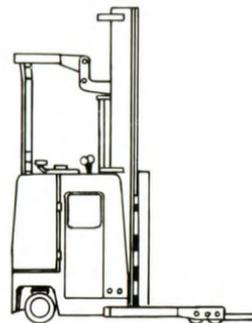

Operator's Manual



NP 15/20

CLARK

Book No. 2392803
OM 535



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.**

IMPORTANT

Do not expose this manual to hot water or steam.

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 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 INDUSTRIAL TRUCK, READ AND UNDERSTAND THE INSTRUCTIONS, SIGNS AND MESSAGES IN THIS MANUAL AND ON THE 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, and 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. Rider reach trucks are designed for level floor operation and not for use on ramps or slopes.

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.

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.

SUMMARY OF SAFE OPERATING PROCEDURES (Cont)

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.

27. Never travel, lift, or lower with the reach mechanism extended except to place or remove a load from storage.

28. Travel with load resting on the forks, not the outrigger legs.

29. Before operating the reach mechanism, make sure that the brake is applied.

30. Do not allow anyone to step over the reach or straddle legs or insert any part of the body into the reach mechanism.

31. The reach mechanism should not be used as a means of pushing or dragging loads into position.

32. Use caution when right angle stacking in aisles, particularly when backing up so as not to drive into or under rack beams.

A Message To CLARK Lift Truck Operators

Lift trucks are specialized machines with unique operating characteristics designed to perform specific jobs. Their function and operation is not like a car or ordinary truck. They require specific instruction and rules for safe operation and maintenance.

Safe operation of lift trucks is of primary importance to CLARK. Our experience with lift truck accidents has shown that when accidents happen and people are killed or injured, the causes are:

1. OPERATOR NOT PROPERLY TRAINED
2. OPERATOR NOT EXPERIENCED WITH LIFT TRUCK OPERATION
3. BASIC SAFETY RULES NOT FOLLOWED
4. LIFT TRUCK WAS NOT MAINTAINED IN A SAFE CONDITION

For these reasons, CLARK wants you to know about the safe operation and correct maintenance of your lift truck.

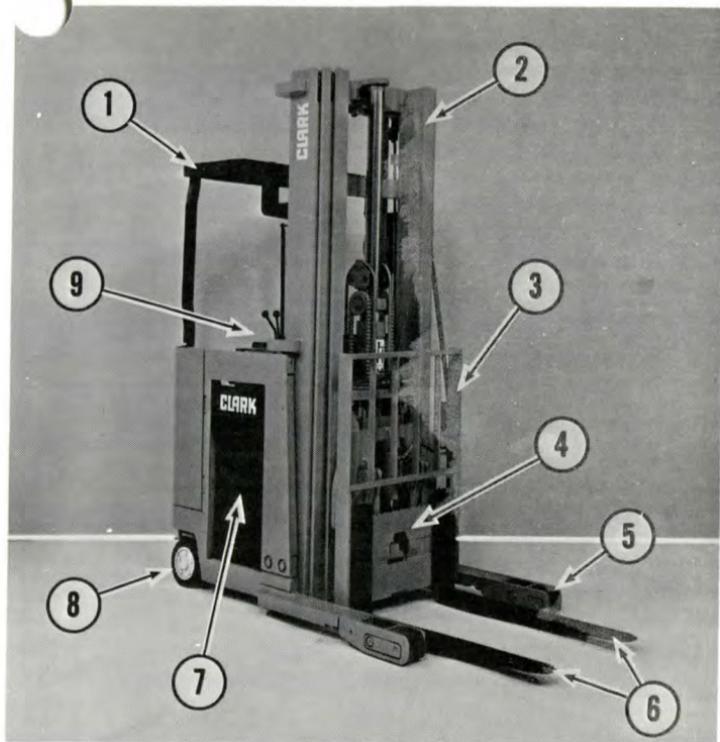
This manual is designed to help you learn how to operate your lift truck safely. This manual shows and tells you about operator maintenance and the important general safety rules and hazards of lift truck operation. It describes the special components and features of the truck and their function. The correct operating procedures are shown and explained. Illustrations and important safety messages are included for clear understanding. And finally, a section on maintenance and lubrication is included for the lift truck mechanic.

This operator's manual is not a training manual. It is a guide to help authorized operators safely operate their lift truck by illustrating the correct procedures. It cannot cover every possible situation which may result in an accident. You must watch for hazards in your work areas and correct them. It is important that you learn the information in this manual and know your company safety rules! Be sure your equipment is maintained in a safe condition and do not operate a damaged truck. Let's join together to set new standards in safety.

Remember, before you start operating this lift truck, be sure that you understand all driving procedures. It is your responsibility, and it is important to you and your family, to operate your lift truck safely and efficiently. And be aware that the Federal Occupational Safety and Health Act and state laws require that operators be completely trained in the safe operation of lift trucks.

And let us make this point, Clark lift trucks are built to take hard work, but not abuse. They are built to be dependable, but they are only as safe and 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 procedure and authorized by your employer.

KNOW YOUR TRUCK



1. Overhead Guard.
2. Upright Assembly.
3. Load Backrest Extension.
4. Fork Carriage.
5. Load Wheels.
6. Load Forks.
7. Battery Compartment.
8. Drive and Steer Wheels.
9. Operator's Compartment.

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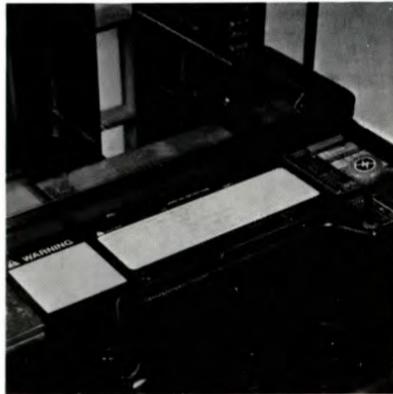
SAFETY

1. Only physically qualified and thoroughly trained personnel shall be authorized to operate powered lift trucks.



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3. Learn how your truck is operated. Know its safety features, how they function and how the special attachments operate.



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. Read and understand the messages on the warning decal and all others on the truck.



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



SAFETY



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Code: OM 535, Nov. 84

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

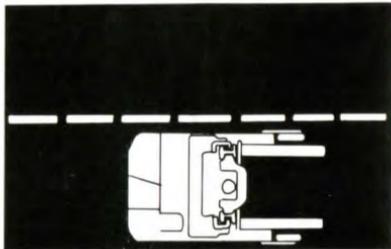
6. Before operating any lift truck, test the horn, brakes, steering, hydraulic controls, directional controls, speed controls and special attachments, if any, for proper operation. Report any unusual or improper operation to designated authority immediately.



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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.

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.



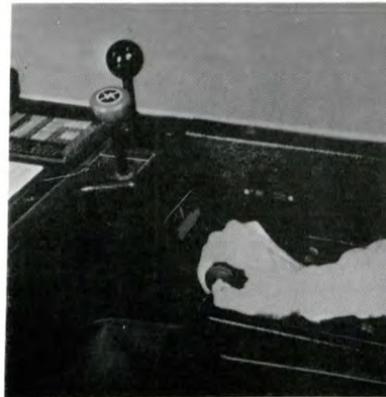
SAFETY



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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.



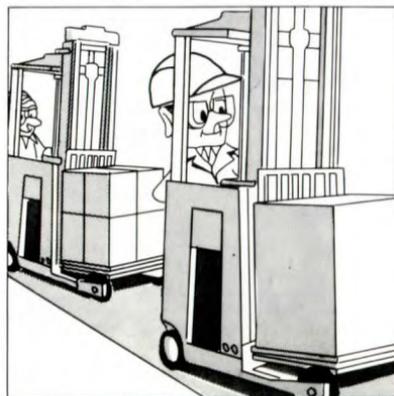
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11. Obey all posted traffic rules and warning signs.

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

Be sure there is enough distance to stop smoothly and safely if necessary.



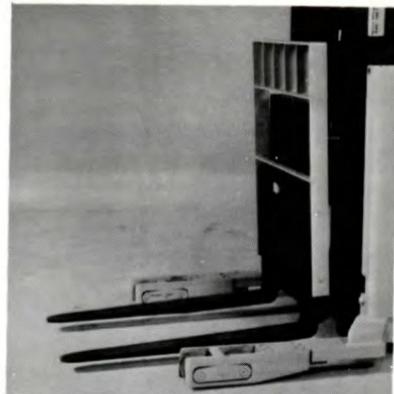
SAFETY



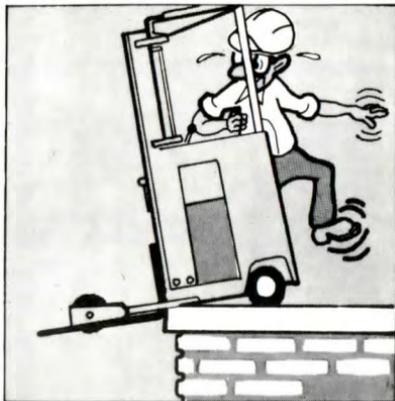
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13. Be aware of rear end swing and be alert to prevent rear end swing damage to material in your operating area.

14. Always be sure of the position of your fork tips and load wheels when truck is in motion. Be alert to avoid striking anything with fork tips or load wheel outriggers.

