



JSA350LR/JSA350LR-LG/JSA350LR-OR
3.5 TON
CAPACITY FLOOR JACK

OWNER'S MANUAL



SPECIFICATIONS

Maximum Capacity	3.5 TONS
Minimum Height	3.75"
Maximum Height	21.25"
Overall Length	28.5"
Overall Width	14.6"
Handle Length	50"
Saddle Diameter	4.56"
Shipping Weight	110 Lbs.
Pump Strokes to Full Height (without load)	4

PATENT D799,142



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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 responsibility 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 Mac Tools 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 are 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 components. Make corrections before using.
- Use only on a hard level surface capable of supporting load and free from obstructions so the jack is free to reposition itself during lifting and lowering operations.
- Lift only on areas of the vehicle as specified by the vehicle manufacturer.
- User and bystanders must wear eye protection that meets ANSI Z87.1 and OSHA standards.
- Do not use jack beyond its rated capacity. Do not shock load.
- **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.**
- 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 any materials that may serve as risers, spacers or extenders between the stock lifting saddle and the load.
- Do not use any adaptors that replace the stock lifting saddle unless approved or supplied by the jack manufacturer.
- Always lower the jack slowly and carefully.
- Do not use (or modify) this product for any other purpose than that for which it was designed without consulting the manufacturer's authorized representative.
- Failure to heed these warnings may result in serious or fatal personal injury and/or property damage.



WARNING: This product can expose you to chemicals including nickel which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

