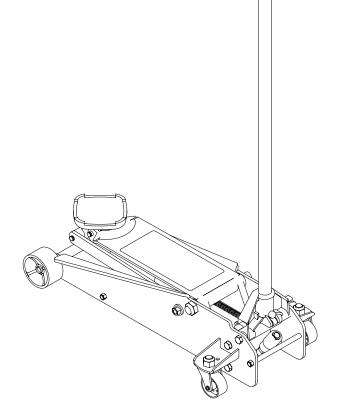


Service Jacks

Operating Instructions & Parts Manual

Model Number HW93642 HW93652 Capacity 2 Ton 3 Ton







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.

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Read this manual and follow all the Safety Rules and Operating Instructions before using this product.

SAFETY AND GENERAL INFORMATION

Save these instructions. For your safety *read, understand, and follow* the information provided with and on this jack. The owner and operator of this equipment shall have an understanding of this jack and safe operating procedures before attempting to use. The owner and operator shall be aware that use and repair of this product may require special skills and knowledge. Instructions and safety information shall be conveyed in the operator's native language before use of this jack is authorized. If any doubt exists as to the safe and proper use of this jack, remove from service immediately.

Inspect before each use. Do not use if broken, bent, cracked, or damaged parts (including labels) are noted. Any jack that appears damaged in any way, operates abnormally or is missing parts, shall be removed from service immediately and the manufacturer notified. If you suspect that the jack was subjected to a shock load (a load dropped suddenly, unexpectedly upon it), immediately discontinue use until the jack has been checked by a factory authorized service center (contact distributor or manufacturer for list of Authorized Service Centers). It is recommended that an annual inspection be done by qualified personnel. Replace worn or damaged parts with Hein-Werner Authorized Replacement Parts only. Labels and owner's manuals are available from manufacturer.

PRODUCT DESCRIPTION

Hein-Werner Hydraulic Service Jacks are designed to lift, not support, rated capacity loads consisting of one end of a vehicle. Immediately after lifting, the load must be supported by a pair of appropriately rated jack stands.



Never use hydraulic jack as a stand alone device. After lifting, **immediately** support the lifted load with a pair of appropriately rated jack stands.

SPECIFICATIONS

Model	Capacity	Min. Height	Max. Height	Jack Size (L x W)
HW93642	2 Ton	4-1/2"	20"	28-1/2" x 14-7/8"
HW93652	3 Ton	5"	23"	31-1/4" x 15-1/2"

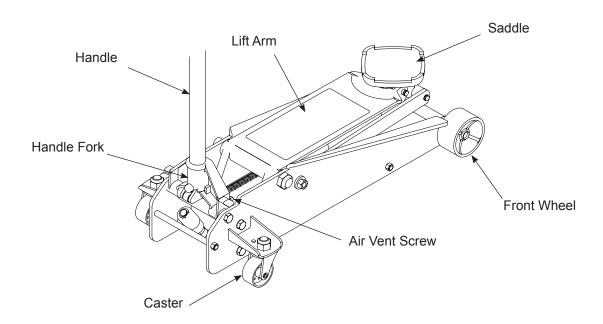


Figure 1 - Typical Service Jack Components

WARNING

- Study, understand, and follow all printed materials provided with/on this product before use.
- Do not exceed rated capacity.
- This is a lifting device only!
- **Immediately** after lifting, support the load with **a pair** of appropriately rated jack stands.
- Use only on hard, level surfaces capable of supporting rated capacity loads.
- Do not use adapters or accessories that are not provided by the manufacturer.
- Lift only on areas of the vehicle as specified by the vehicle manufacturer.
- Do not move or dolly loads with this device.
- No alterations shall be made to this product.
- Failure to heed these markings may result in personal injury and/or property damage.



To avoid crushing and related injuries:

- Never work on, under or around a load supported only by hydraulic jack.
- Always use adequately rated jack stands.
- · Chock each unlifted tire in both directions.
- **Do not** use this device to lift, level, lower, support nor move a house, mobile home, travel trailer, camper or any building structure.
- Be alert and sober when using this product. Do not operate under the influence of drugs or alcohol.

A ADVERTENCIA

- Leer, comprender, y seguir las instrucciónes antes de utilizar el aparato.
- El manual de instrucciónes y la información de seguridad deben estar comunicado en lengua del operador antes del uso.
- No seguir estas indicaciónes puede causar daños personales o materiales.