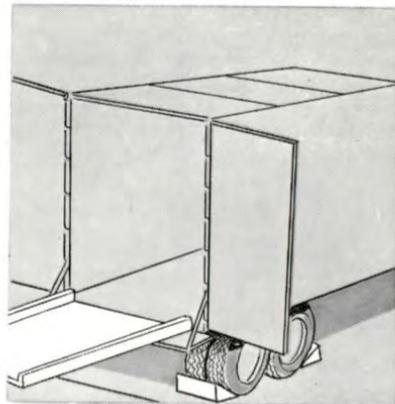


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15. Be extremely cautious when operating truck near edge of loading dock.

16. Make sure vehicle being entered has been blocked to prevent accidental roll. Bridge plates must have adequate strength, width, and guard rails each side. Use trailer-to-dock locking systems if available.



SAFETY



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Page 1.6

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 is 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 on it.

CLARK		①	
BATTLE CREEK, MICHIGAN		INDUSTRIAL TRUCK DIVISION GEORGETOWN, KENTUCKY	
MODEL NO.	②	TYPE ③	
SERIAL NO.	④		
ATTACHMENTS			
	CAPACITY WITH ATTACH LISTED ABOVE OR WITH FORKS UPRIGHTS VERTICAL		
	LBS	A	B
⑤	⑥		
APPROX. WT. ALL TRUCKS	LESS BATT. ELECTRIC		
APPROX. WT. ELECTRICS ONLY	WITH MAX. BATT. WT.		
BATTERY WT.	MAX. ⑦	MIN.	
BATTERY CAPACITY	A.H. ⑧	NO. ⑨	
	LBS	SOLETS	
<small>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 1969 AND 1975 P.T. NO. 2315/104</small>			

Code: OM 535, Nov. 84

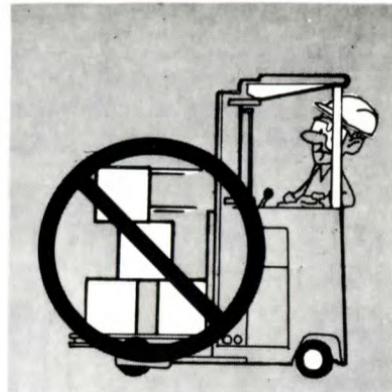
SAFETY



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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.*

22. 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. Stack and band loose loads. Never attempt to lift a load with only one fork.



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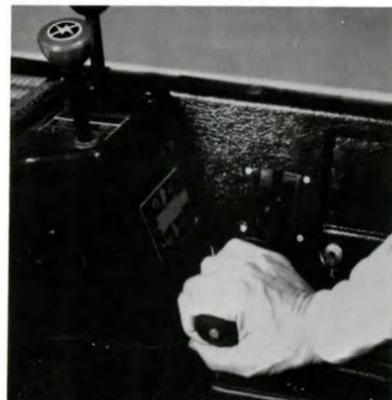


23. Before lifting, check to be sure of adequate unobstructed overhead clearance.

Gradually and smoothly pull up on lift/lower control arm. Smoothly return lever to neutral position to stop lift at desired level.

24. Push down on lift/lower control arm to lower load.

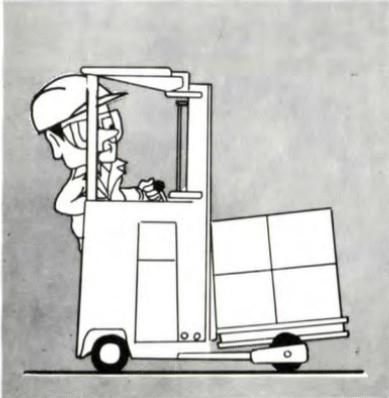
Lowering of load may be stopped at desired level by smoothly returning lever to its neutral position.



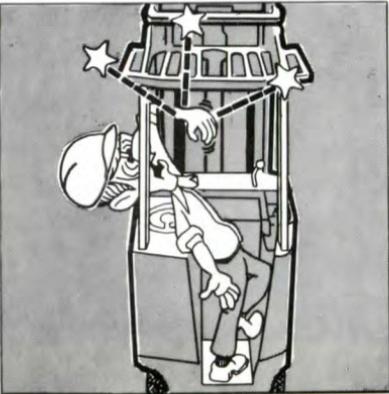
SAFETY

25. Always travel with load near floor (carriage should be tilted back to cradle load if truck has been optionally equipped with tilt).

Never lift or lower load while truck is in motion.



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27. Never reach around or over windshield to place hands or fingers on upright. Stay in proper operator's position and keep hands, arms, feet and legs within the confines of the operator's compartment.

26. Never permit anyone to stand or walk under elevated forks or other load engaging attachments.



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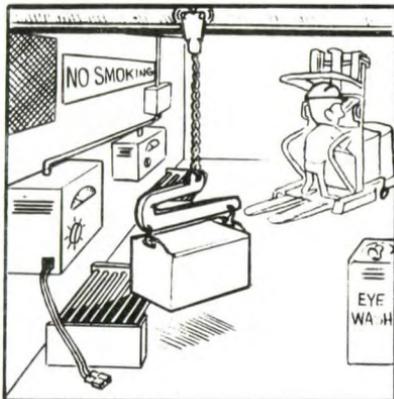
28. Slow down for turns, ramps, bumps, cross aisles, wet or slippery floors and at all times when visibility is restricted.



SAFETY



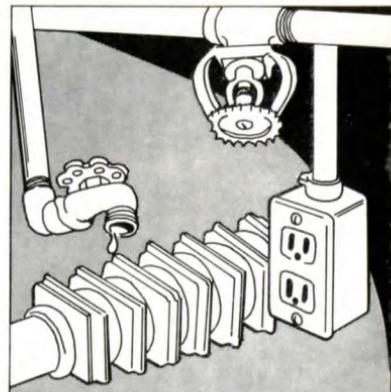
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29. Know and observe floor load limits and overhead clearances in all operating areas. Make certain that floors of boxcars, trucks, trailers and elevators are adequate before entering.

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.



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.



SAFETY

33. Park lift trucks in designated areas only. Lower forks to floor (tilt carriage forward to place fork tips on floor if truck has been optionally equipped with tilt).

Place directional control in neutral, remove switch key and block drive wheels to prevent accidental roll.

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

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

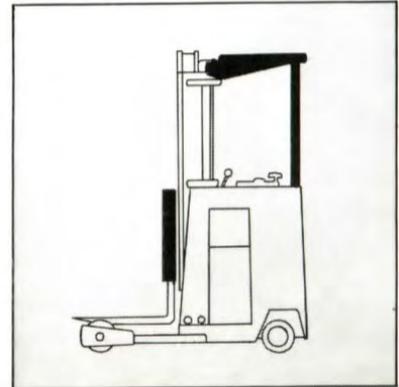
36. Overhead guards and load backrest extensions are for your protection. Make certain that they are securely mounted and undamaged before operating your truck.



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SAFETY



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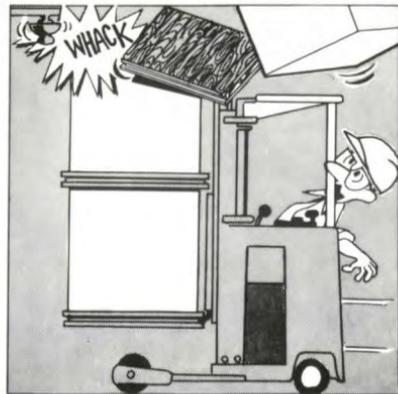
37. Never lift or transport personnel on the forks of a lift truck. Use a manlift specifically designed for this purpose.

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

If you are in doubt about the load weight being within the rated capacity range of your truck — don't move it, break it down.

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

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



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SAFETY



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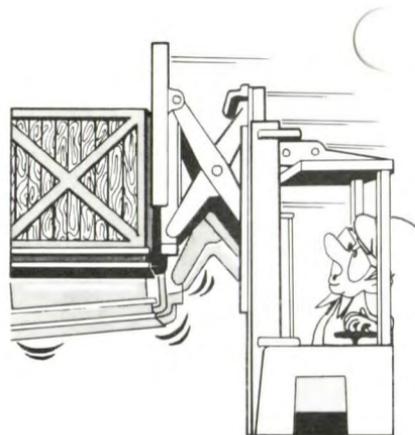
41. Be especially careful when traveling in reverse and turning. Maneuvering in tight quarters can be a pain.

Always keep your body within the running lines of the truck.

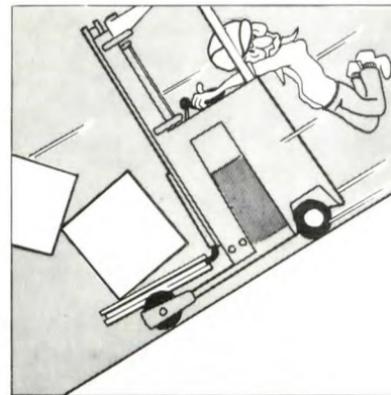
43. Your truck is equipped with a plugging feature, which means that you need not brake to a complete stop to change directions, use the directional/speed control knob to change directions.

42. Never operate pantograph while traveling with load. Even well stacked loads can be unstable under this condition. Do not drive with pantograph extended.

