

Index



FORWARD	01-01
SAFETY RULES FOR FORKLIFT TRUCK OPERATORS	02-18
KNOW YOUR FORKLIFT TRUCK OPERATIONS	19-39
HOW TO AVOID A TIPOVER; HOW TO SURVIVE ONE	40-42
REFUELING	43-43
OPERATION	44-53
POST-OPERATION INSPECTION AND STORAGE	54-56
OPERATING TECHNIQUES	57-58
SPECIAL SITUATIONS	59-60
TROUBLESHOOTING	61-70
MAINTENANCE	71-83
SERVICE DATA	84-87
GASOLINE FORKLIFT	88-95
	96-97



FOREWORD

The purpose of this manual is give you a complete understand of Feeler Truck and enable you to operate it correctly and safelu and safely. Additionally: it can help you to avoid, and provide you with the solutions to the troubles that may occur during operation.

We cordiafly suggest that you read this manual carefully; only by doing so, the minimum troubles, and the maximum safety and performance of the forklift truck safety is the most important cause in the daily operation of a truck. Do not refit out forklift privately, otherwise, we are not responside for the results occurred. If the saferules given in the manual helps you to prevent from even one accident. The writing of this text has served a real purpose. (The caption in the manual as per the feeler forklift model which is used to exported. And changes, we will not issur a separate notice. If any question, please keep in touch whis us.)

