

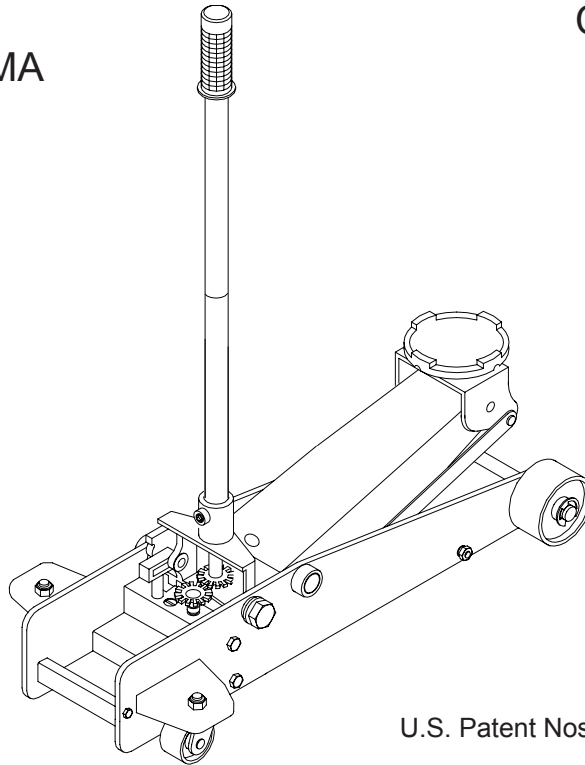


3-Ton Service Jack

Operating Instructions & Parts Manual

Model
JSA350MA

Capacity
3 Ton



U.S. Patent Nos. 6,199,379 - 5,946,912



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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a division of Stanley Black & Decker

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SAFETY AND GENERAL INFORMATION

Save these instructions. For your safety, read, understand, and follow the information provided with and on this device before using. The owner and/or operator shall have an understanding of the device, its operating characteristics and safety operating instructions before operating the equipment. The owner and/or operator shall be aware that use and repair of this product may require special skills and knowledge. Instructions and safety information shall be read to and discussed with the operator in the operator's native language, making sure that the operator comprehends their contents, before use of this equipment is authorized. If any doubt exists as to the safe and proper use of this device, remove from service immediately.

Inspect before each use. Do not use if abnormal conditions such as cracked welds, damaged, loose or missing parts are noted. Any equipment that appears damaged in any way, is found to be worn, or operates abnormally shall be removed from service until repaired. If the equipment has been or is suspected to have been subjected to an abnormal load or shock, immediately discontinue use until inspected by a factory authorized repair facility (contact distributor or manufacturer for list of authorized repair facilities). It is recommended that an annual inspection be made by an authorized repair facility. Labels and Operator's Manuals are available from the manufacturer.

PRODUCT DESCRIPTION

Hydraulic Service Jack is designed to lift, but not support, one end of a vehicle. Immediately after lifting, loads must be supported by a pair of appropriately rated jack stands. This service jack has a unique feature that provides fast, no load lifts to the jacking point, at which time it lifts in approximately 0.75" ~ 2" increments.

⚠ WARNING: Do not use hydraulic jack as stand-alone device. After lifting, immediately support the lifted vehicle with a pair of appropriately rated jack stands.

SPECIFICATIONS

Model	Capacity	Jack Dimensions (L x W x H)	Min. Height	Max. Height	Saddle Dia.
JSA350MA	3 Ton	27-1/4" x 13-1/4" x 6-3/8"	5-3/4"	20"	4"

