

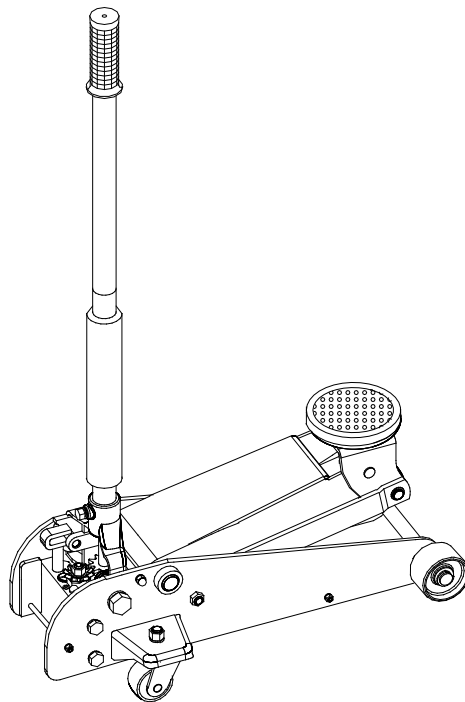


Hydraulic Service Jack

Operating Instructions & Parts Manual

Model Number
JSA-BLACKJACK

Capacity
2 1/2 Ton



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.

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

Printed in PRC
JSA-BLACKJACK-M0 rev 10/07

SAFETY AND GENERAL INFORMATION

Save these instructions. For your safety, read, understand, and follow the information provided with and on this jack. The owner and operator 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 (including labels) are noted. Any jack that appears damaged in any way, operates abnormally or is missing parts, 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 an authorized factory service center. It is recommended that an annual inspection be done by qualified personnel. Replace worn or damaged parts and assemblies with Mac Tools Authorized Replacement Parts only. Labels and Operator's Manuals are available from manufacturer.

PRODUCT DESCRIPTION

Mac Tools Hydraulic Service Jack is designed to lift, not support, rated capacity loads consisting of one end of a vehicle. Immediately after lifting, the load must be supported by a pair of appropriately rated jack stands.



Never use hydraulic jack as a stand alone device. After lifting, immediately support the lifted load with a pair of appropriately rated jack stands.

SPECIFICATIONS

Model	Capacity	Min. Height	Max. Height	Saddle Size	Jack Size (L x W)	Volume of Hyd. Oil
JSA-BLACKJACK	2 1/2 Ton	5"	19 1/2"	5 1/2"	25 3/8" x 13 1/8"	150 mL

