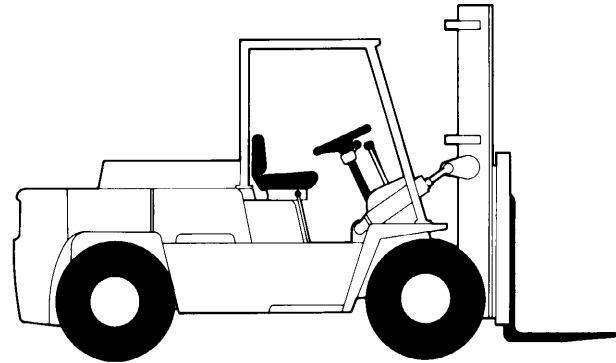

Operator's Instruction Manual



C500(Y) 110 thru 150

CLARK

Book No. 2385911
OI-402 1st 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.**

IMPORTANT

Do not expose this manual to hot water or steam.

The following warnings are provided pursuant to California Health & Safety Code Sections 25249.5 et. seq:

WARNING

California Proposition 65

This product contains and emits chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects or other reproductive harm.

WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

TABLE OF CONTENTS

Foreword	1
Know Your Truck	2, 3
Safe Operating Rules and Practices	4-14
Operator's Compartment and Controls — Gas	15
Operator's Compartment and Controls — Diesel	16
Before Operation Checks	17-33
Operating Hints	34-40
Parking	12
Handy Reference Chart	41

IMPORTANT

Do not expose this manual to hot water or steam.

)

FOREWORD

A large share of the total cost of almost every product can be traced to handling. This includes in-plant transport, storage, freight, warehousing and final delivery. In many cases, the fork lift truck plays a key roll in each of these operations.

You and your lift truck can significantly reduce these costs . . . or increase them. A lift truck costs thousands of dollars. Add to this the cost of operation (operator's pay, fuel, maintenance, fringe benefits, etc.) and it can easily be seen that this is an important investment for any company. The investment has now been made and it is up to you to ensure that maximum return is realized.

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

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

Operator training manuals are available through your Clark Dealer.

Clark trucks are built to take hard work, not abuse. They are built to be dependable, but as with any other truck they are only as good as the person behind the wheel and the people responsible for maintaining them.

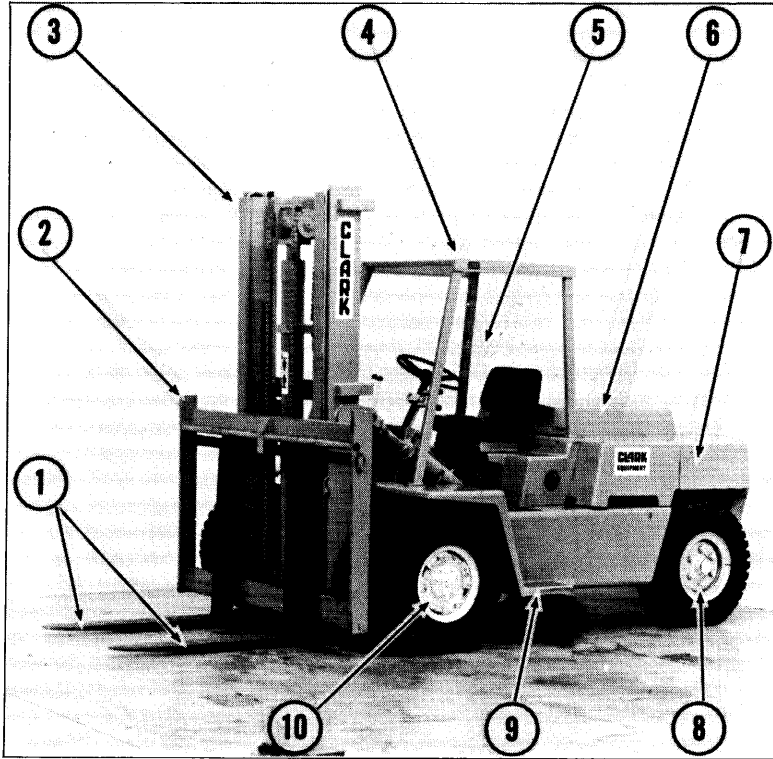
Illustrations in this manual guide the operator through correct procedures for checking, starting, operating, stopping and parking the lift truck.

Read it — Study it — Keep it Handy.

A pocket has been provided under the operator's seat for storage of this manual.

Know Your Truck

(



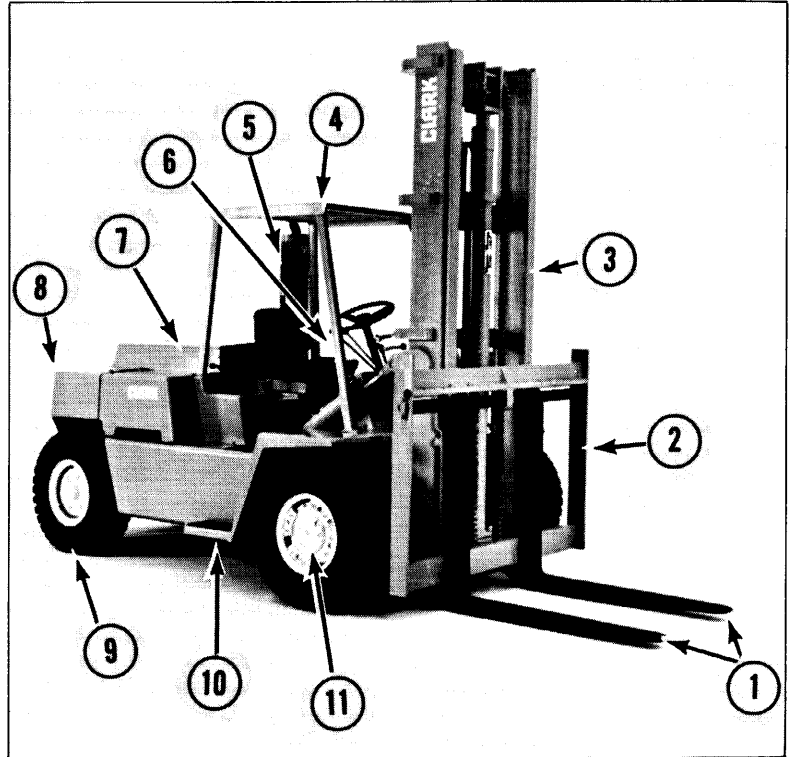
1. Load Forks
2. Fork Carriage Assembly
3. Upright and Lift Cylinder Assembly
4. Overhead Guard
5. Operator's Compartment Seat and Controls
6. Engine Compartment, Hood, and Side Louvers
7. Counterweight
8. Steer Wheel and Tire Assembly
9. Operator's Mounting Step
10. Drive Wheel and Tire Assembly

18774

C500 Y110/155
Gas powered

Know Your Truck

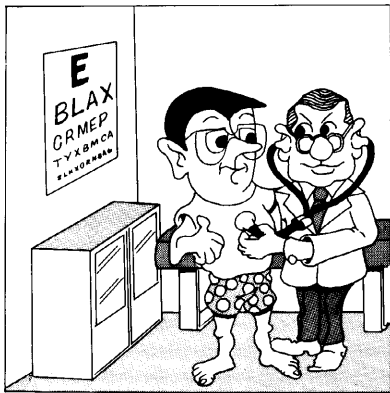
1. Load Forks
2. Fork Carriage Assembly
3. Upright and Lift Cylinder Assembly
4. Overhead Guard
5. Vertical Exhaust
6. Operator's Compartment Seat and Controls
7. Engine Compartment, Hood and Side Louvers
8. Counterweight
9. Steer Wheel and Tire Assembly
10. Operator's Mounting Step
11. Drive Wheel and Tire Assembly



19594

C500 Y110/155
Diesel powered

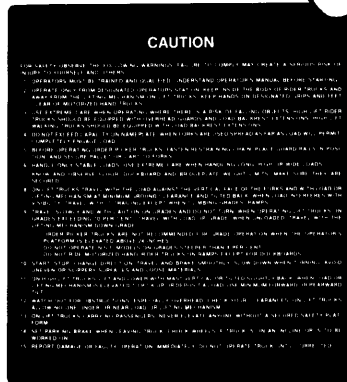
Safety



13696

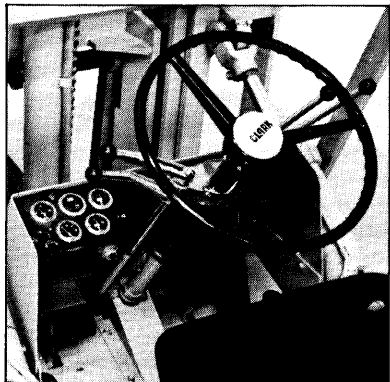
1. Only physically qualified and thoroughly trained personnel should be authorized to operate the Clark C500 Y110 through 155 model machines.

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



13110

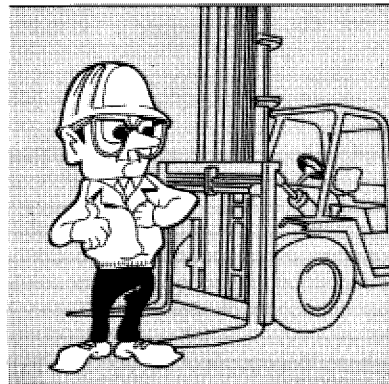
18783



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

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

13317



Safety

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



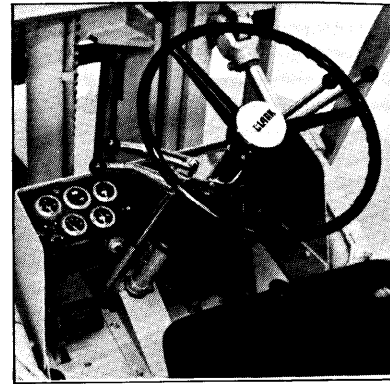
18775

18776



Code: OI-402 April 1979

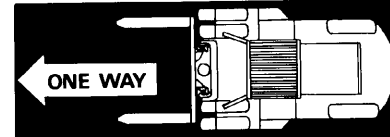
6. Before operating any lift truck test the horn, brakes, parking brake, steering, lift-tilt controls, directional controls, range controls and special devices for proper operation. Report any improper operation to the proper authority.



