CP3

OPERATOR MANUAL

PETERSEN INDUSTRIES, INC. | 4000 SR 60 WEST, LAKE WALES, FL 33859

Table of Contents

PART 1: SAFETY PRECAUTIONS

Introduction

Read this manual before operating or working around the loader. It is important that all workers understand the safety and operational requirements of the equipment prior to the loading and unloading process. Following all safety procedures helps to avoid accidents, prevent unnecessary damage to equipment, and ensures safety of the crew. Death or serious injury can result from improper use of the loader or unsafe practices during any operation.

It is the operator's responsibility to control the loader with skill, good judgment, and caution. Do not allow untrained personnel, even on a temporary basis, to operate this equipment. Always keep children, visitors, and untrained personnel a safe distance from the equipment.

READ, **UNDERSTAND**, and **FOLLOW** the following **Safety Messages**. Serious injury or death may occur unless care is taken to follow the warnings and instructions stated in this manual and in the Safety Messages on the implement. Always follow the instruction in this manual and use common sense to avoid hazards

Training

It is essential that all operators read and understand this manual. Before using the loader, operators must be trained by an experienced loader operator. They must be thoroughly familiar with the operation of controls, the correct operating procedures, maximum lifting capacities, and safety precautions of the loader.

The health and safety of each crew member is of primary importance. Consequently, each member has an obligation to himself and his fellow workers to make sure that only safe operating procedures are followed. All operating regulations recommended by the vehicle manufacturer, employer, as well as municipal, state and federal agencies must also be observed. The operating procedures described in this manual are Petersen Industries' recommendations and do not necessarily cover all employer and government regulations. Each operator is responsible for understanding and observing all federal, state, and local regulations pertaining to the operation of this loader.

Each crew member must receive instructions on the proper function of this machine and remain alert to spot any abnormalities or malfunctions. This will help prepare each member to recognize if it is not operating properly.

Safety Messaging

There are various safety messages throughout this manual which utilize symbols and safety words to call out unsafe practices or conditions. Your loader also has required safety decals that are designed to alert those operating, working around, or performing maintenance on the loader to certain safety hazards. The safety decals are used to show the consequence of human interaction with a hazard in terms of:

- **The degree of severity**
  MINOR injury, SEVERE injury, or POSSIBLE death
- **The probability of severity**
  WILL result in, COULD result in injury

There are four classifications of safety messages. The severity of each classification is highlighted through signal words, colors, and symbols. Here is each classification of safety message and what they indicate:

DANGER

INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.

WARNING

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.

