SUNEX HD®

MODEL 6614
CAPACITY: 10 TON @ 100 PSI
AIR/HYDRAULIC SERVICE JACK

MANUAL

CONTENTS:

SPECIFICATIONS

Low Height	6-1/4"
Raised Height	22.5"
Length	61"
Chassis Width	7-3/4"
Chassis Width w/ Swivel Caster Bracket	18.375"
Chassis Height	10.5"
Handle Length	45-3/4"
Saddle Diameter	5-7/8"
Shipping Weight	364 lbs.

WARNING INFORMATION

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.

⚠ WARNING WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

IMPORTANT: READ THESE INSTRUCTIONS BEFORE OPERATING

BEFORE USING THIS DEVICE, READ THIS MANUAL COMPLETELY AND THOROUGHLY, UNDERSTAND ITS OPERATING PROCEDURES, SAFETY WARNINGS AND MAINTENANCE REQUIREMENTS.

It is the responsibility of the owner to make sure all personnel read this manual prior to using the device. It is also the responsiblity of the device owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, contact Sunex for replacements. If the operator is not fluent in English, the product and safety instructions shall be read to and discussed with the operator in the operator's native language by the purchaser/owner or his designee, making sure that the operator comprehends its contents.

THE NATURE OF HAZARDOUS SITUATIONS

⚠ WARNING

The use of portable automotive lifting devices is subject to certain hazards that cannot be prevented by mechanical means, but only by the exercise of intelligence, care, and common sense. It is therefore essential to have owners and personnel involved in the use and operation of the equipment who are careful, competent, trained, and qualified in the safe operation of the equipment and its proper use. Examples of hazards are dropping, tipping or slipping of loads caused primarily by improperly securing loads, overloading, off-centered loads, use on other than hard level surfaces, and using equipment for a purpose for which it was not designed.

METHODS TO AVOID HAZARDOUS SITUATIONS

⚠ WARNING

- Read, study, understand and follow all instructions before operating this device.
- Inspect the jack before each use. Do not use jack if damaged, altered, modified, in poor condition, leaking hydraulic fluid, or unstable due to loose or missing hardware or parts. Make corrections before using.
- Lift only on areas of the vehicle as specified by the vehicle manufacturer.
- Wear eye protection that meets ANSI Z87.1 and OSHA standards.
- Do not use jack beyond its rated capacity.
- This is a lifting device only. Immediately after lifting, support the vehicle with jack stands capable of sustaining the load before working on the vehicle.
- Use only on a hard level surface free from obstructions so the jack is free to reposition itself during lifting and lowering operations.
- Center load on saddle. Be sure setup is stable before working on vehicle.
- Do not move or dolly the vehicle while on the jack.
- Do not use saddle adapters or saddle extenders between the stock lifting saddle and the load.
- Do not use any adapters unless approved or supplied by Sunex.
- Always lower the jack slowly and carefully.
- Failure to heed these markings may result in serious or fatal personal injury and/or property damage.

CONSEQUENCES OF NOT AVOIDING HAZARDOUS SITUATIONS

⚠ WARNING

Failure to read this manual completely and thoroughly, failure to understand its OPERATING INSTRUCTIONS, SAFETY WARNINGS, MAINTENANCE INSTRUCTIONS and comply with them, and failure to comply with the METHODS TO AVOID HAZARDOUS SITUATIONS could cause accidents resulting in serious or fatal personal injury and/or property damage.

MANUAL DE OPERATIÓN

SETUP

PLEASE REFER TO THE EXPLODED VIEW DRAWING IN THIS MANUAL IN ORDER TO IDENTIFY PARTS.

1. In order to install the handle assembly item #41 in the handle socket item #36, first align the main handle tube with the largest hole in the handle socket and the lock pin rod with the smaller hole in the handle socket.
2. Make sure the lock pin rod is in the down/lock position before insertion in the handle socket. Once the main handle tube and lock pin rod are aligned with their respective holes in the handle socket, push the handle assembly in the handle socket so the end of the handle tube engages the release valve mechanism in the bottom of the handle socket and the lock pin rod engages one of the three (3) locking holes in the item #1 frame.
3. Now rotate the "T" handle portion of the handle assembly so it is perfectly aligned with the jack before tightening the item #40 bolt and item #38 nut. Tighten the bolt and nut so the handle can not rotate. Disengage the lock pin rod by pulling up on the lever and engaging the lever with the slot in top of the handle assembly. The handle assembly should be free to pump up and down.
4. In order to check for proper handle assembly alignment with the handle socket, see if the lock pin rod will engage with the three locking holes in the frame. Also, turn the release valve knob at the top of the handle assembly left and then right to see if the release valve u-joint in front and below the handle socket is rotating simultaneously with the turning of the knob.
5. **Before Use:** Air may become trapped in the hydraulic system.