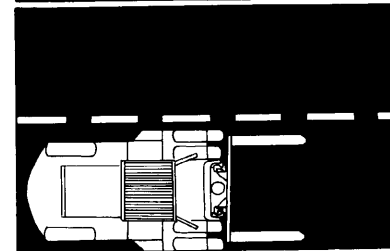
18783-M

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.

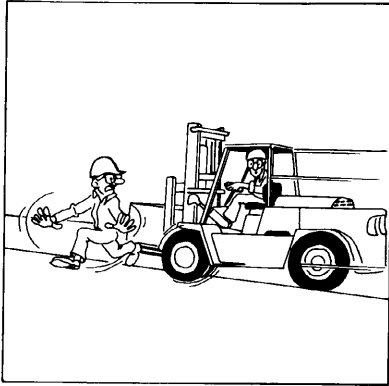


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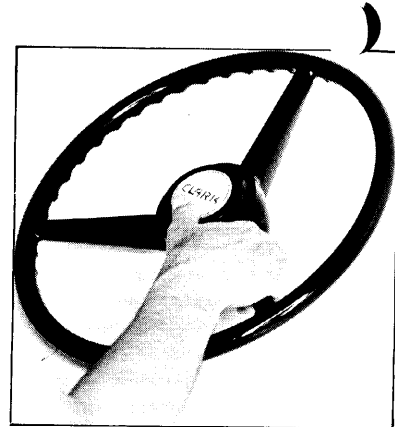
Safety

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



19614

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



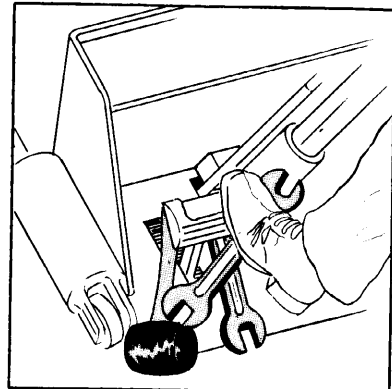
13141

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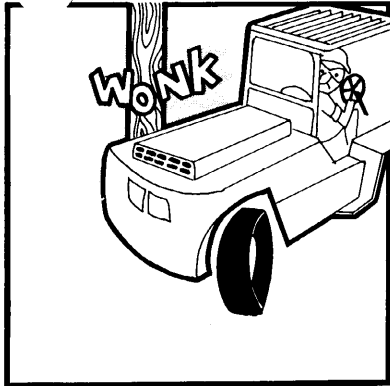
11. Obey all posted traffic rules and warning signs.

12. Keep all tools and equipment away from the floorboard area and driver's compartment. Unobstructed access to pedals must be maintained for safe operation.



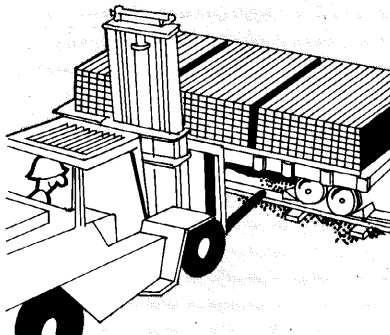
19640

Safety



19611

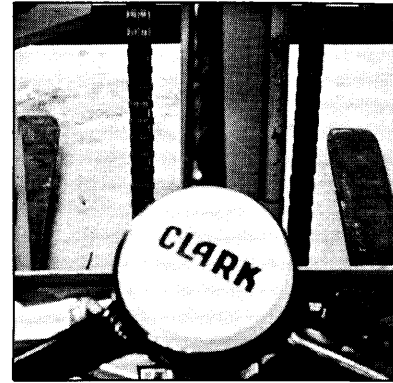
19616



Code: OI-402 April 1979

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

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

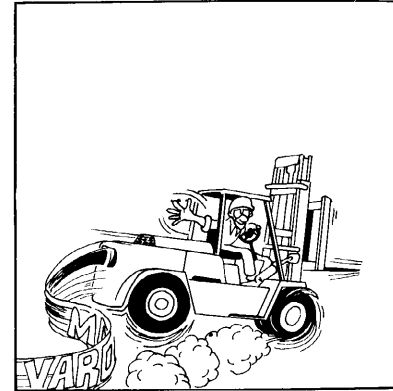


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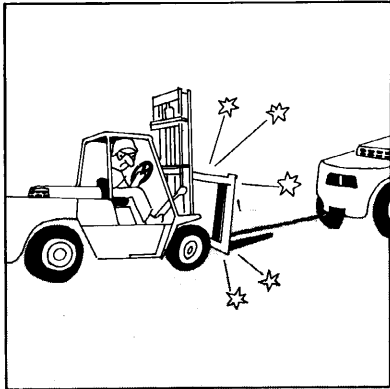
19612

15. Make certain that vehicle being loaded or unloaded has been securely "chocked" to prevent accidental roll.

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



Safety

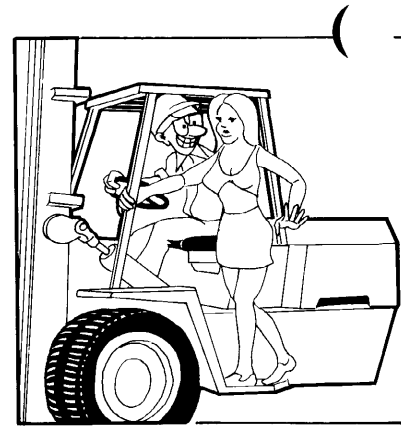


19615

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

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

18. 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.



19613-M

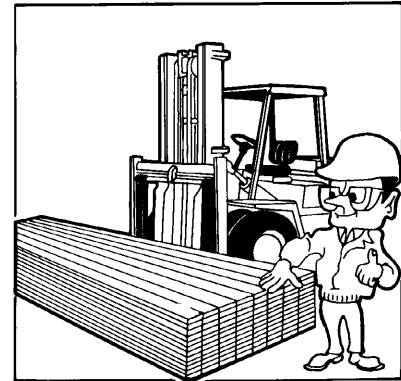
18616

CLARK EQUIPMENT		1	
INDUSTRIAL TRUCK DIVISION			
BATTLE CREEK MICHIGAN		2 GEORGETOWN KENTUCKY	
MODEL NO.		3	4 TYPE
SERIAL NO.		3	
ATTACHMENTS		5	
LOAD C.G.		CAPACITY WITH ATTACH. LISTED ABOVE OR WITH FORKS - UPRIGHTS VERTICAL	
		LBS	A B C
		6	
FLOOR		LESS BATT. ELECTRICS	
APPROX. WT. ALL TRUCKS		7	
APPROX. WT. ELECTRICS ONLY		WITH MAX. BATT. WT.	
BATTERY WT.		MAX	MIN
BATTERY CAPACITY		AH	NO
		8	9
		LBS	VOLTS
<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 AND B 56.1 1969. PT. NO. 2315709</small>			

19. 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.

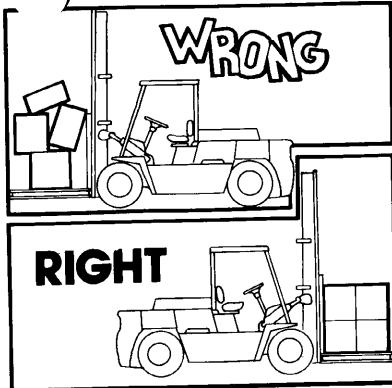
Pay particular attention to area 4 and refer to item 41 on page 14.

20. 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.



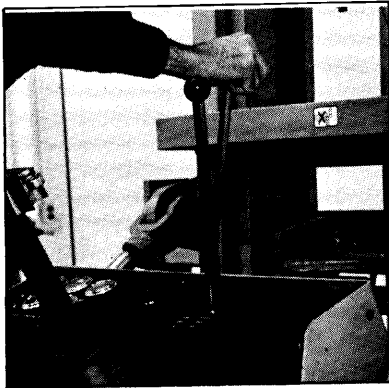
19617

Safety



19618-M

18779



Code: OI-402 April 1979

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

23. Push control lever forward to lower load. Descent of load may be stopped at desired level by returning control lever to neutral position.

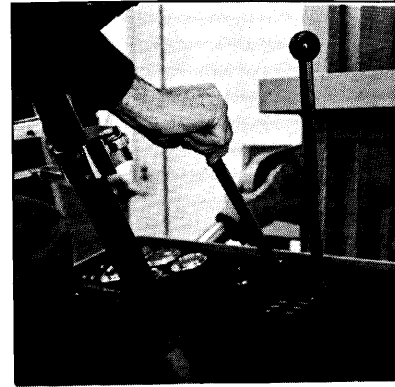
22. Before lifting check to insure adequate unobstructed overhead clearance.

Gradually and smoothly pull back on lift control lever.

Return control lever to neutral position to stop lift at desired level.

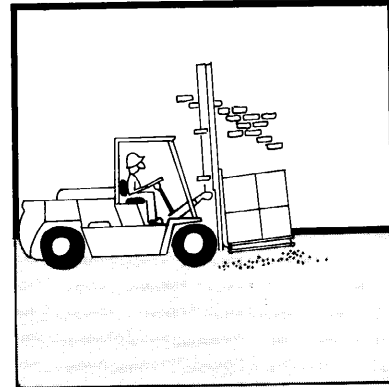
24. Always travel with load NEAR the operating surface and upright tilted back to cradle your load.

Never lift or lower the load while your truck is in motion and remember to keep your load upgrade when operating on ramps or inclines. Never attempt to turn on ramps or inclines.

