



MODEL J-4

PUSH AND PULL HYDRAULIC JACK

REPAIR PARTS LIST AND SERVICE INSTRUCTIONS

(Formerly G.A.C. Model H-800)

Capacity 4-Tons Push, 2-Tons Pull

RAM UNIT PARTS

ITEM NO.	OLD PART NO.	NEW PART NO.	DESCRIPTION	NO. REQ.	ITEM NO.	OLD PART NO.	NEW PART NO.	DESCRIPTION	NO. REQ.
1	U-446	23230	Bottom Plug	1	12	U-456	80156	Steel Ram Cup Exp., Set of 2	2
2	U-481	80154	1 1/4" Bottom Rubber Cup, U-449 Exp.	1	13	U-424	80157	Leather Ram Cup, set of 2	2
3	U-455	23255	Spreader Ring for Bott. Cup (Steel)	1	14	U-420	23065	Ram Spacer (Brass)	1
4	U-413	23010	Ram Cylinder with stop ring	1	15	U-422	23070	Bottom Ram Retainer	1
5	U-471	23285	Top Spreader Ring (Steel)	1	16	U-485	80158	"O" Ring Seal for Ram	1
6	U-434	80155	1 5/8" Top Rubber Cup, U463 Exp.	1	17	1/4-20x1/4	25470	Allen Set Screw	1
7	U-417	23030	Ram Packing Nut (Brass)	1	18	U-415	23020	Ram only	1
8	U-444	23215	Adapter Collar	1	19	U-447	23235	Threaded Head for Ram	1
9	U-437-1	23170	Ram Cap	1	20	U-464	23280	Cross Pin for Threaded Head	1
10	UR-448	23465	Hose Guard for Ram	1	21	O-U-415	80159	Ram Assembled complete	1
11	U-443	23210	Bottom Nut for Ram Cup	1	22	U-4120-1	22980	6' Hose	2
					23	UP-4	UP-4	Complete Pump Unit	1
					24	UR-4	UR-4	Complete Ram Unit	1

PUMP UNIT PARTS

1	UP-448	23435	Hose Guard for Pump	1	25	U-4105	22815	Guide for Cup Washer	1
2	U-4119	22960	1/8" Coupling for Hose	2	26	U-476	23295	Oil Reservoir Spring	1
3	U-410	22805	Pump Base only	1	27	U-4106	22820	Steel Washer, 6x1/4 Screw	1
4	U-4107	22825	Copper Gasket for Res. Tube	1	28	U-4117	22930	Draw Tube	1
5	U-414	23015	Oil Reservoir Tube	1	29	U-487	80166	Draw Rod, with U484 Ring	1
6	U-411	22850	End Cap for Reservoir	1	30	5570-1	14290	Control Knob	1
7	U-4110	80160	Foot for Reservoir, U4111 Nut	1	31	U-418	23035	Packing Nut for Control Cover	1
8	U-492	23390	Draw Knob only	1	32	U-436	80167	Control Valve Packing, set of 2	2
9	1/4-20x1	25455	Bolt for Control Cover	2	33	U-419-1	80168	Driver Valve Stem, U470-1	1
10	U-4115	22895	Gasket for Control	1				Screw	1
11	U-4112	22865	Control Gear Cover	1	34	U-4113-1	22880	Control Gear	2
12	U-438	23180	Filler Plug	1	35	U-477-1	23305	Driven Valve Stem	1
13	U-416	23025	Pump Piston only	1	36	U-480	23325	Valve Cage Assembly	2
14	O-U-416	80161	Pump Piston Assembly	1	37	125-D	3010	1/2" Steel Ball	2
15	321-3	80162	Piston Pin with 389-B Ring	1	38	U-4116	22915	Valve Cage Gasket	2
16	U-4109	22840	Steel Spreader Ring for "V" Pkg.	1	39	25-A	80127	Pump Valves, per set	1 set
17	U-435	80163	Piston "V" Packing, set of 5	5	40	U-488	23375	Pump Valve, Plug	1
18	U-442	23195	Piston Packing Nut	1	41	G-67-1A	80360	Safety Valve complete	1
19	U-412-1	22975	Handle Socket	1	42	385	11520	Safety Valve Seal	1
20	U-452	80164	Handle Links, set of 2	2	43	1/2"	25370	Expansion Plug for Safety Valve	1
21	321-4	80165	Handle Link Pins & rings, set of 2	2	44	F-428-1	16740	Handle	1
22	U-4118	22945	Plug for Draw Tube	1	45	U-4122	22985	Packing Nut Wrench	1
23	U-4108	22835	Retainer for Cup Washer	1	46	U-440	80169	Decal	1
24	U-4104	22810	1 1/4" Neoprene Cup Washer	1	47	U-4103	80170	Nameplate, 2-2x1/8" Screw	1
					48	U-4121	80171	Oil Filler Funnel	1
					49	Quart	80123	Hydraulic Jack Oil	1

