

HEIN-WERNER

HYDRAULIC CAR AND TRUCK JACK

1½ to 12 Tons Capacity

REPAIR PARTS - SERVICE MANUAL

ORDER PARTS DIRECT FROM NEAREST HEIN-WERNER OFFICIAL SERVICE STATION AND SPECIFY MODEL AND CAPACITY OF JACKS

Item No.	Name of Part	V 1.20-2 Bumper Lift	V 1.22 Bumper Lift	Capacity in Tons and Dealer Net Cost				
				1½	3	5	8	12
1	Base with Pump Valves	\$5.30	\$5.50	\$5.30	\$8.75	\$10.30	\$11.75	\$13.65
2	Reservoir Tube (old style)	2.59	2.74	1.12	1.66	2.20	2.35	3.65
2-A	Reservoir Tube (new style)				1.66	2.20	2.35	3.65
3	Inside Cylinder	3.35	3.35	1.26	2.44	2.75	4.44	8.44
4-A	Ram Assem. Incl. Nos. 5, 6, 9, 10	3.38	3.38	2.10	3.18	6.58	8.65	10.14
5	Ram Cup	.41	.41	.41	.66	.71	.87	1.18
6	Ram Cup Supporting Washer	.21	.21	.21	.34	.42	.60	.82
7	Ram Packing	.21		.21	.27	.34	.41	.48
7-A	Quad Ring	.27	.27	.27	.33	.38	.54	.56
8	Ram Packing Nut	.27		.27	.55	.60	.66	1.00
9	Ram Cup Retaining Washer	.07	.07	.07	.07	.07	.07	.27
10	Ram Cup Retaining Nut	.07	.07	.07	.07	.07	.07	.07
11	Top Nut	1.50	1.50	1.43	1.65	2.32	2.52	3.50
12	Handle Socket Assem. (old style)	1.30		1.30				1.65
12-A	Handle Socket Assem. (old style) Castg. No. 312-C				2.00	2.00	2.00	
12-AB	Handle Socket Assem. (new style)		1.30	1.30	2.00	2.00	2.00	2.00
13-B	Release Screw Assembly Complete with No. 22	.71	.71	.71	.71	.71	.71	.71
14	Extension Screw with Ram Head			1.50	2.32	3.75	4.86	5.10
*15	Pump Piston Assembly	.93	.93	.93	.93	.93	.93	1.26
16	Pump Piston Packing	.07	.07	.07	.07	.07	.07	.07
17	Pump Piston P'k'g Nut—Hex	.13	.13	.13				
17-A	Pump Piston P'k'g Nut—Slotted				.21	.21	.21	.21
18	Pump Piston Pin	.07	.07	.07	.07	.07	.07	.07
21	Handle	.65	.65	1.73	2.05	2.05	2.05	2.05
22	Release Screw Packing Nut	.18	.18	.18	.18	.18	.18	.18
23-A	Oil Filter Screw and Washer	.07	.07	.07	.07	.07	.07	.07
25-A	Pump Valves—Per Set	.42	.42	.42	.42	.42	.42	.42
28	Release Screw Packing—Per Set	.13	.13	.13	.13	.13	.13	.13
29	Release Screw Washer—Per Set	.06	.06	.06	.06	.06	.06	.06
30	Lifting Arm	5.10	5.30					
31	Knuckle-Joint Lifting Hook	4.45	4.55					
32	Stop Pin for Socket				.07	.07	.07	.07
33	Bolt and Nut for Socket	.14	.14	.14	.14	.14	.14	.14
34	Pump Valve Seal	.06	.06	.06	.06	.06	.06	.06
35	Piston Clip and Pin	.21	.21	.21	.21	.21	.21	

Dealer Net Prices Effective Nov. 15, 1961. All Prices F. O. B. Waukesha, Wis. All Prices Subject to Change Without Notice.

IMPORTANT—

- * When ordering pump piston assemblies, refer to actual size drawing on back of this sheet, and specify the correct letter, such as 15-C or 15-E. Each is furnished complete with number 16 packing ring. When ordering other parts be sure to give the COMPLETE MODEL NUMBER of the jack. This model number APPEARS ON THE DECAL only. If it is not legible, give the part number appearing on the base casting and also the overall height of the jack when the ram is completely lowered.