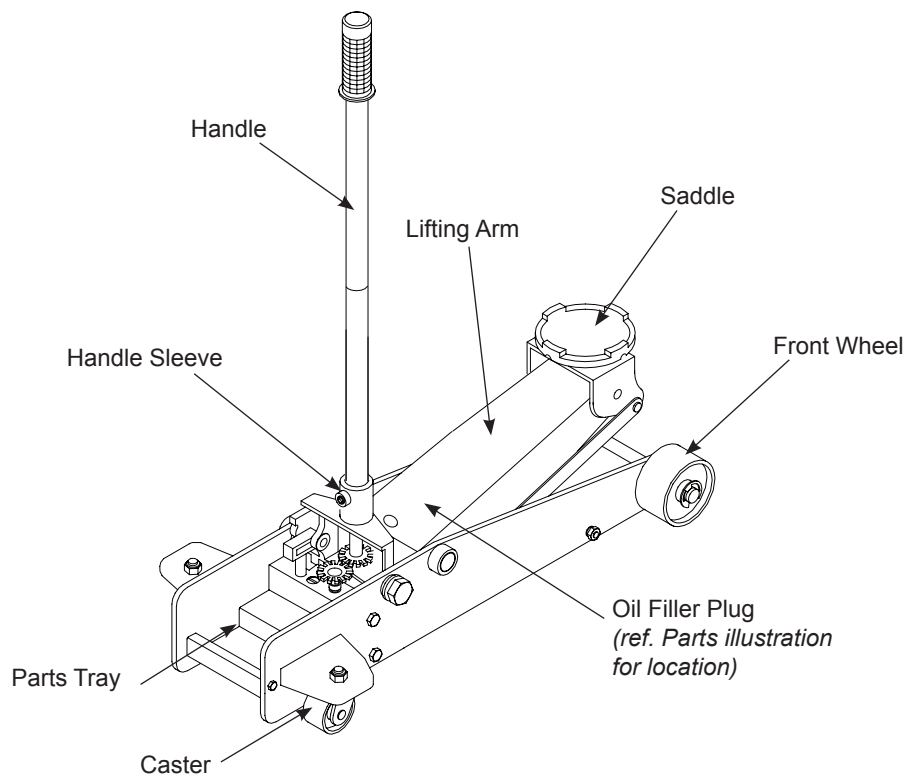



Figure 1 - Model JSA350MA Nomenclature

PREPARATION/ASSEMBLY

Before Use

1. Assemble the 2-piece handle with provided bolt.
2. Always secure the handle into the handle fork by means of the bolt and lock washer provided. Tighten securely to prevent accidental removal of handle while in use.

 **WARNING:** *Do not lift or carry jack by handle. Handle could dislodge and jack fall, resulting in possible injury or property damage.*

3. Before using this product, read the operator's manual completely and familiarize yourself thoroughly with the product and its components, and recognize the hazards associated with its use.
4. Verify that the product and application are compatible.
5. To familiarize yourself with basic operation, locate and turn the release valve (pump handle):
 - a. *Clockwise* until firm resistance is felt to further turning. This is the '**CLOSED**' release valve position used to raise the saddle.
 - b. *Counter-clockwise*, but no more than 1/2 turn from the closed position. This is the '**OPEN**' release valve position used to lower the saddle.
6. With saddle fully lowered and release valve closed, pump the handle. If lift arm responds immediately, jack is ready for use. If jack does not respond, follow **Bleeding/Venting Trapped Air** instruction below. Check oil level. Proper oil level will vary from just covering the ram cylinder to 3/16" above it as seen from the oil filler hole. Reinstall oil plug.
7. Ensure that jack rolls freely. Raise and lower the unloaded saddle throughout the entire lifting range before putting into service to ensure the pump operates smoothly. Replace worn or damaged parts and assemblies with manufacturer's authorized replacement parts only.

Bleeding/Venting Trapped Air


With the release valve in the OPEN position (step 5b. above) and with saddle fully lowered, locate and remove the oil filler plug. Pump handle 6 to 8 full strokes. This will help release pressurized air which may be trapped within the reservoir. Reinstall the oil filler plug and check operation.

OPERATION

Lifting

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. 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, pump handle until saddle contacts lift point. To lift, pump handle until load reaches desired height.
5. Transfer the load to appropriately rated jack stands.

Lowering

 **WARNING:** *Clear all tools and personnel before lowering vehicle. Open release valve slowly. The further the pump handle is turned counter-clockwise, the faster the load will descend. Maintain control of load at all times.*

1. Raise load high enough to clear the jack stands.
2. Remove jack stands carefully.
3. Turn 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. Use the functioning jack to lower the vehicle.
4. After removing jack from under the vehicle, fully lower the saddle to reduce ram exposure to rust and contamination.

MAINTENANCE

NOTICE: Use premium quality hydraulic jack oil. Avoid mixing different types of fluid and do not use brake fluid, turbine oil, transmission fluid, motor oil or glycerin. Improper fluid can cause premature failure of the jack and the potential for sudden and immediate loss of load.

