

# CLARK

## Industrial Truck Division



# OPERATOR INSTRUCTIONS

**POWERWORKER®**  
**ST20B/30B/40B**  
**S20/40**  
**SP20/30**

BOOK NO. OI-321, 1st REV.

2000 LB. THRU 4000 LB. RATED CAPACITY

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# FOREWORD

This manual will help the "Qualified Operator" become familiar with the motorized hand truck ("walkie" type lift truck), its major components, its operating controls, its special features and the function(s) of each.

This publication is not a training manual but rather, a guide to help the "Qualified Operator" to safe and efficient operation of the Clark "walkie" type lift truck.

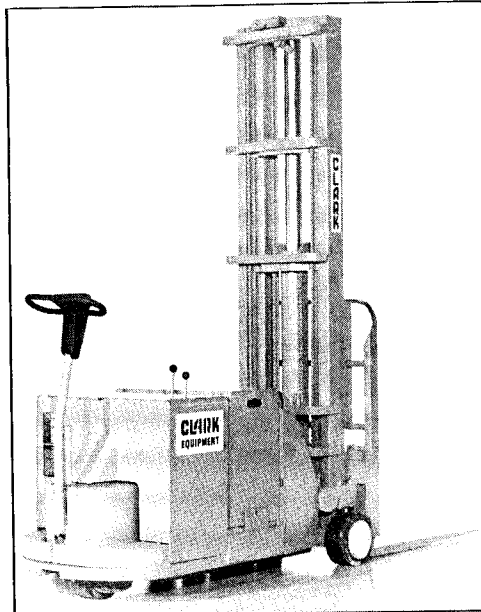
Operator training manuals are available thru your Clark Dealer.

Clark motorized hand trucks are designed and built to take hard work . . . not abuse. They are built to be dependable, but — as with any other truck — they are only as good as the man at the controls and the men responsible for maintaining them.

Illustrations in this manual guide the operator thru correct procedures for checking, starting, operating, stopping and parking a "walkie" type lift truck.

**READ IT — STUDY IT — KEEP IT HANDY**

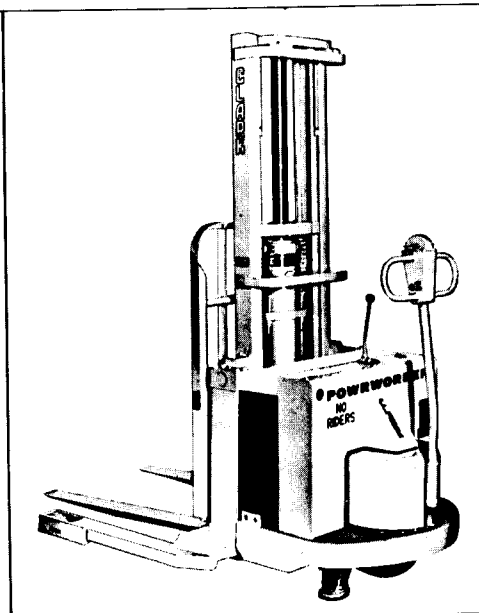
# POWRWORKER®



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## ST 20/30/40

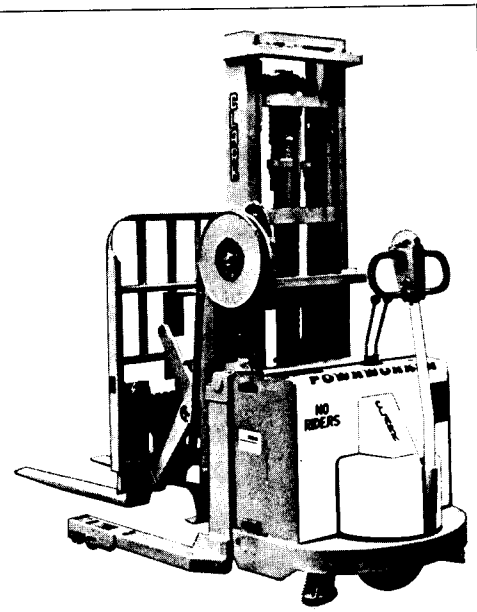
2000 Lb., 3000 Lb., 4000 Lb., Rated Capacity "Walkie" Type Counterbalanced, High Lift, Motorized Hand Truck.



1-075

## S20/40

2000 Lb., 4000 Lb. Rated Capacity "Walkie" Type, High Lift Motorized Hand Straddle Truck.



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## SP 20/30

2000 Lb., 4000 Lb. Rated Capacity "Walkie" Type, High Lift Motorized Hand Straddle Truck W/Pantograph Carriage.



## Safety

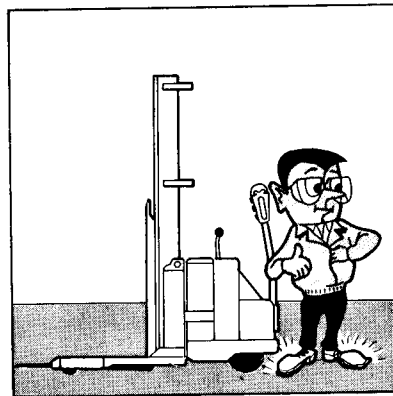


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5. Never operate a "walkie" type truck with wet or greasy hands or shoes.

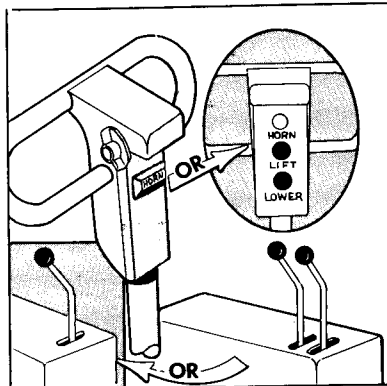
6. The wearing of safety glasses and safety shoes is recommended when operating a "walkie" type truck.

Dress suitably and avoid wearing loose fitting clothing.



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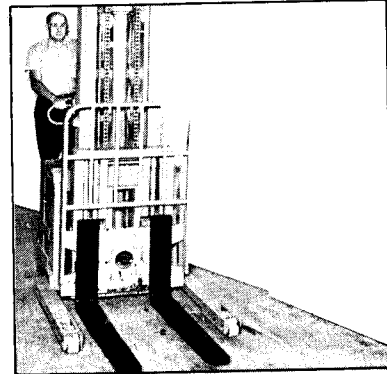


7. Before operating any "walkie" type truck check steering, horn, brake application, forward-reverse switch, lift-lower controls and valve control levers for proper operation.

Report any faulty or erratic performance immediately.

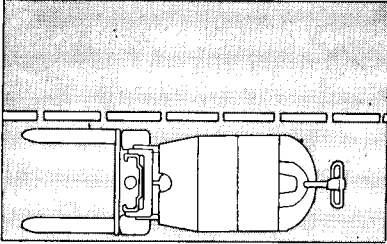
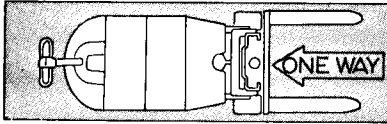
8. Look all around truck before moving it in any direction.

Once certain that your desired path of travel is unobstructed, remember to start and stop slowly and smoothly.



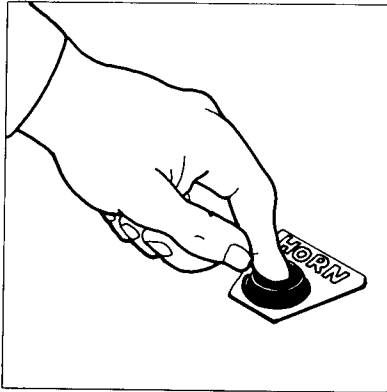
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## Safety



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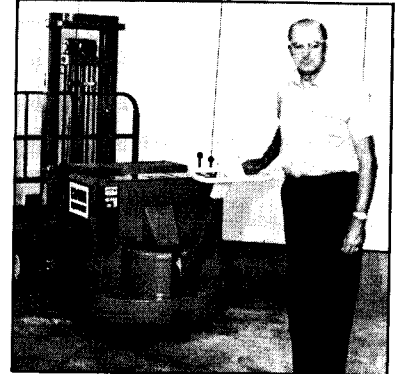
Code: OI-321 Nov 73

9. Operate truck only in designated truck routes and keep operating aisles clear.

One-way aisles are recommended, if this is not practical in your operation, heed highway regulations and keep to right of aisle centerline.

