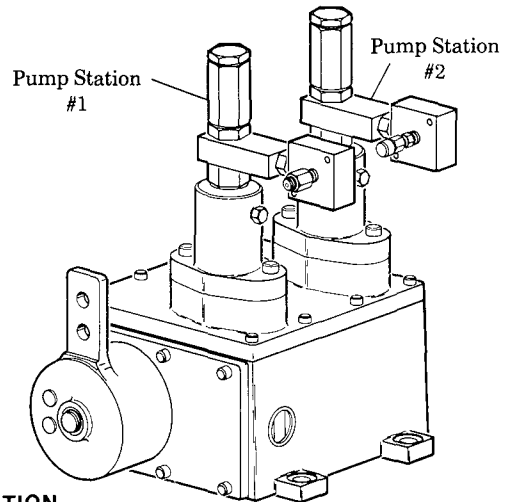




DESCRIPTION

MCLP Pumps are plunger-type pumps, the plunger being actuated by a roller tappet assembly which is operated by the rotation of a cam.

Available with one or two adjustable pump heads, having either a 7mm or 11mm piston, and with single or double lobe cams. Dual head pumps can deliver a different oil from each pump head if required and the pump output can be regulated. An anchor cross, containing a purge port, rupture indicator, and outlet connection is supplied with each pump head.



MODEL IDENTIFICATION

- 130100 Series - Left Hand End Ratchet Drive, Counter-Clockwise Rotation
- 130101 Series - Left Hand End Ratchet Drive, Clockwise Rotation
- 130150 Series - Right Hand End Ratchet Drive, Clockwise Rotation

The Drive Ratio for the MCLP pumps will be specified by the first letter following the 130000 number:

CODE LETTER IDENTIFICATION

Code	A	B	C	D	E	F	G
Ratio	1:1	2:1	2.78:1	4:1	5.6:1	7.7:1	8:1

Code	L	M	N	P	R	S
Ratio	1:2	1:2.78	1:4	1:5.6	1:7.7	1:8

The output pressure of the 7mm & 11mm MCLP Pump Head is limited with some of the above ratios. For a complete explanation, contact factory.

The second and third letters following the 130000 number represent Pump Stations #1 and #2 respectively:

CODE	CAM	PUMP*
A	15036 (single lobe)	130305 (w/7mm plunger)
B	16358 (double lobe)	130305 (w/7mm plunger)
C	15036 (single lobe)	130306 (w/11mm plunger)
D	16358 (double lobe)	130306 (w/11mm plunger)
**E	15036 (single lobe)	None
**F	16358 (double lobe)	None
***O	None	None

*Refer to Section M1, Page 10 Series for all pumps.

**Pump stations designated by E and F include pump mounting screws. Pump or pump station cover not included.

***Pump stations designated by O; cam, pump and roller tappet assembly are replaced by spacer and pump station cover.

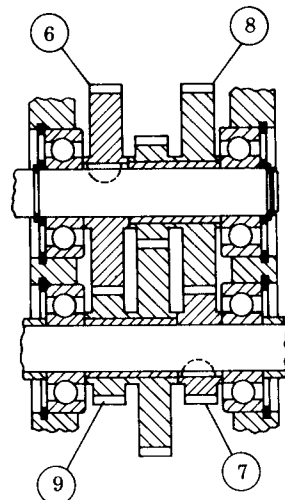
INSTALLATION

The drive connection must allow the proper degree of throw for the ratchet arm. Fill the gear box to the half-way mark of the sight glass with Conoco SAE 80W-90 gear oil or equivalent before running the pump. The pump unit and the lubrication system should be purged of any entrapped air to ensure reliable oil delivery.

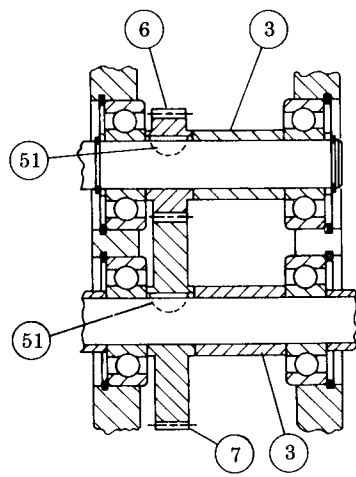
BLEEDING MCLP PUMP UNIT

- 1) Connect filter primer to MCLP Pump inlet.
- 2) Loosen the pipe plug in the pump head and allow the oil to flow freely from the pipe plug until air bubbles no longer appear in the oil.
- 3) Set the MCLP Pump head to max. output.
- 4) Loosen the outlet connection on the anchor cross and allow the pump to run until air bubbles no longer appear at the outlet. Tighten the outlet connection and turn off the pump.