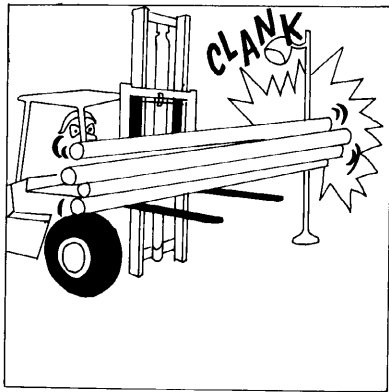


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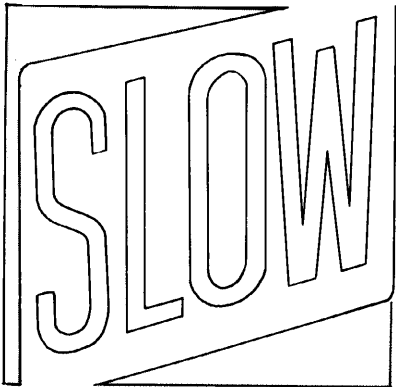


Safety



19620-M

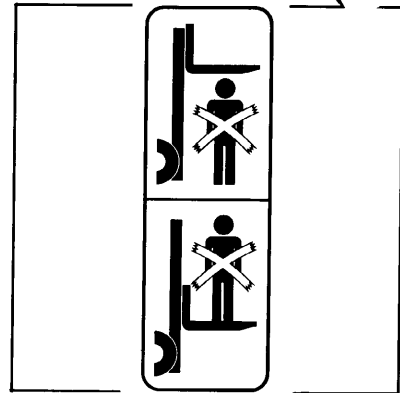
13103



Page 10

25. When extra-long material is being handled it may be necessary to maneuver your truck with the load elevated. Do so with extreme care and be alert to load-end swing when turning.

26. Prominently placed on the lift cylinder is a decal which warns against anyone riding on, or walking under, elevated forks or other load engaging attachments if machine is so equipped.



19340

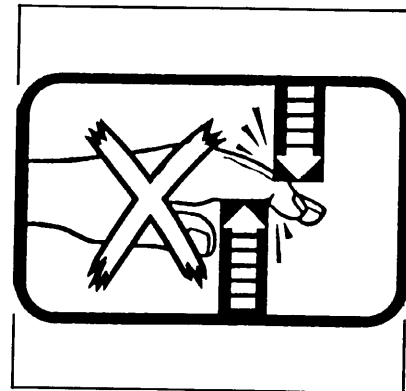
19341

27. Fork lift trucks will overturn if improperly operated. Slow down for turns, ramps, bumps, cross aisles and wet or slippery surfaces.

Be particularly careful when operating in areas having soft and/or uneven surfaces.

28. When operating a fork truck, remain seated at all times and keep head, hands, arms, feet and legs within the confines of the operator's compartment.

Never reach into the upright for any reason.

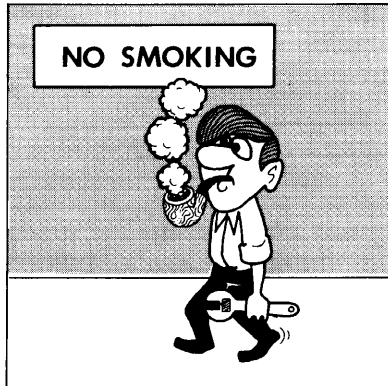


Safety



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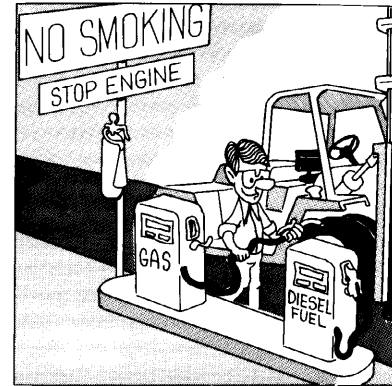


Code: OI-402 April 1979

29. Know and observe overhead clearances and bridge or floor load limits in your operating area.

30. Lift trucks must be refueled in designated areas only. Engines must be stopped and no smoking regulations strictly enforced.

Spilled fuel must be washed away or completely evaporated and the fuel tank cap replaced before restarting the engine.

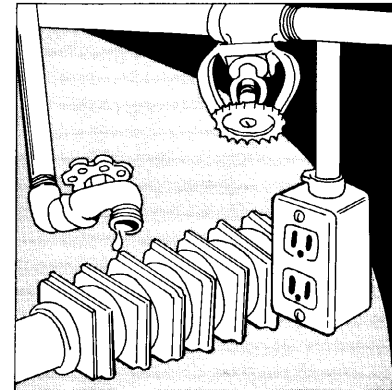


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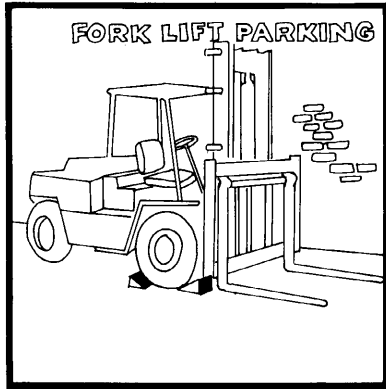
13104

31. 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.

32. 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.

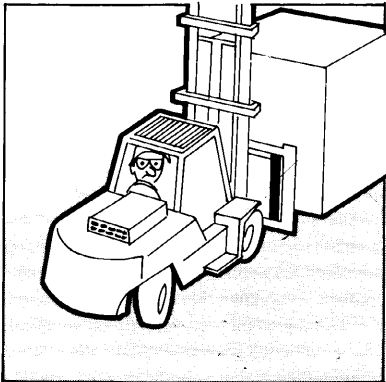


Safety



19621-M

19622



Page 12

33. Park lift trucks in designated areas only. Lower forks to floor, tilt upright forward, place directional control in neutral, apply parking brake, 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.

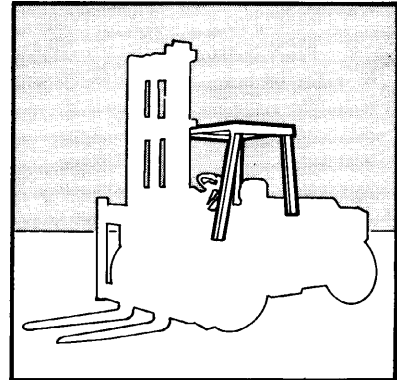


18781

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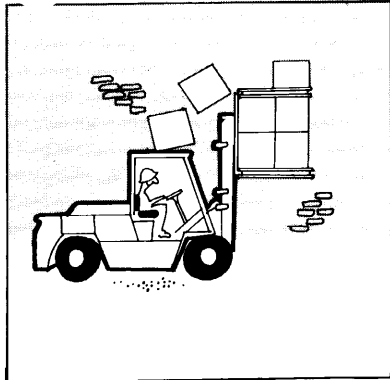
35. When handling bulky loads which, because of their size and shape, restrict your vision — operate your truck in reverse to improve visibility.

36. Overhead guard is for your protection. Make certain that it is securely mounted in place and undamaged before operating your truck.



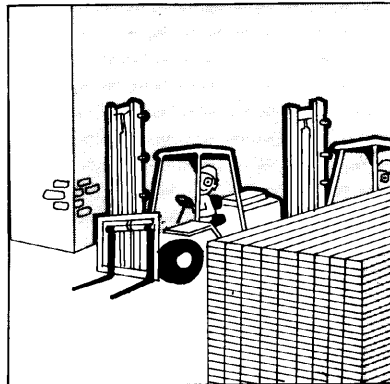
Code: OI-402 April 1979

Safety



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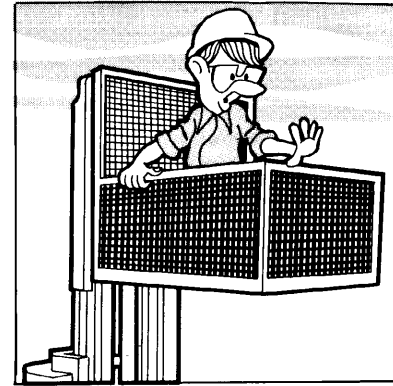
19625



Code: OI-402 April 1979

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

38. Lift trucks are not designed as personnel elevators. If your truck must be used this way always use a properly designed safety platform securely attached to the forks.

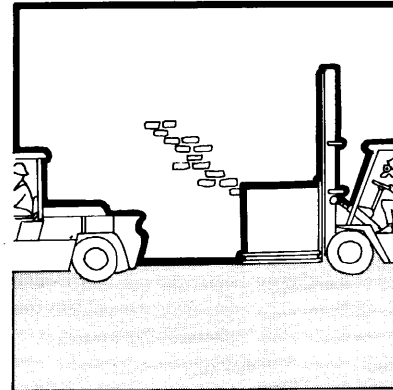


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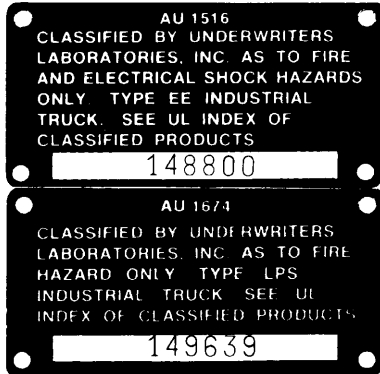
19610

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

40. Maintain a safe distance from the truck ahead of you at all times. Assure ample distance to stop smoothly and safely should the need arise.



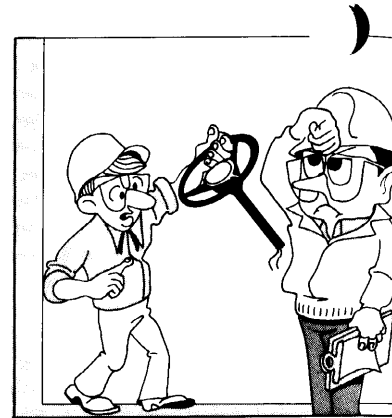
Safety



13178

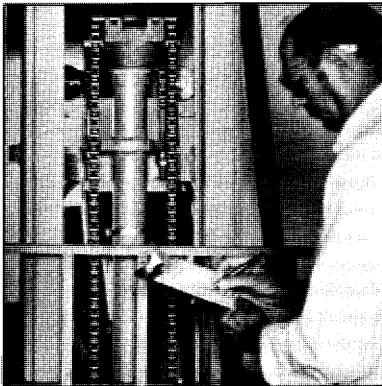
41. Know the construction type of your truck and make certain that trucks of this type may be operated in restricted areas before entering. Never take an unauthorized truck into restricted or hazardous areas.

