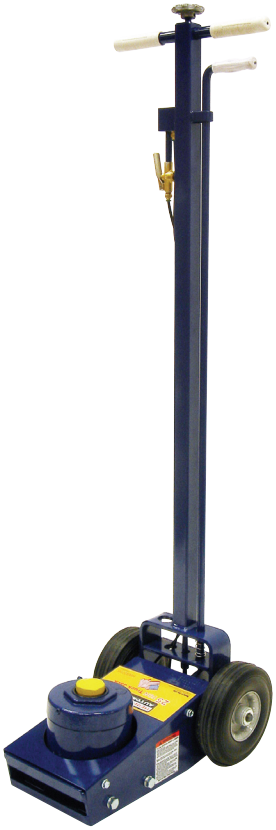
HEIN-WERNER AUTOMOTIVE®

Air Hydraulic Truck Jack

Operating Instructions & Parts Manual

Model Number	Capacity
HW93735	25 Ton

Made in the U.S.A.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

SFA Companies
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Read this manual carefully and retain it for future reference.

HW93735-M0 rev 08062009

Table of Contents

Receiving Inspection	3
Introduction	3
Owner and/or Operator Responsibilities	
Specifications	3
Component Identification	4
Signal Words	4
Safety	5
Operating Instructions	6
Maintenance Instructions	6
Structural Inspection	6
Adding Hydraulic Fluid	7
Troubleshooting	7
Replacement Parts	8
Warranty	12

RECEIVING INSPECTION

Before attempting to operate this jack, thoroughly read and understand this manual. Completely remove all tape and packaging. Inspect the jack immediately upon delivery. If shipping damage is evident, inform the delivering carrier immediately and contact customer service at the address and numbers shown on the back cover of this manual.

INTRODUCTION

Owner and / or Operator Responsibilities

The owner and / or user must have an understanding of the manufacturer's operating instructions and warnings before using this jack. Personnel involved in the use and operation of equipment shall be careful, competent, trained, and qualified in the safe operation of the equipment and its proper use when servicing motor vehicles and their components. Warning information should be emphasized and understood.

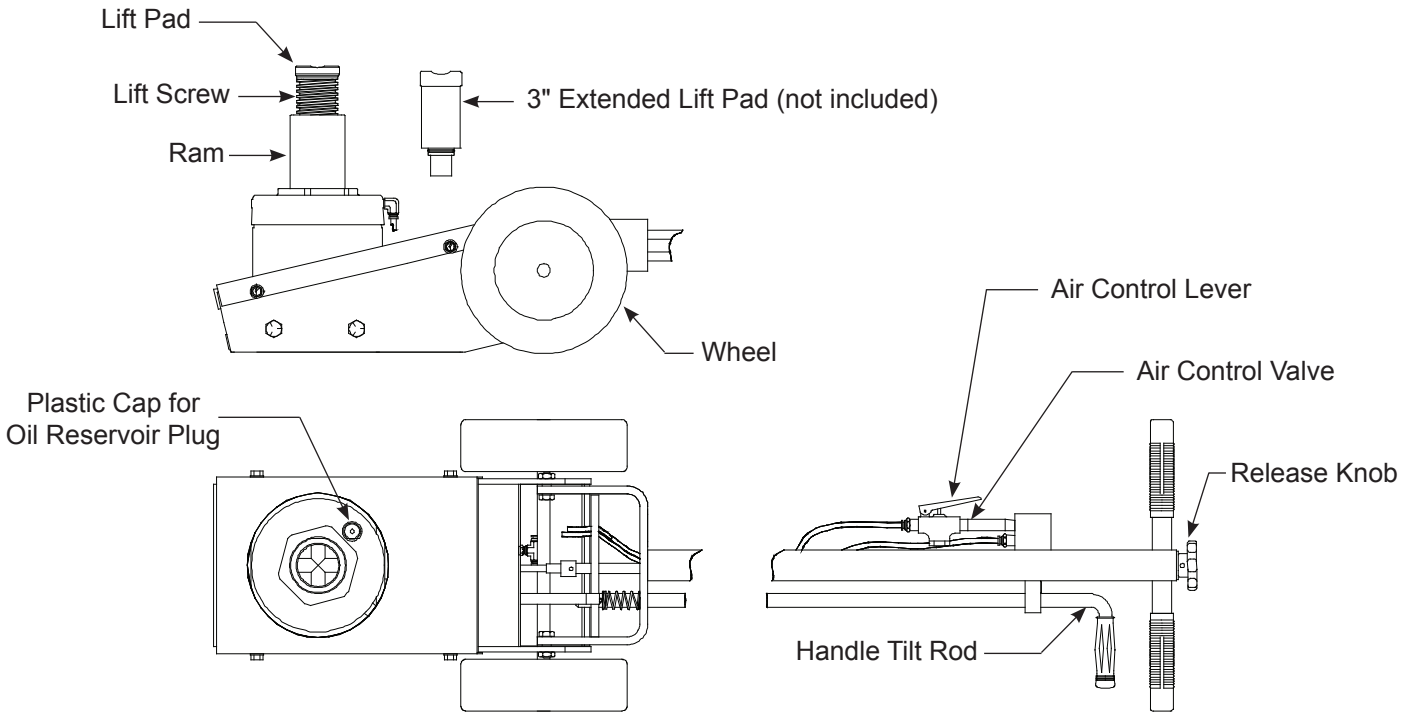
The owner / manager must make this manual available to all personnel using this jack at your direction. They must read and understand the contents of this manual. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser / owner, making sure that the operator comprehends its contents and observes the proper procedures for use of this jack.

