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# Operator's Instruction Manual

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EC500 20 thru 55

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**CLARK**

Book No. 2385902  
01-337, 3rd Rev.



# **WARNING**

**FOR YOUR SAFETY AND THE  
SAFETY OF OTHERS**

**BEFORE YOU OPERATE THIS TRUCK!**

**READ ALL WARNINGS AND INSTRUCTIONS IN THE  
OPERATOR'S MANUAL AND ON THE TRUCK.**

**CHECK THE TRUCK FOR CORRECT OPERATION.**

**DO NOT OPERATE THIS TRUCK UNLESS YOU ARE  
TRAINED AND AUTHORIZED TO DO SO.**

# FOREWORD

Federal and state laws require that operators be completely trained in the safe operation of lift trucks.

Before you start operating this lift truck, make sure that you understand all driving procedures. It is important to operate your lift truck safely and efficiently.

This manual will help you learn how to operate your lift truck. This manual describes the controls, special features and the functions of each control.

This manual is not a training manual, it is a guide to help authorized operators safely operate a lift truck. Illustrations in this manual show the operator correct procedures for checking, starting, operating and stopping the lift truck.

Clark lift trucks are built to take hard work, but not abuse. They are built to be dependable but as with any lift truck, they are only as efficient as the operator and the persons responsible for maintaining them.

Do not make any repairs to this truck unless you have been trained in lift truck repair procedures and authorized by your employer.

**MANUALES DE INSTRUCCION PARA OPERADORES IMPRIMIDOS EN ESPAÑOL SON OBTENIDOS DE SU DISTRIBUIDOR CLARK.**

**BETRIEBSANWEISUNGEN IN DEUTSCHER SPRACHE KOENNEN SIE BEI IHREM CLARK-HAENDLER ERHÄLTEN.**

**MANUELS DE L'OPERATEUR EN LANGUE FRANCAISE PEUVENT ETRE COMMANDES CHEZ VOTRE DISTRIBUTEUR CLARK.**

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# **DRIVE SAFELY**

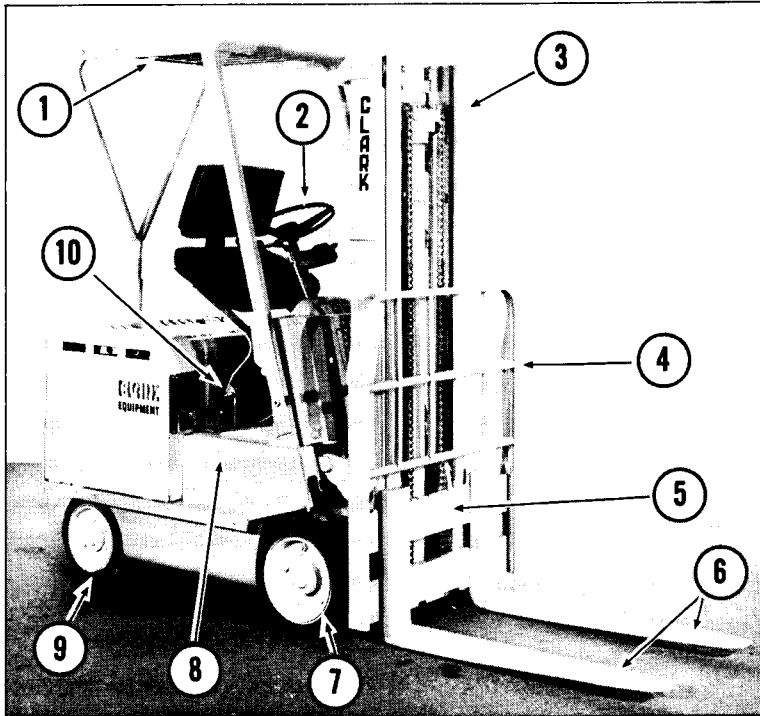
**BEFORE YOU OPERATE THIS LIFT TRUCK, READ AND UNDERSTAND THE INSTRUCTIONS, SIGNS AND MESSAGES IN THIS MANUAL AND ON THE LIFT TRUCK.**

**INJURY OR DEATH TO YOU OR OTHER PERSONNEL WILL OCCUR IF YOU DO NOT FOLLOW THESE INSTRUCTIONS AND MESSAGES.**

**STAY ALERT!**

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# Know Your Truck



1. Overhead Guard.
2. Operator's Compartment and Controls (see page 14).
3. Upright Assembly.
4. Load Backrest Extension.
5. Fork Carriage.
6. Load Forks.
7. Drive Axle and Wheels.
8. Machine Serial Number Location.
9. Steer Axle and Wheels.
10. Seat Operated Parking Brake Linkage.

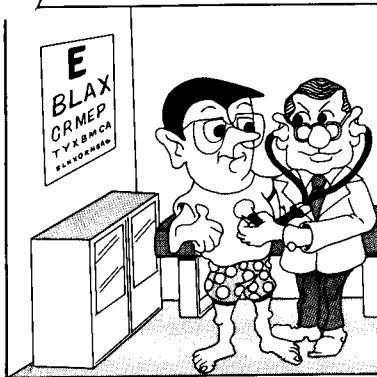
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## CLARKLIFT® 500 36 & 48\* VOLT ELECTRIC

2000 lbs. thru 5500 lbs. Rated Capacity

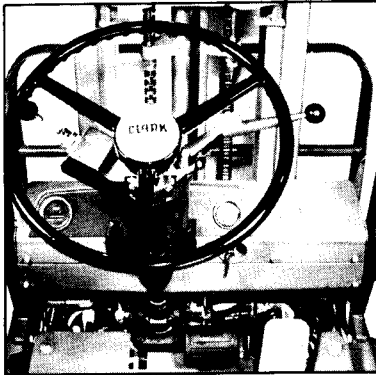
\*\*\* Optional on EC 20, 25 & S30 Models

# Safety



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Code: OI-337, Rev. June 84

1. Only physically qualified and thoroughly trained personnel shall be authorized to operate the Clarklift EC500 20, 25, S30, 35, 40, 45, 50 or 55 model trucks.

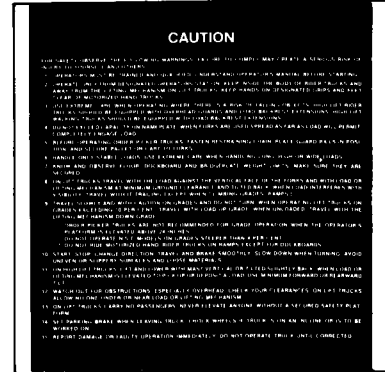
3. Learn how your truck is operated. Know its safety devices, how they function and how the special attachments, if any, work.

2. Prominently placed on every Clark truck is a list of basic rules for operation. These rules are for the protection of you and others in your operating area. Be familiar with them.

### NOTE

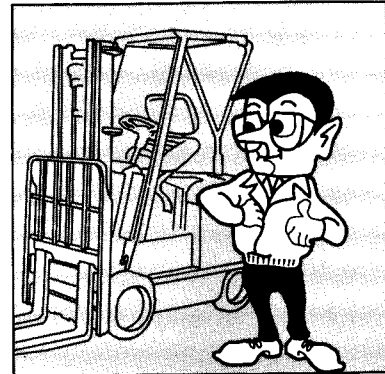
Effective in Lot 5041 for models EC20, 25 and S30, and Lot 4732 for models EC35 thru 55, a new warning decal replaces the caution decal shown. Read and understand the messages on the warning decal.