42. Report any faulty truck performance to your supervisor immediately. Don't try to make repairs yourself.



16782

13160



43. Follow a scheduled planned maintenance and lubrication program.

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

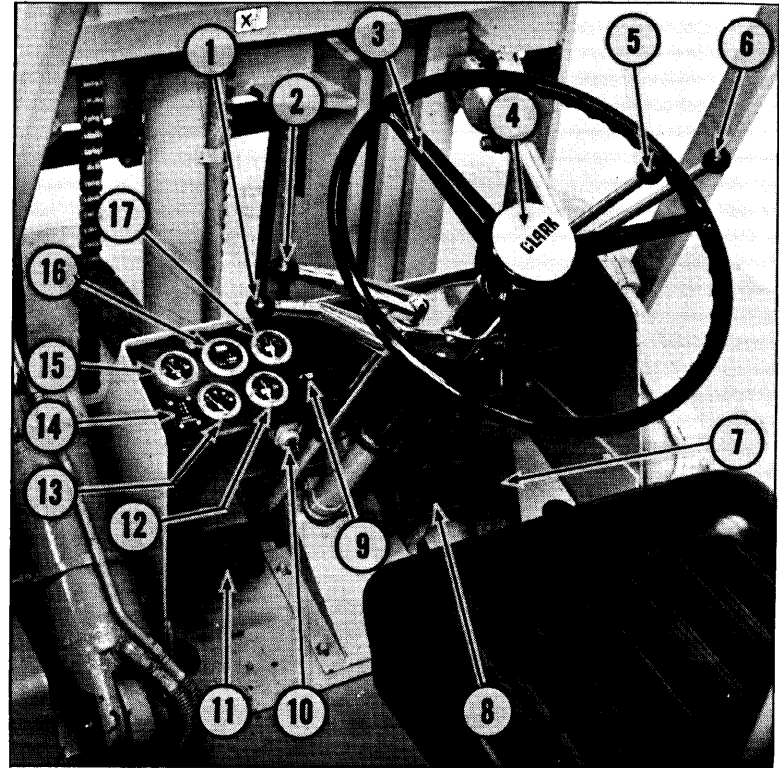
44. Remember — your safety and the safety of others depends on you. Keep your mind on the safe operation of your truck at all times.



18777

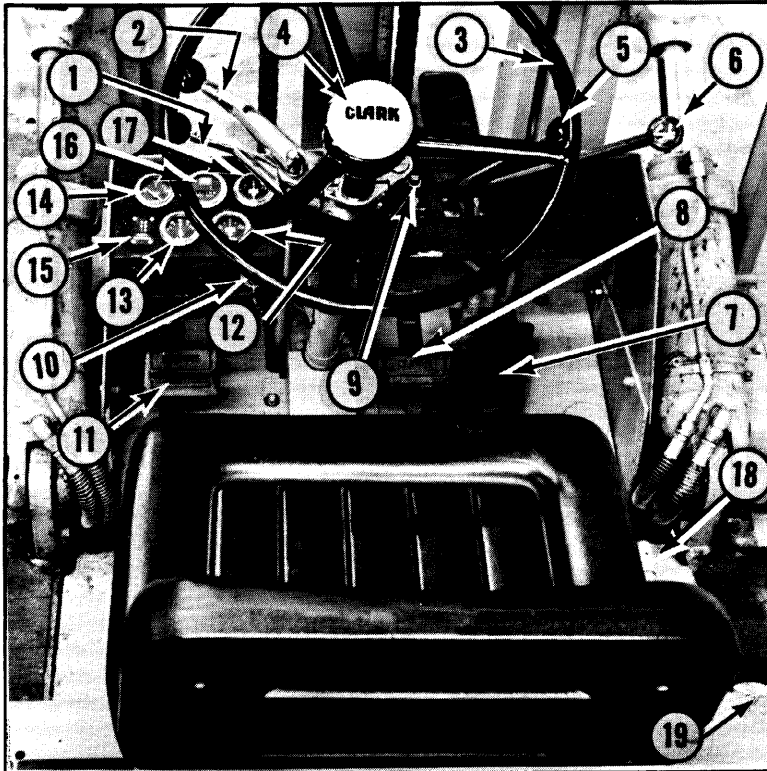
Operator's Compartment & Controls (Gas)

1. Transmission Speed Range Shift Lever
 2. Transmission Forward-Reverse Shift Lever
 3. Steering Handwheel
 4. Horn Button
 5. Lift Control Lever
 6. Tilt Control Lever
 7. Accelerator Pedal
 8. Service Brake Pedal
 9. Transmission Temperature Indicator Light
 10. Ignition Switch and Key
 11. Left Foot Inching and Brake Pedal
 12. Ammeter
 13. Engine Oil Pressure Gauge
 14. Range Shift Pattern
 15. Engine Water Temperature Gauge
 16. Engine Hour Meter
 17. Fuel Gauge
- Parking brake control lever (located at right-hand corner of seat).
 - Choke control — gas models (located at right-hand side of seat).



18782-M

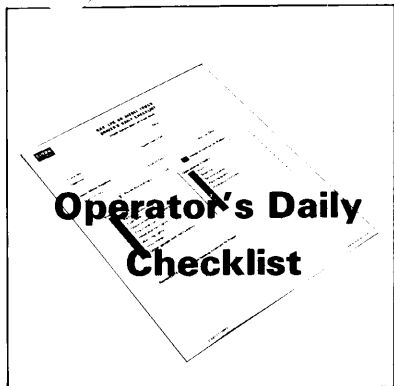
Operator's Compartment & Controls (Diesel)



1. Transmission Speed Range Shift Lever
2. Transmission Forward-Reverse Shift Lever
3. Steering Handwheel
4. Horn Button
5. Lift Control Lever
6. Tilt Control Lever
7. Accelerator Pedal
8. Service Brake Assembly
9. Transmission Temperature Indicator Light
10. Ignition Switch
11. Left Foot Inching and Brake Pedal
12. Ammeter
13. Engine Oil Pressure Gauge
14. Engine Water Temperature Gauge
15. Range Shift Control
16. Engine Hour Meter
17. Fuel Gauge
18. Parking Brake Control Lever
19. Engine Stop Control Handle

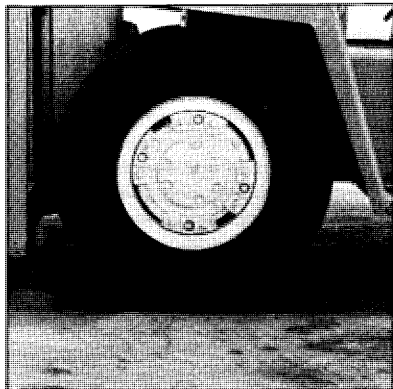
19595-M

Before Operation



15197

17877

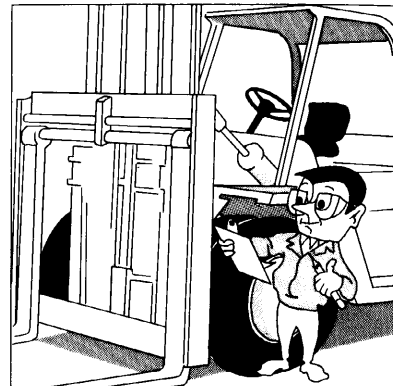


3. Check condition of drive wheels and tires.

Note any apparent drive wheel or tire damage on the checklist.

Check drive tire pressure and adjust, if necessary, to pressures listed on page 36.

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



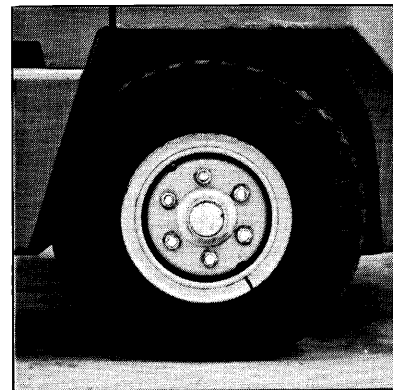
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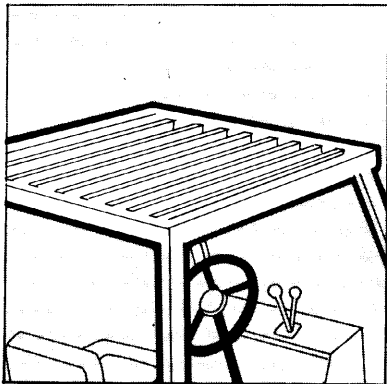
4. Check condition of steer wheels and tires.

Note any apparent steer wheel or tire damage on the checklist.

Check steer tire pressure and adjust, if necessary, to pressures listed on page 36.



Before Operation



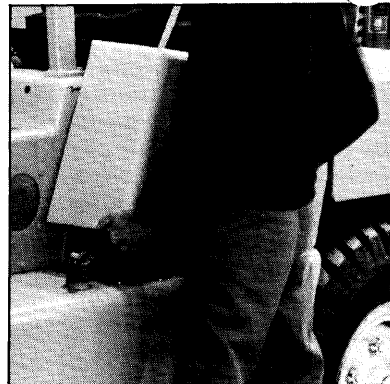
19623

5. Check condition of overhead guard assembly.

Make sure that guard is undamaged and that its mountings are secure.

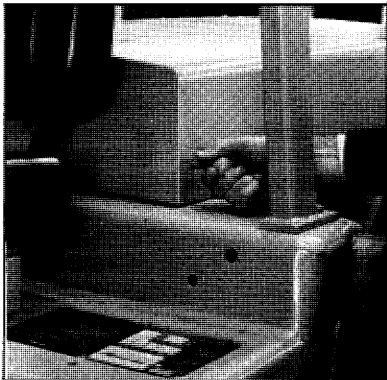
6. Engine compartment side louvers are hinged at the rear.

