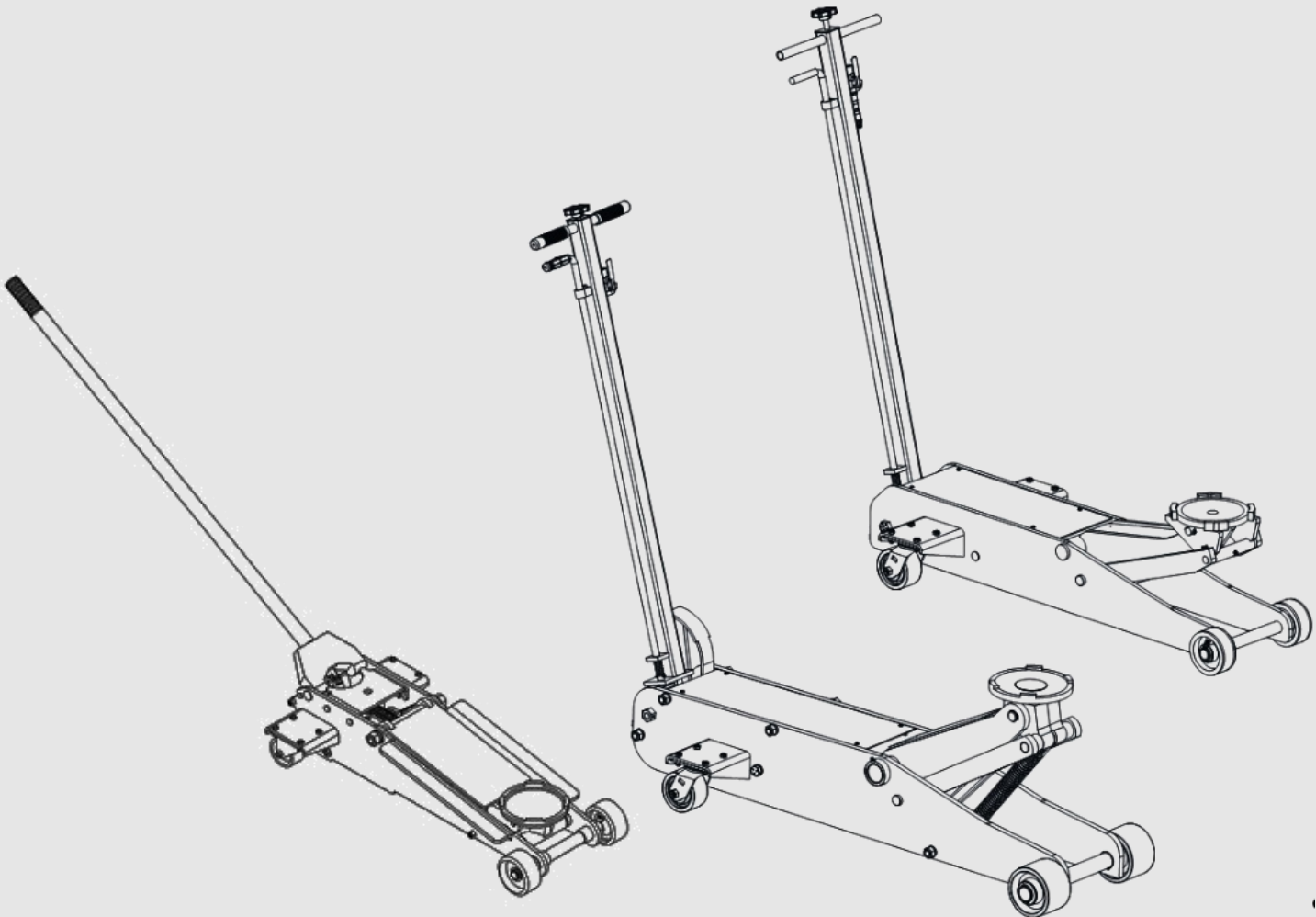


MAHLE CSJ-3, CSJ-6A & CSJ-10A

EN

Operation Manual
Floor service jack





**EVERY PERSON WHO OPERATES THIS
EQUIPMENT NEEDS TO KNOW AND
UNDERSTAND ALL OF THE INFORMATION IN
THIS MANUAL – FAILURE TO DO SO COULD
RESULT IN SERIOUS INJURY OR DEATH.**

