



2300 SERIES

Operator Manual

This operator manual has information for all models of series WP 2300 plus some options and accessories. Some of the illustrations and information may not apply to your truck.



The most important component is you.



New Bremen, Ohio 45869 USA © 2004 PF14248-WEB Rev. 6/06

Printed in U.S.A.



WARNING

It's the law, you must be trained and certified to operate this truck.
(OSHA § 1910.178, Rev. 1999)

You or others around you can be seriously injured or even killed if you don't use this truck correctly.

Read and obey all warnings and instructions in this Manual* and on the truck.

A dockboard can move or drop while you are on it. Or you could drive off a dock. Falls from docks or dockboards can cause serious injury or even death. **Make sure you are safe.**

Inspect your truck before starting work, make sure it is in good working order.

* Additional copies of this Operator Manual and all Truck Labels can be obtained from Crown Equipment Corporation, New Bremen, Ohio 45869 U.S.A.

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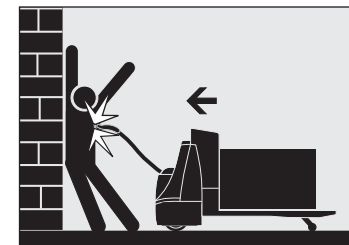
You Must be Trained



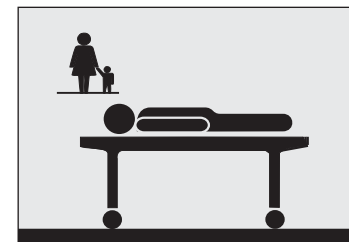
IT'S THE LAW, YOU MUST BE TRAINED AND CERTIFIED

Federal law states that only properly trained operators are permitted to operate a powered industrial truck and that your employer must train you and certify that you are qualified to operate this powered industrial truck. (OSHA §1910.178, Rev. 1999)

Do not operate this truck in your work place until you have been trained and certified by your employer.



You could be killed or seriously injured if you are not adequately trained for lift truck operation!



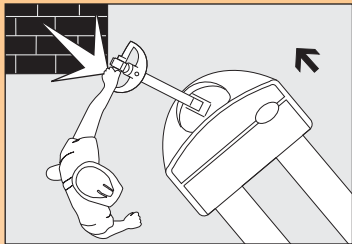
Protect Yourself

! Know the Hazards



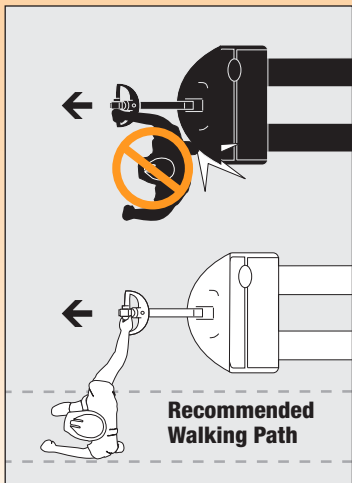
LOOK WHERE YOU'RE GOING

Always be alert to the area around you and watch where you are walking. Be careful that you don't get pinned or crushed between the truck and a fixed object such as a wall or post.

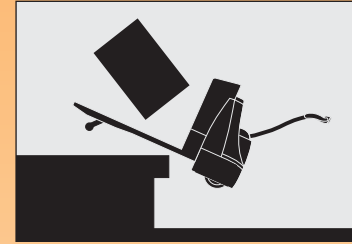


USE YOUR TRUCK CAREFULLY

- Watch your hands and your feet. A foot or hand caught between the truck and a fixed object will be crushed or even cut off.
- Keep to the side of the truck while traveling power unit first. Make certain the truck won't hit the back of your leg or foot. Don't let the truck run over your foot.
- When traveling forks first, keep both hands on the control handle and be careful when changing direction of travel. Keep your feet clear of the truck.
- Keep your truck under control at all times. Operate at a speed that allows you to stop safely. Be even more careful on slippery or uneven surfaces. Do not run over objects on the floor.
- Perform all truck movements smoothly and at a speed that will give you time to react in an emergency.



! Know the Hazards



AVOID FALLS

Falls are very serious accidents, you can be crushed or even killed. The best way to prevent injury is to know where you are at all times and follow the rules of safe truck operation.

- Be extremely careful when working around docks, dockboards and trailers.
- Stay away from the edge of docks and ramps.
- Make sure dockboards are secure.
- Check that trailer wheels are chocked.



