



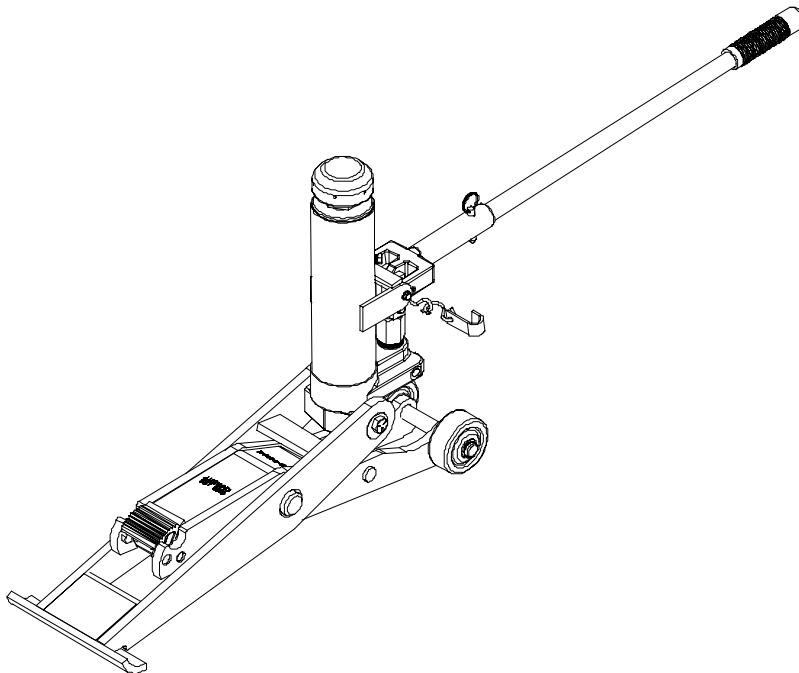
Forklift Jack

Operating Instructions & Parts Manual

Model Number Capacity
HW93659 4 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.

**This manual contains important information about raising forklifts that You may not know.
Read this manual carefully and retain it for future reference.**

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SAFETY INSTRUCTIONS

WARNING

Anyone who operates this jack must read and understand all the instructions and warnings provided with this jack before being allowed to use it. All operators must be careful, competent, trained, and qualified in the safe operation of the jack. The owner (or other responsible individual) must ensure that any operator observes the proper safety procedures for using this jack at all times. If the operator does not read well or is not fluent in English, the owner / manager must read and review the instructions and warnings in the manual with the operator in the operator's native language to be sure that the operator will use the jack properly.

The owner / manager must keep this manual for future reference, and make sure the warning labels on the jack are legible and intact at all times. Replacement labels and manuals are available from manufacturer. Call customer service using the numbers shown on the back cover of this manual if you have any questions.

ALWAYS use appropriate support stands to support a forklift after it has been raised. This jack is a lifting device only! NEVER perform any work on or around a forklift or allow any part of your body under a raised load until the forklift is properly supported by support stands and the jack is removed from the work area. If lifting the forklift from the front or rear, the wheels remaining on the ground must be chocked.

Use this jack only to raise forklifts. This jack is not designed to raise loads other than forklifts. Using this lift to raise loads other than forklifts can result in serious injury or death. NEVER use a forklift jack on a forklift while the motor is running.

NEVER use this jack in conjunction with any other jack or lift. NEVER use this jack to raise one side (or end) of a forklift unless the other side (or end) of the forklift is in contact with the ground. NEVER overload this jack. The jack's maximum capacity is 8,000 lb. (3,630 kg). If you need to lift more than this, use a jack that has a higher maximum capacity. NEVER use more than one jack to raise a forklift.

Protect hands, feet, and other body parts when using or transporting the jack. Keep hands, feet and all other body parts out of the area of the scissors mechanism at all times during use or transport of the jack. The scissors action of the lifting mechanism can cause serious injury to body parts.

NEVER modify the jack in any way. Modifications may cause the jack to perform improperly, resulting in injury or death. NEVER use the jack with aftermarket accessories, lift pads, or adaptors, or with any other pad or device added to the jack.

NEVER abuse or cause damage to the jack. Do not drop, throw, drive over, or otherwise abuse the jack. NEVER subject the jack to abnormal shocks or loads. Your safety and that of others depends on the proper operation of the jack.

