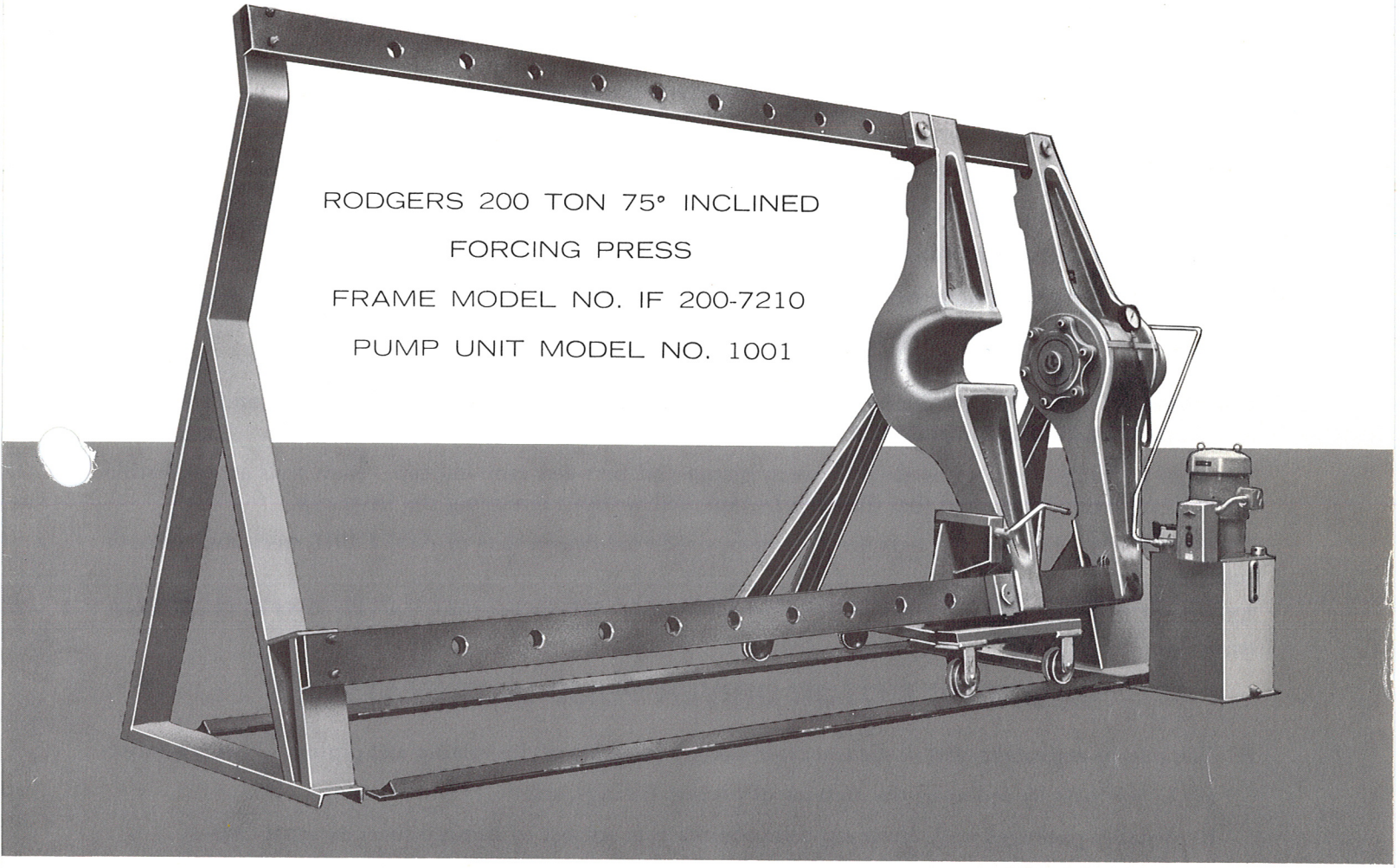
RODGERS

FORCING PRESSES



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INTRODUCTION

Rodgers Hydraulic Division has been for many years a leader in the development and manufacture of hydraulic equipment for industrial applications.

Among the principle items produced by Rodgers Hydraulic are Car Wheel Presses, Forcing Presses, Shop Presses, Hydraulic Cylinders and Jacks, Pumps, and Hydraulic Valves. A wide variety of accessories and tools are available for each item.

Catalogs describing each of the above items, including accessories, will be forwarded upon request.

FEATURES OF RODGERS FORCING PRESSES

1. Rugged construction — finest alloy steel castings and heat treated steel.
2. Simplicity of operation.
3. A selection of pump units and control systems are available to suit particular operations.
4. Clear open ends provide clearance for long materials.
5. Hand or power winches move abutment member easily.
6. Press cylinders and pump units are removable for special jacking operations.

FORCING PRESS STANDARD DESIGN PRACTICES

Cylinders: The hydraulic cylinder shells are made from heavy-wall, seamless steel tubing and are honed to a surface finish of 12 to 16 RMS.

Vee type packings are used as seals between piston and between ram and cap. Ram seals are accessible through an external gland so that they can be repacked without removing the front cap.

