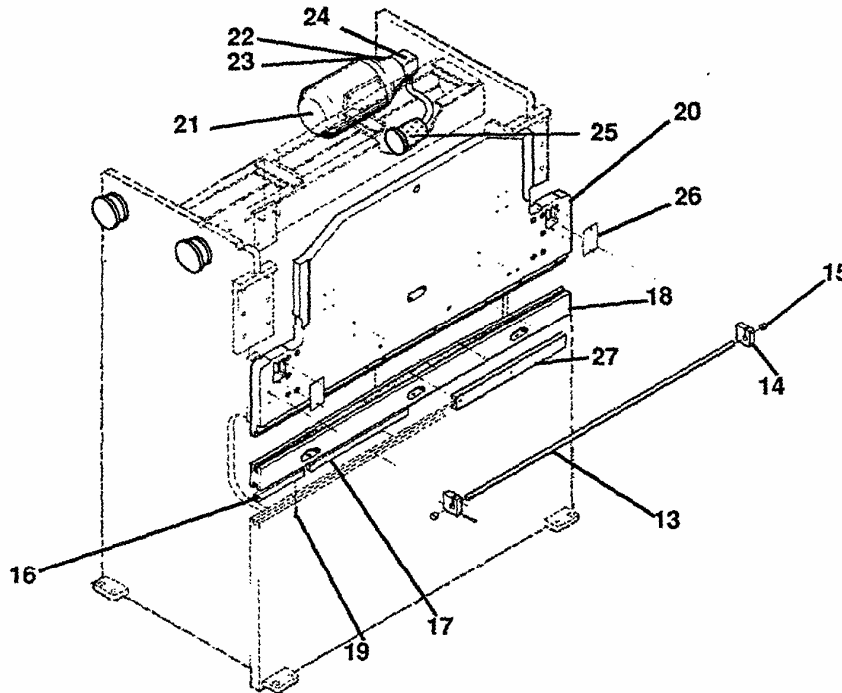


# PHP SERIES PRESS BRAKES

## FRAME ASSEMBLY

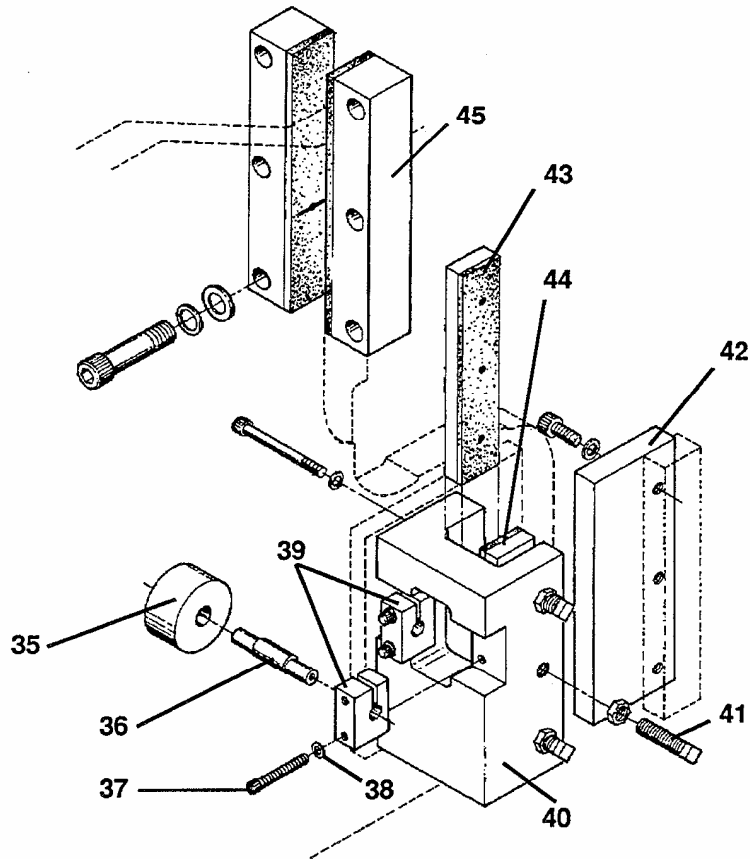


ITEM NO.	DESCRIPTION	PHP 60-72	PHP 60-96	PHP 100-120	PHP 100-144	PHP 100-168	PHP 140-120	PHP 140-144	PHP 140-168
13	Handrail	3859-206	3859-208	3859-210	3859-212	3859-214	3859-210	3859-212	3859-214
14	Bracket, Handrail Mtg.	7486-315	7486-315	7486-315	7486-315	7486-315	7486-315	7486-315	7486-315
15	Cap, Plastic	4510-100	4510-100	4510-100	4510-100	4510-100	4510-100	4510-100	4510-100
16	Key, Die Holder	7485-083	7485-083	7485-083	7485-083	7485-083	7485-083	7485-083	7485-083
17	Key, Die Holder	7485-084	7485-084	7485-084	7485-084	7485-084	7485-084	7485-084	7485-084
18	Holder, Die	7435-905	7435-906	7485-078	7485-079	7485-080	7485-078	7485-079	7485-080
19	Screw, Soc. Hd. Cap	3303-082	3303-082	3303-082	3303-082	3303-082	3303-082	3303-082	3303-082
20	Ram, Press Brake	7237-183	7237-185	7237-068	7437-326	7437-371		7237-315	
21	Motor	4422-013	4422-013	4424-013	4424-013	4424-013	4426-053	4426-053	4426-053
22	Flange, Pump	3257-061	3257-061	3257-061	3257-061	3257-061	3257-062	3257-062	3257-062
23	Coupling	3428-211	3428-211	3428-211	3428-211	3428-211	3428-218	3428-218	3428-218
24	Pump	3257-128	3257-128	3257-208	3257-208	3257-208	3257-208	3257-208	3257-208
25	Filter, Pump Suction	3764-313	3764-313	3764-313	3764-313	3764-313	3764-313	3764-313	3764-313
26	Cover, Cyl. Rod Nut	7437-014	7437-014	7437-196	7437-196	7437-196	7437-200	7437-200	7437-200
27	Bar, Clamp	7437-160	7437-160	7437-160	7437-160	7437-160	7437-160	7437-160	7437-160