USE NEW PART NUMBER ONLY WHEN ORDERING PARTS

REV. 7-1-68

Order parts from the nearest Hein-Werner Official Service Station. Always state both model and serial number.

USE ONLY GENUINE HEIN-WERNER HYDRAULIC JACK OIL IN ANY HEIN-WERNER JACK
HEIN-WERNER CORPORATION PRINTED IN U.S.A. **WAUKESHA, WISCONSIN — AJAX, ONTARIO**



TRI-CITY HYDRAULIC JACK SERVICE

4628 N. Florida Avenue
Tampa, Florida 33603-3700
(813) 236-8551

GENERAL CARE

Your Hein-Werner Push and Pull Jack is carefully designed and constructed of the best materials available. Long dependable performance is assured if the following simple rules are observed.

1. Always keep your jack clean.
2. Keep the ram fully retracted when not in use.

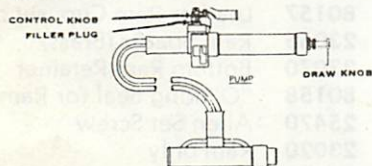
3. Center the load in any application. A bent or broken ram is a sure sign of undue sidestrain through misuse.
4. Always tighten attachments and extension tubes the full thread provided.
5. Refill only with Hein-Werner Hydraulic Jack oil.

FILLING INSTRUCTIONS

Any of the following conditions indicate your Hein-Werner Push and Pull Jack is low on oil:

1. Pump misses stroke or but partly fills.
2. Ram coasts or has jerky motion.
3. Ram does not travel full distance.

When adding oil it is essential to closely follow the below procedure.



1. Place pump in vise with filler plug up as shown in sketch. Place ram horizontally on floor with hose connections up. Be sure no part of hose is higher than filler hole.

2. Turn control knob to right (push position) and pump handle until pump misses stroke or but partly fills, then cease at once.
3. Unscrew and pull out draw knob and turn until it locks in end cap slot.
4. Remove filler plug, insert and fill funnel with Hein-Werner hydraulic Jack Oil.
5. Continue to pump ram to full extent, keeping funnel full at all times.
6. Reverse control valve and pump ram in. Air will bubble out through oil in funnel.
7. Again reverse control valve and pump ram out keeping funnel full of oil. Repeat steps 6 and 7 a total of three times each ending with ram in out position.
8. Replace filler plug. Pump ram in and release draw knob which should now move freely. Screw knob into end cap.

PISTON AND CONTROL VALVE ADJUSTMENT

Occasionally some oil leakage appears around the pump piston when "V" packings are new and stiff. This can be corrected by slightly tightening the packing nut using the wrench supplied with each new jack.

Worn pump piston packing can be detected by leakage of oil around the packing nut. To replace, first relieve oil pressure by pulling out and locking draw rod in end cap slot. Remove piston pin and packing nut. Draw out piston from cylinder and pick out old packings. Insert new packings starting with neoprene and alternating leather and neoprene. Take care when inserting so packing is not damaged by machined threads.

Be sure each packing is firmly down all the way.

If the Control Valve cannot be closed by finger pressure the packing nut can be loosened slightly with the wrench supplied. Tighten the packing nut should oil leak at this point. Continued leakage after tightening means packings are worn.

