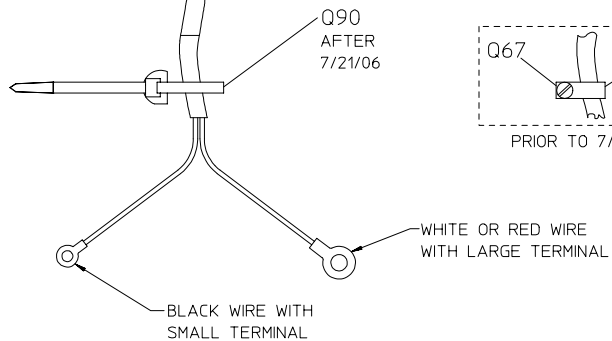
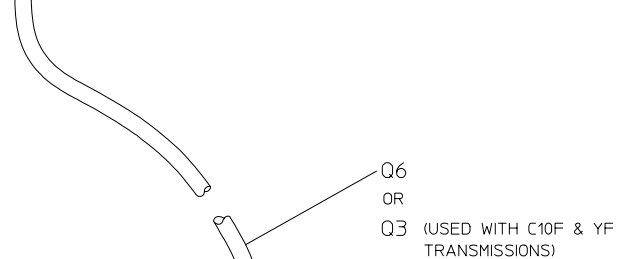
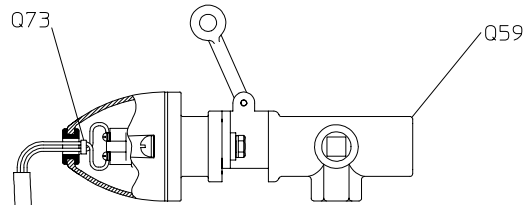


12 VOLT OR 24 VOLT SOLENOID OPERATED PRIMING VALVE

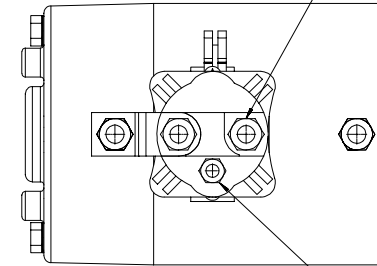


MANUAL ELECTRIC PRIMING VALVE

**WIRE CONNECTION TO MOTOR SOLENOID
METAL CAN STYLE SOLENOID
USED PRIOR TO 6/15/2000**



RED OR WHITE WIRE TO "HOT" POST,
TIGHTEN TO 50-60 IN/LBS (4-5 FT/LBS)
DO NOT OVERTIGHTEN

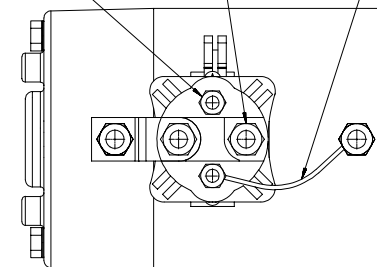


BLACK WIRE TO CENTER STUD,
TIGHTEN TO 15-20 IN/LBS (1-2 FT/LBS)
DO NOT OVERTIGHTEN

RED OR WHITE WIRE TO "HOT" POST,
TIGHTEN TO 50-60 IN/LBS (4-5 FT/LBS)
DO NOT OVERTIGHTEN

BLACK WIRE TO CENTER STUD,
TIGHTEN TO 15-20 IN/LBS (1-2 FT/LBS)
DO NOT OVERTIGHTEN

WHITE WIRE CONNECTED
TO GROUND AND SOLENOID,
TIGHTEN SOLENOID NUT
TO 15-20 IN/LBS (1-2 FT/LBS)
DO NOT OVERTIGHTEN.



**WIRE CONNECTION TO MOTOR SOLENOID
MANUAL/ELECTRIC PRIMING VALVE
PLASTIC CASE SOLENOID
USED AFTER 6/15/2000**