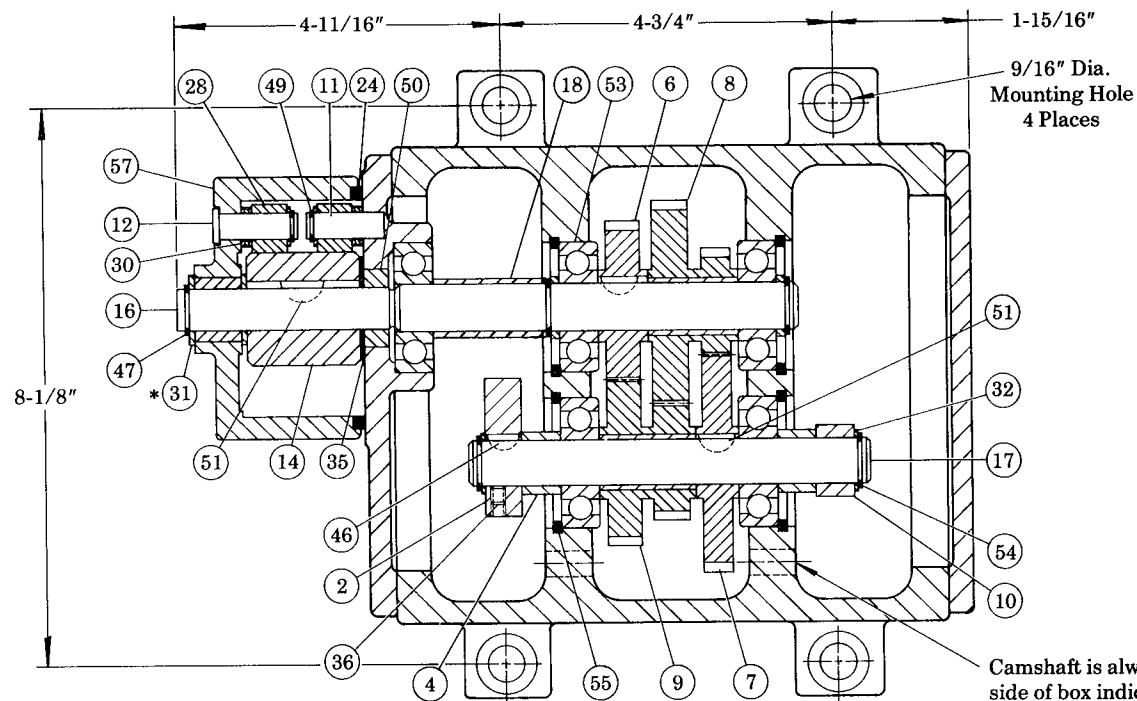




Gear location shown for step-up ratios.



Gear train for 1:1, 2:1, 2.78:1, 1:2 & 1:2.78 Drive Ratios only.



Camshaft is always located on side of box indicated by holes.

L.H. Drive shown. For R.H. Drive: drive shaft, ratchet assembly and housing, and end plates are reversed. R.H. Drive gear train is reversed from L.H. Drive. Gear location shown for reduction ratios.

NOTE:

Use Conoco SAE 80W-90 gear oil or equivalent in gear housing. Change oil every 3 to 6 months.

When one pump is required, locate pump in pump station nearest drive.

When using two pumps, purge ports must be installed facing outside of gear housing.

Cam, set screw, key & roller tappet must be omitted when no cam is required. Use 15438 Spacer as shown.

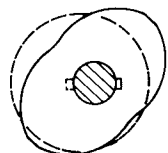
Clockwise rotation shown. For counter-clockwise rotation, ratchet and pawls are reversed.

With 1-1/4" or 1-3/4" stroke, ratchet gear box yields 15:1 ratio with drive shaft.

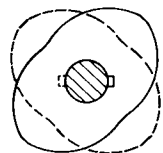
* Shim if necessary with item #33 Shim.

★ Oil level should not rise above top of view gauge. Drain through this plug.