11. When operating a "walkie" type truck in reverse remember to sound horn at all corners, exits, entrances and when approaching pedestrians.

10. Always be alert for pedestrians, other trucks or obstructions in your path of travel.



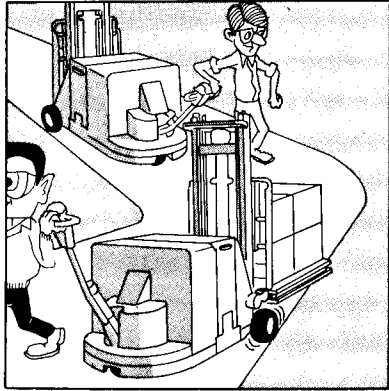
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12. Obey all posted traffic rules and warning signs.



## Safety



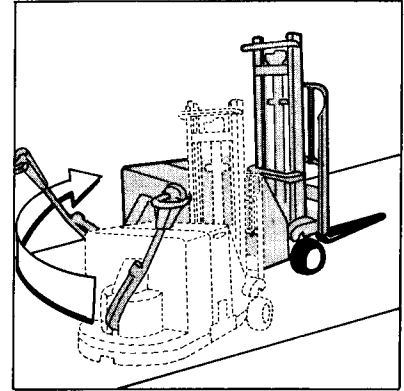
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13. Maintain a safe distance from the truck ahead of you at all times.

Assure ample distance to stop smoothly and safely should the need arise.

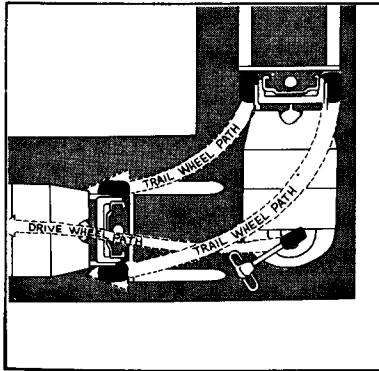
14. Be careful of drive end swing when turning while operating the truck in reverse.

Carelessness may result in damage to material or equipment in your operating area and/or to the drive end of your truck.



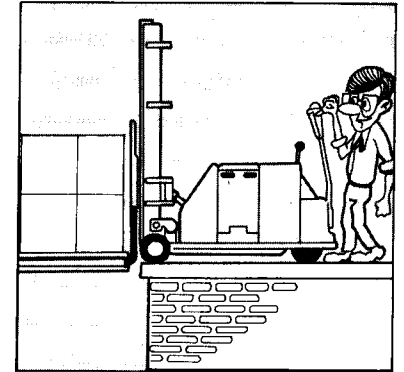
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15. Use caution when making right or left turn into aisle. Remember that trail wheels do not follow the turn path of the drive wheel. They tend to "cut" the corner.

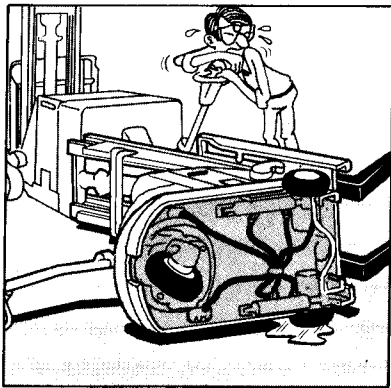
16. Be extremely cautious when operating a "walkie" type truck near the edge of a loading dock or ramp.



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## Safety

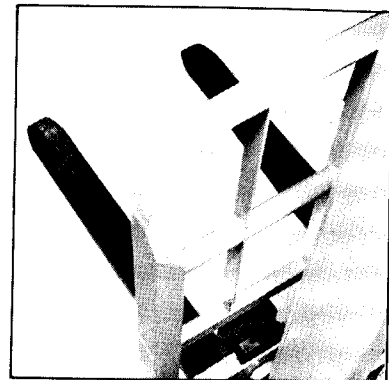


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17. Never use your truck to push or tow another. Never allow your truck to be pushed or towed by another.

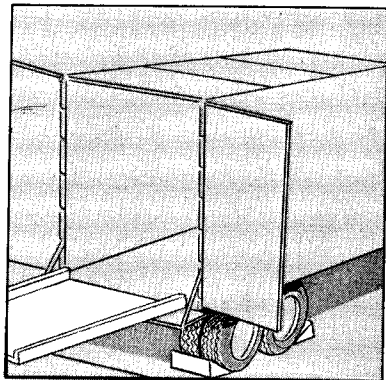
Should a truck become disabled and require moving notify the proper authority immediately.

18. Be aware of the position of your fork tips at all times when truck is in motion in reverse. Be alert to avoid striking anything with the fork tips.



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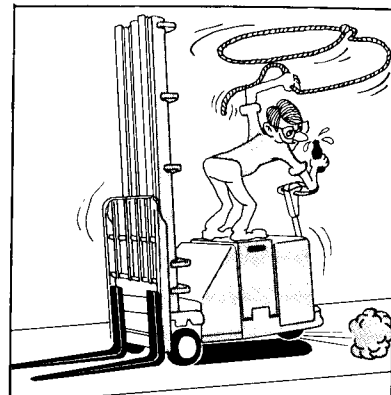
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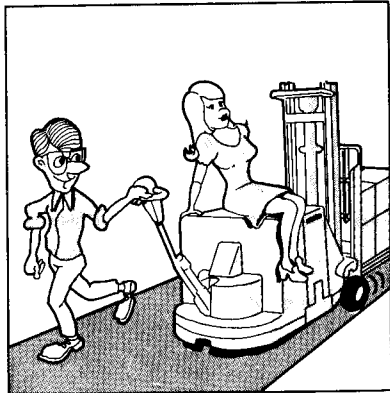
19. Make certain that vehicle being entered has been adequately blocked to prevent accidental roll. Bridge plates must have adequate strength, width, guard rails each side (minimum 3" high recommended) and be properly secured.

20. Trucks of this type are designed to be controlled by a walking operator only. Never ride a truck of this type or indulge in other horseplay while operating these trucks.

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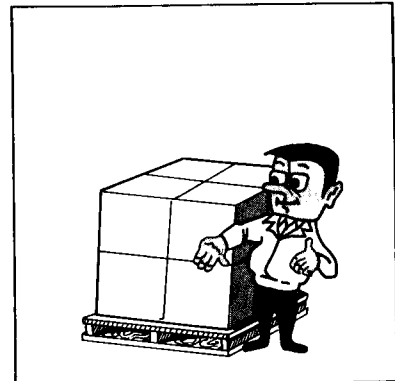
# Safety



21. Never carry unauthorized personnel.

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23. Thoroughly inspect load to be moved for overload and/or poor balance. If the stability of the load is questionable... Don't Move It.

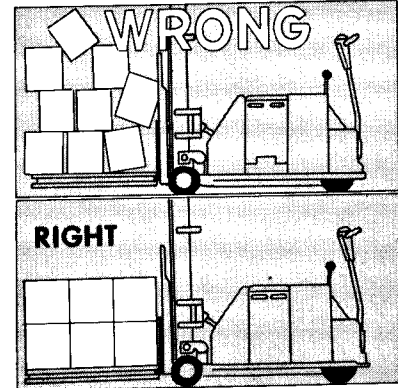
22. Know the rated capacity of your truck and its attachment (if any) and never exceed it.

Study your truck data capacity plate and learn the facts stamped in areas 1 through 8.