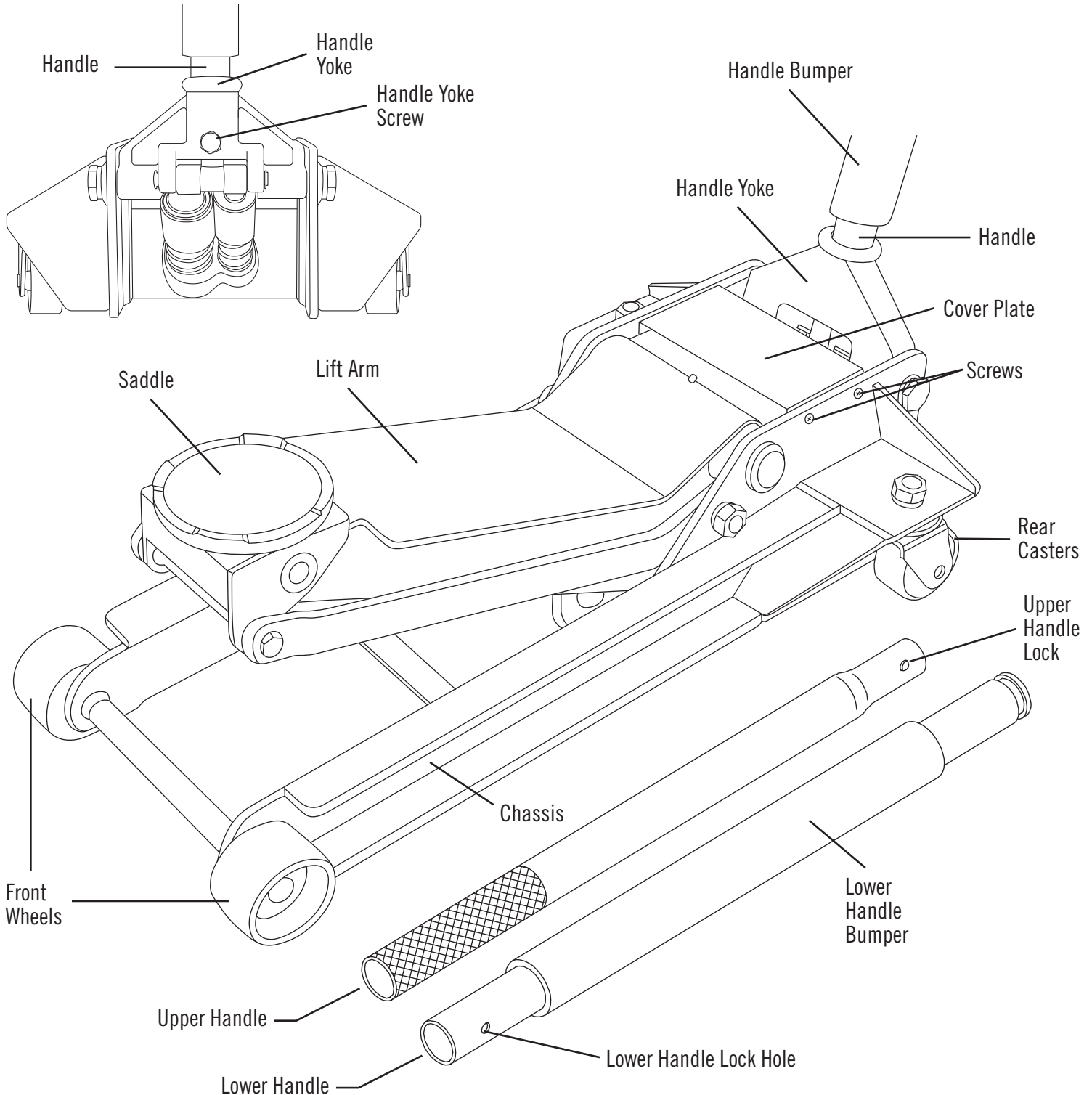
CONSEQUENCES OF NOT AVOIDING HAZARDOUS SITUATIONS

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.

INSPECTION

Visual inspection should be made before each use of the jack, checking for leaking hydraulic fluid and damaged, loose or missing parts. Any jack which appears to be damaged in any way, is found to be badly worn, or operates abnormally **MUST BE REMOVED FROM SERVICE** until necessary repairs are made.





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3.5 TON

CAPACITY FLOOR JACK

SET UP

1. Remove the 2-piece handle from box. Depress the upper handle lock button and insert the smaller diameter end of the upper handle into the lower handle end with hole. Make sure the button engages the hole.
2. Grease the inside of the handle yoke so the handle will rotate freely inside the yoke. Remove the handle yoke screw. Insert the end of the lower handle all the way in the handle yoke until it engages the release valve assembly. Secure the handle in the handle yoke by reinstalling the handle yoke screw and tightening the screw. Rotate the handle to see if it is rotating the release valve assembly. Pull on the handle to make sure it is secured in the handle yoke. If the release valve assembly is not rotating and/or the handle pulls out of the handle yoke, repeat step 2.
3. **IMPORTANT:** In most cases the jack should work normally right out of the box but it is not unusual for air to get trapped in the jack's hydraulic system during shipping and handling. There are several symptoms of an air trapped hydraulic system which include only partial incremental pump stroke, jack will not lift load, jack will not sustain load or pumping feels spongy under load. The following procedure will purge air from the hydraulic system and only needs to be done if experiencing any of the above mentioned conditions.
 - a) The saddle should be in its lowest position. Remove the four screws that secure the cover plate to the jack frame so the oil filler screw can be removed from the hydraulic power unit reservoir tube.
 - b) Look inside the oil fill screw hole. You should be able to see the top of the power unit's cylinder. The hydraulic fluid level should be no higher than the top of the cylinder. Correct the fluid level if it is not at the proper height. **CAUTION:** In order to prevent seal damage and jack failure, never use alcohol, hydraulic brake fluid, or transmission oil in the jack. Use hydraulic jack oil, a light turbine oil, Chevron Hydraulic Oil AW ISO 32 or Unocal Unax AW 150.
 - c) Close the release valve by turning the handle clockwise until it stops. Pump the jack against a load of at least 500 pounds (225 Kgs). After the load is raised to maximum height, slightly turn the handle in a counterclockwise direction so the load is very slowly lowered, while simultaneously and quickly pumping the handle 5 or 6 full incremental pump strokes. After pumping, lower the lift arm to its full rest position.
 - d) Install the oil fill screw. Rotate the handle in a clockwise direction until tight and pump the lift arm to maximum height without a load. Repeat steps a) through d) until all the air has been purged from the system. Reinstall the cover plate.

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

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. Put vehicle transmission in park or in gear and then apply the emergency brake.

To raise load: Turn the handle in a clockwise direction until tight. Position the jack under the load. Proceed to pump the handle 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. 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 PLACING OR REMOVING THE JACK STANDS!** Once jack stands are positioned, turn the jack handle VERY SLOWLY in a counterclockwise direction to 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.
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 jack stands from under the load and away from the work area. Turn handle very slowly in a counter clockwise 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. **DO NOT CRAWL UNDER VEHICLE WHILE LIFTING VEHICLE OR PLACING OR REMOVING THE JACK STANDS!**

PREVENTIVE 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.