SIGNAL WORDS

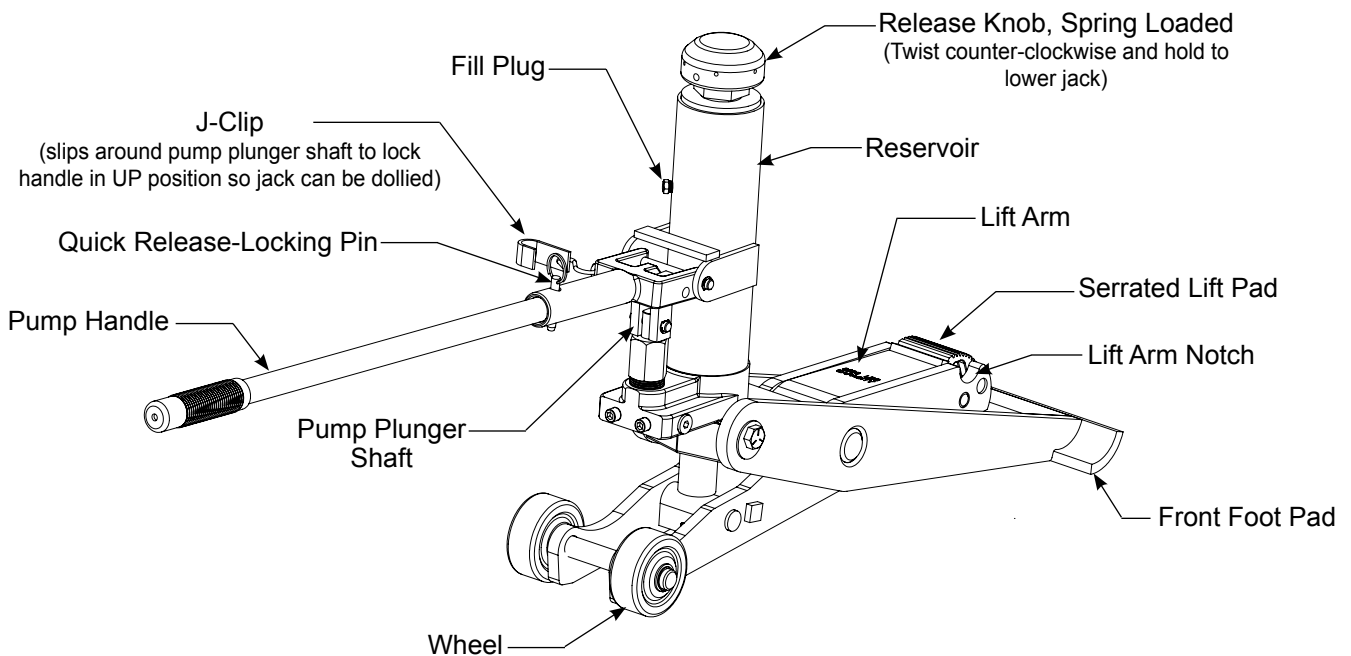
Signal words call attention to a safety message/messages, or a property damage message/messages, and designates a degree or level of hazard seriousness. The signal words are "**DANGER**", "**WARNING**", "**CAUTION**", and "**NOTICE**".

- **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

SPECIFICATIONS

Capacity:	8,000 lb./ 3,630 kg
Maximum Lift Height:	16"
Reach (raised position):	7" (Distance from reservoir to lift pad)
Width:	8"
Starting Pad Height (lift arm notch):	2 ¼"
Starting Pad Height (serrated lift pad):	2 ½"
Weight:	68 lb.

COMPONENT IDENTIFICATION



RELEASE KNOB

The release knob has a “Hold-to-Run[™]” feature that utilizes a heavy-duty return spring to automatically close the release valve when the operator “lets go” of the release knob. With this feature, the operator should never have to physically close the valve by turning the release knob in a clockwise direction.

A mechanical stop prevents turning the release knob more than 1/2 turn counterclockwise.

WARNING! NEVER remove this mechanical stop. NEVER force the release knob more than 1/2 turn counter-clockwise as doing this may damage the release knob’s return spring.

If the valve ever behaves as if it is not completely closing (e.g., the jack won’t raise or won’t hold a load), the operator may gently turn the release knob in a clockwise direction until resistance is felt. The jack should then raise when the lift arm is pumped. If it does not, please call customer service for assistance.

USING THE JACK TO RAISE A FORKLIFT

This section discusses the appropriate and safe methods for using the HW93659 Forklift Jack to raise and lower a forklift.

WARNING

Using the jack to raise a forklift requires several steps that must be followed each and every time the jack is used:

1. Inspect the jack for signs of wear or damage.
2. Transport the jack to the work area.
3. Select appropriate support stands and bring them to the immediate work area.
4. Prepare the surrounding area before using the jack.
5. Identify a lift point, prepare the load for lifting, and chock wheels that remain on the ground.
6. Raise the forklift.
7. Use appropriate support stands.
8. Lower the forklift.