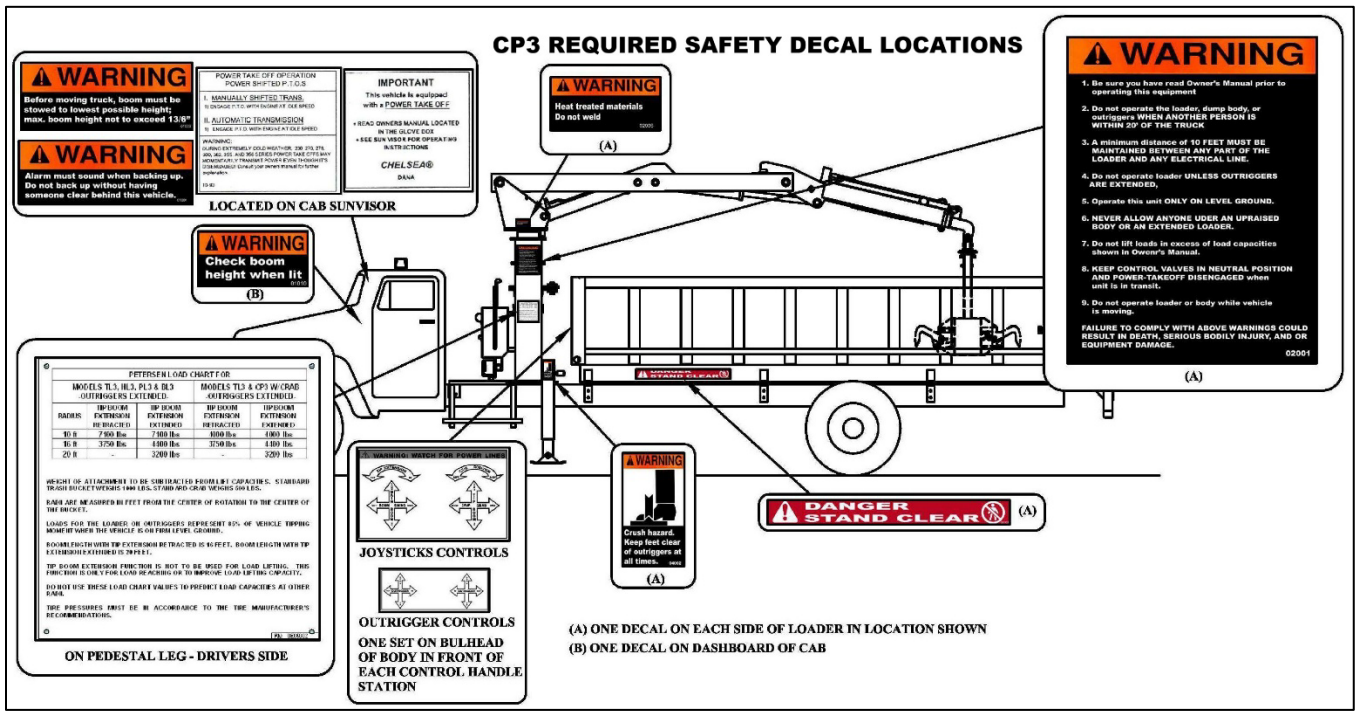
CAUTION

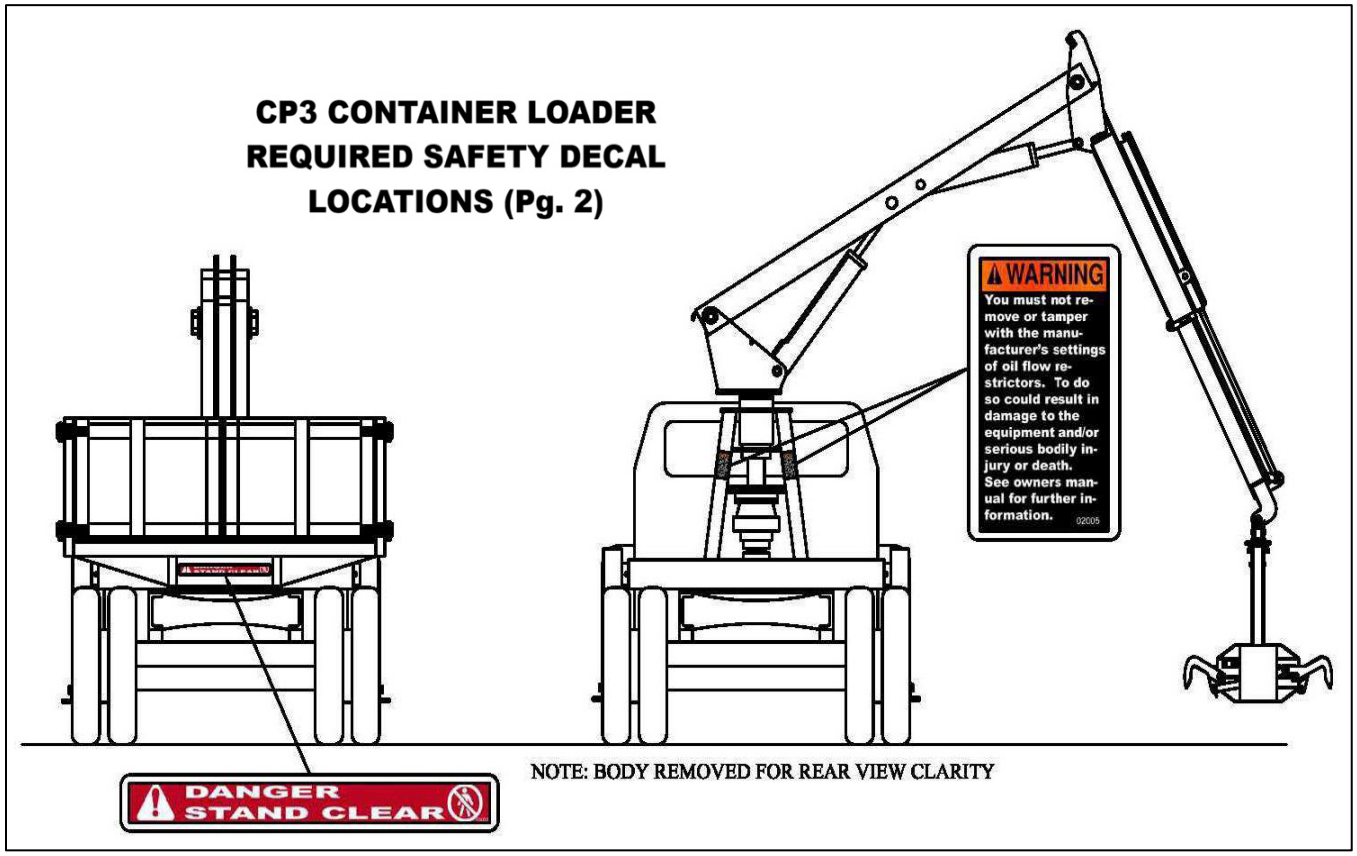
INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY AND PROPERTY DAMAGE. IT MAY ALSO BE USED TO ALERT OF UNSAFE PRACTICES.

NOTICE

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN PROPERTY DAMAGE. ALSO USED TO ALERT AGAINST UNSAFE PRACTICES.

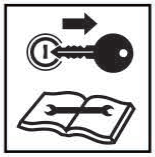
Watch for any of these placards and use the appropriate steps to ensure your safety, and the safety of those around you during the operation, maintenance, or transport of the loader.





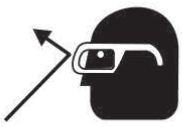
Safety Decal Locations

Pictographs are also used throughout this manual to help draw visual attention to safety issues to avoid, or best practices to promote safety while operating the loader. Here are some examples of the types of pictographs you will find in this manual.

SAFETY HAZARD	SAFETY AVOIDANCE	SAFETY PREVENTION
Pictograph surrounded by a triangle indicates a Safety Hazard that must be avoided.	Pictograph in a circle or inside a box indicates an avoidance procedure that should be followed to prevent injuries.	A circle with a slash through it indicates an action that is prohibited.
Example:  Equipment contacting overhead electrical lines	*Example:*  Always shut off engine and remove key before working on equipment.	*Example:*  No Smoking

Required safety practices, such as wearing the necessary Personal Protective Equipment (PPE), are also defined through pictographs. Requirements include but are not limited to; wearing a hard hat, safety shoes, goggles, face shield, or safety glasses (with side shields that comply with ANSI Z87 standards), protective gloves, hearing protection, and reflective clothing.

Always wear protective clothing and personal safety devices issued to you or required by job conditions. Here are some examples of protective clothing **required for safe operation of the loader:**

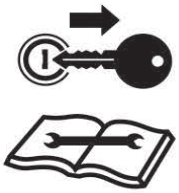
					
Wear Safety Glasses to Comply with ANSI Z87	Wear Hard Hat	Wear Safety Shoes	Wear Hearing Protection	Wear Protective Gloves	Wear Safety Reflective Vest

WARNING

NEVER WEAR LOOSE CLOTHING OR JEWELRY WHEN WORKING ON OR AROUND THE EQUIPMENT. SUCH ITEMS CAN CATCH ON CONTROLS OR BE DRAWN INTO OTHER PARTS OF THE LOADER.

Safe Operating Practices

Safe operation of the loader is everyone's responsibility and becomes paramount during the operation and working around the loader. As the operator, it is your responsibility to ensure your safety, as well as the safety of others. These are some **requirements to ensure safety of the entire crew:**

				
Read and Understand Operator's Manual	DO NOT USE DRUGS or ALCOHOL before or while operating equipment	Always shut off engine and remove key before working on equipment	Always install Debris Body and tail gate props before working under equipment	Always wear your seatbelt

Always maintain three-point contact with the machine during entry and exit of the cab or operator's station. Use provided hand bars and never grab control levers or the steering wheel when mounting or dismounting the machine. Always face the machine when mounting or dismounting and do so only after the truck and all moving parts have stopped completely.

High-Pressure Fluid Safety

Ensure that all hydraulic hoses, lines, and fittings are tight and in good condition and do not operate the loader if there are oil or fuel leaks. Have hydraulic hoses replaced or tested by a qualified service facility if there is a suspected leak.

DANGER

HIGH-PRESSURE FLUID LEAKS CAN BE INVISIBLE. IF A LEAK IS SUSPECTED, USE PAPER OR CARDBOARD TO INSPECT LEAKS. DO NOT USE BODY PARTS OR HANDS TO LOCATE A POTENTIAL LEAK.

Keep hands and body parts away from suspected pin holes in hydraulic lines or any areas ejecting hydraulic fluid. High-pressure hydraulic fluid can be invisible and will impregnate skin. If injured, seek immediate medical attention. The fluid will need to be surgically removed from the body. Failure to seek proper medical attention will result in serious injury or death.

