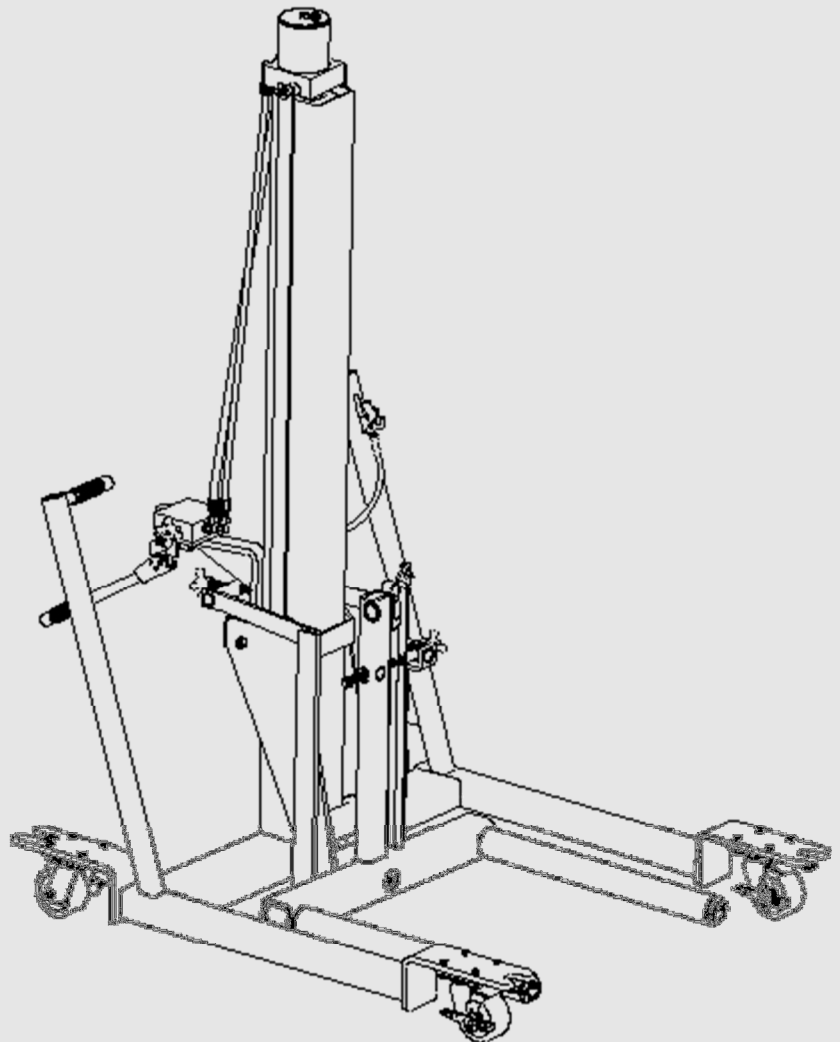


MAHLE CWD-1200H

EN

Operation Manual
Wheel dolly





**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**

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1. Safety Regulations

1.1 Warnings

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

⚠ **Anyone who operates this equipment must read and understand all the instructions and warnings provided with this product before being allowed to use it.** All operators must be careful, competent, trained, and qualified in the safe operation of the product. The owner (or other responsible individual) must ensure that any operator observes the proper safety procedures for using this product at all times. If the operator does not read well or is not fluent in English, the owner / manager must read and review the instructions and warnings in the manual with the operator in the operator's native language to be sure that the operator will use the crane properly.

⚠ **The owner / manager must keep this manual for future reference,** and make sure the warning labels on the product are legible and intact at all times. Replacement labels and manuals are available from the manufacturer. Call the manufacturer using the contact information on the back cover of this manual if you have any questions.

⚠ **Use this wheel dolly only on hard level surfaces capable of sustaining the load.** Use on other than hard level surfaces can result in wheel dolly instability and possible loss of load.