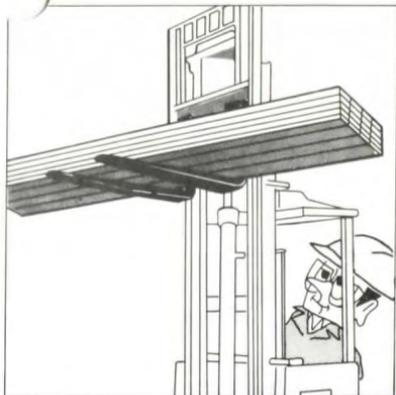
44. Narrow aisle trucks are *not* designed to operate on ramps or inclines.



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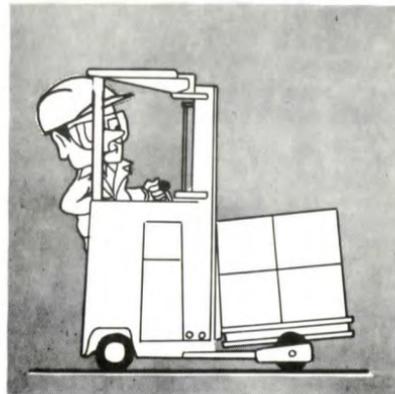
SAFETY



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

Always carry load close to floor whenever possible. (Tilt carriage back to cradle load if your truck has optional tilt).

46. Always travel with load resting on forks. Never let load rest on outrigger arms.



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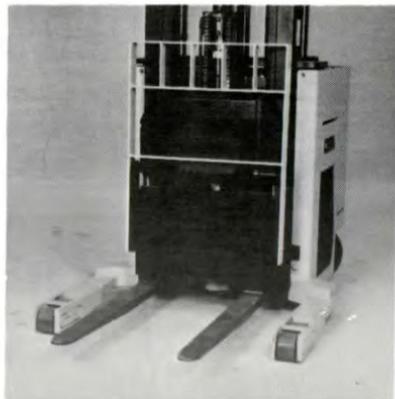
47. Follow a scheduled planned maintenance and lubrication program.

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

48. Remember, your safety and the safety of others depends on you.

Keep your attention on the operation of your lift truck.

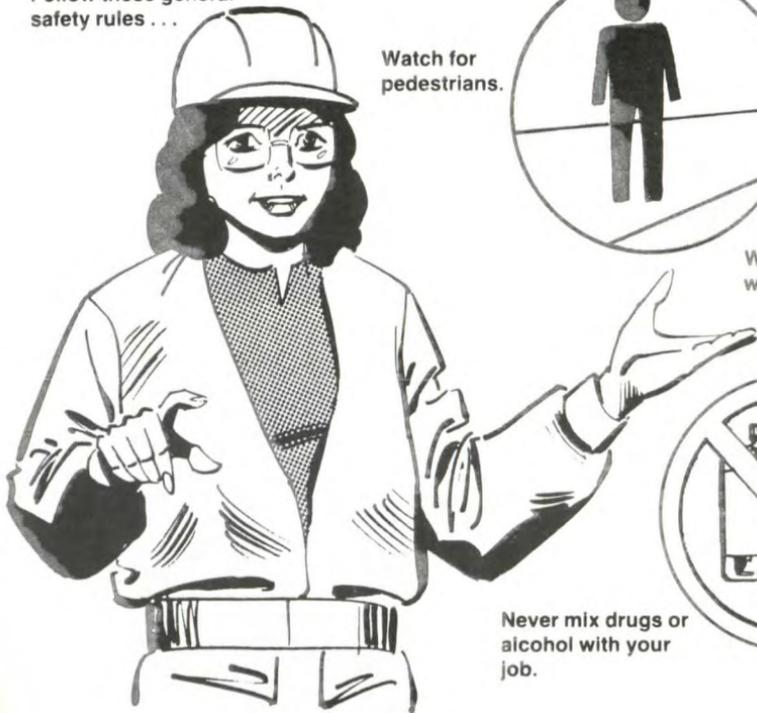
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GENERAL SAFETY RULES

Follow the Rules

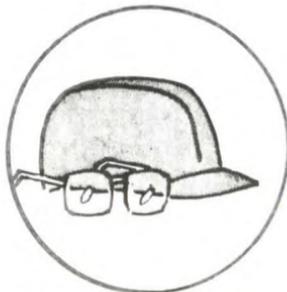
Follow these general safety rules ...



Watch for pedestrians.



Wear safety equipment when required.



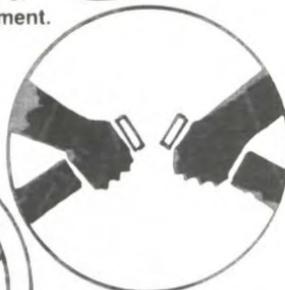
Don't block safety or emergency equipment.



Never mix drugs or alcohol with your job.



Always buckle up.

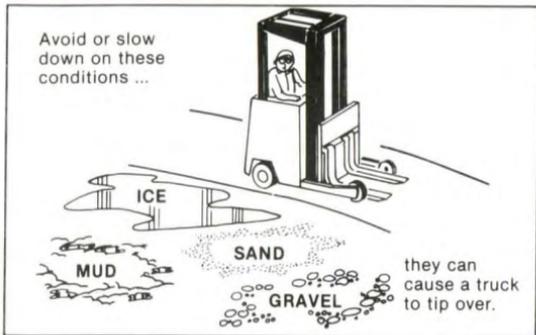


Watch those "no smoking" areas.



GENERAL SAFETY RULES

Surface and Capacity

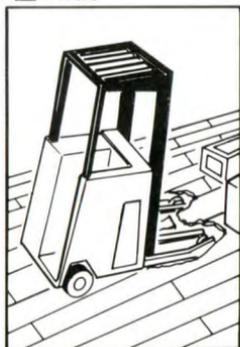


Know the weight of your truck and load.
Check capacities:

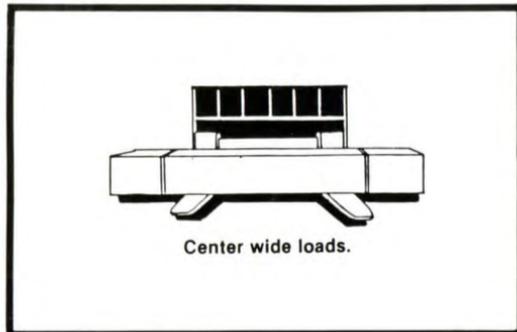
Elevators



Floors

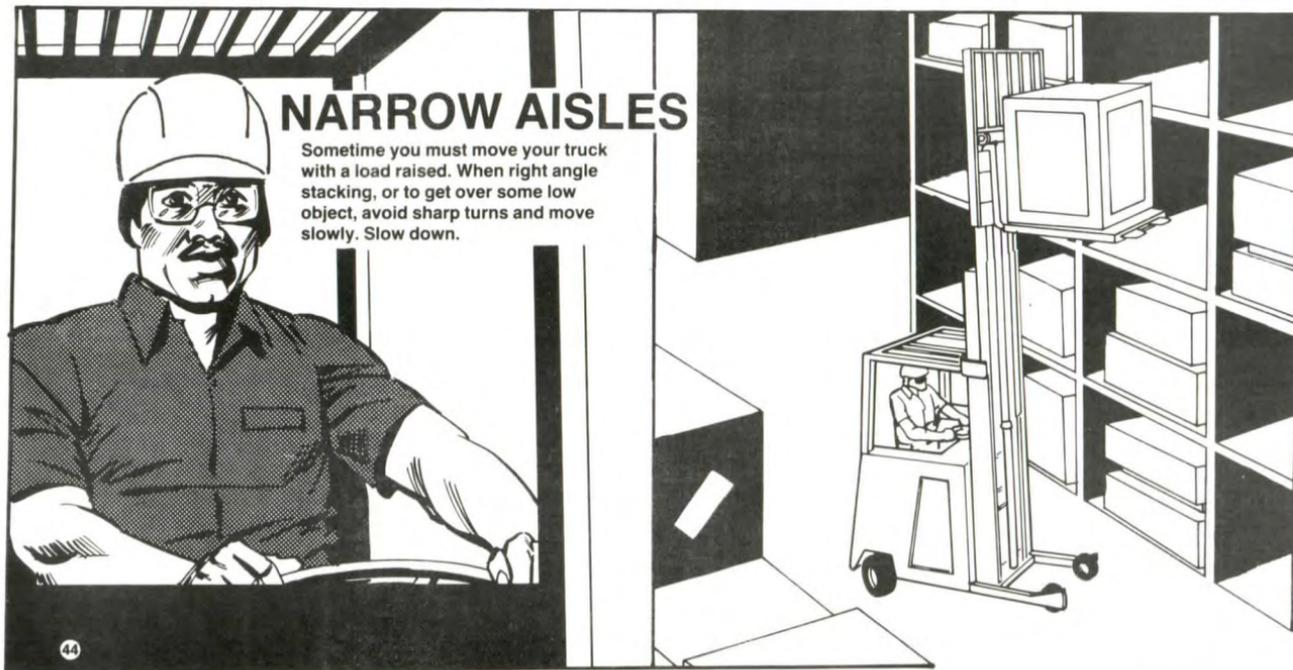


Wide Loads



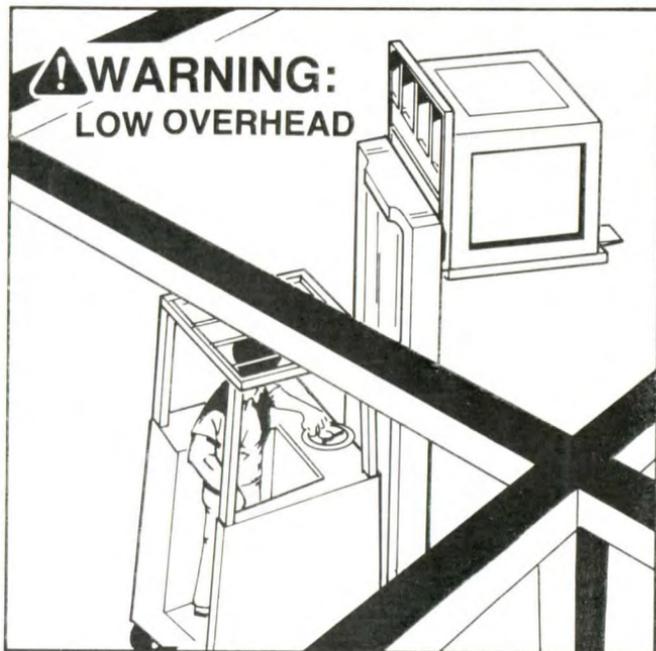
GENERAL SAFETY RULES

Raised Loads — Sharp Turns



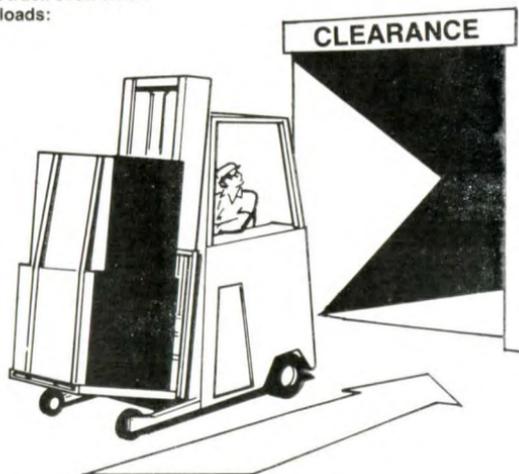
GENERAL SAFETY RULES

Overhead Clearance



Watch overhead: moving into overhead structures or tilting heavy loads too far forward can tip a truck over. When moving loads:

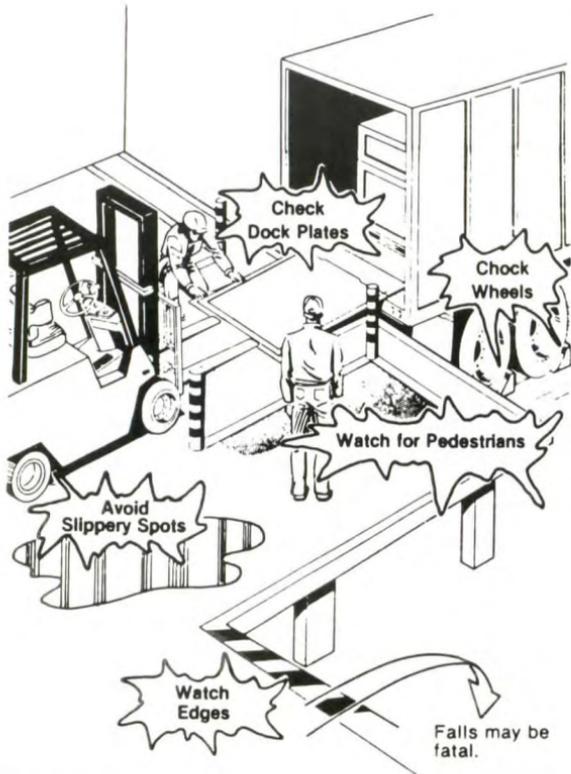
Check your clearance.



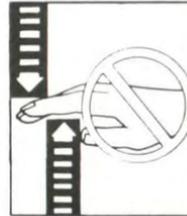
Keep loads low and tilted back.

GENERAL SAFETY RULES

Loading Dock



Pinch Points



Keep hands, feet and legs out of the upright.



Don't use the upright for a ladder.



Never try to repair the upright, carriage, chain or attachment yourself ...

always get a trained mechanic.

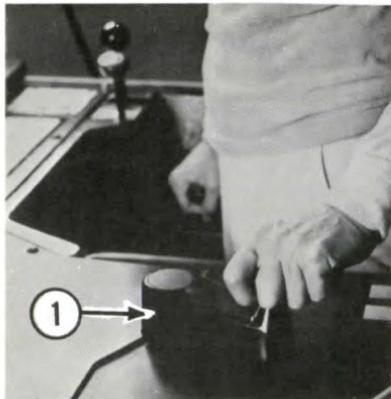


GENERAL SAFETY RULES

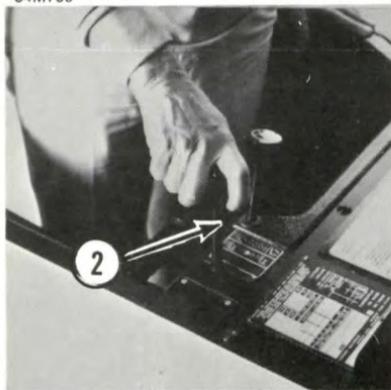
Chain Slack



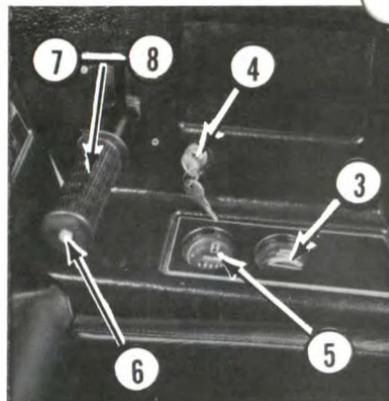
OPERATORS COMPARTMENT CONTROLS



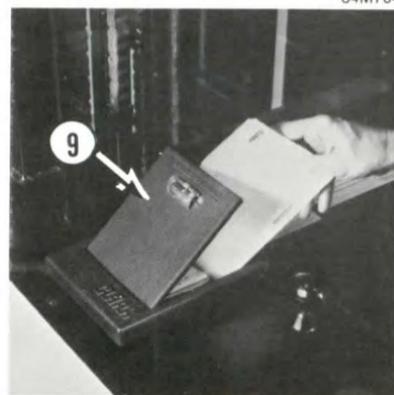
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1. Steering control
2. Reach/tilt/sideshift lever
3. Battery charge indicator
4. Key switch
5. Hour meter
6. Horn button
7. Direction/speed control and
8. Lift/lower control
9. Operators instruction manual case



84M757
84M764



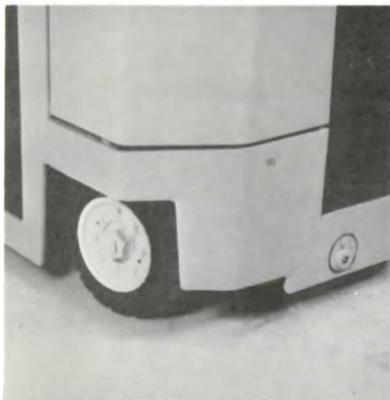
BEFORE OPERATION

1. Each shift operator must complete an operator's daily check list (available from your Clark Dealer).
2. Walk around truck and look for damage and leaks.

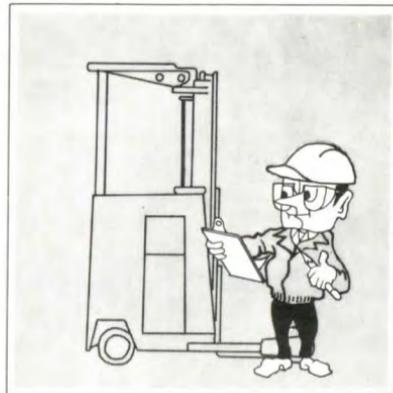
Write all damage or in-operative functions on the check list as the daily inspection is completed.



15197
84M780



3. Check condition of drive/steer wheel and tire.
4. Check condition of idler steer wheel and tire.



14957
8M778



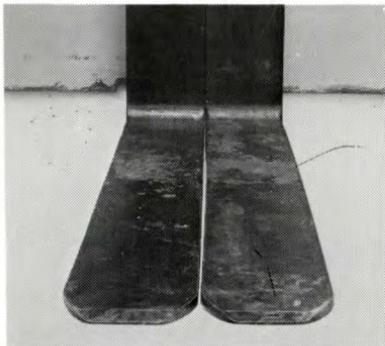
BEFORE OPERATION

5. Inspect the lift forks for cracks, breaks, bending and wear. The fork surfaces should be level and even with each other.

6. Check battery retainers to make certain they are undamaged and properly positioned.

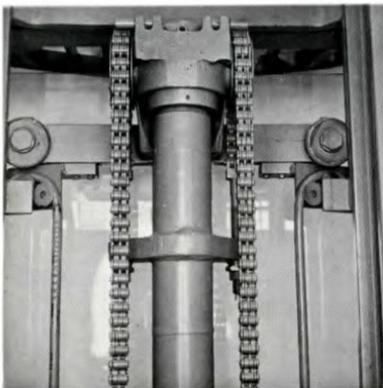
7. Look at condition of lift chains, hoses, sheaves and retainers.