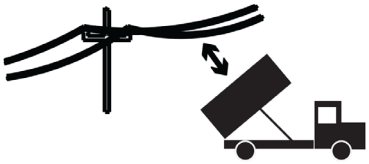
			
High pressure fluid can erode skin.	High pressure fluid can impregnate skin.	DO NOT use hands to locate hydraulic leaks.	Wear safety glasses & gloves. Use cardboard to locate leaks.

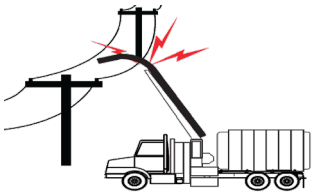
Always disengage the PTO, shut off the engine, and wear appropriate PPE whenever investigating a potential hydraulic leak. Use a piece of cardboard when trying to locate a hydraulic leak. **DO NOT** use your hand, or any other body part.

Power Lines/Electrical Hazard Safety

Always survey the work site for any potential power lines before performing any function. If power lines are present, follow all requirements for operating mobile equipment around power lines. Extreme care must be used to prevent electrocution. Always ensure that the appropriate power or utility company has de-energized the lines before operating the loader.

WARNING





Contacting power lines will result in death or serious injury. **DO NOT** allow any part of the machine within 10 feet of power lines or electrical shock can result.

If shutting down the line is not an option, ask if the utility company can install insulation over the lines for the duration of the time you will be operating in the area. A minimum safe distance of 10 feet must be maintained. Do not allow any team member to approach or carry any conductive object closer than 10 feet to any potentially energized power line.

PART 2: DAILY INSPECTIONS

Daily inspections are a vital step in identifying and limiting potential hazards that might arise from improperly functioning equipment. Operators should never take another person's word but should always personally check the equipment each day before use to ensure safe operation.

The following **daily inspections** should be made prior to using the loader:

- Perform all functions of a CDL Class-B, pre-trip inspection of the truck.
- Check the back-up alarm. The backup alarm MUST always sound when the transmission is in Reverse (R).
- Verify that the boom-up alarm sounds when the boom is set above the vehicle's pre-set travel limit.
- If your unit is equipped with any additional alarms or warning lights (outriggers, body dump, etc.) check these items for proper operation.
- Visually inspect the PTO support bracket for cracks, damage, or loose fasteners.
- Check the hydraulic system for puddles of hydraulic fluid or lubricating oil under the chassis, any outrigger which may have crept down, or any signs of damage or improper maintenance. Hydraulic hoses should be free from cuts and abrasions and there should be no evidence of binding or leaks.
- Ensure outriggers are fully retracted and open crab is resting on the body floor. If the body is loaded with containers, the boom needs to remain under the regulated height for transport.
- Check for proper operation of the LOAD HOLDING VALVES on the main boom cylinder, tip boom cylinder, tip extension cylinder, and each cylinder on the outriggers.
- Inspect that the LOCK COLLAR is secure and there is no more than 1/4-inch gap between it and the bottom of the spindle bearing housing.
- Perform a complete walk-around inspection of the truck, looking for any damage, leaks or unsafe conditions. Any insufficiencies found during this inspection must be corrected prior to use of the loader.

⚠ CAUTION

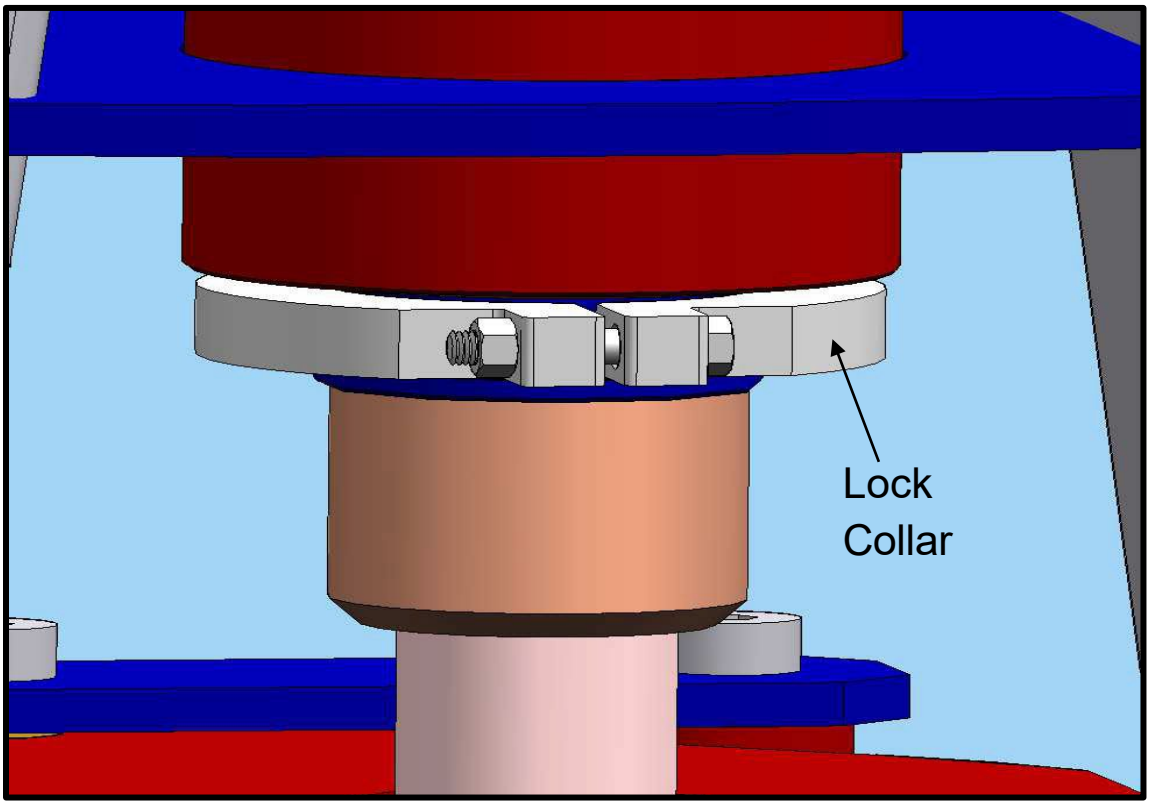
DO NOT OPERATE THE LOADER UNDER ANY CIRCUMSTANCE IF THERE IS REASON TO BELIEVE THE UNIT IS BROKEN OR MALFUNCTIONING. ANY ATTEMPT TO USE OR MOVE THE BROKEN OR MALFUNCTIONING UNIT COULD RESULT IN SERIOUS BODILY INJURY OR DEATH.

PART 3: SAFETY DEVICES

Lock Collar

The lock collar is an integral component that holds the head and spindle assembly in the pedestal. The lock collar must remain in place and properly torqued during any use of the loader. The lock collar must be tight against the bottom of the spindle bearing housing with a maximum gap of one-quarter inch (1/4").