⚠ **Never overload the product.** Maximum capacity is 1200 lb / 544 kg. Overloading can result in equipment failure.

⚠ **This wheel dolly is designed solely for the removal and installation of wheels** from over-the-highway trucks, trailers, tractors, and buses.

⚠ **The wheel dolly carriage is the only approved lifting point.** Do not attempt to use any other part of the wheel dolly as a lifting point. Place wheel as close to back vertical lift member of wheel dolly as possible. Do not use any kind of cribbing or adapters with this wheel dolly. The wheel dolly must remain in direct contact with the floor and the lifting carriage must be in direct contact with the wheel to be lifted.

⚠ **After raising a vehicle, never allow any part of your body to pass under it** and never begin work on the vehicle until it is properly supported by adequate stands or, if on a four-post lift, with a bridge jack. Once the vehicle is properly supported and is stable the wheel dolly can then be positioned to install or remove the wheel.

⚠ **Lower and secure load before moving wheel dolly to another area.**

⚠ **Never place hand or any other body part between lift carriage and wheel,** personal injury can occur.

⚠ **If the wheel dolly does not have enough capacity to raise the load, remove it and use a wheel dolly with adequate capacity.** Failure to observe this instruction may lead to unstable or overload conditions that could cause failure of the wheel dolly

⚠ **NEVER modify the product in any way.** No alterations shall be made to this product. Modifications may cause the product to perform improperly, resulting in injury or death. Any alterations to unit will void any warranty or liability of the manufacturer.

⚠ **Never use aftermarket accessories on the product unless authorized by manufacturer.**

⚠ **Failure to understand and obey these warnings may result in personal injury or death.**

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 and / or user must have an understanding of the manufacturer's operating instructions and warnings before using this equipment. Personnel involved in the use and operation of 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. Warning information should be emphasized and understood.

The owner / manager must make this manual available to all personnel using this equipment at your direction. They 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 purchaser / owner, making sure that the operator comprehends its contents and observes the proper procedures for use of this equipment.

Owner and / or user must study and maintain for future reference the manufacturer's instructions. Owner and / or user are responsible for keeping all warning labels and instruction manuals legible and intact. Replacement labels and literature are available from the manufacturer.

5. Specifications

5.1 CPS-2000 & CPS-4000 models

CPS-2000 model	US units	Metric units
Maximum capacity	1,200 lb	544 kg
Max. lift height (top of rollers)	51 in	129.5 cm
Start height (top of rollers)	3 in	7.62 cm
Weight	455 lb	206.4 kg
Side to side adjustment	±2.875 in	±7.3 cm
Width	42.5 in	108 cm
Length	52.25 in	132.7 cm
Air pressure (rate load)	145 psi	10 bar
For/aft tilt	±4°	±4°