<b>CLARK EQUIPMENT</b>		1
INDUSTRIAL TRUCK DIVISION	BATTLE CREEK MICH	TYPE 3
MODEL NO.	2	
SERIAL NO.		4
ATTACHMENTS		
LOAD C.G.		
FLOOR		
APPROX. WT. ALL TRUCKS		
APPROX. WT. ELECTRICS ONLY		
BATTERY WT.		
BATTERY CAPACITY		
FOR OTHER CAPACITIES CONSULT MANUFACTURER AS RELEASED FROM FACTORY THIS TRUCK MEETS THE DESIGN SPECIFICATIONS ESTABLISHED IN AMERICAN NATIONAL STANDARD FOR POWERED INDUSTRIAL TRUCKS PART II ANSI D 56.1 1969		

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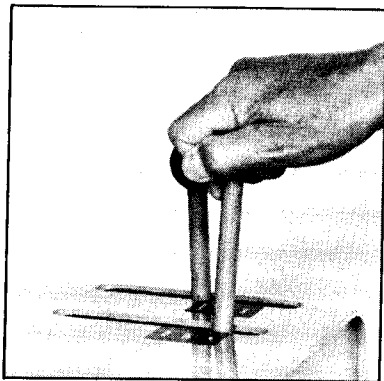
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24. Unstable loads are a hazard to you and to your fellow workers. Always make sure that your load is well stacked and evenly positioned across both forks.

Never attempt to lift a load with only one fork.

## Safety



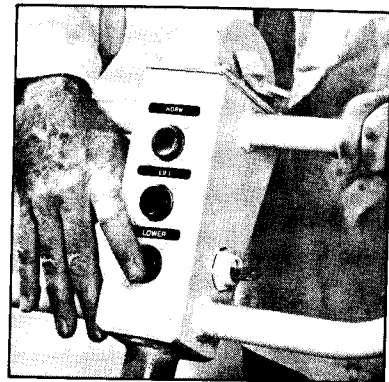
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25. Check to insure that you have adequate and unobstructed overhead clearance before attempting lift.

Press firmly on "lift" button or pull lever and hold until load reaches desired elevation. Release button or lever to stop lift at desired level.

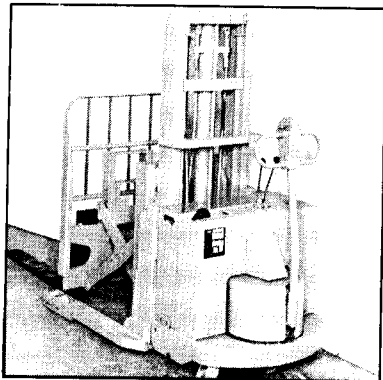
26. Load may be lowered by firmly pressing "lower" button or pushing lever. Hold this button, or lever, until load has lowered to the desired level.

Release the control lever, or button, to stop descent of load at desired point.



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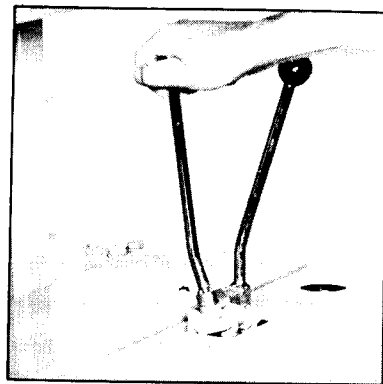
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27. Some models are equipped with pantograph type carriages which have the capability of "reaching" for, or to deposit, a load. Always make certain that pantograph travel area is unobstructed . . .

28. . . then carefully push control lever toward the upright to extend the carriage or pull the control lever toward you to retract the carriage.

Releasing the lever will stop pantograph travel.

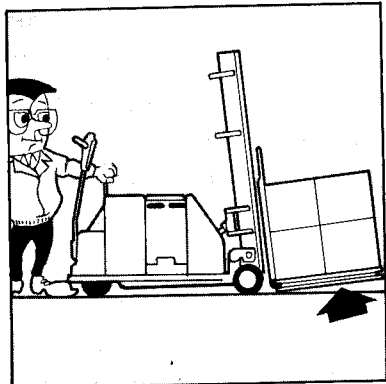


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# Safety

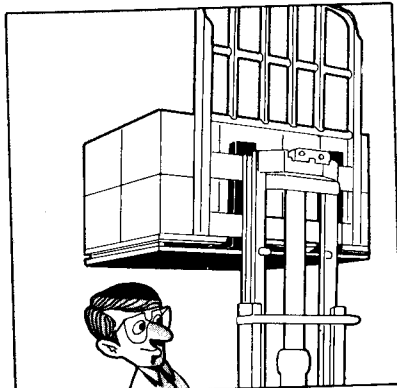
29. Always travel with load near floor and upright tilted slightly back to cradle the load.

"SP" models should never be operated in forward or reverse with the pantograph extended.



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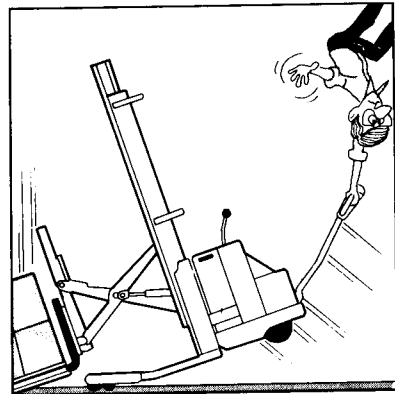
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31. Never permit anyone to stand or walk under the load engaging portion of a "walkie" type truck.

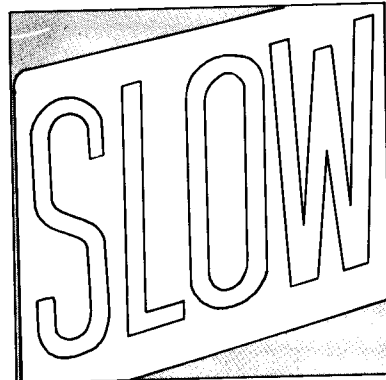
Keep your hands, arms, feet and legs away from the upright at all times.

30. Never lift or lower load or extend or retract pantograph carriage when truck is in motion.



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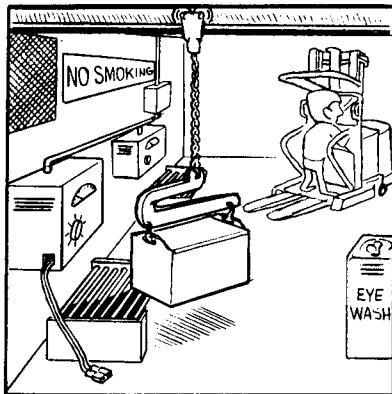


## Safety



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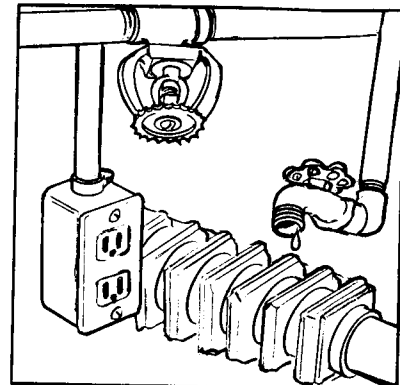
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33. Know and observe floor load limits and overhead clearance in all operating areas.

34. Use caution when placing loads or traveling near water pipes, overhead sprinklers, electrical wiring, steam pipes, heaters or other fragile or dangerous material or equipment.

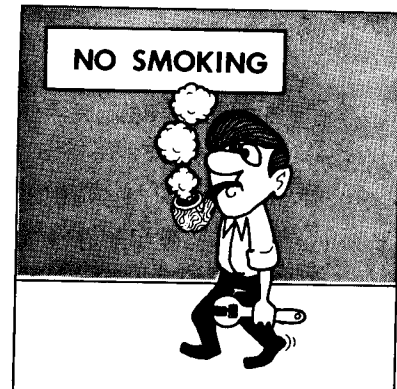


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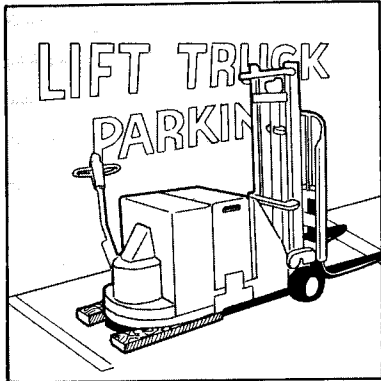
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35. Batteries should be serviced or recharged only in designated charging areas and only by personnel thoroughly trained in safe battery servicing practices.

36. Never smoke or allow anyone to smoke in areas where batteries are being charged or in areas where fuel or other flammable fluids or materials are stored or used.