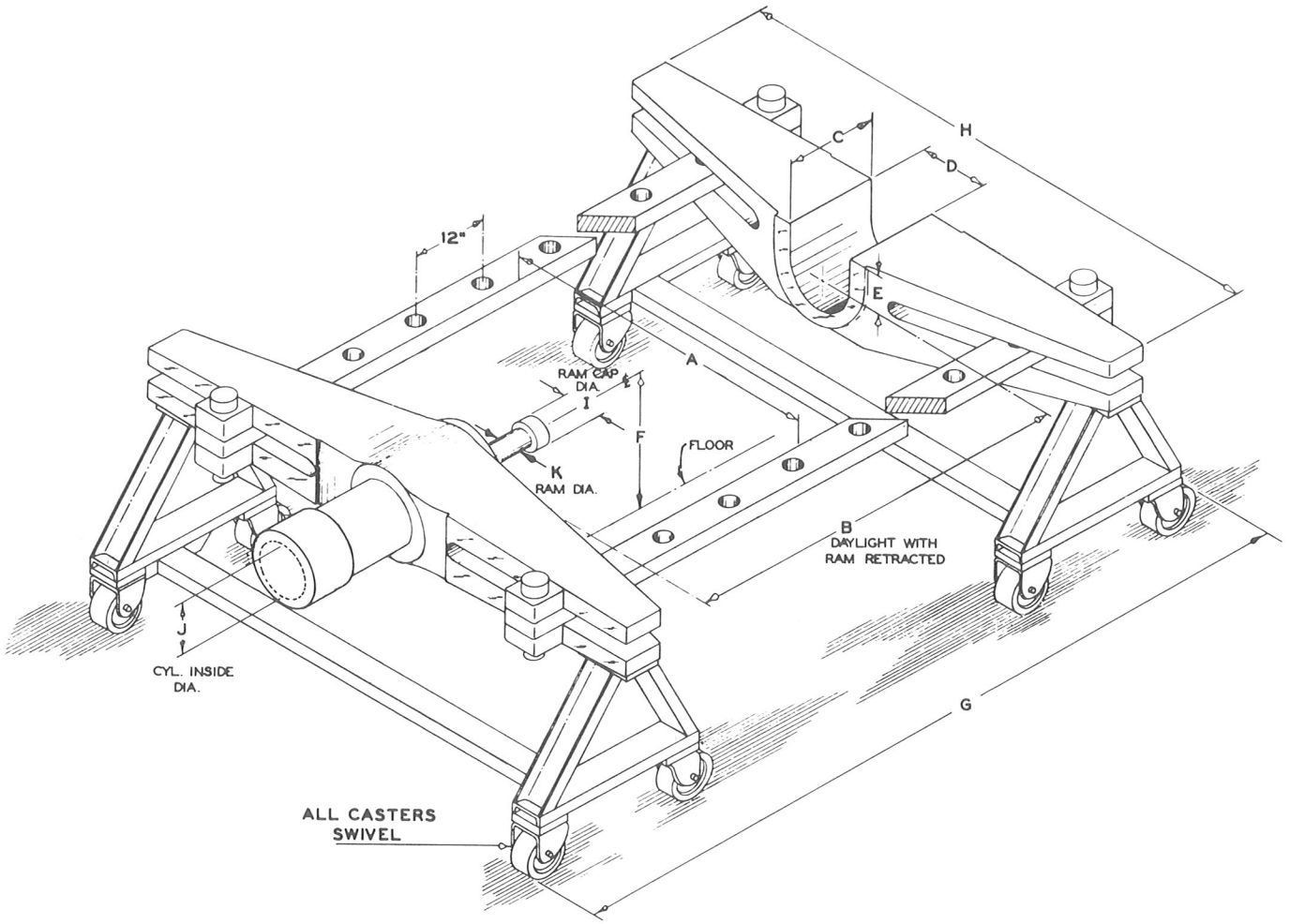
Tension Bars: The tension bars are accurately sized cold drawn flats of AISI C1018 steel with smooth surfaces.

Abutment Members and Cylinder Support Members: These members are cast AISI 4135 steel heat treated to 28—32 R.C.

ELECTRIC MOTOR DRIVEN PUMP UNIT FEATURES

1. The pumps are submerged in the reservoir along with some of the valving and piping. This produces:
   a. Lower cost by reducing the amount of piping, fittings, etc.
   b. Smaller packages with fewer exposed components subject to damage from external causes.
   c. Less noise. (80 dba)
2. Steel tubing and pipe are used throughout.
3. Each reservoir assembly includes:
   a. A combination oil level and temperature gauge.
   b. A combination breather, filler cap, and fill strainer.
4. All relief valves are preset to maximum cylinder pressure.
5. All pump units are thoroughly tested before shipment.

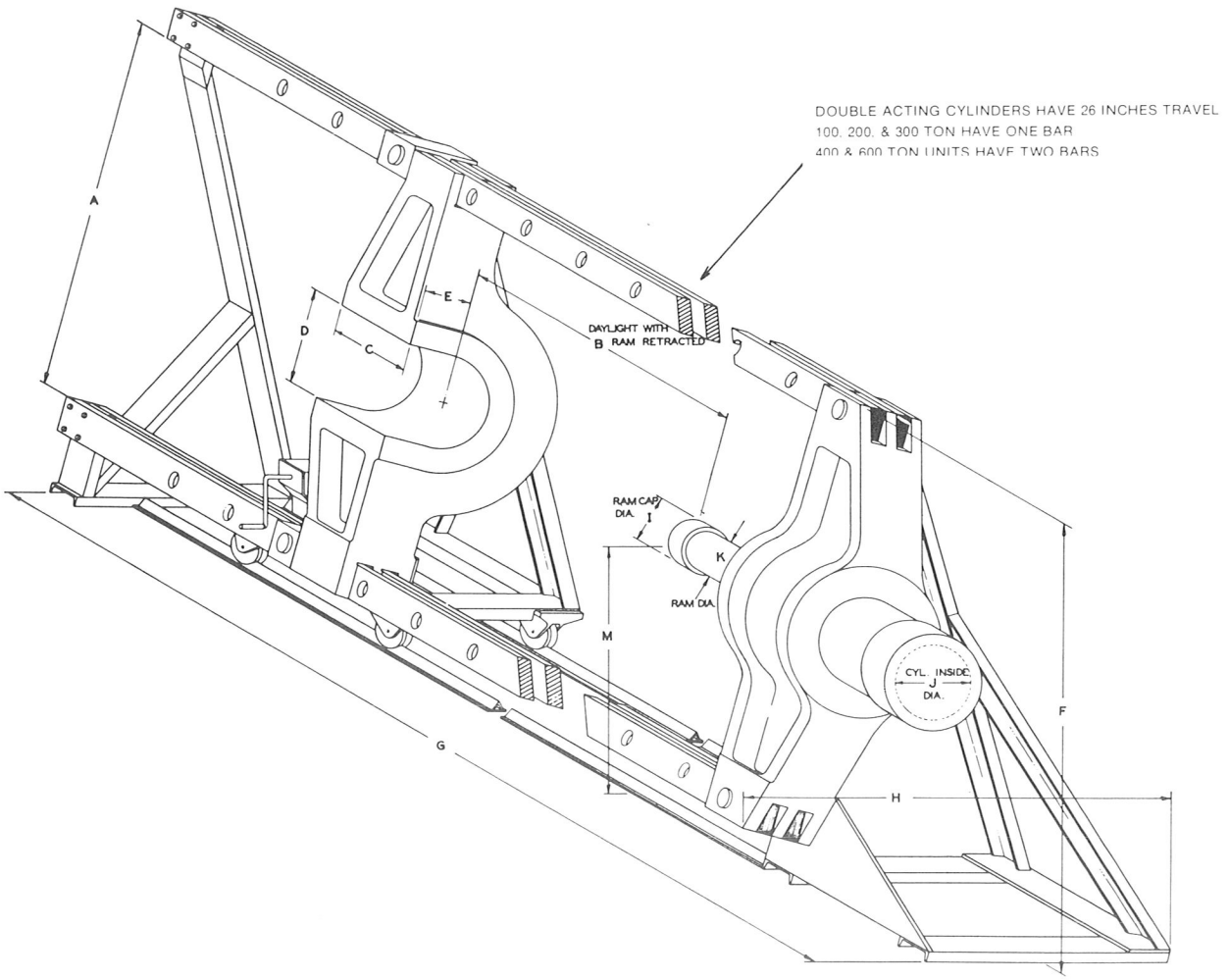
RODGERS PORTABLE FORCING PRESSES



RODGERS HYDRAULIC PORTABLE FORCING PRESSES (DIMENSIONS IN INCHES)

