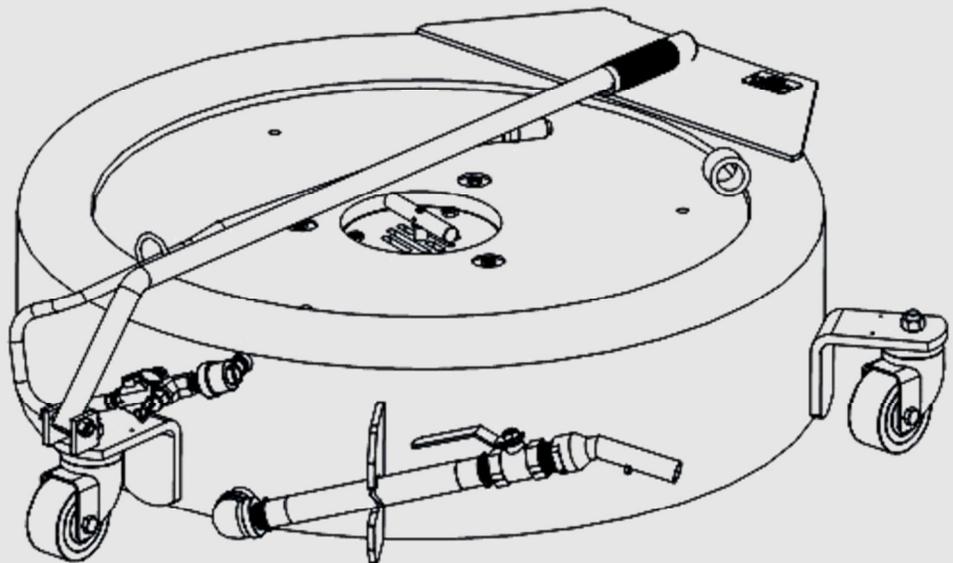


MAHLE CFH-15OL & CFH-15AF

EN

Operation Manual
Fluid handling pans





**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 equipment 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.

⚠ **Make sure the fluid does not exceed the maximum capacity.** Maximum capacity is 15 gallons / 57 liters. Do not overfill.

⚠ **Do not dump fuels** such as gasoline, diesel, or other flammable solvents into unit.

⚠ **NEVER modify the product in any way.** No alterations shall be made to this product. Any alterations to unit will void any warranty or liability of the manufacturer.

⚠ **Always use product on a hard level surface.**

⚠ **Do NOT remove the non-adjustable pressure regulator and/or safety pop off valve.** Removal of either component can over pressurize the unit resulting in rupture or damage to the bottom of the unit.

⚠ **Do not bypass the air pressure regulator** in any way.

⚠ **If the regulator or pop off valve is malfunctioning in any way, discontinue use of the unit** and contact the manufacturer using the contact information on the back cover of this manual immediately.

⚠ **Do not leave unit unattended** while airline is attached.

⚠ **Do not stand on unit** or use unit as a step.

⚠ **Immediately clean up any spills.**

⚠ **Empty unit after each fluid change** and before standing the unit upright for storage.

⚠ **Use only manufacturer supplied replacement parts** and adapters for this unit. Do not use replacement parts and adapters that are not supplied by the manufacturer.

⚠ **Do not use the unit if damaged, altered,** or in poor condition.

⚠ **User must ensure that all safety related decals are maintained** and replaced should lack of readability become evident.

⚠ **Failure to understand and obey this warning 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 CFH-15OL & CFH-15AF

| Model CFH-15OL/AF | US units | Metric units |
|-------------------------|----------|--------------|
| Maximum capacity | 15 gal | 57 liters |
| Height | 9.25 in | 23.5 cm |
| Overall diameter | 30 in | 76.2 cm |
| Catch pan diameter | 24 in | 60.9 cm |
| Catch pan depth | 2.4 in | 6.1 cm |
| Drain hose length | 127 in | 322.6 cm |
| Drain hose diameter | 0.75 in | 1.9 cm |
| Drain shut off valve | 0.75 in | 1.9 cm |
| Swivel caster diameter | 3 in | 7.62 cm |
| Regulator (Factory set) | 12 PSI | 0.8 bar |
| Safety pop off valve | 15 PSI | 1 bar |
| Weight | 90 lb | 40.9 kg |