ITEM NO.	DESCRIPTION	PHP 175-120	PHP 175-144	PHP 175-168	PHP 250-144	PHP 250-168	PHP 400-168
13	Handrail	3859-210	3859-212	3859-214	3859-212	3859-214	3859-214
14	Bracket, Handrail Mtg.	7486-315	7486-315	7486-315	7486-315	7486-315	7486-315
15	Cap, Plastic	4510-100	4510-100	4510-100	4510-100	4510-100	4510-100
16	Key, Die Holder	7485-083	7485-083	7485-083	7485-083	7485-083	7485-083
17	Key, Die Holder	7485-084	7485-084	7485-084	7485-084	7485-084	7485-084
18	Holder, Die	7485-078	7485-079	7485-080	7485-079	7485-080	7485-080
19	Screw, Soc. Hd. Cap	3303-082	3303-082	3303-082	3303-082	3303-082	3303-082
20	Ram, Press Brake	7237-173	7237-173	7237-363	7437-543	7437-549	7289-031
21	Motor	4426-053	4426-053	4426-053	4428-014	4428-014	4430-014
22	Flange, Pump	3257-062	3257-062	3257-062	3257-073	3257-073	3257-064
23	Coupling	3428-218	3428-218	3428-218	3428-218	3428-218	3428-220
24	Pump	3257-209	3257-209	3257-209	3257-169	3257-169	3257-127
25	Filter	3764-313	3764-313	3764-313	3764-304	3764-304	3764-315
26	Cover, Cyl. Rod Nut	7437-200	7437-200	7437-200	7437-200	7437-200	7489-017
27	Bar, Clamp	7437-160	7437-160	7437-160	7488-282	7488-282	7488-282

