

# SERVICE DIVISION



### TRI-CITY HYDRAULIC JACK SERVICE

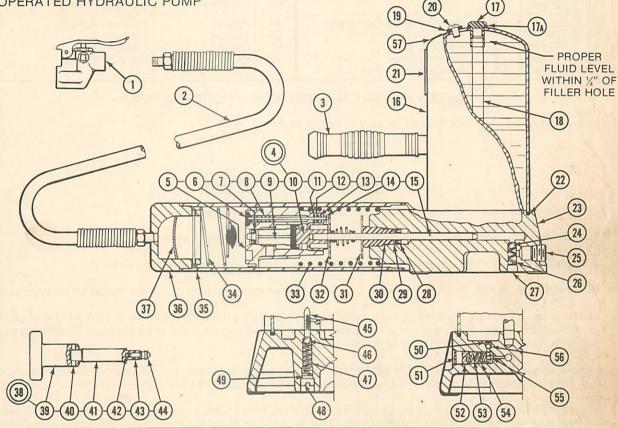
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## **Jack Parts Sheet**

**MODEL 93104** 

SERIES "A"
EARLY AND LATE PRODUCTION





Item	Part No.	No. Req'd.	Description	Item	Part No.	No. Req'd.	Description
1 2 3 4 5	223180 228818 221365 228810 231240	1 1 1 1 1	Air Valve Air Hose Assembly Handle Grip Piston Assembly Piston	14 15 16 17 17A	228235 228812 232805 228800 230394	1 1 1 1	Valve Plunger Hairpin Cotter Pump Rod Reservoir Assembly Nut - Hold Down Washer - Hold Down
6 7 8 9	223187 221013 221377 223678	1 1 1 1 1	Valve Plunger & Seat Assembly "U" Cup Packing Roll Pin Pump Packing &	18 19 20 21 22	228799 200003 212562 232818 228817	1 1 1 1	Stud - Hold Down Filler Screw Gasket Filler Screw Instruction Decal Reservoir Gasket Ring
10 11 12 13	223183 222288 228813 223184	1 1 1 1	Piston Assembly Pump Retainer Plug "O" Ring-Plunger Washer Valve Plunger Spring	23 24 25 26 27	232804 203201 228821 216647 210311	1 1 1 1 1	Valve Base Discharge Ball Valve Base Plug Discharge Spring Discharge Line Pipe Plug

ORDER BY PART NUMBER, NOT BY CODE NUMBER

NOTE: Early production had reservoir capacity of 28 oz., replace when necessary, with 232805 reservoir assembly (48 oz. capacity) and include 212562 filler screw and 212171 air vent decal.

**Walker Manufacturing** GENERAL OFFICE: Racine, Wisconsin — MANUFACTURING PLANT AND SERVICE DEPARTMENT: Jonesboro, Arkansas — FACTORY SERVICE BRANCHES: Atlanta, Georgia — Cleveland, Ohio — Kansas City (Riverside), Missouri — Philadelphia, Pennsylvania.

Item	Part No.	No. Req'd.	Description	Item	Part No.	No. Req'd.	Description
28	228815	1	"U" Cup	43	214555	1	O-Ring
30	228816 228814	1	Back Up Washer Gland Nut	44	224061 221318	1	Release Valve Suction Screen
31 32	223203 228809	2	Trip Washer Trip Spring	46 47	203201 222201	1	Suction Valve Suction Spring
33 34	228805 228806	1	Piston Return Spring Bumper Spring & Cushion Assembly	48 49 50*	226324 204842 223268	1 1 1	Suction Line Plug Suction Plug Gasket Check Ball Retaining Ring
35 36 37	228804 228808 223680	1 1 1	Pump Cylinder Cylinder Cap Screen	51 52 53	201733 226373 226375	1 1 1	By-Pass Expansion Plug By-Pass Adjusting Nut By-Pass Spring
38 39 40 41 42	229713 224058 217898 224060 203196	1 1 1 1	Release Stem Complete Hand Knob Roll Pin Release Stem Release Stem Ball	54 55 56* 57	226376 203196 203198 212171	1 1 1	By-Pass Adapter By-Pass Valve Check Valve Air Vent Decal

#### ORDER BY PART NUMBER, NOT BY CODE NUMBER

\* Used on early production. Not required for early or current models.

#### REPAIR INFORMATION

The following procedures should be observed when repairing this pump.

- 1. Pipe Plugs Threads should be coated lightly with Key-Tite or an equivalent sealant.
- 2. Release Stem Threads and seal ring should be coated lightly with Oil Dag or equivalent.
- 3. Pump Rod Must not have tool marks at any point farther than one inch (1") from the pump retainer plug.
- 4. Main Piston Lubricate the bore for the control piston P/N 223678 (Code 9) with a small amount of STP and SAE -30 mixed one to one. Keep threads in the bore free of grease so a good seal can be obtained. Check P/N 223678 (Code 9) to see that it slides freely with only slight friction.
- 5. Valve Plunger & Seat Assembly, P/N 223187 (Code 6) Coat the shaft with Lubriplate prior to assembly. Check the valve for freedom of movement after assembly as it should close readily with spring pressure only.
- 6. The cavity in main piston should be air tight except for two bleed holes in the pump plug P/N 223183 (Code 10). To test, hold valve plunger P/N 223187 (Code 6) off its seat and "Pop" the control piston forward with a jet of air admitted past plunger seat. Close off the bleed holes in the pump plug with fingers and try to push the control piston closed. If assembly, is air tight, piston will compress air behind it, and tend to spring back when released.
- Packing Gland Adjustment Pre-lubricate the 'U' cup with Lubriplate and wipe a little Lubriplate on the pump
  rod before assembling. Tighten the gland nut until its hex head locks against the base.
- 8. **Hydraulic Fluid** After pump is completely re-assembled, be sure the release valve is closed before filling reservoir to proper level (48 ounces, see drawing).
- 9. Test If the overload relief valve has to be disassembled, it will be necessary to reset it after reassembly. This can be done either of two ways. The best method is to connect the pump to a ten (10) ton Ram in the test stand, using the test stand guage to make the setting. The other method is to connect a pressure gauge directly to the pump outlet and set the valve to open at 9,700 to 10,300 psi. Be sure to replace Expansion Plug P/N 201733 (Code 51) after setting is completed. Pump should be operated with the release open to purge any air from valve circuits.

#### SERVICE

We have Factory-owned BRANCHES AND AUTHORIZED SERVICE DEPOTS located in the principal cities of the United States and Canada. They are operated by FACTORY TRAINED STAFFS and carry a comprehensive stock of REPAIR PARTS. Please contact the Factory or your Walker DISTRIBUTOR for location of Branch or Service Depot nearest you.