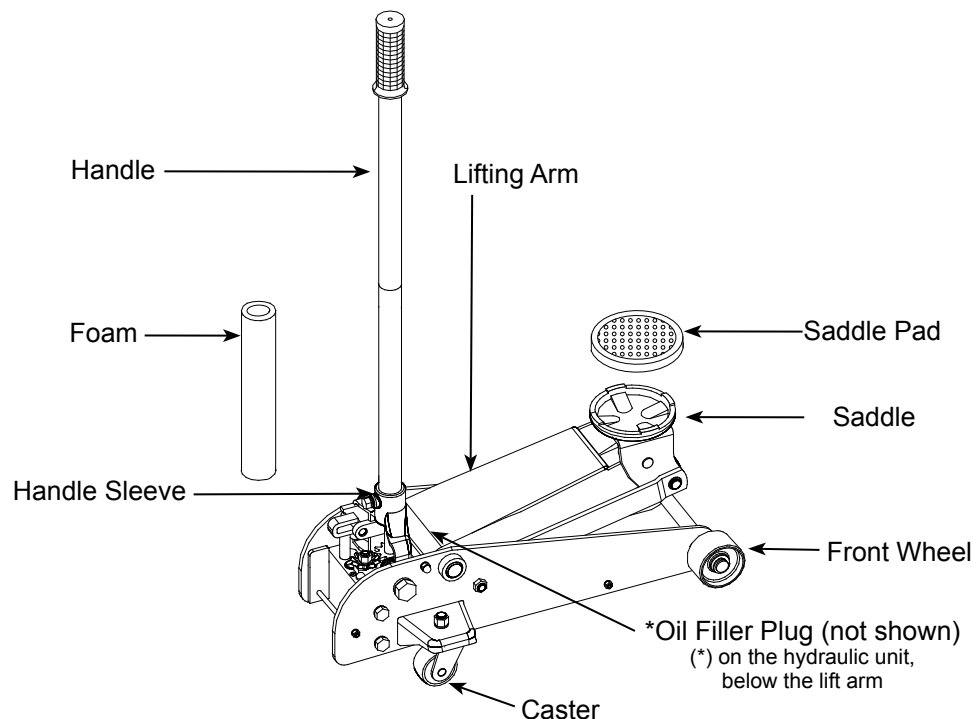


Figure 1- Hydraulic Service Jack Components

BEFORE USE

1. Verify that the product and the application are compatible.
2. Before using this product, read the operator's manual completely and familiarize yourself thoroughly with the product, its components and recognize the potential hazards associated with its use.
3. Insert handle to handle sleeve. Tighten the bolt on handle sleeve to prevent accidental removal of handle while in use.
4. To familiarize yourself with the basic operation of the jack, 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 load.
 - b. Counter-clockwise, but no more than 1/2 full turn from the closed position. This is the '**OPEN**' release valve position used to **lower** the load. The more you turn the release valve counter-clockwise, the **faster** the load descends.
5. With saddle fully lowered, locate and remove oil filler plug. Pump the operating handle through 6 to 8 full strokes. This will help release any pressurized air which may be trapped within the reservoir. Check the oil level. Ensure the oil level is within ~3/16" from the inner cylinder as viewed from the oil filler plug hole. Reinstall oil filler plug.
6. Check to ensure that jack rolls freely, that the pump and release valve operate smoothly. Raise and lower the unloaded jack throughout the advertised lift range before putting into service.
7. Replace worn or damaged parts and assemblies with manufacturer authorized replacement parts only. Lubricate as instructed in Maintenance Section.

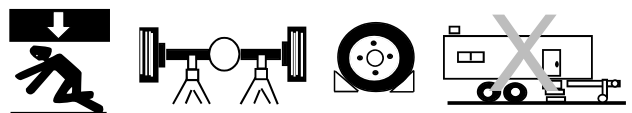
Bleeding / Venting Trapped Air

With the release valve in the OPEN position (4b. above) and with saddle fully lowered, locate and remove oil filler plug. Insert handle into the handle sleeve; then 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.

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 surfaces capable of supporting rated capacity loads.
- Do not use adapters or accessories that are not provided initially.
- Lift only on areas of the vehicle as specified by the vehicle manufacturer.
- 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.
- Check 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 areas 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. Locate and 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 use handle pump to contact lift point. To lift, pump handle until load reaches desired height.
5. Transfer the load **immediately** to appropriately rated jack stands.



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.



Overloading may cause hydraulic system failure.

Lowering



*Be sure all tools and personnel are clear before lowering load. **Slowly open the release valve!** The more you turn the release valve (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 release valve (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. Using the functioning jack, lower the load by turning the operating handle counter-clockwise, but no more than 1/2 full turn.
4. After removing jack from under the load, push saddle down to reduce ram exposure to rust and contamination.

MAINTENANCE

Important: Use only good grade hydraulic jack oil. Avoid mixing different types of fluid and NEVER 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. We recommend Mobil DTE 13M or equivalent hydraulic jack oil.

Adding oil

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

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• Load is too heavy• Hydraulic unit malfunction	<ul style="list-style-type: none">• Ensure release valve tightly closed• Consider higher capacity jack• Contact Tech. Service
Jack will not lower after unloading	<ul style="list-style-type: none">• Reservoir overfilled• Ram plunger/cylinder deformed, seized up in ram cylinder and/or top nut, likely the result of off-center loading.	<ul style="list-style-type: none">• Ensure load is removed, then drain fluid to proper level• Contact Tech. Service
Poor lift performance	<ul style="list-style-type: none">• Fluid level low• Air trapped in system• Hydraulic unit malfunction	<ul style="list-style-type: none">• Ensure proper fluid level• With saddle fully lowered, remove oil filler plug to let pressurized air escape, then reinstall oil filler plug• Contact Tech. Service
Jack 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, give Model number, serial number and parts description. 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)

