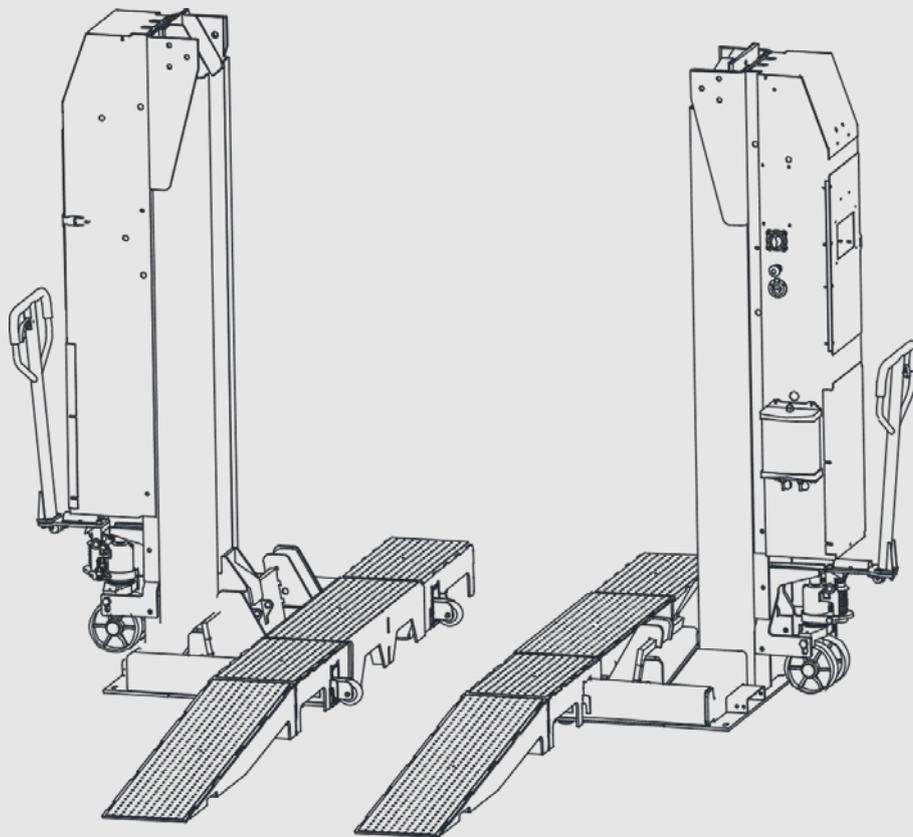


MAHLE CAD-FL & CAD-FL3

EN

Operation Manual
CML Forklift adapter





**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 Safety Instructions	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
6. Component Identification.....	7
7. Operation.....	8
7.1 Installation Instructions.....	8
8. Structural Inspection.....	10
9. Notes.....	11

1. Safety Regulations

1.1 Safety Instructions

To avoid serious injury or death, read this manual carefully before installing and using the forklift adapter system. Contact the manufacturer if you have any questions.

Failure to understand and obey safety instructions may result in unsafe or improper use of this product.

- ⚠ NEVER exceed capacity. Maximum system capacity is 15,000 lbs. / 6,804kg.
- ⚠ ALWAYS use this forklift adapter only on hard level surfaces capable of sustaining the load. Use on other than hard level surfaces can result in instability and possible loss of load.
- ⚠ NEVER lift anything other than forklifts. This forklift adapter system is designed solely for the lifting of forklifts.
- ⚠ NEVER make alterations to this product.
- ⚠ ALWAYS lift with the factory supplied lift platforms in place. Do not attempt to use any other part of the forklift adapter system as a lifting point. Do not use any kind of cribbing or adapters with this forklift adapter system. The lifts that the system is mounted on must be lowered to the ground and remain in direct contact with the floor, and the forklift adapter lift platforms must be in direct contact with the vehicle.
- ⚠ ALWAYS ensure that all parts of the adapter are lined up properly.
- ⚠ ALWAYS place the forklift center of gravity in the center of the lifting platforms attached to the lift carriage.
- ⚠ ALWAYS ensure that the weight center is balanced front to back and the lifting platforms are fully engaged under the forklift before lifting higher than 2”.
- ⚠ ALWAYS lift the vehicle using the vehicle manufacturer’s recommended lift points. The lift point must be strong enough to sustain the lifting force without damage to the vehicle.