**READ THIS MANUAL
CAREFULLY AND
RETAIN FOR YOUR
RECORDS**

Contents

1. Safety Regulations	4
1.1 Warnings.....	4
2. Foreword	5
2.1 From the manufacturer	5
3. Symbols Use	5
3.1 Signal words	5
4. Responsibilities	6
4.1 Receiving inspection.....	6
4.2 Owner and/or operator responsibilities	6
5. Specifications	6
5.1 CSJ-3.....	6
5.2 CSJ-6A	6
5.3 CSJ-10A	6
6. Product Description	7
6.1 Component identification.....	7
7. Operation	8
7.1 Raising a vehicle	8
7.2 Lowering the vehicle.....	9
8. Maintenance and Inspection	10
8.1 Inspection – before each use	10
8.2 Inspection – periodic.....	10
8.3 Maintenance instructions.....	11
8.4 Adding hydraulic fluid	11
9. Troubleshooting	11
10. Maintenance Chart	12
11. Notes	14

1. Safety Regulations

1.1 Warnings

⚠ Failure to follow all of these safety instructions can lead to severe injury or death from a sudden loss of the load. Contact the manufacturer at the numbers or address printed on the back cover of this manual if you have any questions.

⚠ **Before using this jack**, be sure you have read and understood all of the instructions and warnings on the on product labeling and in this owner's manual. See the section entitled "OWNER AND/OR OPERATOR RESPONSIBILITIES" on page 6 of this manual for more information.

⚠ **Inspect the jack before each use**. The jack must be removed from service if damage is detected or if the jack is subjected to an abnormal shock or load. See page 10 of this manual for proper "INSPECTION – BEFORE EACH USE."

⚠ **Inspect the work area before each use**. Make sure the jack and vehicle are located on a hard, level surface capable of supporting the load. The jack must be free to roll 11 inches forward during lifting and 11 inches backward during lowering—avoid any obstruction that would hinder or prevent the jack's wheels from moving forward and backward such as uneven expansion joints, cracks in the floor, hoses, gravel, tools, etc.

⚠ **Identify appropriate vehicle lift points before using the jack**. Lift only on areas of the vehicle specified by the vehicle manufacturer. The lift point must be strong enough to sustain the lifting force without damage to the vehicle. The jack must remain in direct contact with the floor and the lifting pad must be in direct contact with the vehicle.

⚠ **Make sure the lift point is securely cradled** in the jack's factory-supplied lift pad. Make sure the lift pad is the only part of the jack in contact with the vehicle—do not attempt to use any other part of the jack as a lifting point. Never place a hand or any other body part between lift pad and vehicle.

⚠ **Make sure the load does not exceed the rated capacity of the jack**. The maximum lifting capacity of the CSJ-3 is 6,000 lb. / 2,725 kg. The maximum lifting capacity of the CSJ-6A is 12,000 lb. / 5,443 kg. Finally the maximum lifting capacity of the CSJ-10A is 20,000 lb. / 9,072 kg.

⚠ **Use the jack only as a lift, not as a support stand**. After lifting the vehicle, never allow any part of your body to pass under it (and never begin work) until it is properly supported by appropriate support stands. Once adequate support stands are in place, remove the jack from underneath the vehicle.

⚠ **The vehicle shall be raised only once to place support stands under the vehicle**. Carefully lower the vehicle onto all stands simultaneously. NEVER raise or lower a vehicle that is supported by stands to place additional stands. See "Operation" section of this manual for information about raising and lowering a vehicle and refer to the manual that comes with your support stands for information about their proper and safe use.

⚠ **Always use the jack as intended**. Never modify or alter the jack. Use the jack for lifting vehicles only. Never use more than one jack at the same time to raise a vehicle. If this jack does not have sufficient capacity to lift a load, use a different jack with adequate capacity. Do not use any type of blocks, cribbing devices, or adapters with this jack. The jack must remain in direct contact with the floor and the lifting pad must be in direct contact with an appropriate lift point on the vehicle. The jack should only move (forward and backward) when raised or lowered—never attempt to reposition or rotate the jack or move, dolly, or drive the vehicle while the vehicle is raised.