USE ONLY GENUINE HEIN-WERNER HYDRAULIC JACK OIL IN ANY HEIN-WERNER JACK
HEIN-WERNER CORPORATION

WAUKESHA, WISCONSIN

PISTON

The piston of every jack will need replacing depending upon the amount of work it is put to. A worn piston can be detected by leakage of oil when lifting a load.

To install a new piston first remove jack filler screw to expel excess air. Replace filler screw. Remove handle socket and piston packing nut. Pull out old piston and pick out packing. Clean piston chamber thoroughly. Dip new piston in oil and insert it with care. Do not damage piston cup.

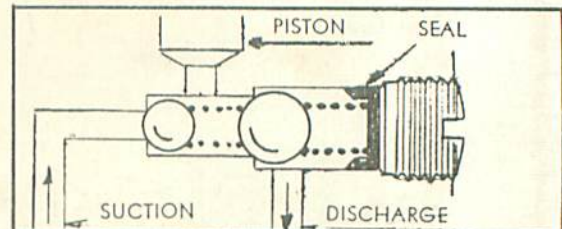
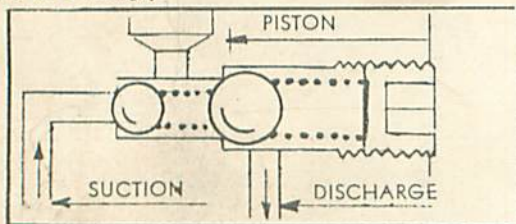
Buy replacement pistons and install them yourself as you will spend time and money sending your jack away for the MINOR repair.

Refer to illustrated parts page to determine type of piston needed for your particular jack.

PUMP VALVE

If your jack fails to lift a load or if it lowers when under a load and the handle slowly raises, the pump valves need cleaning. To clean pump valves first open release valve to release pressure from jack. Remove pump valve plug from base of jack and with plug hole down strike base of jack on bench until springs and balls fall out of valve chamber. Inspect valve chamber for foreign particles. Clean chamber thoroughly but be careful not to mar or damage hair line valve seats. Clean balls and springs carefully. Discard any balls which are rusted or corroded.

To reassemble pump valves first drop small ball in chamber followed by small spring. Then drop in large ball and large spring. Use a good sealing material on plug and screw it in chamber. If the pump valve of your jack has the new neoprene seal below plug, always replace it with a new one using tool SS-12 for this purpose. Sealing material on plug is not necessary when this neoprene seal is used. Notice following sketches and assemble pump valves accordingly.



RELEASE SCREW

Your jack may fail to lift or hold a load if the release valve is dirty.

To clean a release valve first remove release screw by turning it out by the packing nut. Pick packing and packing washer from chamber. Clean and inspect valve seat and point of release screw. A slight ring on this point is not harmful. A nicked screw should be replaced. When reassembling release screw avoid loose threads off packing. It is best to use new packing. Follow sketch below for proper assembly of release screw.



TRI-CITY HYDRAULIC JACK SERVICE

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



RAM CUP

A worn or loose ram cup will cause your jack to lower under a load and leak oil around the ram.

To remove and replace a worn ram cup first open release valve; then clean outside of jack thoroughly. Place base of jack securely in a vise, remove ram packing nut and top nut. Next pull ram from inside cylinder and pour all oil from the jack. Remove old ram cup, install new ram cup, tighten retaining nut securely and center punch.

Before reassembling jack, inspect inside of cylinder for scoring and replace if scored. Be certain inside cylinder is tight in jack base.

To reassemble jack, clean all dry shellac from top nut and cylinder. Dip new ram cup in oil and insert it in inside cylinder. Brush a thin coat of shellac on top of reservoir or outside tube and tighten down top nut securely. Replace ram packing nut and tighten to medium pressure. Refill jack with oil through filler screw hole to level of hole.

EXTENSION SCREW

A bent or broken extension screw or ram is a sure sign the jack has been misused. Purchase new part and install it yourself. To install a new extension screw first remove the old one as follows: Pull up ram. Place ram in soft jaws to avoid marring. Apply force to extension screw with pipe wrench to force it out of ram. Upset jack to expel sheared pin. Then screw in new extension screw with its lock pin following thread of ram.