To replace worn Control Valve packing first relieve oil pressure in reservoir (See Refilling Instruction No. 3). Remove set screw and control knob. Loosen the packing nut and slip nut and old neoprene packings out over end of valve stem. Install new packings and tighten packing nut to medium pressure. Follow refilling procedure to replace oil lost.

HOSE... To replace a worn or damaged hose, first relieve jack pressure (See Refilling Instruction No. 3). Remove hose guards and hose. Install new hose after coating the connections with a sealing material. Refill the jack with Hein-Werner hydraulic jack oil as described above.

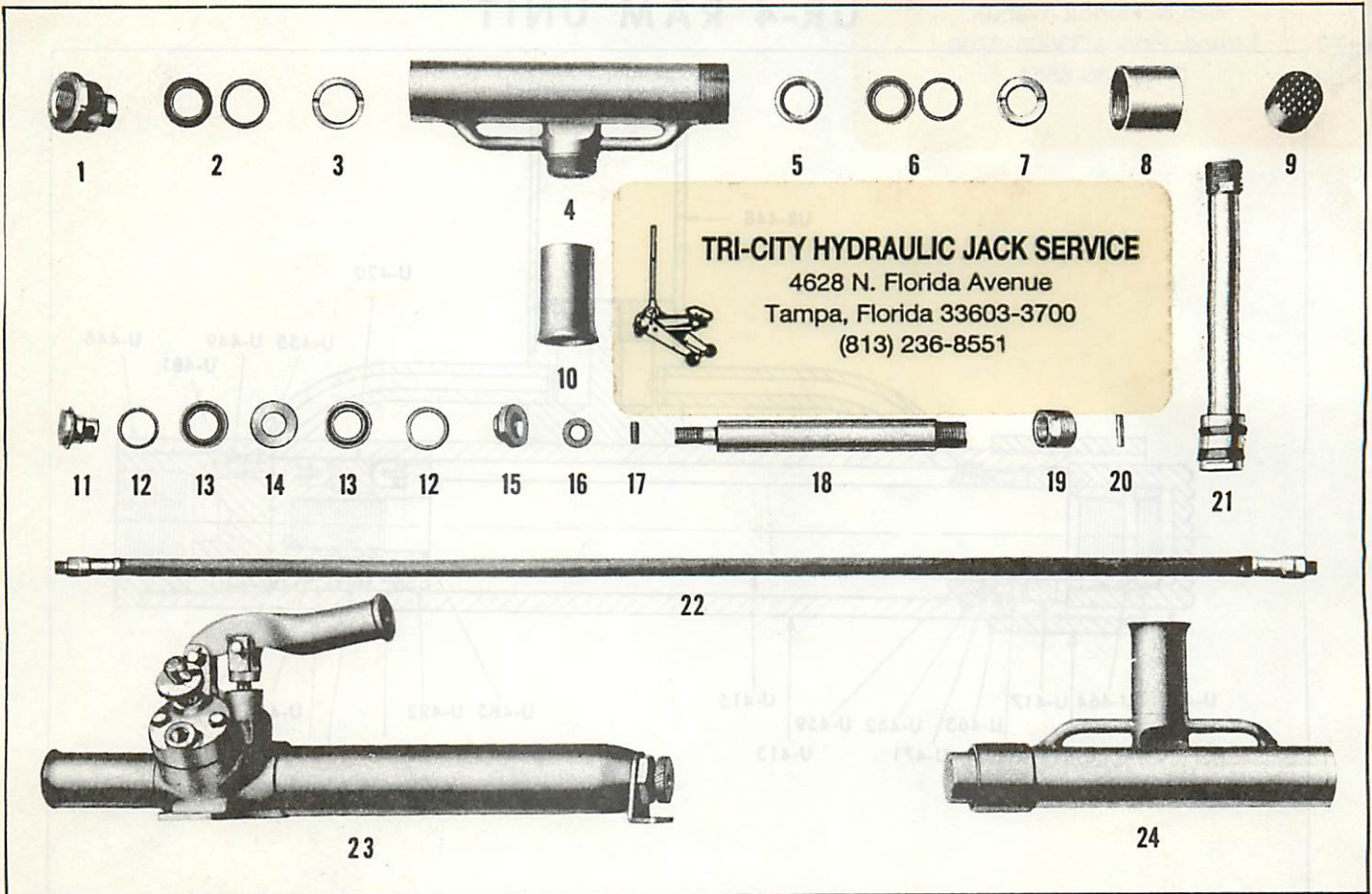
REPLACEABLE RAM THREADS... To replace the threaded head on the upper end of the ram, first punch out the cross pin. Remove head and turn new one down firmly. Drill new hole through head to meet cross pin hole in ram. Bend end of pin slightly and drive in securely.

