

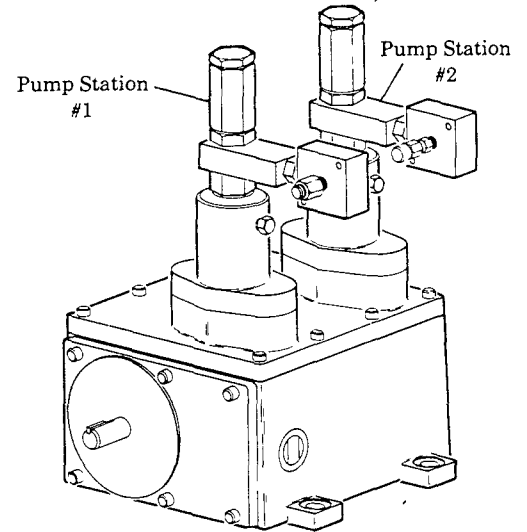
END ROTARY DRIVE

W/ HIGH PRESSURE INDICATOR, 7300 PSI

### 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

130201 Series - Left Hand Drive with Extended Shaft  
130202 Series - Left Hand Drive

### CODE LETTER IDENTIFICATION

Code	A	B	C	D	E	F	G	H
Ratio	1 1	2 1	2 78.1	4 1	5.6.1	7 7.1	8 1	11 1.1

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

Code	J	K	L	M	N	P	R	S
Ratio	15 5.1	21.5 1	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. Replacement pumps 130305 and 130306 will have 5500 psi and 3250 psi atmospheric indicators respectively. Order items 37, 38 and 39 to convert to 7300 psi atmospheric indicator.

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

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

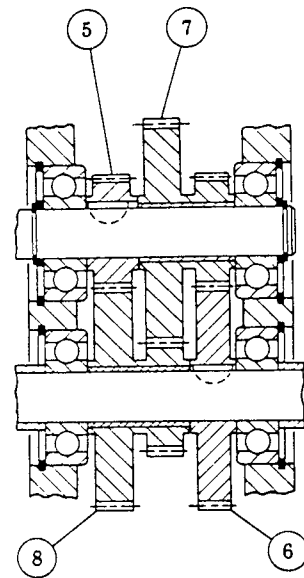
### INSTALLATION

Mount the MCLP Pump to a rigid support or frame adjacent to the engine drive shaft or electric motor shaft. Carefully align the pump to the drive shaft. Fill the gear box to the half-way mark of the sight glass with Conoco SAE 80W-90 gear oil or equivalent

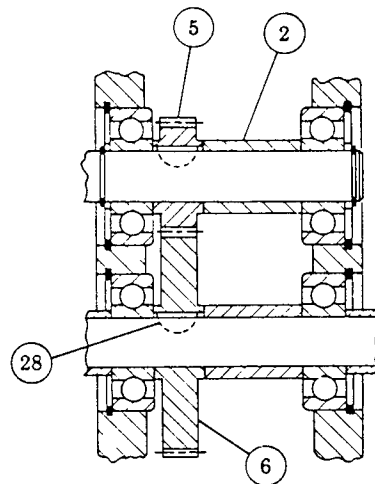
before running the pump. The pump unit and the lubrication system should be purged of any entrapped air to ensure reliable oil delivery.