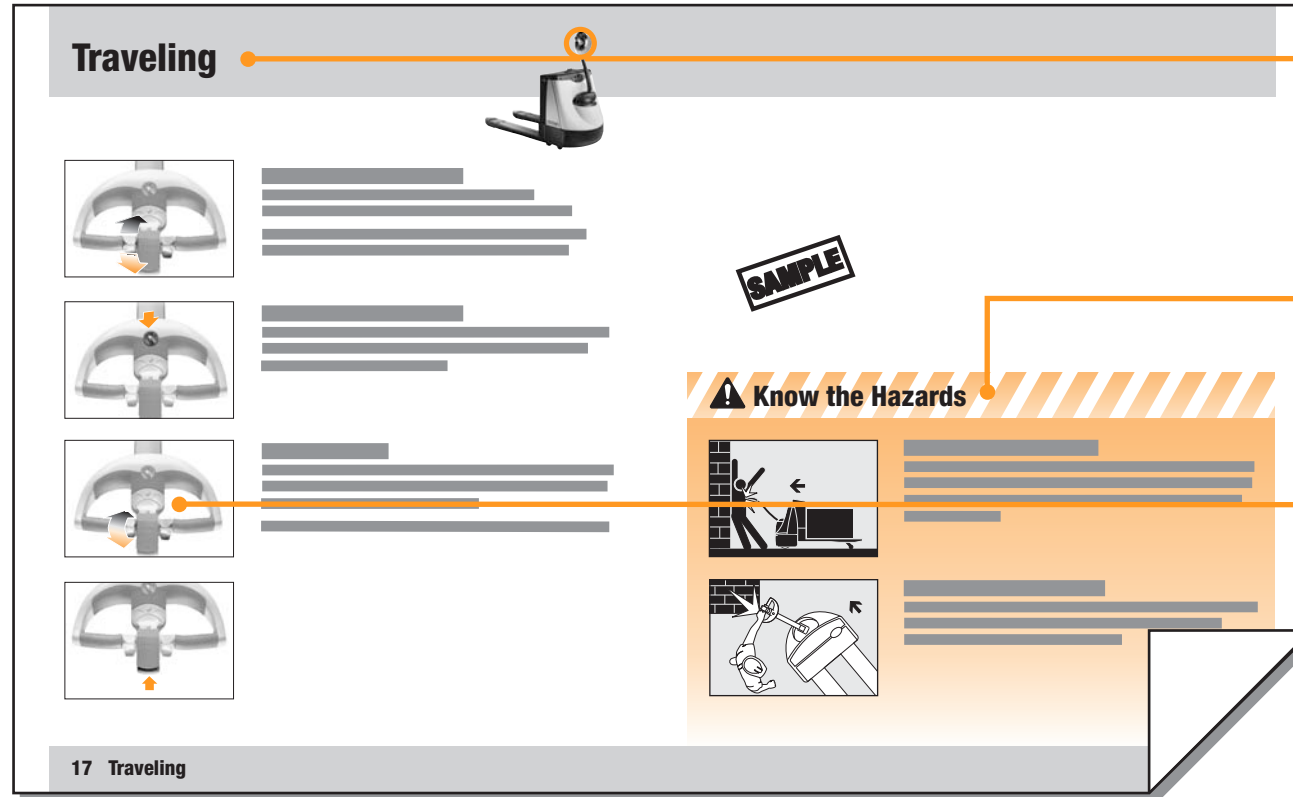
USE YOUR TRUCK SAFELY

- Keep your hands and feet away from all moving parts such as forks or wheels.
- Never ride on the truck or allow anyone else to ride on the truck. There is no safe place to sit or stand.
- Before you leave your truck:
 - Lower the forks to the floor.
 - Shut the truck off with the key.

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WHAT'S IN IT FOR YOU?

The better you understand your truck and how to use it, the better and safer operator you can be. Here are some guides to using this manual.



QUICK LOCATORS

In addition to the "Contents" page you can use page headings to find topics. Some pages also have a picture of the truck in the corner showing features or functions covered on that page.

"KNOW THE HAZARDS"

Watch for and read these special blocks. You will find information about possible safety hazards and how to avoid them.

HOW-TO-DRAWINGS

On many pages you will find pictures as well as text to help you understand how to use your truck safely and productively.

Your Walkie Pallet Truck

WALKIE PALLET TRUCKS

Your walkie pallet truck is designed to move loads over short distances and operate in areas with limited space.

YOUR PALLET TRUCK IS NOT AN AUTOMOBILE

With a load it may weigh more than 2 automobiles.