4. The wearing of safety glasses and safety shoes is recommended. Dress suitably and avoid loose fitting clothing.



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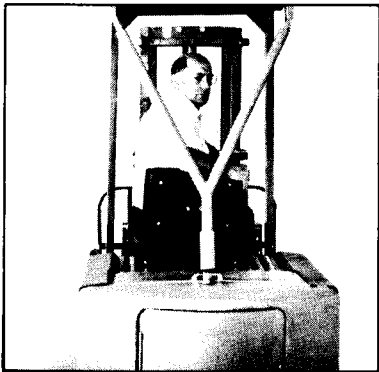
## Safety

5. Never operate a lift truck with wet or greasy hands or shoes.



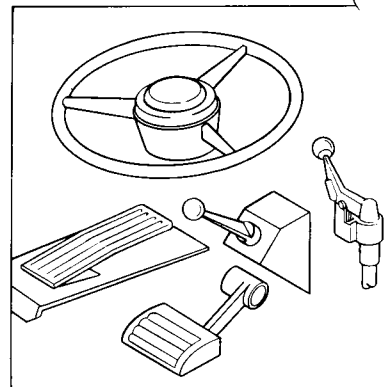
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7. Always look all around the truck before moving it in any direction. Then remember to start and stop slowly and smoothly.

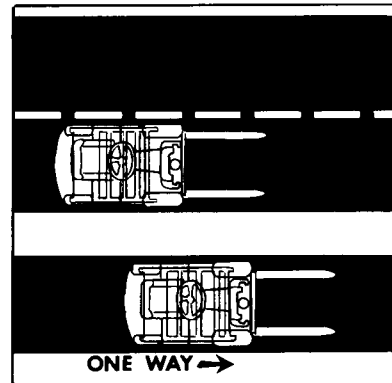
6. Before operating any lift truck, test the horn, brakes, seat operated parking brake, steering, lift-tilt controls, directional controls and special devices for proper operation. Report any improper operation to the proper authority.



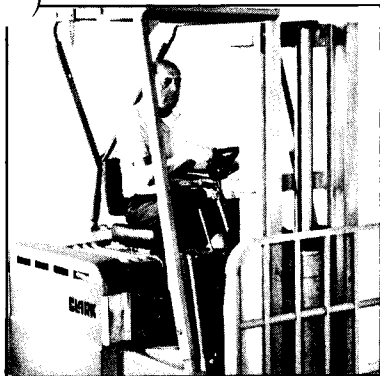
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8. Operate the truck only in designated truck routes and keep operating aisles clear. One-way traffic is recommended. If this is not practical in your operation heed highway regulations and drive to right of aisle centerline.



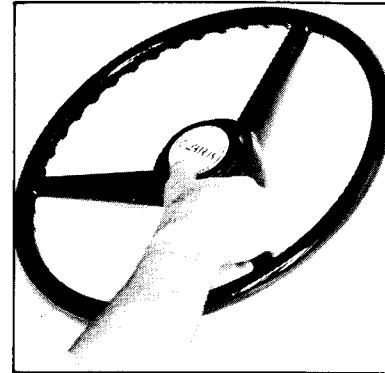
# Safety



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9. Be alert for pedestrians, other trucks or obstacles in your path of travel.

10. Sound horn at all corners, exits, entrances and when approaching pedestrians or bystanders.



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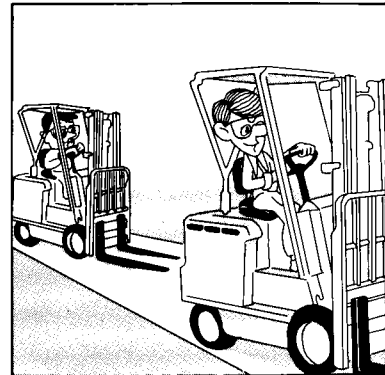
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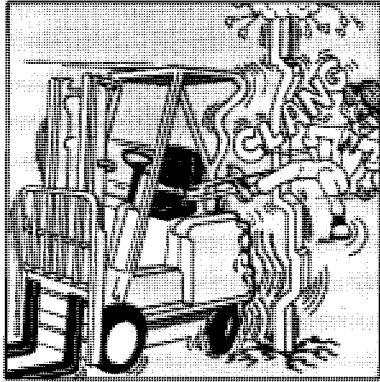
11. Obey all posted traffic rules and warning signs.

12. 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.

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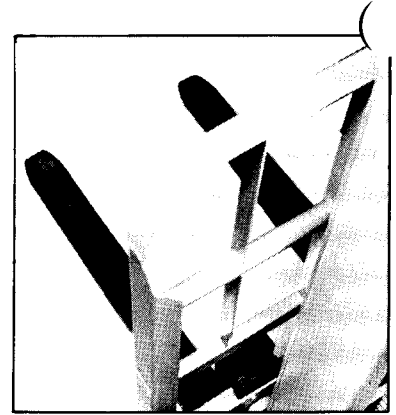
# Safety



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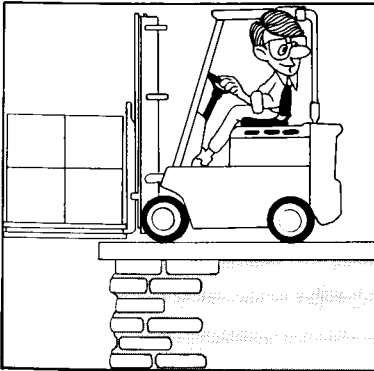
13. Be aware of rear end swing and be alert to prevent rear end swing damage to material in your operating area.

14. Be aware of the position of your fork tips when the truck is in motion. Be alert to prevent striking anything with fork tips.



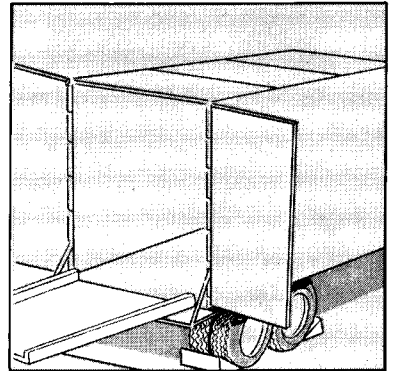
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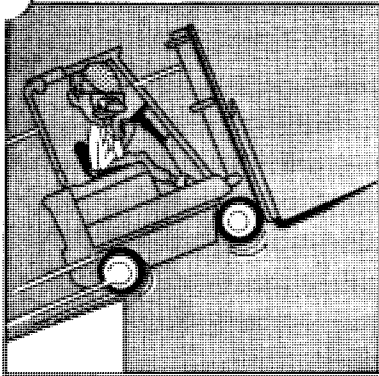
15. Be extremely cautious when operating truck near edge of loading dock.

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



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# Safety

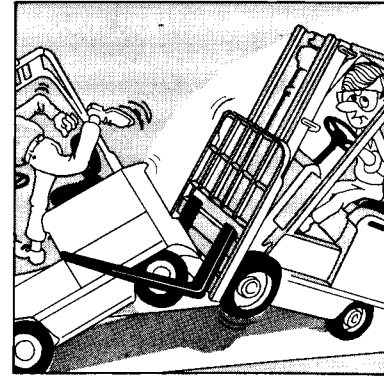


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17. Never allow stunt riding or indulge in horseplay while operating a fork lift truck.