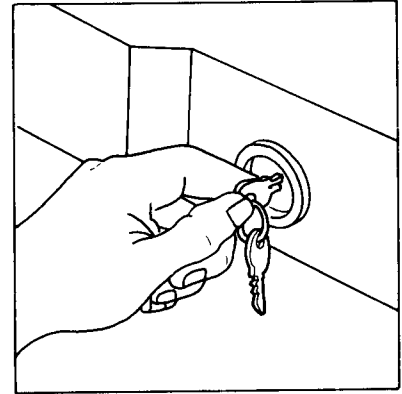
## Safety



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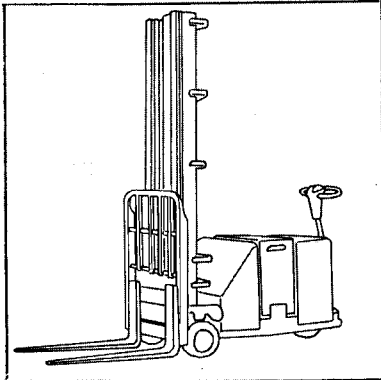
37. Park "walkie" type trucks in designated areas only. Fully retract pantograph, lower forks to floor, tilt upright forward, make certain control handle is in "full up" position to apply brakes, remove key and block drive wheel to prevent roll.

38. If "walkie" type truck is to be left unattended, for any reason, make certain that it does not obstruct traffic aisles and leave truck as described in Item 37.



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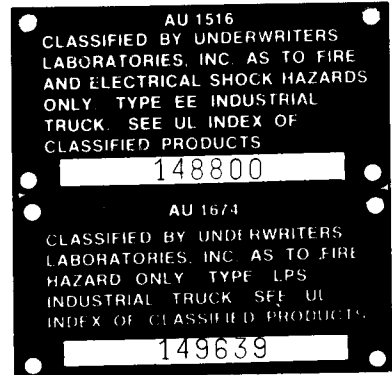
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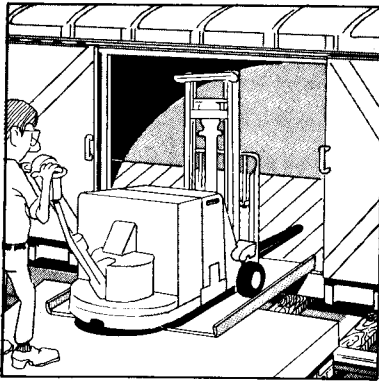
39. Load backrest extensions are for your protection. Make certain that they are undamaged and securely mounted before operating any "walkie" type truck.

40. Know the construction type of your truck and never take an unauthorized truck into a restricted area.

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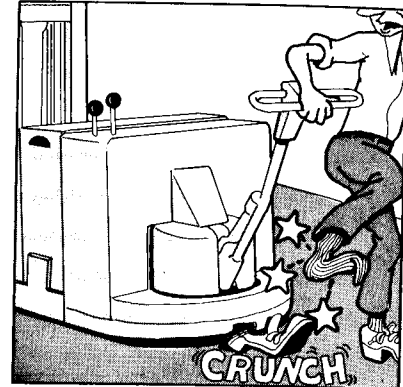
## Safety



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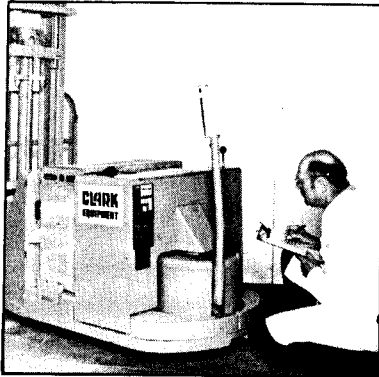
41. Confined areas such as elevators, semi-trailers, trucks or box-cars must be entered with forks, or other load engaging means, first to minimize maneuvering necessary to exit.

42. Remember to keep your feet well back from the front skirt when maneuvering a "walkie" type truck.



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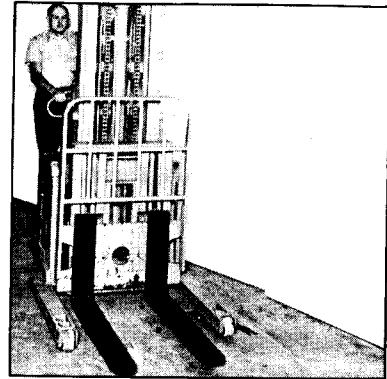


43. Follow a scheduled planned maintenance and lubrication program.

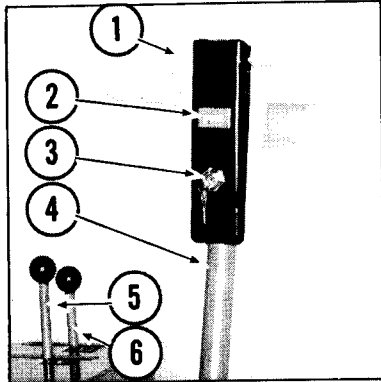
All adjustments and repairs must be performed by thoroughly trained and authorized personnel.

44. Remember – your safety and the safety of others depends on you. Keep your mind on operating your truck.

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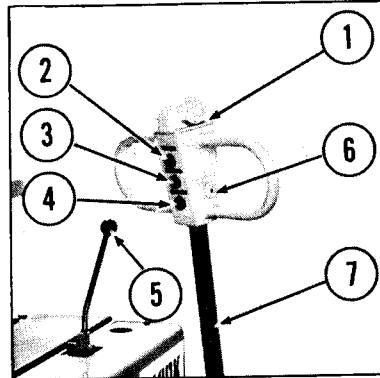
# Operator's Controls



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## "ST" Controls

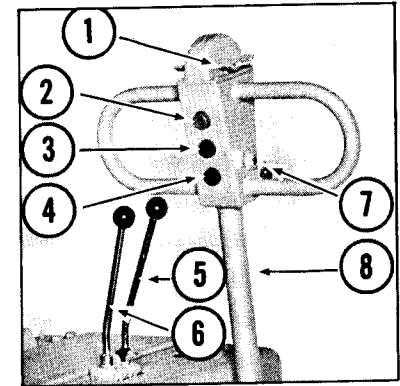
1. Forward-Reverse and Speed Control.
2. Horn Button.
3. Key Switch.
4. Steering Control Handle and Brake.
5. Lift Control.
6. Tilt Control.



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## "S" Controls

1. Forward-Reverse and Speed Control.
2. Horn Button.
3. "Lift" Control Button.
4. "Lower" Control Button.
5. Tilt Control.
6. Key Switch.
7. Steering Control Handle and Brake.



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## "SP" Controls

1. Forward-Reverse and Speed Control.
2. Horn Button.
3. "Lift" Control Button.
4. "Lower" Control Button.
5. Tilt Control.
6. Reach Control.
7. Key Switch.
8. Steering Control Handle and Brake.

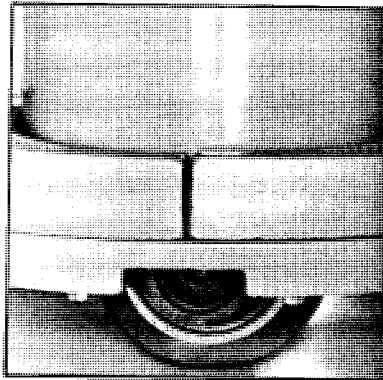


# Before Operation

<b>CLARK</b> ELECTRIC TRUCK DRIVER'S DAILY CHECKLIST Check Before Start Of Each Shift	
Truck No. _____	Date _____
Operator: _____	Supervisor's OK _____
Hour Meter Reading: _____	
Start of Day _____	End of Day _____ Hrs. for Day _____
<input checked="" type="checkbox"/> Boxes Accordingly	<input type="checkbox"/> Needs Attention or Repair
<b>Visual Checks</b>	<b>Operational Checks</b>
<ul style="list-style-type: none"> <li>Obvious damage and leaks</li> <li>Tire condition</li> <li>Battery plug connection <i>Note: Be sure the battery plug connection is tight.</i></li> <li>Head and tail lights</li> <li>Warning lights</li> <li>Hour meter</li> <li>Other gauges and instruments</li> <li>Battery Discharge indicator <i>Note: Key on, needle should indicate in green area.</i></li> </ul>	<ul style="list-style-type: none"> <li>Horn</li> <li>Steering</li> <li>Service brakes</li> <li>Battery Load Test <i>Note: Watch battery indicator while holding 1st lever on full back tilt. If needle falls to red area, battery doesn't have sufficient charge to operate truck properly.</i></li> <li>Parking brake</li> <li>Seat brake</li> <li>Hydraulic controls</li> </ul>

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1. Each shift operator must complete an operator's daily check list (available from your Clark Dealer).