Each of these steps is discussed in detail in the following sections. Failure to follow all of these instructions can lead to serious injury or death.

1. Inspect the Jack for Signs of Wear or Damage

Before each use, you should inspect the jack for any visible signs of wear or damage. See the “Inspecting the Jack” section on page 7 for details about how to inspect the jack.

WARNING! NEVER use a jack that appears damaged in any way.

2. Transport the Jack to the Work Area

Transport the jack to the work area by either (a) wheeling it or (b) lifting and carrying it. The lift should always be wheeled to the work area if possible—only lift and carry the jack if it cannot be wheeled safely. Wheel the jack only across smooth surfaces. If the surface is rough or uneven, lift and carry the jack instead of wheeling it.

WARNING! Jolting caused by the wheels catching on uneven surfaces can cause physical strain and personal injury.

A. How to Wheel the Jack

1. Make sure the surface over which the jack will be wheeled is smooth. If the surface is rough or uneven, lift and carry the jack instead of wheeling it (see “How to Lift and Carry the Jack” on page 6).
2. Insert the jack pump handle into the socket and lock it into place using the quick-release locking pin (see Figure 1) immediately after inserting it into the socket.

WARNING! NEVER transport the jack with an unsecured pump handle.

3. Raise the pump handle as far as it will go and place the J-clip around the pump plunger shaft to lock the pump handle in the up position (see figure 2).
4. Push down on the pump handle to raise the front foot pad off the floor and allow the jack to roll freely on its wheels.

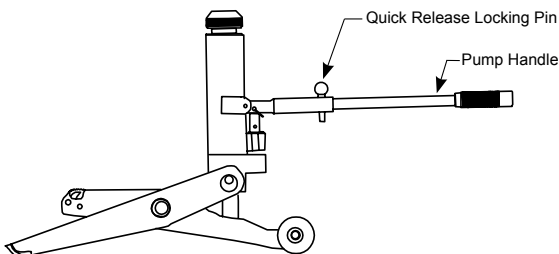


Figure 1

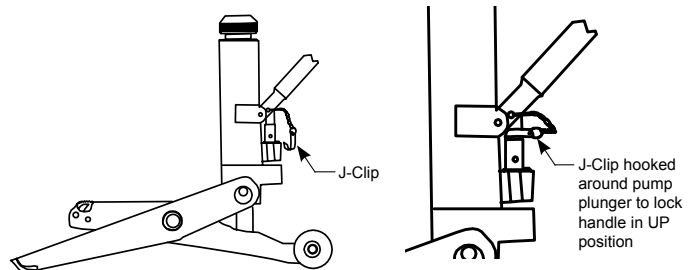


Figure 2

B. How to Lift and Carry the Jack

1. Identify the proper lift points on the jack (see Figure 3). The jack should be lifted using both the toe lift point and the rear frame lift point.

WARNING! NEVER use the pump handle to lift the jack. The pump handle is not a properly balanced leverage point for lifting the jack. In addition, a pump handle that is not properly pinned into the socket (with the quick release locking pin) may slip out of the socket and cause the jack to fall.

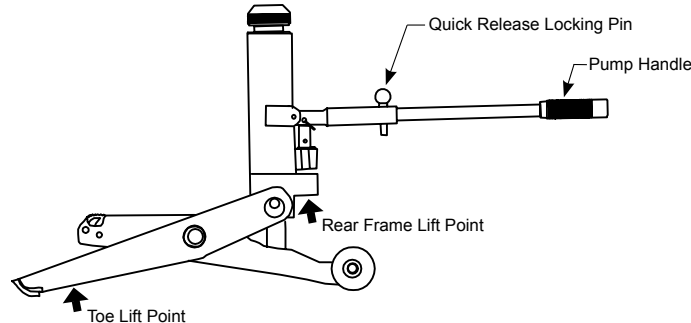


Figure 3

2. Lift and carry the jack. Whenever possible, have someone else help you lift and carry the jack.

- The jack weighs 68 lb. (30.8 kg).

WARNING! DO NOT attempt to lift the jack if you have any physical condition that prevents you from safely lifting this amount of weight. If you weigh less than 150 pounds, NEVER lift the jack without assistance.

- ALWAYS lift using proper lifting techniques—squat, keep your back straight, and use your legs to do the lifting.

WARNING! NEVER bend your back or lift the jack with your back.

3. Select Appropriate Support Stands and Bring Them to the Immediate work Area

It is important that appropriate support stands are used. Hein-Werner manufactures support stands that are made specifically for forklifts.