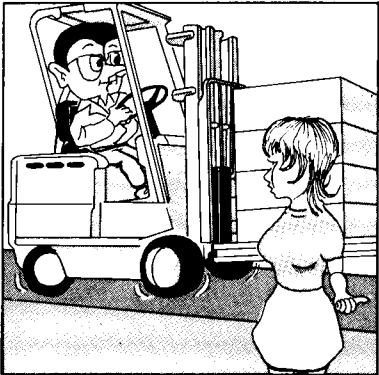
18. Never use your truck to push or tow another. Never allow your truck to be pushed or towed by another.

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



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19. Never carry unauthorized passengers. The quick response of a lift truck may cause riders to fall off. Besides, they distract you and this could be dangerous.

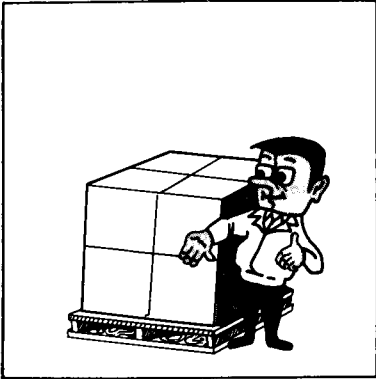
20. Know the rated capacity of your truck and its attachment (if any) and never exceed it. Study your truck data capacity plate and learn the facts stamped in areas 1 through 8.

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<b>CLARK EQUIPMENT</b>		1	
INDUSTRIAL TRUCK DIVISION	BATTLE CREEK, MICHIGAN		
MODEL NO.	2	TYPE	3
SERIAL NO.			
ATTACHMENTS			
LOAD CENTER		4	
CAPACITY WITH ATTACH LISTED ABOVE OR WITH FORKS - UPRIGHTS VERTICAL			
LBS		A	B
5		C	
APPROX. WT. ALL TRUCKS			
LESS BATT. - ELECTRICS		6	
APPROX. WT. ELECTRICS ONLY			
BATTERY WT.		MAX	MIN
BATTERY		7	NO
CAPACITY		LBS	VOLTS
8			
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 B 56.1-1968			

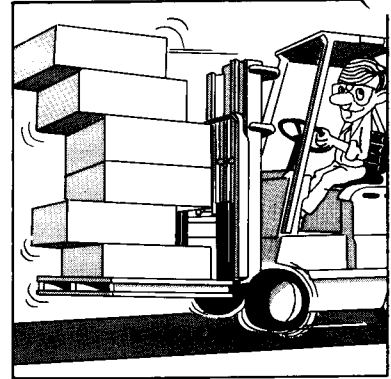
## Safety

21. Thoroughly inspect all loads to be moved for overload and/or poor balance. If the stability of a load is questionable, don't move it.



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22. Unstable loads are a hazard to you and to your fellow workers. Always make certain that your load is well stacked and evenly positioned across both forks. Never attempt to lift a load with only one fork.

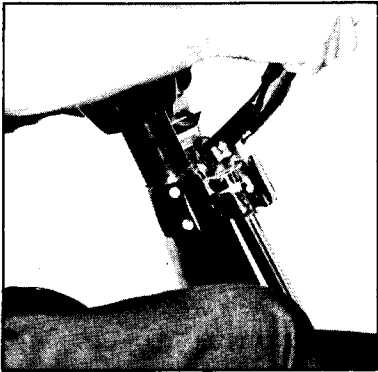


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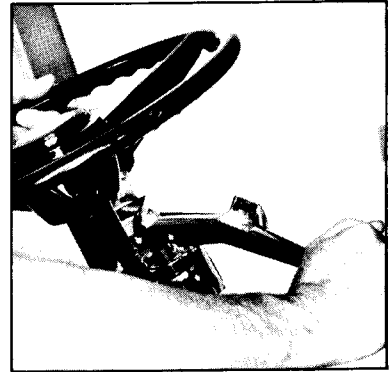
23. Before lifting check to insure adequate unobstructed overhead clearance.

Gradually and smoothly pull up on lift control lever. Return lever to neutral to stop lift at desired level.



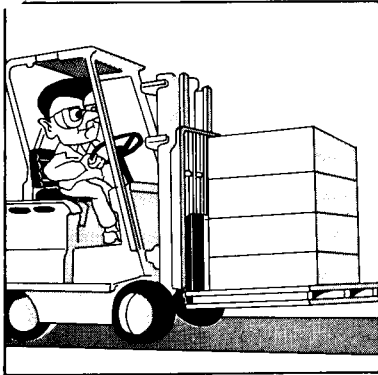
24. Push down on control lever to lower load.

Descent of load may be stopped at desired level by returning lever to neutral position.



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## Safety



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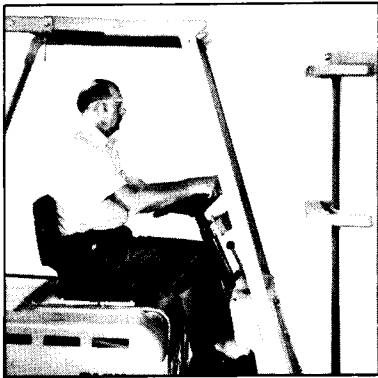
25. Always travel with load near floor and upright tilted back to cradle load. Never lift or lower load while truck is in motion.

26. Never permit anyone to stand or walk under elevated forks or other load engaging attachments if machine is so equipped.



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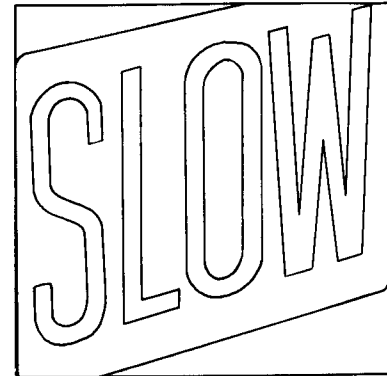
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27. Remain seated at all times and keep head, hands, arms, feet and legs within the confines of the operator's compartment.

Never reach into the upright for any reason.

28. Slow down for turns, ramps, bumps, cross aisles, wet or slippery floors and at all times when visibility is restricted.



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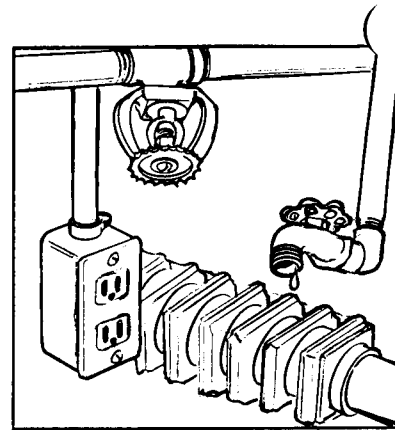
## Safety



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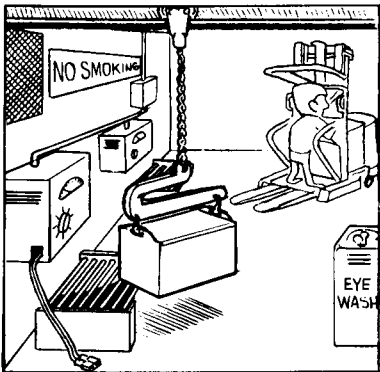
29. Know and observe floor load limits and overhead clearances in all operating areas. Make certain that floors of boxcars, trucks, trailers and elevators are adequate before entering.