Cylinder Return	Frame Model Number	Press Capacity (Tons)	A Min.	A Max.	B Min.	B Max.	C	D	E	F	G	H	I	J	K
Hydraulic (Double-Acting)	PF100D-4810	**100**	16¼	48	12	120	10	6	3⅜	23	180	56	5½	6	5
	PF200D-7210	**200**	24	72	12	120	14¼	10	5	35¾	188	84	7	8	6½

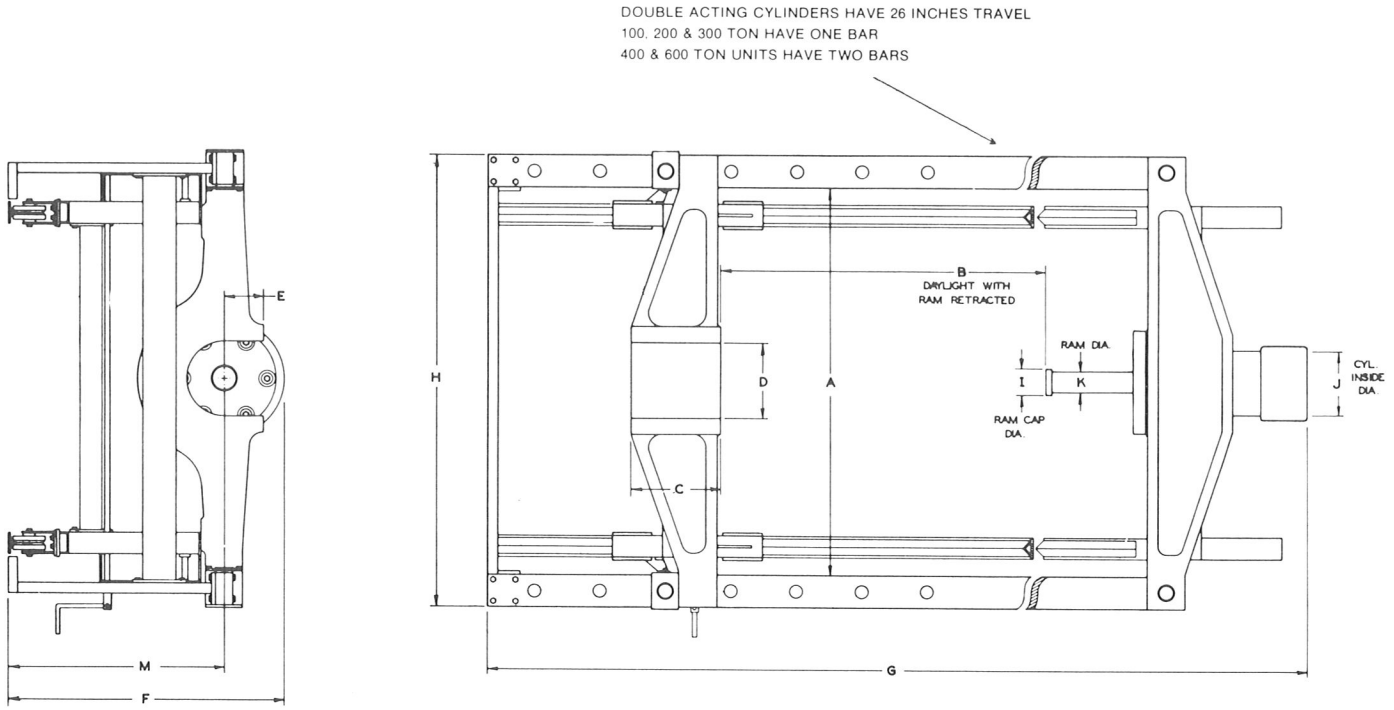
RODGERS 75° INCLINED FORCING PRESSES



RODGERS HYDRAULIC 75° INCLINED FORCING PRESSES (DIMENSIONS IN INCHES)

Cylinder Return	Frame Model Number	Press Capacity (Tons)	A	B Max.	B Min.	C	D	E	F	G	H	I	J	K	M
Hydraulic (Double-Acting)	IF100D-4810	**100**	48	120	12	10¼	6	3	65	179	30	5½	6	5	38
	IF100D-7210	**100**	72	120	12	12¾	6	3	89	189	36	5½	6	5	50
	IF200D-4810	**200**	48	120	12	13¾	10	5	72	196	42	7	8	6½	42
	IF200D-7210	**200**	72	120	12	15¼	10	5	95	196	53	7	8	6½	54
	IF300D-4810	**300**	48	120	12	13¼	14	7	74	194	40	8¼	10	7½	44
	IF300D-7210	**300**	72	120	12	16¼	14	7	95	196	53	8¼	10	7½	54
	IF400D-7210	**400**	72	120	12	18½	18	9	106	225	70	8¼	12	7½	64
	IF400D-8410	**400**	84	120	12	12½	18	9	118	225	70	8¼	12	7½	70
	IF600D-7210	**600**	72	120	12	22½	18	9	103	233	83	9½	14	8	61
	IF600D-8410	**600**	84	120	12	23½	24	12	115	233	83	9½	14	8	67
	IF600D-10810	**600**	108	120	12	24¾	30	15	138	233	91	9½	14	8	78

RODGERS HORIZONTAL FORCING PRESSES



RODGERS HYDRAULIC HORIZONTAL FORCING PRESSES (DIMENSIONS IN INCHES)

Cylinder Return	Frame Model Number	Press Capacity (Tons)	A	B Max.	B Min.	C	D	E	F	G	H	I	J	K	M
Hydraulic (Double-Acting)	F100D-4810	**100**	48	120	12	10¼	6	3	47	177	56	5½	6	5	40
	F100D-7210	**100**	72	120	12	12¾	6	3	47	177	80	5½	6	5	40
	F200D-4810	**200**	48	120	12	13¾	10	5	49	180	60	7	8	6½	39½
	F200D-7210	**200**	72	120	12	15¼	10	5	50	180	84	7	8	6½	39¾
	F300D-4810	**300**	48	120	12	13¼	14	7	49	183	60	8¼	10	7½	36
	F300D-7210	**300**	72	120	12	16¼	14	7	52	184	84	8¼	10	7½	40
	F400D-7210	**400**	72	120	12	18½	18	9	54½	196	84	8¼	12	7½	40
	F400D-8410	**400**	84	120	12	20½	18	9	54½	196	96	8¼	12	7½	40
	F600D-7210	**600**	72	120	12	22½	18	9	56½	203	86	9½	14	8	40
	F600D-8410	**600**	84	120	12	23½	24	12	57	203	96	9½	14	8	40
	F600D-10810	**600**	108	120	12	24¾	30	15	67½	203	122	9½	14	8	50