- You don't steer the same.
- You don't brake the same.
- You don't accelerate the same.

HOW TO OPERATE YOUR TRUCK

Forks First

When traveling forks first, use both hands to operate the control handle.

Watch your feet if you change direction of travel.

Power Unit First

When traveling power unit first, stay to one side of the truck and slightly ahead of the power unit.

Use the hand closest to the truck to operate the control handle.

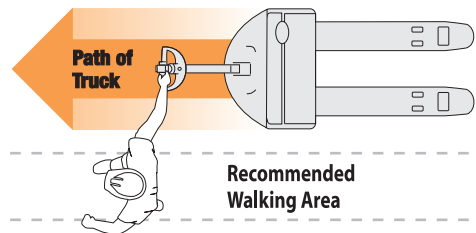
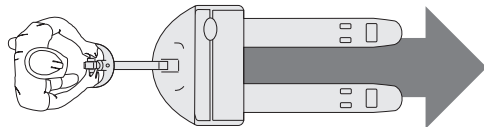
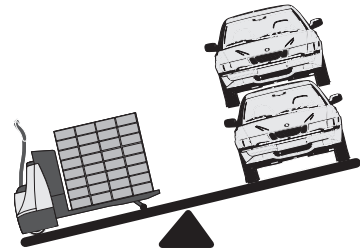
Watch your feet.

Stay out of the path of the truck.

BUILT TO STANDARDS

This truck was designed and built to current industry and government standards and guidelines. For more information see the following:

- American National Standards Institute (ANSI/ITSDF) B56.1
- Occupational Safety and Health Act (OSHA) §1910.178, Rev. 1999
- Underwriters Laboratory (UL) 583
- National Fire Prevention Association (NFPA) 505