Under normal operating conditions, there is very little load applied to the lock collar. Improper lock collar installation and/or improper operating practices could result in the head assembly being pulled up, and out of the pedestal assembly.



The separation of these two loader components will result in equipment damage and could result in serious personal injury or death. Maintenance and shop personnel **must continuously check** for signs of abuse and corrective measures taken if there is evidence of abusive and/or unsafe loading practices.

Swing Lock

The swing lock assembly features a drop-in pin between the head and pedestal to secure the boom and head assembly for transporting the loader. It is imperative to unlock the swing lock assembly before operating the loader. Unlocking the head is done by lifting the handle and rotating so the pin stays raised, allowing the head assembly to swing freely. Rotating the lever forward drops the pin to lock the boom for transport.

Swing Lock Open

Swing Lock Closed

The swing lock is an integral part of the loader's safety mechanism and is included in the daily inspection routine to ensure that it is working as designed. The lock must be engaged each time before transporting the loader.

Load-Holding Valves

The load-holding valves are plumbed directly onto the **main boom lift cylinder**, **tip boom cylinder, tip boom extension cylinder**, and the **outrigger down cylinders**. They are designed to hold hydraulic pressure in the cylinder to support the load. They only allow the load to be lowered when sufficient hydraulic pressure is applied to the release port of the valve. These safety features provide hose rupture protection as well as prevent leak-down whenever the control valves are approaching the end of their service life.

To test the function of a specific load-holding valve, raise the component that is moved by a given cylinder (the main boom for example) so that there would be room for gravity to lower the component. Then, with the PTO off, attempt to move that component with its joystick. If the load moves, the load-holding valve is not working properly. Perform this test daily for each cylinder listed above.

The main boom and tip boom cylinders have load-holding valves for the extend direction only, whereas the tip boom extension cylinder has load-holding valves for both directions of movement. Test each direction of the tip boom extension cylinder with the tip boom angled so gravity would cause the load to move if the valves were not present.

To test each outrigger cylinder's load-holding valve, extend the outrigger foot pads down until the outriggers noticeably raise the loader. This will make it noticeable if the cylinder allows the loader to descend during the PTO-off test.

Pressure Relief Valves

Pressure relief valves are used to maintain safe and effective fluid pressures throughout the hydraulic system. You must not adjust, remove, or tamper with the manufacturer's recommended settings of pressure relief devices.

Back-Up Alarm

All loaders have a back-up alarm that must sound when the gear selector is in Reverse (R). The back-up alarm is to be checked daily. If the alarm is not working, it must be repaired before putting the vehicle into service. Always honk horn as a warning before moving loader and use a spotter if you do not have a clear view of the area behind the loader.

WARNING

Alarm **MUST** sound whenever truck is in Reverse (R) or backing up!

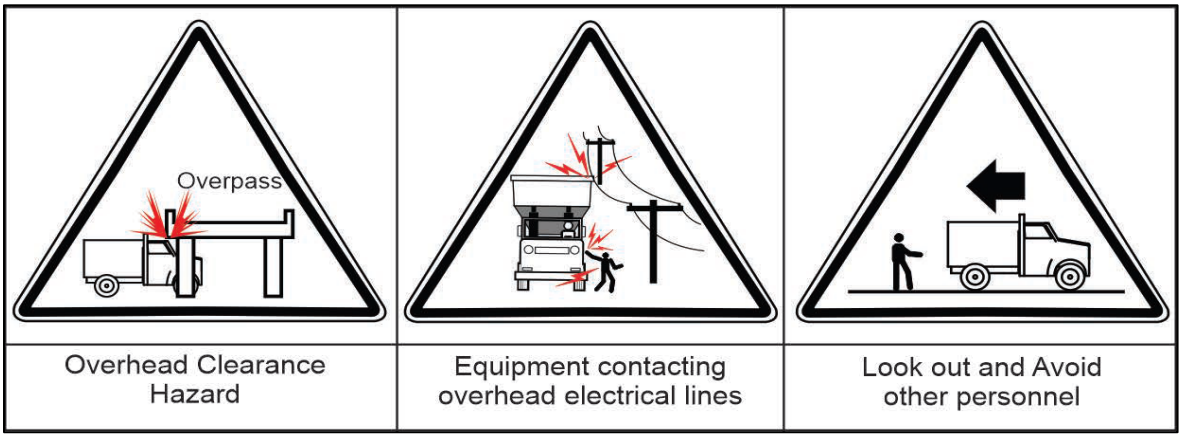
Boom-Up Alarm

All truck-mounted loaders have a warning system to alert the loader operator when the boom height exceeds the legal limit. The system consists of a sensor installed on the boom and an audible alarm and red light installed in the truck cab. This system is designed to warn the loader operator when the boom is above the safe height for travel. **It is not intended to replace an operator's good judgment on safe travel height of the boom according to surrounding conditions.**

The boom-up alarm may have a round dial attached to the light, which can be turned to adjust the volume of the audible alarm.

The boom-up alarm will sound if the sensor passes the head side plate.

Operators should always be aware that some routes may have streets, roads, alleys, etc. that have overhead obstructions below the current set point of the boom sensor and should conduct their operations accordingly. It is the operator's responsibility to be aware of all potential operating hazards and to take every reasonable precaution to ensure their safety, as well as the safety of other people, animals, and property. Look out and avoid other personnel, machinery, and vehicles in the area. **DO NOT** operate the loader if passersby or untrained people are within 30 feet of the active job site.



PART 4: CONTROLS

Parking Brake

The truck's cab-operated parking brake must be set before leaving the cab for any reason. Use the vehicle's service brakes to stop the vehicle, put the transmission into Neutral (N), and apply the parking brake.

Power-Take-Off (PTO) Switch

The PTO switch is located on the dashboard in the cab of the truck. To engage the PTO, use the service brakes to bring the vehicle to a full stop, place the vehicle's transmission into neutral (N), set the parking brake, and then engage the PTO switch. At the completion of loading operations, turn off the PTO switch, apply the service brakes, disengage the parking brake, and then select the appropriate transmission gear.

NOTICE

HIGH ENGINE RPM EXPERIENCED DURING ACTIVE, STATIONARY REGEN MAY PREVENT PTO ENGAGEMENT. TO TEMPORARILY LOWER ENGINE RPM DURING REGEN, DEPRESS THE BRAKE PEDAL SLIGHTLY, THEN ATTEMPT TO ENGAGE THE PTO.