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



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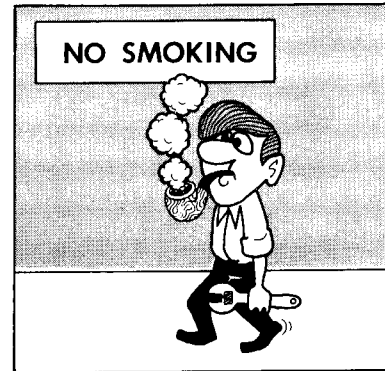
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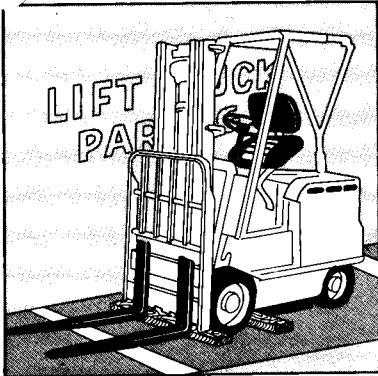
31. Batteries should be serviced or recharged only in designated charging areas and only by personnel thoroughly trained in safe battery servicing practices.

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

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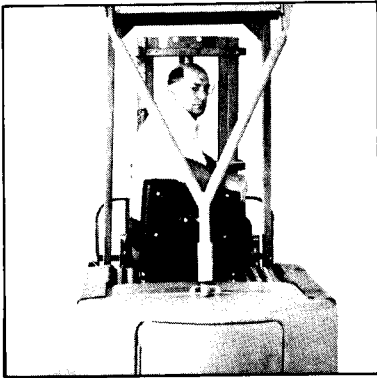


## Safety



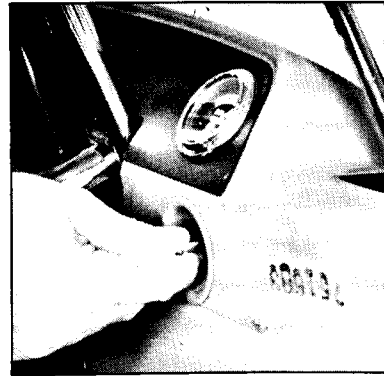
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33. Park lift trucks in designated areas only. Lower forks to floor, tilt upright forward, place directional control in neutral, remove switch key and block drive wheels to prevent roll.

34. If truck is to be left unattended make certain that traffic aisles are unobstructed and leave truck as described in item 33.

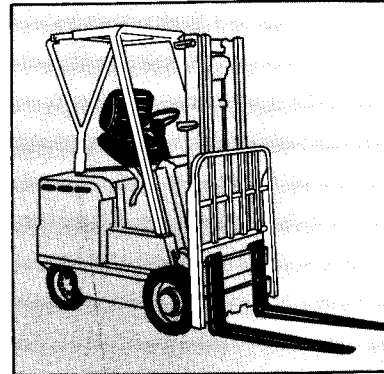


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35. When handling bulky loads which, because of their size and shape, restrict your vision — operate your truck in reverse to improve visibility.

36. Overhead guards and load backrest extensions are for your protection. Make certain that they are securely mounted and undamaged before operating your truck.

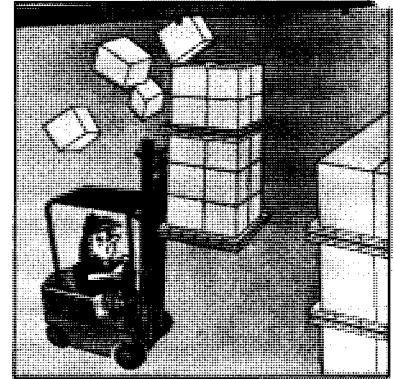




## Safety

37. Never lift or transport personnel on the forks of a lift truck. Use a manlift specifically designed for this purpose.

38. Don't handle double tiered loads. They're unstable and difficult to control. Even an overhead guard can't fully protect you from heavy objects dropped from these heights.

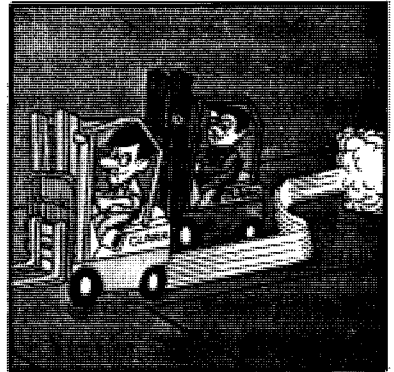


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39. Overloading is extremely dangerous. You don't have complete control of your truck and you are causing unnecessary wear.

40. Don't pass other trucks traveling in the same direction at intersections, blind spots or other dangerous locations.

Never add to your counterweight, always break down the load.

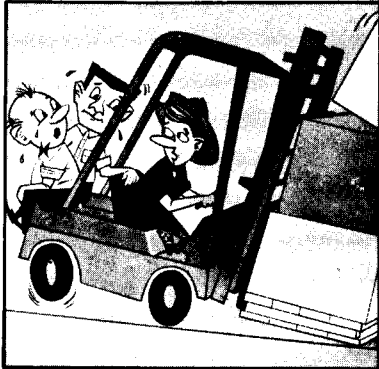


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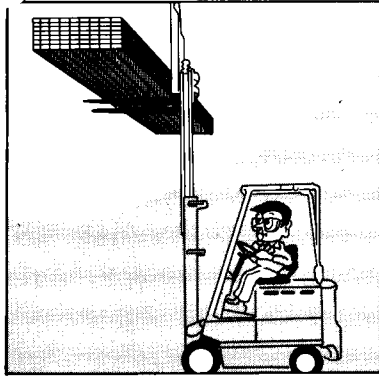


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## Safety

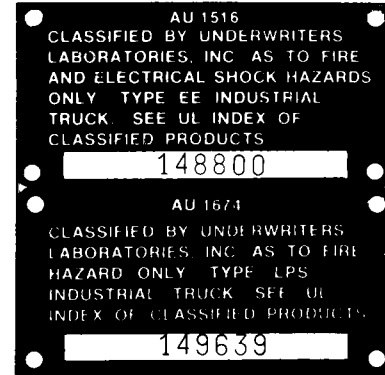


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41. Be extremely careful of load end swing when operating with loads of long lumber, pipe, etc.

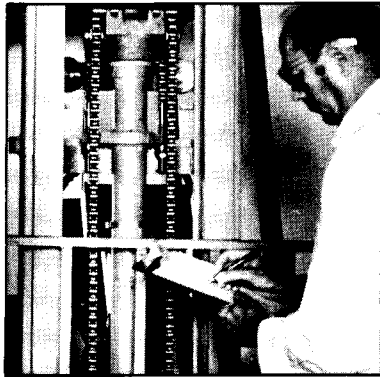
Always carry load close to floor with upright tilted back to cradle load whenever possible.

42. Know the UL construction type of your truck and make certain that trucks of this type may be operated in restricted areas before entering. Never take an unauthorized truck into restricted or hazardous areas.



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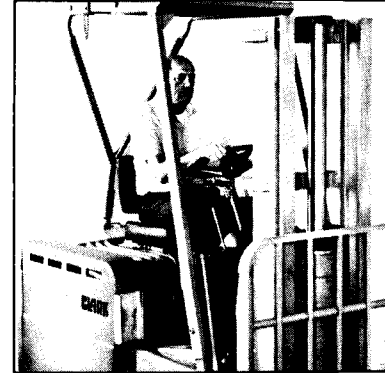
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43. Follow a scheduled planned maintenance and lubrication program.