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PREVENTIVE MAINTENANCE (continued)

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, grit, oil, grease and other foreign matter 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 caster wheels, front axle, elevator arm, handle base pivot bolts, release mechanism and all other bearing surfaces. Worn parts resulting from inadequate or no lubrication are not eligible for warranty consideration. See page 6 for lubrication instructions.
3. 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.
4. 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.

PROPER STORAGE

It is recommended that the jack be stored in a dry location with all wheels touching the ground on a relatively level surface.

TROUBLESHOOTING

Important: Service jacks are self-contained devices used for lifting, but not sustaining, a partial vehicular load. In accordance with ASME-PASE 2019 Load Sustaining Test: "A load not less than the rated capacity...shall not lower more than 1/8" (3.18mm) in the first minute, nor a total of .1875" (4.76mm) in 10 minutes." Lowering within this range is considered normal operation and is NOT a warrantable defect.

PROBLEM	ACTION
1. Unit will not lift rated load.	Purge air from hydraulic system by following procedure under SETUP.
2. Unit will not sustain rated load or feels "spongy" under rated load.	Purge air from hydraulic system as above.
3. Unit will not lift to full height.	Purge air from hydraulic system as above.
4. Unit will not lower completely.	Check oil level. Make sure hydraulic system is not overfilled.
5. Handle tends to raise up while the unit is under rated load.	Pump the handle rapidly several times to push oil past ball valves in power unit.
6. Unit still does not operate.	Contact customer service.

LIMITED WARRANTY

MAC TOOLS WARRANTS TO ITS CUSTOMERS THAT THE COMPANY'S MAC TOOLS BRANDED PRODUCTS ARE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS.

Mac Tools will repair or replace its Mac Tools branded products which fail to give satisfactory service due to defective workmanship or materials, based upon the terms and conditions of the following described warranty plans attributed to that specific product. This product carries a ONE-YEAR warranty. During this warranty period, Mac Tools will repair or replace at our option any part or unit which proves to be defective in material or workmanship.

Other important warranty information:

This warranty does not cover damage to equipment or tools arising from alteration, abuse, misuse, damage and does not cover any repairs or replacement made by anyone other than Mac Tools. The foregoing obligation is Mac Tools sole liability under this or any implied warranty and under no circumstances shall we be liable for any incidental or consequential damages.

Note: 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. If you have any questions about warranty service, please contact Mac Tools. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