AIR BOUND JACKS

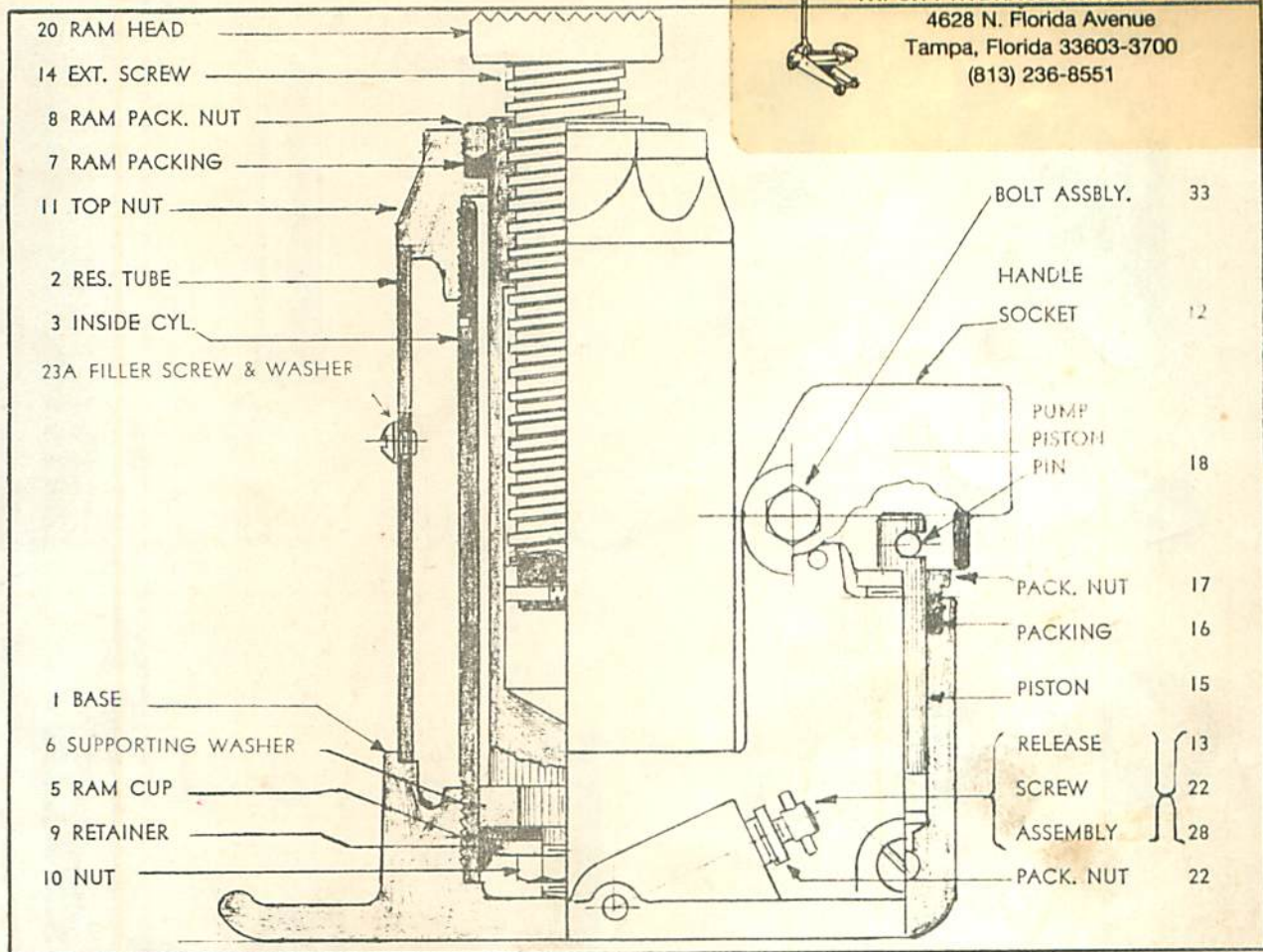
If your jack fails to raise it may be air-bound. This will happen to jacks in transit or if upset. To relieve an air-bound condition, pull ram up, open release valve and push ram down.