SAFETY RULES FOR FORKLIFT TRUCK OPERATORS

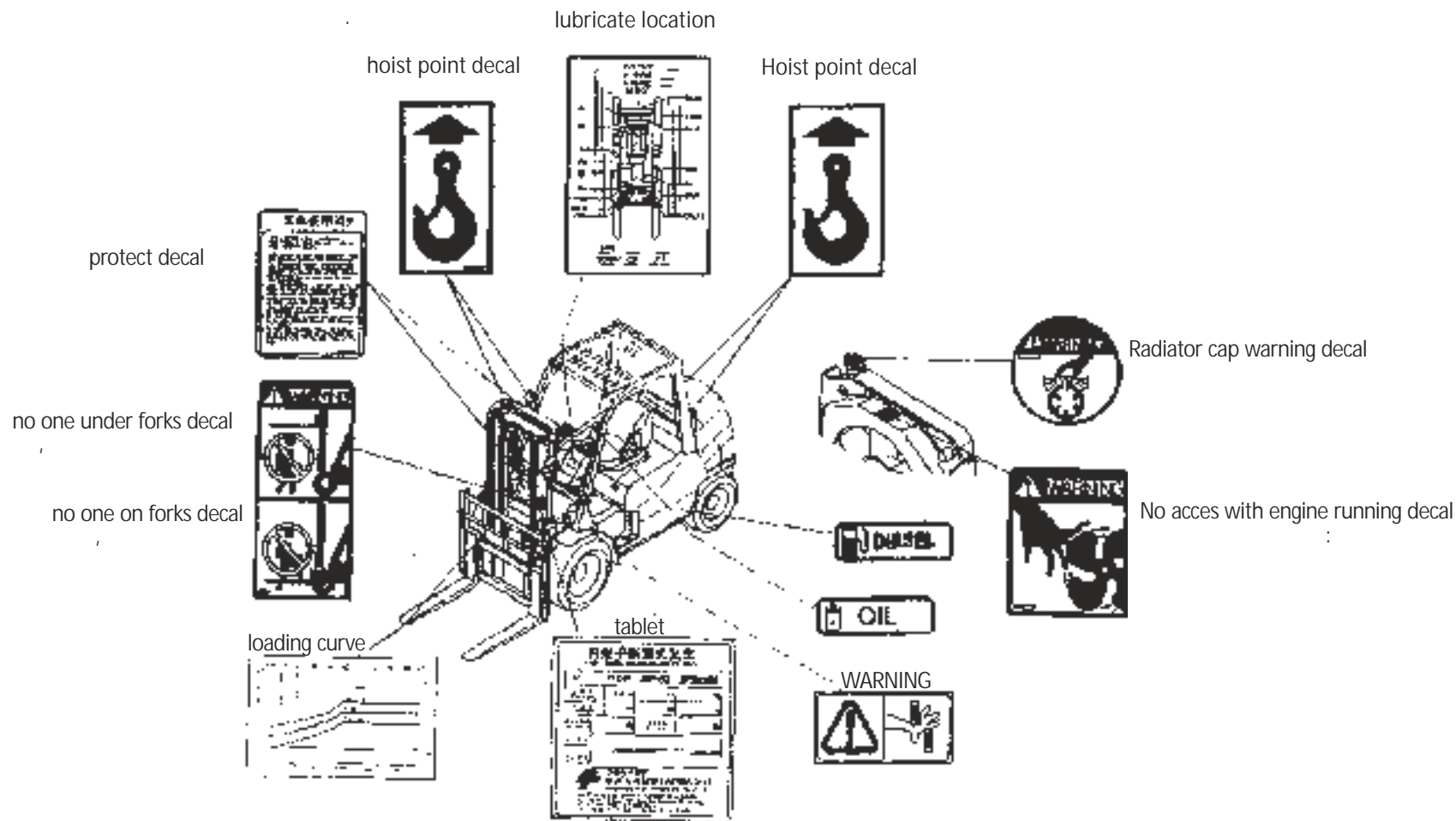


Warning Decals, Location /

There are several specific warning decals on you forklift truck. Their exact location and description of the potential hazard are reviewed in this section. Please take the time to famimiarize yourself with these decals.

Be sure you can read all warning and instruction decals.

You must replace a decal if it is damaged, missing or cannot be read. If a decal is on a part that is replaced, make sure a new decal is placed on the new part. Contact your FEELER Forklift Truck Dealer for new decals.



SAFETY RULES FOR FORKLIFT TRUCK OPERATORS

- Cooling system

- Overhead Guard



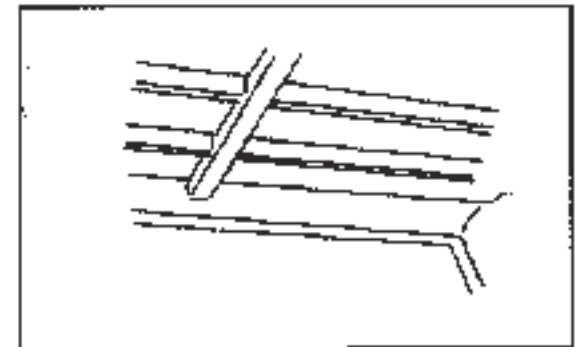
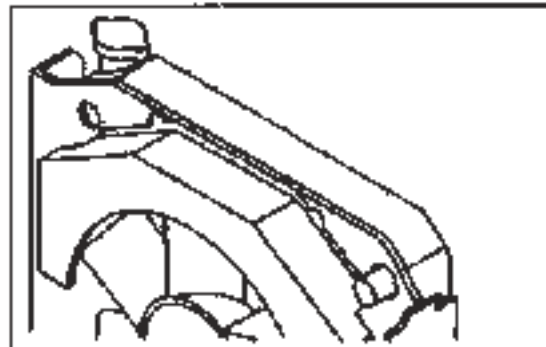
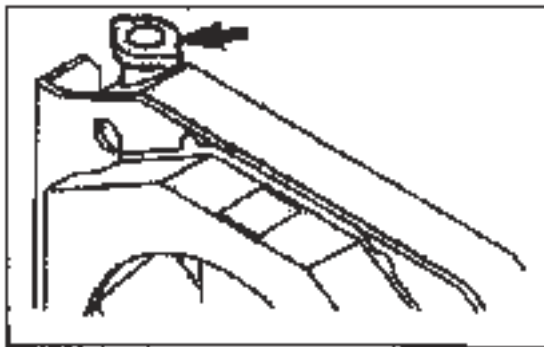
Check the coolant level only after the engine has been stopped and the filler cap is cool enough to touch with your hands. Remove the filler cap slowly to relieve pressure.