   PURGING AIR FROM THE HYDRAULIC SYSTEM:

   a. Rotate the knob at the top of the handle assembly in a clockwise direction until tight. Now turn it in a counterclockwise direction two full turns.
   b. Activate the foot pump pedal item #37 about 15 times.
   c. Rotate the knob at the top of the handle assembly in a clockwise direction until tight.
   d. Activate the foot pump until the lift arm is raised to maximum height. You should experience a full pump stroke with each incremental pump of the pedal.
   e. If it does not feel your are getting full incremental pump stroke at any time during the pumping operation, repeat steps "a" through "d" until all air is purged from the system.

OPERATING INSTRUCTIONS

This is the safety alert symbol used for the OPERATING INSTRUCTIONS section of this manual to alert you to potential personal injury hazards. Obey all instructions to avoid possible injury or death.

IMPORTANT: Before attempting to raise any vehicle, check vehicle service manual for recommended lifting surfaces.

OPERATION:

1. **To raise load:** Turn the knob at the top of the handle assembly in a clockwise direction until tight. Position the jack under the load. Proceed to pump the handle or the foot pedal in order to raise the lift arm to the load. As the saddle at the end of the lift arm gets closer to the load, reposition the jack so the saddle will contact the load firmly and the load is centered on the saddle. Make sure the saddle is correctly positioned. Remember that foot pedal pump operation is only used to quickly raise the saddle to the load. The handle pump or air valve operation of the jack is used to lift the load. Raise the load to the desired work height. Place jack stands of appropriate capacity at the vehicle manufacturers's recommended support areas that provide stable support for the raised vehicle. **DO NOT CRAWL UNDER VEHICLE WHILE LIFTING VEHICLE OR REMOVING THE JACK STANDS!** Once jack stands are positioned, turn the knob at the top of the handle assembly VERY SLOWLY. Lower the load to rest on the jack stands. Inspect the relationship between the jack stands and load to make sure the setup is stable and safe. If the setup is not stable or safe, follow the preceding steps until corrected. NOTE. Once the hand pump operation has ceased, the handle assembly can be locked in any of the three (3) handle locking positions. Typically, the handle locking positions are used for moving the jack around the shop, keeping the handle out of the way or preventing the handle from being pumped.
2. **To lower load:** Follow the procedures mentioned in "To raise load" section of the OPERATING INSTRUCTIONS in order to raise the load off the jack stands. Once the load has cleared the jack stands, remove the stands from under the load and away from the work area. Turn the knob at the top of the jack's handle assembly very slowly in a counterclockwise direction until the load is completely lowered to the ground. Once the jack's lifting saddle has cleared the load, remove the jack from under the load.
   CAUTION: Keep hands and feet away from the hinge mechanism of the jack.

PREVENTATIVE MAINTENANCE

This is the safety alert symbol used for the PREVENTATIVE MAINTENANCE section of this manual to alert you to potential personal injury hazards. Obey all instructions to avoid possible injury or death.

IMPORTANT: The number one cause of jack failure in air/hydraulic jacks is dirt and moisture in the air motor and/or hydraulic system. The shop air supply should be equipped with water and dirt filter traps that should be emptied or cleaned according to a monthly maintenance schedule. An in line oil lubricator will extend the life of air/hydraulic jacks. Inoperable jacks caused by poorly equipped or maintained shop air systems are not eligible for warranty consideration. Contaminants can also enter the air/hydraulic system when the shop air line is disconnected from the jack air line and the line is dropped on the floor. Contaminants in the air couplers, once reconnected, will be driven into the system.

PREVENTATIVE MAINTENANCE (CONT.)

1. Always store the jack in a well protected area where it will not be exposed to inclement weather, corrosive vapors, abrasive dust, or any other harmful elements. The jack must be cleaned of water, snow, sand or grit before using.
2. The jack must be lubricated periodically in order to prevent premature wearing of parts. A general purpose grease must be applied to all zerk grease fittings, caster wheels, front axle wheels, elevator arm, handle base pivot bolts, release mechanism and all other bearing surfaces.

IMPORTANT: Any jack found to be defective as a result of worn parts due to lack of lubrication or air/hydraulic system contaminated with water, rust and/or foreign materials from the air supply or other outside source is not eligible for warranty consideration.

3. It should not be necessary to refill or top off the reservoir with hydraulic fluid unless there is an external leak. An external leak requires immediate repair which must be performed in a dirt-free environment by an authorized service center.

IMPORTANT: In order to prevent seal damage and jack failure, never use alcohol, hydraulic brake fluid or transmission oil in the jack.