- ⚠ NEVER place hand or any other body part between lift platform and vehicle, personal injury can occur.
- ⚠ NEVER lift a forklift by the counterweight.
- ⚠ NEVER rock a forklift after it is higher than 4" in the air.
- ⚠ NEVER lift a forklift unless both lift platforms are at least 6" under the sides of the forklift.
- ⚠ NEVER lift a forklift if the underside which contacts the lift platform is not completely flat.
- ⚠ NEVER lift a forklift if the counterweight, mast or batteries have been removed. The vehicle weight center will be severely affected.
- ⚠ NEVER use the 3 wheel adapter without the Lateral Support Bar properly placed.

Failure to understand and obey this warning may result in personal injury and / or property damage.

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

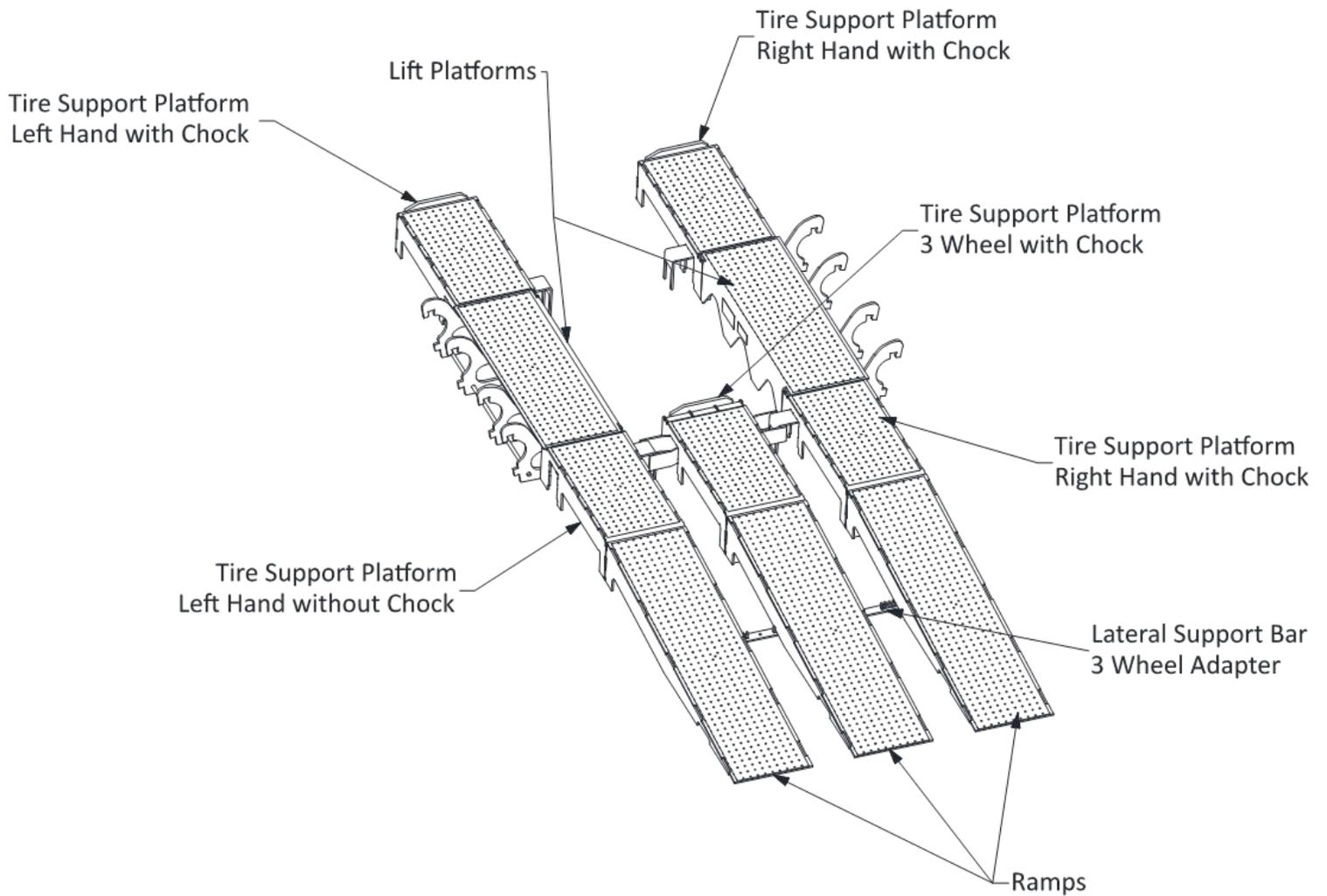
The owner of this equipment must read these instructions and maintain them for future reference and for instructing any other users of the equipment. The owner is responsible for keeping all warning labels and instruction manuals legible and intact. Replacement labels and literature are available from 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