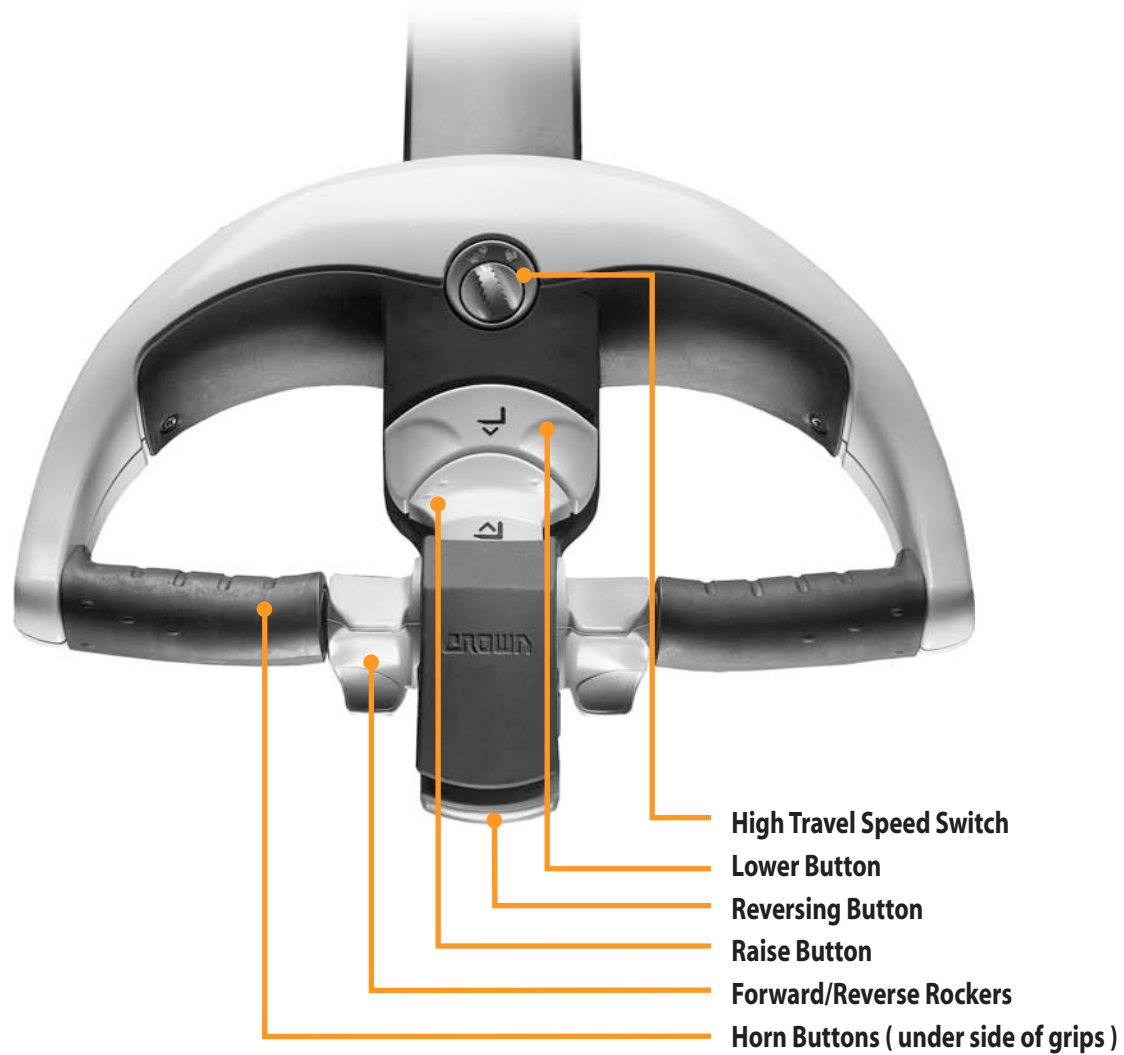


Hand on the control



Walk to the side
Feet clear of the truck

Lift Truck Parts



Capacity Plate



CAPACITY PLATE INFORMATION

The capacity plate is on the top of the power unit cover. It contains:

- Capacity information
- Truck type (a fire safety rating)
- Truck weight (does not include load)
- Grade rating
- Battery information
- Truck information

SAMPLE CAPACITY PLATE

The information shown on this sample plate does not apply to your truck.

WP 2300 SERIES	Capacity with Equally Distributed Load	2040(4500)	Max. Grade	5%
	Truck Weight with Max. Battery	645(1422)	Hour Rate	6
	Truck Weight Less Battery ±5%	325(712)	Max. AMP Hr.	600
	Battery Weight		D.C. Voltage	24
	Min 85(185) Max 320(710)		Battery Type	E
	Truck Data Number	1234567890123456	Load Tire Tread Width	490(19.2)
	Model Number	WP2300XX	Truck Type	E
	Serial Number	A1234567		
	<small>This truck as released conforms to the mandatory requirements of ANSI/ITSDF B56.1 Crown Equipment Corporation, New Bremen, Ohio, 45869 USA 427-B</small>			

WHAT IS YOUR TRUCK CAPACITY?

Capacity is the maximum load that can be lifted or transported with your truck. See the capacity plate on your truck. Make certain you use the correct units of measure.

Note: ANSI/ITSDF B56.1 requires that all data be shown first in Metric units and then USA units.



Know the Hazards

KNOW YOUR LOAD

Do not exceed the capacity shown on your truck's capacity plate. Make certain you use the correct units of measure. Be careful when handling long, high or wide loads. Do not handle unstable loads.

TRUCK TYPE

Some truck types are not permitted in areas where there are fire hazards. Watch for marked areas. *For example: You must not drive a type E or ES truck into an area restricted to EE or EX trucks.*

TRUCK WEIGHT

Dockboards, elevators and some floors have limited capacity. Check your capacity plate for the weight of your truck. Remember to add the weight of the battery and the load you have on the forks.

Power On & Off



KEY SWITCH

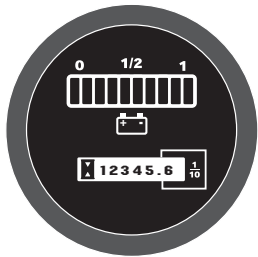
Turn the truck on by turning the key to ON (green dot).
Turn the truck off by turning the key to OFF (red dot).
Always turn the key to off when leaving the truck.



POWER DISCONNECT

Pull up on the battery connector handle to disconnect the battery and cut all power.
Always disconnect the battery any time the truck isn't working right. The key switch does not cut all power to the truck.

Don't use the truck if it's not working right. Report the problem to your supervisor.



BATTERY CHARGE METER OPTION

The green and yellow lights show how much charge is left in your battery. A flashing red light will warn you that the battery is getting low.

Two flashing red lights mean you must have the battery changed or recharged. This also means you will not be able to raise the forks.


A short charging cycle (opportunity charging) is permitted under certain circumstances. See instruction label on battery.