2. Foreword

2.1 From the manufacturer

Thank you for your purchase. To complement the offering of A/C, fluid and nitrogen service equipment, MAHLE Service Solutions has partnered with Gray Manufacturing to provide the highest quality hydraulic and pneumatic equipment available for the professional service technician. This equipment adheres to high standards promised in the MAHLE guarantee including the assurance of innovation and reliability that comes with the Gray Manufacturing name. Please contact MAHLE Service Solutions' customer service at (800) 468-2321 or tech.mss@us.mahle.com with any comments or questions.

3. Symbols Use

3.1 Signal words

Signal words call attention to a safety message or messages, or a property damage message or messages, and designate a degree or level of hazard seriousness. Signal words used in this manual include:

Keyword	Probability of occurrence	Severity of danger if instructions not observed
DANGER	Immediate impending danger	Death or severe injury.
WARNING	Possible impending danger	Death or severe injury
CAUTION	Possible dangerous situation	Minor injury
NOTICE	Possible damage to property	Possible property damage

4. Responsibilities

4.1 Receiving inspection

Before attempting to operate this equipment, thoroughly read and understand this manual. Completely remove all tape and packaging. Inspect the equipment immediately upon delivery. If shipping damage is evident, inform the delivering carrier immediately and contact the manufacturer using the contact information on the back cover of this manual.

4.2 Owner and/or operator responsibilities

The owner of this equipment must read these instructions and maintain them for future reference and for instructing any other users of the equipment. The owner is responsible for keeping all warning labels and instruction manuals legible and intact. Replacement labels and literature are available from the manufacturer. The owner must never authorize or allow anyone to use this equipment until the operator has read and understood the information in this manual and on the accompanying labeling on the equipment itself.

If this equipment is being used in an occupational setting (or workplace), the employer should ensure that all personnel working with and around the equipment know of the risks associated with its use. Personnel involved in the use and operation of this equipment shall be careful, competent, trained, and qualified in the safe operation of the equipment and its proper use when servicing motor vehicles and their components. Safety information provided with this equipment should be emphasized by the employer and understood by each employee. The employer must make this manual available to all personnel using this equipment and all personnel must read and understand the contents of this manual. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the employer, making sure that the operator comprehends its contents and observes the proper procedures for use of this equipment.

5. Specifications

5.1 CSJ-3

Model CSJ-3	US units	Metric units
Capacity	6,000 lb each	2,725 kg each
Maximum Lift Height	23.75 in	60.3 cm
Minimum Saddle Height	4.25 in	10.8 cm
Weight	160 lb	72.6 kg
Width	16.375 in	41.6 cm
Chassis Length	34.375 in	87.3 cm
Air pressure	NA	NA

5.2 CSJ-6A

Model CSJ-6A	US units	Metric units
Capacity	12,000 lb each	5,443 kg each
Maximum Lift Height	23.25 in	59.1 cm
Minimum Saddle Height	4.75 in	12.1 cm
Weight	256 lb	116.4 kg
Width	19.875 in	50.5 cm
Chassis Length	48.25 in	122.6 cm
Air pressure	90-175 psi	6.2-12.1 bar

5.3 CSJ-10A

Model CSJ-10A	US units	Metric units
Capacity	20,000 lb each	9,072 kg each
Maximum Lift Height	26.625 in	67.6 cm
Minimum Saddle Height	6.5 in	16.5 cm
Weight	400 lb	181.8 kg
Width	20.125 in	51.1 cm
Chassis Length	55 in	139.7 cm
Air pressure	90-175 psi	6.2-12.1 bar