6. Product Description

6.1 Component identification

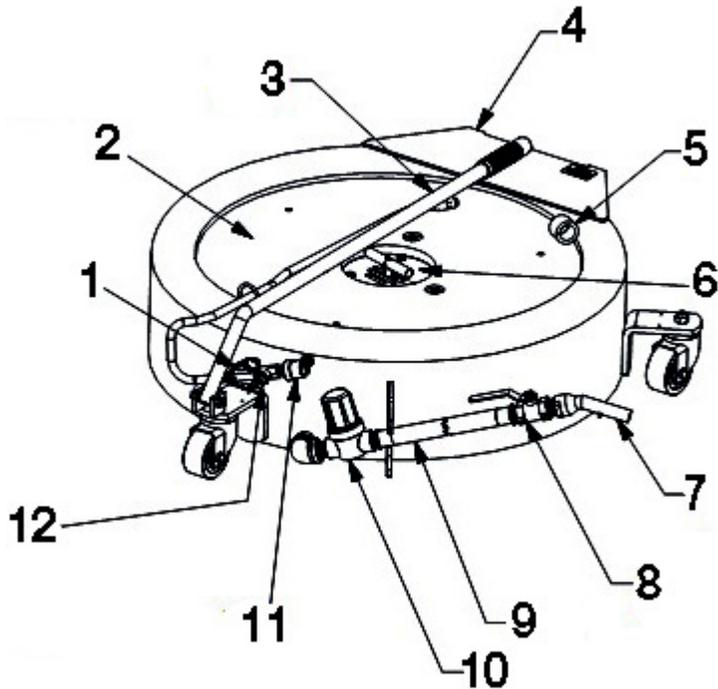


Fig. 1: CFH-15OL/CFH-15AF side view

- 1 Air regulator
- 2 Catch pan
- 3 Handle
- 4 Drip guard
- 5 Drain hose nozzle storage
- 6 Inlet hole & manual inlet valve
- 7 Drain hose nozzle
- 8 Shut-off valve
- 9 Drain hose
- 10 Filter-replaceable strainer screen inside (CFH-15AF only)
- 11 Quick exhaust valve
- 12 Safety pop-off valve

7. Operation

⚠ Failure to heed the following operating instructions could lead to serious injury or death—the operator and anyone in the vicinity of the fluid handler would be at risk.

7.1 Filling the fluid handler

1. Before putting the fluid handler under the vehicle, make sure the manual inlet valve is open (turn fully counter-clockwise).
- ❗ Large engines carry from 8 to 12 gallons of fluid. Empty the fluid handler after each fluid change. Since this fluid handler holds 15 gallons / 57 liters, if you drain a 2nd engine into the fluid handler you will over fill it and have a spill. If you overfill the tank, fluid may run out the exhaust valve. You can empty the tank and the fluid remaining on top will drain in to the tank when all air is exhausted.
2. Move the fluid handler to the desired location under the vehicle.
3. Drain fluid into fluid handler.
4. Once all fluid has drained, close the manual inlet valve (turn fully clockwise) before moving the fluid handler.

7.2 Emptying the fluid handler

1. If not already done, install a male quick coupler into the ¼ inch pipe coupler welded to the unit's handle. Do NOT connect the air supply line to the quick coupler at this time.
2. Close the shut-off valve on the drain hose.
3. Check that the manual inlet valve is fully closed (turn fully clockwise).
4. Connect the air supply line to the quick coupler on the unit's handle. The unit will now start to pressurize.
5. Put the drain hose nozzle into a suitable container and open the shut-off valve on the drain hose to begin emptying the unit. It may take up to 2-1/2 minutes to fully empty the unit.

7.3 How the fluid handler works

The fluid handler is a pressurized system needing only air pressure to unload the fluid handler. The fluid handler has its own air regulator preset at 13 psi. Behind the

regulator and directing air into the handler is a quick exhaust valve which serves two functions:

Serves as a vent to expel air as the oil is flowing into the handler.