8. Inspect the fork latches. Make sure they are not damaged or broken, operate freely and lock correctly.

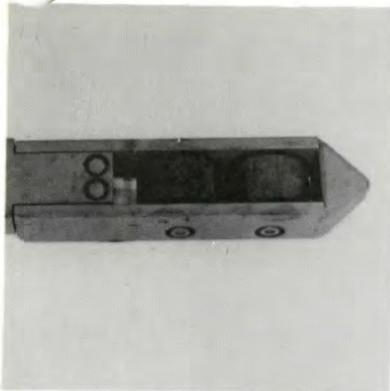


14653
84M252

18046
16790



BEFORE OPERATION

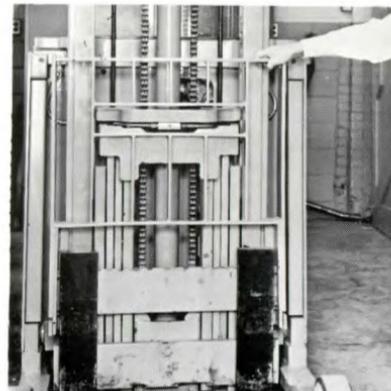


24656
84M771

9. Check the condition of load rollers. Note any load roller or toe box damage on the check sheet.

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

Be sure they are correctly positioned and secured.



14656
84M776



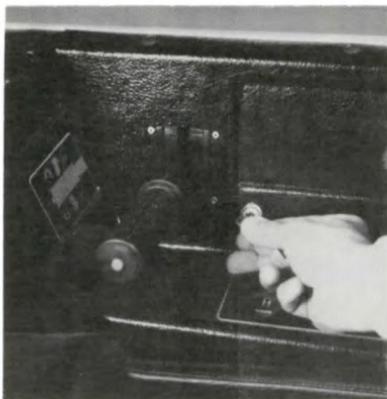
11. Remove blocks from drive wheel and carefully enter operator's compartment.

Use caution not to step on brake pedal when entering as this will release brake and cause truck to roll if parked on an incline.

12. Look at the battery connector to make sure that it has been correctly connected and is not damaged.



BEFORE OPERATION

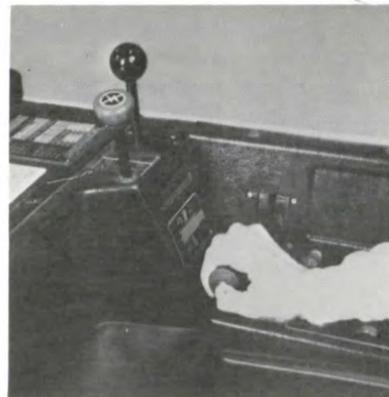


84M763
13225

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

14. Press horn button to be sure that the horn is functioning correctly.

If horn does not function, report it immediately to the designated authority, and do not operate the truck.



84M761
13179



15. Check hour meter to be sure that it is not damaged and is functioning correctly.

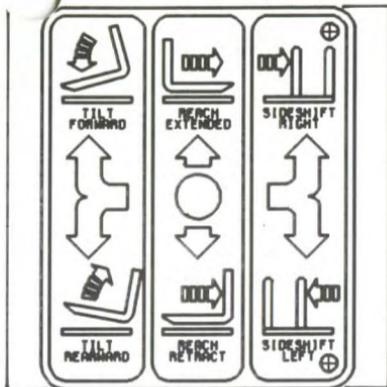
Report any malfunction or damage to the proper authority.

Record hour meter reading on your daily check list.

16. Check battery charge indicator for damage. Needle should remain in green area. Check this meter frequently during operation.



BEFORE OPERATION



84M807
84M794



17. Carefully read the decal at the control lever showing tilt and reach and sideshift instructions.

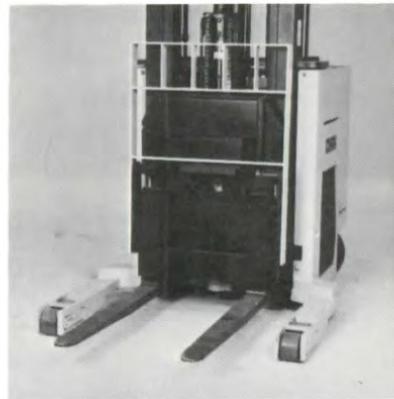
19. Push lever forward (no side movement). Note fork travel direction. Be aware that fork tip is forward of outriggers.

18. Make sure the area in front of forks is clear before extending forks.

20. Pull lever rearward (no side movement) and watch the forks retract. Note distance fork tip is forward of outrigger when fully retracted.



84M793
84M790



BEFORE OPERATION



21. Release the control lever. It should return to neutral position.

22. Push lever forward to extend forks and at same time look at the dial of the battery charge indicator. Needle will remain in "green" area if battery has a good charge.



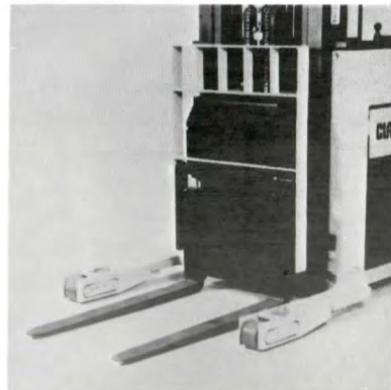
84M793
84M794

23. Push control lever to left and forward.

24. This will tilt the carriage and move the fork tips down.



84M754
84M791



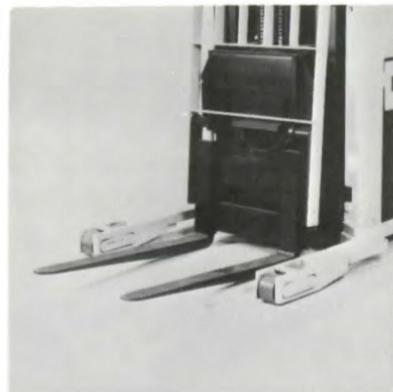
BEFORE OPERATION



84M799
84M807

25. Move lever to left and pull to the rear.

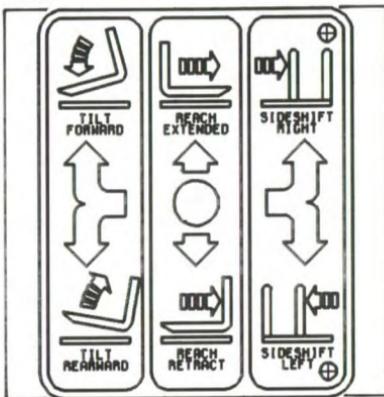
26. This will tilt the carriage backward and raise the fork tips.



84M782
I84M806

27. If truck has sideshift, decal will appear as shown at left.

28. If truck has no side-shift, decal will appear as shown at right.



BEFORE OPERATION



84M795
84M795

29. If truck has sideshift, move lever to right and forward. Note that this moves carriage and forks to the right.



84M798
84M798

30. If truck has sideshift, move lever to right and pull back. Note that this moves carriage and forks to the left.

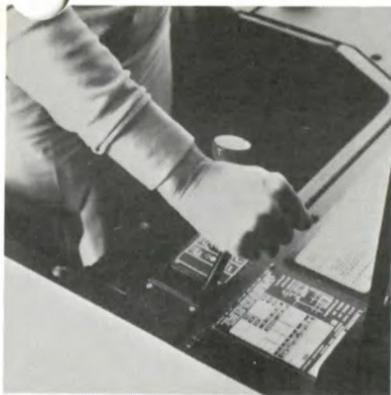


31. If truck has no sideshift, move lever to right and forward. Note that this extends the carriage.



32. If truck has no sideshift, move lever to right and pull back. Note that this will retract the carriage.

BEFORE OPERATION



84M796
84M805



33. Repeat these movements several times to become familiar with control handle action.

34. Report any erratic movement of carriage or forks on the checklist. Also report any unusual noise or vibration that might indicate a problem.



84M770
84M800

35. This is the battery disconnect lever.

36. Push down on this lever to disconnect the battery. (To be used for emergency disconnect of the battery).



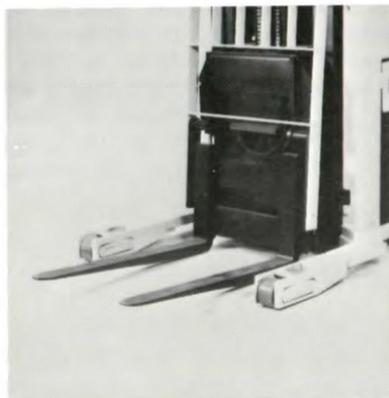
BEFORE OPERATION



84M756

37. Push lift control arm down and hold while observing descent of upright. When forks reach desired position, slightly above floor, smoothly return control arm to its neutral position to stop lowering of upright.

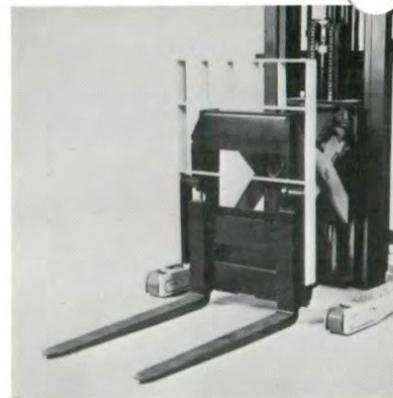
Report any erratic or unusual operation immediately.