6. Product Description

6.1 Component identification

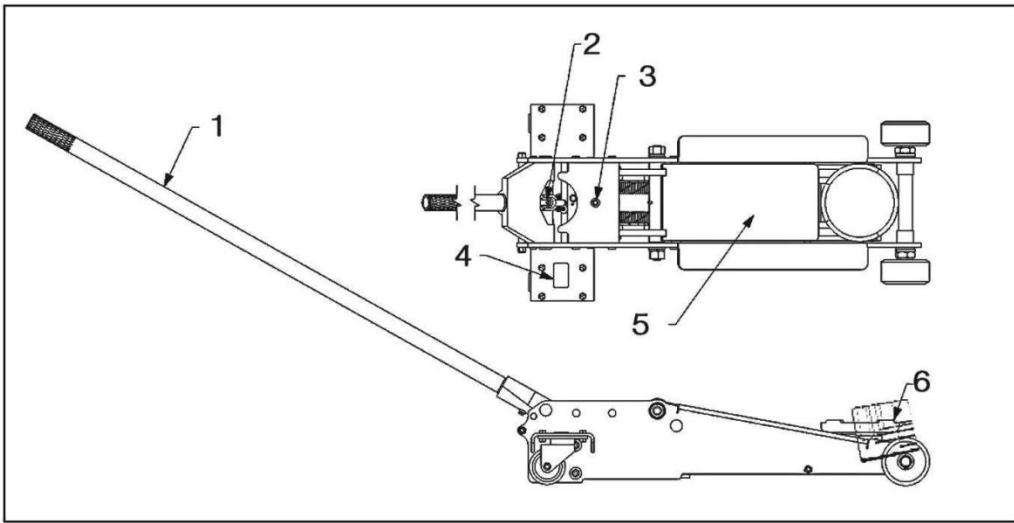


Fig. 1: CSJ-3 view

- 1 Pump Handle
- 2 Release U-Joint
- 3 Hydraulic Oil Fill Plug
- 4 Serial Number
- 5 Lift Arm
- 6 Lift Pad

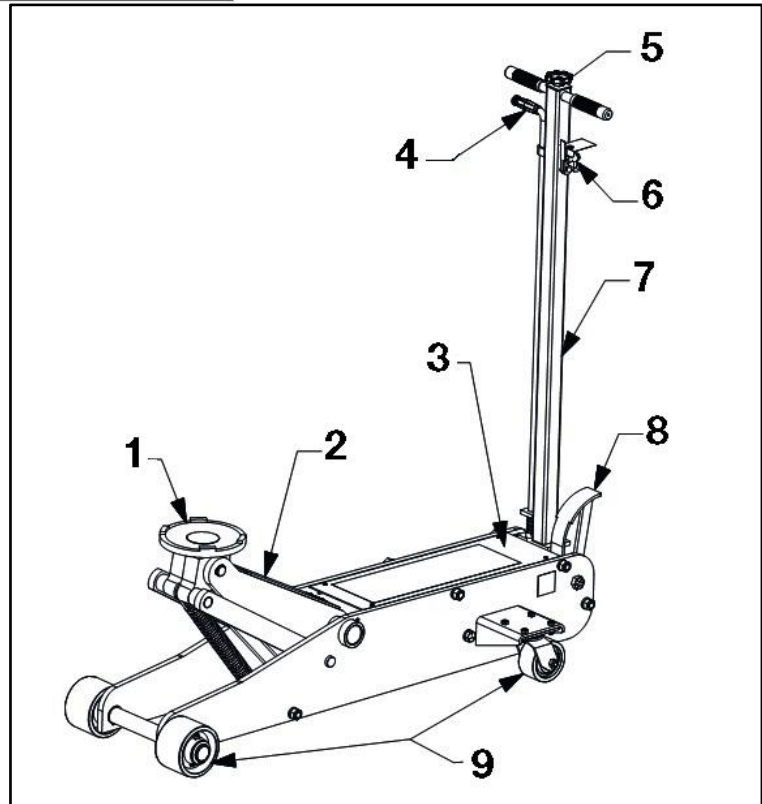


Fig. 2: CSJ-6A & CSJ-10A view

- 1 Lift pad
- 2 Lift arm
- 3 Top cover
- 4 Pump handle lock
- 5 Release control knob
- 6 Control valve
- 7 Pump handle
- 8 Foot pedal pump (CSJ-10A only)
- 9 Wheels

7. Operation

⚠ **WARNING** - This section discusses the appropriate and safe methods for using the jack to raise and lower a vehicle. Safe operation is not limited to simply raising and lowering a vehicle - it also includes adequate preparation before the vehicle is lifted. Failure to follow all of the steps outlined in this section could result in serious injury or death.