Should the threads on the bottom of the ram be damaged, merely turn out the old plug with a pipe wrench and replace.

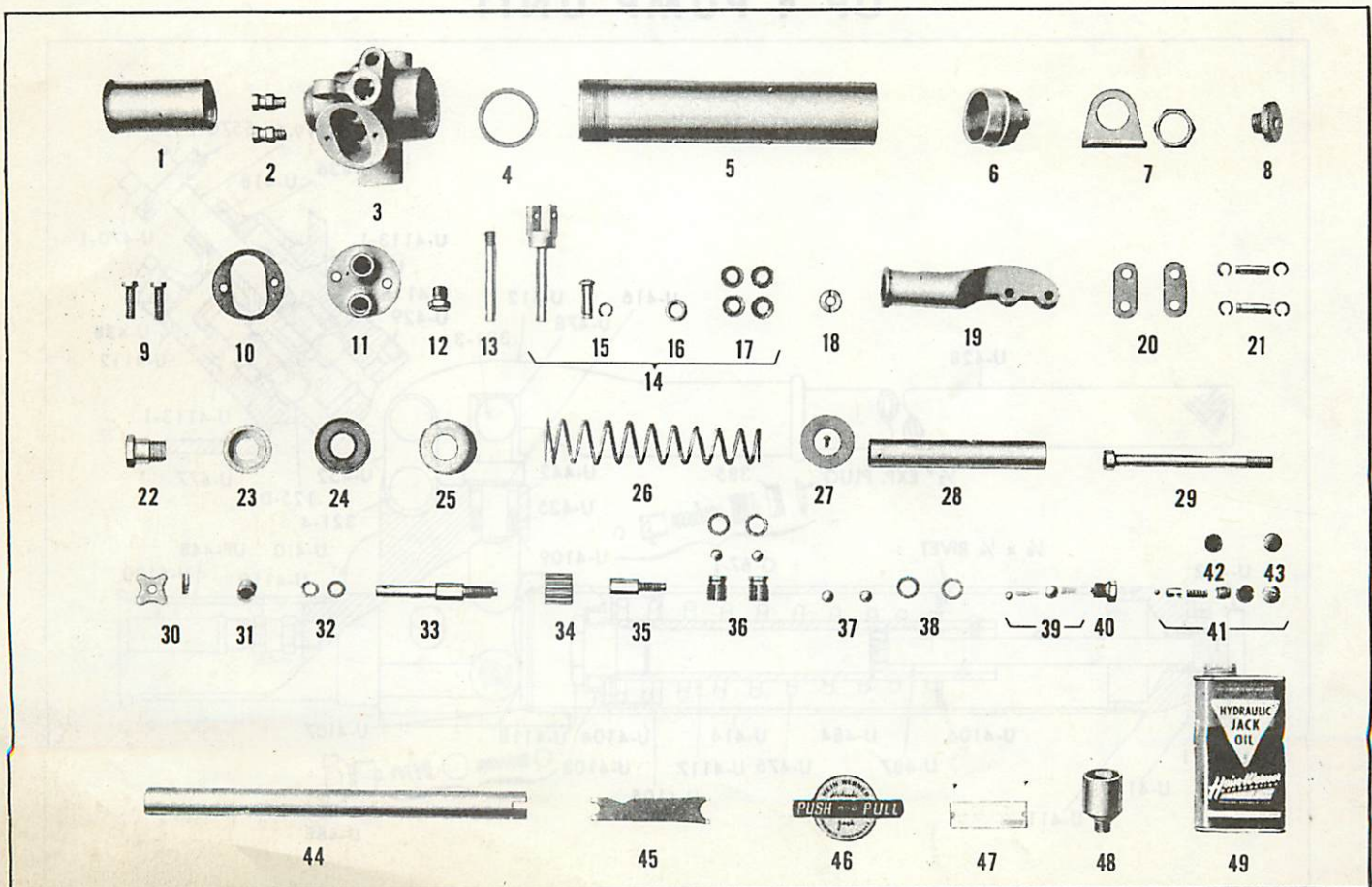
PUMP VALVES... To clean the pump valves, first pump ram to full extent. Pull out and lock draw rod to relieve jack pressure. Remove the large hex plug near bottom of pump casting slowly. Take out the balls and springs and inspect valve chamber for particles. Install balls and springs in proper order and add enough oil to replace amount lost before putting in the plug. If considerable oil is lost, follow the regular filling procedure.

