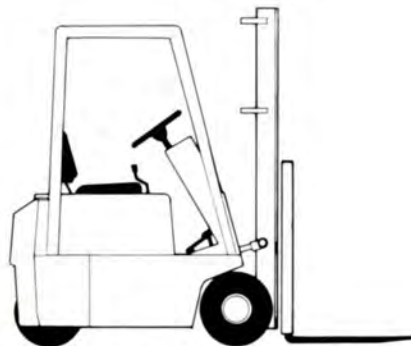

Operator's Instruction Manual



TM 145/TM127 10 thru 15S

CLARK

Book No. 2758600
OI-500, 2nd 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 lift truck unless you have been trained in lift truck repair procedures and authorized by your employer.

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

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

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!

SUMMARY OF SAFE OPERATING PROCEDURES

1. Do not operate this truck unless you have been trained and authorized to do so. Read all warnings and instructions in operator's manuals and on this truck.

2. Do not operate this truck until you have checked its condition. Give special attention to Tires, Horn, Lights, Battery, Controller, Lift and Tilt Systems including forks and attachments, chains, cable and limit switches, brakes, steering mechanism, and guards.

3. Operate truck only from designated operating position. Never place any part of your body into the mast structure, between the mast and the truck, or outside the truck. Do not carry passengers.

4. Do not operate truck without overhead guard, unless conditions prevent use of a guard. Use special care if operation without overhead guard is required.

5. Do not handle loads which are higher than the load backrest or load backrest extension unless load is secured so that no part of it could fall backward.

6. Do not handle unstable or loosely stacked loads. Use special care when handling

long, high or wide loads to avoid losing the load, striking bystanders, or tipping the truck.

7. Do not overload truck. Check capacity plate for load weight and load center information.

8. Lift trucks will tip over if not operated correctly. Start, stop, travel, steer and brake smoothly. Slow down for turns and on uneven or slippery surfaces that could cause truck to slide or overturn. Use special care when traveling without load as the risk of overturn is greater.

9. Elevate forks or other lifting mechanism only to pick up or stack a load. Lift and lower with mast vertical or tilted slightly back — NEVER FORWARD. Watch out for obstructions, especially overhead.

10. Operate tilting mechanism slowly and smoothly. Do not tilt forward when elevated except to pick up or deposit a load. When stacking, use only enough backward tilt to stabilize load.

11. Travel with load or lifting mechanism as low as possible and tilted back. Always look in direction of travel. Keep a clear view and

when load interferes with visibility, travel with load or lifting mechanism trailing (except when climbing ramps).

12. Use special care when operating on ramps — travel slowly, and do not angle or turn. When truck is loaded, travel with load uphill. When truck is empty, travel with lifting mechanism downhill.

13. Observe applicable traffic regulations. Yield right-of-way to pedestrians. Slow down and sound horn at cross aisles and wherever vision is obstructed.

14. When using forks, space forks as far apart as load will permit. Before lifting, be sure load is centered and forks are completely under load.

15. Do not allow anyone to stand or pass under load or lifting mechanism.

16. Do not lift or move personnel on the forks of a lift truck. Use a manlift which is specifically designed for this purpose.

17. Do not operate any truck with wet or greasy hands.

SUMMARY OF SAFE OPERATING PROCEDURES (Continued)

18. Make sure your truck is the correct fire safety type for the area in which you are working. The correct type designation for the truck is on the nameplate.

19. Observe and comply with instructions concerning floor loadings. Truck weight information is located on the nameplate.

20. Look in the direction of travel and keep a clear view of the path of travel. When visibility is obstructed, use extreme caution.

21. Do not run over objects on the roadway surface as truck stability could be adversely affected.

22. Before entering trucks or trailers, make sure the brakes on the truck or trailer are applied and wheel chocks are in position, or the trailer is locked to the loading dock. If trailers are not coupled to a tractor, supports must be used to prevent upending or corner tipping.

23. Before driving over a dockboard or bridge plate, make sure it is secure. Drive carefully and slowly across the dockboard or bridge plate, and never exceed its rated capacity.

24. If a truck must be parked on an incline, put blocks at the wheels.

25. Make a report of all accidents involving personnel, building structures, and equipment to the correct authority.

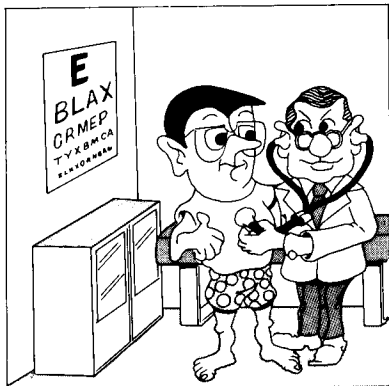
26. Before getting off truck, neutralize travel control, fully lower lifting mechanism and set parking brake. When leaving truck unattended, also shut off power.

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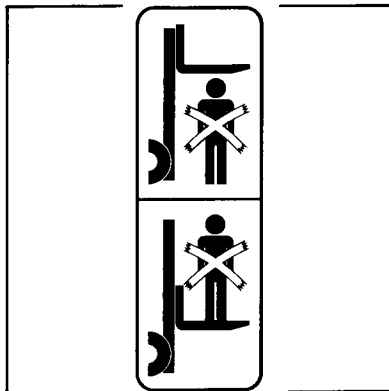
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Safety



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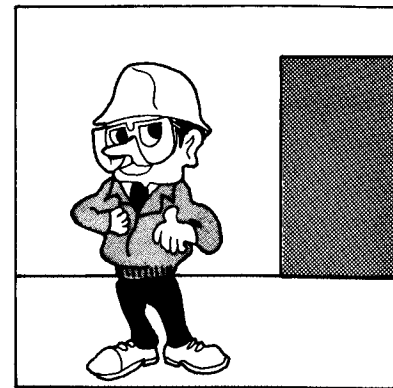
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Code: OI-500 February 1980

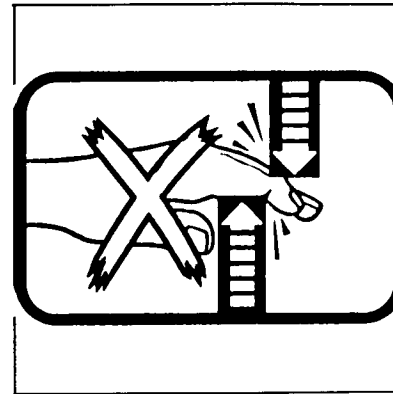
1. Only physically qualified and thoroughly trained personnel should be authorized to operate Clark lift trucks.