ELECTRIC MOTOR DRIVEN PUMP UNITS

PRESSURE SENSITIVE, 4-WAY VALVE, REMOTE HAND OPERATED CONTROL (DOUBLE ACTING CYLINDERS)

The pressure sensitive, manually operated 4-way valve and remote control operate as follows:

1. The remote control handle, mounted on the head member of the forcing press, will advance and return the ram only at low pressure. It is to be used only for alignment purposes.
2. The handle mounted on the pressure sensitive 4-way valve will also advance and retract the ram at low pressure. With further movement of the valve handle, the applied pressure will increase in proportion to the distance through which the valve handle is moved.
   A separate adjustable relief valve limits the maximum pressure that can be obtained.
3. To retract the ram, the valve handle is raised.
   When a low pressure pump is included, the ram will travel at a rapid speed determined by the combined delivery of the two pumps until the work has been contacted. A 1000 psi unloading valve will "dump" the low pressure pump at 1000 psi with the high pressure pump continuing to move the ram.

Model Number of Pump Unit and Controls	GPM of High Pressure Pump at 1800 RPM	GPM of Low Pressure Pump at 1800 RPM	Electric Motor Horsepower at 1800 RPM	Reservoir Capacity (Gallons)	
				Total	Usable
1000	1.83	—	7½	18	12
1001	1.83	8	7½	18	12

REMOTE PUSHBUTTON CONTROL (DOUBLE ACTING CYLINDERS)

With this system the cylinder ram is controlled by a pushbutton panel mounted on 15 feet of cable. The panel has three buttons — PRESS, RETURN and EMERGENCY STOP.
When the operator pushes and holds the PRESS button:

1. A rapid cylinder speed will result initially due to the combined delivery of the low pressure pump and high pressure pump up to 1000 p.s.i.
2. At 1000 psi, the low pressure pump will be "dumped" with the high pressure pump continuing to move the ram.
3. An adjustable relief valve limits the maximum pressure that can be reached.
   When the operator pushes and holds the RETURN button the low pressure pump will retract the ram.
   The cylinder ram will be stopped in position whenever the PRESS or RETURN pushbutton is released.

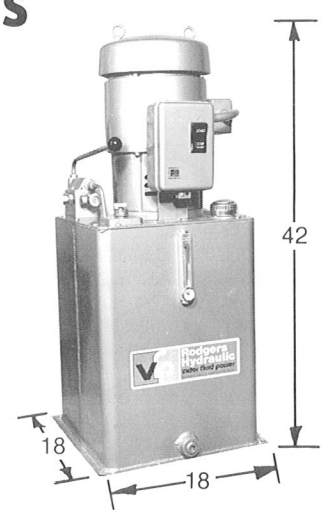
Model Number of Pump Unit and Controls	GPM of High Pressure Pump at 1800 RPM	GPM of Low Pressure Pump at 1800 RPM	Electric Motor Horsepower at 1800 RPM	Reservoir Capacity (Gallons)	
				Total	Usable
80-1045	1.83	8	7½	50	35
80-3049	4.76	12	20	50	35
80-3050	4.76	22.5	20	50	35
80-5001	7.44	28.5	30	50	35

PUMP UNITS

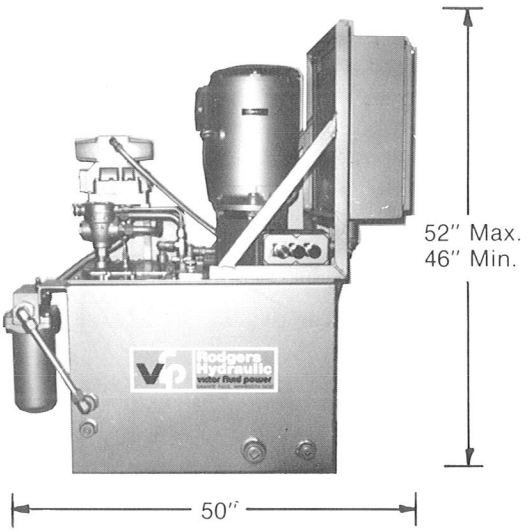
APPROXIMATE RAM TRAVEL SPEEDS INCHES PER MINUTE

Press Capacity (Tons)	Phase	PUMP UNIT MODEL NUMBER					
		1000	1001	80-1045	80-3049	80-3050	80-5001
100	Approach	14	76	76	131	200	272
	Press	14	14	14	37	37	58
	Return	46	248	248	304	534	700
200	Approach	8	42	42	74	113	152
	Press	8	8	8	21	21	32
	Return	23	124	124	152	268	350
300	Approach	5	27	27	47	72	98
	Press	5	5	5	13	13	21
	Return	11	62	62	76	133	175
400	Approach	3.5	19	19	32	50	68
	Press	3.5	3.5	3.5	9	9	14
	Return	5.5	30	30	37	65	85
600	Approach	2.5	14	14	24	37	50
	Press	2.5	2.5	2.5	6.7	6.7	10.5
	Return	4	21	21	25	44	58

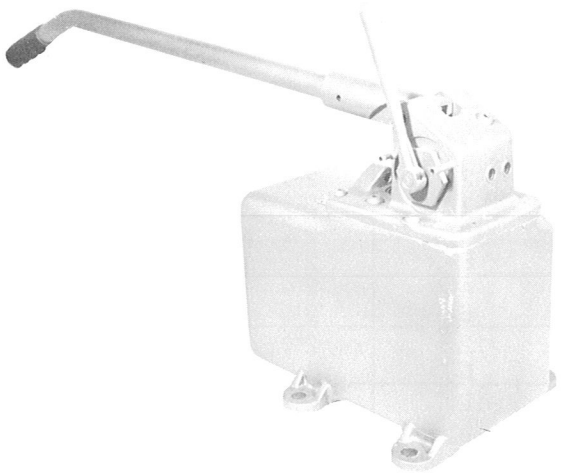
For 50 cycle A.C. instead of 60 cycle, the electric motors will operate at 1500 RPM. Multiply the above speeds by .83