Replacement Parts for Model JSA-BLACKJACK

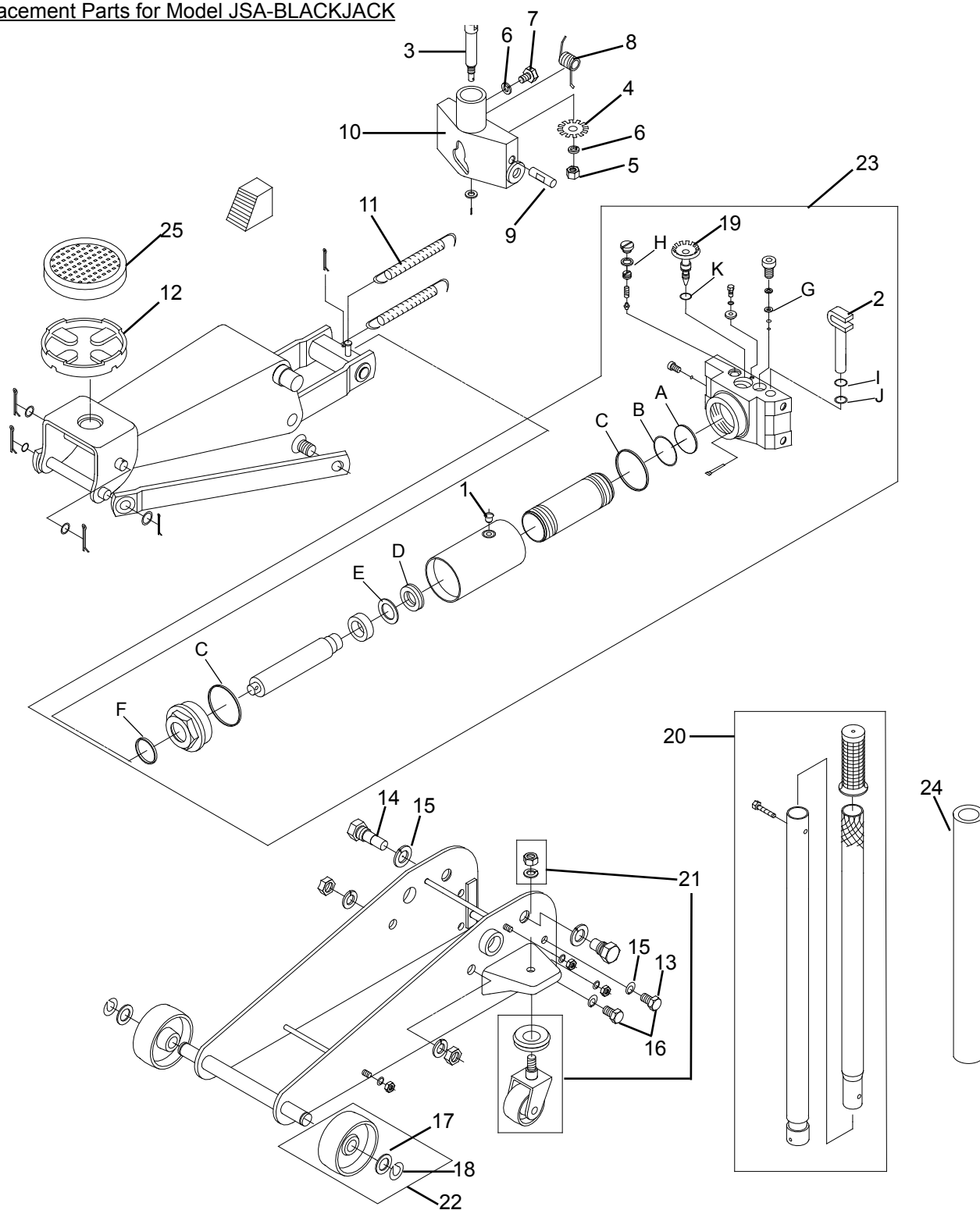


Figure 2 - Replacement Parts Illustration for Model JSA-BLACKJACK

Replacement Parts List for Model JSA-BLACKJACK

Item	Part No.	Description	Qty
1	F36100-0001	Oil Filler Plug	1
2	G48900-0023	Pump Piston	1
3	G48900-0017	Release Valve Connecting Bar	1
4	G48900-0016	Release Valve Gear	1
5	G59305-0003	Nut M10	1
6	G59305-0005	Lock Washer D10	2
7	G48900-0024	Bolt M10x16	1
8	G48900-0001	Return Spring, Handle Fork	1
9	G48900-0015	Pin	1
10	G58900-0002	Handle Fork	1
11	G48900-0011	Return Spring	2
12	G48900-0022	Saddle	1
13	G48900-0018	Handle Bolt, Left	1
14	G48900-0020	Handle Bolt, Right	1
15	G59305-0006	Lock Washer D20	2
16	G48900-0019	Bolt M12	4
17	G59305-0004	Washer D18	2
18	G59305-0007	E-clip	2
19	G48900-0004	Release Valve	1
20	G48900-0003	Handle Assembly	1
21	G48900-0006	Caster Assembly	2
22	G48900-0007	Front Wheel Assembly	2
23	G49000-0001	Hydraulic Power Unit	1
24	G620-55001-9040	Foam	1
25	G48900-0035	Saddle Pad	1
26	G48903-0000	Seal Kit (includes #1, A~K)	-

Seal Kit Contents:

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

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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