7.1 Raising a vehicle

1. Make sure the vehicle load does not exceed the rated capacity of the jack (see Specifications for the jack model purchased).

2. Inspect the jack for signs of wear or damage (see "Inspection Instructions" in Section 8). The jack should be immediately removed from service if you detect any abnormal conditions or signs of damage that suggest the jack will not work properly or safely — When in doubt, don't use the jack!

⚠ If you see any signs of wear or damage, or if there is any indication that the jack is not performing normally, immediately take it out of service and contact customer service at the address and number shown on the back cover of this manual. NEVER use a jack that appears damaged in any way.

3. Transport the jack to the work area by wheeling it. You can push or pull the jack. Wheel the jack across smooth surfaces only.

⚠ Jolting caused by the wheels catching on uneven surfaces can cause physical strain and personal injury.

4. Examine the work area. Use the jack only on hard, level surfaces capable of safely supporting the load. The jack must ALWAYS remain in direct contact with the floor. NEVER attempt to lift from a polished or greasy floor. Clear the surrounding area of personnel, tools, equipment, or any other objects that would interfere with the use of the jack. Make sure the jack is free to roll forward and backward (at least 11 inches) when it raises and lowers the vehicle. If these conditions cannot be met, move the vehicle and jack to an area where the lift can be performed safely.

5. Prepare the jack for raising the vehicle. Close the release control knob by turning it clockwise. Follow the appropriate step below depending on if compressed air will be used or not.

- If using air-powered hydraulic system, connect the airline to the control valve. Recommended operating air pressure is 90 psi minimum to 175 psi maximum.
 - If compressed air is unavailable, lift up on the pump handle lock and turn 90° to disengage the lock. The lift arm and lift pad can now be raised by manually pumping the pump handle (and/or foot pedal on the CSJ-10A).
6. Position the lift pad for contact with the vehicle's lift point and actuate the control valve (or pump handle/foot pedal if manually raising the jack) while standing clear of the vehicle.
 7. Raise the load to the desired height. Lighter loads will rise faster than heavier loads and lighter loads require less air pressure to run the air motor than heavy loads.
 8. Position appropriate support stands under the vehicle manufacturer's recommended lift areas to provide stable support for the raised vehicle. Make sure personnel are clear of the area.
 9. Lower the vehicle onto the support stands by slowly and carefully turning the release control knob counter-clockwise. When lowering the jack, it is important to keep the rate of lowering under control and to assure the recommended vehicle lift points will properly rest on the stand pad. Refer to the instructions and warnings accompanying the support stands for additional information about their safe use.
 10. When the support stands are supporting the entire load, the jack must be removed from the area before work on the vehicle begins.

7.2 Lowering the vehicle.

1. Clear the area of personnel, tools, and equipment.
2. Position the jack so the lift pad will contact and appropriate vehicle lift point.
3. Close the release control knob and actuate the control valve (or pump handle/foot pedal) to raise the vehicle.
4. Remove the support stands.
5. Carefully open the release control knob to slowly lower the vehicle to the ground.

8. Maintenance and Inspection

⚠ **WARNING** - The jack must be inspected according to the requirements of this section. Failure to properly inspect the jack could lead to severe injury or death. The jack must be removed from service and inspected immediately if it is subjected to an abnormal load or a shock load. If any irregularities or problems are detected during an inspection, the jack must be removed from service immediately and repaired. Contact the manufacturer at the numbers and address printed on the back cover of this manual.

8.1 Inspection – before each use

Visual inspection of the jack must be made before each use of the jack. The jack should be immediately removed from service if any of the following conditions are detected or observed:

- The lift pad is cracked, chipped, or shows signs of excessive wear.
- The lift arm shows signs of damage such as bends and/or twists.
- The jack's controls or wheels do not operate smoothly or freely.
- An oil leak is observed.
- Any abnormal condition or sign of damage that suggests the jack will not work properly.