PREPARATION (REFER TO FIGURE 1)

Before Use

- 1. Verify that the product and application are compatible, if in doubt call Hein-Werner technical service.
- 2. Before use, read the operator's manual completely and familiarize yourself thoroughly with the product, its components and recognize the potential hazards associated with its use.
- 3. Insert handle to handle fork. Tighten the bolt on handle fork to prevent accidental removal of handle while in use.
- 4. To familiarize yourself with the basic operation of these jacks, locate and turn the release valve (handle):
 - a. Clockwise until firm resistance is felt to further turning. This is the 'CLOSED' release valve position used to raise the load.
 - b. Counter-clockwise, but no more than 1/2 full turn from the closed position. This is the 'OPEN' release valve position used to lower the load.
- 5. With saddle fully lowered, locate and remove air vent screw. Pump the operating handle through 6 to 8 full strokes. Check the oil level. Ensure the oil level is within ~3/16" from the inner cylinder as viewed from the air vent screw hole.
- 6. Reinstall the air vent screw.
- 7. Check to ensure that the jack rolls freely. Raise and lower the unloaded saddle throughout the lift range before putting into service to ensure the pump and release valve operate smoothly.
- 8. Replace worn or damaged parts and assemblies with Hein-Werner Replacement Parts only. Lubricate as instructed in Maintenance Section.

OPERATION

Lifting



Only attachments and/or adapters supplied by the manufacturer shall be used. Lift only on areas of the vehicle as specified by the vehicle manufacturer.

- 1. Follow the vehicle manufacturer's recommended guidelines for lifting. Engage the emergency brake and chock each unlifted wheel in both directions to prevent inadvertent vehicle movement.
- 2. Locate and close the release valve by turning the handle clockwise until firm resistance is felt.
- 3. Refer to the vehicle manufacturer owner's manual to locate approved lifting points on the vehicle. Center jack saddle under lift point.
- 4. Verify lift point then use handle pump to contact lift point. To lift, pump handle until load reaches desired height.
- 5. Transfer the load **immediately** to appropriately rated jack stands.



NEVER use hydraulic jack as a stand alone device! ALWAYS transfer the lifted load IMMEDIATELY to a pair of appropriately rated jack stands. Use one pair of jack stands per vehicle. Rated capacity is per pair only! Do not exceed rated capacity.



Overloading may cause hydraulic system failure.

Lowering



Be sure all tools and personnel are clear before lowering load. Slowly open the release valve! The more you turn the release valve (handle) counter-clockwise, the faster the load will come down. Maintain control of the rate of speed at which the load lowers at all times!

- 1. Raise load high enough to clear the jack stands.
- 2. Remove jack stands, carefully. (always used in pairs).
- 3. Slowly turn the release valve (handle) counter-clockwise, but no more than 1/2 full turn. If the load fails to lower:
 - a. Use another jack to raise the vehicle high enough to reinstall jack stands.
 - b. Remove the malfunctioning jack and then the jack stands.
 - c. Using the functioning jack, lower the load by turning the operating handle counter-clockwise, but no more than 1/2 full turn.
- 4. After removing jack from under the load, push saddle down to reduce ram exposure to rust and contamination.

MAINTENANCE

Important: Use only a good grade hydraulic jack oil. Avoid mixing different types of fluid and **Never** use brake fluid, turbine oil, transmission fluid, motor oil or glycerin. Improper fluid can cause failure of the jack and the potential for sudden and immediate loss of load. We recommend Hein-Werner hydraulic jack oil HW93291 or equivalent.

Adding oil

- 1. Lower saddle fully.
- 2. Set jack in its upright, level position.
- 3. Locate and remove air vent screw.
- 4. Fill with oil until ~3/16" above the inner cylinder as seen from the air vent screw hole.
- 5. Reinstall the air vent screw.

Changing oil

For best performance and longest life, completely replace hydraulic fluid at least once a year.

- 1. Lower saddle fully.
- 2. Remove the air vent screw.
- 3. Lay the jack on its side and drain the fluid into a suitable container.

Note: Dispose of hydraulic fluid in accordance with local regulations.

- 4. Fill with oil until ~3/16" above the inner cylinder as seen from the air vent screw hole.
- 5. Reinstall the air vent screw.

Lubrication

A periodic coating of light lubricating oil to pivot points, axles and hinges will help to prevent rust and assure that wheels, casters and pump assemblies move freely.

Cleaning

Periodically check the pump piston and ram for signs of rust or corrosion. Clean as needed and wipe with an oily cloth.

Note: Never use sandpaper or abrasive material on these surfaces!

Storage

Lower the saddle to its lowest position when not in use.