Model CAD-FL & FL3	US units	Metric units
System Capacity	15,000 lbs.	6803.9 kg
Maximum Lift Height	68 in	26.8 cm
System height	12 in	4.7 cm
Level System Length	81 3/4 in	32.2 cm
Ramp Length	50 3/8 in	19.8 cm
System Weight	682 lbs.	309.4 kg
System Weight with 3 Wheel Option	883 lbs.	400.5 kg

6. Component Identification

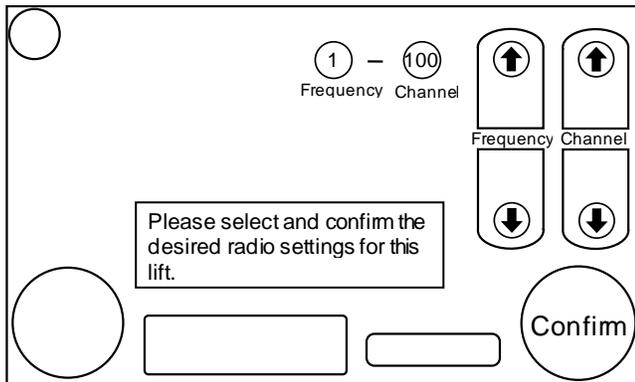


7. Operation

7.1 Installation Instructions

The adapter components are heavy and will require two people to handle. If using a lift system that has a different operating system than referred to in this manual, consult the manual supplied with the lift system for information on setting up and operating the lifts.

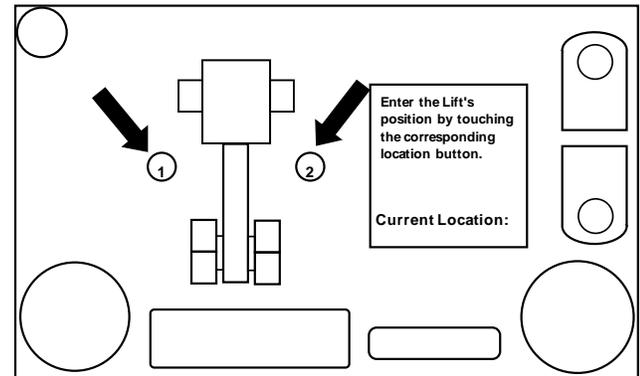
1. Make sure the master on/off switch on each lift unit is set to the OFF position. Turn the master on/off switch on the first lift unit to the ON position (see the lift system owner's manual for location of the master on/off switch). The Home screen will be shown with a series of icons on the screen. Select the Lift Program icon to start the program used to lift a vehicle. After initialization of the Touch Screen, the below screen will be displayed.