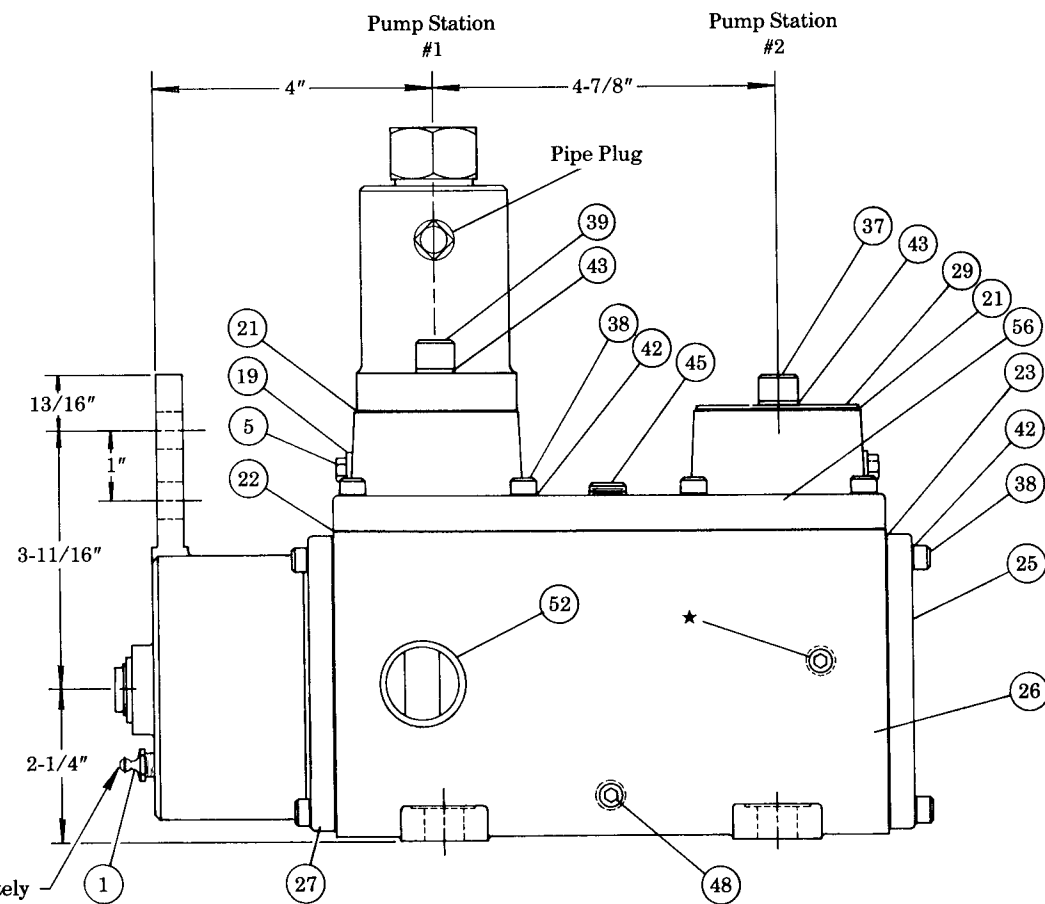
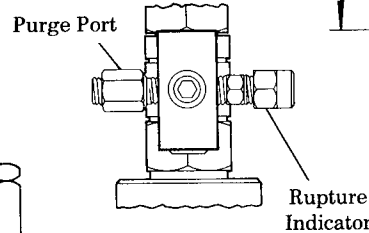
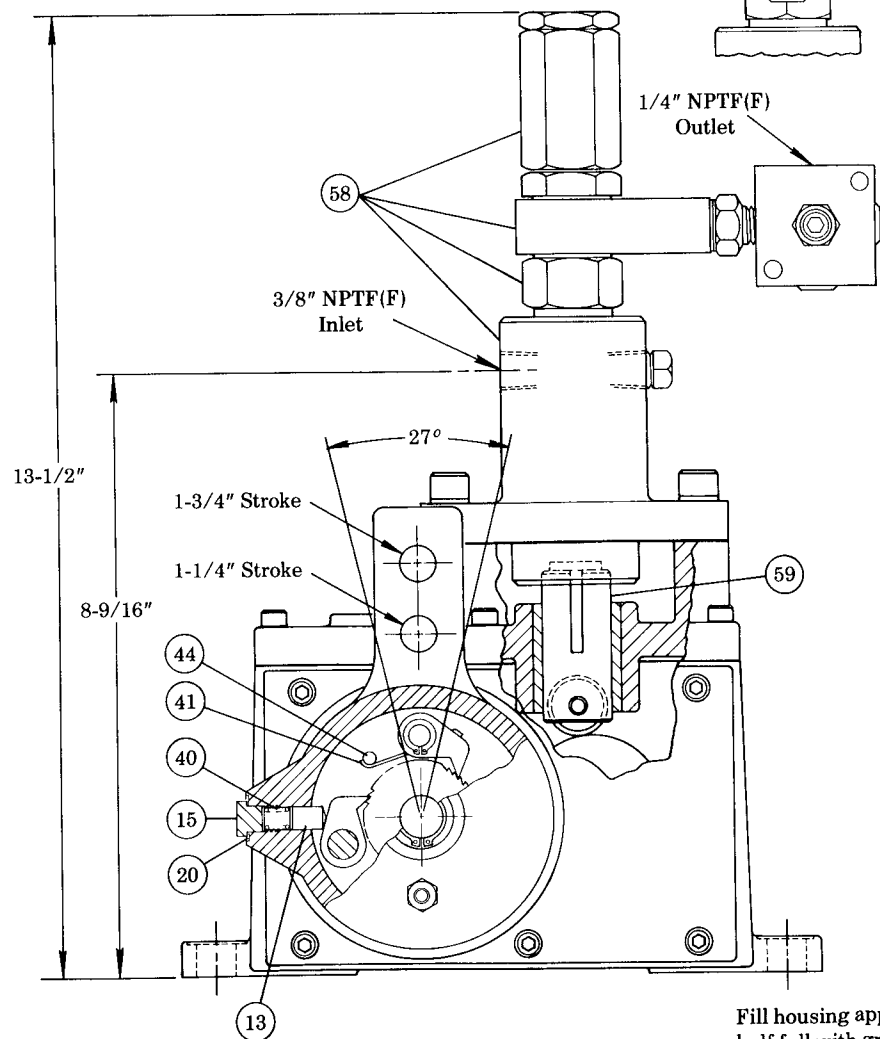
CAM LOCATION