HYDRAULIC MAINTENANCE GUIDE

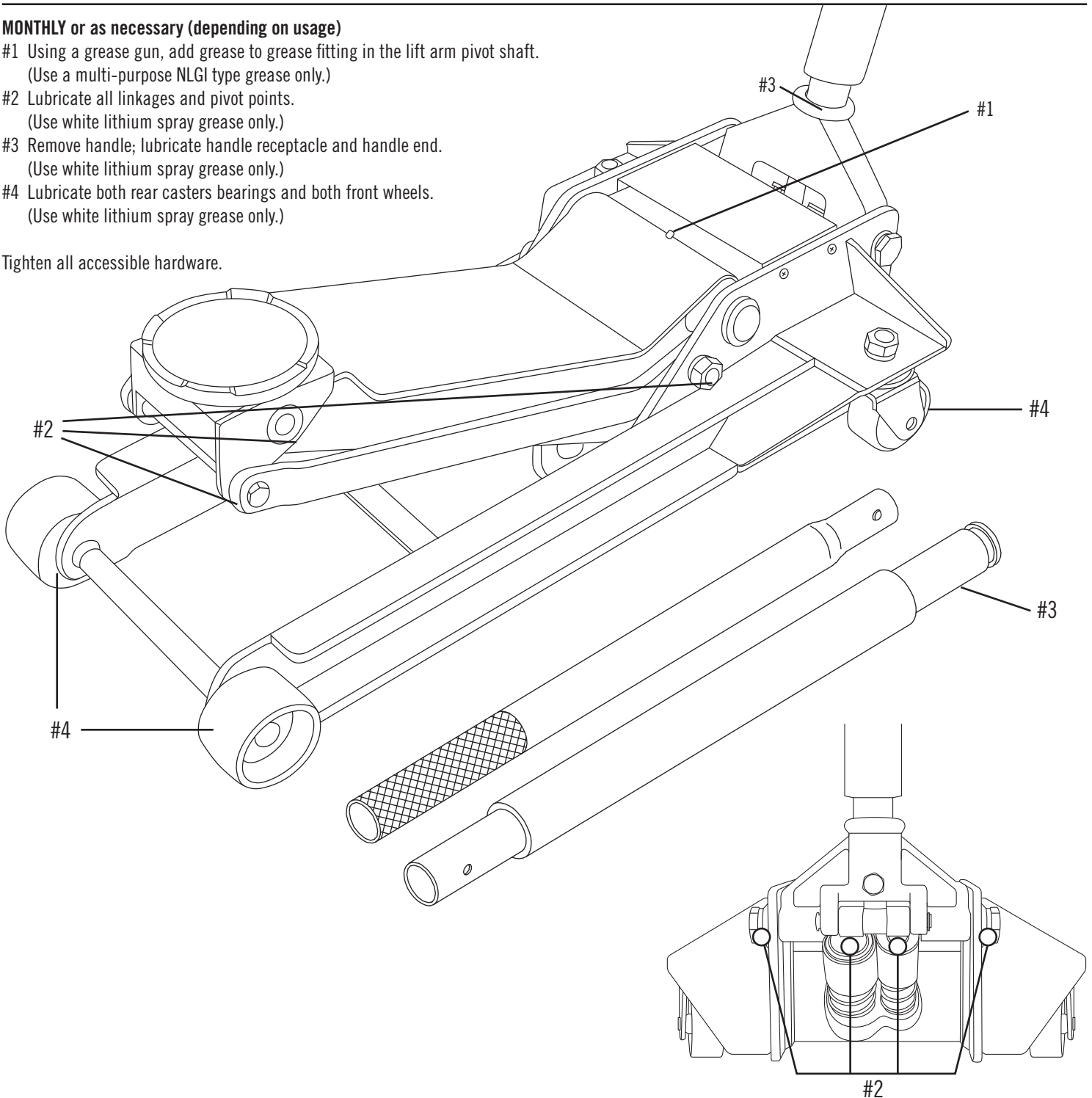
IMPORTANT: Service jacks are designed for lifting purposes only; always support raised load with jack stands.

REGULAR MAINTENANCE

MONTHLY or as necessary (depending on usage)

- #1 Using a grease gun, add grease to grease fitting in the lift arm pivot shaft.
(Use a multi-purpose NLGI type grease only.)
- #2 Lubricate all linkages and pivot points.
(Use white lithium spray grease only.)
- #3 Remove handle; lubricate handle receptacle and handle end.
(Use white lithium spray grease only.)
- #4 Lubricate both rear casters bearings and both front wheels.
(Use white lithium spray grease only.)

Tighten all accessible hardware.