WARNING! Use appropriate stands to support the load immediately after lifting. NEVER use the jack to support a load. Failure to follow all of these instructions can result in jack instability and loss of a load.

4. Prepare the Surrounding Area Before Using the Jack

It is important that the surrounding area be prepared properly before raising a load.

WARNING! Failure to follow all of these instructions can result in jack instability and loss of a load:

- Use the jack only on hard, level surfaces capable of safely supporting the load.
- The jack's front footpad and rear wheels must ALWAYS remain in direct contact with the floor.
- NEVER attempt to lift from a polished or greasy floor.
- Clear the surrounding area of personnel, tools, equipment, and make sure appropriate support stands and chocks are available for use in the immediate area.

If these conditions cannot be met, move the forklift and jack to an area where the lift can be performed safely.

5. Identify a Lift Point, Prepare the Load for Lifting, and Chock Wheels

Before lifting a forklift with the jack, you need to identify a lift point and prepare the load for lifting.

1. Remove any load from the forks of the forklift and lower the forks to the ground.
2. Identify a lift point at the rear or side of the forklift.

WARNING! When selecting a lift point, it is very important that you consider the following:

- Position the jack so that, as the forklift is lifted, the load will be balanced on the forklift tires that remain on the ground.
- When raising a forklift from one end, always chock the wheels that will remain on the ground.
- Make sure at least two wheels of the forklift remain in contact with the floor at all times. NEVER raise a 3-wheeled forklift from the 2-wheeled end or from the side. NEVER use the jack to raise all four wheels of the forklift from the floor. NEVER raise the forklift higher than 1/4 its tread width (see Figure 4).

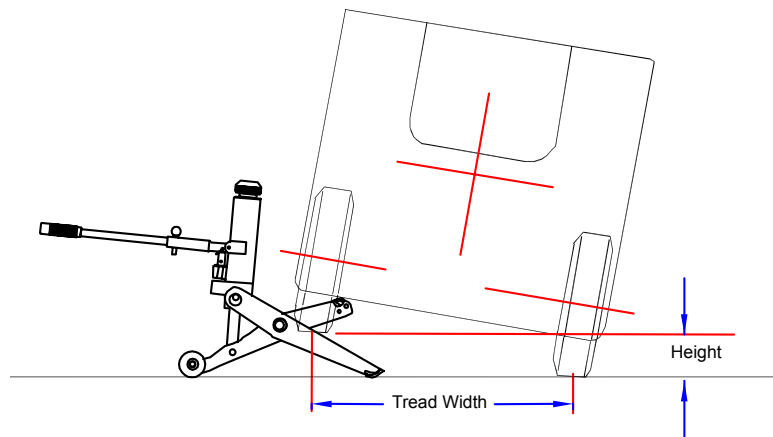


Figure 4

3. Examine the lift point carefully and ensure that it is strong enough to resist the lifting force of the jack without damaging the forklift or machinery.
 - If it is preferred to lift the forklift at a point where a structural member will be cradled in the lift arm notch at the end of the lift arm (see Figure 5A).
 - If no structural component on the forklift is present at the desired lifting point, weld a steel bar to the forklift to create a structural member (as in Figure 5A).
 - If no structural component exists and one cannot be created, flip the serrated lift pad into an upward position and choose a lift point at least 3" inward toward the center of the vehicle on a flat surface (see Figure 5B).

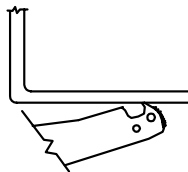


Figure 5A

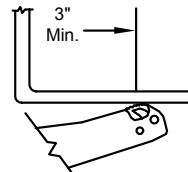


Figure 5B

- The serrated lift pad or lift arm notch must be in direct contact with the forklift .
- WARNING!** NEVER use any other area on the jack as a contact point (see Figure 6).

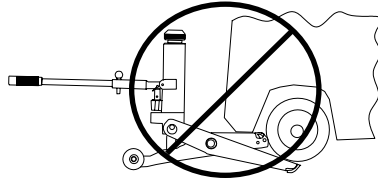


Figure 6

- The jack's front footpad and rear wheels must ALWAYS remain in direct contact with the floor (see Figure 4).
- WARNING!** NEVER increase the lifting height of the jack by putting wood, pads, cinder blocks, or any other objects above the lift pad or underneath the front footpad and/or wheels (See Fig. 7A).
- **WARNING!** NEVER lift with the jack positioned under a sloped or rounded surface, such as the bottom surface of a forklift's counterweights (see Figure 7B).