PUMP MODEL 1000 AND 1001



PUMP MODEL 80-1045, 80-3049, 80-3050, and 80-5001



TWO SPEED HAND PUMPS

PUMP MODEL 2HPE-6-4V

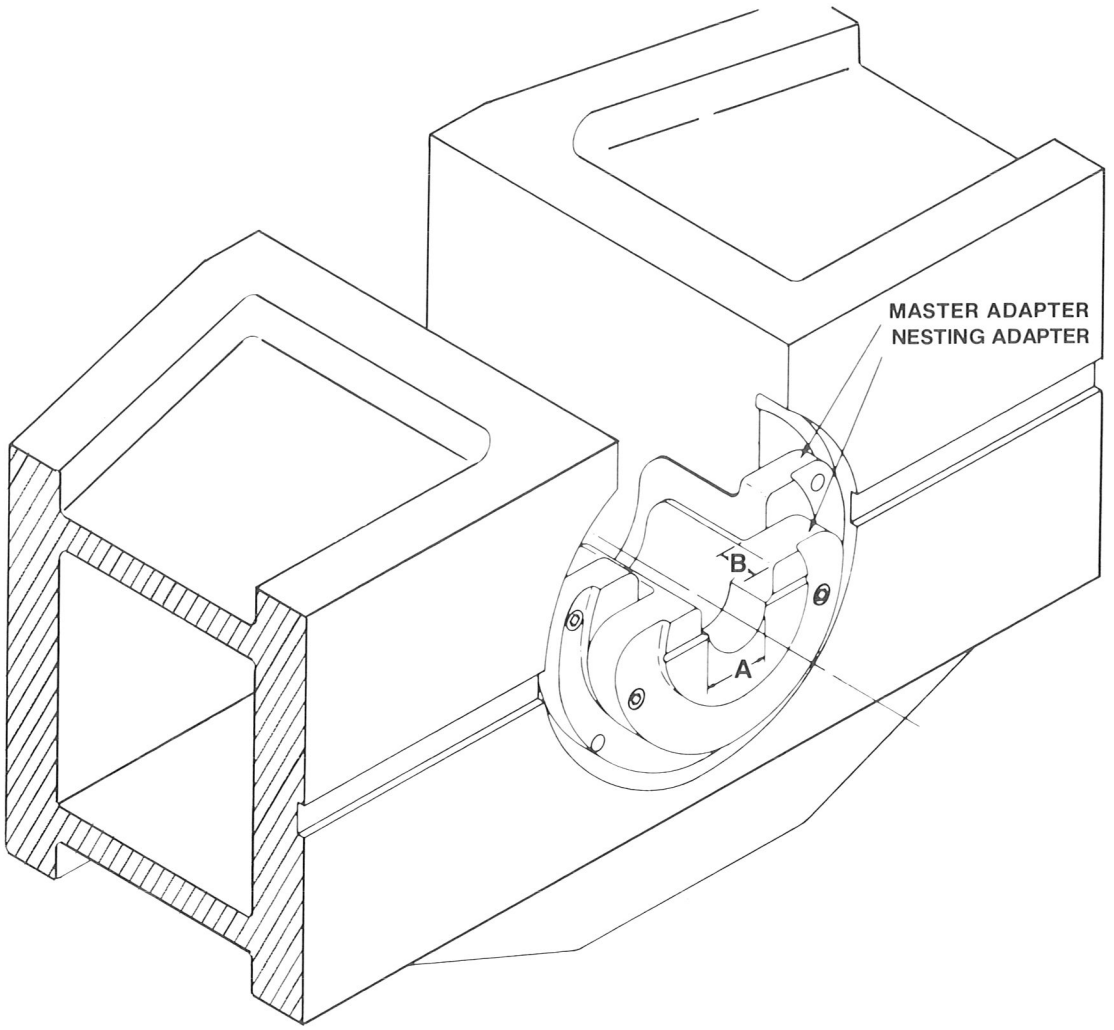
PUMP MODEL 2HPE-12-4V

Each two speed hand pump has an integral relief valve and sequence valve which automatically changes the pump from the first "speed" to the second "speed" at 275 psi.

Hand Pump Model Number	Press Capacity (Tons)	Ram Travel — Inches Per Pump Stroke	
		Approach	Press
2HPE-6-4V	**100**	0.21	0.013
2HPE-12-4V	**200**	0.12	0.007

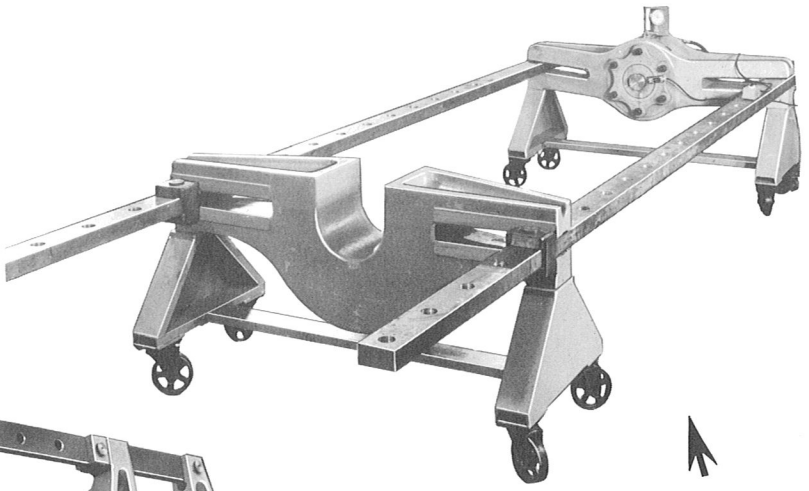
Use of hand pumps for presses larger than 200 tons is not recommended due to slow ram travel speeds.

