

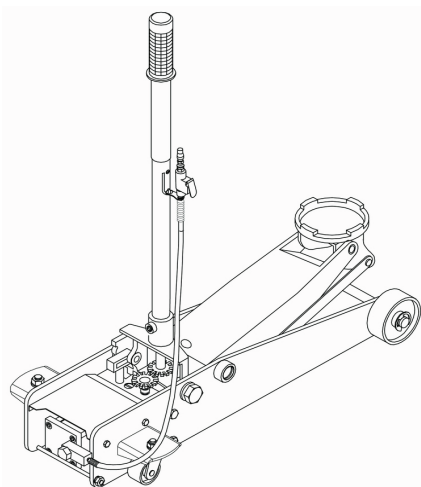


Hydraulic Service Jack w/ Air Motor

Operating Instructions & Parts Manual

**Model
JS300A**

**Capacity
3 Ton**



U.S. Patent No's. 5,341,723



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.

ADVERTENCIA

- Leer, comprender, y seguir las instrucciones antes de utilizar el aparato.
- El manual de instrucciones y la información de seguridad deben estar comunicado en lengua del operador antes del uso.
- No seguir estas indicaciones puede causar daños personales o materiales.

WARNING

To avoid **crushing and related injuries**:



NEVER work on, under or around a load supported only by a hydraulic jack. **ALWAYS** use adequately rated jack stands.

MAC TOOLS INC.
505 N. Cleveland Ave. Suite 200
Westerville, OH 43082

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 before using. 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 are noted. Any jack that appears damaged in any way, or operates abnormally shall be removed from service immediately. If the jack has been or suspected to have been subjected to a shock load (a load dropped suddenly, unexpectedly upon it), immediately discontinue use until 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. Labels and Operator's Manuals are available from manufacturer.

PRODUCT DESCRIPTION

This Air/Lever actuated 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. It can be pumped manually or connected to shop air capable of providing 7.8 CFM @ 150 psi (required for rated capacity lifts).

 **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!

PREPARATION **Assembly** (see Fig. 2, 3)

1. Assemble the 2-piece handle with provided bolt.
2. Insert handle into the handle sleeve. Tighten the bolt on handle sleeve to prevent accidental removal of handle while in use.

SPECIFICATIONS

Model	Capacity	Jack Size (L x W x H)	Min. Height	Max. Height	Saddle Dia.	Volume of Hyd. Oil
JS300A	3 Ton	30" x 14 5/8" x 6 3/8"	5 1/4"	19"	5"	200 ml

Before Use

1. Verify that the product and application are compatible, if in doubt call Tech Service: 1-800-MAC-TOOL (622-8665).
 2. Before using this product, read the operator's manual completely and familiarize yourself thoroughly with the product, its components and recognize the hazards associated with its use.
 3. To familiarize yourself with basic operation, locate and turn the release valve (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.
 4. With saddle fully lowered, remove the oil filler plug. Pump 6 to 8 full strokes. This will help release any pressurized air which may be trapped within the reservoir. Check oil level. Fill until oil *nearly* covers the inner cylinder as seen from the oil filler hole. Reinstall the oil filler plug. *See page 4, Maintenance Section for details.*
 5. Pour a teaspoon of good quality, air tool lubricant into the air supply inlet of the lift control valve. Connect to air supply and operate for 3 seconds to evenly distribute lubricant.
 6. This product is equipped with the popular 1/4" NPT air coupler. When installing a different air coupler of your choice, ensure that thread tape or compound is used when servicing connections. To ensure dependable, trouble free operation an inline air dryer and oiler is recommended.
 7. Ensure that jack rolls freely. Raise and lower the unloaded saddle throughout the lifting range before putting into service to ensure the pump operates smoothly. Replace worn or damaged parts and assemblies with authorized replacement parts only.
- Bleeding / Venting Trapped Air**
With the release valve in the OPEN position (3b.) and with saddle fully lowered, locate and remove the oil filler plug. Pump 6 to 8 full strokes. This will help release any pressurized air which may be trapped within the reservoir. Reinstall the oil filler plug.