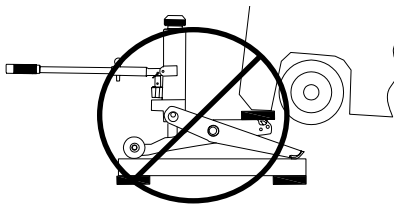


Figure 7A

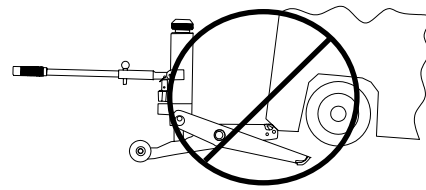


Figure 7B

- **WARNING!** NEVER push the jack under the load past the "red line" marked on the decal located on top of the lift arm.
- **WARNING!** NEVER lift the forklift by its counterweight.
- **WARNING!** NEVER lift the forklift in a manner that is counter to the manufacturer's recommendations.

6. Raise the Forklift

1. Make sure the forklift is not running before raising the forklift.
2. If lifting the forklift from the front or rear, the wheels remaining on the ground must be chocked.
3. Select a lift point as outlined in Step 4.
4. Make sure appropriate support stands and chocks are available for use in the immediate work area.
5. If the jack pump handle is not in the socket, insert the pump handle and lock it into position with the quick-release locking pin provided. Remove the J-clip from the pump plunger shaft (see Figure 2).
6. Carefully begin pumping the jack handle to raise the load.

WARNING! NEVER raise the forklift higher than 1/4 its tread width when using the serrated lift pad (see Figure 8).

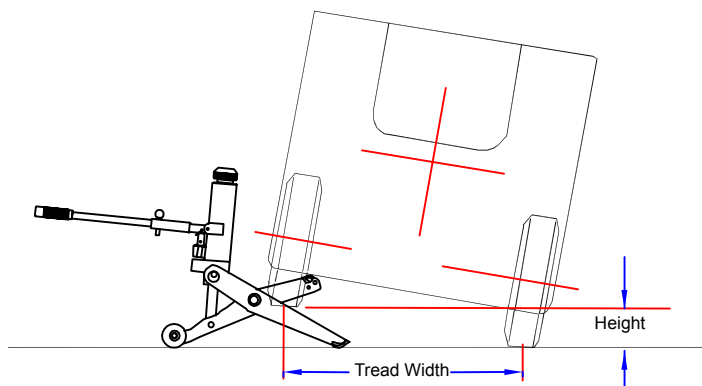


Figure 8

7. Use Appropriate Support Stands

WARNING! *This jack is a lifting device only! Use appropriate stands to support the load immediately after lifting. NEVER use the jack to support a load. NEVER allow any part of your body under the raised load until it is properly supported by stands.*

1. When the forklift has been raised to the desired height, place appropriate support stands under the forklift to support it according to the forklift manufacturer's recommendations. Hein-Werner manufacturers support stands for this purpose. Also, read and follow all instructions and warnings provided with the support stands.
2. Lower the forklift onto the stands by slowly turning the release knob on the jack counterclockwise.
3. Remove the jack and move it away from the work area before starting work.
4. Chock the wheels that will remain on the ground.

8. Lower the Forklift

WARNING! *To avoid serious injury or death, NEVER drive the forklift off the jack or attempt to move a forklift that it is elevated by the jack.*

1. Use the instructions from Step 5 (Raise the Forklift) to raise the forklift off the jack stands.
2. Carefully remove the stands from beneath the forklift and place them away from the work area.
3. Slowly turn the release knob counterclockwise to lower the forklift to the floor.

WARNING! *Turn the release knob slowly to prevent the possibility of the jack from kicking out from under the forklift.*

4. Lower the jack completely and move the jack and chocks away from the work area.

INSPECTING THE JACK

WARNING

The owner must inspect, or appoint a knowledgeable person to inspect the jack for signs of damage, corrosion, excessive wear, abnormal operation, or any other potential problem. Inspection should be performed before each use.

NEVER use a jack that appears to be damaged in any way. If any irregularities or problems are detected during an inspection, the jack must be removed from service immediately and repaired. Contact customer service at the address and numbers shown on the back cover of this manual to report any problems.

If a jack is subjected to an abnormal shock or load, it must immediately be removed from service and inspected for damage.

Use the following procedures to inspect the jack for wear or damage:

- Inspect the serrated lift pad regularly, and remove a jack from service if it is cracked, chipped, rusted, or shows signs of wear.
- The jack should raise and lower smoothly through its full range. Inspect the lift arm for damage such as bends and / or twists.
- Check the wheels to make sure that they are not damaged and that they rotate freely.
- Make sure that all components are present on the jack and are in good operating condition.
- Replace any missing or damaged components or decals before putting the jack back into service.