2. *Do not* wear loose-fitting clothing when operating lift truck. *Always* wear suitable clothing with a hard hat, safety glasses and safety shoes.



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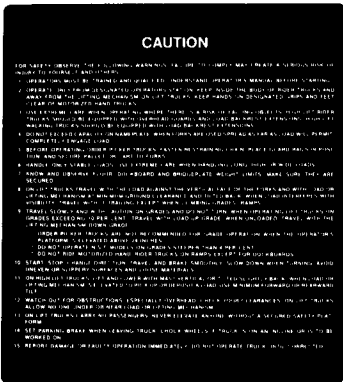
19341



3. Prominently placed on the truck is a decal which warns against anyone riding on, or walking under, elevated forks or other load engaging attachments if machine is so equipped. *Do not* allow anyone to do so as personal injury may occur.

4. Prominently placed on upright tie bars is a decal which warns against placing hands in upright. This is also a warning to keep all parts of the body out of the lifting mechanism. *Do not* reach into the upright for any reason.

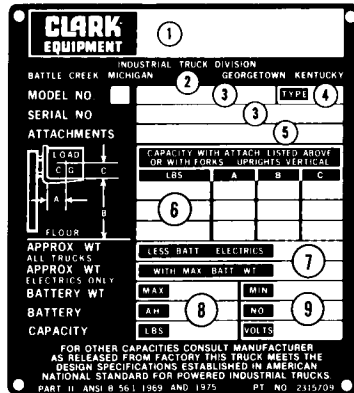
Safety



13110

5. 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.

6. Know the capacity of your truck and its attachments (if any) and never exceed it. Study your truck data capacity plate and learn the facts stamped in areas 1 through 9.



18616

7. Always check your lift truck with the use of the driver's daily checklist, before starting your daily operations. Also know your truck completely — its operation, safety devices, how they function, and special attachments, if any. Do not operate damaged or faulty lift truck. Replace missing decals and nameplates immediately.

8. Do not operate truck in unauthorized areas. Always obey all traffic signs, right-of-ways to pedestrians, etc. Slow down, sound horn at cross aisles or wherever vision is obstructed.

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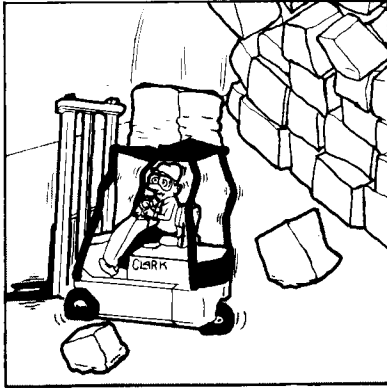


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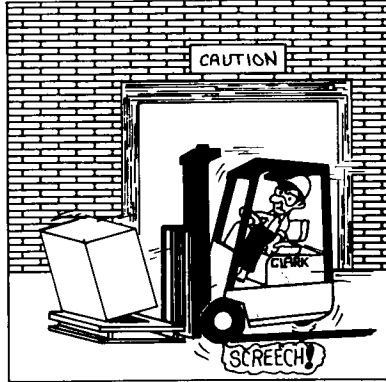


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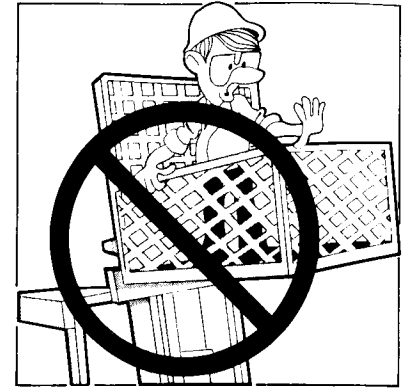
19954

9. *Do not* operate truck without an overhead guard and load backrest to protect you from falling objects. The overhead guard will protect you from objects but will not withstand the impact of a falling capacity load.



19958

10. *Do not* start, stop, travel, steer, brake or change directions suddenly, for truck could tip up or tip over, causing damage to truck, load or personal injury. *Always* operate truck smoothly, slow down when turning, and avoid uneven or slippery surfaces. Use special care when traveling without load as risk of tipping is greater.



17631

11. Do not use your lift truck to lift personnel.

Safety

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



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13. Always travel with mast tilted back to cradle the load and keep forks as low as possible. Keep a clear view in direction of travel.



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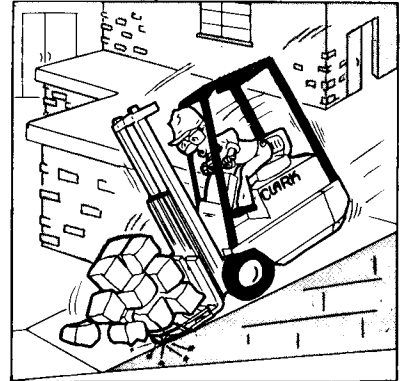
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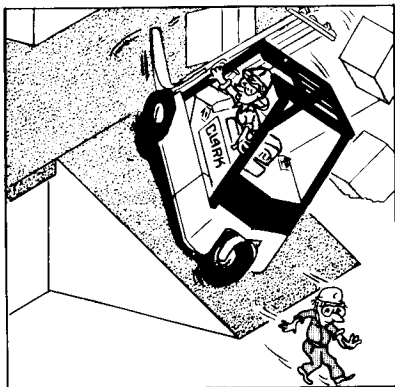
14. *Do not* drive forward when handling loads that restrict your vision. *Always* operate your truck in reverse to improve visibility under this condition, except when climbing ramps.