8.2 Inspection – periodic

The jack owner (or a knowledgeable person appointed by the owner) must give the jack a more thorough inspection weekly (if it is used on a daily basis) or monthly (if used less frequently). In addition to a visual inspection (as described above), the inspector should also operate and move the jack to assist in identifying any problems that might exist. The jack must be removed from service and repaired if the jack appears damaged, if it is badly worn, or if it operates abnormally.

- Inspect lift pad and remove jack from service if it is cracked, chipped, or shows signs of excessive wear.
- Raise and lower the lift arm to ensure it moves smoothly through its full range. Inspect the lift arm for damage such as bends and/or twists.
- Raise and lower the lift arm to ensure that all controls operate smoothly and freely.
- Move the jack forward and backward on its wheels to ensure that the wheels rotate smoothly and freely.
- Inspect for oil leaks. If oil leaks occur, refer to the "Troubleshooting" section of this manual.

8.3 Maintenance instructions

- ⚠ **WARNING** - All inspection and maintenance procedures must be performed after the jack has been removed from service. Failure to do this may result in personal injury and/or property damage.
- Check oil level in the oil reservoir. Refer to Section 8.4 “ADDING HYDRAULIC FLUID”.
- All warning and capacity labels should be readable and complete. Wash external surfaces of jack, labels, and decals with a mild soap solution.
- Lubricate all rotating and sliding portions of the jack monthly.
- Grease the jack once per month with good quality bearing grease. There are zerks located on the pivot tube of lift arm and the block on the rod end of cylinder.
- Put several drops of air motor oil in the air inlet once a month, or use an airline lubricator. This helps to prevent corrosion and to lubricate the air motor piston.

8.4 Adding hydraulic fluid

1. Remove the jack from service.
 2. The lift arm must be in the fully-lowered position and the jack must be on a level surface.
 3. Remove the top cover by removing the four pan head screws.
 4. Clean around the surface of the oil fill plug to prevent contamination of the hydraulic oil system.
 5. Remove the oil fill plug.
 6. Visually check the hydraulic oil level. **ARM MUST BE FULLY LOWERED.** The fluid should be visible and just covering the hydraulic cylinder (the large round part visible while looking through the oil fill plug hole). If the fluid level is low, add a high-grade hydraulic fluid equivalent to Phillips 66 MegafloTM AW HVI 22 so the oil level just covers the cylinder.
- ⚠ **CAUTION** - Do not use brake or transmission fluid. Use of the wrong fluid can deteriorate the seals and corrosion problems will occur.
 - 7. Reinstall and secure the oil fill plug. Clean up any spilled oil and secure the top cover back onto the frame. Test the jack for normal operation.
- 🔧 If the lift pad still does not rise to the proper height, repeat above steps, but add two more ounces of oil. If this does not solve the problem, contact the manufacturer at the number and address printed on the back cover of this manual.

9. Troubleshooting

This section is a list of potential problems and solutions. If the solution listed fails to correct the problem, call the manufacturer at the numbers and address printed on the back cover of this manual. Please have the model number, and serial number of your jack available. The serial number is located on the capacity tag.

Problem	Cause/Solution
Fails to lift load	<ul style="list-style-type: none"> • Low oil level, see the Section 8.4 “ADDING HYDRAULIC FLUID” • Inadequate air pressure; requires 90 psi minimum. • Release open, turn control knob clockwise until tight. • Airline leaks; locate and correct leaks. • Overloaded; use larger-capacity jack.
Fails to hold load	<ul style="list-style-type: none"> • Release open, turn control knob clockwise until tight.
Air motor won't run	<ul style="list-style-type: none"> • Airline leaks; locate and correct leaks. • Air piston sticking or stuck, add oil to air inlet to lubricate piston. • Inadequate air pressure; requires 90-175 psi to raise rated load.
Oil leaks	<ul style="list-style-type: none"> • Reservoir fill plug loose; tighten fill plug. • Reservoir is overfilled. Oil will leak from the oil plug if the reservoir is overfilled.

11. Notes

MAHLE

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