2. Select the desired radio settings. The default radio settings will be the settings selected the last time the unit was used. Push the up and down arrows on the right side of the screen to change the radio frequency and/or channel, if needed. All units that will be used together as a lift system to lift a vehicle must be set to the same frequency and channel. When the desired radio settings are shown, push the Confirm button to advance to the next screen.
3. Read through the Notice that is displayed on the next screen. If the operator agrees with and acknowledges the statements made on the screen push the Accept button to continue setting up the lift system.
4. The display then changes to ask how many lift units are going to be part of the lift system. Push the 2 button to set the lifts up as a set of two.
5. On the following screen, choose Forklift Adapter Mode in order to raise the set of two lifts full height.

! WARNING! Only use Forklift Adapter Mode with a manufacturer supplied forklift adapter.

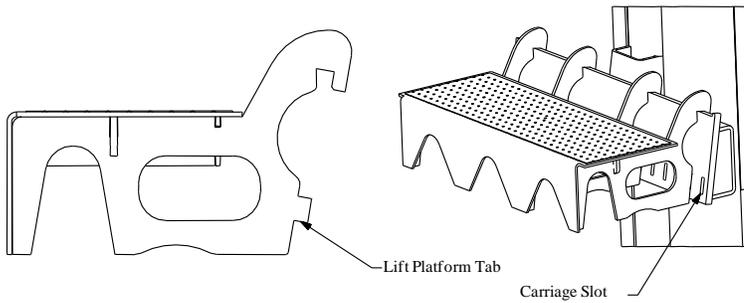
6. The display will now appear as shown below with a picture of a vehicle asking for the current lift unit's position relative to the vehicle. Select the round button with a number inside it that matches the current lift unit's position. Once the position is selected the position button will turn green to indicate the selection.



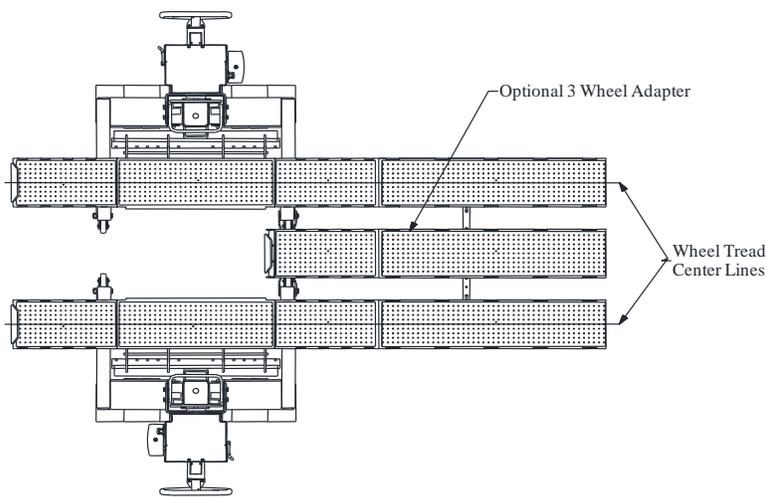
7. Now move to the second lift unit and turn the master on/off switch to the ON position. The same screen shown in Step (1) above will appear.

Select the same radio frequency and channel as was chosen in Step (2) above by pushing the up and down arrows on the right side of the screen. When the correct radio settings are shown, push the **Confirm** button.

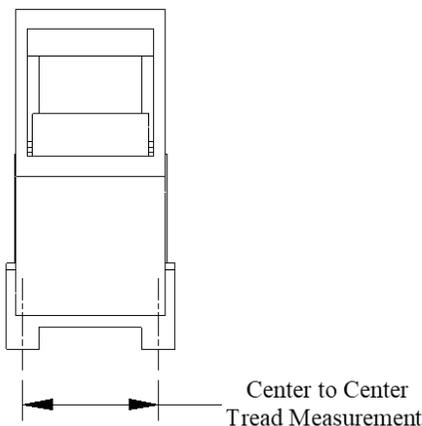
8. The display will now show the same screen as shown in Step (6) above. Select the round button that matches the position of the current lift unit relative to the vehicle. The position that has already been selected will be shown by a yellow colored button.
9. Once both units are initialized (radio settings and position relative to the vehicle selected) the lifts will be ready to operate.
10. Raise the Lift Carriages about 10 inches and install the Lift Platforms as shown in the figure below. Ensure the guide pin is fully inserted into the correct hole on each lift arm. The lift arms must be adjusted such that they are the correct width to properly accept the forklift adapter.