Throttle-Up Switch

A throttle-up control switch is installed in the center console between the Dual-Walk-Through (DWT) control stations and is dependent on the PTO being activated. There is a push/pull-type switch to permit the operator to easily increase the loader's engine speed for most efficient loading or decrease it whenever the loader is at rest. This allows for better communication with a fellow crew member, for example. Pulling out the switch activates the throttle-up function, raising the engine's speed. Pushing in the switch lowers engine speed to allow better communication with crew members.

Always use the throttle-up function to increase engine speed when using the loader. The throttle-up feature is dependent on the in-cab PTO switch being activated. If the loader does not respond to control input and the engine speed does not increase when the throttle-up switch is activated, check that the in-cab PTO switch has been engaged.

Horn & Engine Cut-Off

On the same console as the throttle-up control, there are two momentary push buttons. One button operates the horn and the other activates the engine shutoff in the case of an emergency. Familiarize yourself with which button operates what function.

Loader Controls

The layout of the loader control station is designed to provide the best view of the working area and ensure the highest possible safety for the operator. Do not alter or modify any of the loader's control systems. It is the operator's responsibility to have any malfunctioning components repaired before continuing to use the loader.

The control handle configuration is the same at both operator stations on the control platform. Always operate the loader on the side closest to the debris being loaded. Do not store any collectibles on the operator's platform, as they can create a tripping hazard or become lodged in the controls.

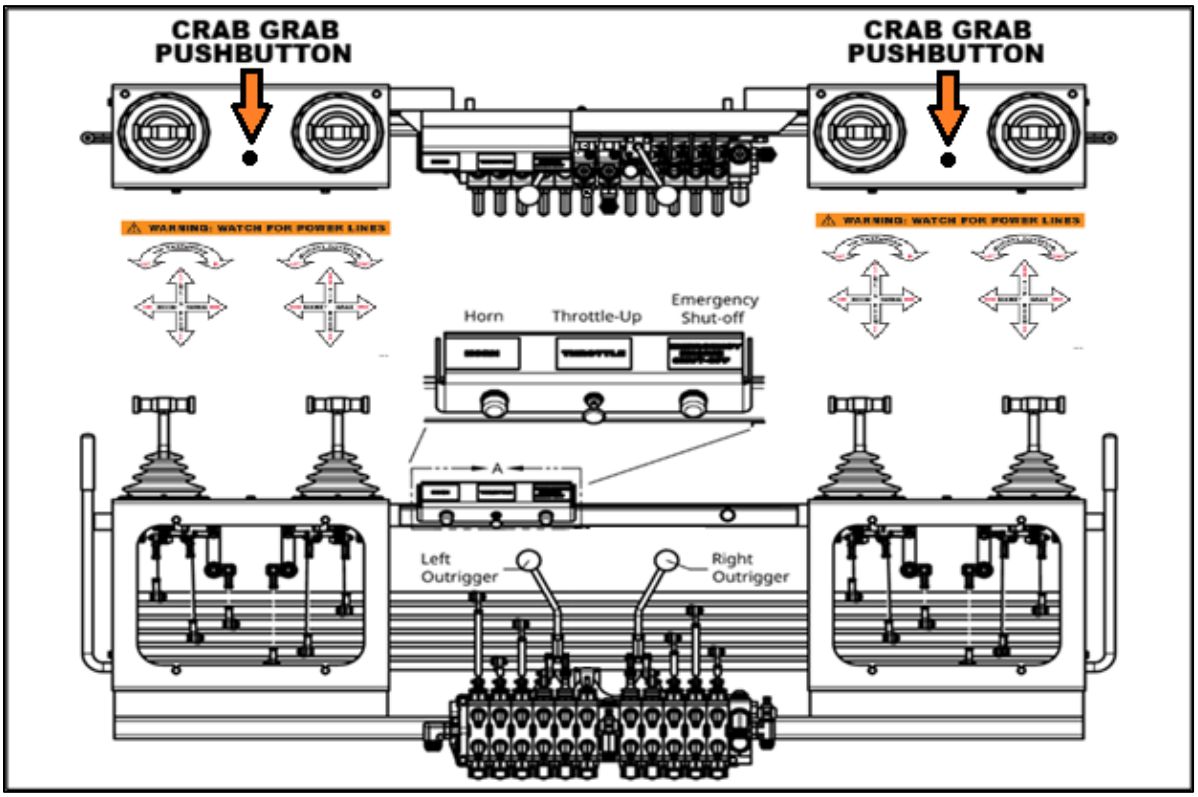
The optimum and safest method of operating the joystick and foot pedal controls is by feathering the input of each function. Do not jerk a control lever to full speed or from one extreme to the other, which imposes undue shock loads on the equipment. Begin each function by moving the control lever smoothly from the neutral position to start a motion. After a slow, smooth start, move the handle further to increase speed, if needed. Move the handle smoothly back to the neutral position to end any function.

Placards show the specific movements of controls for each function according to the type of controls installed on the loader. The loader control placards indicate the direction to move control handles for various functions, such as boom elevation, boom swing, tip boom elevation, tip boom extension, bucket grab, bucket rotation, and body dump. The outrigger placard gives visual instructions for horizontal outrigger in/out, and vertical outrigger up/down.

There are potential hazards with each function of the loader. Always watch for fellow team members or pedestrians and use care with every movement to prevent injury or death to yourself or others. The Crab attachment requires you to consider the shape of the refuse container you will be lifting and where you will be positioning that container, both into the body of the truck or on the ground. Containers must be lifted so as **NOT** to contact the boom of the loader during movement. This may require a much higher lift of the main boom and more level operation of the tip boom than when the loader is used with a normal bucket attachment. Take this into account when you are planning the lift and positioning the vehicle.

Dual Walk-Through (Quadstick®) Controls

There are two T-handle joysticks on each side of the operator's platform. The operating functions of the two sides are identical, so the operator can easily use the operating station closest to the container to be loaded. Always operate the Dual-Walk-Through controls that offer the best view of the work being completed.



CP3 Dual-Walk-Through (DWT) Controls

Left Joystick

Boom Swing	Move handle **RIGHT** to make boom swing right. Move handle **LEFT** to make boom swing left.
Main Boom	Pull handle **BACK** to raise boom. Push handle **FORWARD** to lower boom.
Tip Extension	Twist handle **COUNTERCLOCKWISE** to extend tip out. Twist handle **CLOCKWISE** to retract tip extension inward.

Right Joystick

Tip Boom	Pull handle **BACK** to raise the tip boom. Push handle **FORWARD** to lower the tip boom.
Crab Grab	Push button **+** move handle **RIGHT** to open the crab. Push button **+** move handle **LEFT** to close the crab.
Crab Rotate	Twist handle **CLOCKWISE** to rotate crab clockwise. Twist handle **COUNTERCLOCKWISE** to rotate crab counterclockwise.