15. *Do not* drive on ramps with load downhill. This could cause truck to tip up and lose control, resulting in an accident. *Always* travel with load uphill, and when truck is empty, travel with lifting mechanism downhill.

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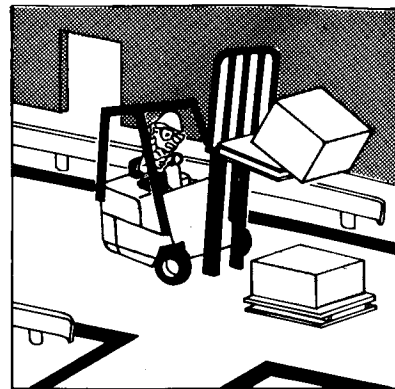
Safety



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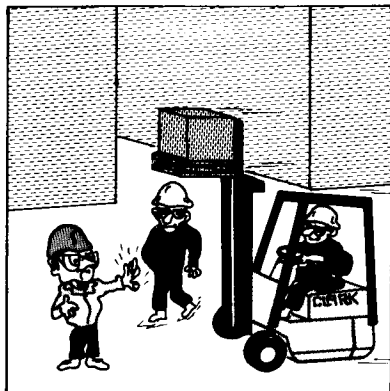
16. *Do not* angle or turn truck while operating on a ramp, truck may lose stability and tip over. *Always* travel slowly and operate straight up and down ramps.

17. *Do not* raise load higher than necessary when stacking or unstacking loads or use excessive forward or reverse tilt. This could cause truck to tip up, resulting in damage or personal injury. *Always* cradle load back and only raise slightly higher than stacking surface.



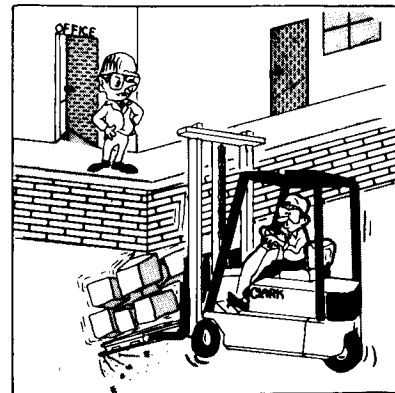
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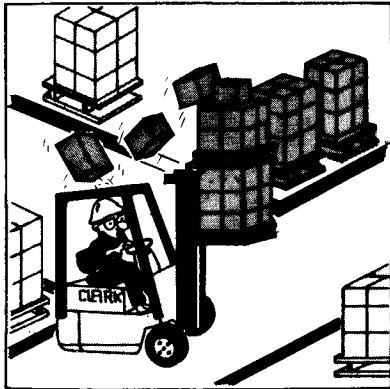
18. *Do not* permit any one to stand or pass under the load or lifting mechanism.

19. *Do not* operate truck without forks completely under load, or lift load with one fork. *Always* space forks as far apart as load will permit, with forks completely under load and centered.



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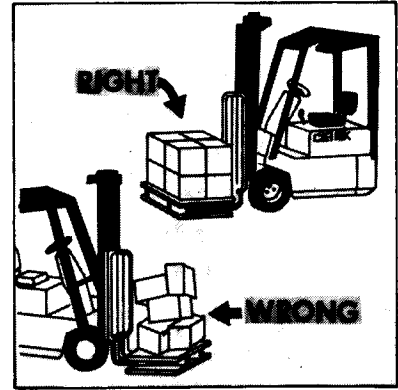
Safety



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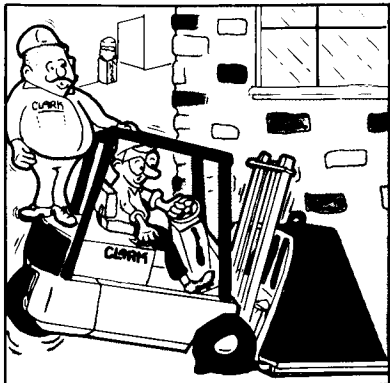
20. *Do not* handle loads which are higher than the load backrest. They could fall off, endangering your life and others'.

21. *Do not* handle unstable loads, for they are a hazard to you and others. *Always* make certain load is well stacked and evenly positioned across both forks. Use special care when handling long, high or wide loads to avoid losing the load, striking bystanders or tipping truck over.



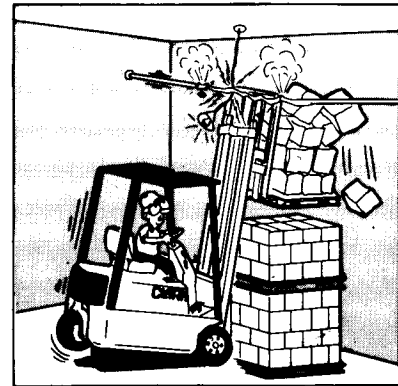
19957

19953



22. *Do not* overload truck or add counterweight to lift truck. *Always* know lift truck load capacity stamped on nameplate. Overloading can cause the truck to tip over, damage the truck or cause other safety hazards.

23. *Do not* travel with load raised. This could cause the truck to tip over, load to drop or damage overhead obstructions, upright and load. *Always* watch out for water pipes, lights, heat ducts, etc., when stacking load.