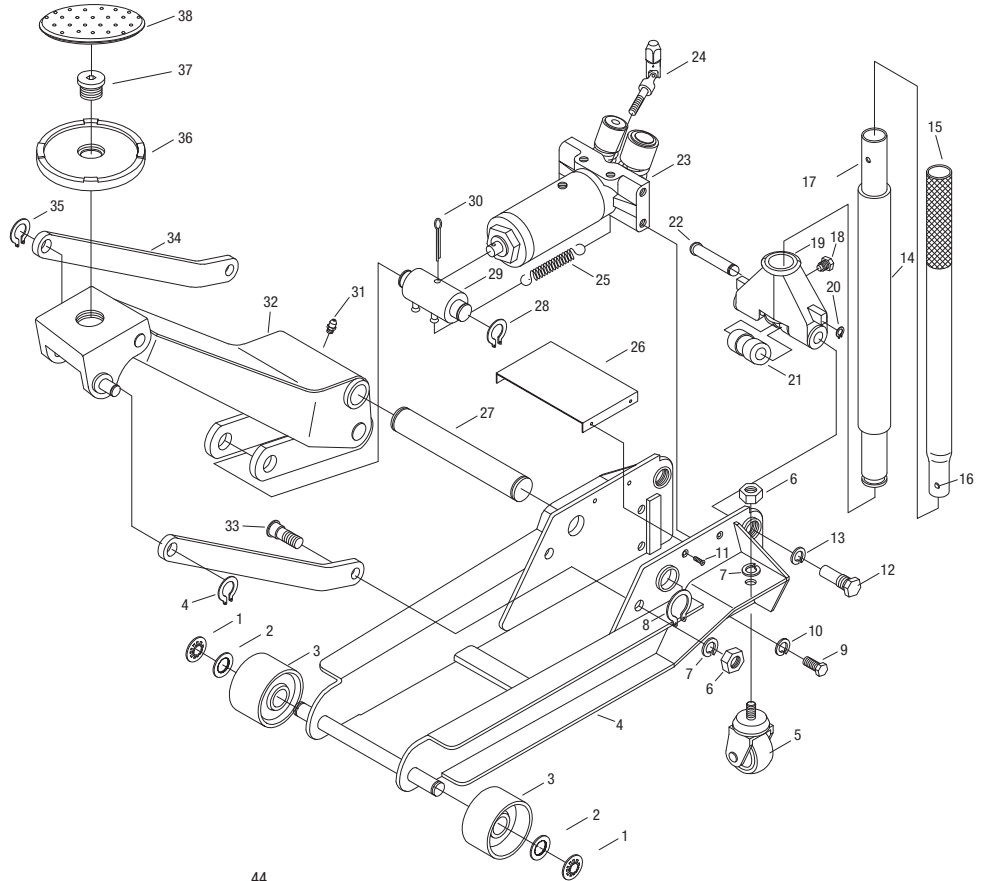


PARTS LIST AND DIAGRAM

JSA350LR/JSA350LR-LG/JSA350LR-OR

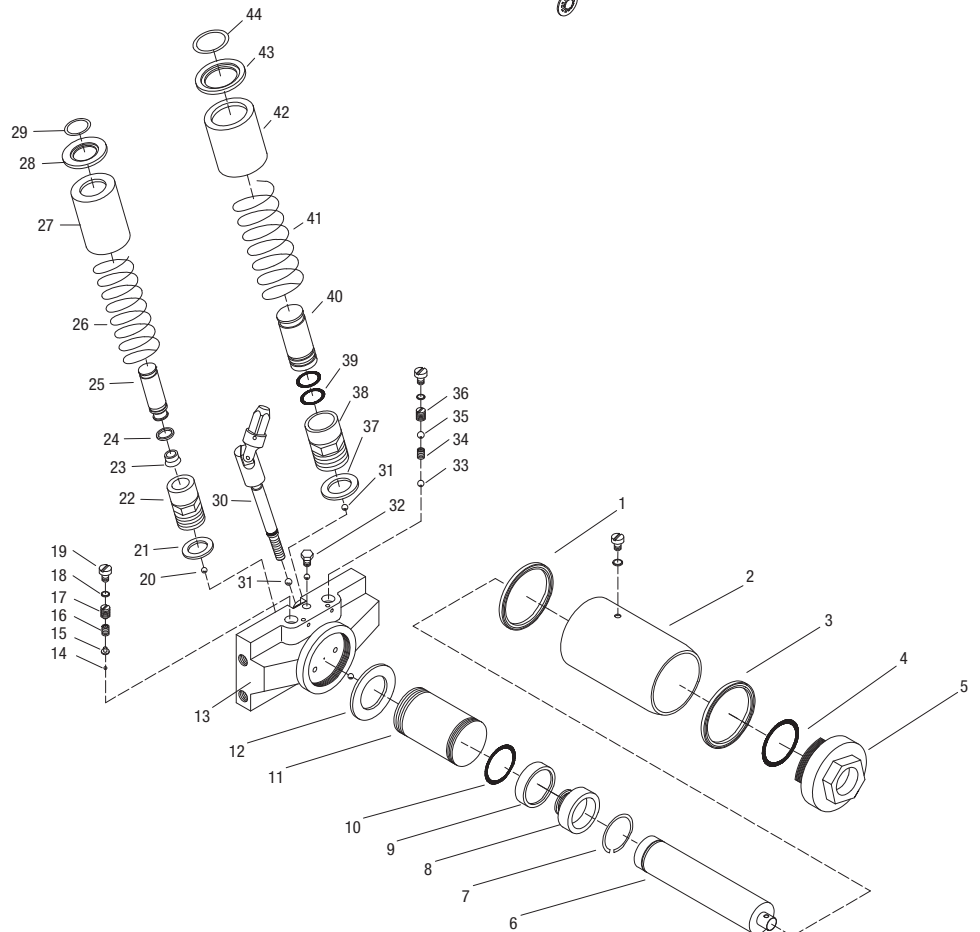
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Item No.	Part No.	Description	Qty.
1	RS35T01	Star Clip	2
2	RS35T02	Washer	2
3	RS35B03A	Front Wheel	2
4		Side Plate Assembly	1
5	RS35005	Rear Caster Assembly (Incl. #6 & 7 (1) ea.)	2
6	RS35T08	Hex Nut (M16) (Incl. #7)	4
7		Spring Washer (16)	4
8		Retaining Ring (30)	2
9		Bolt (M12x25)	4
10		Spring Washer (12)	4
11		Bolt (M5x16)	4
12	RS35B11	Yoke Retaining Bolt (Incl. #13)	2
13		Spring Washer (18)	2
14	RS35T20MC	Bumper	1
15	RS35T17MC	Handle Upper	1
16	RS35THB	Handle Button	1
17	RS35T15MC	Handle Lower	1
18	RS35T13	Set Screw - Handle Yoke	1
19	RS35011MC	Handle Yoke - Red	1
	RS35011MCLG	Handle Yoke - Lime Green	1
	RS35011MCOR	Handle Yoke - Orange	1
20		Retaining Ring (12)	1
21		Roller	1
22		Pull Rod	1
23	RS350LR23	Power Unit Assembly	1
24	RS35T18	Universal Joint Assembly	1
25	RS35T19	Spring	2
26		Cover Plate	1
27		Lift Arm Rod	1
28		Retaining Ring (25)	2
29	RS35T06BK	Block Linkage (Incl. #28 & 30)	1
30		Pin (4x55)	1
31	RS35T12	Grease Fitting	1
32		Lift Arm Assembly	1
33		Bolt for Long Rod	2
34		Long Rod	2
35	RS35T04	Retaining Ring (16)	2
36	RS35017MC	Saddle	1
37	RS35018	Saddle Bolt	1
38	RS35019MC	Rubber Saddle Cover	1
not shown	RSJSA350LRK	Product Label Kit (for JSA350LR)	1
not shown	RSJSA350LRGLK	Product Label Kit (for JSA350LR-LG)	1
not shown	RSJSA350LRORK	Product Label Kit (for JSA350LR-OR)	1



