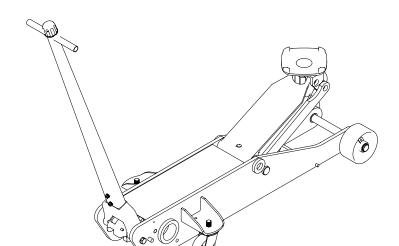


# Jack, Dolly-Type, Hydraulic, Automotive Service, 10 Ton

**Operating Instructions & Parts Manual** 

Model Number HW93660 Capacity 10 Ton





National Stock Number: Contract Number: Manufacturer's Cage Code: Supplier Cage Code: Supplier: 4910-00-289-7233 (Model HW93660) W56HZV-14-D-0072 1WDP3 1WDP3 SHINN FU COMPANY OF AMERICA, INC. 10939 N POMONA AVE KANSAS CITY, MO 64153-1257



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 10939 N. Pomona Ave. Kansas City, MO 64153 customerservices@heinwerner-automotive.com

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.



**WARNING:** NEVER use a hydraulic jack as a stand-alone device. After lifting, immediately support the lifted vehicle with a pair of appropriately rated jack stands. NEVER place any portion of your body beneath the vehicle when lifting OR lowering.

## **SPECIFICATIONS**

Model	Capacity	Min. Height	Max. Height	Chassis Length	Wheel to Wheel Width	Gross Weight	
HW93660	10 Ton	6-3/4"	25-1/2"	53-1/2"	16"	420 lb.	

# **WARNING**

- Study, understand, and follow all instructions before operating this device.
- · Do not exceed rated capacity.
- Use only on hard, level surfaces capable of supporting rated capacity loads.
- Lifting device only. Immediately after lifting, support the vehicle with appropriate means.
- Do not move or dolly the vehicle while on the jack.
- Lift only on areas of the vehicle as specified by the vehicle manufacturer.
- No alterations shall be made to this product.
- Failure to heed these markings may result in personal injury and/or property damage.

# **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.

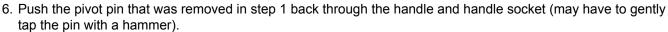
#### **ASSEMBLY**

#### **Equipment required**

- 1. Needle nose locking pliers
- 2. 15 /16" wrench
- 3. Hammer
- 4. Tape measure
- 5. All necessary hardware is assembled loosely onto the jack.

#### Instructions

- 1. (Ref. Fig. 2) Remove the 5/8-18 bolts and the handle pin from the jack base that connects through the handle fork.
- 2. Remove the #6-32 screw and nut from the universal receptacle.
- 3. Pull the universal assembly out a minimum of 1-3/4".
- 4. Clamp the needle nose locking pliers onto the rod so that the universal assembly will not retract back into the handle.
- 5. Slide the universal assembly into the handle socket so that it extends out the other side.



- 7. Align the pivot pin with the holes on the side plates that the pivot pin was removed from and tighten the 5/8-18 bolts into the pivot pin until secure.
- 8. Connect the universal assembly to the universal receptacle rod using the #6-32 screw and nut (finger tighten only).
- 9. Remove the needle nose locking pliers.
- 10. Replace plug on hydraulic unit with vent screw from owners manual bag.
- 11. Jack is now operational and ready for use.



#### **Before Use**

- 1. Verify that the product and application are compatible, if in doubt call Hein-Werner Technical Service (816) 891-6390.
- 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. To familiarize yourself with the basic operation of these jacks, locate and turn the release valve knob:
  - 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. The more you turn the release valve knob Counter-clockwise, the faster the load descends.
- 4. With saddle fully lowered, locate and remove cover plate, then 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.
- 5. Reinstall the air vent screw.
- 6. 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.
- 7. Replace worn or damaged parts and assemblies with Hein-Werner Replacement Parts only. Lubricate as instructed in Maintenance Section.

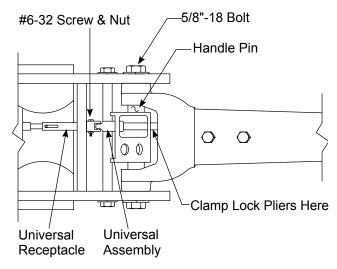


Figure 2- Assembly Illustration for HW93660 & HW93662

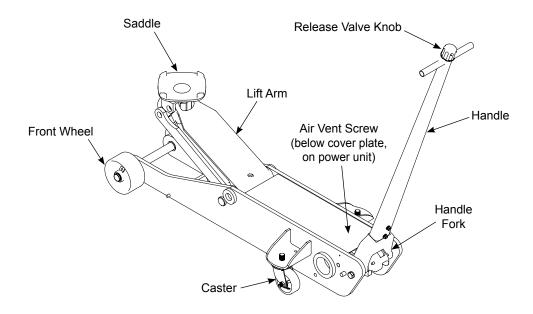


Figure 3 - Model HW93660 Nomenclature

# **OPERATION**

Lifting



WARNING: 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 release valve knob 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.