# PHP SERIES PRESS BRAKES

## GIBBING CONFIGURATION

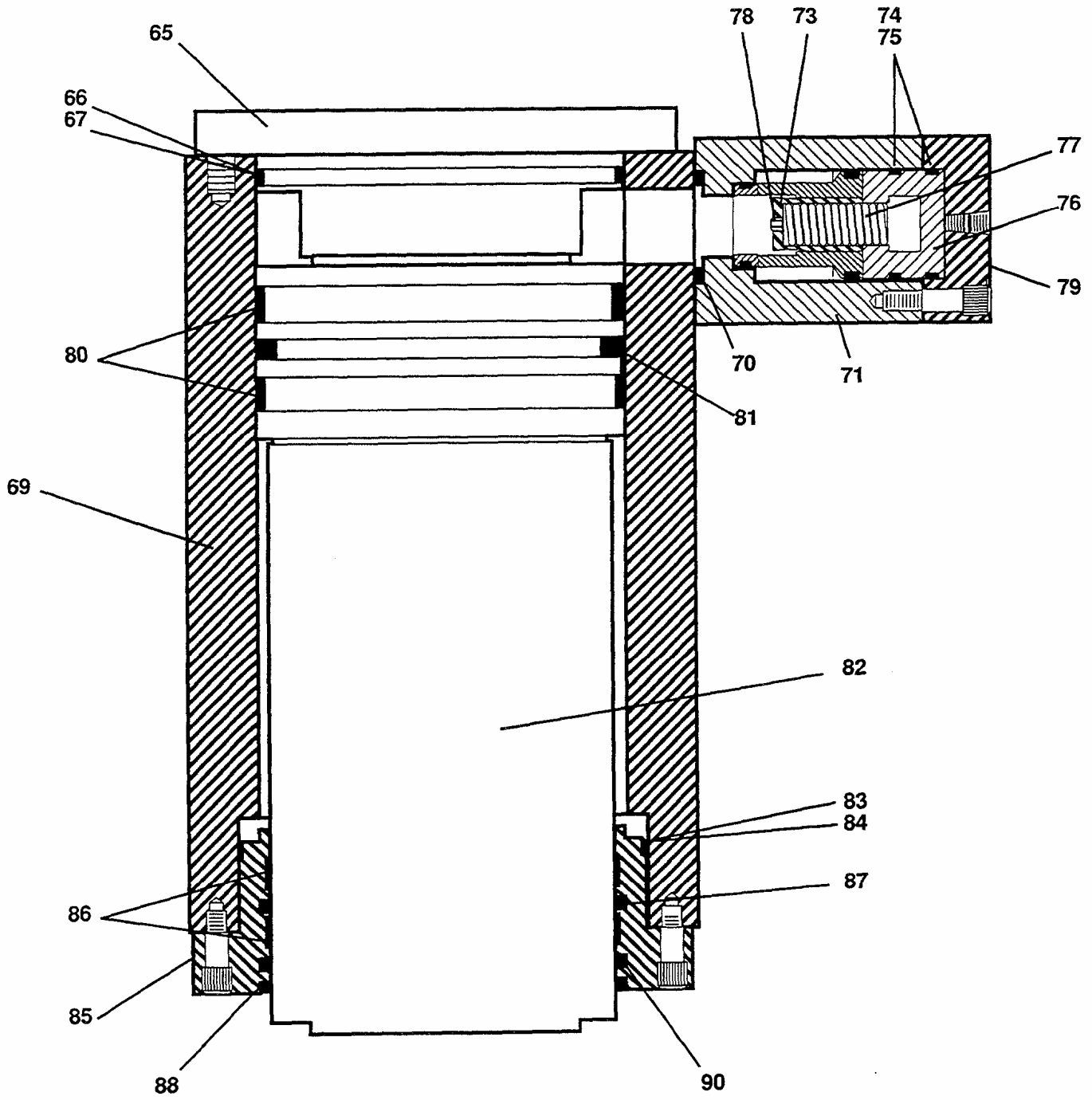


ITEM NO.	DESCRIPTION	PHP 60-72	PHP 60-96	PHP 100-120	PHP 100-144	PHP 100-168	PHP 140-120	PHP 140-144	PHP 140-168
35	Bearing, Roller	3107-214	3107-214	3107-214	3107-214	3107-214	3107-214	3107-214	3107-214
36	Shaft, Cam Follower	7437-006	7437-006	7437-006	7437-006	7437-006	7437-006	7437-006	7437-006
37	Screw, Soc. Hd. Cap	3303-115	3303-115	3303-115	3303-115	3303-115	3303-115	3303-115	3303-115
38	Washer, Lock	3327-007	3327-007	3327-007	3327-007	3327-007	3327-007	3327-007	3327-007
39	Block, Roller Mtg.	7437-007	7437-007	7437-007	7437-007	7437-007	7437-007	7437-007	7437-007
40	Bracket, Ram	7037-031	7037-031	7037-029	7037-029	7037-029	7037-029	7037-029	7037-029
41	Screw, Sq. Hd. Set	3310-036	3310-036	3310-036	3310-036	3310-036	3310-036	3310-036	3310-036
42	Way, Ram	7437-004	7437-004	7437-158	7437-158	7437-158	7437-158	7437-158	7437-158
43	Gib, Ram Front	7437-017	7437-017	7437-155	7437-155	7437-155	7437-155	7437-155	7437-155
44	Gib, Ram Rear	7437-018	7437-018	7437-156	7437-156	7437-156	7437-156	7437-156	7437-156
45	Block, Upper Gib	7437-233	7437-233	7437-190	7437-190	7437-190	7437-190	7437-190	7437-190

ITEM NO.	DESCRIPTION	PHP 175-120	PHP 175-144	PHP 175-168	PHP 250-144	PHP 250-168	PHP 400-168
35	Bearing, Roller	3107-214	3107-214	3107-214	3107-214	3107-214	3107-220
36	Shaft, Cam Follower	7437-006	7437-006	7437-006	7437-006	7437-006	7489-010
37	Screw, Soc. Hd. Cap	3303-115	3303-115	3303-115	3303-115	3303-115	
38	Washer, Lock	3327-007	3327-007	3327-007	3327-007	3327-007	
39	Block, Roller Mtg.	7437-007	7437-007	7437-007	7437-007	7437-007	7489-011
40	Bracket, Ram	7037-029	7037-029	7037-029	7037-029	7037-029	7089-001
41	Screw, Sq. Hd. Set	3310-036	3310-036	3310-036	3310-036	3310-036	
42	Way, Ram	7437-158	7437-158	7437-158	7437-158	7437-158	7489-009
43	Gib, Ram Front	7437-155	7437-155	7437-155	7437-155	7437-155	7489-005
44	Gib, Ram Rear	7437-156	7437-156	7437-156	7437-156	7437-156	7489-008
45	Block, Upper Gib	7437-190	7437-190	7437-190	7437-460	7437-460	7489-002