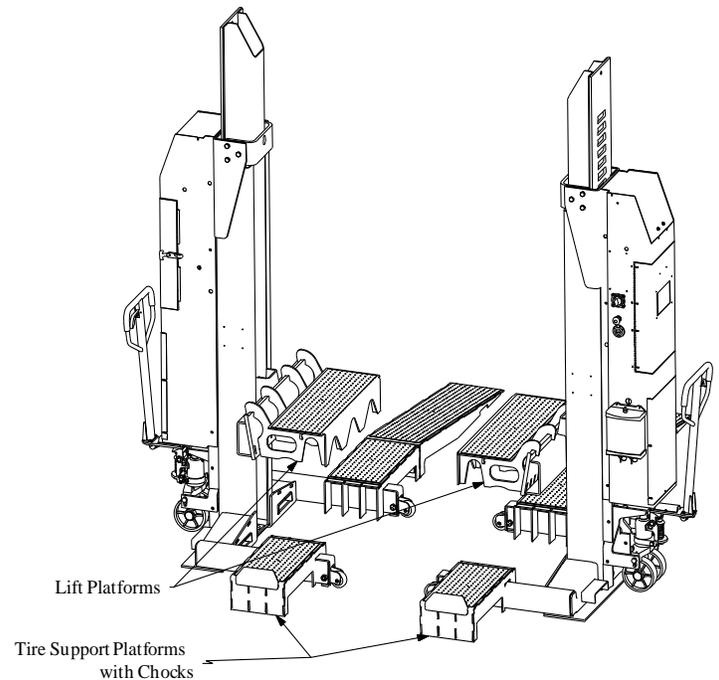
11. Align the lift units so that they will be as shown in the figure below when the Forklift Adapter is fully assembled. Ensure that they are directly across from each other. If the optional 3 Wheel Adapter (shown) is used, it must be centered between the outside ramps.



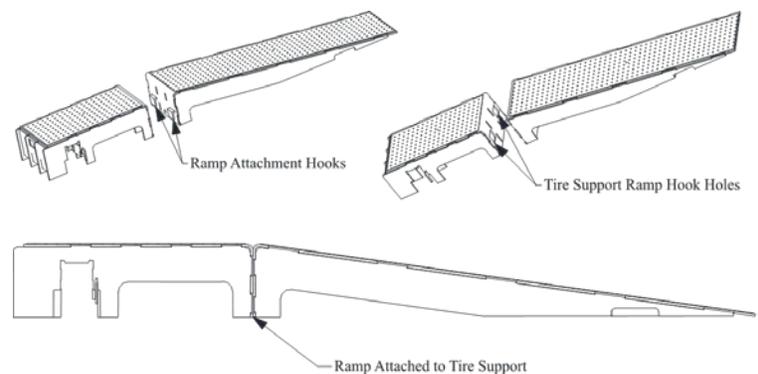
12. Adjust the distance between lift units until the center lines of the ramps and tire supports will be the same as the center to center tread measurement on the forklift to be lifted as shown in the figure below. After adjusting, lower the base of each lift unit to the ground. Ensure the lifts and adapters are properly aligned. If the 3 Wheel Adapter is to be used, this distance may need to be adjusted slightly to accommodate the Lateral Support Bar.



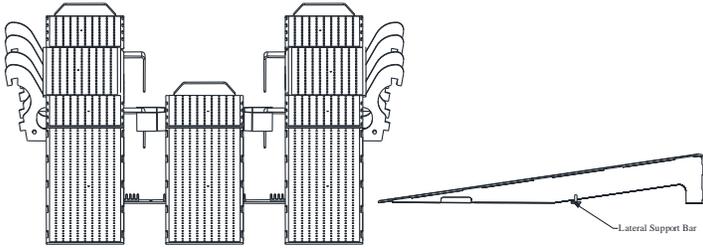
13. With the Lift Carriages raised, install the four Tire Supports as shown in the figure below. The Tire Support Platform must set on the lift unit's base leg and the front wheel must protrude from the Tire Support Platform such that the platform is retained on the base of the lift unit. If the optional 3 Wheel Adapter is to be used, ensure that the brackets on the 3 Wheel Adapter capture the lift units' base legs.



