SIZING THE PROPER HAND PUMP TO YOUR CYLINDER

Once you have selected your cylinder, find the required reservoir capacity in the cylinder specification chart, and choose a hand pump with at least 10% more reservoir capacity per cylinder.

EXAMPLE

An R-256 cylinder (page 12) has a required oil capacity of 32.2 cu. in. The P-42 hand pump (page 36) with a reservoir capacity of 45 cu. in. can pump this cylinder to its full stroke. If two R-256 cylinders are to be raised, use a P-140 with a reservoir capacity of 180 cu. in. 1/4" I.D. hose requires .6 cu. in. oil per foot. 3/8" I.D. hose requires 1.3 cu. in. per foot.

TYPE OF CYLINDERS

Most hand pumps are designed to operate single-acting cylinders. Hand pumps with 4-way valves can operate double-acting cylinders.

QUICK REFERENCE CHART

Use this chart to match the appropriate size hand pump to your single-acting Simplex cylinders. Match your cylinder capacity (across the top) with the cylinder strokes listed (in the left hand column). The intersecting box will give you the recommended hand pump for general applications.

CYLINDER STROKE (in)	CYLINDER CAPACITY (TONS)										
	5 Ton	10 Ton	15 Ton	20 Ton	25 Ton	30 Ton	50/55 Ton	60 Ton	75 Ton	100 Ton	150 Ton
1	P41/P71	P41/P71		P41/P71	P42/P72	P42/P72	P42/P72		P42/P72	P42/P72	P42/P72
2		P42/P72	P42/P72	P42/P72	P42/P72	P42/P72	P42/P72			P82-P140	P140
3	P41/P71							P82-P140			
4		P42/P72	P42/P72		P42/P72						
5	P42/P72										
6		P42/P72	P42/P72		P42/P72	P82-P140	P82-P140		P82-P140	P230	P230
7	P42/P72										
8		P42/P72	P42/P72		P82-P140	P82-P140				P230	P300
9	P42/P72										
10		P42/P72	P42/P72		P82-P140					P230	P461
12		P42/P72			P82-P140						
13							P230				
14		P42/P72	P82-P140		P82-P140						

For higher speeds, use power pumps to operate multiple cylinder systems or long stroke cylinders over 50 tons.

HAND PUMP/CYLINDER SPEED CHART

Use this chart to determine the number of full pump handle strokes required to extend a Simplex cylinder 1". You may take handle stroke per inch and multiply it by the cylinder stroke to determine the number of strokes required to fully extend the cylinder.

HAND PUMP MODEL NO.	STROKES PER 1 in. OF CYLINDER TRAVEL	CYLINDER CAPACITY (TONS)									
		5 Ton	10 Ton	15 Ton	20 Ton	25 Ton	30 Ton	50/55 Ton	60 Ton	75 Ton	100 Ton
P41/ P71	NO LOAD	7	15	21	31	34	43	73	88	106	137
	LOAD	7	15	21	31	34	43	73	88	106	137
P20/P42/ P32/P82	NO LOAD	2	3	4	6	7	8	14	17	20	26
	LOAD	7	15	21	31	34	43	73	88	106	137
P72/ P30	NO LOAD	2	3	4	6	7	8	13	16	18	23
	LOAD	7	15	21	31	34	43	73	88	106	137
P140 P300	NO LOAD	1	1	2	2	2	3	5	5	6	8
	LOAD	4	10	14	22	22	27	46	58	66	86
P230 P461	NO LOAD	1	1	1	1	1	1	2	2	2	3
	LOAD	3	8	11	16	18	22	38	45	54	70