4. Every jack owner is responsible for keeping the jack labels clean and readable. Use a mild soap solution to wash external surfaces of the jack but not any moving hydraulic components.
5. Inspect the jack before each use. Do not use the jack if any component is cracked, broken, bent, shows sign of damage or leaks hydraulic fluid. Do not use the jack if it has loose or missing hardware or components, or is modified in any way. Take corrective action before using the jack again.

6. Any hydraulic repairs within the warranty period must be performed by an authorized service center.

TROUBLESHOOTING

PROBLEM	ACTION
1. Unit will not lift load.	Purge air from hydraulic system by following procedure under SETUP.
2. Unit will not sustain load or feels “spongy” under load.	Purge air from hydraulic system as above.
3. Unit will not lift to full height.	Purge air from hydraulic system as above.
4. Handle tends to raise up while the unit is under load.	Pump the handle rapidly several times to push oil past ball valves in power unit.
5. Unit still does not operate.	Contact an authorized service center from enclosed list.

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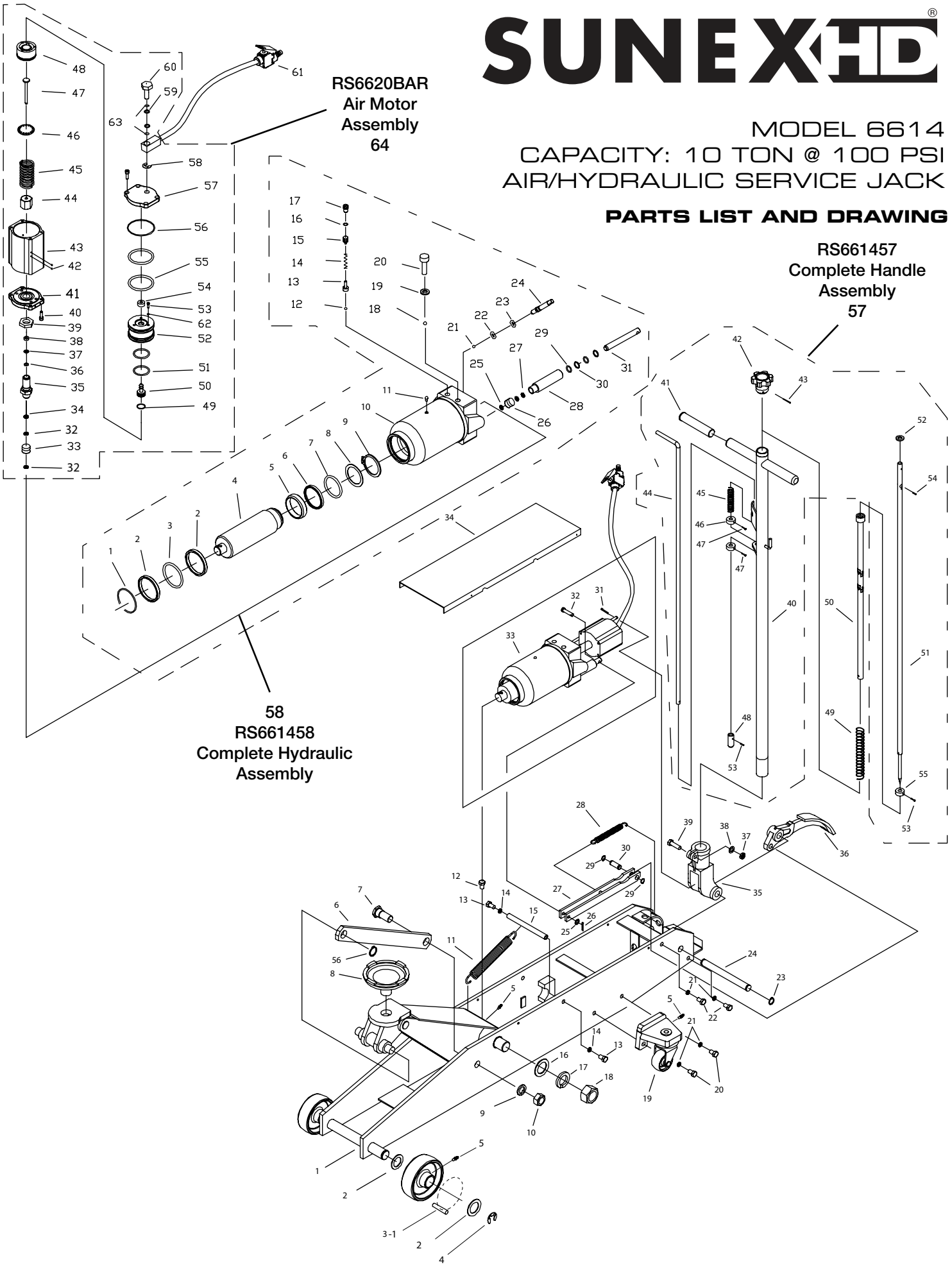
PARTS LIST AND DRAWING