Lift up on front of side louver and open it fully so that it rests on top of the counterweight.



17878

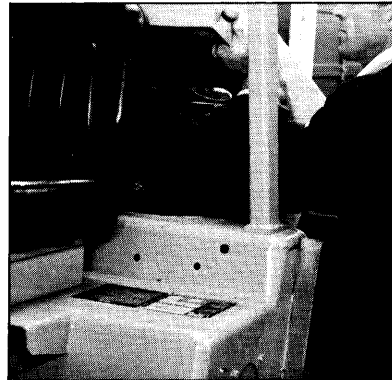
17879



7. Pull hood latch release toward you and...

8. Lift up on front of hood.

The hood is hinged at the back and should be opened all the way.



17880

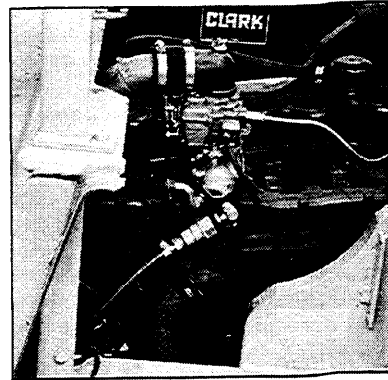
Before Operation



17881

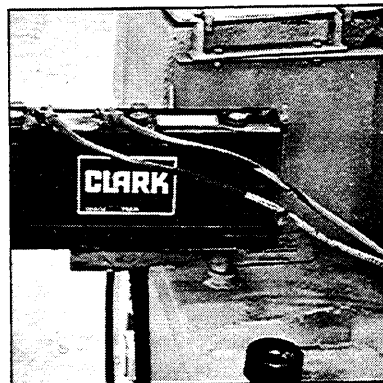
9. Make sure that hood support arm pivot points have gone past center before continuing with your before operation check.

10. Visually check general condition of left side of engine compartment (wires, hoses, belts, etc.).



17882

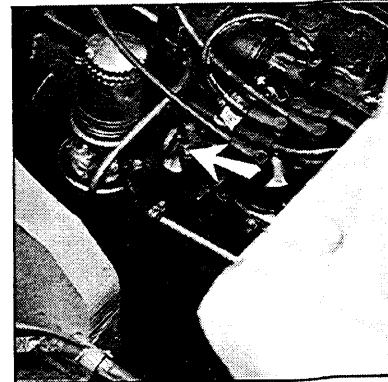
18788



11. Walk around back of truck and open the right-hand side louver as described in item 6. Lift front of battery with right hand and pull it toward you to position shown.

12. Check the condition of battery, cables, wires, hoses and belts.

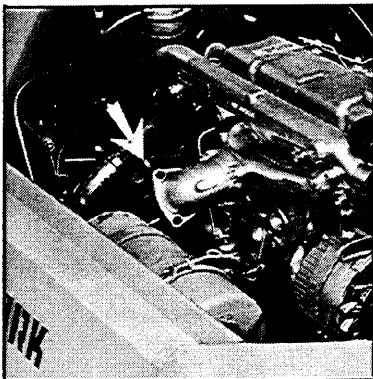
Take special notice of the engine oil dipstick position which on gas models is as shown at right.



18785

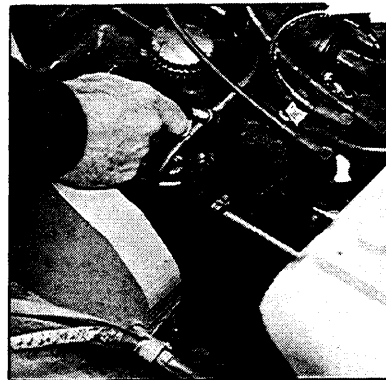
Before Operation

13. Location of engine oil dipstick is as shown on diesel models.



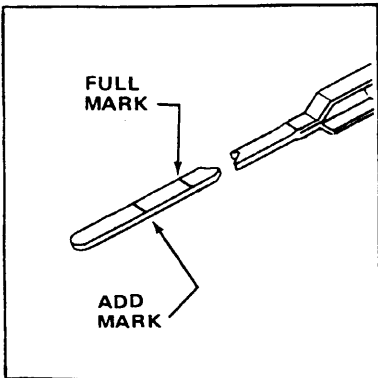
18768

14. Pull the dipstick from its support tube, wipe it with a clean lint-free cloth and return it fully into its support tube.



18786

13239

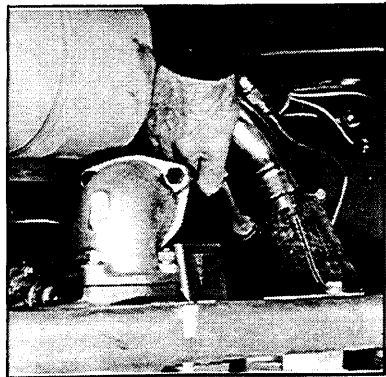


15. Oil level must be maintained between the "add" and "full" mark on the dipstick.

Remember that one quart (1 liter) will raise the oil level from "add" to "full." DO NOT OVER-FILL.

16. Engine oil level should always be re-checked after oil has been added.

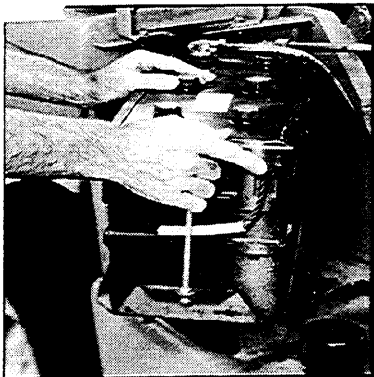
When oil level has been properly adjusted, insert the dipstick all the way into its support tube.



18770

Before Operation

17. Swing the battery back into its operating position and make sure that the battery locks into position.



19597

19596

19. Close engine compartment right-hand side louver.



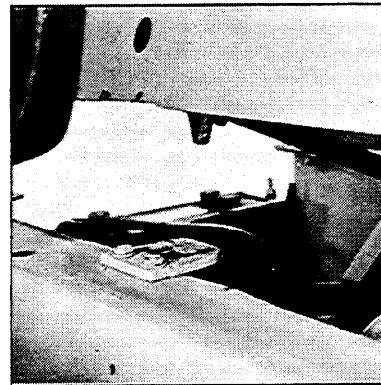
18. Remove fluid level plugs from all battery cells and check the fluid level in each cell. Add distilled water to each cell as required and replace plugs.



18787

18789

20. Carefully close engine hood and make sure that hood latch engages properly.



Before Operation

21. Always check radiator coolant level with the engine turned off and, when possible, with engine cold. Proper coolant level is one inch below the bottom of the filler neck. Always replace the cap.

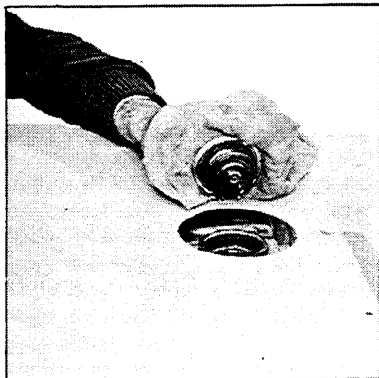
CAUTION: Use extreme care when removing radiator pressure cap. The sudden release of pressure can cause a steam flash resulting in serious injury. Place a rag over cap and loosen slowly to allow gradual escape of steam.

Never add cold water or anti-freeze to the radiator of an overheated engine. Always allow the engine to cool to avoid the danger of cracking the cylinder block or head(s). Keep engine running when adding water or anti-freeze. A solution of 50% ethylene glycol and 50% water is recommended. **NEVER USE ONLY WATER.**

22. Close left-hand engine compartment side louver.

23. Remove the blocks from the drive wheels.

Carefully climb into the operator's compartment and seat yourself in the operator's seat.



18790

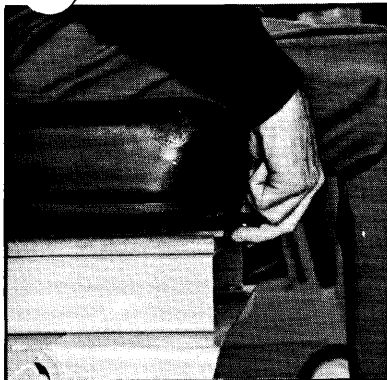


17878



18791

Before Operation

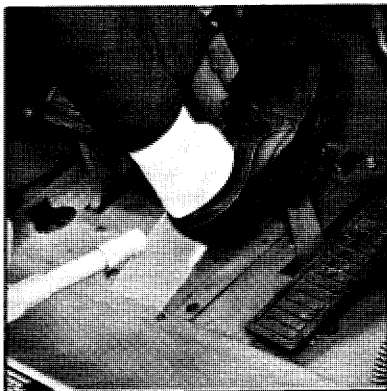


18792

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

Position seat to provide easy access to all hand and foot controls, free lever and make certain that seat locks into desired position.

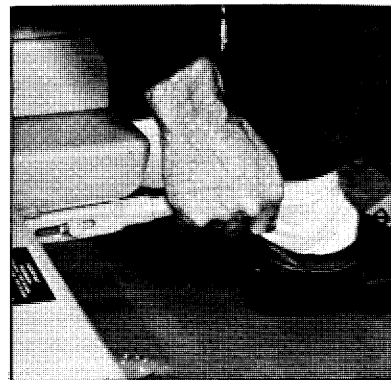
18794



26. Place foot on service brake pedal and apply pressure by pushing down.

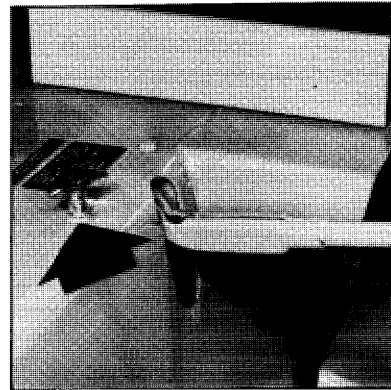
Pedal should be "firm." If pedal feels "spongy" or "fades" under pressure **DO NOT OPERATE THE TRUCK.** Report brake deficiency immediately to the proper authority.