To avoid serious injury, stay clear of the moving fan.



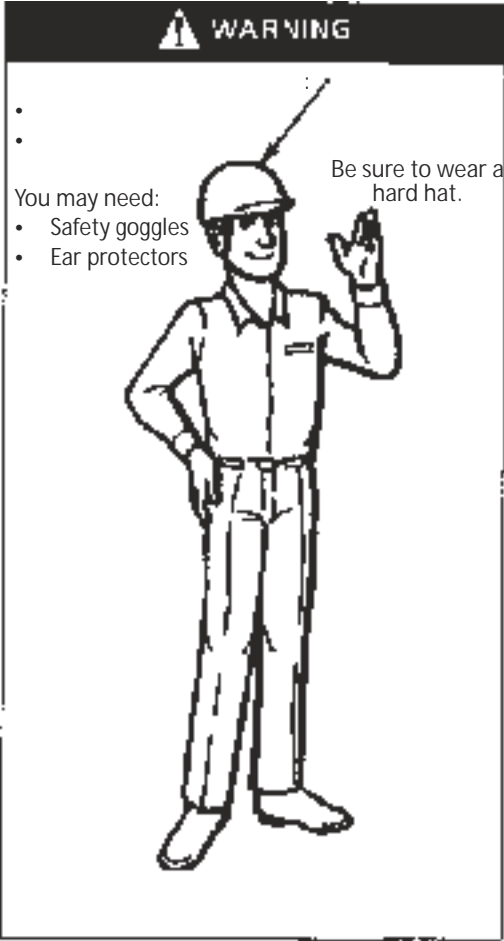
Operation without this device in place may be hazardous.



Safety Rules /



Authorized, trained operator only!



Dress properly for the job!



Be alert!



DO NOT travel on public road!



Know viur forklift track and attachment!

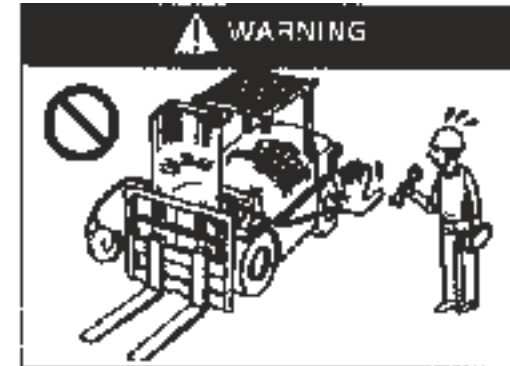
SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



Unauthorized addition or modification is prohibited!



Know your forklift track and attachment!



Shut down engine before servicing!



Know all signals and traffic rules!



Avoid being splashed by scalding hot coolant!



Exhaust fumes can kill you!

SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



Inspect your forklift truck prior to operation!



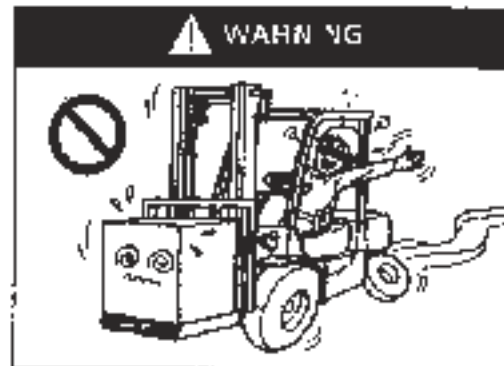
DO NOT remove the overhead guard!



Keep the operator's compartment clean!



DO NOT operate an unsafe forklift truck!



Always stay healthy on the job!



Know your forklift truck is safe!

SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



Operate only in approved areas!



DO NOT operate a damaged or defective forklift truck!