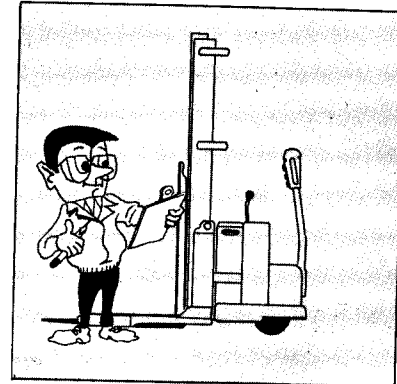
Make all checks listed, sign the completed check list and give it to the designated authority.

3. Check condition of drive wheel and tire assembly.

2. Walk completely around your truck and visually check for damage and leaks.

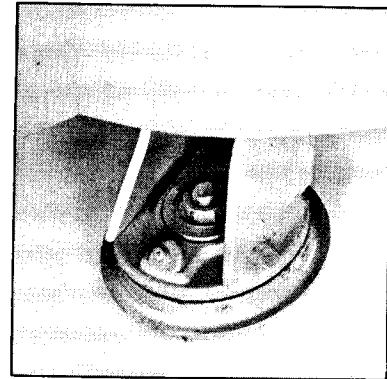
Note all damage and leaks on the operator's daily check list.

4. Note condition of casters or skids if your truck is so equipped.

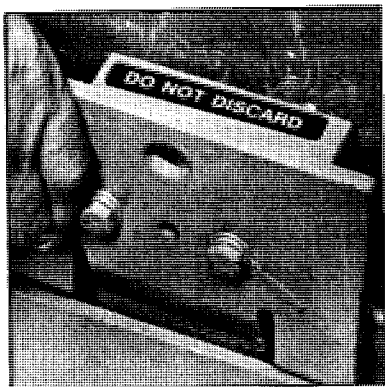


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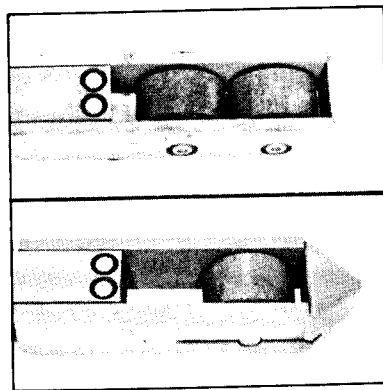
## Before Operation



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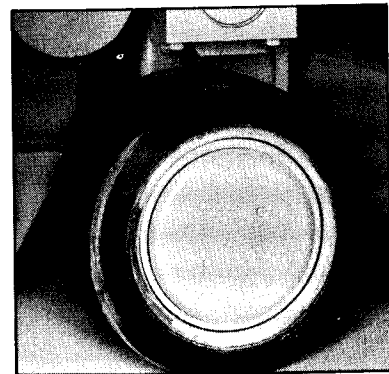
5. Check general condition of battery, connector and make certain that battery retainer is undamaged and securely in place.

6. Check condition of trail wheels and tires ("S" and "SP" models only).



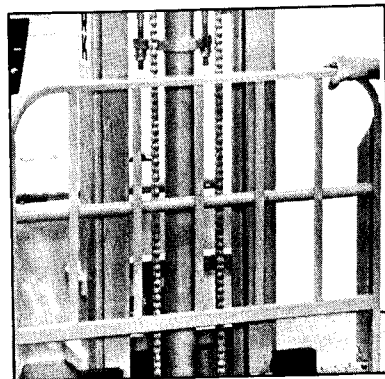
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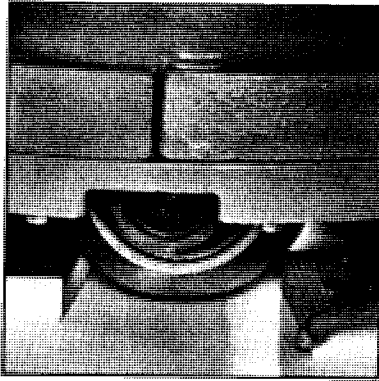
7. Check condition of load wheels and tires ("ST" models only).

8. Check load backrest extension for damage and security of mounting.



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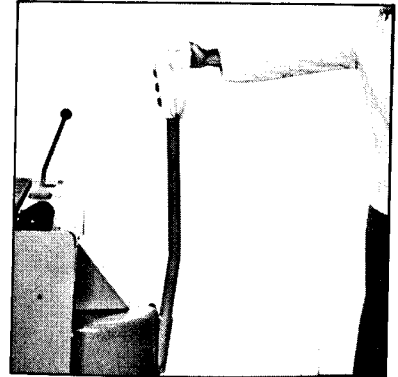
## Before Operation



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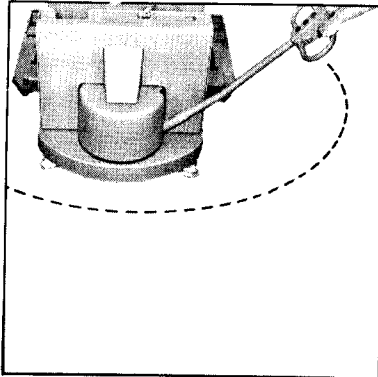
9. Remove blocks from drive wheel.

10. Move control handle vertically from "full-up" to "full-down" and return to "full-up" position while checking brake application. Truck brakes should be firmly applied at both extremes of handle travel.



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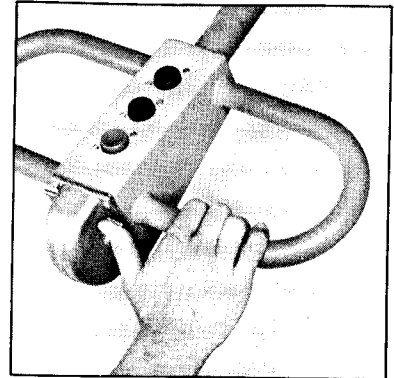
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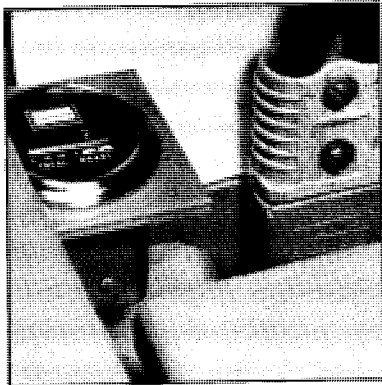
11. Lower control handle to comfortable operating position and check steering by swinging handle through full 180° arc from right to left. Handle should move smoothly without noticeable binding.

12. Return handle to center position and visually check condition of control buttons mounted in handle and levers mounted on the hydraulic compartment.

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## Before Operation

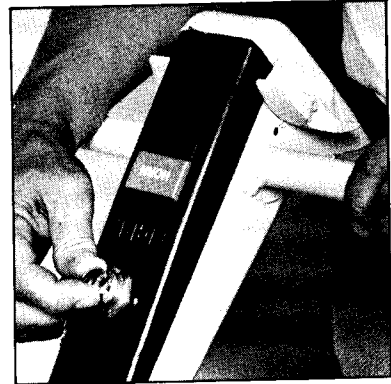


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13. Visually check battery connector to make sure that battery has been properly connected.

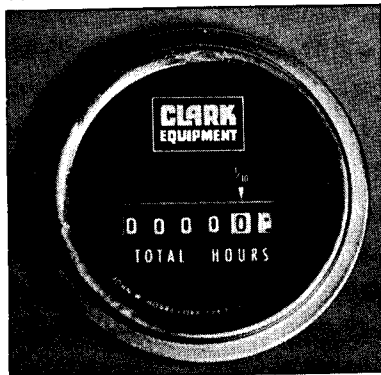
14. Insert key into switch and turn clockwise to "on" position.