Maintenance Free batteries are designed for deep discharged cycling, but are capable of being charged at convenient times ("opportunity charging") to extend battery capacity to complete a shift or task. When the practice of "opportunity charging" is used, observe the following guidelines to achieve maximum battery life:

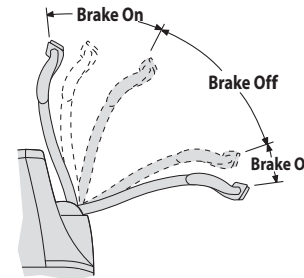
- Battery Pack should be between 30% - 60% depth of discharge.
- A minimum charge cycle of 30 minutes is recommended.
- For every minute of charge, an equal time period is required for "cool down".
- Allow for a full charge once a week.
- Every 2 weeks allow for an equalizing charge cycle of 10 to 12 hours following by an equal time period for "cool down".
- Do not allow discharged batteries to sit idle for periods greater than 48 hours.

A fully discharged battery pack (2 flashing red lights) will require approximately 8 hours to recharge, plus 8 hours cool down.

If a battery charging cycle is interrupted, the Meter may indicate a fully charged battery when the truck is powered up. However the Meter will eventually (1 hour) adjust itself to indicate the correct battery state of charge.



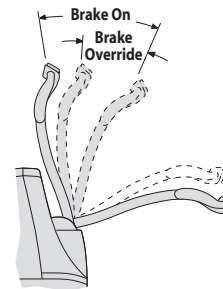
Braking & Brake Override



BRAKING

Move the control handle all the way down or all the way up to apply the brake.

When you let go of the control handle it will automatically go to the upper braking position. Check braking before you start working.



BRAKE OVERRIDE

If you must move your truck while in a confined area, this feature allows you to override the brake and drive slowly while the handle is in the upper "Brake On" area.

With the handle in the "Brake Override" part of the braking area, first put the forward/reverse rocker in neutral, and then move it to the direction you want to travel.

Watch your feet. Make sure you don't get pinned between the truck and a fixed object. Stay out of the path of travel.

! Know the Hazards



MAKE SURE YOUR BRAKE WORKS

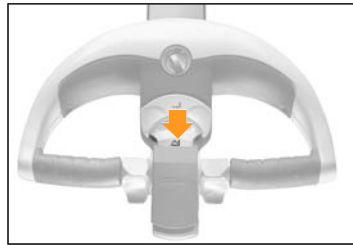
Test the brake on your truck at the start of each shift. Know the distance it takes to stop before starting work.

If at any time the stopping distance is too long for you to stop safely, don't use the truck. Report any problem to your supervisor.

BE CAREFUL WHILE USING BRAKE OVERRIDE

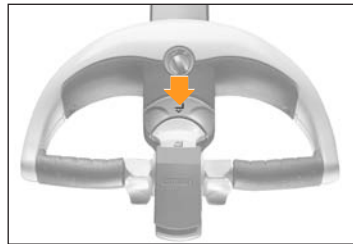
Hands or feet caught between the truck and a fixed object will be crushed or even cut off. Stay out of the path of travel.

Raising & Lowering



RAISE

Push the Raise button until the forks are at the desired height. Release the button



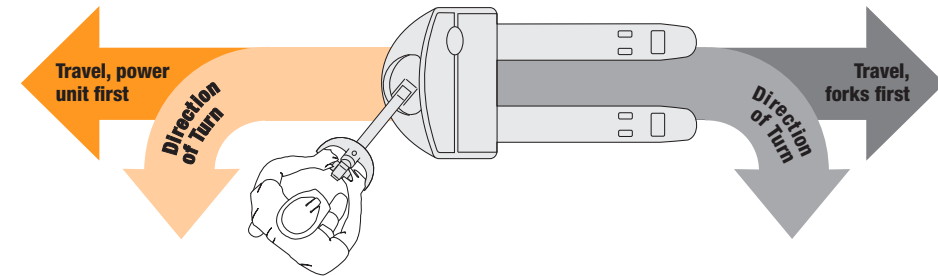
LOWER

Push the Lower button until the forks are at the desired height. Release the button.

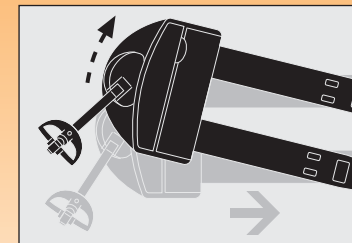
Steering & Travel

STEERING

You control steering by moving the control handle from side to side. For example: This picture shows the directions the truck can turn when the control handle is moved to the approximate position shown.



! Know the Hazards



POWER UNIT SWING

Be careful turning while traveling forks first. The power unit will swing wide in the opposite direction. Make sure you have clearance, and watch out for people in the area.