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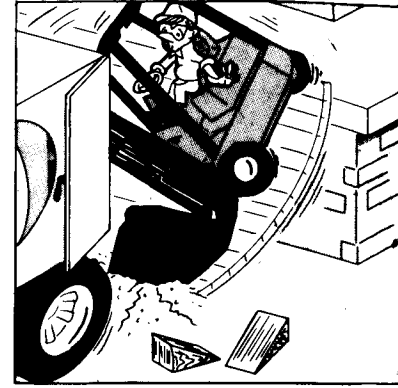
Safety



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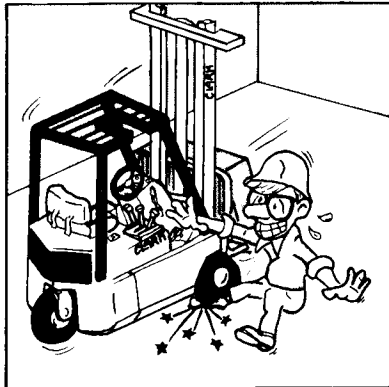
24. *Do not* operate truck near edge of dock. This could cause truck to fall off, resulting in personal injury. *Always* maintain a safe distance from the edge of loading docks when operating truck.

25. *Do not* operate your truck over bridge plates without checking them first. *Always* chock wheels of vehicles being loaded or unloaded. Check bridge plates for adequate strength, placement, and being secure.



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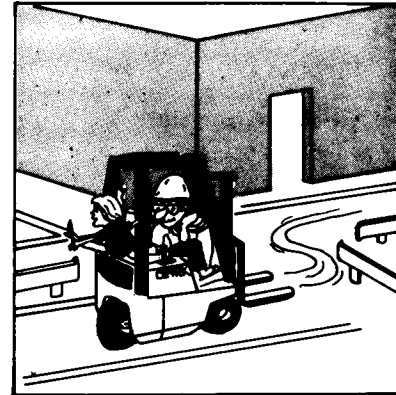
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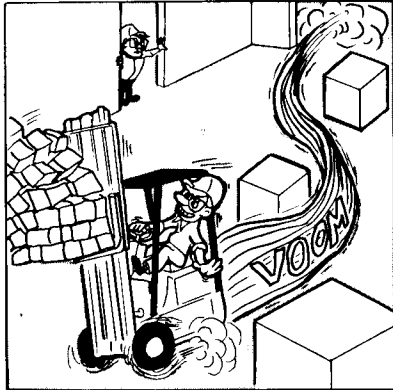
26. *Do not* operate your truck from outside the driver's compartment. *Always* keep hands on designated grips and feet and arms within operator's compartment.

27. *Do not* carry passengers on a lift truck. The quick response of a lift truck will cause riders to fall off or they could distract you and cause an accident.

19956



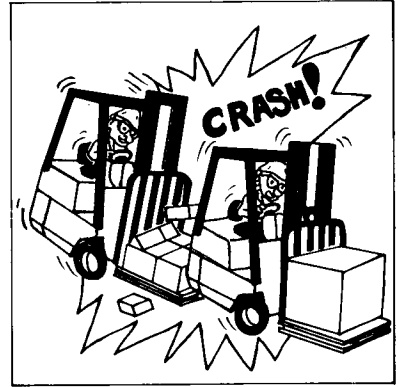
Safety



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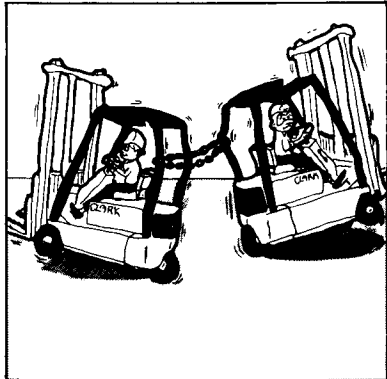
28. Stunt driving is dangerous. It can cause damage to equipment and personal injury. A good driver never indulges in stunt driving or horseplay.

29. *Do not* operate your truck closely behind another or an accident could occur, causing damage to equipment or injury to yourself and others. *Always* maintain a safe distance for stopping under any conditions.



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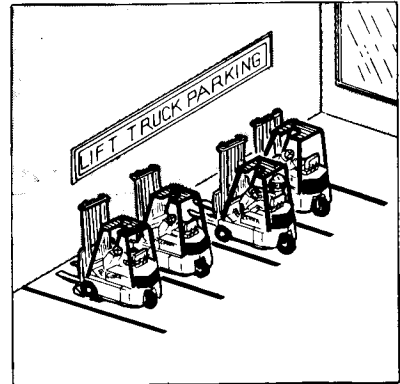
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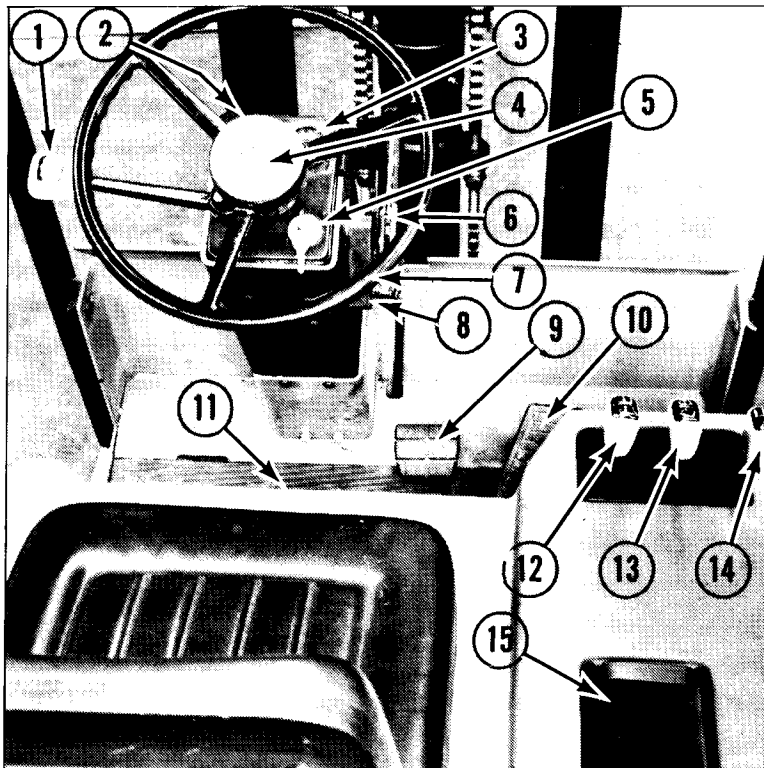
30. *Do not* use or allow your lift truck to be pulled or pushed by another lift truck. This could cause damage to both trucks or personal injury. *Always* notify the proper authority immediately after a lift truck becomes disabled and requires moving.