WARNING: NEVER use a hydraulic jack as a stand alone device. ALWAYS transfer the lifted load to a pair of appropriately rated jack stands.



WARNING: Overloading may cause hydraulic system failure.

#### Lowering



WARNING: Be sure all tools and personnel are clear before lowering load. Slowly open the release valve. The more you turn the release valve knob 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. Carefully remove jack stands.
- 3. **Slowly** turn the release valve knob 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, then repeat steps 1 & 2 above.
  - c. Using the functioning jack, lower the load by turning the release valve knob 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**

**NOTICE:** Use only good quality hydraulic jack fluid. 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. Hein-Werner recommends Hydraulic Jack Oil HW93291 or equivalent.

#### **Adding Fluid**

- 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 Fluid**

For best performance and longest life, replace the complete 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.

**NOTICE**: 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, castors 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.

**NOTICE:** Never use sandpaper or abrasive material on these surfaces.

#### **Storage**

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

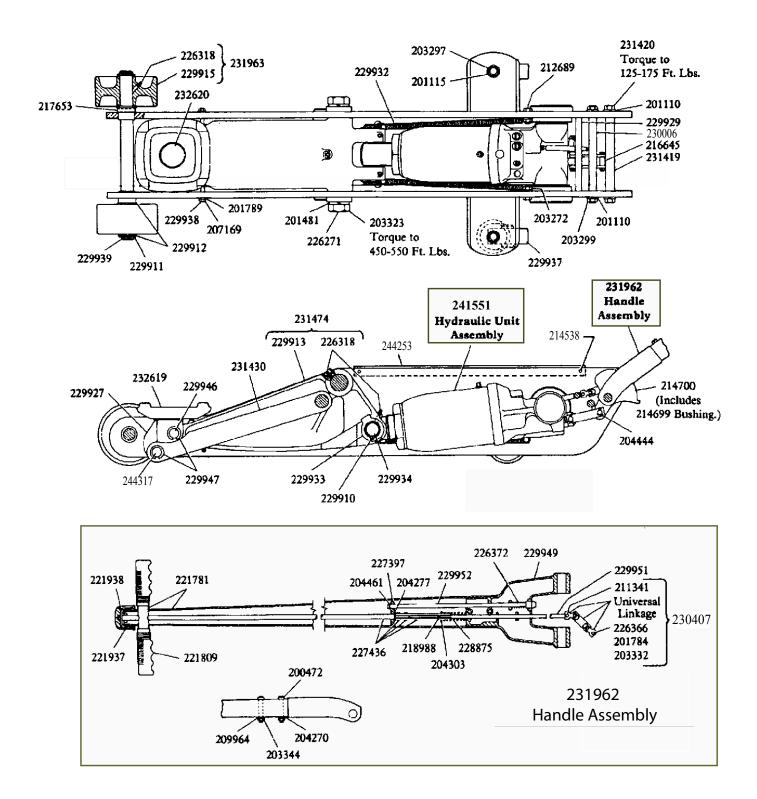
#### **TROUBLESHOOTING**

Symptom	Possible Causes	Corrective Action
Jack will not lift load	Release knob not tightly closed Overload condition	Ensure release knob 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

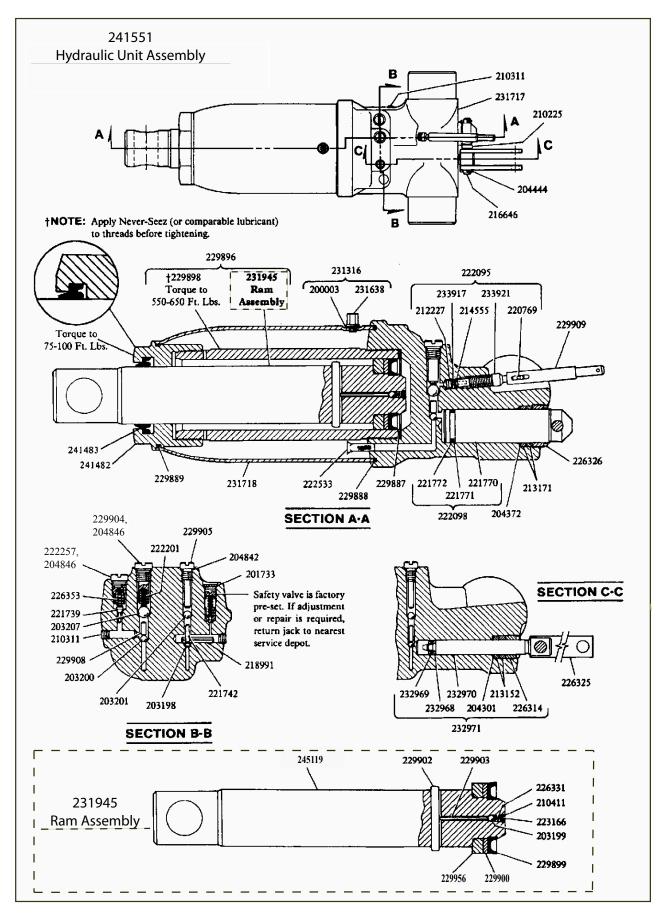
## **REPLACEMENT PARTS** (refer to pages 6 thru 16)