This switch is located on the left hand side of the steer handle head on "S" and "SP" models and on top of the steer handle head, below the horn button, on "ST" models.



13661

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15. If your truck has been optionally equipped with an hour meter check to make certain that it is undamaged and functioning properly.

Note any hour meter damage or malfunction on the check list

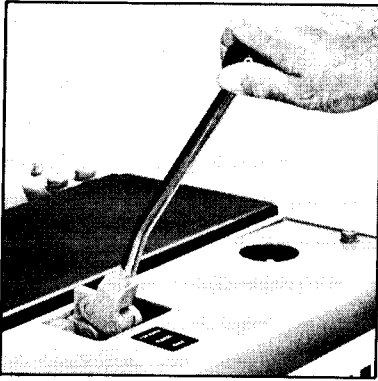
16. If your truck has been optionally equipped with a battery discharge indicator check to make sure it is undamaged and operating properly.

Meter needle should remain in green area, check this meter frequently during operation.



13646

## Before Operation

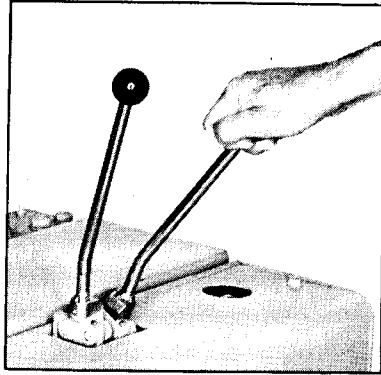


13663

### "S" Tilt

17. Pull tilt lever toward you and hold while observing operation of upright to full back tilt. Push lever toward upright to return upright to near vertical position.

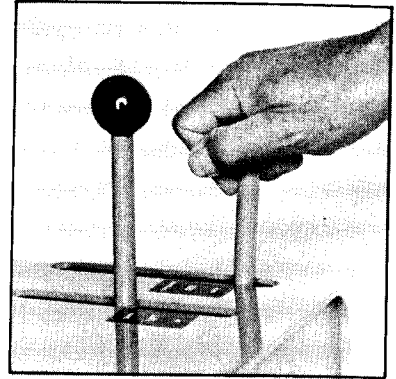
Note any erratic operation to check list.



13629

### "SP" Tilt

18. "SP" models have at least two (2) levers mounted atop the hydraulic compartment. The tilt lever is the right hand lever and it should be checked as described in Item 17.

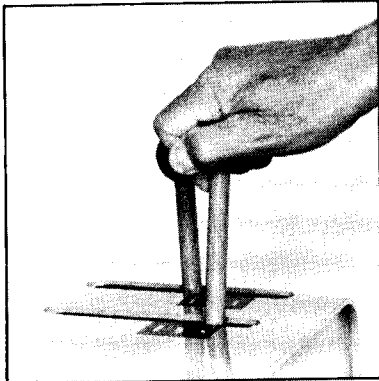


13651

### "ST" Tilt

19. The "ST" models will be equipped with at least two (2) levers mounted atop the hydraulic compartment. The short lever at the right is the tilt lever and it should be checked as described in Item 17.

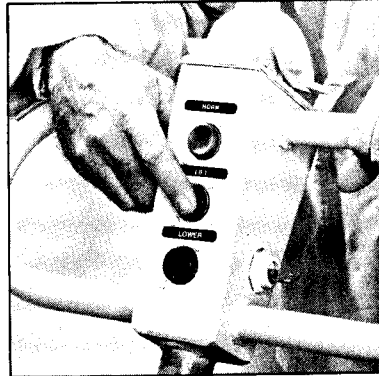
## Before Operation



13534

### "ST" Lift

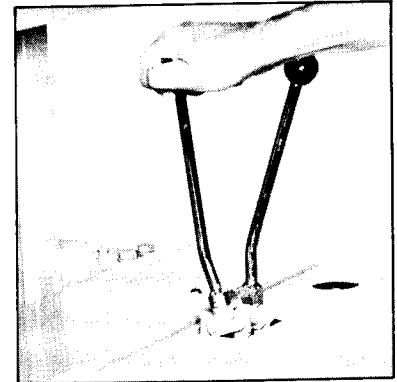
20. "ST" models will be equipped with at least two (2) levers mounted atop the hydraulic compartment. Check for adequate – unobstructed overhead clearance and pull the left hand lever toward you and hold while observing upright lift. Release lever to stop lift at desired height. Note any erratic or unusual operation on check list.



13664

### "S" and "SP" Lift

21. "S" and "SP" models will be equipped with handle mounted push button lift control. Check to insure adequate unobstructed overhead clearance and press "lift" button. Hold button while observing upright lift. Release button to stop lift at desired height. Note any erratic or unusual operation on check list.

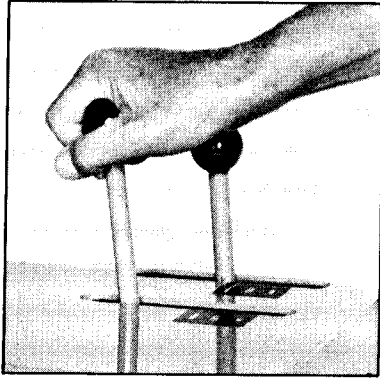


13626

### "SP" Reach

22. "SP" models are equipped with a pantograph carriage controlled by the left hand lever mounted on the hydraulic compartment. After completing Step 21, push the left hand lever toward the upright to extend carriage and pull this lever toward you to retract it. Note any erratic operation on check list.

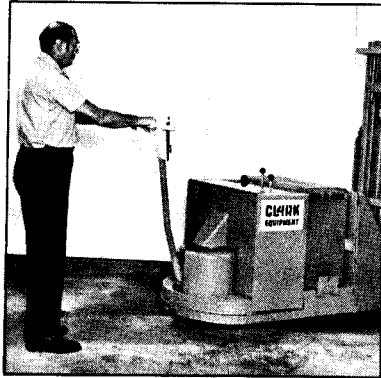
## Before Operation



13535

23. After you have accomplished steps 20, 21 or 22 lower forks to position just above the floor. To accomplish this on "ST" models push lift control lever toward upright (push "lower" button on "S" and "SP" models) and hold until forks reach desired height then release lever or button.

13653

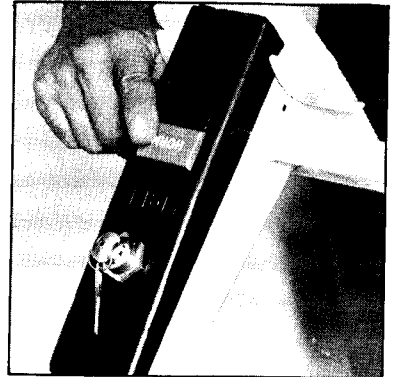


25. Pull control handle down to comfortable operating level and swing into position in line with the desired direction of forward travel.

Code: OI-321 Nov 73

24. Press horn button (mounted on top of control handle head) to determine if horn is operational.

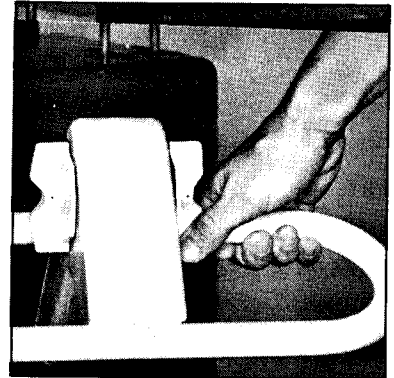
If horn does not function properly, note it on operator's daily check list.



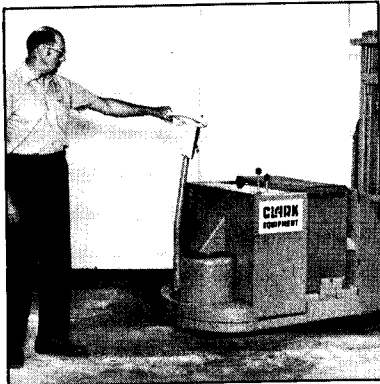
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26. Place thumb of right (or left) hand on lower "wing" of directional control switch and press gently. Truck will move forward (toward you) slowly. Travel speed may be increased by further pressing the switch "wing".