YOKE ADAPTERS

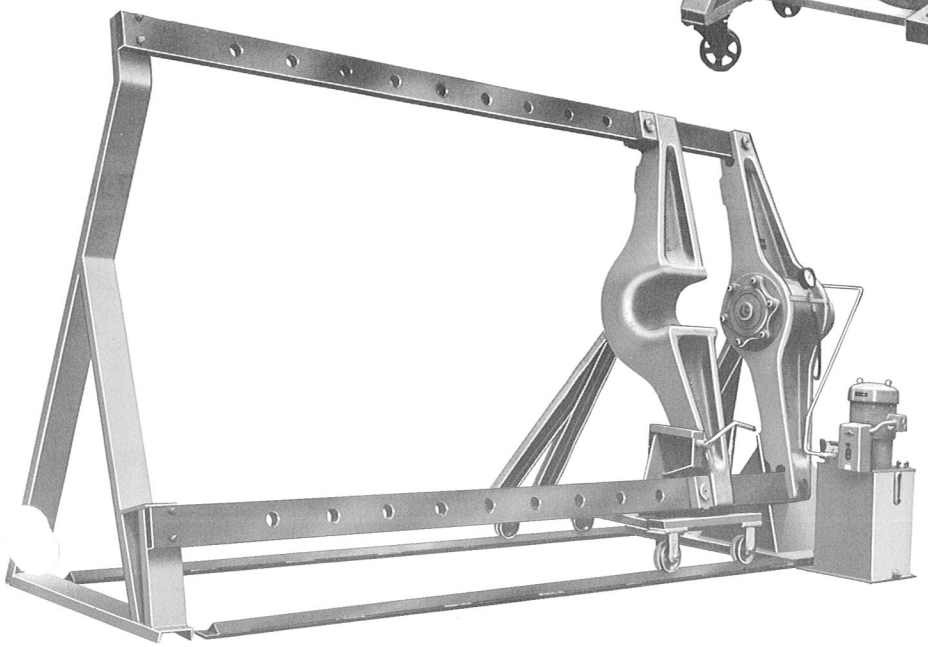


Press Capacity (Tons)	Press Yoke Opening	Adapter Type and Description	A Diameter	B	Part Number
100	6	Master — Fits 6 inch yoke	4	2	86266
		NESTING - NESTS IN 86266	2	2 1/2	86267
		NESTING - NESTS IN 86266	1	2 1/2	86268
200	10	Master — Fits 10 inch yoke	6	2	86269
		NESTING - NESTS IN 86269	4	2 1/2	86270
		NESTING - NESTS IN 86269	2	2 1/2	86271
		NESTING - NESTS IN 86269	1	2 1/2	86272
300	14	Master — Fits 14 inch yoke	10	2 1/4	86273
		NESTING - NESTS IN 86273	6	2 3/8	86274
		NESTING - NESTS IN 86274	4	2 3/4	86275
		NESTING - NESTS IN 86273	8	2 1/2	86276
400	18	Master — Fits 18 inch yoke	12	2 1/4	86277
		NESTING - NESTS IN 86277	6	3	86278
600	18	Master — Fits 18 inch yoke	12	2 3/4	86279
		NESTING - NESTS IN 86279	6	3 1/2	86280
600	24	Master — Fits 24 inch yoke	20	2 3/4	86281
		Master — Fits 24 inch yoke	18	2 3/4	86282
		NESTING - NESTS IN 86282	12	2 3/4	86284
		NESTING - NESTS IN 86284	6	3 1/2	86280
		Master — Fits 24 inch yoke	12	2 3/4	86283
600	30	Master — Fits 30 inch yoke	24	2 3/4	86285
		NESTING - NESTS IN 86285	18	2 3/4	86286
		NESTING - NESTS IN 86286	12	2 3/4	86284
		NESTING - NESTS IN 86284	6	3 1/2	86280