Owner and / or user must study and maintain for future reference the manufacturer's instructions. Owner and / or user are responsible for keeping all warning labels and instruction manuals legible and intact. Replacement labels and literature are available from the manufacturer.

SPECIFICATIONS

Capacity:	50,000 lb. / 22,680 kg.
Maximum Air Pressure:	200-psi
Starting Height:	8”
Starting Height with Extended Lift Pad:	11”
Lifting Height (lift screw extended):	18”
Lifting Height (lift screw extended) with 3" Extended Lift Pad:	21" *(optional, not included in this unit)*
Stroke:	5 1/8”
Screw Extension:	4 7/8”
Weight:	120 lb.

COMPONENT IDENTIFICATION



SIGNAL WORDS

Signal words call attention to a safety message/messages, or a property damage message/messages, and designates a degree or level of hazard seriousness. The signal words are **"DANGER", "WARNING", "CAUTION"**, and **"NOTICE"**.

- **DANGER:** Indicates a hazardous situation, which, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.
- **WARNING:** Indicates a hazardous situation, which, if not avoided, could result in death or serious injury.
- **CAUTION:** Indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury. It may be used to alert against unsafe practices.
- **NOTICE:** Indicates a property damage message

SAFETY

⚠ WARNING

To avoid serious injury or death, read this manual carefully before operating this unit. Contact customer service if you have any questions.
Failure to understand and obey safety instructions may result in unsafe or improper use of this product.

1. Do not overload. Maximum capacity is 50,000 lb. / 22,680 kg.

2. Use this jack only on hard level surfaces capable of sustaining the load. Use on other than hard level surfaces can result in jack instability and possible loss of load.

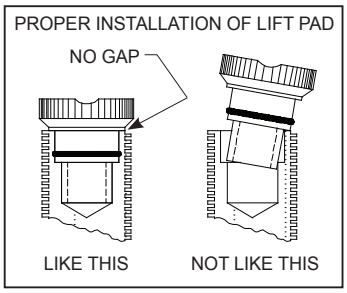
3. Select the lifting point with care. It must be strong enough to sustain the lifting force without damage to the vehicle. It is necessary to cradle the lifting point in the lift pad to insure that the selected lift point will not shift or tilt which could cause loss of load resulting in bodily injury or property damage.

4. This jack is designed solely for the lifting of vehicles only, (Use of the jack for any other purpose constitutes misuse of the jack), and must never be used to support a load. After raising a vehicle, never allow any part of your body to pass under it and never begin work on the vehicle until it is properly supported by adequate stands.

5. Once the vehicle is properly supported be adequate stands, the jack must be removed from beneath the vehicle before work on the vehicle begins.