# PH SERIES PRESS BRAKES

## CYLINDER ASSEMBLY



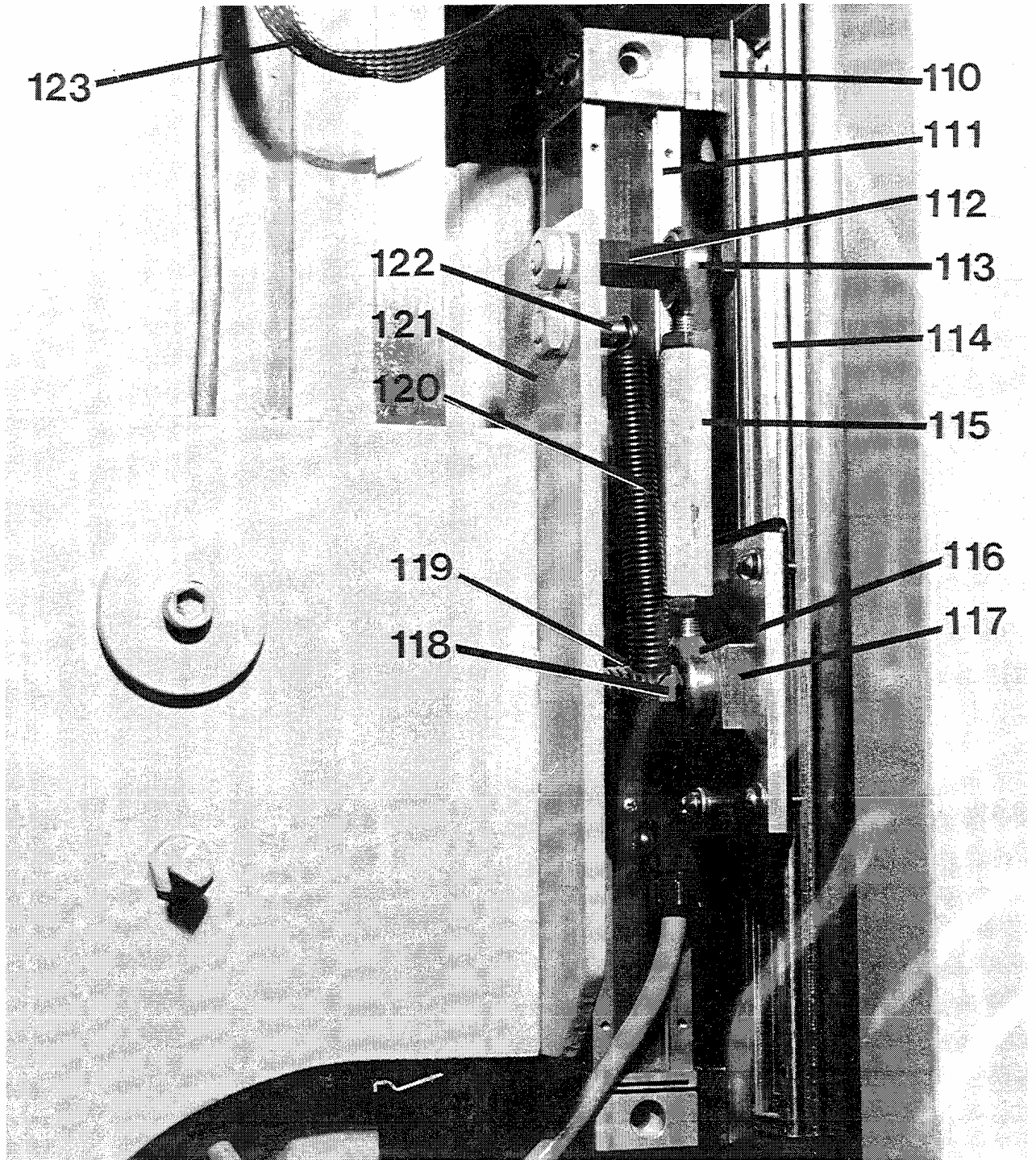
## CYLINDER ASSEMBLY

ITEM NO.	DESCRIPTION	PHP 60-72	PHP 60-96	PHP 100-120	PHP 100-144	PHP 100-168	PHP 140-120	PHP 140-144	PHP 140-168
65	Cap, Cylinder Top	7437-242	7437-242	7437-278	7437-278	7437-278	7437-278	7437-278	7437-278
66	O-Ring, Backup	3255-418	3255-418	3255-440	3255-440	3255-440	3255-440	3255-440	3255-440
67	O-Ring	3255-199	3255-199	3255-246	3255-246	3255-246	3255-246	3255-246	3255-246
68	Cover, R.H. Cylinder	7437-247	7437-247	7437-287	7437-287	7437-287	7437-287	7437-287	7437-287
69	Housing, Cylinder	7437-140	7437-140	7437-170	7437-170	7437-170	7437-170	7437-170	7437-170
70	O-Ring	3255-112	3255-112	3255-118	3255-118	3255-118	3255-118	3255-118	3255-118
71	Manifold, Fill Valve	7237-035	7237-035	7237-142	7237-142	7237-142	7237-142	7237-142	7237-142
72	Hose, Cyl. Pre-Fill	3898-804	3898-804	3898-805	3898-805	3898-805	3898-805	3898-805	3898-805
73	Valve, Cart.	3760-040	3760-040	3760-017	3760-017	3760-017	3760-017	3760-017	3760-017
74	O-Ring	3255-112	3255-112	3255-121	3255-121	3255-121	3255-121	3255-121	3255-121
75	Back-Up, O-Ring	3255-420	3255-420	3255-322	3255-322	3255-322	3255-322	3255-322	3255-322
76	Retainer, Fill Valve Spring	7437-042	7437-042	7437-181	7437-181	7437-181	7437-181	7437-181	7437-181
77	Spring, Valve	3510-500	3510-500	3510-510	3510-510	3510-510	3510-510	3510-510	3510-510
78	Screw	3303-630	3303-630	3303-633	3303-633	3303-633	3303-633	3303-633	3303-633
79	Cap, Fill Valve	7437-086	7437-086	7437-351	7437-351	7437-351	7437-351	7437-351	7437-351
80	Bearing, Piston	3188-006	3188-006	3188-017	3188-017	3188-017	3188-017	3188-017	3188-017
81	Seal, Glyd. Ring Piston	3211-821	3211-821	3211-832	3211-832	3211-832	3211-832	3211-832	3211-832
82	Rod, Cylinder Piston	7437-385	7437-385	7437-386	7437-386	7437-386	7437-386	7437-386	7437-386
83	O-Ring	3255-210	3255-210	3255-235	3255-235	3255-235	3255-235	3255-235	3255-235
84	Back-Up, O-Ring	3255-429	3255-429	3255-435	3255-435	3255-435	3255-435	3255-435	3255-435
85	Cap, Cylinder Rod	7437-275	7437-275	7437-274	7437-274	7437-274	7437-274	7437-274	7437-274
86	Bearing, Rod	3188-006	3188-006	3188-009	3188-009	3188-009	3188-009	3188-009	3188-009
87	Stepseal, Cylinder Rod	3211-818	3211-818	3211-819	3211-819	3211-819	3211-819	3211-819	3211-819
88	Wiper, Cylinder Rod	3211-692	3211-692	3211-712	3211-712	3211-712	3211-712	3211-712	3211-712
89	Stud, Cylinder To Ram	7437-013	7437-013	7437-154	7437-154	7437-154	7437-154	7437-154	7437-154
90	Poly Pack, Rod Seal	3211-802	3211-802	3211-803	3211-803	3211-803	3211-803	3211-803	3211-803

ITEM NO.	DESCRIPTION	PHP 175-120	PHP 175-144	PHP 175-168	PHP 250-144	PHP 250-168	PHP 400-168
65	Cap, Cylinder Top	7437-335	7437-335	7437-335	7437-465	7437-465	
66	O-Ring, Backup	3255-444	3255-444	3255-444	3255-447	3255-447	
67	O-Ring	3255-250	3255-250	3255-250	3255-254	3255-254	
68	Cover, R.H. Cylinder	7437-337	7437-337	7437-337	7437-526	7437-526	7489-041
69	Housing, Cylinder	7437-388	7437-388	7437-388	7437-470	7437-470	7489-048
70	O-Ring	3255-118	3255-118	3255-118			3255-184
71	Manifold, Fill Valve	7237-142	7237-142	7237-142			
72	Hose, Cyl. Pre-Fill	3898-805	3898-805	3898-805			
73	Valve, Cart.	3760-017	3760-017	3760-017	3760-017	3760-017	3760-045
74	O-Ring	3255-121	3255-121	3255-121	3255-121	3255-121	3255-184
75	Back-Up, O-Ring	3255-322	3255-322	3255-322	3255-322	3255-322	3255-421
76	Retainer, Fill Valve Spring	7437-181	7437-181	7437-181	7437-468	7437-468	7489-029
77	Spring, Valve	3510-510	3510-510	3510-510	3510-510	3510-510	3510-520
78	Screw	3303-633	3303-633	3303-633	3303-633	3303-633	3303-690
79	Cap, Fill Valve	7437-351	7437-351	7437-351	7437-432	7437-432	7489-028
80	Bearing, Piston	3188-025	3188-025	3188-025	3188-032	3188-032	3188-033
81	Seal, Glyd. Ring Piston	3211-840	3211-840	3211-840	3211-844	3211-844	3211-845
82	Rod, Cylinder Piston	7437-384	7437-384	7437-384	7437-479	7437-479	7489-020
83	O-Ring	3255-252	3255-252	3255-252	3255-255	3255-255	3255-229
84	Back-Up, O-Ring	3255-446	3255-446	3255-446	3255-448	3255-448	3255-437
85	Cap, Cylinder Rod	7437-387	7437-387	7437-387	7437-466	7437-466	7489-021
86	Bearing, Rod	3188-012	3188-012	3188-012	3188-028	3188-028	3188-031
87	Stepseal, Cylinder Rod	3211-828	3211-828	3211-828	3211-841	3211-841	3211-843
88	Wiper, Cylinder Rod	3211-720	3211-720	3211-720	3211-721	3211-721	3211-723
89	Stud, Cylinder To Ram	7437-201	7437-201	7437-201	7437-201	7437-201	7489-016
90	Poly Pack, Rod Seal	3211-804	3211-804	3211-804	3211-837	3211-837	3211-842