6. Product Description

6.1 Component identification

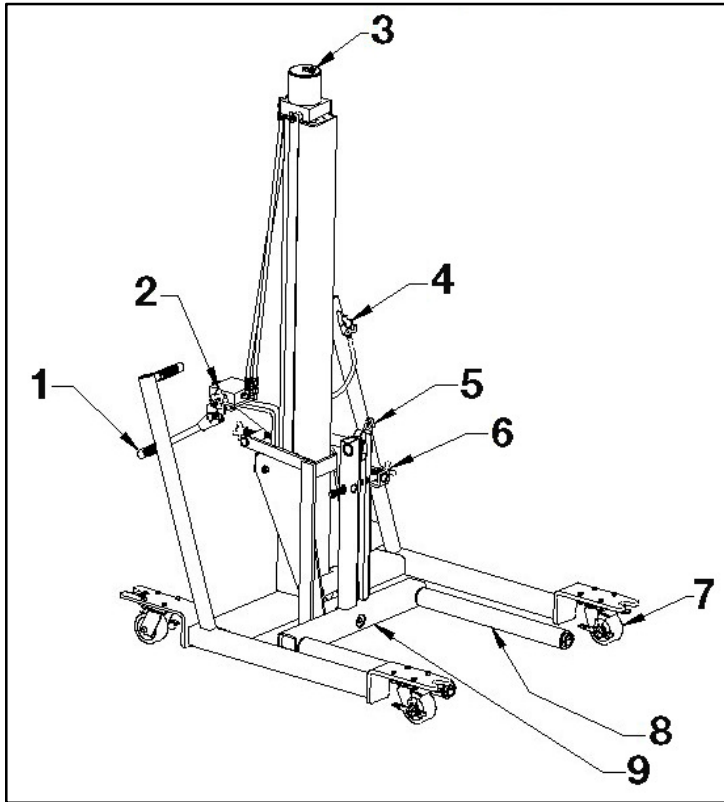


Fig. 1: Load leveler component identification

- 1 Hydraulic pump handle
- 2 Hydraulic release knob
- 3 Reservoir vent and fill plug
- 4 Air valve
- 5 Wheel restraining strap
- 6 Side-to-side adjustment knob
- 7 Swivel lock caster with wheel lock
- 8 Carriage roller
- 9 Lift carriage

7. Operation

⚠ Failure to heed the following operating instructions could lead to serious injury or death as a result of loss of a load—the operator and anyone in the vicinity of the raised load would be at risk.

Before beginning using the wheel dolly, the operator needs to understand how the wheel dolly works. There are two lifting means available to the operator. The first mode is the airlift cylinder that allows the operator to raise the carriage or wheel to the desired height quickly. The second is the hydraulic mode and is used to fine-tune the lift carriage's vertical position and for lowering. The air portion will lift 1200 pounds with 145 PSI. (Loads requiring more than 145 PSI to raise will overload the lift and must not be raised.) (If you do not have 145 PSI and the air portion will not lift the load it will assist with the hydraulic pumping. The air available will remove some of the force required to pump the hydraulic handle.) Once the air portion has lifted the carriage or wheel to the desired height and the air valve handle is released, the air will vent out and the hydraulic cylinder will support the load. The hydraulic mode can be used to raise and lower without the air cylinder being utilized. The release valve should be closed while using the air cylinder to lift. If the carriage is lifted too high it can be easily lowered using the hydraulic release valve. The air in the air cylinder will always exhaust when the air valve handle is released. This is done so that the hydraulic portion of the lift mechanism will always be pressurized and also to prevent upward movement of the lift carriage once the wheel has been removed.

ⓘ The wheel dolly swivel casters can be locked to prevent further rolling. The swivel portion of the caster can also be locked or unlocked to aid in positioning the wheel dolly.

7.1 Removing a wheel

1. Raise the vehicle high enough to get the wheel off the ground or off the ramp if on a four-post lift. Support the vehicle with adequate stands before removing the wheel or before getting under the vehicle.
2. Using either the hand pump or the air cylinder raise the wheel carriage high enough so that it can be positioned under the wheel to be removed. Tilt the carriage fore/aft to align it with the bottom surface of the wheel. Using the hand pump raise the carriage just enough to contact the wheel.
3. Secure the wheel to the wheel dolly using the strap provided on the wheel dolly. Remove the nuts or bolts retaining the wheel onto the axle and then move the wheel dolly just far enough to clear all obstructions that will prevent it from lowering. Lower the wheel using the hydraulic release valve so that it clears the floor by one or two inches before transporting.

7.2 Replacing a wheel

1. Position the wheel dolly under the wheel and secure it with the strap provided on the wheel dolly.
2. Raise the wheel one or two inches off the floor and move it close to the vehicle.
3. Lift the wheel using either the air cylinder or the hydraulic pump to the desired height.
4. Roll the wheel dolly to position the wheel onto the axle. Adjust the fore/aft tilt as required to align the wheel to the axle. Position the wheel side-to-side using the side adjustment screw. When side-to-side positioning is required a slight vertical adjustment may be necessary.
5. Once the wheel is secured to the axle, move the wheel dolly back and lower it to the floor. It may be necessary to level the carriage before full lowering can be obtained.