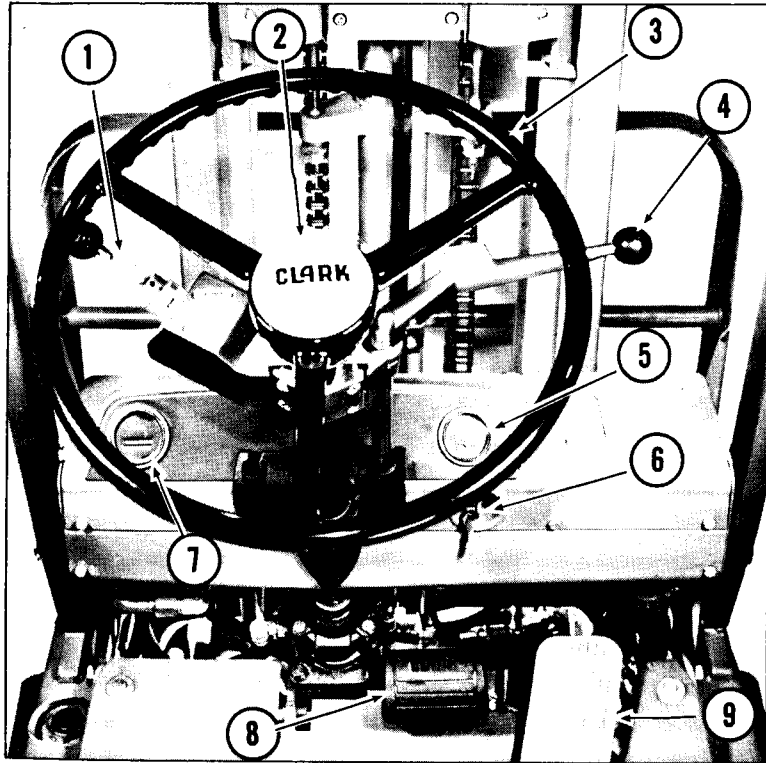
All adjustments and repairs must be performed by thoroughly trained and authorized personnel only.

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



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# Operator's Compartment & Controls



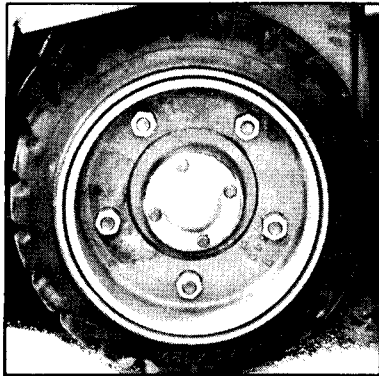
1. Directional Control Lever.
2. Horn Button.
3. Steering Handwheel.
4. Hydraulic Function Control Lever (Lift, Lower and Tilt).
5. Battery Charge Indicator.
6. Key Switch.
7. Hour Meter.
8. Service Brake Pedal.
9. Accelerator Pedal.

# Before Operation

CLARK 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"/> 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"/> Tire condition <input type="checkbox"/> Battery plug connection <small>Note: Be sure the battery plug connection is tight.</small> <input type="checkbox"/> Head and tail lights <input type="checkbox"/> Warning lights <input type="checkbox"/> Hour meter <input type="checkbox"/> Other gauges and instruments <input type="checkbox"/> Battery Charge indicator <small>Note: Key on, needle should indicate in green area.</small>	<input type="checkbox"/> Horn <input type="checkbox"/> Steering <input type="checkbox"/> Service brakes <input type="checkbox"/> Battery Load Test <small>Note: Watch battery indicator while holding lift lever on full load lift. If needle falls to red area, battery doesn't have sufficient charge to operate truck properly.</small> <input type="checkbox"/> Parking brake <input type="checkbox"/> Seat brake <input type="checkbox"/> Hydraulic controls

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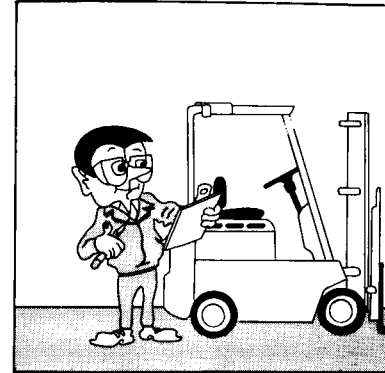


1. Each shift operator must complete an operator's daily check list (available from your Clark Dealer). Make all checks listed and give completed check list to the designated authority.

3. Check condition of drive wheels and tires. Note any apparent drive wheel or tire damage on the check list.

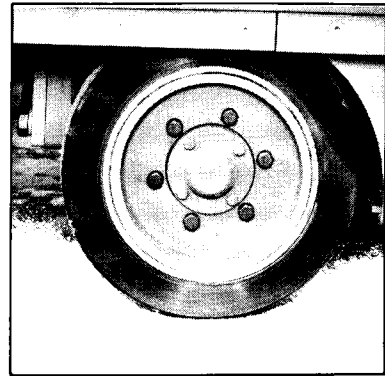
2. Walk around truck and visually check for damage and leaks. Note all damage and leaks on check list.

4. Check condition of steer wheels and tires. Note any apparent steer wheel or tire damage on the check list.

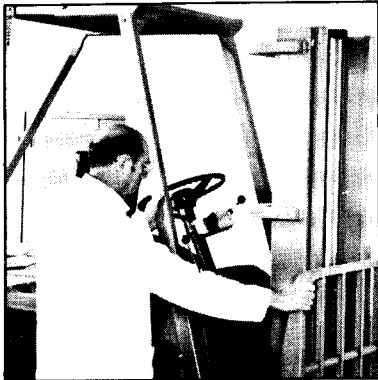


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## Before Operation

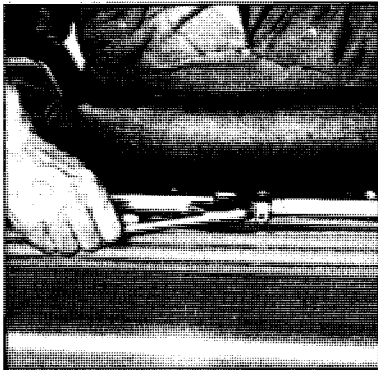


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5. Check condition of overhead guard and load backrest extension.

Make certain that they are properly positioned and secured.

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7. Operator seat adjustment is accomplished by releasing short lever at right hand side of seat.

Position seat to provide easy access to all hand and foot controls then release lever and make certain that seat locks in desired position.



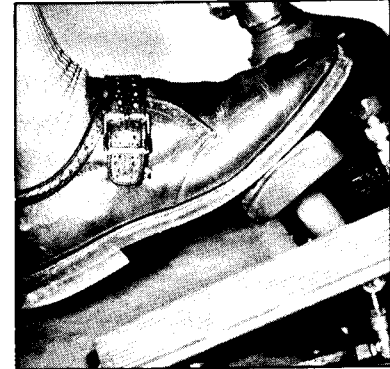
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6. Remove blocks from drive wheels, enter operator's compartment and seat yourself.