25. Make certain that the parking brake lever is in the "on" (full-up) position. Brake holding power can be adjusted by rotating the knob on top of the lever clockwise to increase hold power or counterclockwise to reduce it. See page 35 of this manual for holding specifications.



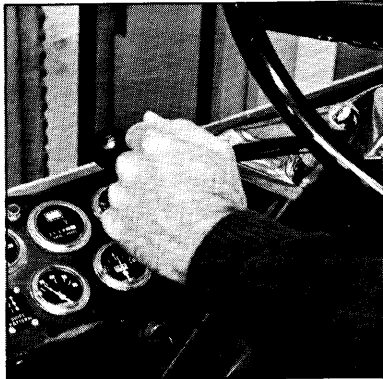
18793

27. Diesel-powered trucks are equipped with an engine stop control. Make certain that this stop control is pushed all the way "in" before attempting to start the engine.



19598

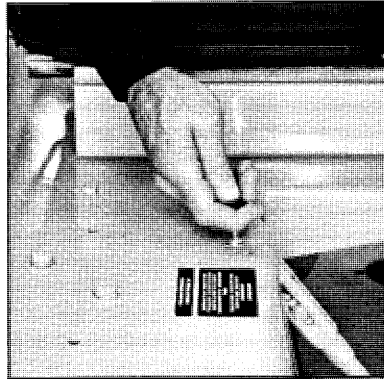
Before Operation



18795

28. Check to make sure that transmission directional control lever is in neutral position.

These trucks are equipped with a neutral start switch and cannot be started in forward or reverse unless switch is faulty or improperly adjusted. Report switch condition on your checklist.



18796

29. Gas and some L.P. gas trucks are equipped with a manual choke. This control must be pulled when starting a cold engine.

On L.P. gas models the choke (if so equipped) should be pushed in as soon as the engine starts. On gas models the choke should be pushed in gradually as the engine begins to warm up once started. (Refer to page 37 for cold start procedures on the diesel-powered models.)



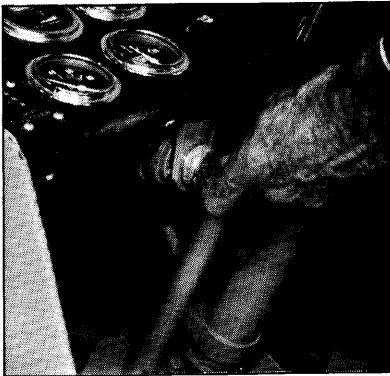
18797

30. Place your right foot on the accelerator pedal.

On gas- and L.P. gas-powered models only slight foot pressure will be required to start the engine.

On diesel-powered models push accelerator pedal $\frac{1}{2}$ to $\frac{3}{4}$ of travel to start engine.

Before Operation



18781

31. Insert ignition switch key and turn clockwise to "start" position.

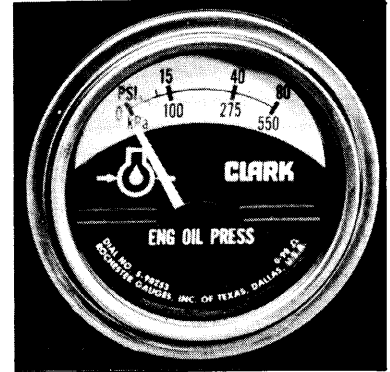
Release key to return to "run" position as soon as engine starts.

If engine does not start on the first attempt — do not reengage the starter until the engine comes to a complete stop (approx. 5 sec.) and remember that switch must be returned to the "off" position before starter can be reengaged.



18798

32. If gas or L.P. gas engine becomes overchoked or "flooded" in starting, push choke control in — press accelerator pedal to floorboard and engage the starter as described in item 30.

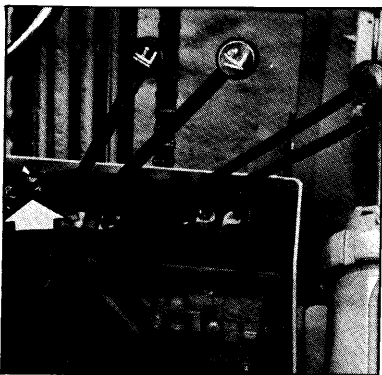


19601

33. Check the engine oil pressure gauge to insure that it is undamaged and that it is functioning properly.

If engine oil pressure drops below 5 P.S.I. or becomes erratic during truck operation you should immediately shut the engine down until the cause is located and corrected.

Before Operation



19599

34. These trucks are equipped with a transmission oil temperature indicator light.

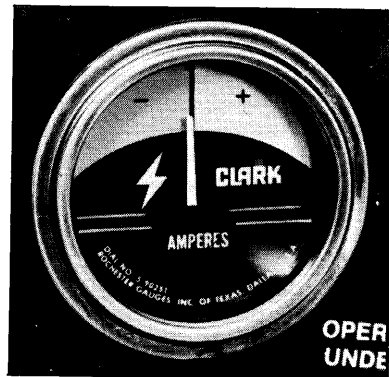
If this light comes on at any time during operation, you should immediately shut off your engine until the cause can be located and corrected.



19602

35. On gas- and diesel-powered units always check the fuel gauge to determine the amount of fuel in the tank.

It is recommended that you always start your shift with a full fuel tank. This is especially important on diesel models as it is possible to severely damage the injection pump and nozzles when a diesel runs out of fuel.



19603

36. The ammeter should indicate a high rate of charge for a brief period of time after the engine is started.

If the ammeter shows a continuous high rate of charge, discharge, reads erratically, or is otherwise damaged, you should record these facts on your checklist and report to designated authority.

Before Operation



19604

37. Check dash-mounted water temperature gauge to insure that it is undamaged and functioning properly. Water temperature should reach 180° F. after 10 minutes of operation.

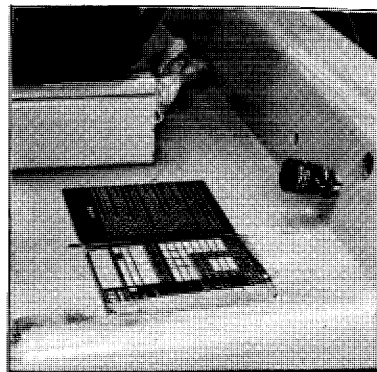
If the indicator needle goes into the "hot" or red area during operation — immediately shut off the engine and do not restart until cause of trouble has been located and corrected.



19605

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

Record the hour meter reading on your checklist.

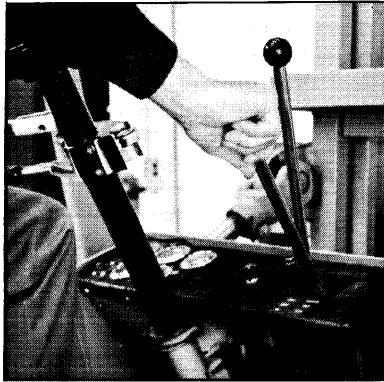


19600

39. Diesel models are equipped with an air cleaner condition indicator. To check, start engine, run at full governed R.P.M. If indicator registers red, the air cleaner must be serviced and you should report it to the designated authority and note it on your checklist.

The indicator may be reset by pushing the button on end.

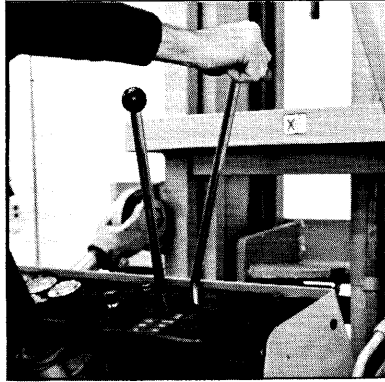
Before Operation



18799

40. Gently pull back on the tilt control lever and hold until the upright reaches full back tilt.

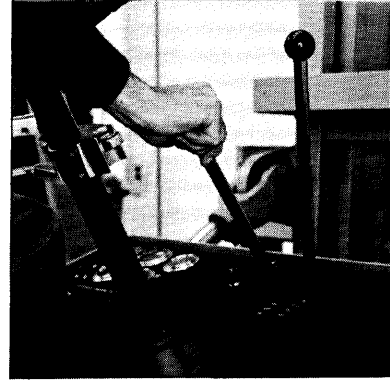
Do not hold lever back after upright has reached full back tilt — to do so will unduly heat the hydraulic fluid and could harm the hydraulic system.



18800

41. Push tilt control lever forward and hold in position until upright tilts forward to near vertical position.

Releasing tilt control lever will halt forward tilt at desired point.



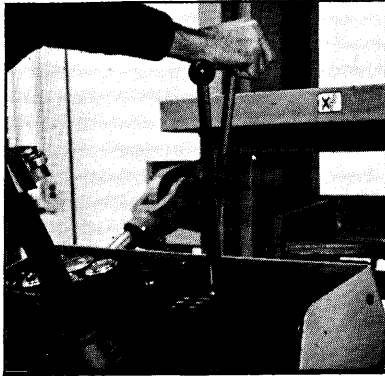
18778

42. Carefully check for adequate unobstructed overhead clearance, then gently pull back on lift control lever and hold until upright reaches maximum lift height.

Release lever to halt upright lift at desired point.

Note any erratic upright operation on your checklist, and report to designated authority.