Be sure the assist grip is properly tightened!



Start engine safely!



Position controls correctly for starting!

SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



Adjust the seat before operation!

!



Make sure your forklift truck is in safe operating condition!

!



Fasten the seat belt properly!

!



Always check overhead clearance!

!



Use lights in dark, dim areas!

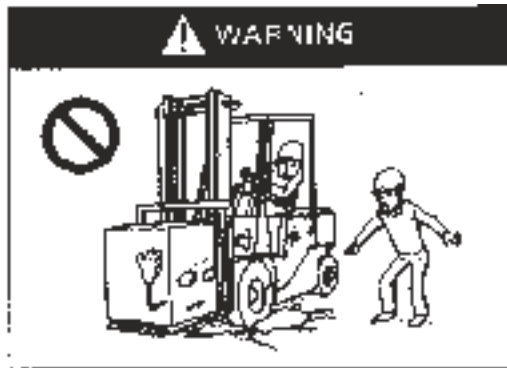
!



Stay within the confines of the truck!

!

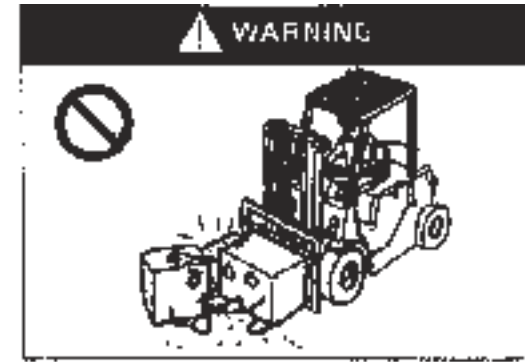
SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



Avoid travelling on weak or nonprepared ground. Only running on a level and rigid place!



Stay under the overhead guard!



Be careful of forks that extend beyond the load!



Avoid off-center loading!



Check fork stopper pin for engagement!



Check work areas for high risk!

SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



Stay away from slippery surfaces!



Be aware of the stability of an empty forklift truck!



Take special care when carrying a long or wide load!



DO NOT allow any riders!

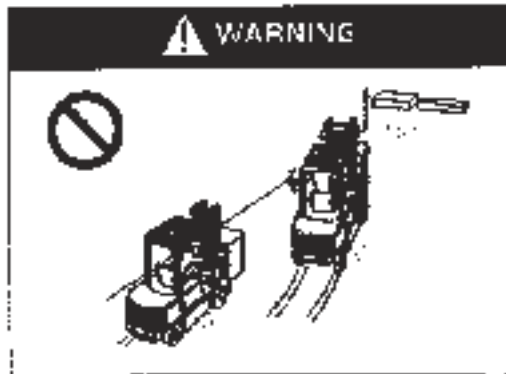


If you cannot see where you are going, Do NOT MOVE!



Use pallets and skids suitable for the little load.

SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



DO NOT pass another truck!



DO NOT allow anyone to hold loads!



Always look in direction of travel!



DO NOT engage in stunt driving or horse-play!



Travel in reverse if forward visibility is blocked!



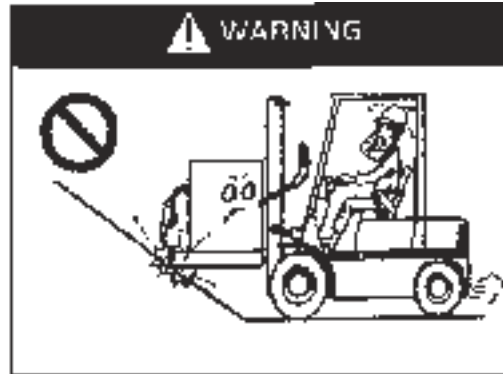
Obey all traffic rules and warning signs!

SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



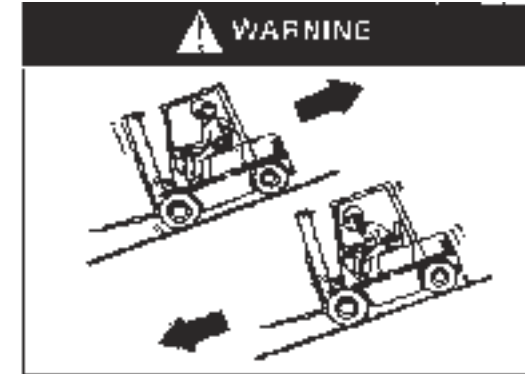
Travel safely on grades with a loaded forklift truck!

!



Be particularly careful when driving up or down a steep slope!

!



Travel safely on grades with an empty forklift truck!

!



Start forklift truck upgrade carefully!

!



DO NOT turn on a ramp or grade!

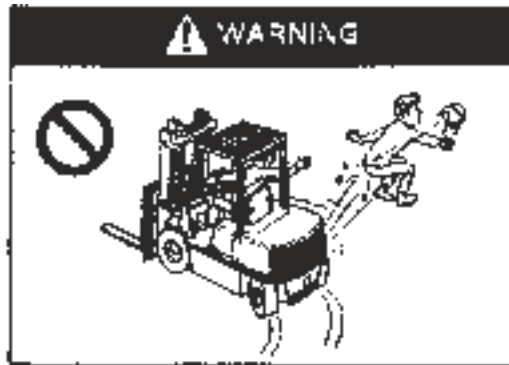
!



Move your forklift truck safely!

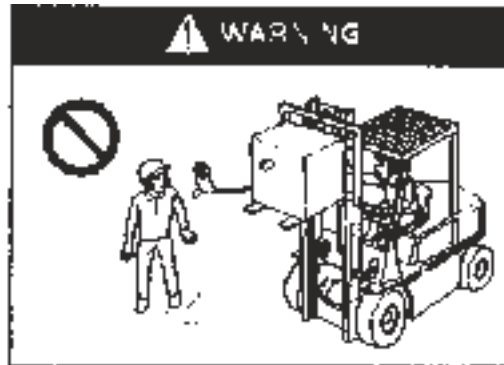
!

SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



Allow for counterweight swing distance!

!



A helper should NOT be near the forklift truck!

!



Always be alert for tipovers!

!



Danger! Keep out!

!

!



Be careful of changes in rated capacity!

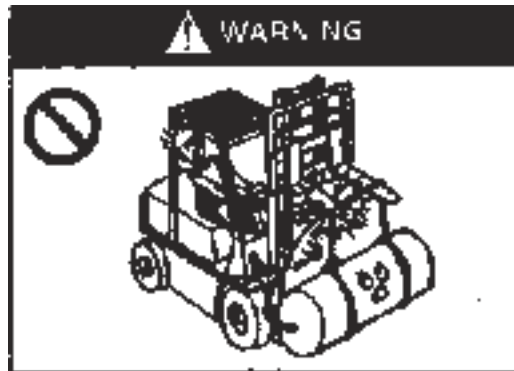
!



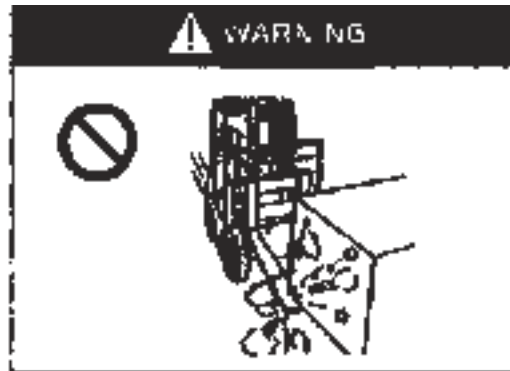
Watch out for pedestrians at all times!

!

SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



Use forks properly!



DO NOT speed when approaching loads!



DO NOT move when someone's next to truck!



DO NOT allow anyone to walk or stand under raised forks!