31. *Always* park truck in designated parking area. Before getting off truck, rest forks on floor, place directional lever in neutral position, set parking brake and shut off power. Remove switch key and block drive wheels to prevent roll.

19947



Operator's Compartment & Controls



19937

1. Directional Control Lever
2. Hour Meter
3. Battery Discharge Indicator
4. Horn Button
5. Key Switch
6. Parking Brake
7. Steering Handwheel
8. Pylon Release Lever
9. Brake Pedal
10. Accelerator Pedal
11. Seat and Battery Cover Release Latch
12. Lift Control Lever
13. Tilt Control Lever
14. Auxiliary Control Lever
15. Emergency Battery Disconnect

Before Operation

**ELECTRIC TRUCK
DRIVER'S DAILY CHECKLIST**
Check Before Start Of Each Shift

Date: _____

Operator: _____ Supervisor's I.D.#: _____

Hour Meter Reading: _____

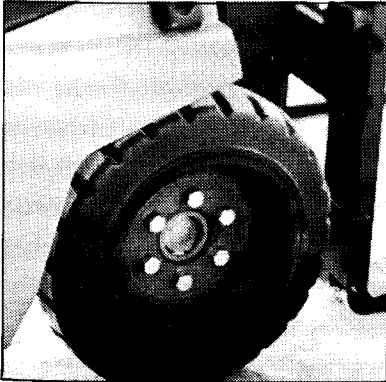
Start of Day: _____ End of Day: _____ Mile Per Day: _____

Works As Usual OK Needs Attention or Repair

Visual Checks	Operational Checks
<ul style="list-style-type: none"> Check fluid levels and leaks Tire condition Routing plug contact force Note: Be sure the battery plug connection is tight Head and tail lights Warning signal Horn Other gauges and instruments Number 1 charge indicator Note: Key on handle should indicate in green area 	<ul style="list-style-type: none"> Start Steering Service brakes Battery level Test Note: Watch battery indicator while holding key down on full back tilt if meter fails to red area, battery does not have sufficient charge to operate truck properly Parking brake Seat brake Hydraulic controls

13124

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

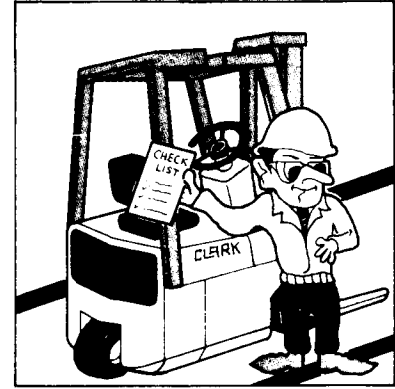
3. Note condition of drive wheels and tires. Tire pressure for pneumatic-tired models must be maintained at [971 kPa] or 142 P.S.I.

Consult planned maintenance and adjustment manual for proper inflation procedures.

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

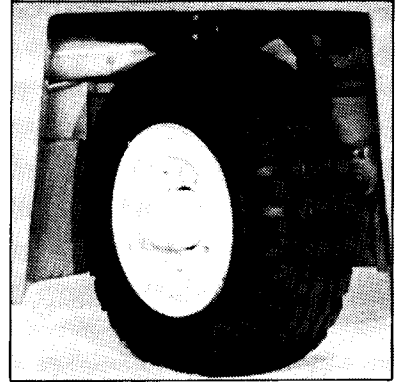
4. Check condition of steer wheel and tire assembly.

Note any apparent damage on checklist.



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Before Operation



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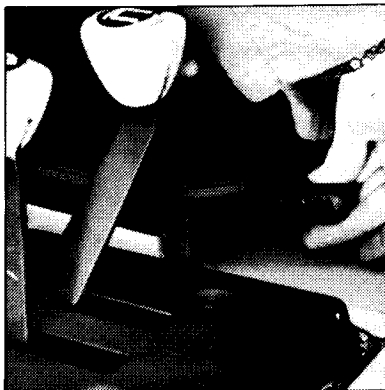
5. Check condition of overhead guard and load backrest extension. Make certain they are properly positioned and mounted securely.

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



19938

19503



7. Seat adjustment is accomplished by releasing short lever at right front of seat.

Position seat to provide easy access to all controls, free lever and make sure seat is locked in desired position.

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.



19502

Before Operation

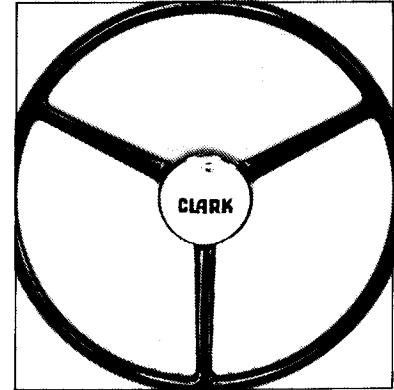
9. Insert key into switch and turn clockwise to "on" position.