SERVICE STATIONS... When general repairs including new cups and packings becomes necessary, ask your jobber or write us for the name of the nearest Hein-Werner Official Service Station where complete facilities are available to restore your Push and Pull jack to good working condition.

RAM UNIT PARTS



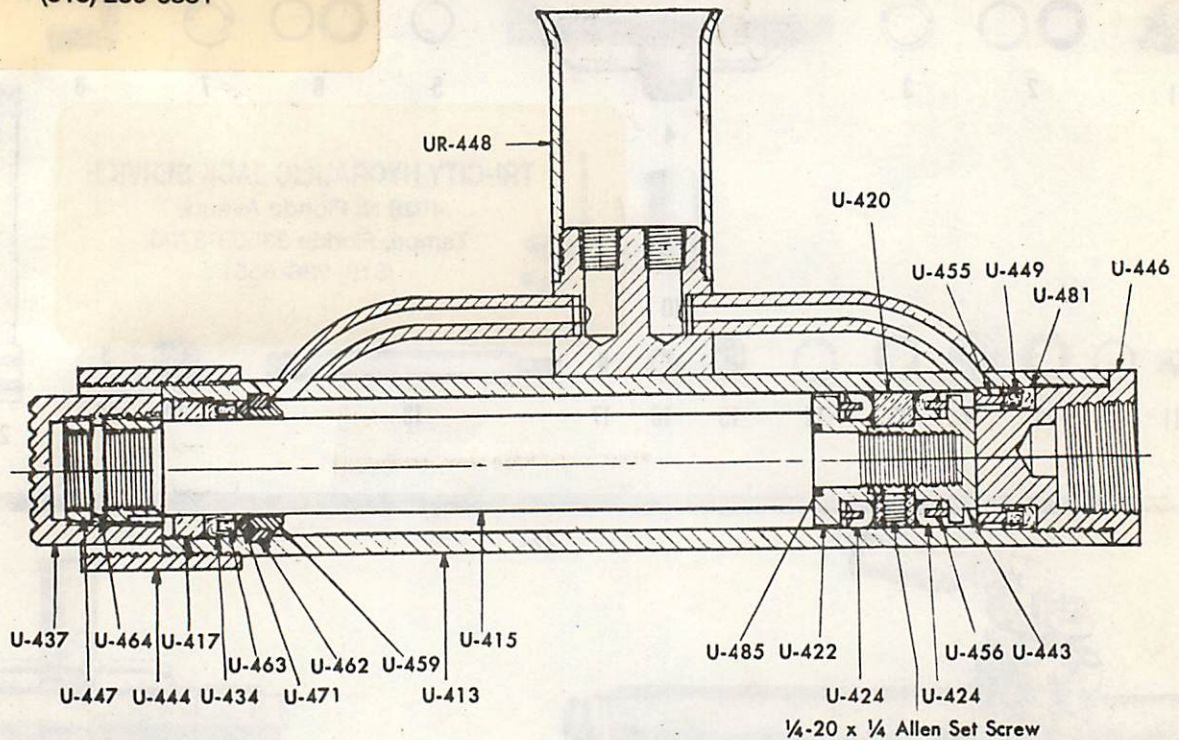
PUMP UNIT PARTS



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UR-4 RAM UNIT



UP-4 PUMP UNIT