Adding oil

1. With saddle fully lowered set jack in its upright, level position. Remove vent screw.
2. Fill with oil until ~3/16" above the inner cylinder as seen from the oil filler hole. Reinstall vent screw.

Changing oil

For best performance and longest life, replace the complete fluid supply at least once per year.

1. With saddle fully lowered, remove vent screw.
2. Lay the jack on its side and drain the fluid into a suitable container.

NOTICE: Dispose of hydraulic fluid in accordance with local environmental regulations.

3. Fill with oil until ~3/16" above the inner cylinder as seen from the oil filler hole. Reinstall 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.

NOTICE: Do not use sandpaper or abrasive material on ram and pump piston surfaces.

Storage

When not in use, store the jack with saddle fully lowered.

TROUBLESHOOTING

Symptom	Possible Causes	Corrective Action
Jack will not lift load	<ul style="list-style-type: none">• Release valve not tightly closed• Load is too heavy	<ul style="list-style-type: none">• Ensure release valve tightly closed• Consider higher capacity jack
Jack will lift, but not maintain pressure	<ul style="list-style-type: none">• Release valve not tightly closed• Hydraulic unit malfunction	<ul style="list-style-type: none">• Ensure release valve tightly closed• Discontinue use, contact MAC Tools technical service
Jack will not lower after unloading	<ul style="list-style-type: none">• Reservoir overfilled• Linkages binding• Fluid level low	<ul style="list-style-type: none">• Drain fluid to proper level• Clean and lubricate moving parts• Ensure proper fluid level
Poor lift performance	<ul style="list-style-type: none">• Fluid level low• Air trapped in system	<ul style="list-style-type: none">• Ensure proper fluid level• With ram fully retracted, remove oil filler plug to let pressurized air escape, reinstall oil filler plug
Will not lift to full extension	<ul style="list-style-type: none">• Fluid level low	<ul style="list-style-type: none">• Ensure proper fluid level

REPLACEMENT PARTS

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, please give the Model number, part number and parts description. Call or write for current pricing: Mac Tools Inc, 505 N Cleveland Ave, Suite 200, Westerville, OH 43082, U.S.A. Tel: (800) MAC-TOOL (662-8665).