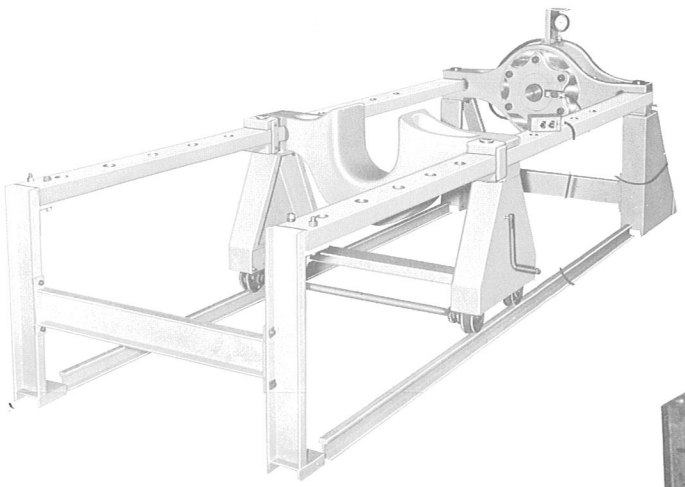
RODGERS 3 STYLES OF FORCING PRESSES



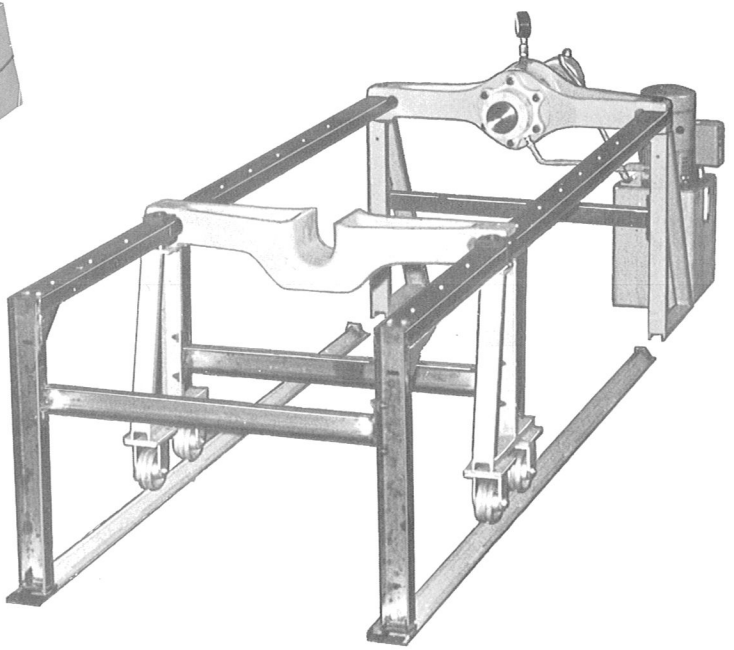
PORTABLE
100 and 200 tons

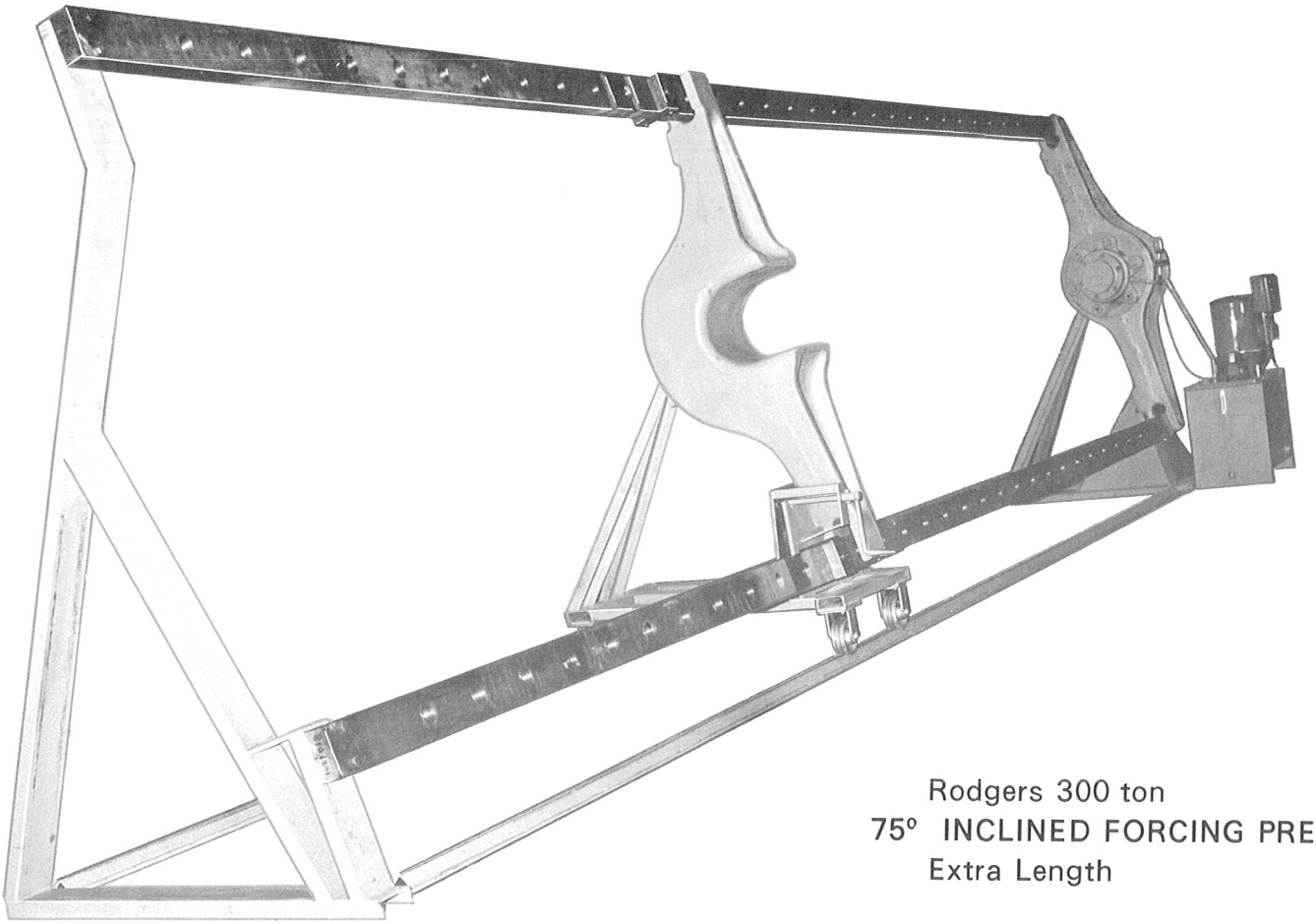


75° INCLINED
100 thru 600 tons

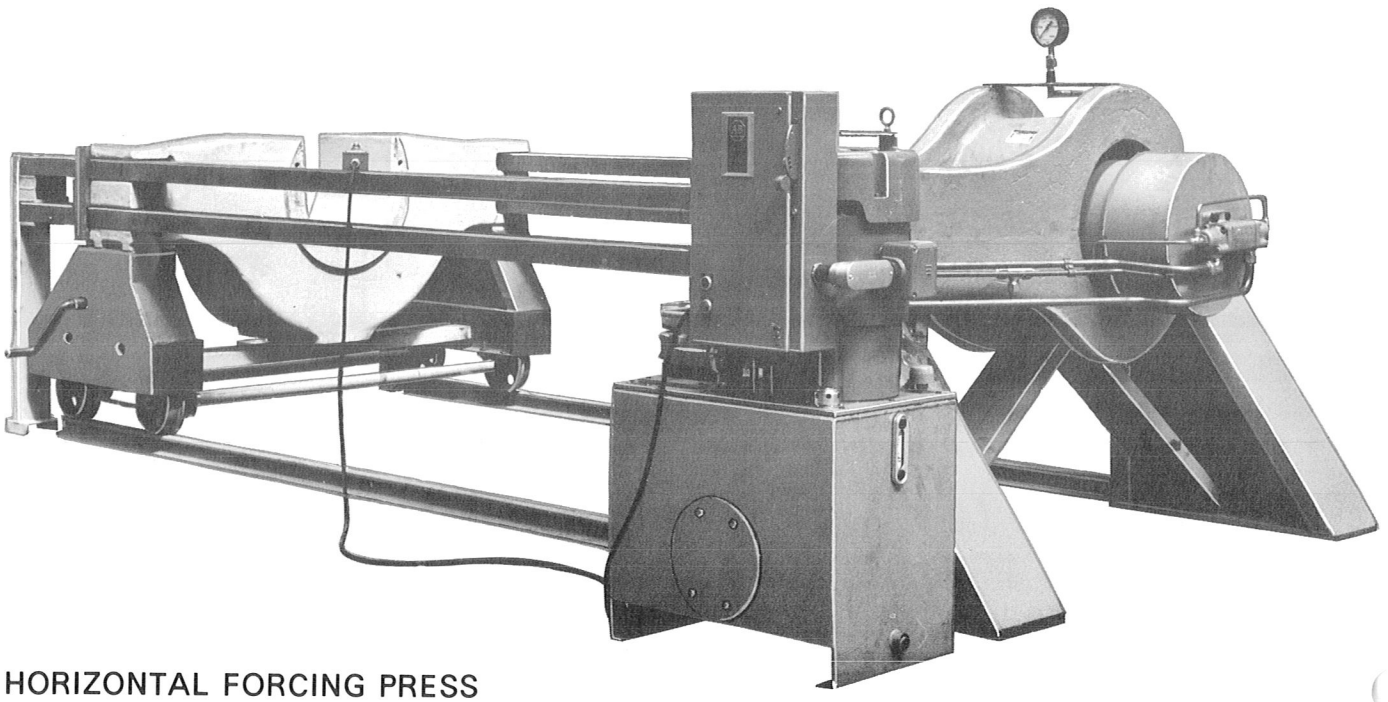


HORIZONTAL FORCING PRESSES
100 thru 600 tons

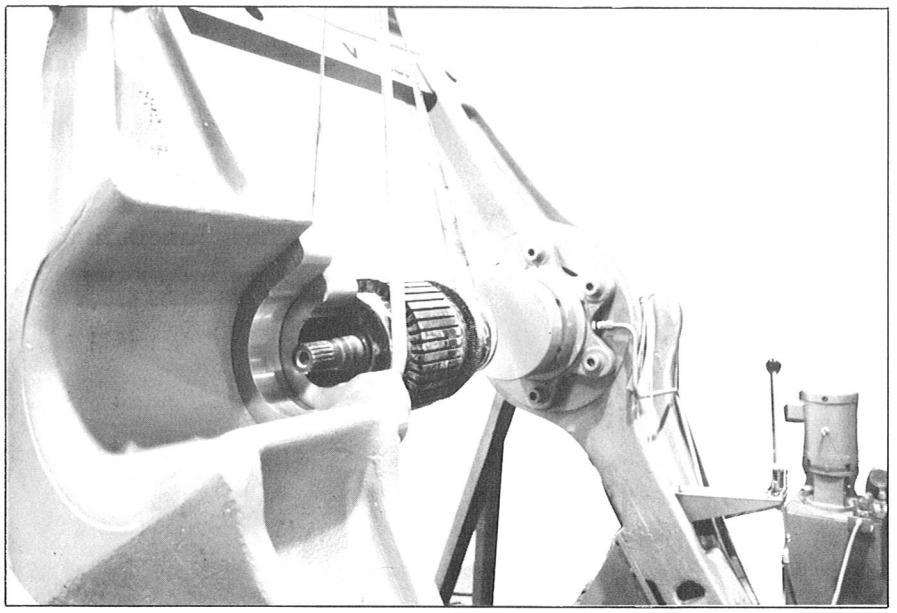




Rodgers 300 ton
75° INCLINED FORCING PRESS
Extra Length

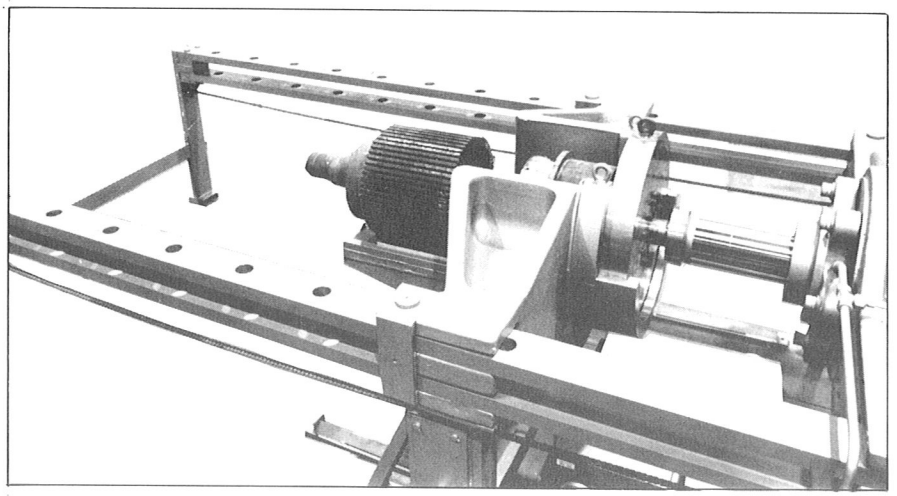


HORIZONTAL FORCING PRESS



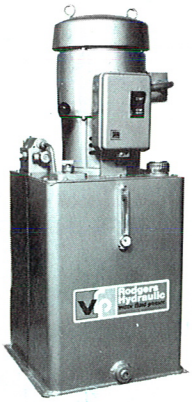
FORCING PRESS APPLICATIONS

Disassembly and Assembly Operations