When you attach an airline to the handler, a diaphragm in the quick exhaust valve closes the air vent port and directs the air into the handler. The 15 psi safety pop-off valve is to prevent over pressuring the tank, should the regulator malfunction. If the pop-off valve continually exhausts air, the air regulator could be malfunctioning. Discontinue use and contact the manufacturer immediately.

When an airline is attached to the male quick coupler air passes through the regulator, which regulates the air pressure down to 13 psi. As the air enters the handler it pressurizes the handler forcing the fluid in the tank out the 3/4 inch drain hose once the shut-off valve on the drain hose is opened

7.4 Storing the unit

The following figure shows how to store the unit. Empty the unit before standing upright for storage.

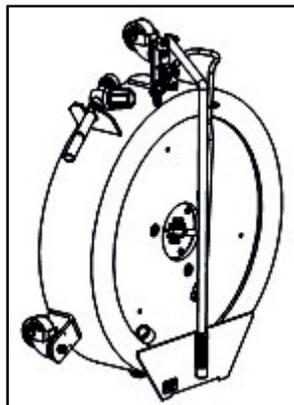


Fig. 2: Storage of the CFH-15OL/CFH-15AF

7.5 Optional adapters

High rise fluid handler adapter

A high rise fluid handler adapter is available to help remove fluids from vehicles that are in an elevated position.

Connect the high rise fluid handler adapter to the unit by removing the bolts and washers holding on the splash pad. Place the adapter on top of the unit, lining up the bolt holes, and secure with bolts and washers

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 fluid handler, 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 and move the fluid handler 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 Before each use

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.

⚠ To prevent serious injury or death from a falling vehicle, all inspection and maintenance procedures must be performed **after** the product has been removed from service. Position the fluid handler so you have clear access to all sides for inspection and service.

➤ Inspect the fluid handler for any damage and deformation prior to use. Visually inspect the welds.

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

8.2 Periodic inspection

The handler must be removed from service and repaired if the fluid handler appears damaged, if it is badly worn if it operates abnormally, or if any of the following conditions are found:

- Inspect the air regulator, safety pop-off valve, and quick exhaust valve for any signs of damage or modification. Also check that all the components are connected correctly and none have been bypassed.
- Check the entire body of the fluid handler for dents, gouges, cracks, chips, or other damage.
- Inspect the fluid handler for any bulges or other signs that the unit has been over pressurized.

- Move the fluid handler forward and backward on its wheels to ensure that the wheels rotate smoothly and freely. If the bottom of the fluid handler drags on the floor it has been over pressurized and must be removed from service.
- Inspect the drain hose for signs of damage or leakage.
- If any fluid leakage is found around the fluid handler check that all plumbing fitting are tight and the body is not damaged allowing fluid to escape.
- Connect the air supply and operate the fluid handler as described in the “Emptying the fluid handler” section. If the safety pop-off valve is continually open and exhausting air, the air regulator is not working properly. The unit must be repaired before returning to service.

8.3 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 fluid level in the unit prior to use. If not empty, refer to the “Emptying the fluid handler” section of this manual.
- All warning and capacity labels should be readable and complete. Wash external surfaces of unit, labels, and decals with a mild soap solution. Contact the manufacturer for replacement labels as needed.

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 unit available. The serial number is permanently stamped on a metal tag attached to the top of the drip guard.

| Problem | Cause/Solution |
|--|---|
| Fluid runs out of exhaust valve | <ul style="list-style-type: none"> • Unit is over filled. Empty the unit by following the instructions in the “Emptying the fluid handler” section. |
| Safety pop off valve continues to bypass | <ul style="list-style-type: none"> • Regulator is not working, unit is over pressurizing. Discontinue use immediately, and contact manufacturer using the contact information on the back cover of this manual to replace air regulator. |
| Fluid is slow to drain | <ul style="list-style-type: none"> • Manual valve on inlet cover not fully opened. Fully open manual valve. |
| Fluid overflows catch pan | <ul style="list-style-type: none"> • Manual valve on inlet cover not fully opened – close manual valve. • Tank not emptied after last use. • Quick exhaust valve not working properly – replace quick exhaust valve. |

11. Notes

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