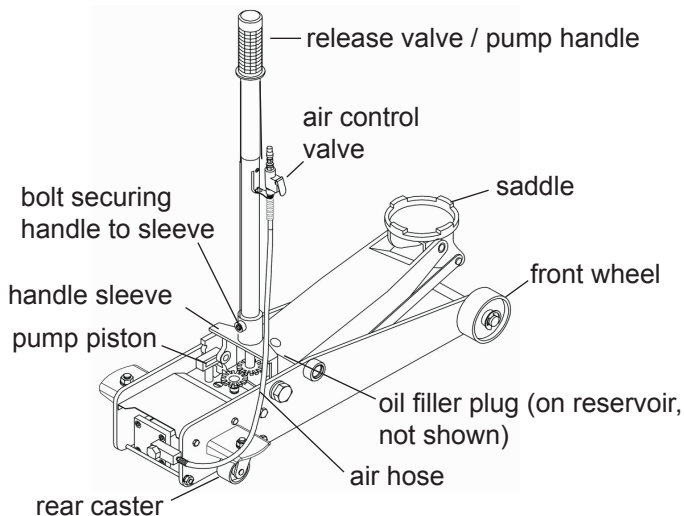


Figure 1 - JS300A Nomenclature

⚠ WARNING

- **Study, understand, and follow** all printed materials provided with/on this product before use.
- **Do not** exceed rated capacity.
- **This is a lifting device only!**
- **Immediately** after lifting, support the load with **a pair** of appropriately rated jack stands.
- Use only on hard, level surface.
- Do not use adapters or accessories that are not provided initially.
- Lift only on areas of the vehicle as specified by the vehicle manufacturer.
- Never wire, clamp or otherwise disable the lift control valve to function by other than operator's hand.
- **Do not** move or dolly loads with this device.
- No alterations shall be made to this product.
- Failure to heed these markings may result in personal injury and/or property damage.

⚠ WARNING



To avoid **crushing and related injuries**:

- **Never** work on, under or around a load supported only by hydraulic jack.
- **Always** use adequately rated jack stands.
- Chock each unlifted tire in both directions.
- **Do not** use this device to lift, level, lower, support nor move a house, mobile home, travel trailer, camper or any building structure.
- **Be alert and sober** when using this product. Do not operate under the influence of drugs or alcohol.

OPERATION

Lifting



Only attachments and/or adapters supplied by the manufacturer shall be used. Lift only on area 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. 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, then pump handle to contact lift point. To lift, pump handle **or** squeeze lift control valve until load reaches desired height. Release grip on lift control valve to stop lifting if using air function.
5. Transfer the load **immediately** to appropriately rated jack stands.

NOTICE: ***NEVER** operate air motor and pump handle simultaneously! Doing so will not increase the lifting capacity of the device and will likely damage the hydraulic unit.*



***NEVER** use hydraulic jack as a stand alone device! **ALWAYS** transfer the lifted load **IMMEDIATELY** to a pair of appropriately rated jack stands. Use one pair of jack stands per vehicle. Rated capacity is per pair only! Do not exceed rated capacity.*

Lowering



*Be sure all tools and personnel are clear before lowering load. **Slowly open the release valve!** The more you turn the handle 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. Remove jack stands carefully (**always** used in pairs).
3. **Slowly** turn the 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



Use **only** Mobil DTE 13M or equivalent hydraulic jack oil. Improper fluid can cause premature failure of the jack and the potential for sudden and immediate loss of load.

Adding oil

It is difficult to confirm the correct oil level by simply looking into the oil reservoir after removing the oil filler plug. ***Correct oil level** allows the saddle to reach its advertised maximum height and its advertised minimum height.

- Too *much* oil will not allow the saddle to lower completely.
 - Too *little* oil will not allow the saddle to raise completely.
1. With saddle fully lowered set jack in its upright, level position. Remove oil filler plug.
 2. *Fill until oil *nearly* covers the inner cylinder as seen from the oil filler hole. Reinstall the oil filler plug.

Changing oil

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

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

Note. Dispose of hydraulic fluid in accordance with local regulations.

3. *Fill until oil *nearly* covers the inner cylinder as seen from the oil filler hole. Reinstall the oil filler plug.

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.

Note: Never use sandpaper or abrasive material on these surfaces!

Storage

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

REPLACEMENT PARTS

(refer to page 5, 6) 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 description below. Call or write for current pricing: Mac Tools Inc. 505 N. Cleveland Ave. Suite 200, Westerville, OH 43082.
Tel: 1-800-MAC-TOOL (622-8665)

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 Tool Technical Service
Jack will not lower after unloading	<ul style="list-style-type: none">• Reservoir overfilled• Linkages binding	<ul style="list-style-type: none">• Drain fluid to proper level• Clean and lubricate moving parts
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/screw 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 Illustration for JS300A