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PARTS LIST AND DRAWING

Index No.	Part No.	Description	Qty.
1		Frame	1
2		Washer	4
3	RS660903	Front Wheel (incl. #2, 3, 3-1, 4, 5)	2
3-1	RS660903A	Roller Bearings, Set	2
4		Snap Ring	2
5		Grease Fitting	5
6		Rod Link	2
7		Bolt	2
8	RS660908	Saddle	1
9		Lock Washer	2
10		Nut	2
11		Spring	1
12		Bolt	1
13		Bolt	2
14		Snap Ring	2
15		Shaft	1
16		Washer	2
17		Ring	2
18		Nut	2
19	RS660916	Rear Wheel Assembly	2
20	RS660917	Caster Bolt Kit (incl. (2) #20, (2) #21	4
21		Washer M12	8
22		Bolt M12x20	4
23		Lock Washer	2
24		Shaft	1
25		Washer	1
26		Pin	1
27		Connecting Bar	1
28	RS660929	Spring	1
29	RS550510	Snap Ring Dia. 12mm	2
30	RS550509	Pedal Pin	1
31		Pin	1
32		Pin	1
33		Hydraulic Cylinder Assembly	1
34		Cover Board	1
35	RS660932	Handle Socket	1
36	RS550511	Pedal	1
37		Nut M10	1
38		Washer M10	1
39	RS550535	Bolt Kit (Incl. #37-39)	1
40		Handle	1
41		Sleeve	2
42	RS660939	Knob (Incl. #42, 43)	1
43		Pin Dia. 4x40mm	1
44		Control Rod	1
45		Spring	1
46		Washer	2
47		Screw	2
48		Pin	1
49		Spring	1
50	RS660947	Universal Joint Assembly	1
51		Convey Rod	1
52		Washer M10	1
53		Pin Dia. 4x16mm	2
54		Pin Dia. 4x20mm	1
55		Washer	1
56		Ring	2
57	RS661457	Complete Handle Assembly (incl. #40-48 and #51-55)	1
58	RS661458	Complete Hydraulic Assembly	1

POWER UNIT/AIR MOTOR

Index No.	Part No.	Description	Qty.
1	*	Snap Ring	1
2	*	Washer	2
3	*	O-Ring	1
4		Piston Rod	1
5	*	Piston Ring	1
6	*	Sealing Washer	1
7	*	O-Ring	1
8	*	O-Ring Retainer	1
9	*	Snap Ring	1
10		Oil Cylinder Assembly	1
11	*	Oil Filler Plug	1
12	*	Steel Ball	1
13	*	Ball Seat	1
14	*	Spring	1
15		Screw	1
16	*	Sealing Washer	1
17		Bolt	1
18	*	Steel Ball	1
19	*	Copper Washer	1
20		Bolt	1
21	*	Steel Ball	1
22	*	O-Ring	1
23	*	O-Ring	1
24		Release Valve Rod	1
25		Copper Washer	2
26		Oil Valve Assembly	1
27	*	Nylon Gasket	1
28		Cylinder Pump	1
29	*	O-Ring	2
30	*	Washer	2
31		Cylinder Pump Plunger	1
32	**	Copper Washer	2
33		Oil Valve Assembly	1
34	**	Nylon Gasket	1
35		Pump Cylinder	1
36	**	Oil Seat	1
37	**	Nylon Gasket	1
38	**	Copper Washer	1
39		Nut	1
40		Bolt	8
41		Front Cover	1
42	**	Steel Ball 3	4
43		Air Pump Housing	1
44		Nut	1
45		Spring	1
46		Washer	1
47		Cylinder Pump Plunger	1
48		Piston Body "A"	1
49		O-Ring	1
50		Air Release Rod	1
51	**	O-Ring	2
52		Piston Body "B"	1
53		Bolt	3
54		Air Steel	1
55	**	O-Ring	2
56	**	O-Ring	1
57		Rear Cover	1
58		Pin	1
59	**	O-Ring	2
60		Screw	1
61	RS6620BA61	Air Valve	1
62		O-Ring	3
63	**	Nylon Washer	2
64	RS6620BAR	Air motor assembly	1
65	RS6620B65	Hose	1
	RS6614LK	Product Label Kit (Not shown)	1

* Only available in hydraulic repair kit, RS6620BHRK

** Ony available in air motor repair kit, RS6620BARK

Only index numbers identified by part numbers are available separately.