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

# Model HW93660 Replacement Parts Illustration Part I (ref. to parts list on pg. 8)



# Model HW93660 Replacement Parts Illustration Part II - Hydraulic Unit (ref. parts list pg. 8)



# Model HW93660 Replacement Parts List (ref. Figures on pgs. 6 & 7)

Part#	<u>Description</u>	Qty.	Part#	<u>Description</u>	Qty.	Part#	<u>Description</u>	Qty.
200003	Gasket	1	220769	Cross Pin	1	229927	Cap Housing	1
200472	Bolt	2	221739	Poppet	1	229929	Bearing	1
201110	Lockwasher	4	221742	Ball Stop Plug	1	229932	Spring	2
201115	Lockwasher	2	221770	Speed Pump	1	229933	Plate	2
201481	Lockwasher	2	221771*	Back-up Washer	1	229934	Pin	1
201733	Expansion Plug	1	221772	Quad Ring	1	229937	Caster	2
201784	Lockwasher	1	221781	Handle & Cross Bar	1	229938	Pin	1
201789	Lockwasher	2	221809	Handle Grip	2	229939	Front Axle	1
203198*	Ball	1	221937	Release Knob	1	229946	Pin	1
203199*	Ball	1	221938	Roll Pin	1	229947	Retaining Ring	4
	Daii				•			•
203200*	Ball	1	222095	Release Stem Assy	1	N/A	Handle Socket	1
203201*	Ball	1	222098	Speed Pump Assy	1	229951	Extension Rod	1
203207*	Ball	1	222201*	Spring	1	229952	Plunger Assy	1
203272	Nut	2	222257	Plug	1	229956	Heel Plate	1
203297	Nut	2	222533*	Screen	2	230006	Bumper Pin	1
203299	Nut	2	223166*	Screen	1	230407	Universal Assy	1
203323	Nut	2	224253	Cover	1	231316	Filler Plug/Gasket Ass	y 1
203332	Nut	1	N/A	Fulcrum Pin	1	231419	Fulcrum Pin	1
203344	Nut	2	226314	Gland Nut	1	231420	Bolt	2
204270	Washer	2	226318	Grease Fitting	5	N/A	Parallel Link	2
204277	Washer	1	226325	Pump Link	2	N/A	Bell Crank & Fittings	1
204301	Washer	1	226326	Gland Nut	1	231638	Filler Plug & Vent Valve	e 1
204303	Washer	1	226331	Spring	1	231717	Base	1
204372	Washer	1	226353*	Spring	1	231718	Oil Tank	1
204444	Cotter Pin	4	226366	Bolt	1	231945	Ram Assy	1
204461	Cotter Pin	1	226372	Plunger Spring	1	231962	Handle Assy	1
204842*	Gasket	1	227397	Link	1	231963	Front Wheel Assy	2
204846	Gasket Ring	2	227436	Turning Rod Assy	1	232619	Lifting Cap	1
207169	Nut	2	228875	Spring	1	232620	Swivel Pin	1
209964	Lockwasher	2	229887*	O-ring	1	232968*	Back-up Washer	1
210225	Spacer	1		g			•	
			229888*	O-ring	1	232969*	U-cup Packing	1
210311	Pipe Plug	3	229889*	O-ring	1	232970	Pressure Pump	1
210411*	Washer	1	N/A	Ram & Cylinder Assy	1	232971	Pressure Pump &	1
211341	Rivet	1	229898	Cylinder	1		Gland Packing Assy	
212227	Release Valve	1	229899*	U-cup Packing	1			
212689	Bolt	2	229900*	Back-up Washer	1	233917	Plastic Spring	1
213152*	Packing Ring	2	229902	Cross Pin	1	233921	Release Stem	1
213171*	Packing Ring	2	229903	Pin	1	240616	Repair Kit (Hyd. Unit)	
214538	Groove Pin	4	229904	Plug	1	241482	Tank Nut	1
214555*	O-ring	1	229905	Plug	1	241483*	Seal	1
214699	Bushing	1		• 0		241551	Hydraulic Unit Assy	1
			229908	Spacer	1			
214700	Handle Segment	1	229909	Slotted Tube	1	244317	Pin	1
	& Bushing		229910	Retaining Ring	2	245119	Ram	1
216645	Pin	1	229911	Retaining Ring	2			
216646	Pin	1	229912	Washer	4	HW93660	)-K0 Label Kit (not shov	vn)
217653	Roll Pin	2	N/A	Bell Crank	1		(	,
218988	Roll Pin	1	231963	Front Wheel	2	(*) Items	included in Repair Kit	
218991	Roll Pin	1			_	240616		



#### THREE YEARS LIMITED WARRANTY

For a period of three (3) 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 THREE 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.