GENERAL

Keep your jack clean at all times. Do not drive or push vehicles off a jack. Always block vehicle wheels before jacking. Bent or broken lifting arms on Bumper-Lift jacks indicate misuse. Order required part and replace quickly and easily by driving off old arm and pressing on new arm.

TRI-CITY HYDRAULIC JACK SERVICE

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

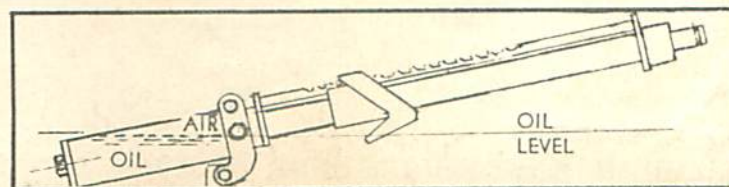
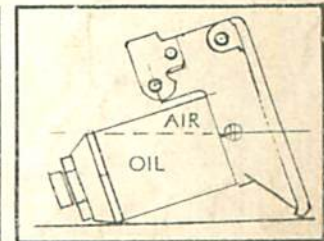
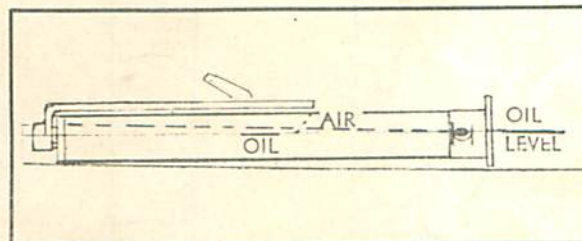
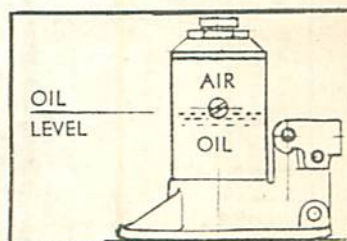


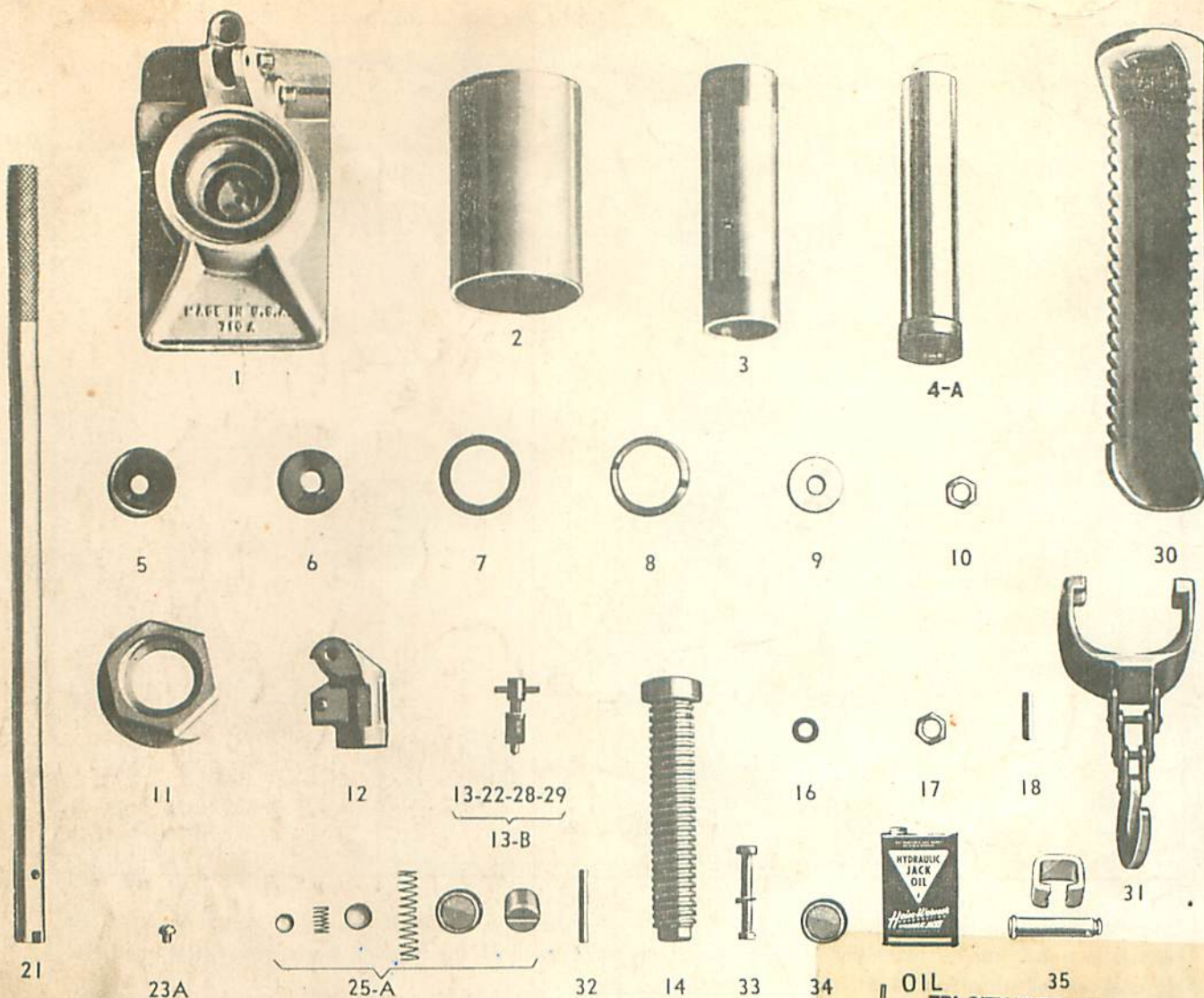
There is nothing mysterious about a hydraulic jack. It will give good service if you do not abuse it and if you keep it in good repair. Naturally you will have to replace some of the working parts when they wear out. No one can tell when this might become necessary.