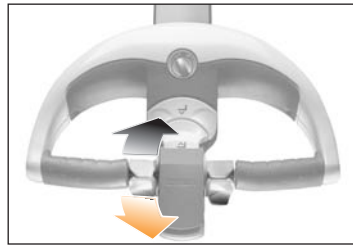


SLOW DOWN FOR SPILLS OR WET FLOORS

Powder or liquid spills can cause slippery floors. Slow down or you could lose control of steering and braking. Be careful and allow for a longer stopping distance.

Don't run over objects on the floor.

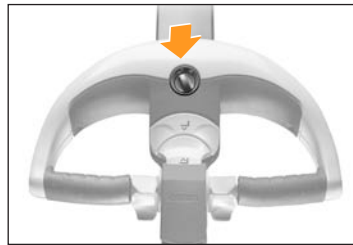
Traveling



TRAVEL

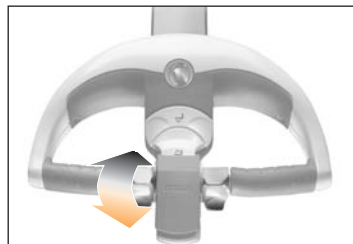
Move the Forward/Reverse Rocker in the direction you want to travel.

The farther you move the rocker from the neutral position, the faster the truck will move.



HIGH TRAVEL SPEED

For high travel speed, turn the travel speed switch to the high speed position (👆), and move the Forward/Reverse Rocker to the maximum travel speed position.



PLUGGING

Plugging is another way to slow down your truck. While the truck is moving, in either direction, move the Forward/Reverse rocker through neutral to the opposite direction of travel.

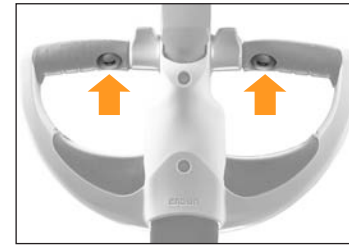
Plugging will not hurt your truck.



REVERSING BUTTON

If you accidentally hit the reversing button while working in close quarters, the truck will move in the direction of the forks until the button is released.

Be careful. The reversing button cannot prevent all injuries.



HORN

Push the switch on the underside of the grips to sound the horn. Use it to warn pedestrians and other drivers.

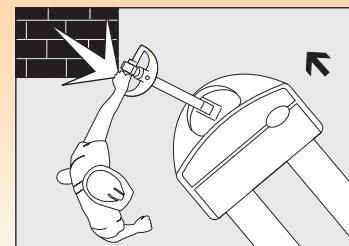
Use your horn when you come to an intersection or a crosswalk.

! Know the Hazards



LOOK WHERE YOU'RE GOING

Always be alert to the area around you and watch where you are walking. You could be pinned or crushed if you are caught between the truck and walls, racks or other fixed objects.



WATCH YOUR FEET AND HANDS

A foot or hand caught between the truck and a wall, post or any fixed object will be crushed or even cut off. Keep your feet clear of the wheels.

Daily Safety Check



CHECK YOUR TRUCK BEFORE STARTING WORK

You must make sure your truck is safe to use.

1. Walk around your truck and check it over.

- Make sure batteries are charged. Check water level in serviceable batteries and see that vent caps are in place. Don't use an open flame to check the batteries.
- Inspect battery cables and connectors for damage or corrosion.
- See that all wheels are in good condition.
- Clean the control handle.
- Check that both forks are straight and not cracked or badly worn.
- See that the load backrest is in place and secure, if your truck has that option.
- Check under the truck for signs of hydraulic leaks.
- Test the horn.
- Make certain all controls work smoothly.

2. Test your truck in an uncongested area.

- Test the hydraulic functions.
- Check the steering.
- Operate the truck slowly in both directions.
- Operate through the full speed range in both forward and reverse.
- Check braking distance in forward and reverse. Load size and floor conditions can affect these distances.
- Know the distance it takes to stop before you start working. If the braking distance is too long to stop safely, don't use the truck.

If anything doesn't look, work or feel right, don't use the truck. Report the problem to your supervisor.

You can get checklist forms from your Crown dealer (part no. OF-3772). Used properly, this checklist can alert service people to needed repairs.

Be a Safe Operator



The most important component is you.