JSA350LR Power Unit Assy.

Item No.	Part No.	Description	Qty.
1	*	Lower Gasket	1
2		Reservoir Tube	1
3	*	Upper Gasket	1
4	*	O-Ring (29.6x3.5)	1
5		Cylinder Nut	1
6		Ram	1
7		Retaining Ring (30)	1
8		Ram Bearing	1
9	*	Gasket	1
10	*	O-Ring (31x4.6)	1
11		Cylinder	1
12	*	Cylinder Brass Washer	1
13		Hydraulic Block	1
14	*	Steel Ball (4)	1
15	*	Plug	1
16	*	Relief Valve Spring	1
17		Relief Valve Bolt	1
18	*	O-Ring (7.1x1.8)	3
19	RSOFS19	Power Unit Oil Fill Screw (Incl. #18)	3
20	*	Steel Ball (5)	4
21	*	Brass Washer	1
22		Small Pump Housing	1
23	*	PU Y-Cup Seal	1
24	*	Back-up Ring (15x10.6x1.25)	1
25		Small Pump Piston	1
26		Spring	1
27	RSDC15	Dust Cover	1
28		Spring Cap	1
29	RSRR16	Retaining Ring (15)	1
30	RS35T18	Universal Joint Assembly	1
31	*	Steel Ball (6)	2
32		Bolt (M6)	1
33	*	Steel Ball (7.5)	1
34	*	Relief Valve Spring	1
35	*	Steel Ball (8)	1
36		Relief Valve Spring	1
37	*	Brass Washer	1
38		Large Pump Housing	1
39	*	O-Ring (26.4x2.65)	2
40		Large Pump Piston	1
41		Large Spring	1
42	RSDC22	Dust Cover	1
43		Spring Cap	1
44		Retaining Ring (31)	1



* Repair Kit: RS350LRRK. Only items identified by part number are available for purchase.