# PH SERIES PRESS BRAKES

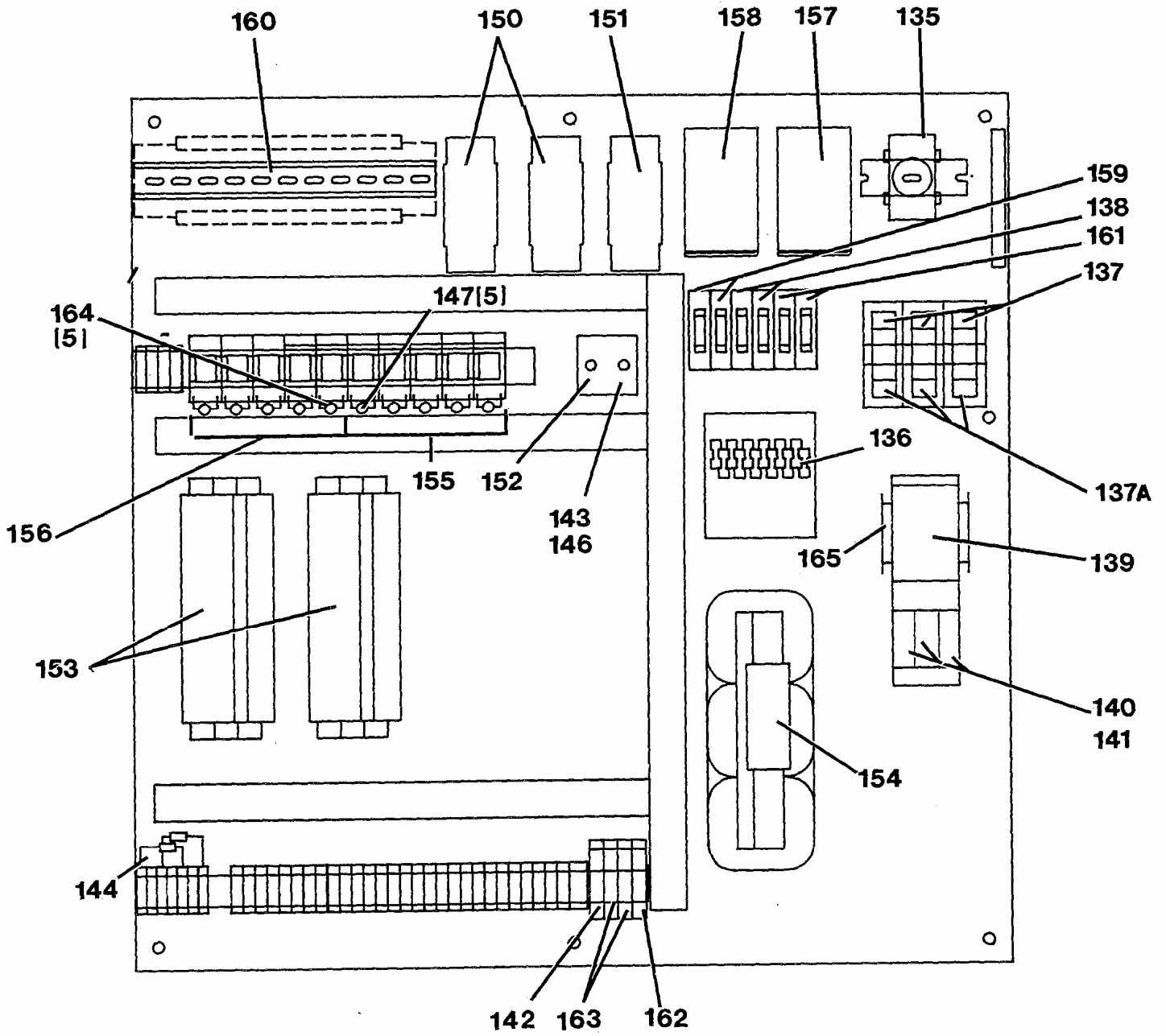
## LINEAR ENCODER





# PHP PRESS BRAKES

## ELECTRICALS

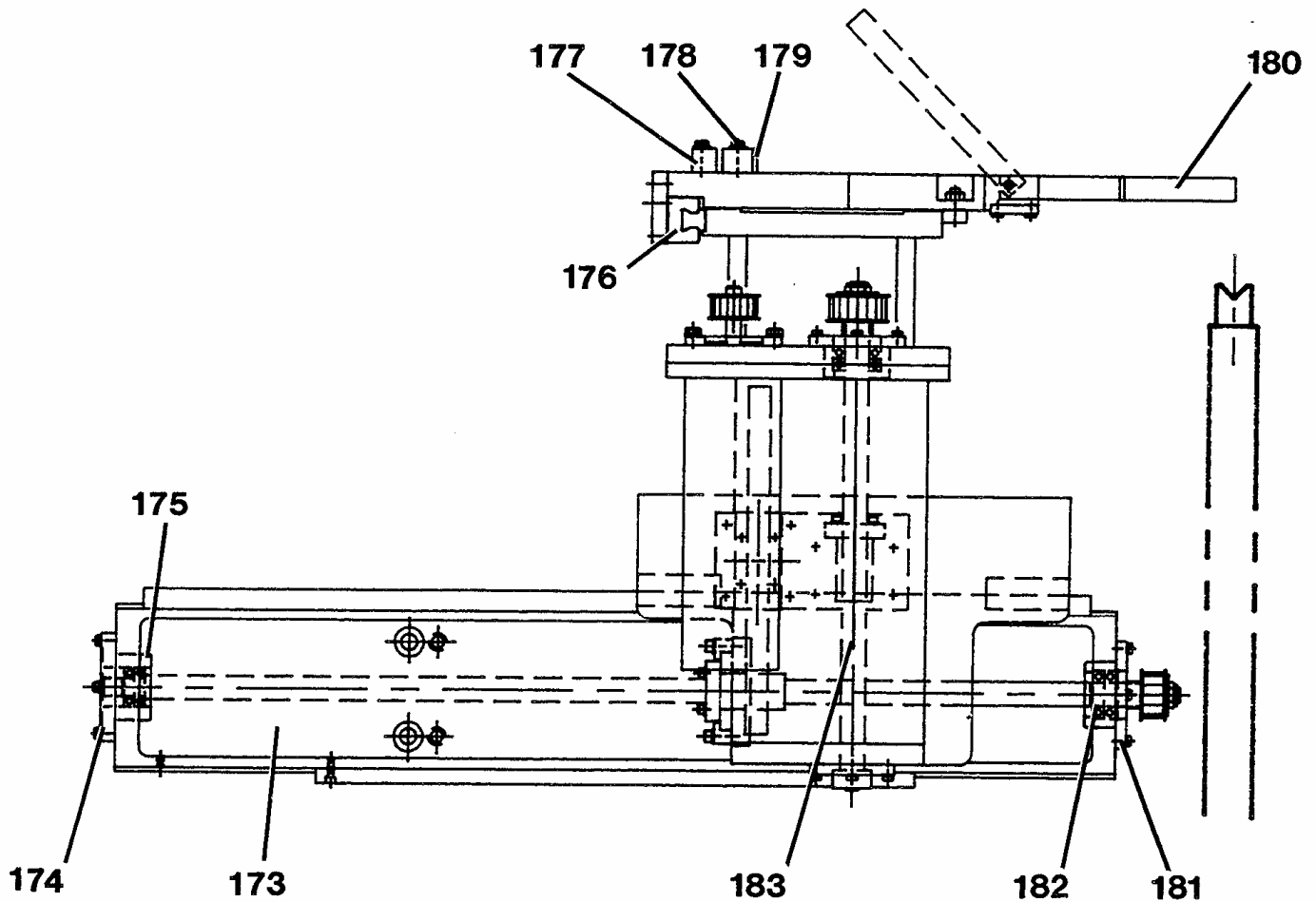






# PHP PRESS BRAKES

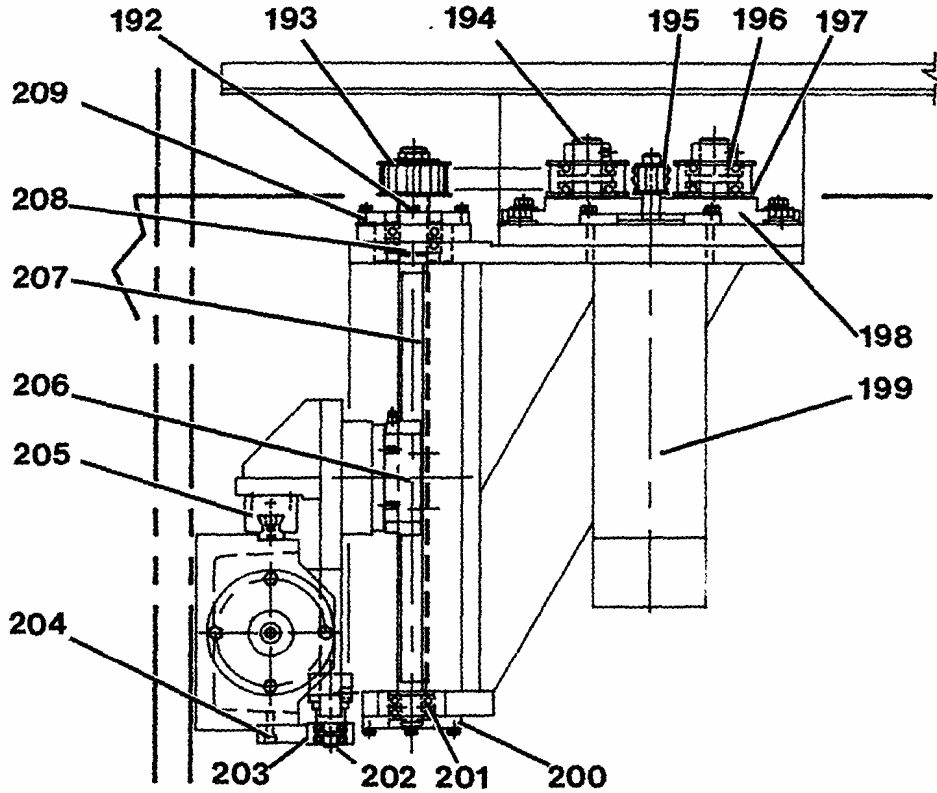
## X & R BACK GAUGE (SIDE VIEW)



ITEM NO.	DESCRIPTION	PART NUMBER
173	Ball Screw Assembly (20" Range)	3358-128
174	Base, Back Gauge Encoder	7486-643
175	Bearing	3178-694
176	Guide Block	3162-215
177	Second Stop, Push	7437-747
178	Block, Second Stop	7437-746
179	Stop, Second Finger	7437-742
180	Stop, First Finger	7437-742
181	Bearing Housing	7486-632
182	Bearing	3178-699
183	Ball Screw Assembly	3358-132