There are two classes of hydraulic jacks. First: Passenger Car and Truck jacks, sometimes called upright or hand jacks and, Second: Service jacks, sometimes called wheeled jacks. This particular manual deals only with Passenger Car and Truck Jacks.

OIL

If your jack fails to operate, first determine that its oil level reaches the filler screw hole. Filler screw holes are located differently on different jacks. Notice the following sketches. Determine which one applies to your particular jack, position the jack accordingly with its ram lowered and remove the filler screw slowly. If oil is low, add enough to raise the oil level up to the tiller screw hole only and NO MORE. This is important. Use nothing but genuine Hein-Werner hydraulic jack oil for Hein-Werner hydraulic jacks.

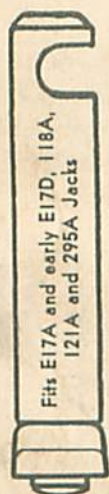




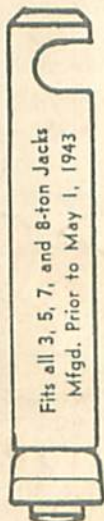
OIL
TRI-CITY HYDRAULIC JACK SERVICE
 4628 N. Florida Avenue
 Tampa, Florida 33603-3700
 (813) 236-8551



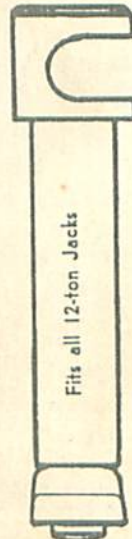
15A



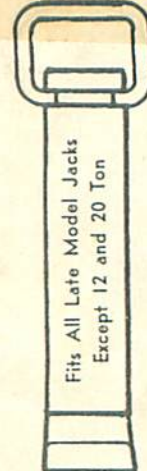
15B



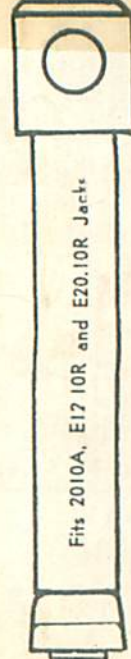
15C



15D



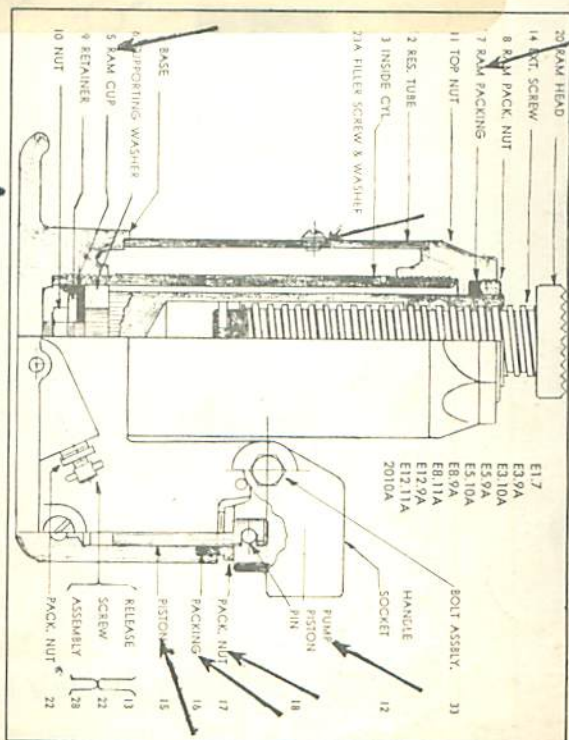
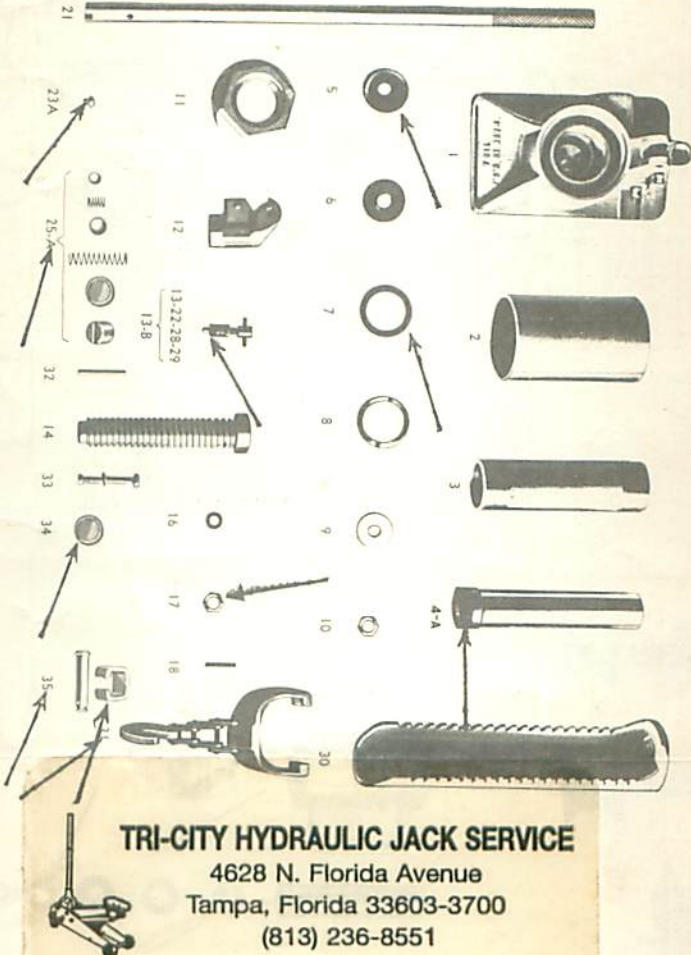
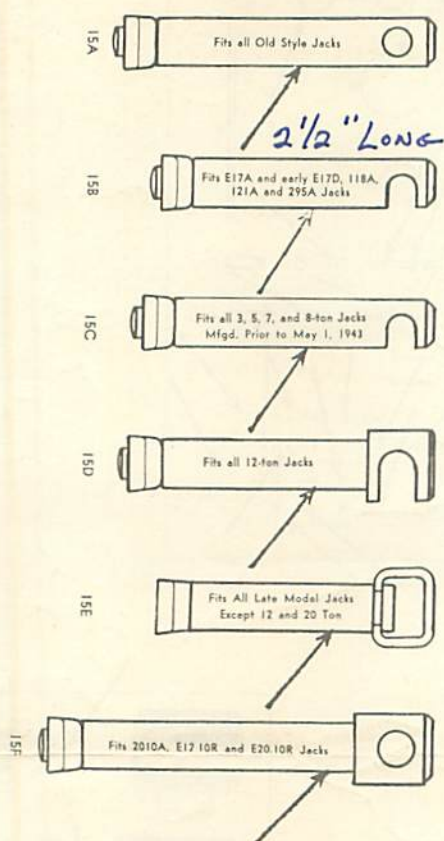
15E