### BLEEDING MCLP PUMP UNIT

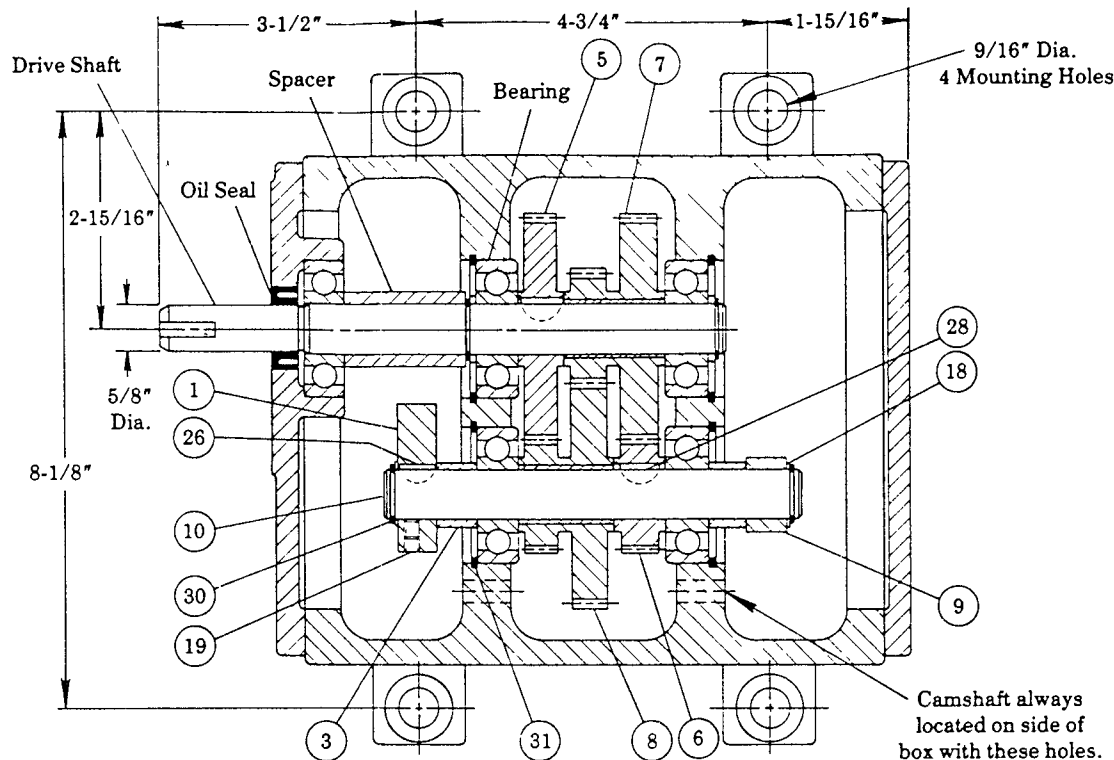
- 1) Connect filter primer to MCLP Pump inlet.
- 2) Loosen the pipe plug in the pump head and allow the oil to flow freely from the pipe plug until air bubbles no longer appear in the oil.
- 3) Set the MCLP Pump head to maximum output.
- 4) Loosen the outlet connection on the anchor cross and allow the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

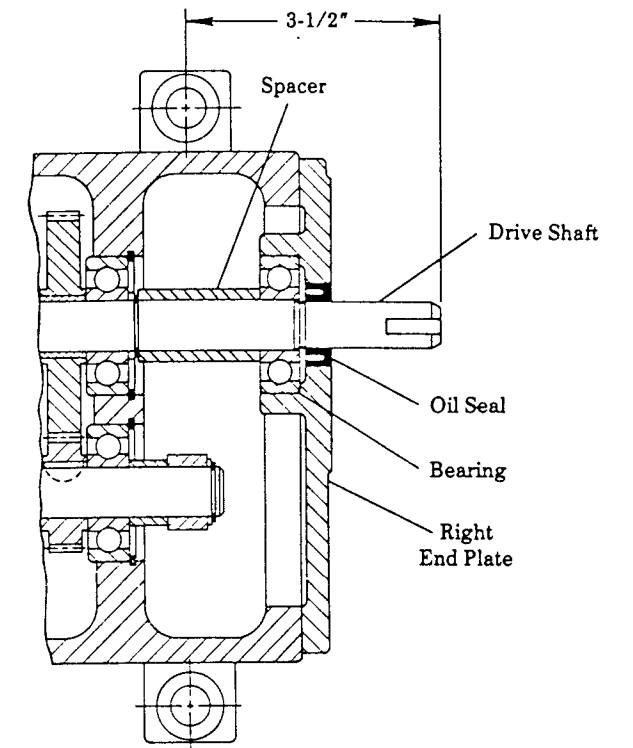


Gear train for 1:1, 2:1, 2.78:1, 1:2 & 1:2.78 Drive Ratios only.



MODEL 130202

Gear location shown for step-up ratios.



MODEL 130201

Same as Model 130202 except for extended drive shaft.

**NOTE:**

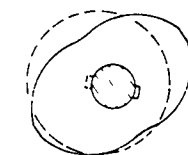
Use Conoco SAE 80W-90 gear oil or equivalent in gear housing.

Change oil every 3 to 6 months.

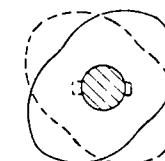
When using two pumps, purge ports must be installed facing outside of gear housing.