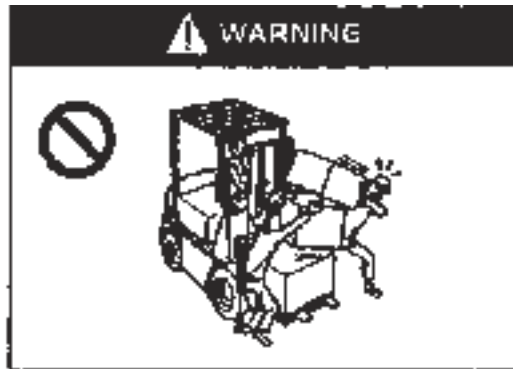


DO NOT pick up unsecured loads that extend above the backrest extension height!

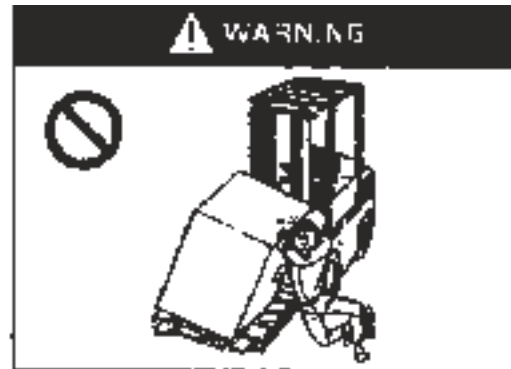


Handle only stable loads!

SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



DO NOT allow unloading from raised loads!



Do NOT use damaged pallets!



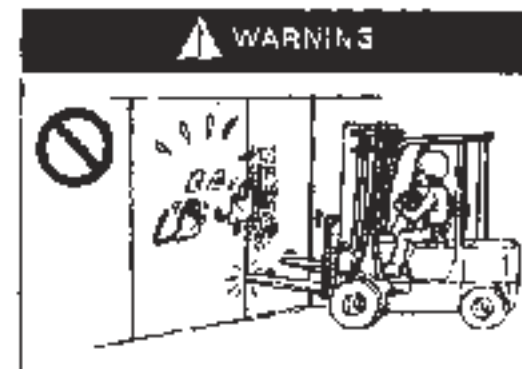
DO NOT abuse your forks!



Drive onto a trailer carefully!

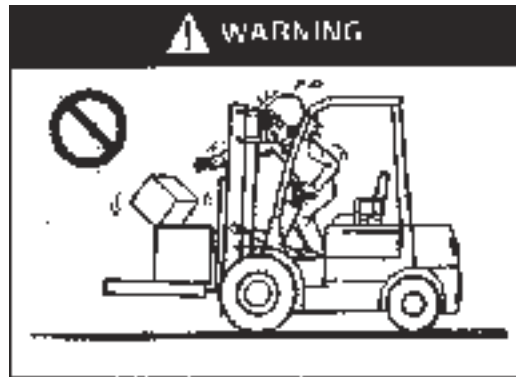


DO NOT allow any riders!



DO NOT abuse your equipment!

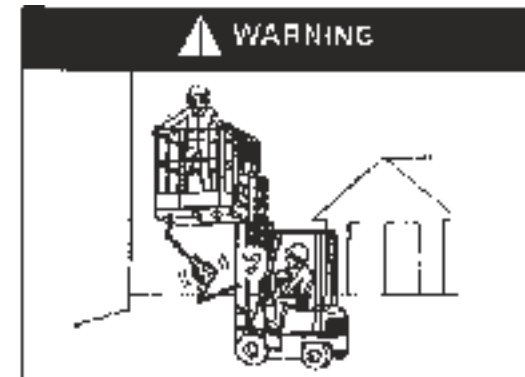
SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



Stay clear of pinch point!



Shift the transmission smoothly!



Use only specialized equipment designed to safely raise personnel to high work areas!



Always stay within the rated capacity!