15F

THESE PISTON ASSEMBLIES ARE DRAWN ACTUAL SIZE

THE BOLD, BLACK ARROWS INDICATE THE PARTS THAT ARE INCLUDED IN THE KIT, WHICH ARE TO BE REPLACED

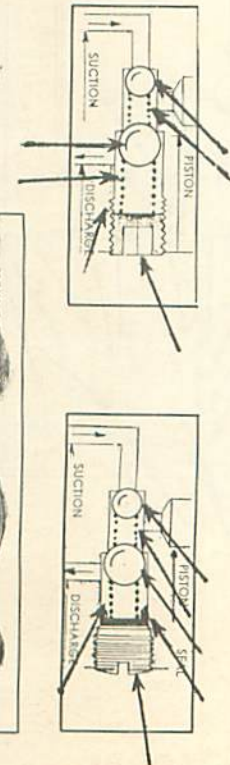
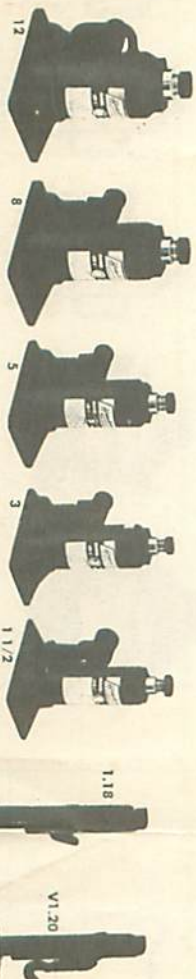
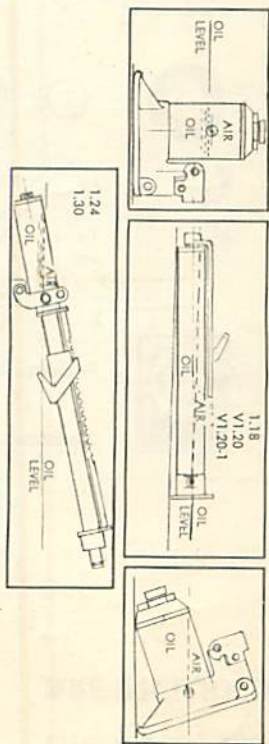