6. No alterations shall be made to this product.

7. Always lift with either the factory supplied lift pad or lift pad extension in place. Never lift when one of these two factory furnished lift pads is not properly installed. Do not use any kind of cribbing or adapters with this jack. The jack must remain in direct contact with the floor and the lifting pad must be in direct contact with the vehicle. See illustration to the right.



8. Never use more than one jack at the same time to lift a vehicle. If a jack does not have enough capacity to raise a load, remove it and use a jack with adequate capacity. Failure to observe this instruction may lead to unstable or overload conditions that could cause failure of one or both of the jacks.

9. Do not drive the vehicle off of the jack, or attempt to move the vehicle at any time while the jack supports it.

Failure to understand and obey this warning may result in personal injury and / or property damage.

OPERATING INSTRUCTIONS

Connect a quick coupler to the air control valve inlet. Close the release valve by rotating the release knob clockwise. Attach air supply of 90-PSI minimum to 200 PSI maximum. The unit is now ready for use. Actuation of the air control lever will now raise the lift pad. Rotating the release knob counter-clockwise will lower the lift pad.

Rapid Raising of lift pad to Contact Load: Upon actuating the air control valve, the jack lift pad will rise quickly until contact is made with the load. Then the jack will continue to lift the load (at a slower rate) until the air control valve is released or the jack has reached the limit of its stroke.

Air Powered Ram Retraction: The ram will retract by leaving the air supply connected and the release valve open. The ram will fully retract even under no load conditions.

MAINTENANCE INSTRUCTIONS

Check oil level in the oil reservoir. Refer to the “Adding Hydraulic Fluid” section.

All warning and capacity labels should be readable and complete. Wash external surfaces of jack and decals with a mild soap solution.

Lubricate all rotating and sliding portions of the jack monthly.

⚠ WARNING

All inspection and maintenance procedures must be performed ***after*** the jack has been removed from service. Failure to heed this warning may result in personal and / or property damage.

STRUCTURAL INSPECTION

⚠ WARNING

The jack must be removed from service and inspected for damage immediately if the jack is subjected to an abnormal shock or load. Failure to heed this warning may result in personal and / or property damage

NOTICE: The owner must inspect, or appoint a knowledgeable person to inspect the jack for signs of corrosion and / or excessive wear. Regular inspections should be made weekly for daily use and monthly for intermittent use.

Inspect lift pad regularly and replace if it is cracked, chipped or shows signs of excessive wear.

The ram should extend and retract smoothly through its full range. Inspect the ram for scratches and dents, which prevent normal operation.

Inspect for oil leaks. Operate jack for signs of oil blowing form the exhaust ports.

If any irregularities or problems are detected during an inspection, the jack must be removed from service immediately and repaired. Contact customer service.

ADDING HYDRAULIC FLUID

⚠ WARNING

The jack must be removed from service and inspected for damage immediately if the jack is subjected to an abnormal shock or load. Failure to heed this warning may result in personal and / or property damage

Remove the jack from service.

Make sure ram is fully retracted.

Disconnect airline.

Carefully remove the plastic cover from the oil reservoir plug located on the top surface of the jack body.

Make sure the hole for the oil reservoir plug is clean and dry before removing plug. Water and dirt destroy hydraulic parts.

Remove oil reservoir plug using a 3/16" Hex wrench.

Check fluid level. RAM MUST BE FULLY RETRACTED. The oil should be within 1/4 inch of the bottom of the oil fill hole. If fluid is low, add a high-grade hydraulic fluid equivalent to Mobil Tellus T22 oil. Do not use brake or transmission fluid.

Reinstall and secure the oil reservoir plug, replace the plastic cover, and connect to air supply and test for normal operation.

TROUBLESHOOTING

This section is a list of possible problems, which may be encountered, and their solutions. If the solution listed fails to correct the problem, contact customer service. Please have the model number, and serial number of your jack available. The serial number is permanently stamped on the top of the frame.