When one single and one double lobe cam is required, cams should be offset as shown in the above view.



When two double lobe cams are required, cams should be offset at 90° as shown in the above view.



Fill housing approximately half full with grease.

GEAR CHART

	Ratio	Code			
		6	7	8	9
		1:1	15445	15445	—
2:1	15475	15439	—	—	
2.78:1	15374	15390	—	—	
4:1	15445	15439	92875	92890	
5.6:1	15445	15439	92876	92880	
7.7:1	15445	15390	92862	92880	
8:1	15475	15439	92875	92875	
1:2	15439	15475	—	—	
1:2.78	15390	15374	—	—	
1:4	15439	15445	92890	92875	
1:5.6	15439	15445	92880	92876	
1:7.7	15390	15445	92880	92862	
1:8	15439	15475	92875	92875	

SERVICE PARTS

CODE	PART	QUAN.	DESCRIPTION	CODE	PART	QUAN.	DESCRIPTION
1	5036	1	Lube fitting	31	48560	3	Washer
2	*	As Req'd.	Cam	32	48564	4	Washer
3	15367	As Req'd.	Spacer	33	48582	3	Shim
4	15368	2	Spacer	35	48584	1	Washer
5	15369	2	Tappet alignment screw	36	50522	As Req'd.	Set screw
6	**	1	Spur gear - plain	37	50792	As Req'd.	Screw
7	**	1	Spur gear - plain	38	50833	22	Screw
8	**	1	Spur gear - cluster	39	50849	As Req'd.	Screw
9	**	1	Spur gear - cluster	40	53379	1	Spring
10	15438	As Req'd.	Spacer	41	57137	1	Brake pawl spring
11	15843	1	Brake pawl pin	42	66186	22	Lockwasher
12	15844	1	Drive pawl pin	43	66220	4	Lockwasher
13	15845	1	Hold down pin	44	66664	1	Brake pawl spring pin
14	15846	1	Ratchet	45	67359	1	Pipe plug
15	15847	1	Enclosure screw	46	68220	As Req'd.	#3 Woodruff key
16	15848	1	Drive shaft	47	68556	1	Retaining ring
17	16357	1	Camshaft	48	68645	4	Pipe plug
18	16376	1	Spacer	49	69264	2	Retaining ring
19	31163	2	Gasket	50	69853	1	Oil seal
20	31184	1	Washer	51	69973-1	3	#5 Woodruff key
21	33131	2	Pump gasket	52	69985	2	View gauge
22	33132	1	Top cover gasket	53	69986	5	Bearing
23	33133	2	End plate gasket	54	69987	4	Retaining ring
24	38909	1	Felt seal	55	69988	4	Retaining ring
25	40719	1	Blank end plate	56	92863	1	Gear case cover assembly
26	40721	1	Gear case housing	57	93394	1	Ratchet drive housing
27	40766	1	Drive end plate	58	***	As Req'd.	Pump head assembly
28	41549	2	Pawl	59	880124	As Req'd.	Roller tappet assembly
29	45989	As Req'd.	Pump station cover				
30	48543	7	Washer				

*15036 Single Lobe Cam or 16358 Double Lobe Cam as designated.

**See chart

***7mm pump or 11mm pump as required. See Code Chart on front page.

RETAIN THIS INFORMATION FOR FUTURE REFERENCE

When ordering replacement parts, list: Part Number, Description, Model Number, and Series Letter.

LINCOLN ST. LOUIS provides a Distributor Network that stocks equipment and replacement parts.