14. Install the ramps as shown in the figure below. Ensure that the Ramp Attachment Hooks are fully inserted into the Tire Support Ramp Hook Holes and the ramps are able to contact the floor.



15. If the 3 wheel adapter is to be used, align the tabs on the Lateral Support Bar with the ramps and slide it back as far as possible. All three ramps must be captured by the Lateral Support Bar.



16. Lower the Lift Carriages completely and verify correct alignment of the platforms. Back the forklift up the ramps only if using a 4 wheel forklift. If using the optional 3 Wheel Adapter with a 3 wheel forklift, pull onto the ramps forward. It is necessary to have a spotter in order to keep the forklift tires centered on the ramps and tire support platforms. Position the forklift front to back so that the center of gravity of the forklift is as close to centered on the lift platforms as possible. The center of gravity of the forklift must be within the ends of the Lift Platform. Raise the forklift until the tires are off the tire support platforms 2 inches. Rock the forklift front to back to make sure it is stable and can be lifted safely.
17. Once the check is made in step 17 above and the forklift is stable, the forklift can be raised. Not ensuring that the forklift is stable can result in loss of load, which can result in personal injury and/or property damage.

serviced or if you have any questions about how to address any wear or damage observed on the equipment.

The employer, owner, and/or manager are responsible for maintaining the forklift adapter system and lift units in good, serviceable condition. Employees must be trained on how to inspect the equipment. **Before each use** of a lift unit, the operator must visually inspect the lift unit for any abnormal conditions. Any equipment subjected to an abnormal load or shock must be immediately removed from service and given a thorough inspection. The employer, owner, and/or manager must inspect (or appoint a knowledgeable person to inspect) all equipment regularly. **Regular inspections** should be made **weekly** (if the equipment is used daily) or **monthly** (if the equipment is used only intermittently). Regular inspections should include the following:

- Check for any visual cracks, chips or other signs of excessive wear on all pieces of the adapter and all lift units.
- Raise and lower the lift carriage of each lift unit through its full range (up and down)—it should move smoothly. If the lift stutters when lowering (i.e., it moves in a jerky fashion) the slide pads may need to be re-lubricated. Refer to the lift system manual.
- Inspect the slide pad or roller contact surfaces for damage, such as gouging, warping, etc.
- All controls should operate smoothly and freely.

Inspect the lift units for oil leaks. If oil leaks occur, investigate and correct the source of the leakage (refer to the lift system manual). **WARNING!** Clean up any oil leakage immediately. Oil left on the floor can create a slipping hazard.

- Inspect the down stop catch pawl to make certain it rotates forward and backward freely. If the catch pawl does not move freely it may need to be greased. Refer to the lift system manual.
- Check the positioning of the down stop catch pawl. Refer to the lift system manual.

If you are not sure whether any identified wear or damage is “serious”, DO NOT use the equipment. The time it takes to determine whether or not the problem is “serious” or to repair the problem is small compared to the time it will take to deal with the consequences of a lost load (which could include severe injury or death to personnel).

For more information about the lift units, refer to the manual that was furnished with the lift units.

8. Structural Inspection

WARNING

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.

WARNING

It is critical that each piece of the adapter and each lift unit be inspected regularly for any signs of wear or damage that might affect its ability to perform lifts safely. Any equipment that appears to be damaged in any way, is found to be badly worn, or operates abnormally must be removed from service until necessary repairs are made. Contact the manufacturer if you need to have equipment

9. Notes

MAHLE

MAHLE Aftermarket Inc.

916A West State Street
St. Johns, Michigan 48879-1401 U.S.A.

Phone: (800) 468-2321

E-mail: tech.mss@us.mahle.com

www.servicesolutions.mahle.com

670-90884_A