TROUBLESHOOTING

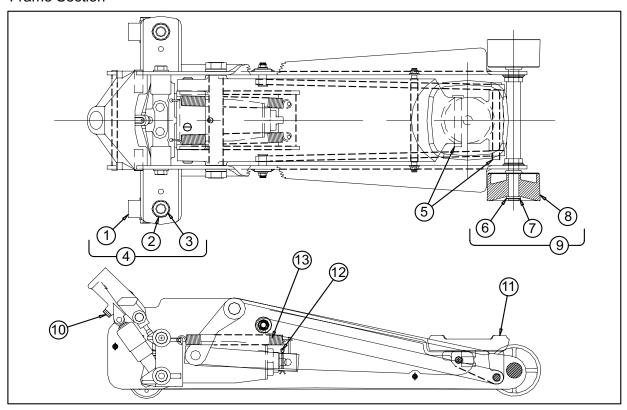
Symptom	Possible Causes	Corrective Action	
Jack will not lift load	Release valve not tightly closed Overload condition	Ensure release valve tightly closed Remedy overload condition	
Jack bleeds off after lift	Hydraulic unit malfunction	Discontinue use, contact Hein- Werner Technical Service	
Jack will not lower after unloading	Reservoir overfilled Linkages binding Fluid level low	Drain fluid to proper level Clean and lubricate moving parts Ensure proper fluid level	
Will not lift to full extension	Fluid level low	Ensure proper fluid level	

REPLACEMENT PARTS (refer to page 6 & 7)

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

Replacement Parts Illustration for Model HW93642 & HW93652 (refer to parts list on page 7)

Frame Section



Hydraulic Unit Cross Section

Handle Assembly

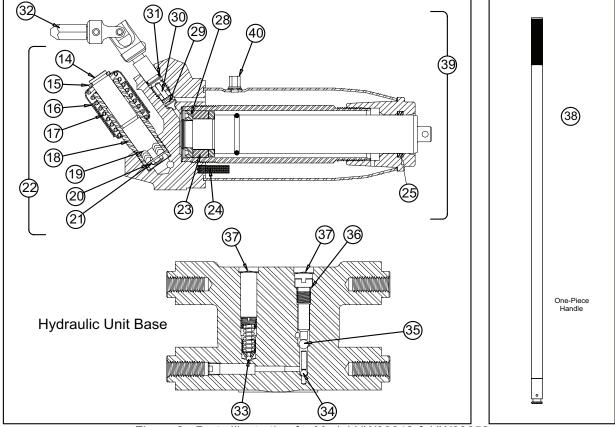


Figure 2 - Parts Illustration for Model HW93642 & HW93652

Replacement Parts List for Model HW93642 & HW93652 (refer to parts drawing on page 6)

Item	Part No.		Description	Qty.	
1	231	583	Caster, 2.5"x1.25"	2	
2	201115		Lock Washer, 3/4"	2	
3	219451		Hex Nut, 3/4"-10	2	
4	231584		Caster Assembly (includes item# 1-3)	2	
5	201803		Retaining Ring	2	
6	214557		Retaining Ring	2	
7	204324		Flat Washer, 3/4"	2	
8	234678		Wheel, 3.75"x2"	2	
9	234677		Front Wheel Assy.(includes item# 6-8)	2	
10	234956		Hex. Head Bolt, 3/8"-24	1	
11	239304		Saddle	1	
12	221	408	Cotter Pin, 1/8"	1	
13	243618		Return Spring	2	
14	N/A		Pump Piston	1	
15*	N/A		Retaining Ring	1	
16	N/A		Pump Sleeve	1	
17	N/A		Spring	1	
18	N/A		Pump Cylinder	1	
19*	N/A		Packing	3	
20	N/	/A	Flat Washer	1	
21	N/A		Hex Nut #10-32	1	
22	890-021-666		Pump Assembly (includes item# 14-21)	1	
23*	230301		Heel Plate	1	
24*	221318		Screen	1	
25*	221748		Quad Ring	1	
28*	228256		U-cup	1	
29*	218043		Release Valve	1	
30*	233917		Plastic Spring	1	
31*	216	143	Gland O-ring	1	
32	248	731	Universal Assembly	1	
33*	203	196	Ball, 5/32"	1	
34*	203	198	Ball, 7/32"	1	
35*	203	201	Ball, 5/16"	1	
36*	204842		Gasket	1	
37*	201733		Plug	2	
20	HW934642	234957	1 pc. Handle Assembly	4	
38	HW93652	234961	1 pc. Handle Assembly	1	
39	HW93642	248721	Dower Unit	1	
	HW93652	890-005-010	Power Unit		
40	6420-10000-000		Air Vent Screw Assembly	1	
*	248949		Repair Kit for Hydraulic Unit	-	



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:

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