8. Maintenance and Inspection

⚠ **WARNING** - The owner must inspect, or appoint a knowledgeable person to inspect the product. Visual inspection should be made before each use of the equipment, checking for abnormal conditions. Regular inspections should be made weekly for daily use and monthly for intermittent use. In addition to the visual inspection, the inspector should also operate the product to assist in identifying any problems that may exist. Contact the manufacturer using the contact information printed on the back cover of this manual.

8.1 Inspection

Equipment must be removed from service and inspected for damage immediately if subjected to an abnormal shock or load. Failure to heed this warning may result in personal injury and / or property damage.

- Visually inspect the wheel dolly frame, manual pump handle, and lift carriage for signs of cracking, chipping, or excessive wear, including all welds.
- Visually inspect the lift carriage for any permanent deformation such as bending or twisting. The lift carriage should raise and lower smoothly. If the lift carriage doesn't raise to full height or does not stay in full up position after raising with the air cylinder, refer to the "Adding hydraulic fluid" section of this manual.
- Visually inspect the power unit for oil leaks. Refer to the "Troubleshooting" section if oil leaks are present.
- Visually inspect all four wheels for cracking, chipping or excessive wear. The wheels should rotate freely if not in a locked position.
- Visually inspect the airline and air valve for leaks, cracks and loose connections. All controls should operate freely.
- Visually inspect the fore/aft and side-to-side control screws. They should rotate freely with no load on the carriage.

⚠ If any irregularities or problems are detected during an inspection, the equipment must be removed from service immediately and repaired. Contact the manufacturer using the contact information on the back cover of this manual

8.2 Maintenance instructions

⚠ **WARNING** - All inspection and maintenance procedures must be performed after the product 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 the "Adding hydraulic fluid" section.
- 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 a good bearing grease. There are grease zerks located in the rollers wheels of the lift carriage that ride on the post and in the pivot shaft of the lift carriage table.

8.3 Adding hydraulic fluid

1. Remove the wheel dolly from service.
 2. The lift carriage must be in the fully lowered position and the wheel dolly must be on a level surface.
 3. Clean the top of the reservoir before removing the vent plug to prevent contamination of the hydraulic oil and hydraulic system.
 4. Remove the vent plug. Visually check the hydraulic oil level. The oil should be visible and within one inch of the top of the reservoir. If the fluid level is low, add a high-grade hydraulic fluid equivalent to Tellus T22.
- ⚠ Do not use brake or transmission fluid. Use of the wrong fluid can deteriorate the seals and corrosion problems will occur.
5. Re-install the vent plug. Clean up any spilled oil. Test the wheel dolly for normal operation.
- ❗ If the lift carriage still doesn't rise to proper height, repeat steps above. If this doesn't solve the problem, contact the manufacturer using the contact information on the back cover of this manual.

9. Troubleshooting

This page is a list of problems and solutions. If the solution listed fails to correct the problem, contact the manufacturer using the contact information on the back cover of this manual. Please have the model number, and serial number of your wheel dolly available. The serial number is permanently stamped on one of the rear caster brackets.

Problem	Cause/Solution
Fails to lift load	<ul style="list-style-type: none"> • Low oil level, see the “Adding hydraulic fluid” section. • Inadequate air pressure. Do not exceed 145 psi. • Release open, turn release control knob clockwise until tight. • Overloaded, use larger capacity wheel dolly.
Fails to hold load	<ul style="list-style-type: none"> • Release open, turn release control knob clockwise until tight.
Oil leaks	<ul style="list-style-type: none"> • Reservoir vent plug loose, tighten vent plug. • Reservoir is overfilled. Oil will leak from the vent plug if reservoir is overfilled.

11. Notes

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