19541

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

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

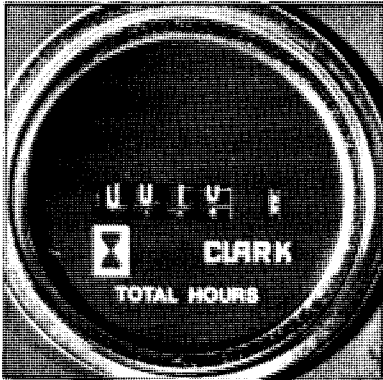


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19516

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

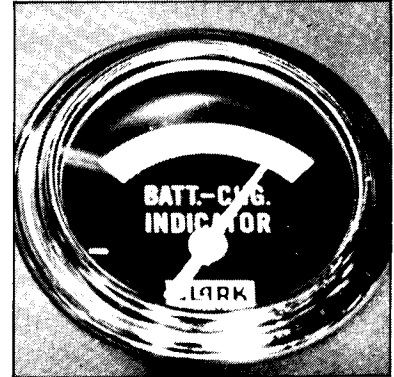
Report any malfunction or damage to the proper authority.



13179

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

Report any malfunction immediately.



Before Operation



"TM" Tilt Control

19535

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

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

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

Push forward on lever to return upright to near vertical position and release lever.

Code: OI-500 February 1980



"TM" Lift Control

19506

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



"TM" Lift Control

19525

15. Push forward on lift control lever and observe descent of upright. When forks reach floor release lever, it will return to neutral and stop upright lowering. Report any erratic or unusual operation immediately.

Before Operation



19538

16. Check to insure unobstructed forward path of travel.

Apply service brake.

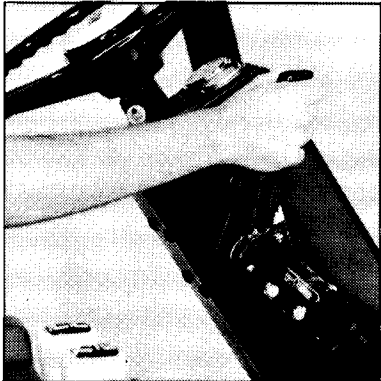
Place directional control switch lever in position for forward travel.

17. Check steering operation by turning handwheel to right and then to left. Return handwheel to proper position for desired direction of travel.



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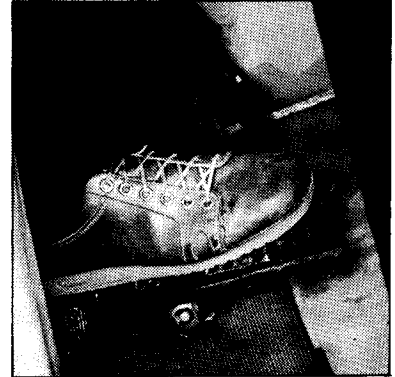


18. Keep foot on service brake pedal and release hand parking brake.

19. 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.

19939



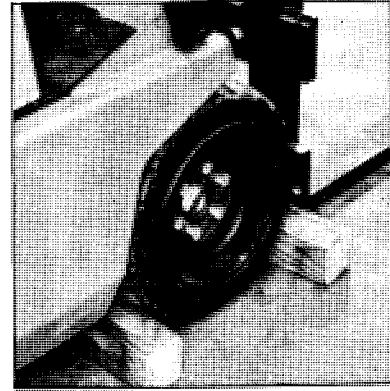
Before Operation



19545

20. Place directional control lever in reverse position, gently press accelerator pedal with right foot until truck moves backward. Release accelerator pedal, apply hand brake and move directional control lever to neutral.

21. Turn key switch counterclockwise to "off" position and remove key. Dismount from truck and block drive wheels to prevent accidental roll.



19940

13124

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

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

Operation



19938

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

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

Make sure seat locks in selected position.



19503

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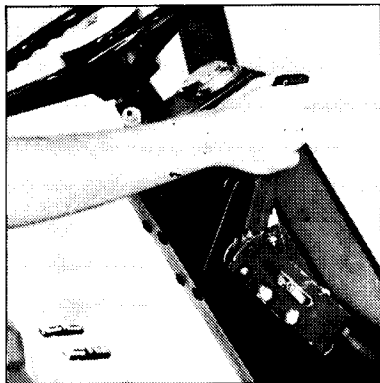
3. Insert key into switch and turn clockwise to "on" position.