Remember — these trucks are equipped with seat operated parking brakes which will release automatically when seat is depressed. This may allow truck to roll if parked on an incline.

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8. Apply pressure to brake pedal with either foot. Pedal should be "firm". If pedal is "spongy" or "fades" under pressure do not operate the truck. Report brake deficiency immediately.



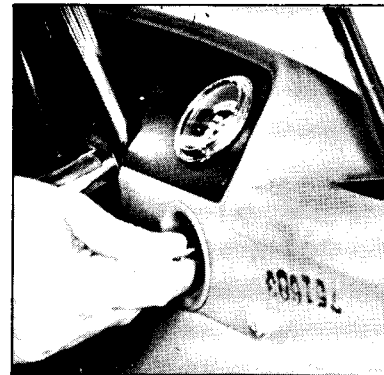
## Before Operation



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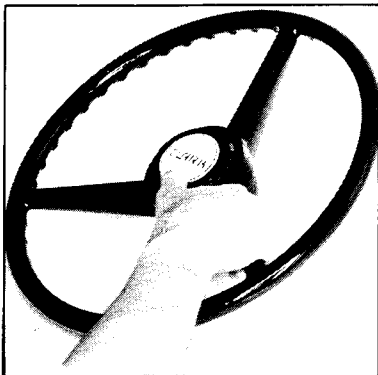
9. Visually check battery connector to make certain that it has been properly connected and is not damaged.

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



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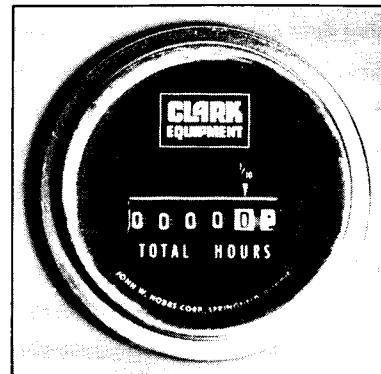


11. Press horn button to determine if horn is operational.

If horn does not function properly, report it immediately to the designated authority.

12. Check hour meter to insure that it is undamaged and functioning properly.

Report any malfunction or damage to the proper authority.



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## Before Operation



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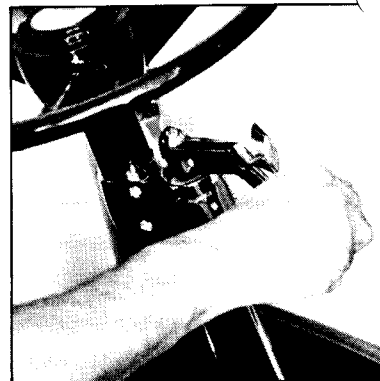
13. Check battery discharge indicator for damage. Needle should remain in green area, check this meter frequently during operation.

Report any malfunction or damage immediately.

14. Gently pull back on tilt control lever and hold.

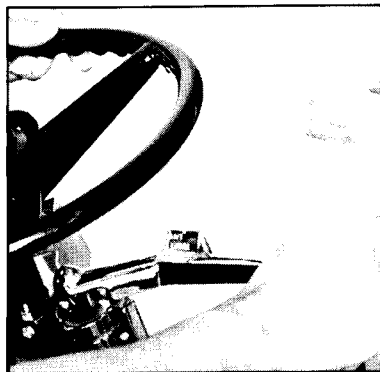
When upright reaches full back tilt check position of battery indicator needle and release control lever.

If needle does not remain in green area battery does not have sufficient charge.



13681

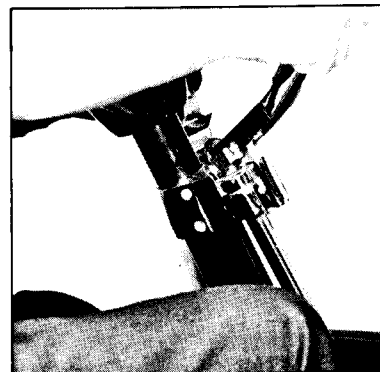
13682



15. Push forward on tilt control lever and hold until upright reaches near vertical position.

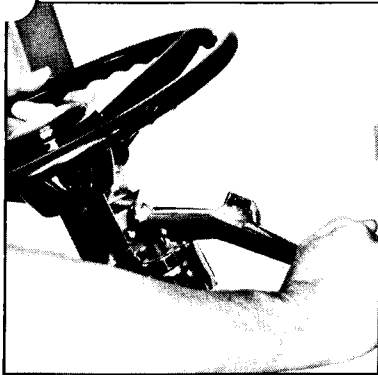
Release control lever to stop upright tilting action at desired point.

16. Check for adequate unobstructed overhead clearance. Gently pull up on lift control lever. Observe upright lift and report any erratic or unusual operation. Release lever to stop lift.



13669

## Before Operation



13670

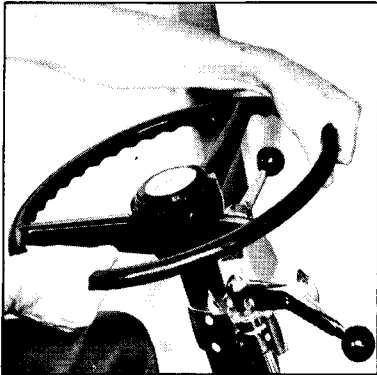
17. Push lift control lever down and hold while observing descent of upright. When forks reach desired position, slightly above floor, release the lever to stop upright lowering. Report any erratic or unusual operation immediately.

18. Check to insure unobstructed forward path of travel and apply service brakes with either foot. Place (Push) directional control switch lever into position for forward travel.



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19. Check steering operation by turning hand wheel to right and then to left. Return hand wheel to proper position for desired path of travel. Note any unusual noise or operation.

20. Place right foot on accelerator (release service brake if operating with left foot) and press gently until truck begins to move forward.

Release accelerator and apply service brakes to stop truck.

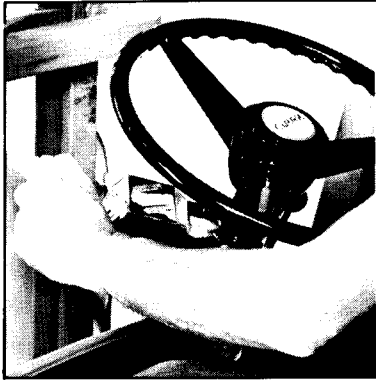


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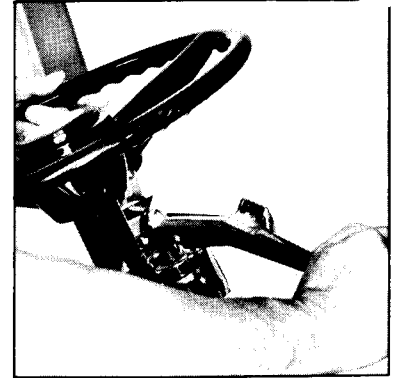
# Before Operation

21. Place (Pull) directional control switch into proper position for reverse travel. Gently press accelerator pedal with right foot until truck moves backward. Release accelerator pedal and move directional control switch lever to neutral.



13679

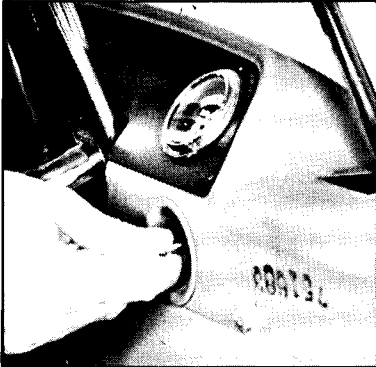
22. Lower upright so that lift forks rest on floor and tilt forward to insure that tips of forks are on floor.