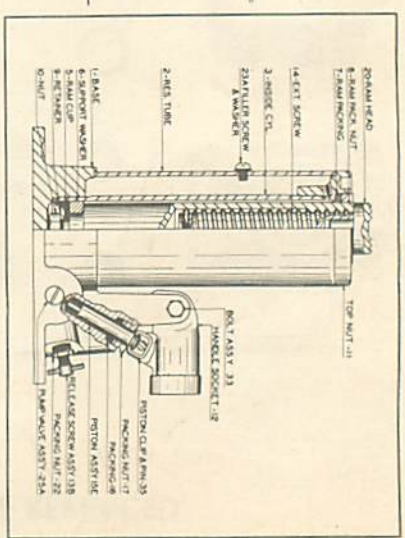
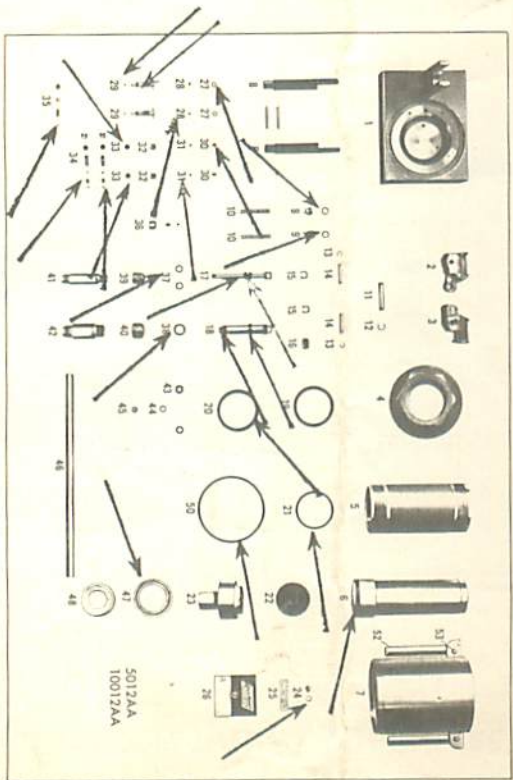
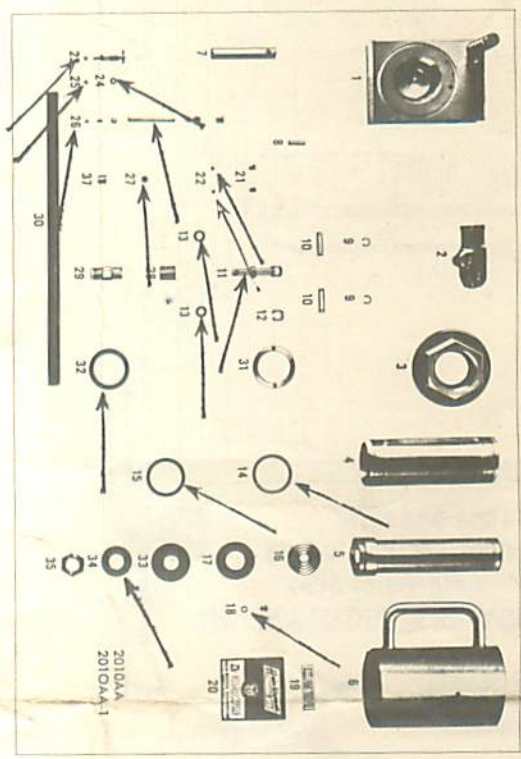
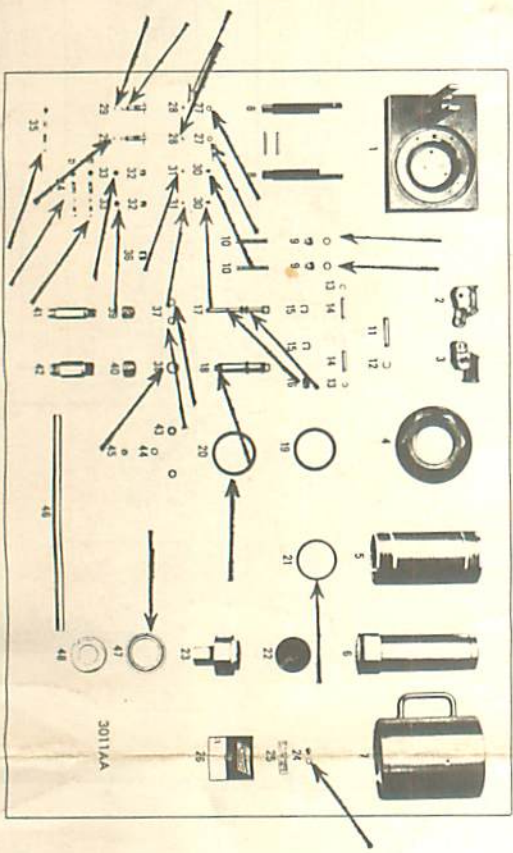
There is nothing mysterious about a hydraulic jack. It will give good service if you do not abuse it and if you keep it in good repair. Naturally you will have to replace some of the working parts when they wear out. No one can tell when this might become necessary.

There are two classes of hydraulic jacks. First: Passenger Car and Truck jacks, sometimes called upright or hand jacks and, Second: Service jacks, sometimes called wheeled jacks. This particular manual deals only with Passenger Car and Truck Jacks.

OIL

If your jack fails to operate, first determine that its oil level reaches the filler screw hole. Filler screw holes are located differently on different jacks. Notice the following sketches. Determine which one applies to your particular jack, position the jack accordingly with its ram lowered and remove the filler screw slowly. If oil is low, add enough to raise the oil level up to the filler screw hole only and NO MORE. This is important.





HANDY ANDY	
Hand	E1.7G
Jacks	E3.98