PUMP PRIMING INSTRUCTIONS

If the jack should lose its prime for any reason, follow these steps to re-prime it:

1. With the release knob released, stroke the pump handle through 2 full cycles, slowly.
2. Raise pump handle fully up; lay the jack over on its left side, as viewed from rear. Push the pump handle “down.”
3. Stand the jack upright again, raise the pump handle to the top, lay the jack over on its left side and push the pump handle “down” again.
4. Stand the jack upright, stroke the pump handle while holding the release knob open (counter-clockwise).
5. Release the release knob. The jack should operate satisfactorily.
6. Repeat the priming procedure if necessary.
7. Call customer service at the address and numbers shown on the back cover of this manual if the problem persists after three attempts to re-prime the jack.

MAINTENANCE AND LUBRICATION INSTRUCTIONS

WARNING

All maintenance and lubrication 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.

To properly maintain the jack, perform the following procedures:

1. All warning and capacity labels should be readable and complete. If they are not, contact Hein-Werner for replacement labeling. Wash external surfaces of jack, labels, and decals with a mild soap solution.
2. Lubricate all rotating and sliding portions of the jack monthly. The following lubricants are required:
 - Heavy-grade machine oil.
 - Tellus T22 hydraulic oil or equivalent.
3. Apply several drops of heavy grade machine oil to the pump plunger shaft and test the plunger for proper operation.
4. Oil the pump handle joints while operating the pump handle to work the oil in.
5. The hydraulic unit is sealed, and should never require fluid to be added to the reservoir. If fluid is needed, however, fill the reservoir as follows:
 - Place the jack in the normal upright position and turn the release knob counterclockwise to completely lower the jack.
 - Carefully clean dirt and contaminants from around the fill plug and then remove the plug.
 - Add Tellus T22 hydraulic oil or equivalent to the reservoir until fluid runs out of the fill plug hole. Be extremely careful to keep the fluid contaminant free and keep dirt and contaminants out of the reservoir of the jack.

WARNING! *For safe and proper performance, Tellus T22 hydraulic fluid or equivalent is required. Use of improper or contaminated fluids can damage the seals, making the jack unsafe to use, and will void the warranty. Failure to heed this warning may result in personal injury and / or property damage.*

- Reinstall fill plug.

TROUBLESHOOTING

This section contains a list of problems that may be encountered and their solutions. If the provided solutions fail to correct the problem, contact customer service at the address and numbers shown on the back cover of this manual. Please have the model number, and serial number of your jack available. The serial number is permanently stamped on the top of the lift arm.

PROBLEM	CAUSE / SOLUTION
Fails to lift load	<p>Low oil level, see the "Maintenance and Lubrication Instructions" section of this manual.</p> <p>Release is open; gently turn the release knob in a clockwise direction until resistance is felt. See the "Release Knob Hold-To-Run Feature_{TM}" section of this manual.</p> <p>Overloaded, use larger capacity jack.</p>
Fails to hold load	<p>Release open, gently turn the release knob in a clockwise direction until resistance is felt. See the "Release Knob Hold-To-Run Feature_{TM}" section of this manual.</p> <p>Jack reservoir has been contaminated with dirt. If jack reservoir has recently been filled, contamination could have been inadvertently added. Contamination could be holding the valve off the seat. Hold release open and pump handle several times to flush release.</p>
Oil leaks	Reservoir fill plug loose, tighten fill plug.

REPLACEMENT PARTS

(refer to page 12 & 13)

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.

Replacement Parts for HW93659 Frame

Item	Part#	Description	Qty.
1	239603	Handle Assembly	1
2	239604	Pump Handle Weldment	1
3	239605	Handle Lock and Hooks	1
4	239606	Retaining Ring, E, 3/8"	4
5	239607	Handle Pivot Shaft, 3/8"	1
6	239608	Hydraulic Unit	1
7	239609	Link	2
8	239610	Pump Pin	2
9	239611	Roll Pin, 1/4"Dia x 1-3/8"L	1
10	239612	Capscrew, Self-Locking 1/2-20UNFx1 1/2L	1
11	239613	Trunnion	2
12	239614	Retaining Ring, E, 3/4"	2

Item	Part#	Description	Qty.
13	239615	Washer, 1" OD	2
14	239616	Wheel, 3" Dia.	2
15	239617	Axle, 3/4"Dia	2
16	239618	Lift Pad	1
17	239619	Frame	1
18	239620	Lift Pad Pin 9/16D x3 3/8L	1
19	239627	Quick Release Pin, 5/16D	1
20	239602	Pipe Plug, 1/8"	1
21	239628	Knob	1
22	239601	Roll Pin, 1/8D x 1 5/8L	1
23	239625	Roll Pin, 5/32D x 3/4L	1
24	239626	Spring, Modified Torsion	1
-	239893	Label Kit	-