NOTICE

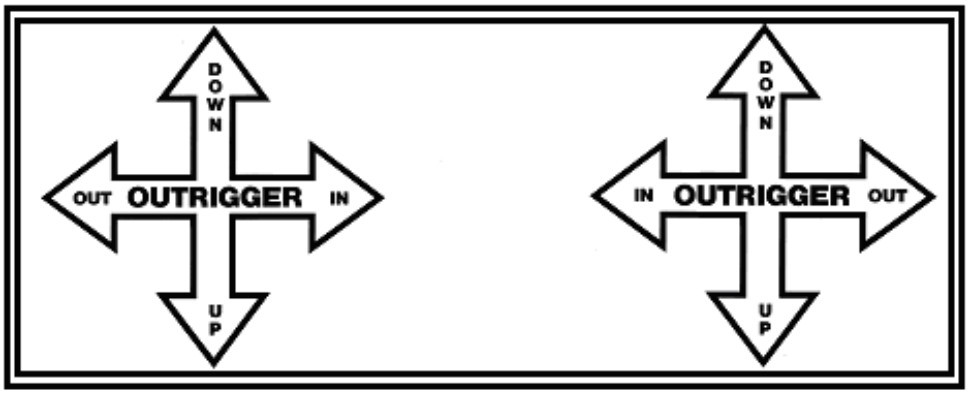
THE CRAB FUNCTION REQUIRES PUSHING A DEAD-MAN BUTTON ON TOP OF THE CONTROL STATION AS A SAFETY PRECAUTION TO PREVENT UNINTENTIONAL DROPPING A CONTAINER. YOU MUST DEPRESS THE BUTTON WHILE OPERATING THE JOYSTICK FOR THE FUNCTION TO WORK.

Outrigger

At the valve body in the center of the DWT work platform, there are two levers with round knobs that operate the outrigger on the corresponding side of the loader. The right lever operates the outrigger on the driver's (street) side, and the left operates the passenger (curb) side outrigger.

All in/out, up/down functions are accomplished through one control lever for each outrigger. Extending or withdrawing each outrigger is accomplished by moving the outrigger lever in the direction of intended travel. Lowering or raising each outrigger is done by pushing on the appropriate lever to lower the outrigger on that side of the loader and pulling to raise the same outrigger.

Left Outrigger **Right Outrigger**



Curb Side Outrigger

Move the handle to the **LEFT** to extend the left horizontal outrigger.

Move the handle to the **RIGHT** to retract the left horizontal outrigger.

Push the handle **FORWARD** to lower the left vertical outrigger foot.

Pull the handle **BACK** to raise the left vertical outrigger foot.

Street Side Outrigger

Move the handle to the **RIGHT** to extend the right horizontal outrigger.

Move the handle to the **LEFT** to retract the right horizontal outrigger.

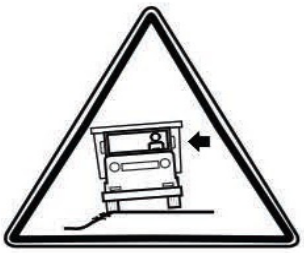
Push the handle **FORWARD** to lower the right vertical outrigger foot.

Pull the handle **BACK** to raise the right vertical outrigger foot.

PART 5: SETTING UP AT THE JOB SITE

Safely positioning the vehicle is an important first step at the job site. Inspect the job site to ensure there are no unsafe conditions and identify any potential hazards for operators or others nearby. Do not operate the loader if unsafe conditions cannot be controlled.

Plan the lift and seek the best possible work site before positioning the vehicle. A firm and level surface near the debris being loaded is an ideal location. Avoid uneven, rocky or muddy terrain, or steep grades. The location should be selected such that outriggers can be fully extended horizontally with the outrigger pad landing on a firm surface.

		
ALWAYS keep a safe distance from any power lines to prevent electrocution.	Use care whenever operating loader and outriggers to prevent crushing/pinching harm.	ALWAYS ensure the loader is positioned on firm, level ground and the parking brake is engaged before operating.

If it is necessary to use the loader on an inclined surface, extreme care should be used, as loader slewing torque, stability, lifting capacity, and other functions may be affected adversely. Increased caution must be exercised with the swing function since an inclined surface will increase the downhill slewing speed and, as a result, lengthen the time it takes to stop the motion.

If possible, the truck should be positioned in an area free from overhead obstructions which allows performance of the entire task without repositioning. The operator must be familiar with the swing arc of the loader and position the truck so that the load is well within this arc.

⚠ WARNING

JOB SITE HAZARDS COULD CAUSE DEATH OR SERIOUS INJURY. REMAIN ALERT AND USE CORRECT EQUIPMENT WORK METHODS, PERSONAL PROTECTION GEAR, AND ALL AVAILABLE SAFETY DEVICES WHILE OPERATING LOADER.

Precautions and Procedures for Loading:

- Before leaving the cab, engage all safety lights, place the transmission in neutral, and set the parking brake.
- Use extreme care and consider using safety cones to mark the outriggers when operating around traffic. Use safety cones to mark the vehicle if the truck interferes with traffic flow or conditions make the vehicle not easily visible.
- Before commencing work, make sure the container you are loading does not conceal any fixed objects such as fire hydrants, wires, etc.
- When accessing the loader control station, always mount and dismount keeping three-points of contact. Use the provided handholds and steps and face the steps when getting on and off.
- Never use controls as handholds. If handholds or steps are broken or missing, have them repaired before using the loader.
- NEVER allow any portion of the loader to come within 10 feet of any power line. **NOTE:** power lines deflect in wind so additional clearances may be necessary.
- Do not operate the loader during electrical storms, when high wind conditions exist, or in poorly lit areas.
- Do not operate the loader or outriggers if another person is within 30 feet of any moving part of the loader or container.
- Do not allow any person under a raised container or boom at any time.
- Never rotate the boom over your head. If the boom is rotated toward the driver's side, operate the loader from the passenger's side control station. If the boom is rotated toward the passenger side, operate the loader from the driver's side.
- Allow room for the boom, crab attachment, and container to clear the cab of the vehicle.
- If it is necessary to move with a container positioned directly over the front of the vehicle, proceed with extreme caution. The swing motion of the container caused by sudden starting and stopping may cause the container to collide with the vehicle.
- If necessary to move the vehicle with a container on the boom, keep the container as close to the ground as possible.
- Use extreme caution when picking a container over the front of the vehicle as you are looking in the opposite direction as normal.
- Do not attempt to lift more than the capacities shown on the load chart for a given radius. Refer to the Load Capacity Chart IN THIS MANUAL or riveted to the pedestal of the loader.