## Before Operation

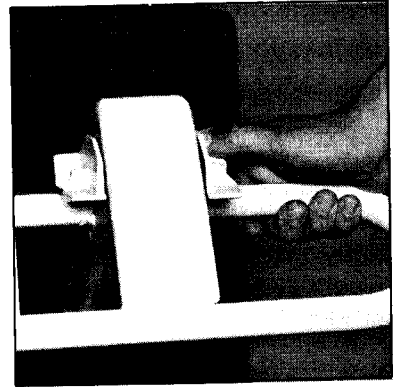


13656

27. Release thumb pressure on lower directional control "wing" and raise handle to apply truck brake and stop forward travel.

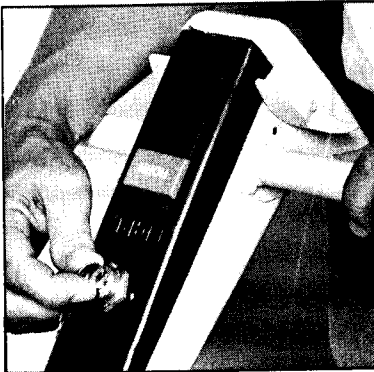
Note any unusual or faulty operation on check list.

28. Lower handle to comfortable operating level and place thumb of right (or left) hand on upper "wing" of directional control switch. Press switch "wing" gently and truck will move in reverse (away from you).



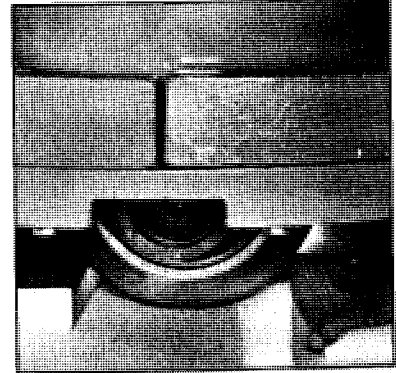
13655

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29. Release thumb pressure on upper directional control switch "wing" and raise handle to apply truck brake. Lower forks to floor and turn switch key counterclockwise to "off" position.

30. Remove key from switch, swing steer handle to full turn and block drive wheel.



13648



# Before Operation

<b>CLARK</b> <small>CLARK</small>	
<b>ELECTRIC TRUCK DRIVER'S DAILY CHECKLIST</b> <small>Check Before Start Of Each Shift</small>	
Truck No _____	Date _____
Operator _____	Supervisor's OK _____
<b>Hour Meter Reading</b>	
Start of Day _____	End of Day _____ Hrs for Day _____
<input checked="" type="checkbox"/> Boxes Accordingly <input type="checkbox"/> OK <input type="checkbox"/> Needs Attention or Repair	
<b>Visual Checks:</b>	<b>Operational Checks:</b>
<input type="checkbox"/> Obvious damage and leaks	<input type="checkbox"/> Horn
<input type="checkbox"/> Tire condition	<input type="checkbox"/> Steering
<input type="checkbox"/> Battery plug connection	<input type="checkbox"/> Service brakes
<b>Note:</b> Be sure the battery plug connection is tight.	<input type="checkbox"/> Battery Load Test
<input type="checkbox"/> Head and tail lights	<b>Note:</b> Watch battery indicator while holding till lever on full back tilt. If needle falls to red area, battery down. Have sufficient charge to operate truck properly.
<input type="checkbox"/> Warning lights	
<input type="checkbox"/> Hour meter	<input type="checkbox"/> Parking brake
<input type="checkbox"/> Other gauges and instruments	<input type="checkbox"/> Seat brake
<input type="checkbox"/> Battery discharge indicator	<input type="checkbox"/> Hydraulic controls
<b>Note:</b> Key on, needle should indicate in green area.	

13124

## Notes

## Notes

31. Review operator's daily check list to make certain that it has been properly marked, sign it and turn it in to the proper authority.

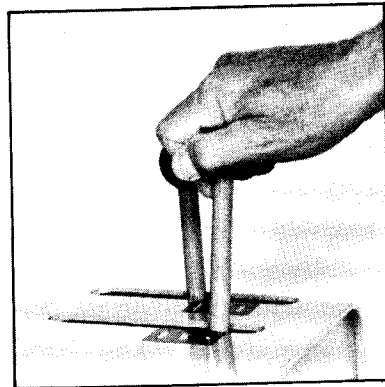
## Operation

1. Remove blocks from drive wheel and swing control handle from full turn position to center of truck. Insert key into switch and turn clockwise to "on" position.



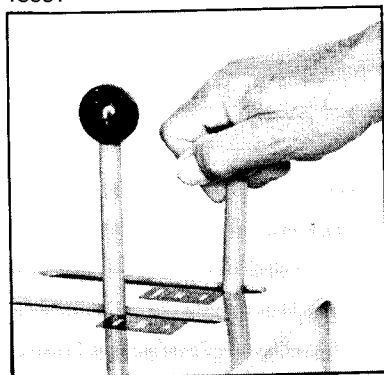
13645

2. Pull lift control lever ("ST" models) or press "lift" button ("S" or "SP" models) to raise forks from floor slightly.



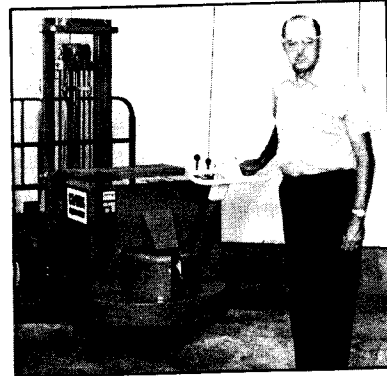
13534

3. Pull back on tilt control lever to elevate fork tips slightly.



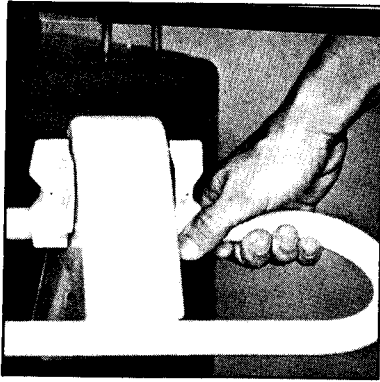
13651

4. Lower control handle to comfortable operating level and check to be certain that desired path of travel is unobstructed.



13529

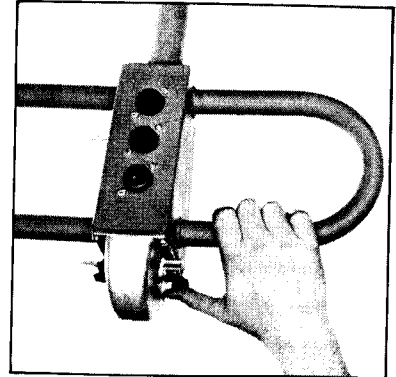
## Operation



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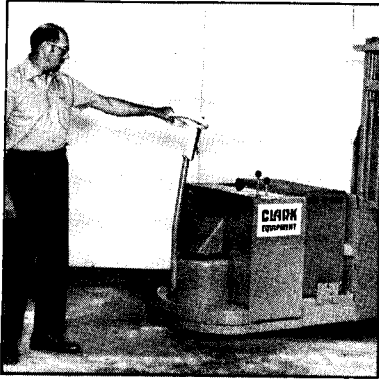
5. Place thumb of right (or left) hand on directional control switch "wing" for desired direction of travel. Upper "wing" for reverse (away from you) or lower "wing" for forward (toward you).

6. Carefully depress selected switch "wing" until truck begins to move in the desired travel direction. Added thumb pressure on switch "wing" will increase truck speed to desired level.