PROBLEM	CAUSE / SOLUTION
Fails to lift load	Low oil level, see “Adding Hydraulic Fluid”. Inadequate air pressure, requires 90 PSI min. Release open, turn release knob clockwise until tight. Air line leaks, locate and correct leaks. Overloaded, use larger capacity jack.
Fails to hold load	Release open, turn release knob clockwise until tight.
Air motor won't run	Airline leaks, locate and correct leaks. Inadequate air pressure, requires 90-psi minimum.
Oil leaks	Oil reservoir plug loose, tighten fill oil reservoir plug.

REPLACEMENT PARTS

(refer to page 8 thru 11)

Not all components of the jack are replacement items, but are illustrated as a convenient reference of location and position in the assembly sequence. When ordering parts, give model number, part number and parts description. Call or write for current pricing: Hein-Werner Customer Support, 10939 N. Pomona Ave. Kansas City, MO 64153. Phone: (816)891-6390; E-mail: customerservices@heinwerner-automotive.com

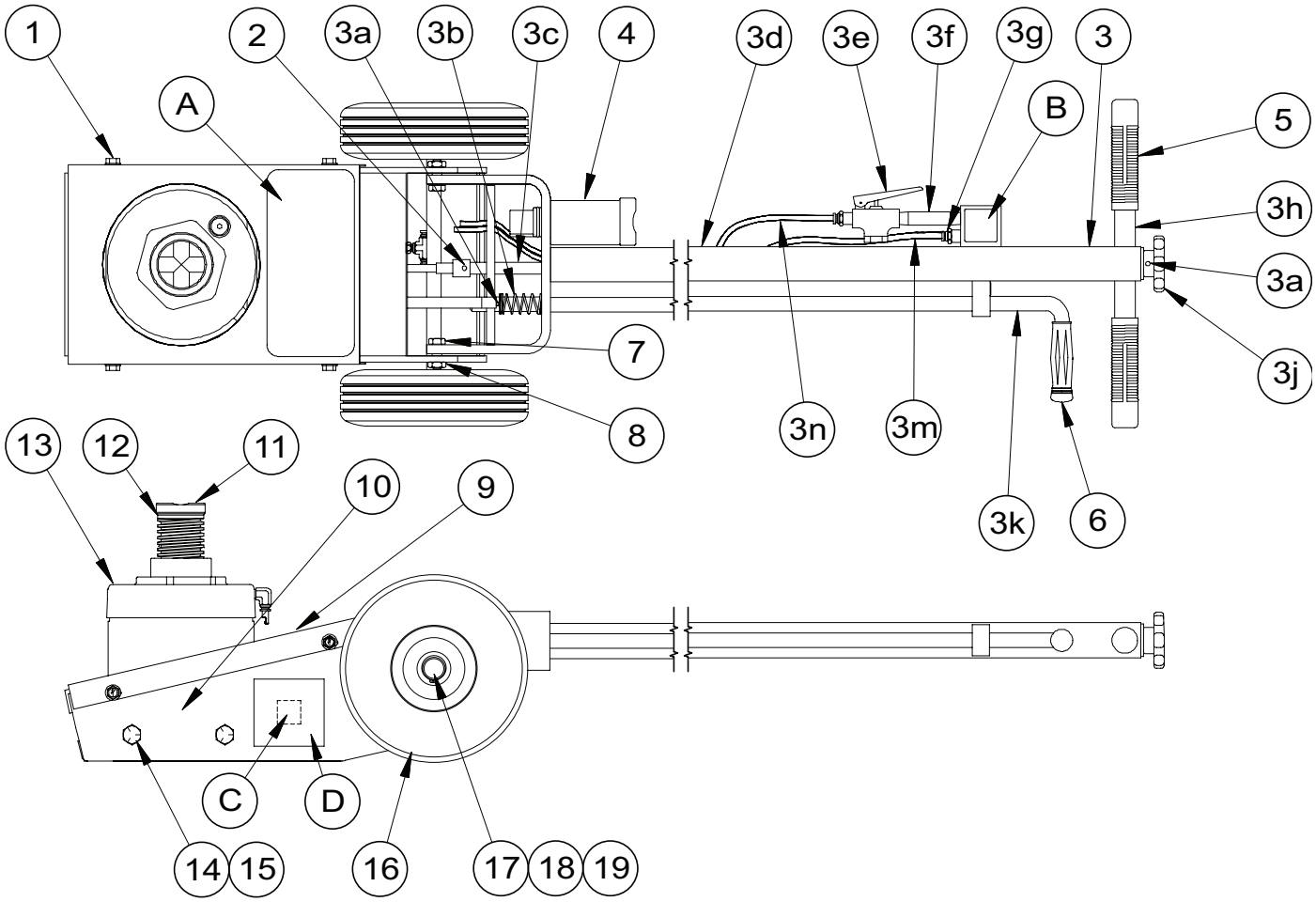


Figure 1 - Parts Illustration for HW93735 Frame

Replacement Parts List for HW93735 Frame:

Item	Part#	Description	Qty.
1	1-202-01103	Screw, Self Tapping, 5/16”-18	4
2	0-235-21004	Roll Pin, 3/16” Dia x 3/4”	1
3	3-850-01014	Handle Assembly	1
3a	0-235-21011	Roll Pin, 3/16” Dia x 1-1/8”	2