Before Operation



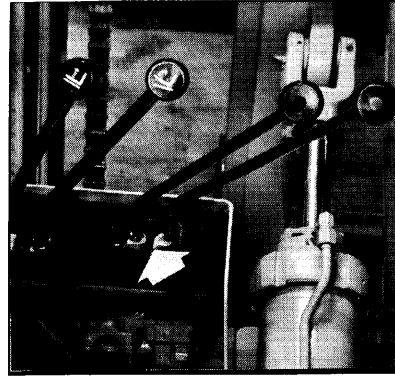
18779

43. Gently push forward on lift control lever and closely observe descent of upright carriage.

Return lift control lever to its neutral position to stop upright descent near (about 4-6 inches/100-150 mm) floor level.

Record any erratic or unusual operation on your checklist, and report to designated authority.

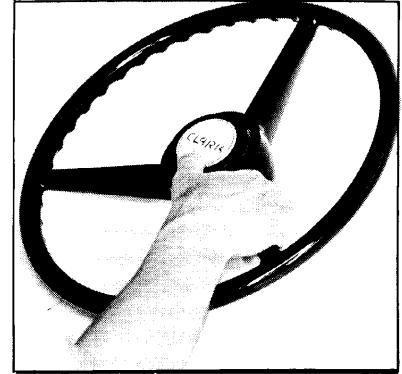
Code: OI-402 April 1979



19606

44. Trucks equipped with hydraulic attachments or accessories will have one or more additional control levers mounted to the right of the lift and tilt control levers.

The function of these lever(s) should be checked with your supervisor prior to attempting operation thereof.

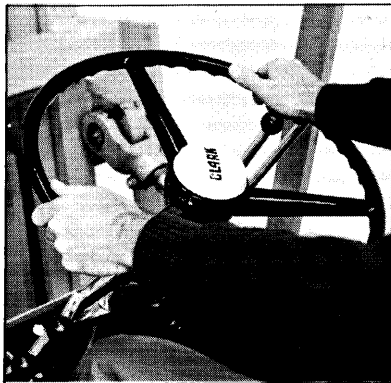


13141

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

If horn does not function properly record it on your checklist and report it to the designated authority when you have completed your "before operation" checks.

Before Operation

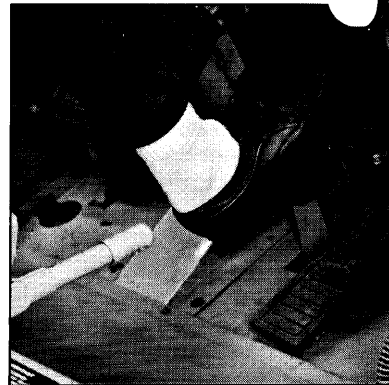


18801

46. Rotate steering handwheel to the left and to the right.

Any excessive or unusual free travel, looseness or binding must be noted on your checklist, and reported to designated authority.

47. Place your right foot on the brake pedal and press down firmly to apply the truck service brakes.



18794

18802



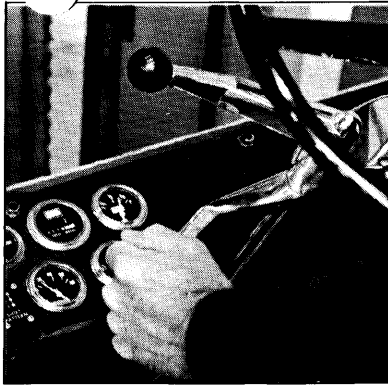
48. Release the parking brake by pushing the control lever down toward the floorboard.

49. Place forward-reverse shift lever into proper position for desired direction of travel. (Pull lever back for reverse or push it forward for forward travel.)



18803

Before Operation



18804

18797

50. Pull back on transmission range shift lever to place transmission into low gear (first) position.

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



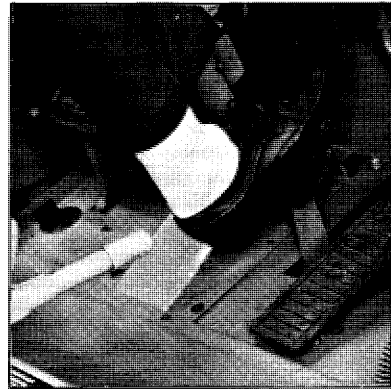
18776

18794

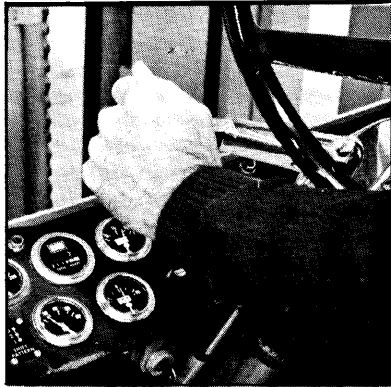


52. Release foot pressure on brake pedal, place your right foot on the accelerator pedal and apply smooth downward pressure until truck begins to move in the selected direction.

53. Release foot pressure on accelerator pedal, place right foot on brake pedal and push down smoothly to bring truck to a stop.



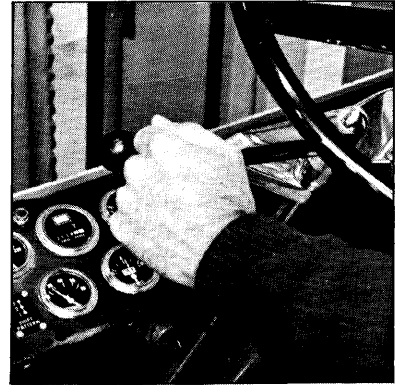
Before Operation



18805

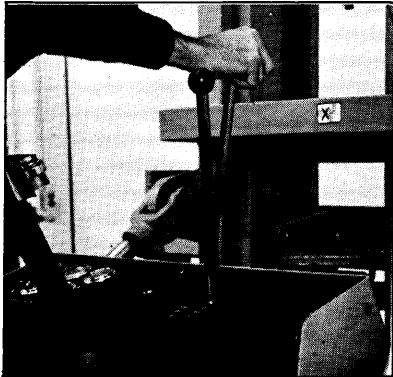
54. Push forward on transmission forward-reverse shift lever to place transmission into forward direction and repeat items 50, 51 and 52.

55. Place the transmission directional control lever in the neutral position.



18795

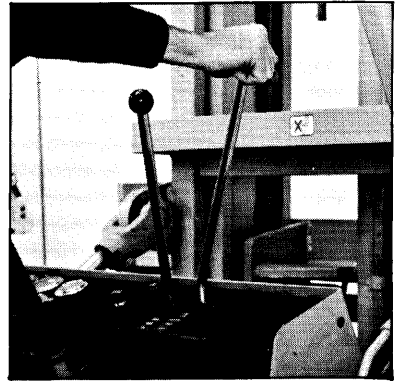
18779



56. Push forward on the lift-lower control lever to lower load forks to the operating surface.

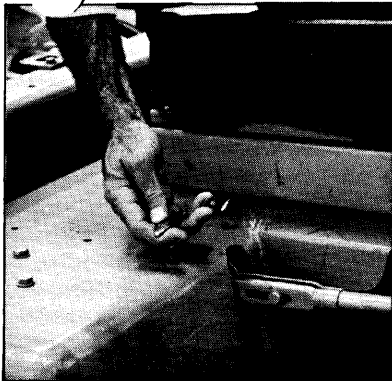
57. Push forward on the tilt control lever to tilt the upright forward. This will cause the load fork tips to move nearer the operating surface.

18800



Code: OI-402 April 1979

Before Operation



58. Pull up on parking brake control lever to apply brake. If your truck is diesel powered pull up on the engine stop control and hold until the engine stops.

19607

18806



60. Securely block the drive wheels to prevent accidental roll.

Code: OI-402 April 1979

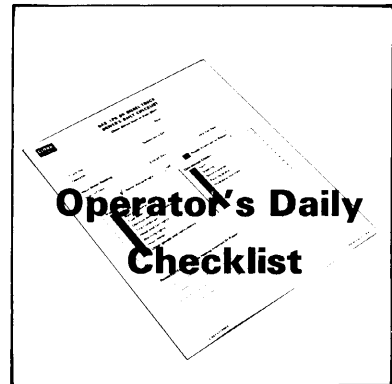
59. Turn key counterclockwise to the off position. Remove the key and carefully dismount from the truck.



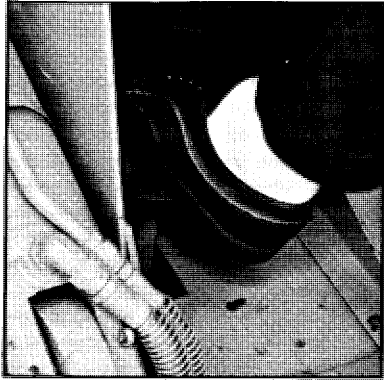
18781

15197

61. Review your checklist to make certain that it is complete, sign it and turn it in to the designated authority.

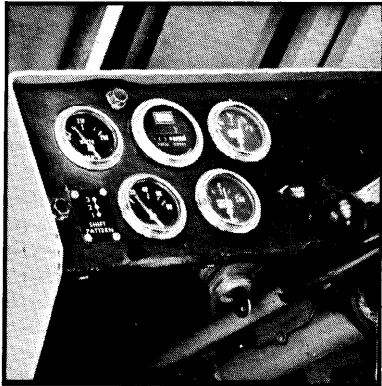


Operating Hints



18807

18808

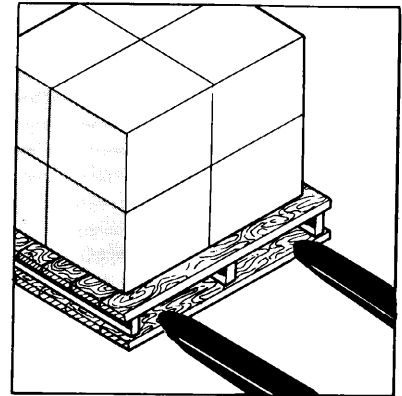


1. All variations of these trucks are equipped with a left-foot-operated inching/brake pedal which is designed so that the initial portion of pedal travel (approximately 1½ inches) regulates oil pressure within the transmission. This pressure control allows you to maintain controlled travel speed independent of truck engine speed. The remaining portion of left-foot pedal travel is devoted to operation of the truck service brakes and operational checks are to be performed as outlined in item 26 on page 23.