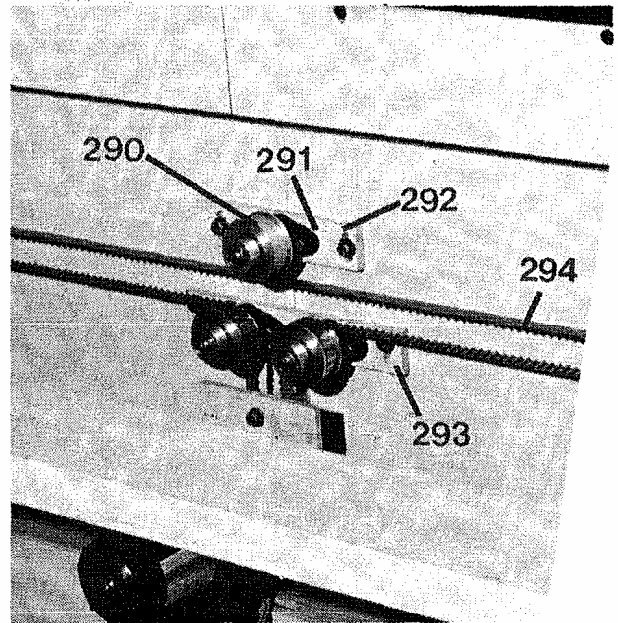
# PHP PRESS BRAKES

## X & R BACK GAUGE (BACK VIEW)



### ITEM

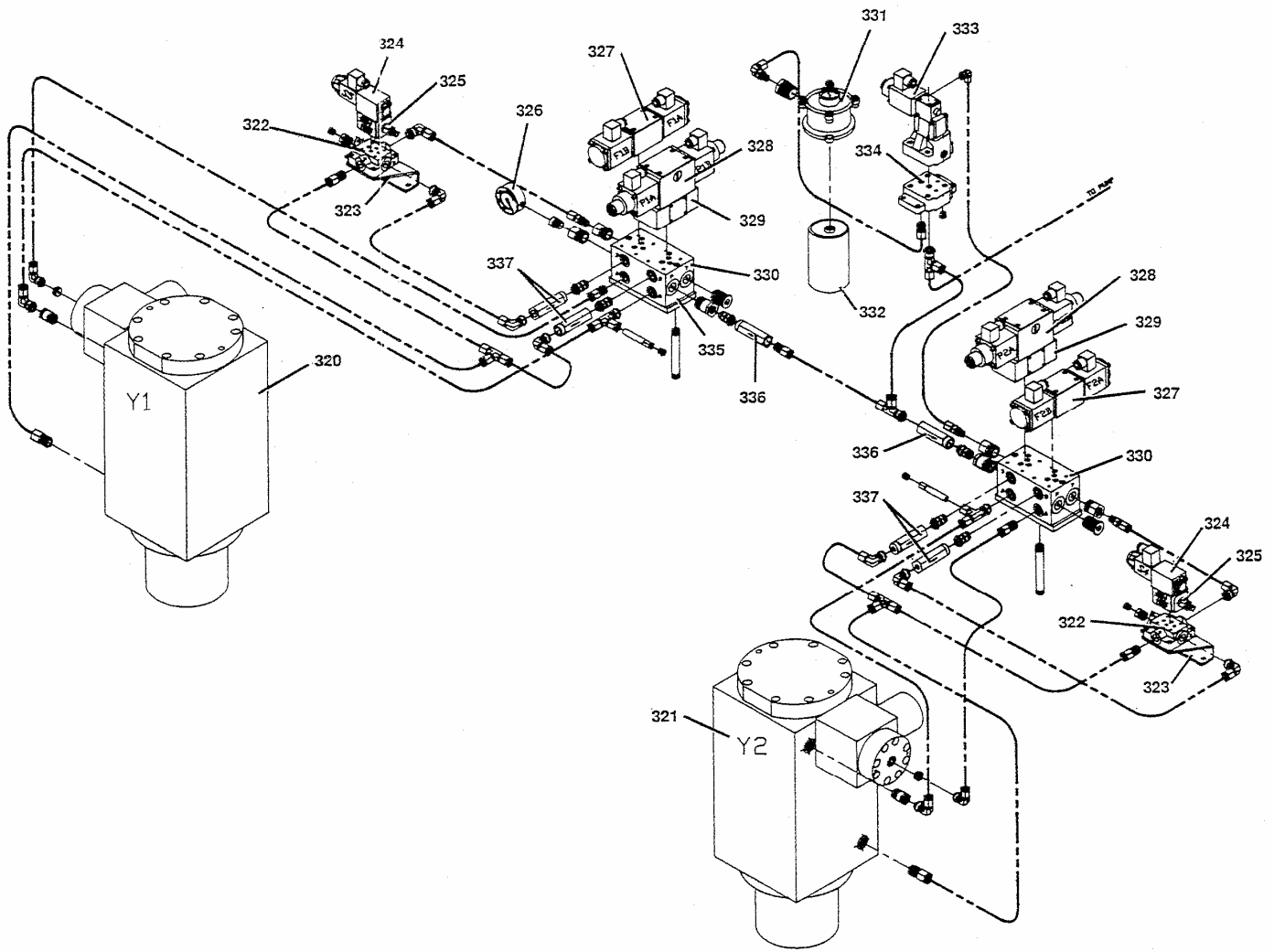
NO.	DESCRIPTION	Part Number
192	Spacer	7486-597
193	Flange-Pulley	3415-595
193A	Pulley	7437-761
194	Idler Shaft and Collar	3412-298
195	Pulley	7437-763
195A	Flange	3415-598
196	Bearing	3178-699
197	Spacer	7437-716
198	Idler Mounting Pad	7437-715
199	Servo Motor	
200	Left Bearing Housing	7437-758
201	Bearing	3178-694
202	Shaft, Bottom Roller	7437-754
203	Bearing	3178-690
204	Bar, Lower Rail Guide	7437-812
205	Guide, Linear	3162-117
206	Runner Block	3162-215
207	Rail	3162-220
208	Bearing	3178-699
209	Upper Bearing Housing	7437-757