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13672

23. Turn switch key counterclockwise to "off" position, remove key and carefully dismount from truck. Don't forget to block drive wheels if truck must be left on an incline.

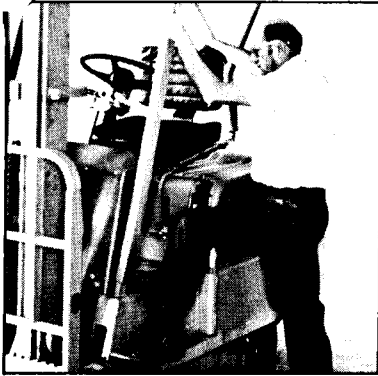


24. Review operator's daily check list to make certain that it has been properly marked and turn it in to the designated authority.

13124

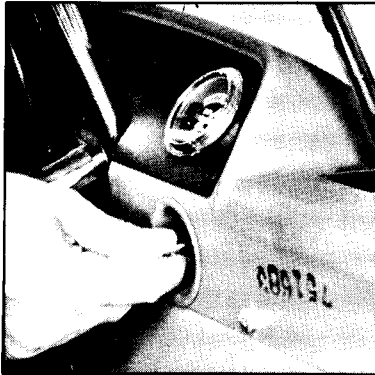
CHECKLIST	
ELECTRIC TRUCK DRIVER'S DAILY CHECKLIST	
Check Before Start Of Each Shift	
Date _____	
Truck No. _____	Supervisor's OK _____
Operator _____	
Hour Meter Reading _____ End of Day _____ Hrs for Day _____	
Start of Day _____	
<input checked="" type="checkbox"/> Boxes Accordingly <input type="checkbox"/>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

## Operation



13677

13672



1. Remove blocks at drive wheels, enter operator's compartment and seat yourself.

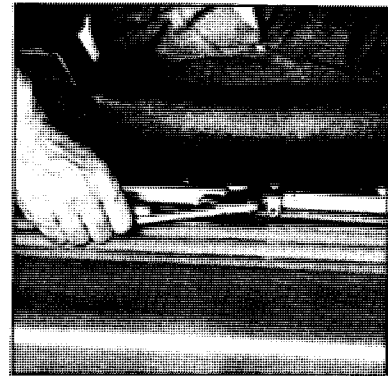
Remember — these trucks are equipped with seat operated parking brakes which will automatically release when seat is depressed — this may allow truck to roll if parked on an incline.

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

2. Adjust operator's seat to a position which is comfortable for you and provides easy access to all hand and foot controls.

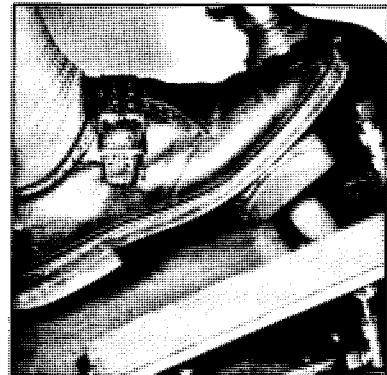
Make certain that seat locks into selected position after adjustment.

4. Place foot on brake pedal and push down to apply the service brakes.

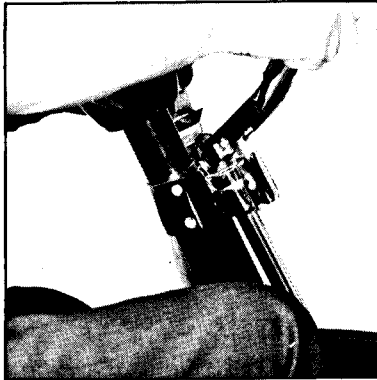


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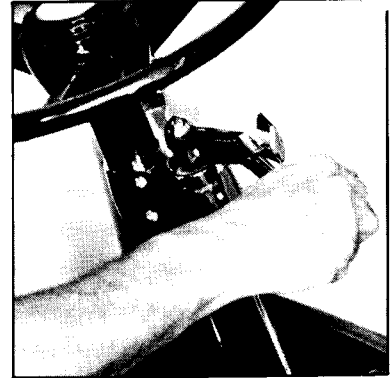
## Operation



13669

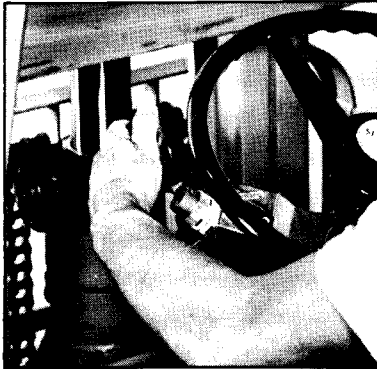
5. Carefully pull up on lift control lever to raise forks from floor slightly.

6. Pull back on tilt control lever to tilt upright back slightly and raise fork tips from floor.



13681

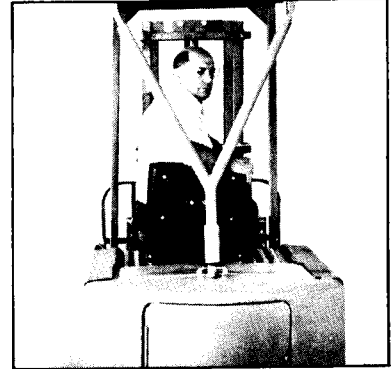
13680



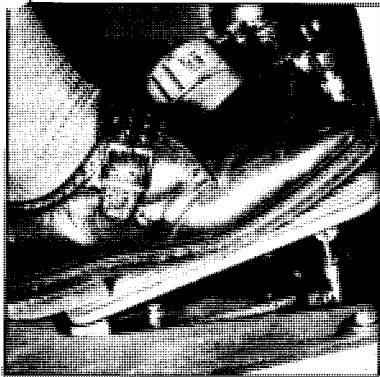
7. Place directional control switch lever in proper position for desired direction of travel. Push to front for forward or pull back for reverse.

8. Check all around truck to insure that the desired path of travel is unobstructed.

13667



## Operation



13684

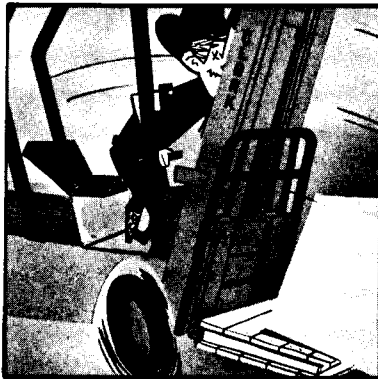
9. Place right foot on accelerator and press until truck begins to move in selected direction. Depress accelerator smoothly until speed is increased to desired level.