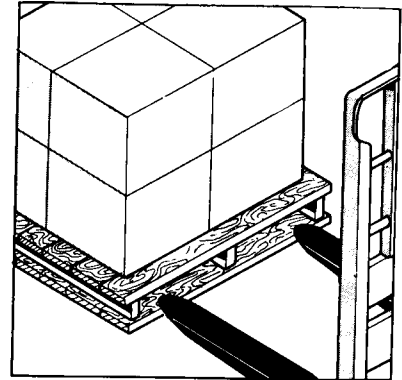
12674

13656



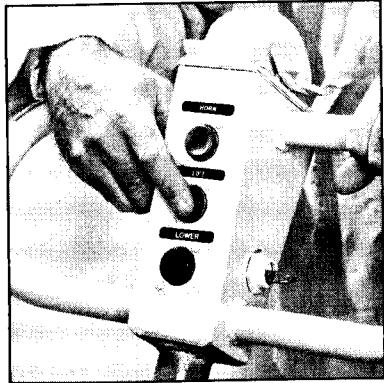
7. To stop truck release directional control switch "wing" (allowing switch to return to neutral) and raise control handle to near vertical position. (This will activate switch cutting power to drive motor and apply brakes).

8. Center load on forks as you approach it. Forks should be near outside edges. It's easy to adjust the forks and doing so will improve load balance and stability.



13203

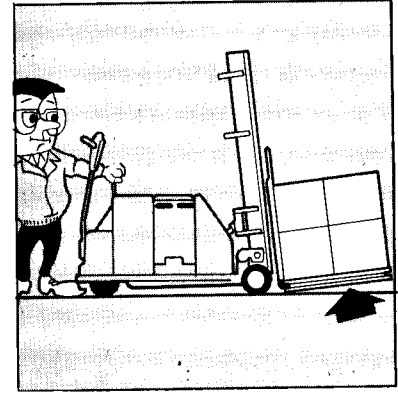
## Operation



13664

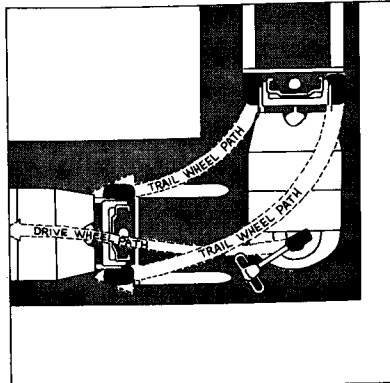
9. Before lifting make certain of overhead clearance then press "lift" button (on "S" and "SP" models) or pull lift lever toward you on "ST" models.

10. Remember to lower load to carrying position (near floor) and tilt upright toward you before traveling. Tilt on these models is lever controlled as shown in Items 17, 18 and 19 on Page 19.



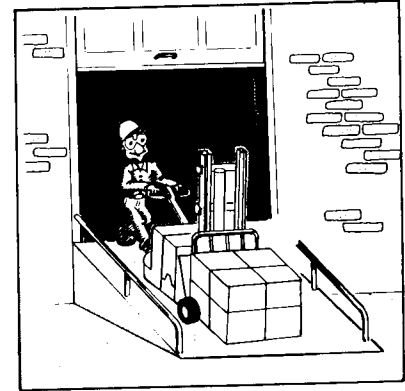
13520

13514



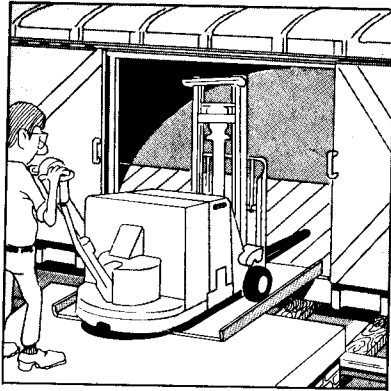
11. Use caution when making right or left turn into aisle. Remember that trail wheels do not follow the turn path of the drive wheel. They will tend to "cut" the corner.

12. When moving up or down a grade, the forks should be kept downgrade, with or without a load on the truck.



23844

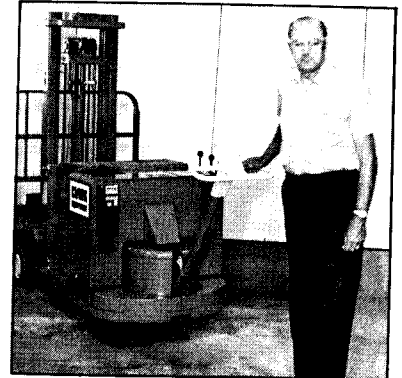
## Operation



13526

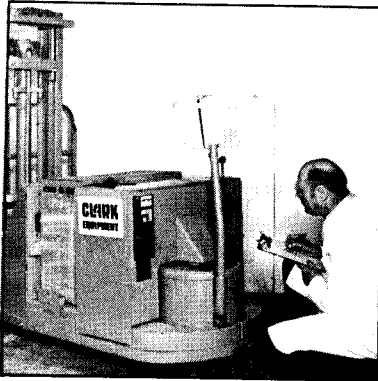
13. Always enter box-cars or trucks with load engaging means first.

14. Be constantly alert for pedestrians, other trucks or obstructions in your path of travel.



13529

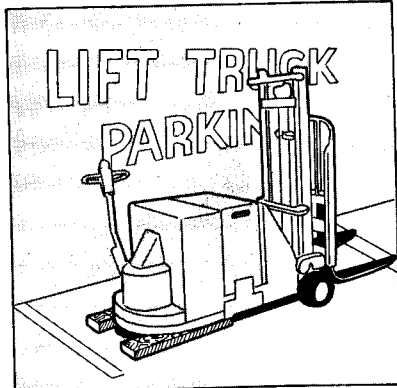
13533



15. Be constantly alert for unusual or erratic truck operation.

Report any malfunction immediately so that adjustments or repairs may be performed by thoroughly trained and qualified personnel.

## Parking



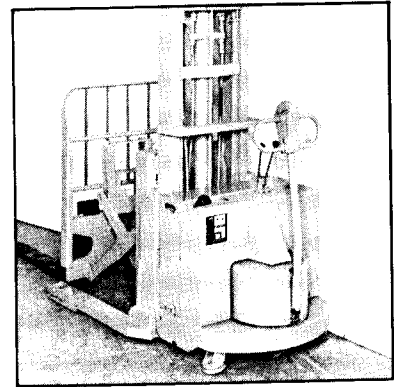
13523

1. Park "walkie" type trucks in designated parking areas only.

Do not obstruct traffic lanes or aisles.

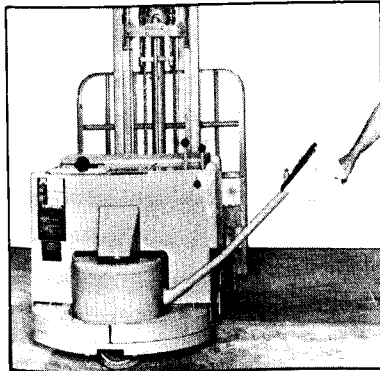
2. Lower forks to floor and tilt upright so that fork tips are on floor.

If your truck is equipped with a pantograph carriage make certain that it is fully retracted.



13627

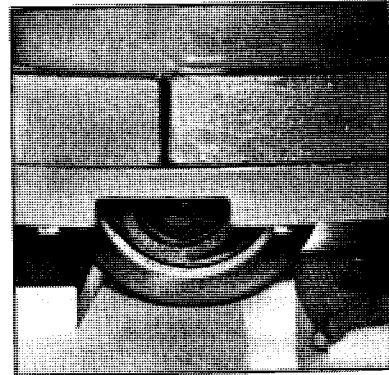
13657



3. Place control handle in full turn position and raise until vertical so that brakes are applied.

4. Block drive wheel to prevent accidental roll. Remove key from switch and turn it in to proper authority.

13648



## For Handy Reference

RECORD THE FOLLOWING INFORMATION PERTAINING TO YOUR TRUCK.

Model No. ....

Serial No. ....

Attachments .....

Truck Weight W/Battery .....

Truck Rated Capacity .....

Gross Truck Weight (W/Battery and Rated Load) .....

Customer Truck Identification No. ....

CLARK EQUIPMENT COMPANY  
INDUSTRIAL TRUCK DIVISION  
CUSTOMER SERVICES  
BATTLE CREEK, MICHIGAN 49016

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DEALER**