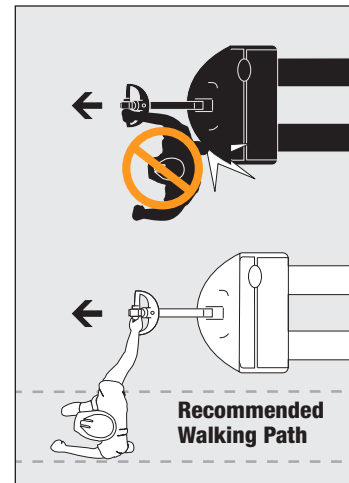
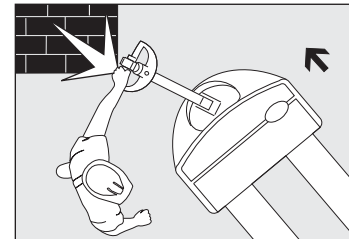


MAKE SURE YOU ARE READY

- Do not use this truck unless you are trained and certified.
- Be certain you understand how your truck works and the hazards that go with it. Don't use the truck if you have any doubts.
- Know the capacity of your truck. Make certain you use the correct units of measure.
- Some trucks are not allowed in areas where there are fire hazards. Be certain your truck is the correct fire safety type for the area.
- Make sure your hands and shoes are clean and dry, and your clothing is proper for the job.

MAKE SURE YOUR TRUCK IS READY

- Inspect your truck before using it (see pages 19 and 20). If it's not working right, or something is broken, report the problem to your supervisor. Don't use the truck.
- In an open area, test the braking. Check at a slow travel speed first, then a faster one. Know the distance it takes to stop before you start work.



USE CAUTION, BE ALERT

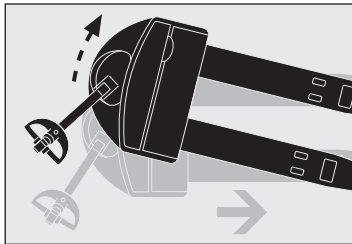
- Watch where you're walking. Don't let any part of your body get pinned or crushed between the truck and a fixed object. Be even more careful when using the brake override feature. Stay out of the path of travel.
- Stay to the side of the truck when traveling power unit first. Make sure the truck won't hit your leg or run over your foot.
- When traveling forks first, keep both hands on the control. Be careful when changing direction. Keep your feet clear of the truck.
- Travel in the direction that gives you the best view. Look where you are going and slow down in congested areas.
- Slow down for wet or slippery floors. Don't run over things. Watch out for rough floors.
- Look where you are going before you change direction of travel.
- See that you have room to turn. Watch out for power unit swing.
- Slow down when making turns.
- Avoid sudden movement of controls. Learn to use them smoothly at a moderate, even rate.
- Be extra careful if you must use your truck in an area where there is a risk of falling objects.
- Never ride on your truck.

Continued next page...



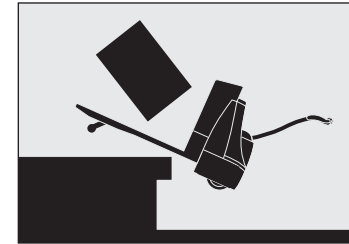
WATCH OUT FOR OTHER PEOPLE

- Slow down. Yield or stop for pedestrians. Use your horn when you come to a crosswalk or intersection.
- Be careful that you don't pin or crush someone. *For example: Never move your truck toward anyone standing in front of a fixed object.*
- Never allow anyone to ride on your truck.
- Keep others away from your truck while you're working.
- Don't let anyone use your truck unless they are trained and certified.
- Watch out for power unit swing.



WHEN LEAVING YOUR TRUCK

- Lower the forks and turn the truck off.
- Avoid parking on inclines. But if you must, block the wheels of your truck.



AVOID FALLS

- Stay away from the edge of docks and ramps.
- Check that bridgeplates and dockboards are secure. Be certain that either the trailer wheels are chocked or the trailer is locked to the dock. Check capacities. Be sure your truck, with load, isn't too heavy for where you are operating.
- Make sure the load you are moving is stable. Center the load. Be even more careful with long, high or wide loads. They can be less stable.
- Don't take your truck onto an elevator unless you are authorized. Check the capacity or load limit and make sure there are no people present. Enter load first and set the brake.

BE CAREFUL TRAVELING ON RAMPS AND GRADES

- Stay out of the path of the truck.
- With or without a load, travel with the forks pointed downgrade.
- If a load requires that you travel with the forks upgrade, be even more careful. Operate the controls from the side of the truck.
- Slow down and don't turn on ramps or grades.

Battery Maintenance



BATTERIES

Your truck will have either a single industrial battery or a battery pack containing four automotive style batteries.