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



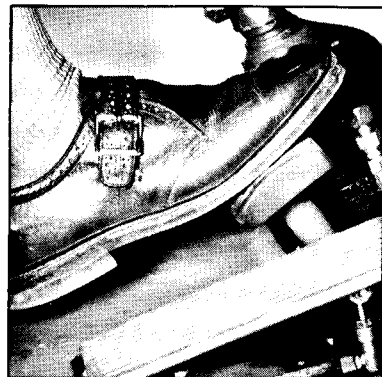
13668

13679



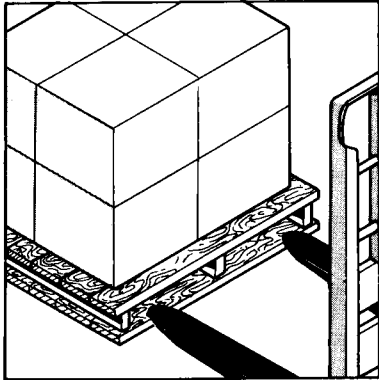
11. A standard feature of your truck is plugging. The controlled electrical reversing of the drive motor. This permits directional change without first coming to a complete stop.

12. To stop truck release accelerator pedal and place foot on service brake pedal. Gently press down on brake pedal to bring truck to smooth stop.



13673

## Operation

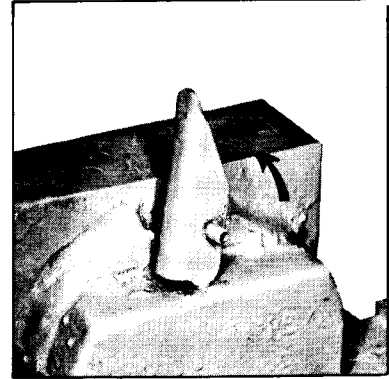


13203

13. Remember to enter load slowly and squarely.

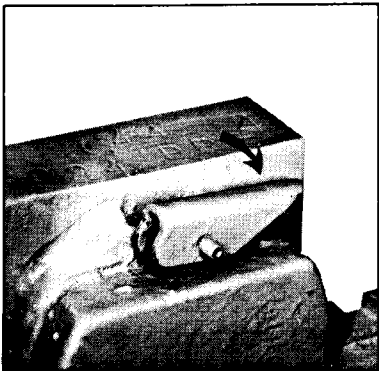
Load should be centered and forks should be near outside edges, if they are not —

14. Adjust them by lifting fork lock lever and sliding forks to the desired position. Then . . .



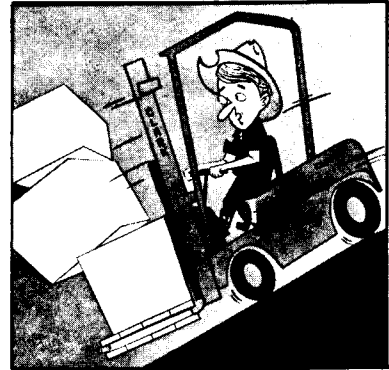
10758

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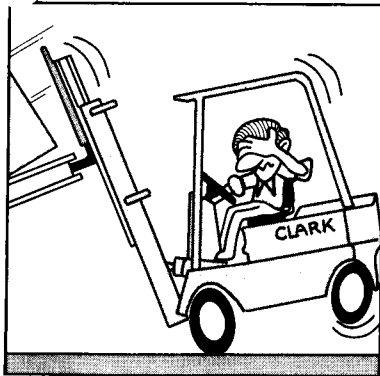
15. . . . Remember to lower lever to lock forks securely into notch atop fork bar.

16. It's risky to drive down a ramp load first. Your truck can tip forward if the ramp is steep enough. Always back down slowly and never turn sideways on an incline.



13833

## Operation



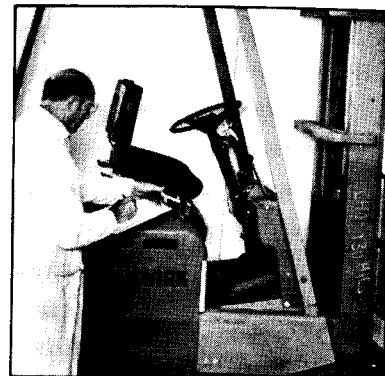
13258

17. Use minimum forward and reverse tilt when stacking and unstacking loads.

Never tilt load forward unless it is over stack or at low lift height.

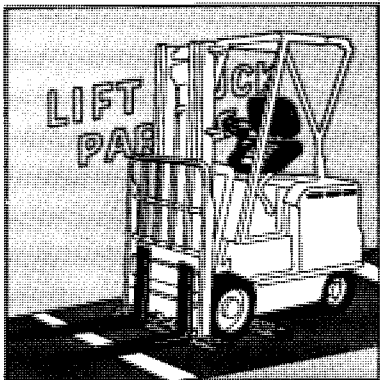
18. Be constantly alert for unusual or erratic operation.

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



13685

## Parking

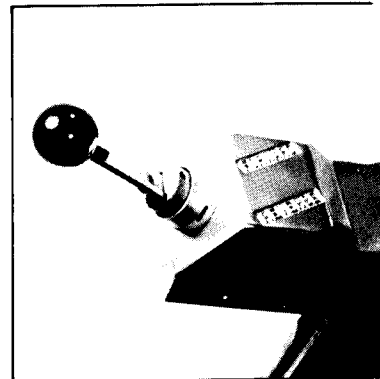


13692

1. Park lift trucks in designated parking areas only.

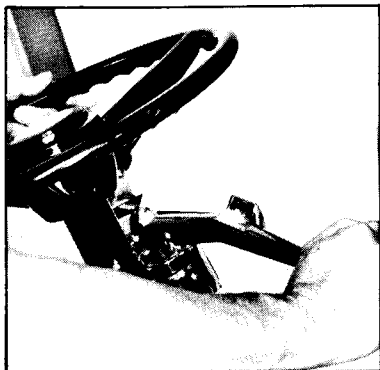
Do not obstruct traffic lanes or aisles.

2. Place directional control switch lever in neutral position.



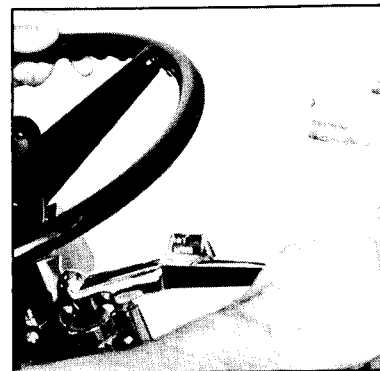
7216

13670



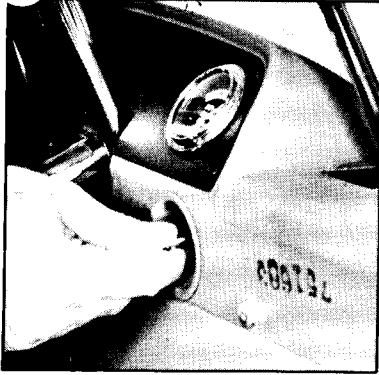
3. Lower forks to floor.

4. Tilt upright forward until fork tips rest on floor.



13682

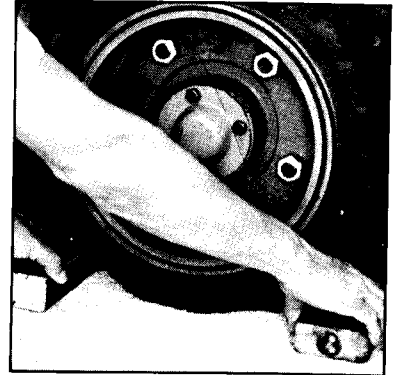
## Parking



13672

5. Turn switch key counterclockwise to "off" position and remove key.

6. Carefully dismount from truck and block drive wheels to prevent accidental roll if truck is to be left on an incline.



13686



## 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. ....



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