84M782

38. If your truck has been optionally equipped with a tilting carriage you should check for proper operation.

Gently pull back on tilt control lever and hold until carriage reaches full back tilt, release the control lever. Pantograph carriage should tilt smoothly.



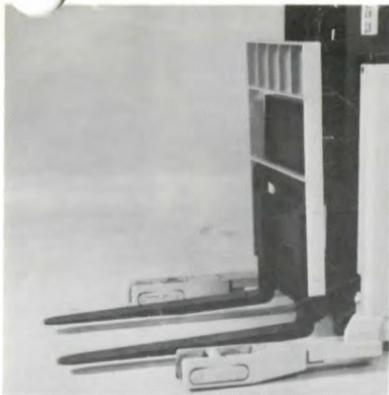
84M784

39. Push forward on tilt control lever and hold until fork carriage tilts forward to near vertical position.

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

Write any erratic operation on your check list.

BEFORE OPERATION



84M787
84M772

40. If your truck has an optional auxiliary valve, this valve will be operated by the lever at the left of the "reach" or optional "tilt" lever.

41. Put your left foot on the brake pedal and push it down fully.

This will release the brake and, at the same time, activate a switch which will complete the power circuit to the drive motor.



14675
84M801



42. Check all around truck to make sure that your desired path of travel is unobstructed.

43. Slowly and smoothly turn the directional/speed control knob in the desired direction for travel (counterclockwise for reverse and clockwise for forward). Further rotation of directional/speed control knob will increase truck speed.



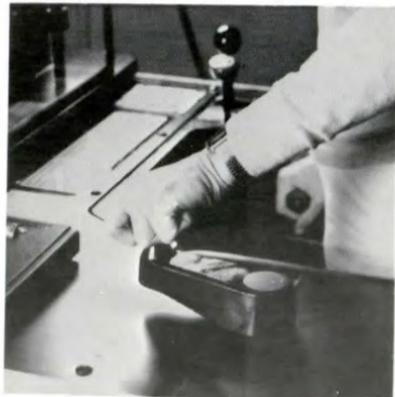
BEFORE OPERATION



14676
84M762

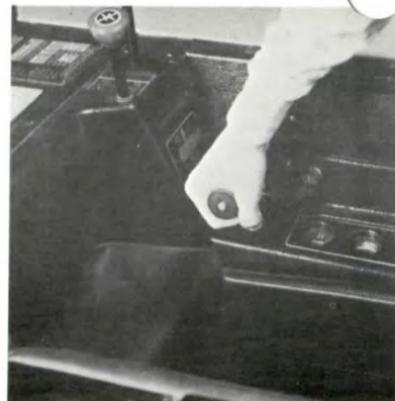
44. When truck begins to move in selected direction, return directional/speed control knob to its neutral position and smoothly raise your foot from the brake pedal to apply brake and smoothly stop truck.

If brake does not function correctly, do not operate truck.



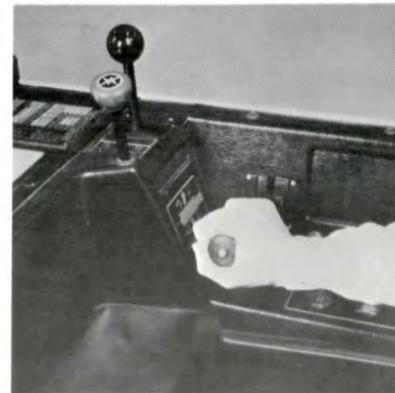
46. Stop truck as outlined above and check steering by rotating steer wheel to full left and full right turn.

45. When truck comes to complete stop, rotate the directional/speed control knob in the opposite direction (clockwise for forward and counter-clockwise for reverse). Further rotation of control knob will increase truck speed.

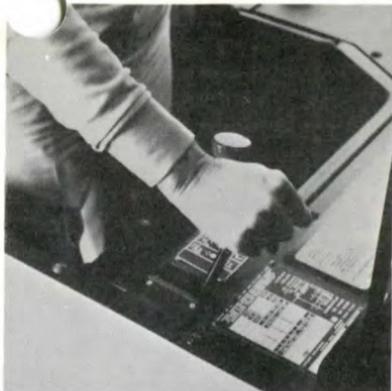


84M802
84M803

47. Push down on lift/lower control arm until forks reach the floor. Return control arm to neutral position to stop lowering of forks at desired level.



BEFORE OPERATION



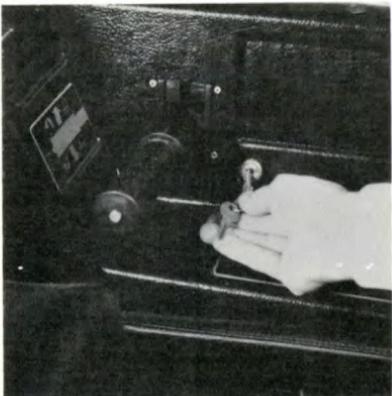
84M796
84M758

48. Push forward on tilt control lever to lower fork tip to floor. Release tilt control lever and it should return to neutral.

49. If SCR system does not operate properly, turn key switch "off" and "on". (This will reset control.)

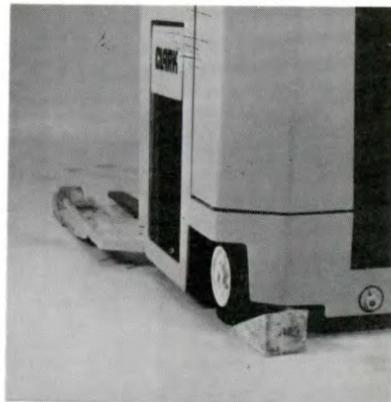


84M760
84M781



50. Turn key switch to "off" position and remove key.

51. Don't forget to block drive wheels to prevent accidental roll.



BEFORE OPERATION

52. Before leaving truck, make a final check to be sure the vehicle is properly parked and can be left safely in this location.

53. If the vehicle is to be left in a parked position for an extended period, disconnect the battery, put chocks at drive wheel, and remove key.



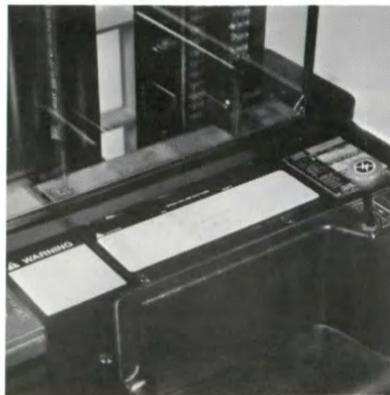
84M781
84M764

54. Make sure the operator's instruction manual is returned to the case.

55. Do not scratch or damage the warning labels and instructions. They are for your protection and should be your constant reminder to be a safe operator.



84M776
84M766

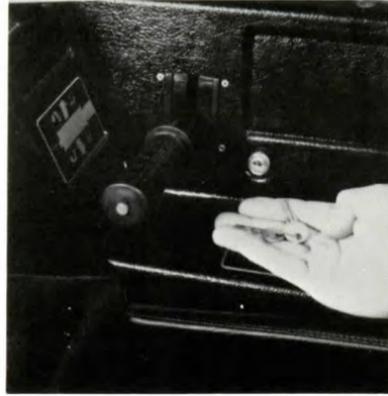


BEFORE OPERATION



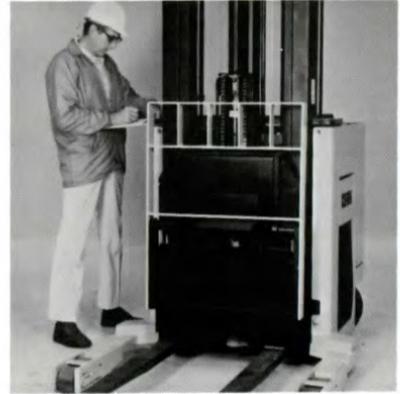
84M757

56. The hour meter reading should be recorded on the daily checklist.



84M767

57. Put the key in the designated area.



84M769

58. Review operator's daily check list to make sure that it has been correctly marked and give it to the designated authority.

OPERATION

1. Remove blocks from drive wheel and carefully enter operator's compartment.

Remember that pressing down on the brake pedal will release the brake and this should be avoided until ready to move the truck.

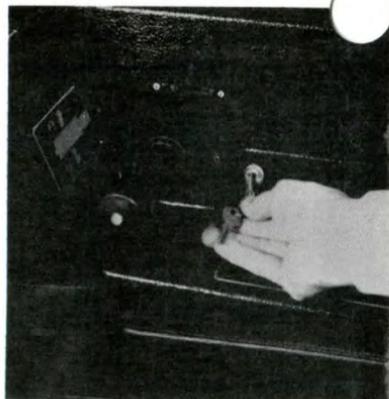
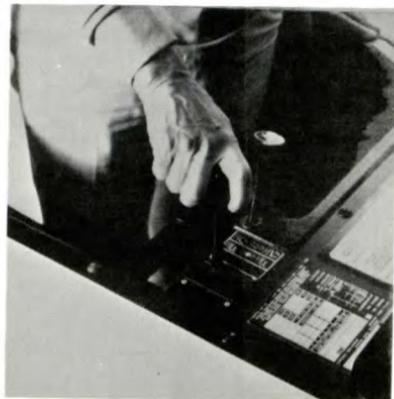
2. Look at battery connector to make sure that it is correctly plugged in. Insert key into the switch and turn clockwise to the "on" position.