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

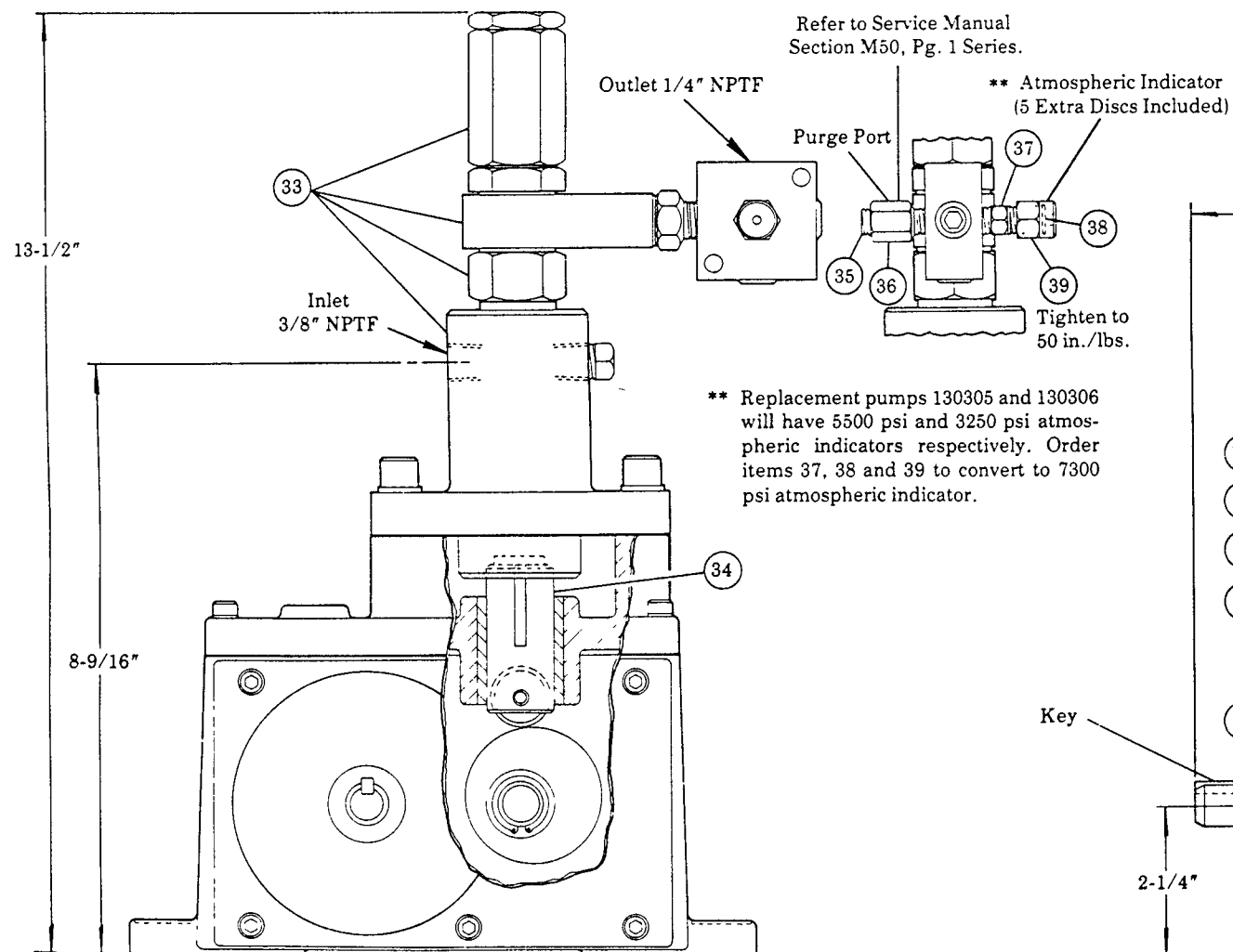
**CAM LOCATION**



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.