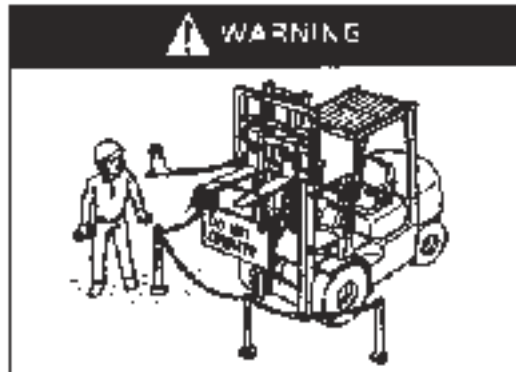


DO NOT operate in blustery weather!



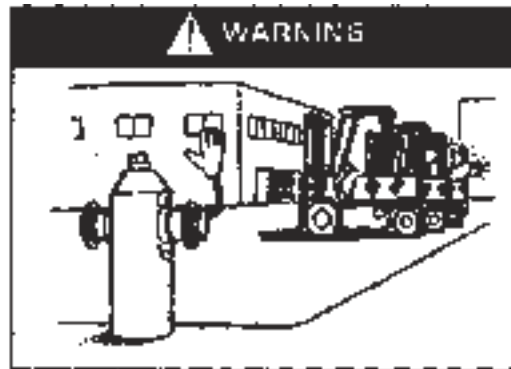
Forbid to operate in the circumstance here is easy to explode!

SAFETY RULES FOR FORKLIFT TRUCK OPERATOR



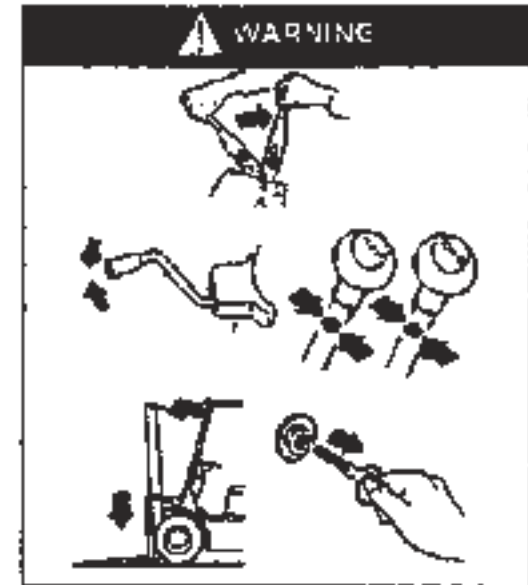
Park a disabled machine safely!

!



Park in authorized areas only!

!



When you leave your truck, or park it:

- Set The parking brake.
- Put the direction and gearshift level in NEUTRAL.
- Lower the forks fully to the floor.
- Tilt the mast forward until the forks are flat.
- Turn thr key off.

•

•

•

•

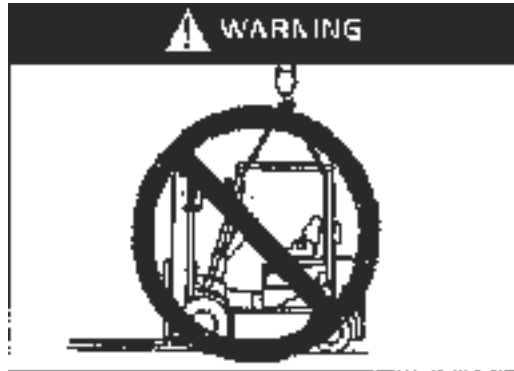
•



Do NOT park on a grade!

!

Transportation /



Hoisting with overhead guard prohibite!

!



Hoisting with frame prohibited!

!



Hoisting with the right way!

!