DO NOT "RIDE" this pedal during normal truck operation — to do so will shorten transmission component service life.

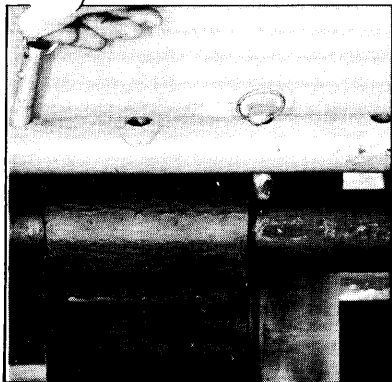
2. Learn the position and function of all instruments and gauges and be constantly alert for abrupt changes in the operating characteristics of your truck. Unusual noises or sudden changes should be reported to your supervisor immediately.

3. Remember to approach load slowly and squarely to avoid damaging the material being handled and to minimize truck maneuvering.



19641

Operating Hints

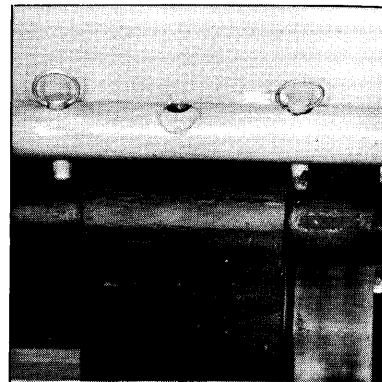


18809

4. Load forks are adjustable to fit both wide and narrow loads.

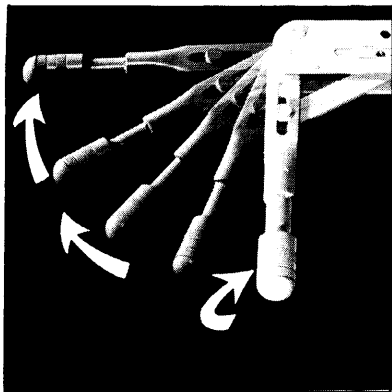
Pull both fork stop pins and slide the forks along the fork hanger shaft to the desired position . . .

5. And then remember to replace both stop pins — one pin on each side of each fork as shown.



18810

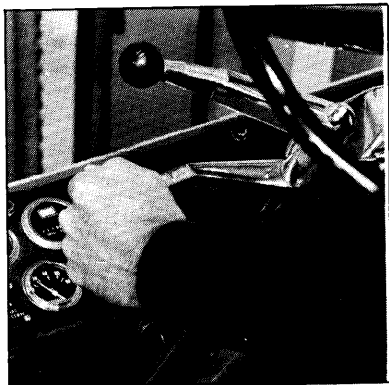
13228



6. Parking brake performance is checked by moving lever from full "on" position to full "off" position. Maximum force will be required just before brake lever reaches full "on" position.

The parking brake should be adjusted to hold the truck, with capacity load, on a 15% grade (1.5 feet of rise in 10 feet), or on the maximum grade negotiated in your operation, whichever is less. Brake holding power can be adjusted by rotating the knob on the lever. Rotate it clockwise to increase tension or counterclockwise to decrease tension and holding power.

Operating Hints



7. All models must be brought to a complete stop before shifting the directional control lever from forward to reverse or from reverse to forward.

- Transmission speed ranges can be changed while truck is moving.
- Selecting the correct gear ratio is a very important operator's function. Choosing the proper gear for the job being done will result in better performance with longer engine and transmission life.

- If the operating surface is rough, or soft, or if grades or ramps must be negotiated, use the lowest transmission gear ratios available to you because here power is needed — speed is not.
- As a general rule of thumb — DO NOT lug the engine. Overworking the engine through use of a "too high" gear ratio will create excessive heat and shorten component service life.
- When in doubt — use next lower gear.

TIRE PRESSURES

Drive Tires	8.25 x 15 x 12 ply — 100 P.S.I. (kPa)
Steer Tires	8.25 x 15 x 12 ply — 100 P.S.I.)	kPa)

Operating Hints

(Cold Weather Starts)

1. Make sure engine "stop" control is in "run" position (pushed in).
2. Place transmission forward and reverse control levers in neutral.
3. Turn key-start switch to "start" position and hold for 15 seconds or until engine starts.
4. If engine does not start, turn key to "off" position and wait for engine to come to complete rest (about 5 seconds).
5. If engine does not start after three tries, air in the fuel system may be the cause. Refer to designated authority and consult P.M. Manual.
6. The Perkins Diesel has a cold-starting aid, consisting of a manifold heater. If the weather is cold, depress the "heat-start" button for 15 seconds with the key in "run" position. Now crank engine by turning key to "start."

If engine does not start, repeat procedure holding "heat-start" button in for 10 seconds.

At temperatures below 0° F (– 18° C), depress button for an additional 10 seconds while engine is running.

If engine fails to start, refer to Step 5.

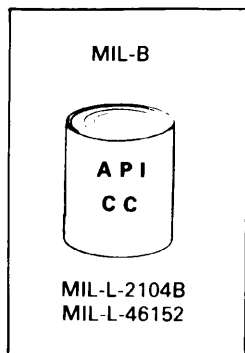
IMPORTANT: Do not attempt to start engine with fuel tank empty.

Do not use ether as a starting aid in Perkins engines.



19608

Operating Hints



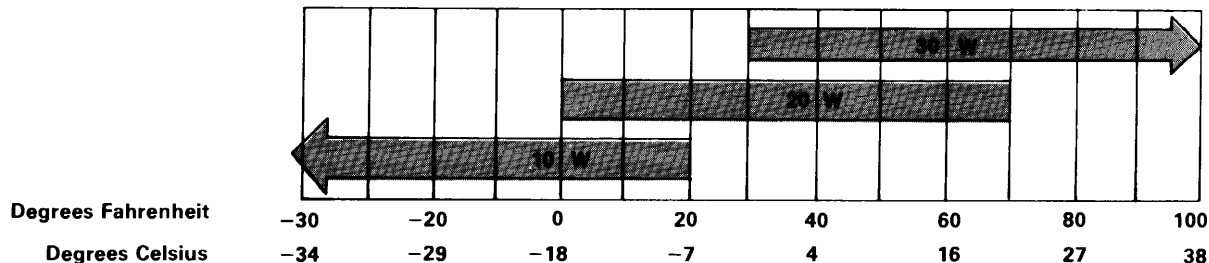
GAS — L.P. GAS ENGINE OIL

SPECIFICATION To meet API Service Classification "CC" and "SC" per SAE Report J183 and/or MIL-L-2104B. Sulfated ash content 1.00% weight maximum. Zinc content 0.06 to 0.10% weight maximum.

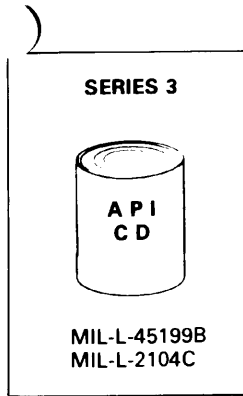
This specification includes oils meeting Specification MIL-L-46152 when applicable. Also, API Service "SC"/"SD" (Formerly "MS") oils may be preferred under stop-and-go or light service conditions.

• ENGINE CRANKCASE OIL

RECOMMENDED SAE VISCOSITY NUMBER



Operating Hints



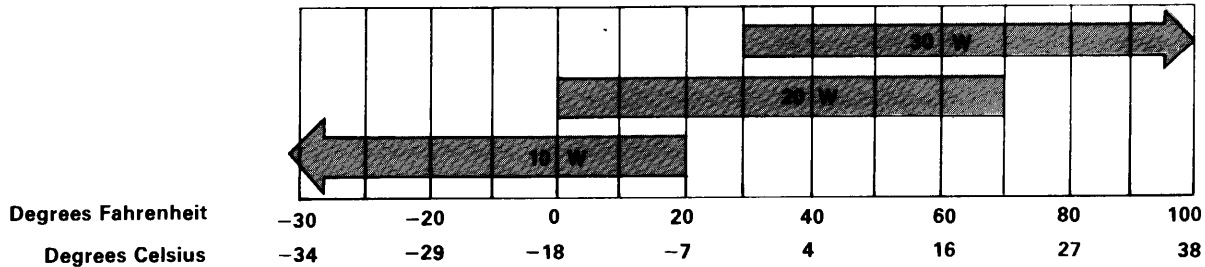
For . . .diesel engines using high sulfur content fuel (over 0.5% sulfur).

SPECIFICATION To meet API Service Classification "CD" per SAE Report J183 and equivalent Series 3 and/or MIL-L-45199B specifications. Also MIL-L-2104C when applicable. Sulfated ash content 1.65% maximum.

SAE #30 oil of MIL-L-2104B performance level is recommended for year-around use in Detroit diesel engines . . . (Limitations — zinc 0.10% maximum, sulfated ash 1.0% maximum).

• ENGINE CRANKCASE OIL

RECOMMENDED SAE VISCOSITY NUMBER



Operating Hints



GASOLINE

GASOLINE

SPECIFICATIONS Fuel to be Automotive Quality Regular Grade Gasoline containing a corrosion inhibitor.

Minimum Motor Octane
Number — 85



PROPANE HD-5

L.P. GAS

L.P. GAS

SPECIFICATIONS USE LPG meeting PROPANE HD-5 (NGPA Specification 2140-62) or ASTM D2154 (Special Duty Propane) requirements.

Minimum Motor Octane
Number — 95



DIESEL

DIESEL

SPECIFICATIONS Fuel to be Automotive Quality Diesel Fuel Oil as defined by ASTM D975, Grades No. 1-D and 2-D, and having a sulfur content of less than 0.5% weight.

Recommended Cetane
Number — 45 Minimum

FOR HANDY REFERENCE

RECORD THE FOLLOWING INFORMATION PERTAINING TO YOUR TRUCK.

Model No.

Serial No.

Attachments

Truck Weight

Truck Rated Capacity

Gross Truck Weight (with 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 40511
Printed in USA