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



19502

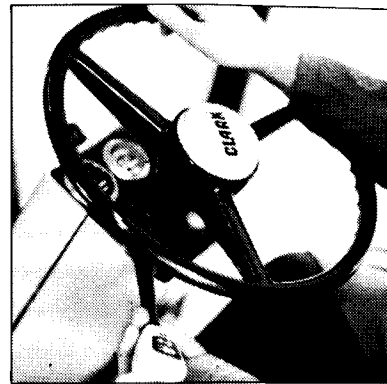
Operation



19936

5. Release hand parking brake.

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



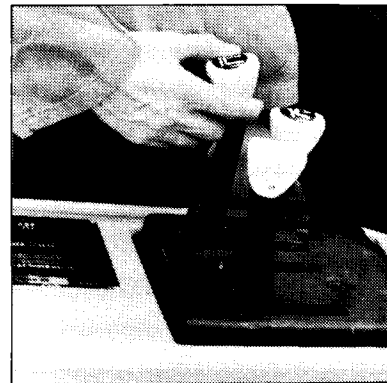
19545

19524



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

8. Carefully pull back on lift control lever to raise forks from floor slightly.



19525

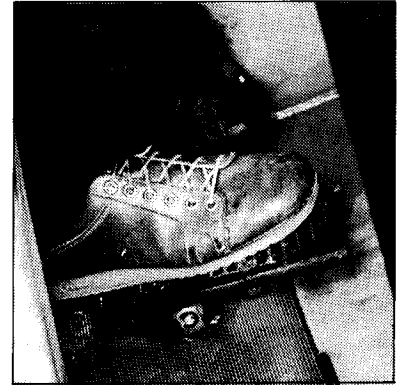
Operation

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



19535

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



19939

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



19941

12. Allow enough stopping distance when changing direction of travel from forward to reverse or reverse to forward.



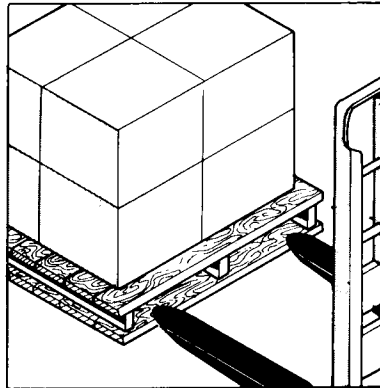
19538

Operation



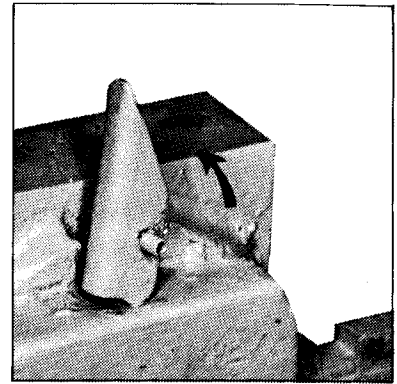
19502

13. To stop truck release accelerator pedal and place right foot on service brake pedal. Gently press down on brake pedal to come to a smooth stop.



13203

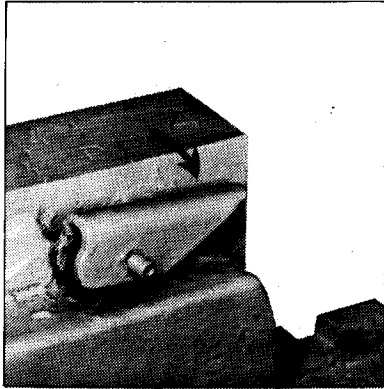
14. Remember to enter load slowly and squarely. Load should be centered and forks should be near outside edges, if they are not . . .



10758

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

Operation



10759

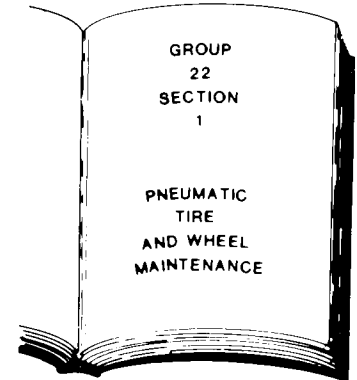
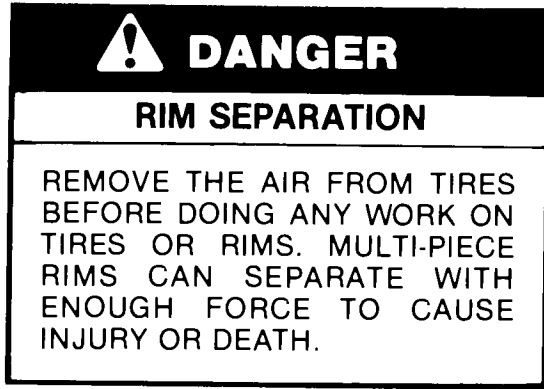
16. . . . Remember to lower lever to lock forks securely into notch atop fork bar.



19942

17. Be constantly alert for unusual or erratic operation. Report any malfunction immediately so that adjustments or repairs may be performed by thoroughly trained and qualified personnel.

Wheel and Tire Maintenance

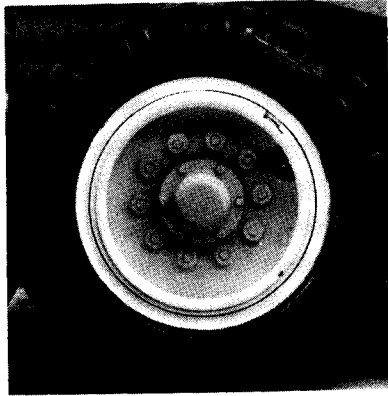


24309

Federal and State laws require persons to be fully trained and qualified before doing maintenance on wheels and tires. Injury or death can result from the explosive separation of rim components if service procedures are not done correctly.

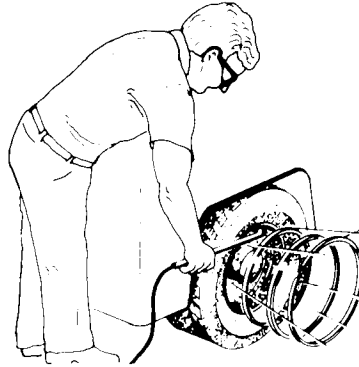
1. Refer to the planned maintenance manual for complete wheel and tire servicing procedures.

Wheel and Tire Maintenance



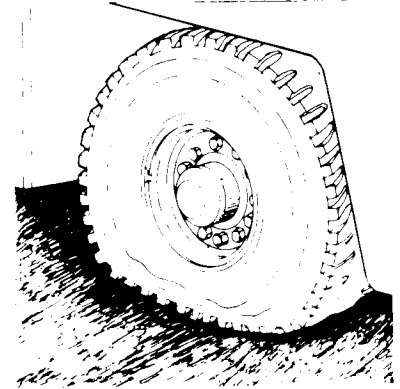
18924

2. Inspect wheels, tires and mounting parts for condition and security daily.



24307

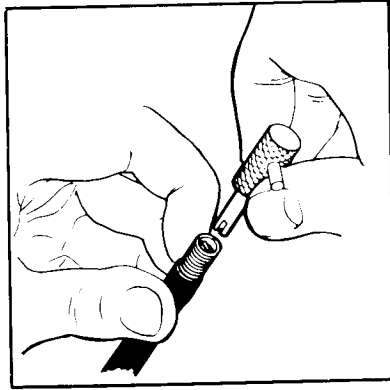
3. Do not stand in front of or in the trajectory path of wheels when checking or adding air pressure. Stand to the side and use a gauge with a long handle and a self attaching air chuck on the hose.