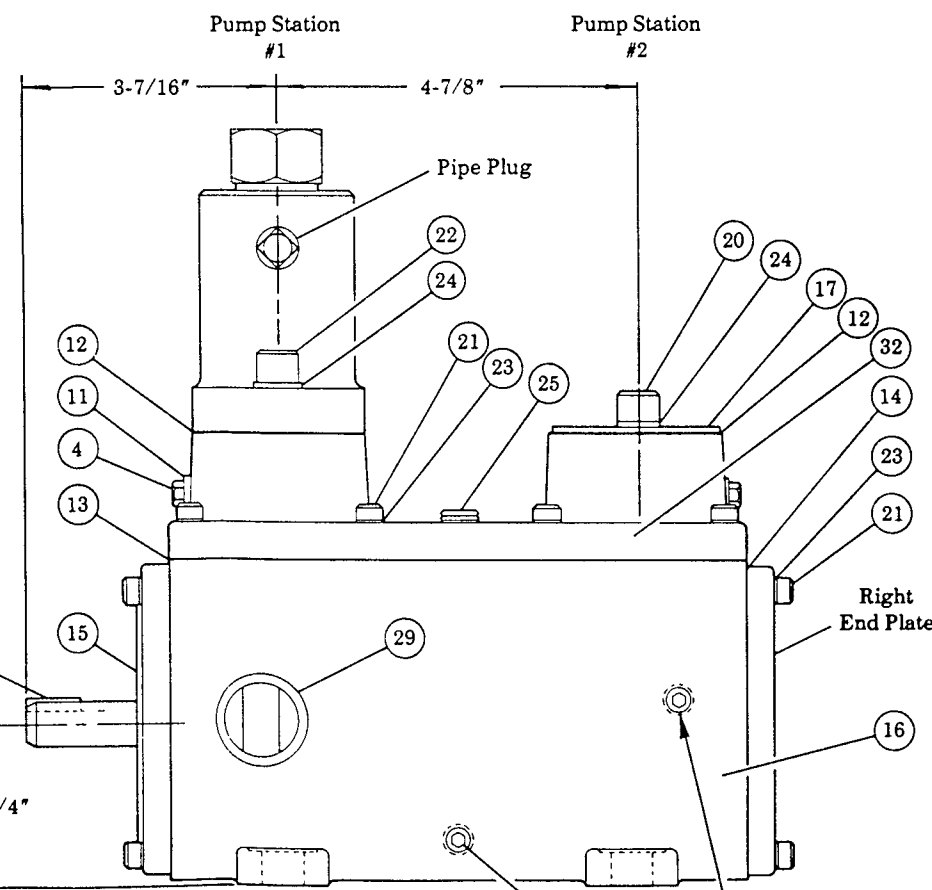


\*\* Replacement pumps 130305 and 130306 will have 5500 psi and 3250 psi atmospheric indicators respectively. Order items 37, 38 and 39 to convert to 7300 psi atmospheric indicator.

Refer to Service Manual Section M50, Pg. 1 Series.

\*\* Atmospheric Indicator (5 Extra Discs Included)

Tighten to 50 in./lbs.



On one station unit, locate pump in pump station nearest drive.

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

Model	Drive Shaft		Key		Right End Plate	16376 Spacer	69986 Bearing	69853 Oil Seal
	Reduction	Speed-Up	Reduction	Speed-Up				
130201	15853	16190	†66652	††15474	40718	2 req'd.	6 req'd.	2 req'd.
130202	15373	15476	†66652	††15474	40719	1 req'd.	5 req'd.	1 req'd.

† 3/16" Wide Key (2 req'd. on Model 130201)  
†† 1/8" Wide Key (2 req'd. on Model 130201)

### GEAR CHART

	Ratio	Code			
		5	6	7	8
	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
	11.1:1	15374	15439	92875	92876
	15.5:1	15374	15439	92876	92862
	21.5:1	15374	15390	92862	92862
	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	Qty.	Description	Code	Part	Qty.	Description
1	*	As req'd.	Cam	21	50833	22	Screw
2	15367	As req'd.	Spacer	22	50849	As req'd.	Screw
3	15368	2	Spacer	23	66186	22	Lockwasher
4	15369	2	Tappet alignment screw	24	66220	4	Lockwasher
5	**	1	Spur gear - plain	25	67359	1	Pipe plug
6	**	1	Spur gear - plain	26	68220	As req'd.	#3 Woodruff key
7	**	1	Spur gear - cluster	27	68645	4	Pipe plug
8	**	1	Spur gear - cluster	28	69973-1	2	#5 Woodruff key
9	15438	As req'd.	Spacer	29	69985	2	View gauge
10	16357	1	Camshaft	30	69987	4	Retaining ring
11	31163	2	Gasket	31	69988	4	Retaining ring
12	33131	2	Pump gasket	32	92863	1	Gear case cover
13	33132	1	Top cover gasket	33	***	As req'd.	Pump head assembly
14	33133	2	End plate gasket	34	880124	As req'd.	Roller tappet assembly
15	40718	1	Left end plate	35	68645	1	Pipe plug
16	40721	1	Gear case housing	36	130021-3	1	Check valve assembly
17	45989	As req'd.	Pump station cover	37	15052	1	Connector
18	48564	4	Washer	38	69813-20	6	Rupture disc
19	50522	As req'd.	Set screw	39	15055	1	Nut
20	50792	As req'd.	Screw				

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

\*\* See Gear Chart above.

\*\*\* 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 provides a Distributor Network that stocks equipment and replacement parts.