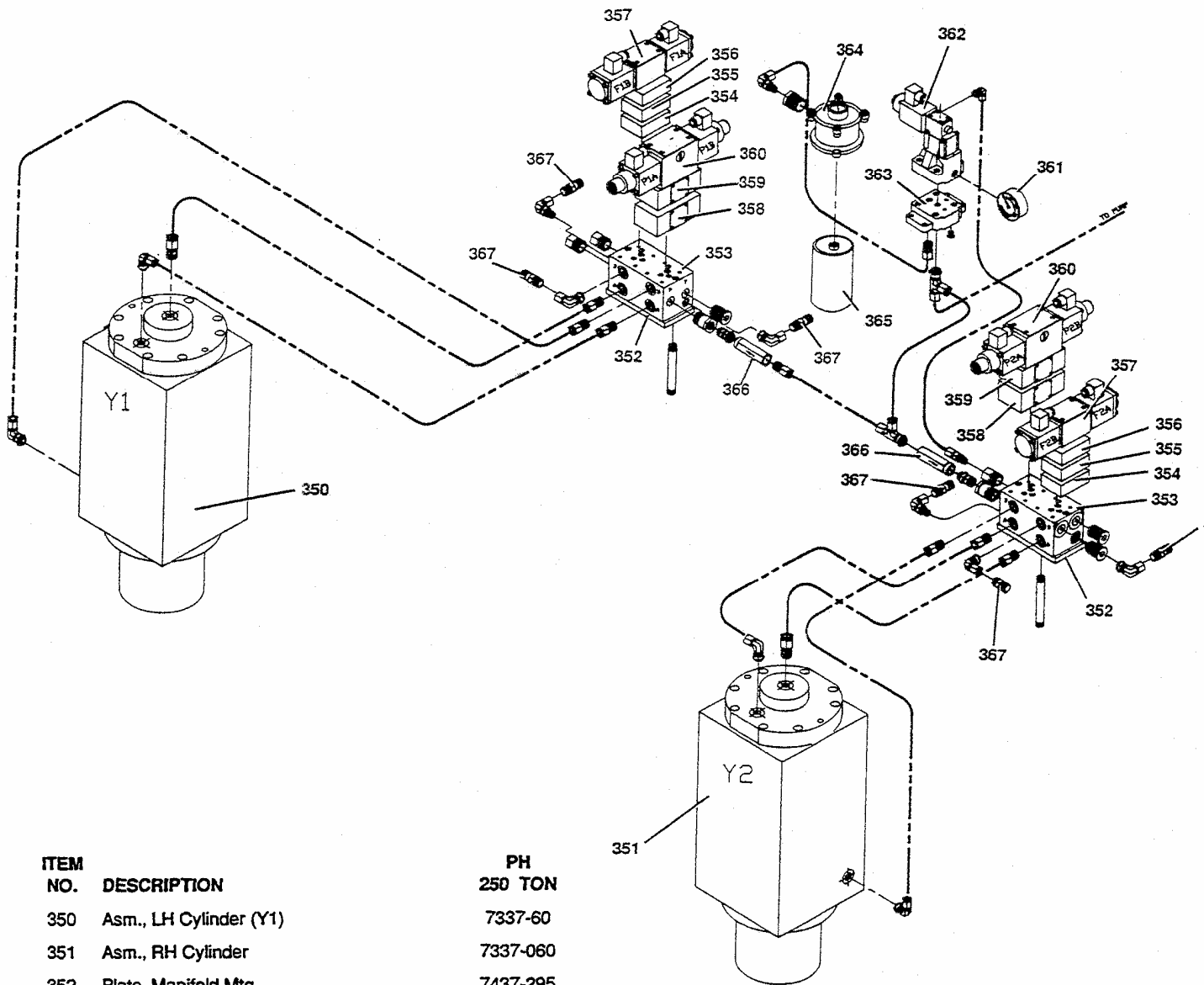
### ITEM

NO.	DESCRIPTION	All PH Series	PHP XX-96	PHP XX-120	PHP XX-144	PHP XX-1
290	Roller, Belt	7486-622				
291	Tensioner, Pulley	3412-305				
292	Pad, Idler Mtg.	7486-598				
		7486-623				
		3413-175 (PHP 60-72)	3413-180	3413-182	3413-191	3413-191

HYDRAULIC PACKAGE  
60 TON, 100 TON, 140 TON, 175 & 400 TON MODELS



ITEM NO.	DESCRIPTION	60 TON	100 TON	140 TON	175 TON
320	Asm., LH Cylinder (Y1)	7337-025-ND	7337-029-ND	7337-029-ND	7337-034-ND
321	Asm., RH Cylinder (Y2)	7337-026-ND	7337-030-ND	7337-030-ND	7337-035-ND
322	Subplate, Valve	3773-634	3773-634	3773-634	3773-634
323	Bracket, C'bal. Valve	7435-921	7435-919	7435-919	7435-919
324	Valve, 4-Way Sol.	3753-490	3753-490	3753-490	3753-490
325	Valve, Relief	3762-289	3762-289	3762-289	3762-289
326	Gauge, Pressure	3237-140	3237-140	3237-140	3237-140
327	Valve, 4-Way	91.521.000.001.0	91.521.000.002.0	91.521.000.002.0	91.521.000.002.0
328	Valve, 4-Way Prop.	3759-326	3759-330	3759-330	3759-330
329	Valve, Check	3755-372	3755-370	3755-370	3755-370
330	Manifold, Control	3773-652	3773-657	3773-657	3773-657
331	Filter, Return	3764-326	3764-326	3764-326	3764-326
332	Element, Return Filter	3764-335	3764-335	3764-335	3764-335
333	Valve, Proportional	3762-500	3762-500	3762-500	3762-500
334	Subplate, Prop. Valve	3773-636	3773-636	3773-636	3773-636
335	Plate, Manifold Mtg.	7437-285	7437-295	7437-295	7437-295
336	Valve, Check	3755-322	3755-322	3755-322	3755-322
337	Valve, Check	3755-321	3755-321	3755-321	3755-321



ITEM NO.	DESCRIPTION	PH 250 TON
350	Asm., LH Cylinder (Y1)	7337-60
351	Asm., RH Cylinder	7337-060
352	Plate, Manifold Mtg.	7437-295
353	Manifold, Control	3773-667
354	Adapter, Valve	3773-637
355	Valve, Check	3755-374
356	Valve, Relief	3762-288
357	Valve, 4-Way	3759-275
358	Valve, Check	3755-373
359	Valve, Check	3755-370
360	Valve, 4-Way	3759-320
361	Gauge, Pressure	4327-140
362	Valve, Relief	3762-500
363	Subplate, Valve	3773-636
364	Filter, Return	3764-326
365	Element, Return	3764-326
366	Valve, Check	3755-323
367	Coupling, Pressure Test	3822-030