3b	1-233-14012	Compression Spring, 53/64” OD	1
3c	1-353-49159	Release Control Rod	1
3d	2-850-02006	Handle Weldment	1
3e	1-312-00002	Air Valve	1
3f	0-275-01004	Air Nipple, 1/4”x 3” long	1
3g	1-275-11004	Male Connector, 1/4”-18NPT	2
3h	1-850-04010	Handle Bar, Drilled	1
3j	1-232-20094	Knob, 2-1/2” Dia	1
3k	1-850-02007	Handle Release Rod	1
3m	8-082-30022	Tubing, Nylon, 1/4” OD x 60”	1
3n	8-082-30021	Tubing, Nylon, 1/4”OD x 45-1/2”	1
4	735-002-001	3” Extended Saddle Adapter	1
5	1-232-20113	Handle Grip, 7/8” ID x 5”	2
6	1-232-20107	Handle Grip, 5/8” ID x 3-1/2”	1
7	1-202-01304	Hex Head Capscrew,7/16”-14UNC	2
8	1-203-11204	Hex Nut, Jam, 7/16”-14UNC	2
9	1-850-04004	Top Cover	1
10	3-850-02010	Base Frame	1
11	2-015-50008	Saddle	1
12	1-390-01047	O-ring, 1-1/16”ID x 1-1/4”OD x 3/32”	1
13	4-353-40058	Hydraulic Unit	1
14	0-200-31406	Hex Head Capscrew,1/2”-13UNC	4
15	0-204-11400	Lockwasher, 1/2”	4
16	1-480-02006	Wheel, 8”Dia x 2/5” Hub	2
17	0-203-51500	Washer Cap, 5/8”Dia x 14”	2
18	8-009-63060	Bar, 5/8” x 14”	1
19	0-204-01614	Washer 5/8”, 1-1/4”OD	4
A	HW93735-L0	Label, Product	1
B	1-670-10163	Label, Ram Retract	1
C	1-670-10176	Label, Multi-Language	1
D	1-670-10259	Label, Warning	1
-	HW93735-M0	Manual	1

Replacement Parts Illustration for HW93735 Hydraulic Unit:

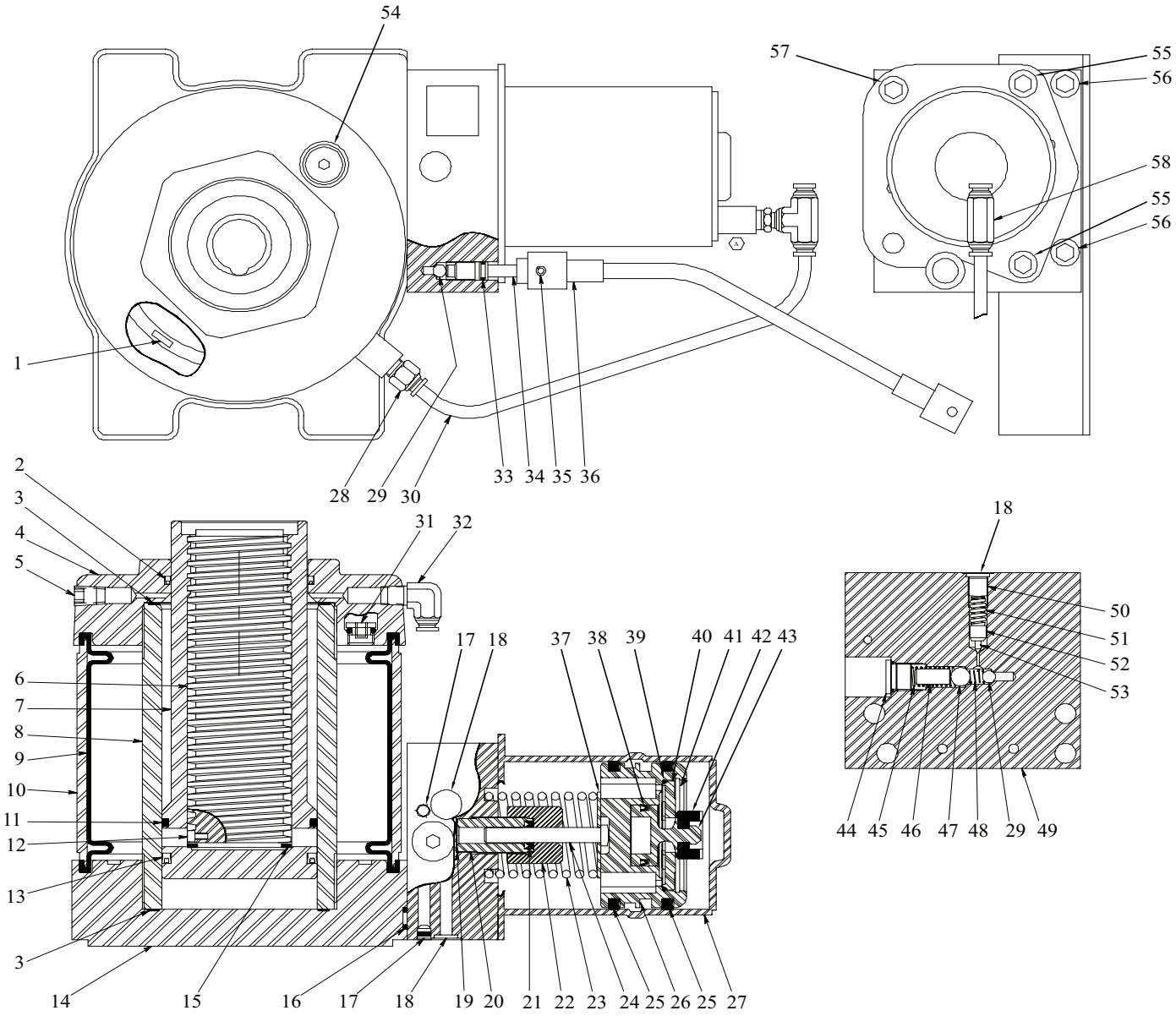


Figure 2 - Parts Illustration for HW93735 Hydraulic Unit

Replacement Parts List for HW93735 Hydraulic Unit:

Item	Part#	Description	Qty
1	1-353-49010	Magnet, 1/8”Dia x 7/16”	1
2*	1-390-11092	Seal, 2-5/8” x 2-7/8” x 1/8”	1
3*	1-390-11083	Back-up Ring,3-1/8”x3-1/2”x3/16”	2
4	4-353-43019	Jack Cap	1
5	0-275-20010	Hollow Head Hex Plug, 1/8”NPT	2
6	2-850-04002	Extension Screw	1
7	3-353-42027	Ram Plunger, 25 Ton	1
8	2-353-41036	Hydraulic Cylinder	1
9	2-353-49155	Bladder	1
10	1-850-02002	Outer Barrel	1
11*	1-390-01045	Quad Ring, 2-3/4” x 1/8” x 3”	1
12	0-201-00602	Capscrew, #6-32 x 1/4”	1
13*	1-390-11102	Seal, 2-1/2”ID x 3”OD x 1/4”	1
14	4-353-49199	Base Plate	1
15*	1-390-11085	Back-up Ring, 1-5/8” x 1/16”x2”	1
16*	1-390-10056	Quad ring, 7/16”x1/4”x3/32”	2
17	1-230-40001	Plug	2
18	1-353-49089	Expansion Plug	3
19*	1-390-10060	Back-up Ring 11/16”x1/2”	1
20	1-353-43030	Pump Housing	1
21*	1-390-10055	Seal, 9/16”x5/16”x1/8”	1
22	1-353-43029	Pump Housing cap	1
23	1-233-15003	Spring, 1-3/4OD	1
24	1-353-49156	Pump Plunger	1
25*	1-390-02010	Quad ring, 3”ODx2-5/8”ID	2
26	4-310-41017	Piston, Air Motor	1
27	3-310-11024	Cylinder, Air Motor	1
28	1-275-10001	Male Connector, 1/8”-27NPT	1
29	0-236-00005	Ball, 1/4”	2
30	8-082-30027	Tubing, Nylon, 1/4”ODx10-1/2”	1