24308

4. Do not put air into a tire which has gone flat or has less than 80 percent of recommended pressure. Check for cause of air loss and confirm that the wheel and tire are safe to use.

Wheel and Tire Maintenance



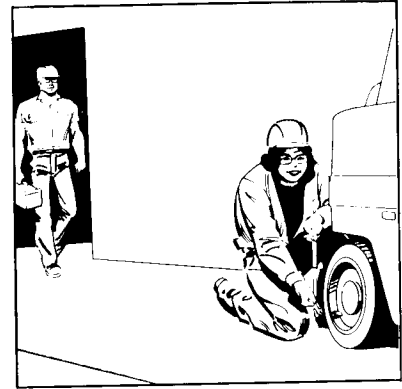
18631

5. Remove air from the tire before moving wheel clamping nuts (two piece wheels) or rim locking rings on multi-piece rims.



24306

6. Always use a safety cage to inflate tires after servicing. Tire pressure must be kept at [971 kPa] 142 PSI.



24964

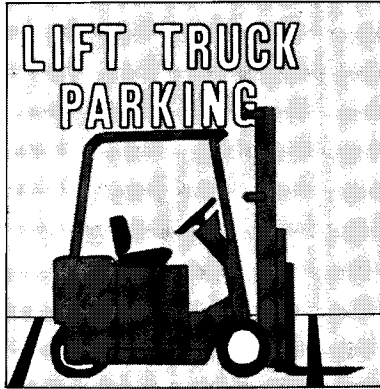
7. Check tire pressure from a position facing the tread of the tire, not the side. Use a long handled gauge to keep your body away from the side. If tires are low, do not add air. Check with a mechanic. The tire may need to be removed and repaired.

Parking

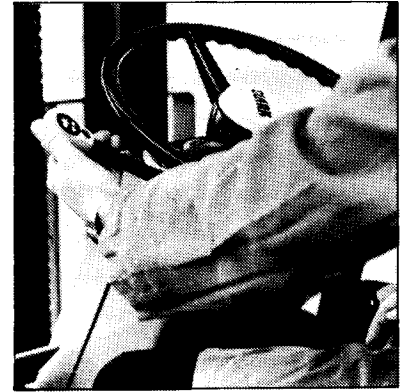
1. Park lift trucks in designated parking areas only.

Do not obstruct traffic lanes or aisles.

2. Put directional control switch in neutral position.

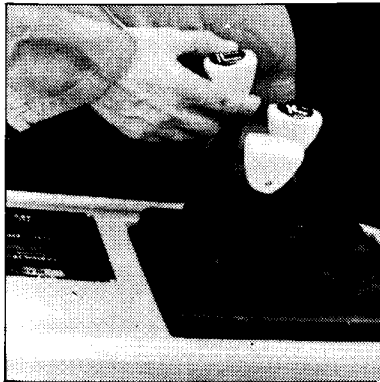


13156



19538

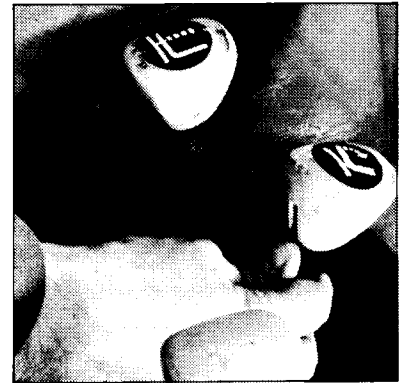
19525



3. Lower forks to floor.

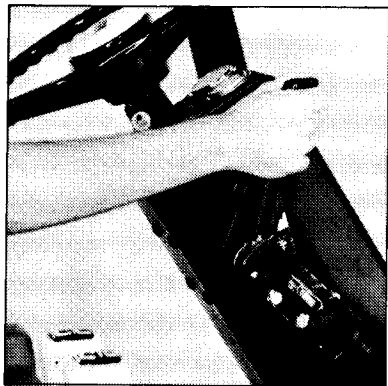
4. Tilt upright forward until fork tips rest on floor.

19455



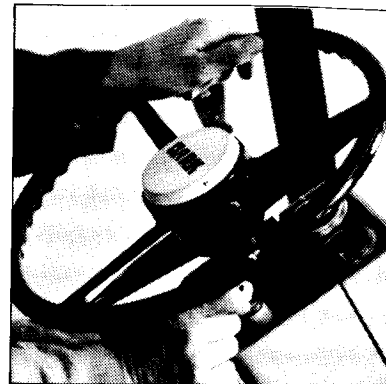
Parking

5. Apply hand parking brake.



19936

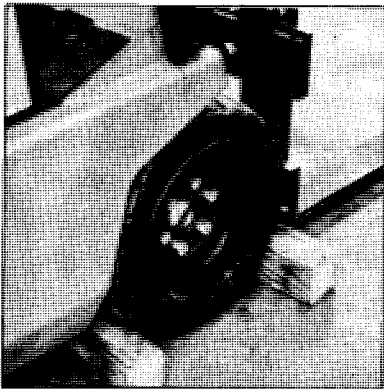
6. Turn switch key counterclockwise to "off" position and remove key.



19541

19940

7. Carefully dismount from truck and block drive wheels to prevent accidental roll.





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.



Additional copies of this manual may be purchased from
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1.6M APR 84 Printed in U.S.A.