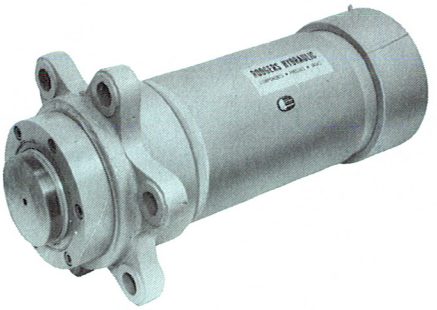
OTHER PRODUCTS OFFERED BY VICTOR FLUID POWER

PUMP UNITS
Catalog R-108-1182



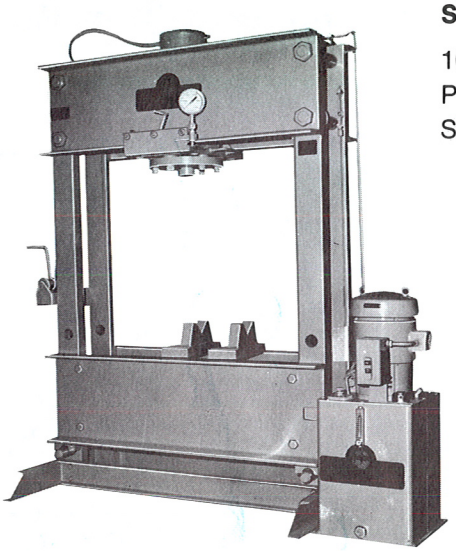
TASK-FORCE CYLINDERS

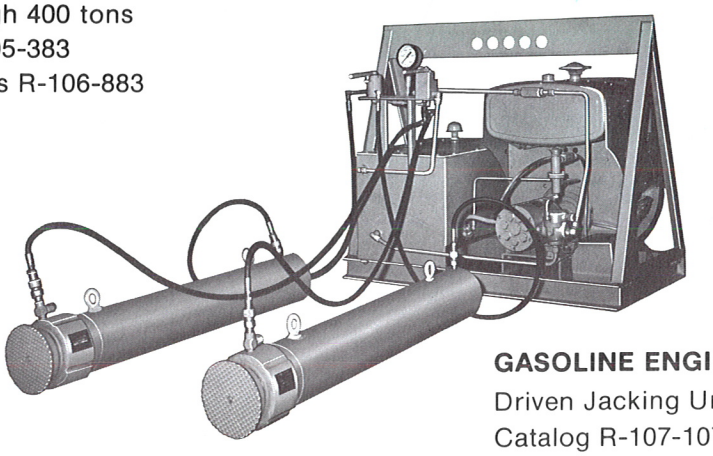
Double Acting
30-600 tons
Catalog HC300G



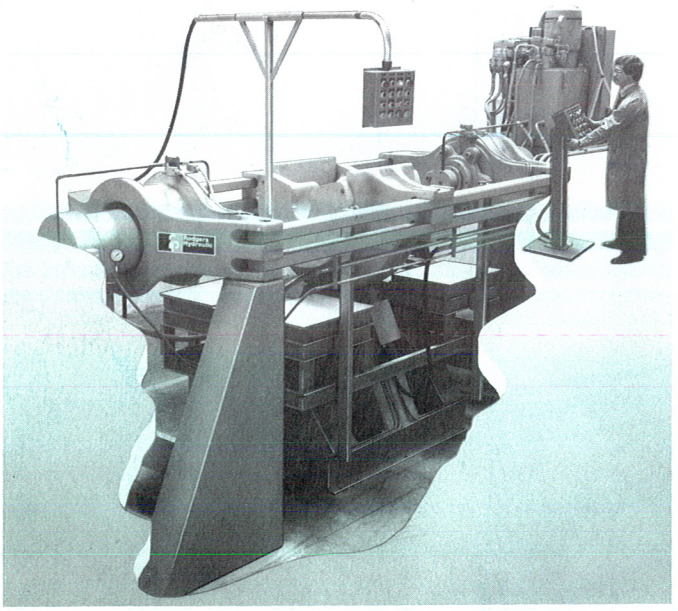
SHOP PRESSES

100 through 400 tons
Press R-105-383
Shop Press R-106-883



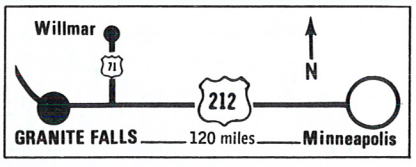


GASOLINE ENGINE
Driven Jacking Units
Catalog R-107-1078



CAR WHEEL PRESSES

200-600
Mounting and Demounting
Catalog R-116-878



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