Item	Part#	Description	Qty
31	1-274-32001	Oil Filler Screw with O-ring	1
32	1-275-11005	Male Elbow, 1/8”-27NPT	1
33*	0-390-00002	O-ring, 3/8”ODx1/4”IDx1/16Dia	1
34	1-353-49166	Release Stem	1
35	0-235-21004	Roll Pin, 3/16”Dia x 3/4”	1
36	1-850-04024	Flex Shaft	1
37	1-204-01106	Washer 1.75x.32x.064	1
38*	1-390-10076	Seal, 1/4”OD,1”IDx1/8”W	1
39*	1-390-01061	O-ring, 2-1/4”x1/16”x2-1/8”	1
40	1-310-91014	Piston Cap	1
41	1-230-06001	Retaining Ring, 2/18”Dia	1
42*	2-315-00002	Seal, Shuttle Valve	1
43	2-310-40004	Air Shuttle Piston	1
44	1-274-34001	Plug, with O-ring	1
45	1-233-12002	Spring, .406OD	1
46	1-353-49162	Check Valve Spacer	1
47	0-236-00006	Ball, 3/8”	1
48	1-233-10012	Spring, 1/4”Dia x 3/8”	1
49	N/A	Hydraulic Block	1
50	0-201-31202	Set Screw, 3/8”-24UNF x 3/8”	1
51	1-233-11007	Spring, .312OD	1
52	1-353-49057	Release Guide	1
53	1-353-49056	Rod, Tapered Release	1
54	0-680-00120	Plastic Cap	1
55	0-210-11212	Capscrew, 3/8”-24UNF x 2-3/8”	2
56	0-201-11211	Capscrew, 3/8”-24UNF x 2-1/4”	2
57	0-201-11204	Capscrew, 3/8”-24UNF x 3/4”	1
58	1-275-11006	Branch Tee, 1/8”NPT	1
*	928014	Air & Hyd Seal Kit	-

TWO YEARS LIMITED WARRANTY

For a period of two (2) years from date of purchase, SFA Companies will repair or replace, at its option, without charge, any of its products which fails due to a defect in material or workmanship under normal usage. This limited warranty is a consumer's exclusive remedy.

Performance of any obligation under this warranty may be obtained by returning the warranted product, freight prepaid, to SFA Companies Warranty Service Department, 10939 N. Pomona Ave., Kansas City, MO 64153.
Except where such limitations and exclusions are specifically prohibited by applicable law:

(1) THE CONSUMER'S SOLE AND EXCLUSIVE REMEDY SHALL BE THE REPAIR OR REPLACEMENT OF DEFECTIVE PRODUCTS AS DESCRIBED ABOVE
(2) SFA COMPANIES SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGE OR LOSS WHATSOEVER.
(3) ANY IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED TO TWO YEARS, OTHERWISE THE REPAIR, REPLACEMENT OR REFUND AS PROVIDED UNDER THIS EXPRESS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER, AND IS PROVIDED IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED.
(4) ANY MODIFICATION, ALTERATION, ABUSE, UNAUTHORIZED SERVICE OR ORNAMENTAL DESIGN VOIDS THIS WARRANTY AND IS NOT COVERED BY THIS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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