3. Smoothly and gently pull back on "tilt" control lever to raise fork tips from floor slightly.

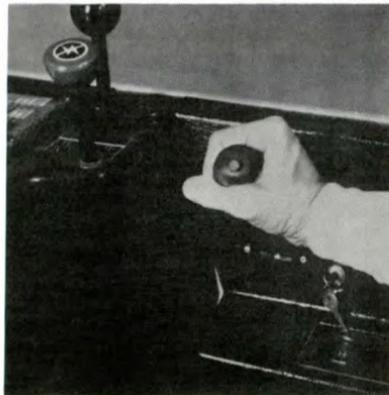
4. Gently pull up on lift control arm to raise forks 3-4 inches above the floor.



84M771
84M799



84M758
84M755



OPERATION



84M772
84M801



5. Check all around truck to make sure that your desired path of travel is unobstructed.

7. Turn the directional/speed control knob counterclockwise for reverse travel (clockwise for forward).

Further rotation of the directional/speed control knob will increase truck speed to the desired level.

6. Put your left foot on the brake pedal and push it to the floor board.

This will release the brake and activate a switch completing the power circuit to the drive motor.

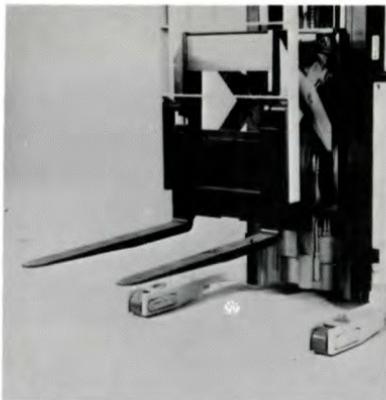
8. Your truck is equipped with a plugging feature, which means that you need not brake to a complete stop to change directions, use the directional/speed control knob to change directions.



14675
14676



OPERATION

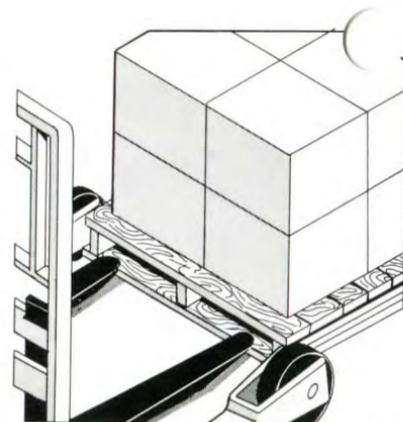


84M785
10758

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

10. Remember to enter load slowly and squarely.

Load should be centered and forks should be near outside edges.



14967
10759



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

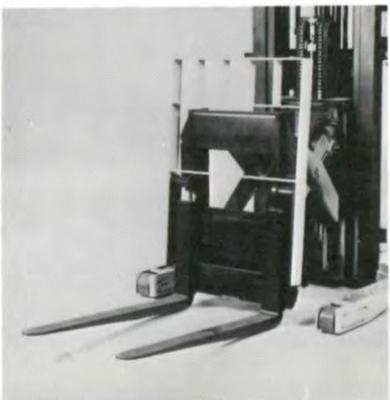
12. Remember to lower fork lock lever and sliding lever to lock forks securely into notch on top of fork bar.



OPERATION



84M789
84M783



13. Always remember to check for unobstructed overhead clearance before lifting load. When you are sure that clearance is adequate, gently and smoothly pull up on lift control arm. Smoothly return lift control lever to neutral to stop lift at desired level.

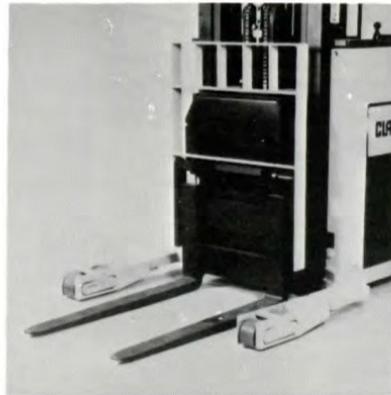
15. Use minimum forward and reverse tilt when stacking and unstacking loads.

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

14. Remember that load should be lowered to position near floor (if your truck has been optionally equipped with tilt — the carriage should be tilted back to cradle the load) when traveling.

16. 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.



87M791
84M769



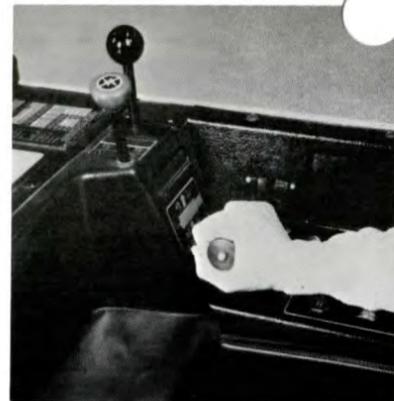
PARKING



14951
84M795

1. Park lift trucks in designated parking areas only.
2. Lower forks fully.

Do not obstruct traffic lanes or aisles.



84M803
84M763



3. If your truck has tilt, push forward on tilt control lever to put fork tips on floor.
4. Turn key switch counterclockwise to "off" position and remove the key.



PARKING

- Carefully dismount from truck.
- Remember to block drive wheel securely to prevent accidental roll.



84M771



14940

NOTES

MAINTENANCE AND LUBRICATION

Minor Adjustment

1. To remove battery retainer, lift up retainer, move it forward and then pull it out.

2. Use a screwdriver to unlock the retaining screw and open the pump compartment.



84M775
84M774

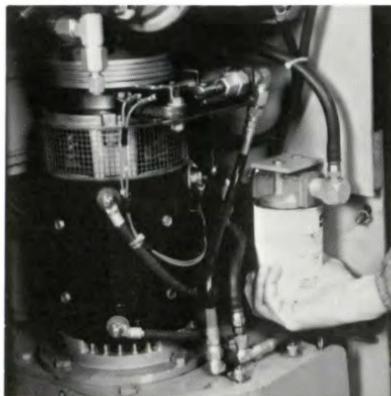


84M773
84M768

3. The oil filter is removed by unscrewing the filter from the adaptor.

4. Always keep the safety glass clean.

DO NOT reach through upright to clean other side of glass.



MAINTENANCE AND LUBRICATION

Troubleshooting

SYMPTOM

No tilt (motor does not run)

Noisy pump caused by cavitation

Oil heating

Shaft seal leakage

Foaming oil

Slow or erratic tilt

Hydraulic system leaks oil

Lift or tilt cylinder leaking

Transmission leaks oil

Steers hard

Battery rollers stick

Too much or not enough brake

POSSIBLE CAUSE

Valve switch misadjusted or defective
Valve not operating
Control wiring open (pump contactor does not energize)
Power wiring open (pump contactor does not energize)

Oil supply low
Oil too heavy
Oil filter plugged
Suction line plugged or too small

Oil supply low
Contaminated oil
Setting of relief valve too high or too low
Oil in system too light

Worn shaft seal
Broken diaphragm seal or back-up gasket
Bearings out of position
Excessive internal wear

Low oil level
Air leaking into suction line
Wrong kind of oil

Orifices plugged
Defective hose
Loose fittings

Seal or wiper damaged
Damaged rod

Worn seal
Support wheel bearing tight
Linkage is binding
Linkage is bent
Support wheel pivot pin is bent

Corroded
Improper adjustment

REMEDIES

Adjust or replace valve switch.
Check linkage
See Service Reference (#20650-00)

See Service Reference (#20650-00)

Fill reservoir
Change to proper viscosity
Clean filters
Clean line and check for size

Fill reservoir
Drain reservoir and refill with clean oil
Set to correct pressure
Drain reservoir and refill with proper viscosity oil

Replace shaft seal
If replacing the shaft seal does not stop leakage, disassemble and check gasket and seals for proper fit