PART 6: LOADING

Using The Crab Attachment

1. Engage the PTO. For operations below 40°F, a hydraulic tank heater is recommended. Allow the hydraulic oil to reach 40°F before commencing work.
2. Using handholds and three points of contact, climb into the operator's station.
3. Before conducting any boom operations, extend all outriggers to level the loader side to side and ensure that the vehicle is stabilized.
4. Raise boom from inside of body and swing to container. Use the tip extension, if needed, and rotate crab so that it is aligned with the container.
5. With crab jaws open completely, slowly lower the crab over the container until the bottom slanted surfaces of the crab rest on the top of the container side pockets. Do not jam the Crab down so that the hooks push out beyond the container pockets.
6. Close the hooks slowly. Watch to ensure both front and back hooks engage fully into the side pockets.
7. If it is not possible to visually verify both sides of the crab are properly engaged, slowly lift the container. If at least one of the hooks has engaged, the container should slowly start to lift evenly off the ground. If this does not happen, lower the boom, open the hooks, and go back to **STEP 5**.

DANGER

DO NOT LIFT UNLESS ALL FOUR HOOKS ARE SEATED COMPLETELY WITHIN THE POCKETS OF THE CONTAINER.

8. With the container **no more than 6 inches off the ground**, rotate the container and verify that both hooks on both sides of the container are fully within the pockets of the container.
    a. If you do not have clearance to rotate the container, keep the container within 6 inches of the ground and carefully move it so you can safely rotate it to see both pockets.
    b. If this is not possible, you must move yourself to a position that will allow you to physically check that both pockets are fully engaged by both hooks.
9. Lift and swing the container over the vehicle body. **NOTE:** Load the front of the body first as sudden braking during transit may cause containers to slide forward.
10. Position the container with crab pockets facing side-to-side within the body, not front and back. Ensure the lids open facing the back of the truck so they are not blown open in transport.

11. When the container is safely positioned on the body floor, open the hooks to disengage and lift the crab to clear the container.

12. Continue the loading procedure until all containers are loaded or the body is full.

⚠ CAUTION

CONTAINERS MUST BE LIFTED WITH CARE SO AS NOT TO CONTACT THE BOOM OF THE LOADER DURING MOVEMENT. THIS MAY REQUIRE A MUCH HIGHER LIFT OF THE MAIN BOOM AND MORE LEVEL OPERATION OF THE TIP BOOM.

Using Chains For Lifting Containers

If the crab hooks cannot be safely utilized on the container, there are four lifting lugs (two per leg) provided on the crab assembly to allow the use of chains to lift the container into the body of the truck. The chains can be inserted through each pocket manually. Only use chains when pocket damage or pocket construction does not allow the use of the provided hydraulic hooks.

In all cases, the containers should be lifted as level as possible, and the crab attachment should never tilt from side to side more than seven degrees when lifting a container. Before beginning the lift, attach the lifting chains to the lifting lugs and let them hang freely.

With the container sitting firmly on the ground, Position the crab attachment over the container as normal and engage the crab hooks. Both sets of crab hooks will rotate to their engaged position, however, due to the damaged pocket(s), one or both sets of hooks may not properly engage.

Insert one lifting chain through the damaged pocket and attach it to the second lifting chain. If neither set of hooks can be fully engaged, repeat this procedure for the other side. If the pockets are too long for the chains to reach, you may need to use additional rigging that meets the requirement of OSHA 29 CFR 1910.184. To keep the container level, rig the chains as tightly as possible.

Once the chains needed are securely rigged, slowly lift the container a short distance. If the container is not hanging level, lower it all the way to the ground and reposition the chain/rigging. Once you can make a level lift, slowly lift the container into the body and lower it into position until the chain has slack. Disengage the crab hooks, unrig the chains, and place the chains back into their storage position. If you are in doubt as to the safety of a lift for any reason, do not execute the lift.

NOTE: When using chains for lifting containers, follow OSHA 29 1910.184 guidelines at all times.

Container Loading Considerations

- **DO NOT** lift full containers.
- Maximum height of containers stowed at front of body is limited to 72 inches for allowable boom height and to avoid contact with the main lift cylinder.
- The crab attachment rotates freely and will tend to rotate more after the rotate control has been released. Consider this when operating the controls and moving the load.
- Place any taller containers in the middle of the body to allow boom to stay under the regulated travel height.
- Do not use the crab to push multiple containers around in the bed of the vehicle as you can damage the crab and other loader components.
- Do not leave a container suspended when the operator is away from the control station.
- Do not lift a container over a person, car, or other object. Do not operate the loader if people are within 30 feet of the loader.
- Do not attempt to load more containers into the body by leaving the rear of the body open.
- Verify that all lids open to the rear and sliding doors are closed before transporting.

Place any taller containers in the center of the body to allow the lowest possible boom height.

Note: If the hydraulic system ever fails, call a qualified recovery professional and, if necessary, arrange for an auxiliary service vehicle that can provide a hydraulic power source for stowing the boom and preparing the truck for safe transport to the repair facility.

PETERSEN LOAD CHART FOR MODELS TL3, HL3, PL3, BL3 & CP3 -OUTRIGGERS EXTENDED-		
RADIUS	TIP BOOM EXTENSION RETRACTED	TIP BOOM EXTENSION EXTENDED
10 ft	7100 lbs	7100 lbs
16 ft	3750 lbs	4400 lbs
20 ft	-	3200 lbs

WEIGHT OF ATTACHMENT TO BE SUBTRACTED FROM LIFT CAPACITIES. STANDARD TRASH BUCKET WEIGHS 1000 LBS. STANDARD CONTAINER ATTACHMENT WEIGHS 650 LBS.

RADII ARE MEASURED IN FEET FROM THE CENTER OF ROTATION TO THE CENTER OF THE BUCKET.

LOADS FOR THE LOADER ON OUTRIGGERS LESS THAN 85% OF VEHICLE TIPPING MOMENT WHEN THE VEHICLE IS ON FIRM LEVEL GROUND.

BOOM LENGTH WITH TIP EXTENSION RETRACTED IS 16 FEET. BOOM LENGTH WITH TIP EXTENSION EXTENDED IS 20 FEET.

TIP BOOM EXTENSION FUNCTION IS NOT TO BE USED FOR LOAD LIFTING. THIS FUNCTION IS ONLY FOR LOAD REACHING OR TO IMPROVE LOAD-LIFTING CAPACITY.