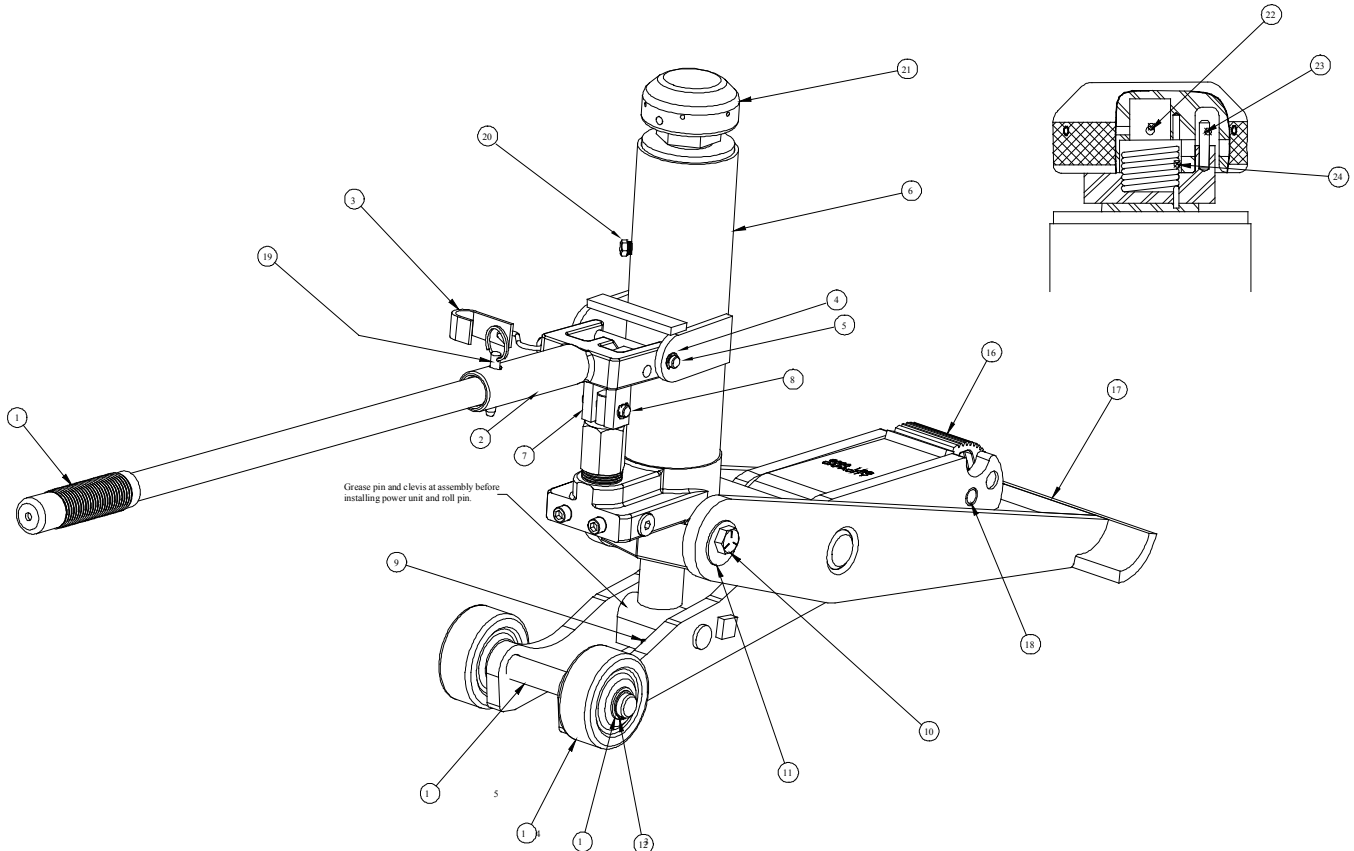


Figure 9 - Parts Illustration for HW93659 Frame

Replacement Parts for HW93659 Hydraulic Unit

Item	Part #	Description	Qty
1	238001	Plug, with O-ring	1
2	238002	Comp Spring, .406 Dia.	1
3	238003	Gasket, .045 x 5/16 ID	2
4	238004	Capscrew, 5/16-18UNCx3/8	2
5	238005	Ball, 3/8 Dia.	1
6	238006	Spring, Comp., .25 OD	1
7	238007	Ball, 1/4 Dia.	1
8	238008	Release Stem	1
9	238009	Retaining Nut	1
10*	238010	O-ring, 1 1/16OD x 7/8ID	1
11*	238011	O-ring, 7/16OD x 5/16ID	1
12	238012	Retaining Ring, E, 7/16Dia.	1
13	238013	Ball, 1/8 Dia.	1
14	238014	Cylinder Cap	1
15*	238015	O-ring, 2 1/16OD x 1 7/8ID	2
16	238016	Piston Segment	3
17	238017	Cylinder	1