Fill reservoir
Tighten fittings
Drain and fill reservoir with non-foaming oil

Clean orifices in tile cylinder

Replace
Tighten

Replace
Inspect and replace

Replace

Adjust bearing
Lubricate
Repair or replace
Repair or replace

Remove, clean and lubricate
See Service Manual

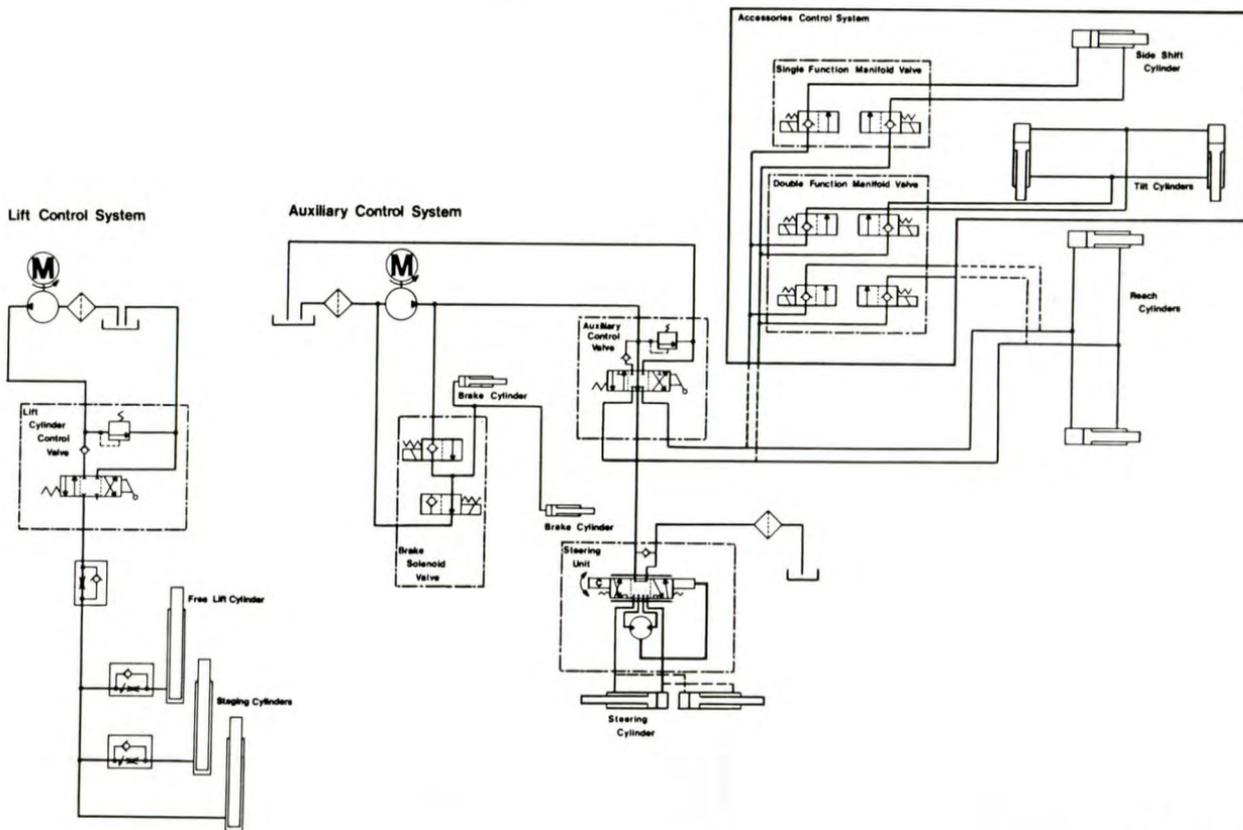
MAINTENANCE AND LUBRICATION

Troubleshooting

SYMPTOM	POSSIBLE CAUSE	REMEDIES
No operation	Truck does not run, key on brake switch closed Check control fuse Check power fuse Check for open circuit	Battery disconnected or discharged Replace fuse Replace fuse Repair
No directional travel	Check for open circuit PMT trip	Repair Turn key off and on (See Service Reference (#20650-00))
Sluggish performance, erratic switch, slow lift	Battery discharge or defective Loose connection (Power wiring) Motor brushes worn Brakes dragging Load wheel binding Defective SCR control	Charge and inspect Tighten connections Replace brushes Adjust Check clearance SCR system misadjusted See Service Reference (#20650-00)
No lift (motor runs) direction control OK	Excessive load Possible low oil supply causing airlock Plugged suction screen Low pressure Pump defective	Check load Add oil and bleed hydraulic cylinder Clean the screen — flush and refill the reservoir Check relief valve pressure Check oil pressure
No lift (motor does not run) direction control OK	Valve switch misadjust or defective Valve not operating Control wiring open (pump contactor does not energize)	Adjust or replace valve switch Check linkage See Service Reference (#20650-00)
Slow lift	Battery discharge Excess load Air in hydraulic system Leak in lift cylinder Plugged suction screen Worn pump/motor unit	Charge battery Check load Bleed hydraulic cylinder Check oil flow Clean the screen, flush and refill the reservoir Check oil pressure (Rebuild or replace)
No lower	Control valve linkage is broken Mechanical binding Flow valve on mast defective	Inspect and repair Inspect mast Replace
Lower excessively slow No tilt (motor runs)	Flow valve on mast is defective Excess load Plugged orifice	Replace valve Check load Inspect orifice in tilt cylinder

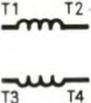
MAINTENANCE AND LUBRICATION

Hydraulic Diagram



MAINTENANCE AND LUBRICATION

Electrical Symbols

	DOUBLE TIP CONTACTOR		SCR
	SINGLE TIP CONTACTOR		DIODE
	COIL		CAPACITOR
	CONTROL SWITCH		THERMAL PROTECTOR
	PLUG		RESISTOR
	FUSE		TRANSFORMER
	ARMATURE		ELECTRICAL LINES JOINING
	FIELD		ELECTRICAL LINES CROSSING

Hydraulic Symbols

	FILTER
	COMPONENT ENCLOSURE
	CYLINDER
	RESERVOIR (VENTED)
	LINE WITH PRESSURE RESTRICTION
	ACCUMULATOR, GAS CHARGED
	MOTOR (ELECTRIC)
	HYDRAULIC PUMP
	HYDRAULIC LINES JOINING
	LEVER ACTUATOR
	CHECK VALVE
	FLOW CONTROL VALVE
	HYDRAULIC LINES CROSSING

MAINTENANCE AND LUBRICATION

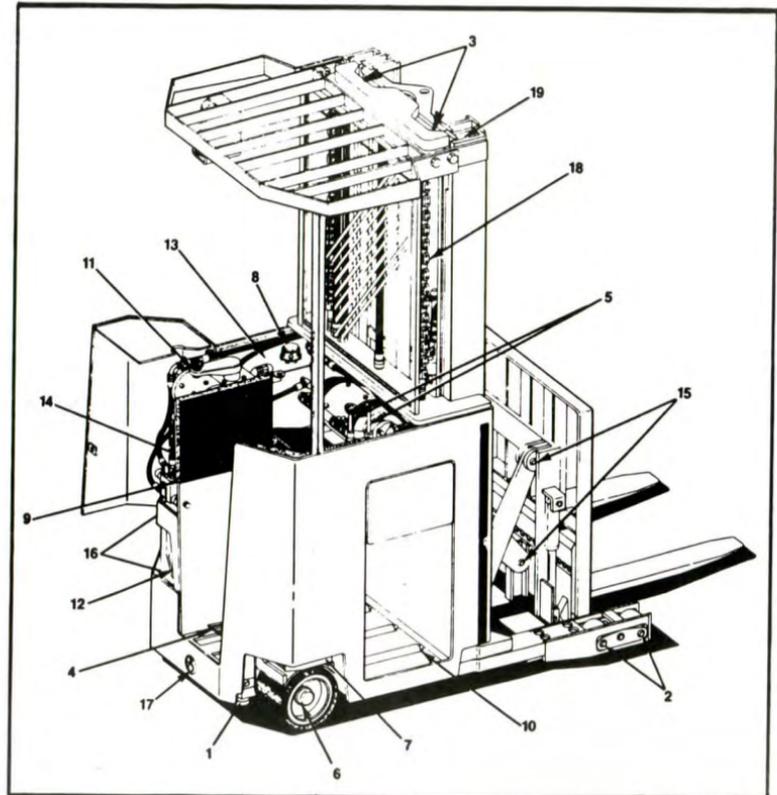
Lubrication Instructions

LEGEND:

MP1	Multipurpose grease NLGI #1
MP2	Multipurpose grease NLGI #2
GL5	Transmission lubricant API GL5
EO	Engine oil SAE 10-30W
CL	Chain lubricant

PM INTERVAL:

8	8-10 hours
150	50-250 hours
500	450-500 hours
1	6 months or 1000 hours
2	1 year or 2000 hours



MAINTENANCE AND LUBRICATION

Lubrication Instructions

DESCRIPTION	METHOD	8	150	500	1	2	LUBE
1. Steering linkage	Use standard lube gun		•				MP1
2. Load wheel(s) axle	Use lube gun and adaptor for flush type fitting		•				MP1
3. Sheave pin	Use standard lube gun		•				MP1
4. Brake pedal shaft			•				
5. Control Handle	Use standard lube gun		•				MP1
Tilt/Reach lever							
Disconnect lever							
6. Support wheel	Use standard lube gun		•				MP1
7. Support wheel pivot tube	Use standard lube gun		•				MP1
8. Reservoir cap	Clean in solvent and re-oil		•				
9. Hydraulic oil filter	Change filter		•				
10. Battery roller brgs.	Remove, clean, repack				•		MP1
11. Steering knob	Light oil				•		MP1
12. Transm. gear case	Drain, flush, refill			•			GL5
13. Hydraulic reservoir	Drain, flush, refill					•	
14. Hyd. res. screen	Clean in solvent					•	
15. Reach attachment	Use standard lube gun		•				MP1
16. Transmission yoke	Repack bearing		•				MP1
17. Articul. plate pivot	Re-oil		•				
18. Lift chain	Clean and re-oil		•				CL
19. Upright rollers	Apply to channel of rail		•				MP2

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
YOUR AUTHORIZED CLARK DEALER

CLARK[®] Material Handling
Company

Lexington, KY 40507
Printed in USA