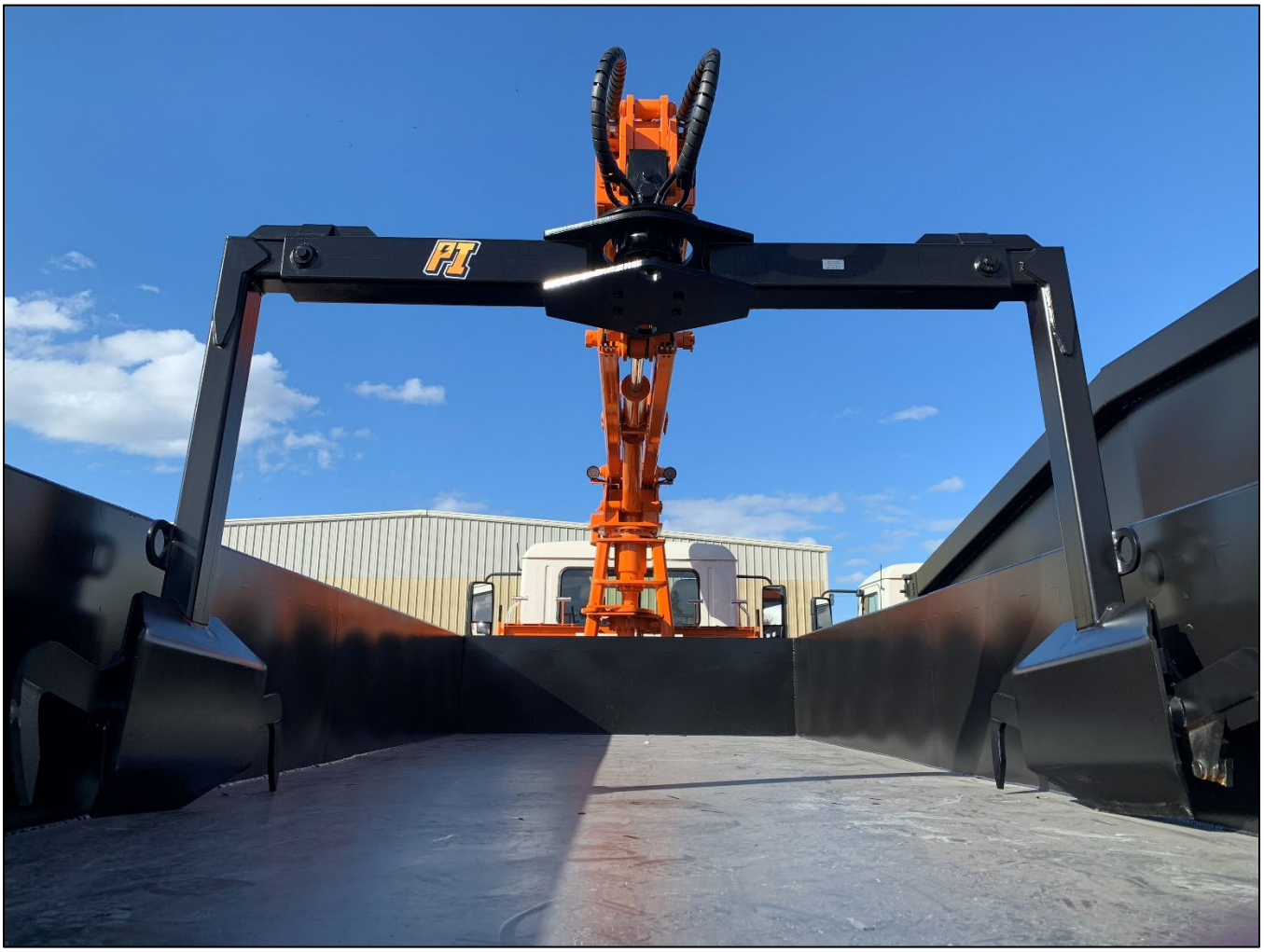
DO NOT USE THESE LOAD CHART VALUES TO PREDICT LOAD CAPACITIES AT OTHER RADII.

TIRE PRESSURES MUST BE IN ACCORDANCE TO THE TIRE MANUFACTURER'S RECOMMENDATIONS.

P/N: DE06002

CP3 Load Chart

Stowing The Boom For Transport



Two ways to stow the boom and crab assembly for transport:

- **No container in the last position**: Position the crab with the hooks open and rest the crab assembly sides parallel to the body sides, as shown in above photo.
- **With a container in the rearmost position of the body:** Leave the crab hooks attached to the container and lower the boom. It may be necessary to push the crab below the pockets of the container to get down to safe travel height. Do this by opening the hooks and lowering the crab further over the container.

Whether there are containers in the body or not, you must **engage the boom swing lock** mechanism before transporting the load. Failure to stow the boom and crab properly could result in damage to property or injure people in the vicinity of the grapple truck.

Once the boom has been properly stowed for travel, retract all outriggers, disengage the PTO, and pick up any safety cones or markers before moving the loader.

PART 7: UNLOADING

Just as you would when loading, as you prepare to empty the load, it is important that you choose a level, firm surface. Loading and unloading must not be done in a hurried manner. Each of the following steps helps ensure operator's safety and prevent damage to equipment or harm to others.

1. Always ensure the truck is in Neutral (N) and set the parking brake before leaving the cab of the loader.
2. Engage the PTO with the cab-mounted switch. You should hear the PTO engage.
3. Pull the Throttle-Up switch to increase the engine speed and allow the best performance of the loader.
4. Extend the outriggers on both sides and level the loader.
5. Disengage the boom swing lock.
6. If the crab is attached to a container, verify that all four crab hooks are securely fastened.
7. Move to each side of the truck so you can observe each side of the container and ensure that both pockets are fully engaged by both hooks. Once you have confirmed a firm grip on the container, you can start the lift. **DO NOT LIFT UNLESS ALL FOUR HOOKS ARE FIRMLY WITHIN THE POCKETS OF THE CONTAINER.**
8. Lift the container slowly to ensure a level lift and solid grasp of the container.
9. Raise the boom high enough that the container clears the bed and body sides. Take care the container doesn't contact the boom or cylinder. Rotate the boom to place the container.
10. When the container is in its final position and firmly on the ground, open the hooks and lift the boom to disengage the crab assembly from the container before rotating the boom or crab attachment.
11. Repeat the unloading process until all containers are positioned.

1. After emptying the load, stow the boom with the crab hooks open and resting on the body floor. **ALWAYS** ensure that the boom assembly is below the regulated maximum height and the boom swing lock is engaged before moving the loader.
2. Retract the outriggers and disengage the throttle-up switch and PTO.

PART 8: IDENTIFYING POTENTIAL HAZARDS

The daily inspections are designed to identify any potential hazards or maintenance items that require attention before using the loader. Throughout the course of the day, you, as the loader operator, are also in the best position to identify any items before they can become potential hazards.

It is your responsibility to report any noticeable changes in the operation of the loader or any items that could become larger issues if left unaddressed such as wear, rust, or a lack of lubrication. Report any observations to your supervisor to determine the best course of action to resolve the issue. Careful attention during the operation of the loader not only prolongs the life of the equipment, but also prevents downtime in the field, and helps ensure the safety of the entire crew.