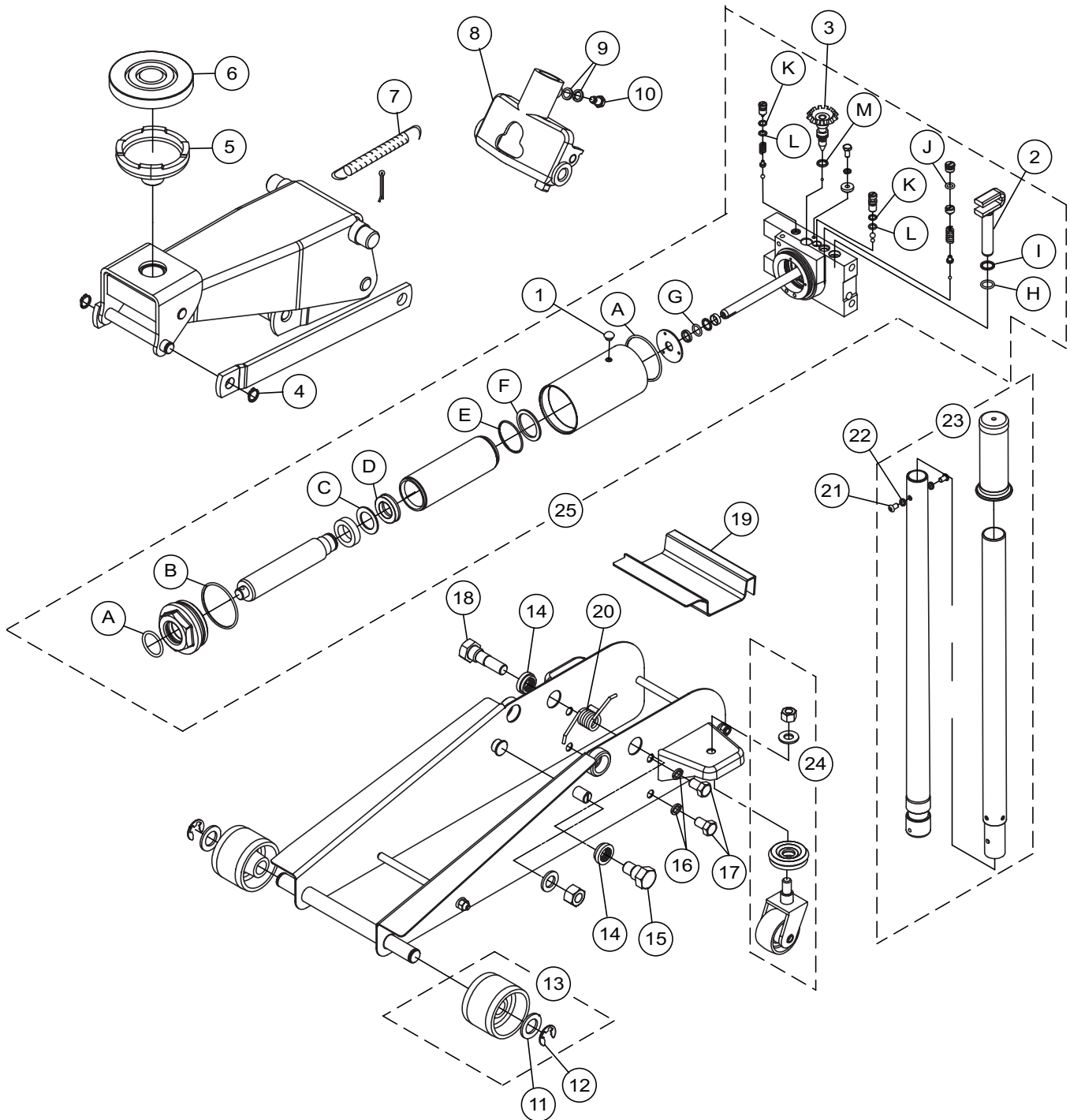


Figure 2 - Replacement Parts Illustration for Model JSA350MA

Replacement Parts List for model JSA350MA

Item	Part No.	Description	Qty
1	F361-30030-0000	Oil Filler Plug	1
2	G595-30004-0380	Pump Piston	1
3	G489-32000-0000	Release Valve	1
4	1433-00016-204	Snap Ring 16 dia.	2
5	G493-13000-0000	Saddle	1
6	G595-00001-0000	Saddle Pad	1
7	G493-10003-0420	Return Spring	1
8	QG59500-K06	Handle Sleeve Assembly	1
9	1413-00010-204	Lock Washer	2
10	G489-40006-0000	Bolt	1
11	1401-00020-031	Washer	2
12	1438-00015-204	Snap Ring	2
13	QG59500-K03	Front Wheel Assembly	2
14	1413-00020-204	Lock Washer	2
15	G489-20007-0410	Left Handle Sleeve Bolt	1
16	1413-00012-204	Lock Washer	6
17	G489-20006-0410	Hex Bolt	4
18	G489-20005-0410	Right Handle Sleeve Bolt	1
19	G589-20001-0000	Parts Tray	1
20	G93L-20002-0420	Return Spring, Handle Sleeve	1
21	G93M-00002-0410	Hex Screw	2
22	1413-00006-204	Lock Washer	2
23	QG93M00-K05	Handle Assembly	1
24	QG48900-K04	Rear Caster Assembly	2
25	QG59500-K02	Hydraulic Power Unit	1
26	QG59500-K00	Seal Kit (<i>incl. parts 1, A ~ M</i>)	-

Seal Kit QG59500-K00 includes:

Item	Description	Qty
1	Oil Filler Plug	1
A	O-ring	2
B	O-ring	1
C	Back-up Washer	1
D	U-cup	1
E	Back-up Ring	1
F	O-ring	1
G	O-ring	1

Item	Description	Qty
H	O-ring	1
I	Back-up Washer	1
J	O-ring	1
K	Back-up Washer	1
L**	O-ring	1
M**	O-ring	2

(**) Replacement requires special skills, knowledge, and equipment. Only an authorized service center may perform the repair and/or replacement of these items. Contact MAC Tools technical service for list of service centers.

ONE YEAR LIMITED WARRANTY

For a period of one (1) year from date of purchase, **Mac Tools Inc.** 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 **Mac Tools Inc.** Warranty Service Department, 505 N. Cleveland Ave. Suite 200 Westerville, OH 43082.

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