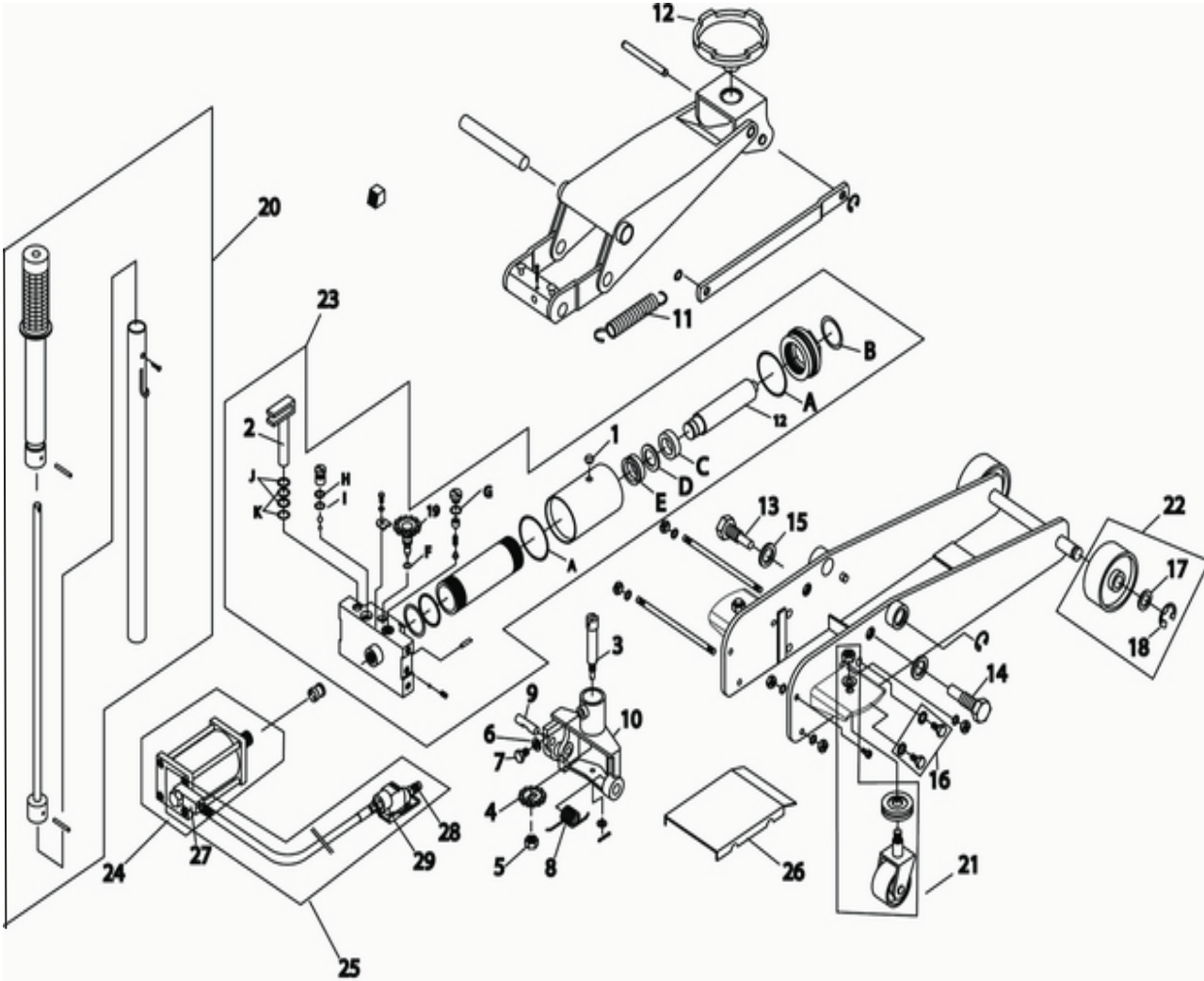


Figure 2 - Replacement Parts Illustration for JS300A

Replacement Parts List for model JS300A

Item		Part No. for JS300A	Description	Qty
1		5905-00100-100	Oil Filler Plug	1
2		G931-07014-100	Pump Piston	1
3		G931-08003-000	Release Valve Connecting Bar	1
4		G931-08002-000	Release Valve Gear	1
5		5206-00010-000	Nut M10	1
6		5303-00010-000	Lock Washer ϕ 10	1
7		5102-10016-000	Bolt M10x16	1
8		G931-00009-000	Return Spring, Handle Fork	1
9	G070-00008-100		Pin	1
10	G070-05001-000		Handle Fork	1
11	G931-00003-000		Return Spring	2
12		G93P-01000-000	Saddle	1
13	G934-00003-000		Handle Fork Bolt, Left	1
14		G931-00011-000	Handle Fork Bolt, Right	1
15		5303-00020-000	Lock Washer ϕ 20	2
16		G931-00010-000	Bolt M12	4
17		5301-00020-000	Washer ϕ 18	2
18		5305-00015-000	E-Ring	2
19		G890-04100-100	Release Valve	1
20		G831-04000-000	Handle Assembly	1
21		G520-90026-K02	Caster Assembly	2
22		G890-90037-K01-04	Front Wheel Assembly	2
23	G83X-90010-K01		Hydraulic Power Unit	1
24	G831-03200-000		Air Motor	1
25	G831-03400-000		Air Hose Assy.	1
26	G831-00001-000		Cover Plate	1
27		G831-03500-000	Air Inlet Swivel	1
28		A20060-0016	Quick Coupler-Male	1
29		A20060-0007	Lift Control Valve	1
30		G83X-90038-K01	Seal Kit (includes #1, A~K)	-
31		JS300A-L0	Label (s)	-
32		JS300A-M0	Manual	-

****Seal Kit Contents:**

Item	Description	Qty.	Item	Description	Qty.
1	Oil Filler Plug	1	F	O-ring	1
A	O-Ring	2	G	Washer	1
B	O-Ring	1	H	Back-up Ring	1
C	Ram Bearing	1	I	O-Ring	1
D	Back-up Washer	1	J	Back-up Ring	1
E	U-Cup	1	K	O-Ring	1

(**) **Replacement requires special skills, knowledge, and equipment. Only** an authorized service center may perform the repair and/or replacement of these items. Contact Mac Tool 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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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.



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