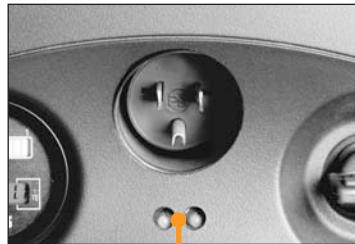
Check all batteries daily unless sealed, maintenance-free batteries have been selected.

CHARGERS

To use a separate external charger, follow the directions on the charger provided.

To use a charger built into the truck you must first have access to an AC electrical outlet. To charge the batteries:

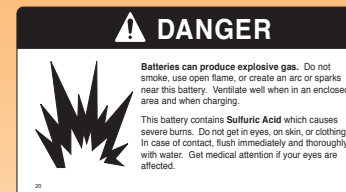
- Turn the truck off. Do not disconnect the battery.
- Use an extension cord less than 7.5 meters (25 ft) long, with a wire size of 16 AWG or heavier.
- Plug one end of the extension cord into the charging socket on the console.
- Plug the other end of the cord into the AC outlet.
- Check the charging lights on the console.



WHAT THE LIGHTS MEAN

- A steady yellow light means there is power to the charger. If the light does not come on, or goes out, make sure the AC outlet is working and the extension cord is OK.
- A flashing yellow light means something is wrong with a battery or the charger. Notify your supervisor.
- A flashing green light means the charger is working.
- A steady green light means charging is finished.

! Know the Hazards



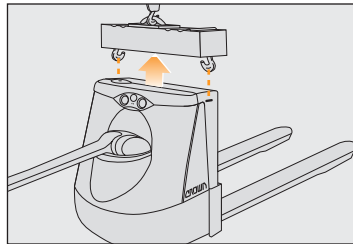
BEFORE CHARGING YOUR TRUCK BATTERIES

- Do not try to install, remove, charge or service your truck battery unless you are trained and authorized.
- Charge the battery only in areas designated for that use.
- See that cells of serviceable batteries are filled to the proper level. Never use an open flame to check batteries.
- Make sure the truck key switch is turned OFF and all controls are in the off or neutral position.
- For a built-in charger, make certain the AC outlet is the same voltage as the battery charger.
- For an external charger, make certain the charger is the same voltage and amperage as your battery(s).

Read the battery charger instructions.

Be sure the charger is turned OFF before connecting the battery to the charger. Otherwise you might create a spark which could cause a battery to explode.

Battery Maintenance continued



WHEN YOU INSTALL OR CHANGE INDUSTRIAL BATTERIES


- Turn the truck OFF and disconnect the battery.
- Make certain you use the correct size and weight battery. Never operate a truck that has an underweight or undersized battery installed.
- Never let anything metal touch the top of the cells. You could cause sparks or do damage to the battery. Use an insulator (such as plywood) when necessary.
- Use an approved spreader bar to place a battery in, or remove it from, the battery compartment. Make sure you adjust the spreader bar hooks to fit the battery.
- Connect the new battery. Turn the truck ON and check truck operation.

Know the Hazards

⚠ DANGER

Batteries can produce explosive gas. Do not smoke, use open flame, or create an arc or sparks near this battery. Ventilate well when in an enclosed area and when charging.

This battery contains Sulfuric Acid which causes severe burns. Do not get in eyes, on skin, or clothing. In case of contact, flush immediately and thoroughly with water. Get medical attention if your eyes are affected.



TRUCK BATTERIES CAN BE DANGEROUS

Your truck battery produces a gas that can explode. It also contains acid that could burn or disfigure you.

- Do not try to install, remove, charge or service a truck battery unless you are trained and authorized.
- Never smoke or use an open flame around batteries.
- Your company should provide an area where it is safe to work on batteries. Use that area for all battery work.
- Use protective equipment such as gloves, eye shields, aprons, etc.

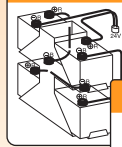
⚠ WARNING

Recommended battery size
175 to 185 mm (6.9 to 7.3 in) wide
285 to 305 (10.4 to 12.1) long
225 to 285 (8.8 to 11.3) high
Min. batt. wt. 22.7 kg (50 lbs) each.

⚠ WARNING

Minimum battery size allowed
xxx mm (xx.xx in.) wide
xxx mm (xx.xx in.) long

Undersize battery can affect truck handling and stability. You could have an accident.
Use U.L. classified Type E battery.



BATTERY SIZE IS IMPORTANT

Make certain you use the correct size, weight and type of battery. Never operate a truck that has an underweight or undersized battery installed.