18	238018	Reservoir Tube Weldment	1
19	238019	Piston Rod Weldment	1
20*	238020	O-ring, 2 7/8OD x 2 3/4ID	1
21	238021	Oil Port Ring	1
22*	238022	Seal, 1 5/8OD x 1 3/8ID x 1/4	1
23	238023	Bearing, Plain, 1 3/8 Bore	1
24	238024	Hydraulic Block, FLJ	1
25	238025	Magnet, 1/8 Dia x 7/16L	1
26	238026	Shaft, 3/8 Dia.	2
27	238027	Retaining Ring, E, 3/8 Dia	6
28	238028	Link, Pump Plunger	2
29#	238029	Pump Housing	1
30#	238030	Plunger, 5/8 Dia.	1
31*#	238031	Seal, 5/8 x 3/8 x 1/4 Deep	1
32*#	238032	O-ring, 1 1/8 OD x 1 ID	1
(*)	239876	Soft Seal Kit	-
(#)	239877	Plunger Kit	-

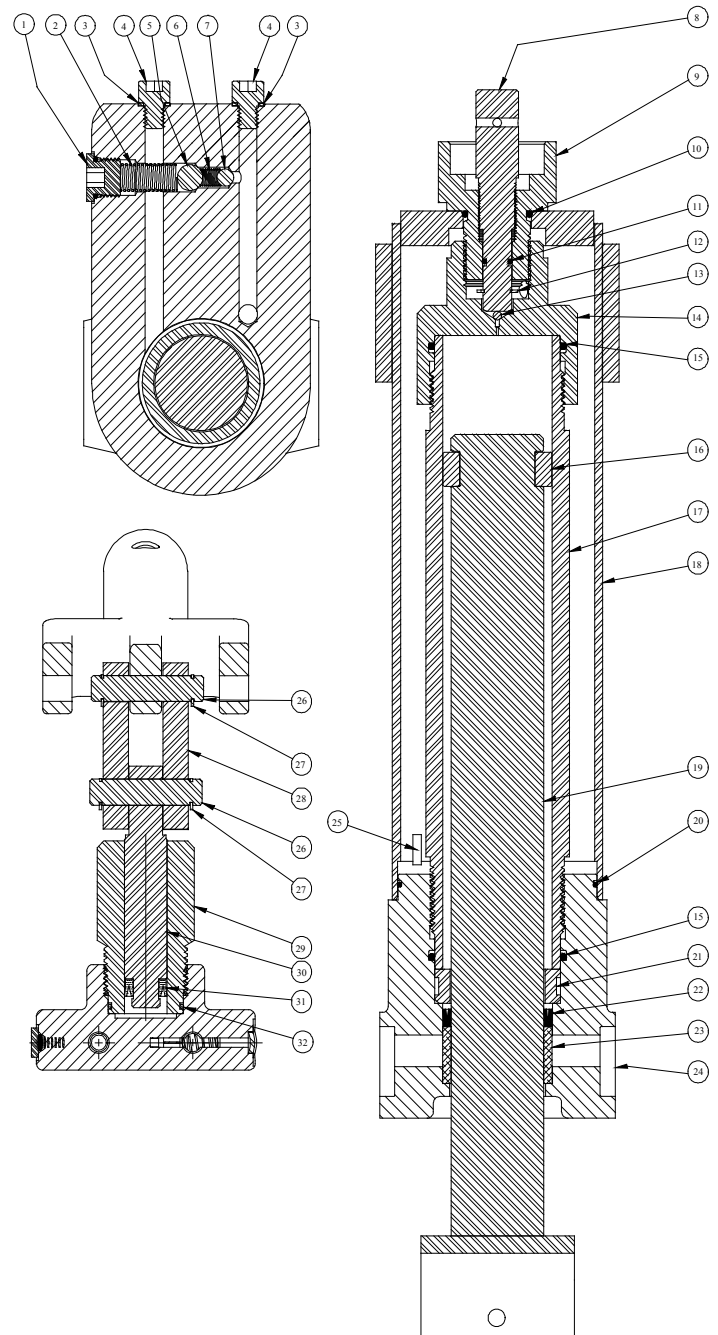


Figure 10 - Parts Illustration for HW93659 Hydraulic Unit