CAUTION /

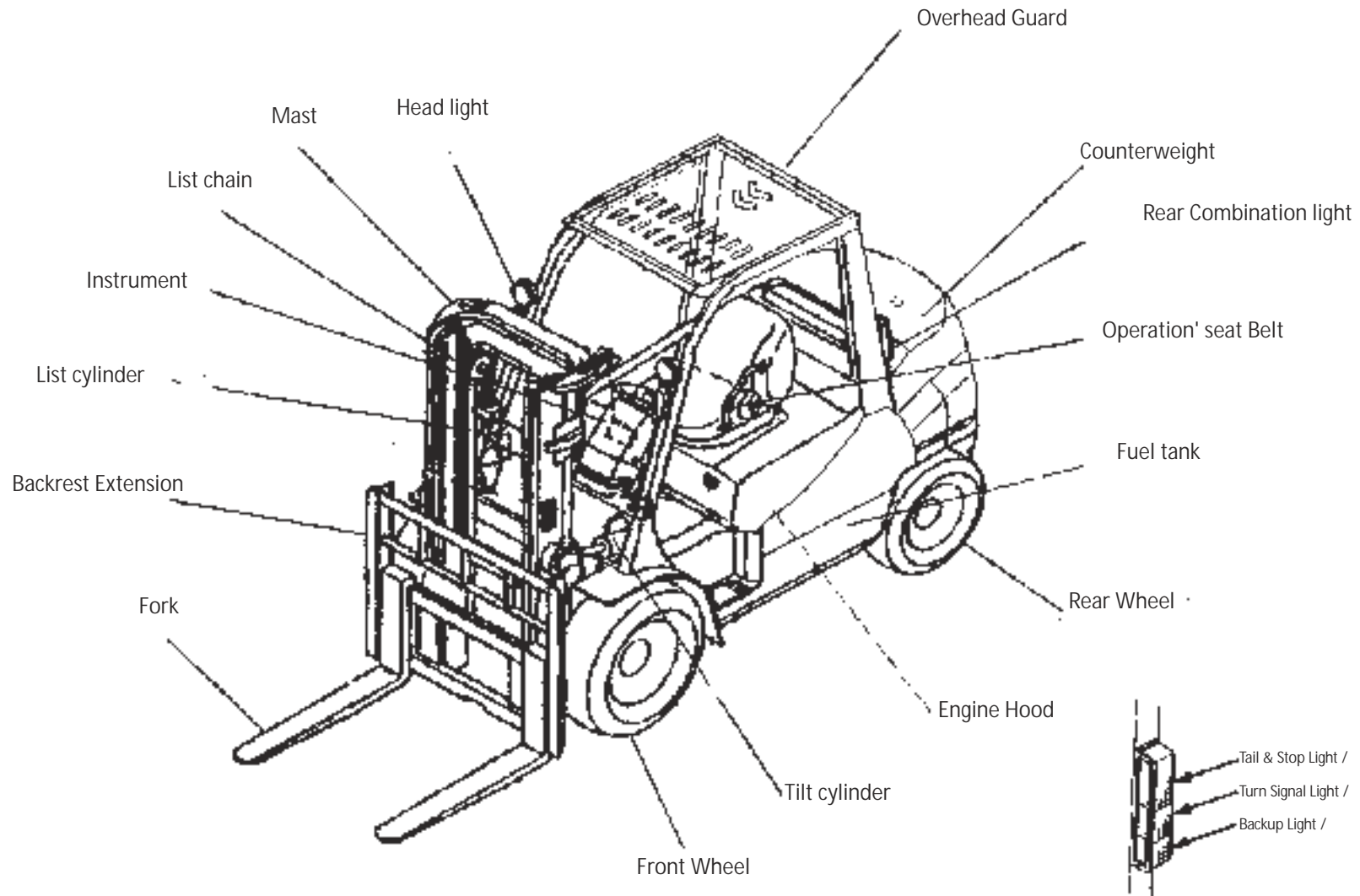
1. Please use the right way to hang up when ship the forklift.
2. See that there is no fuel left in the fuel tand.
3. Please fix the wheel by log when transport and the hand brake.
4. Please fix the body basic with belt.

- 1.
- 2.
- 3.
- 4.

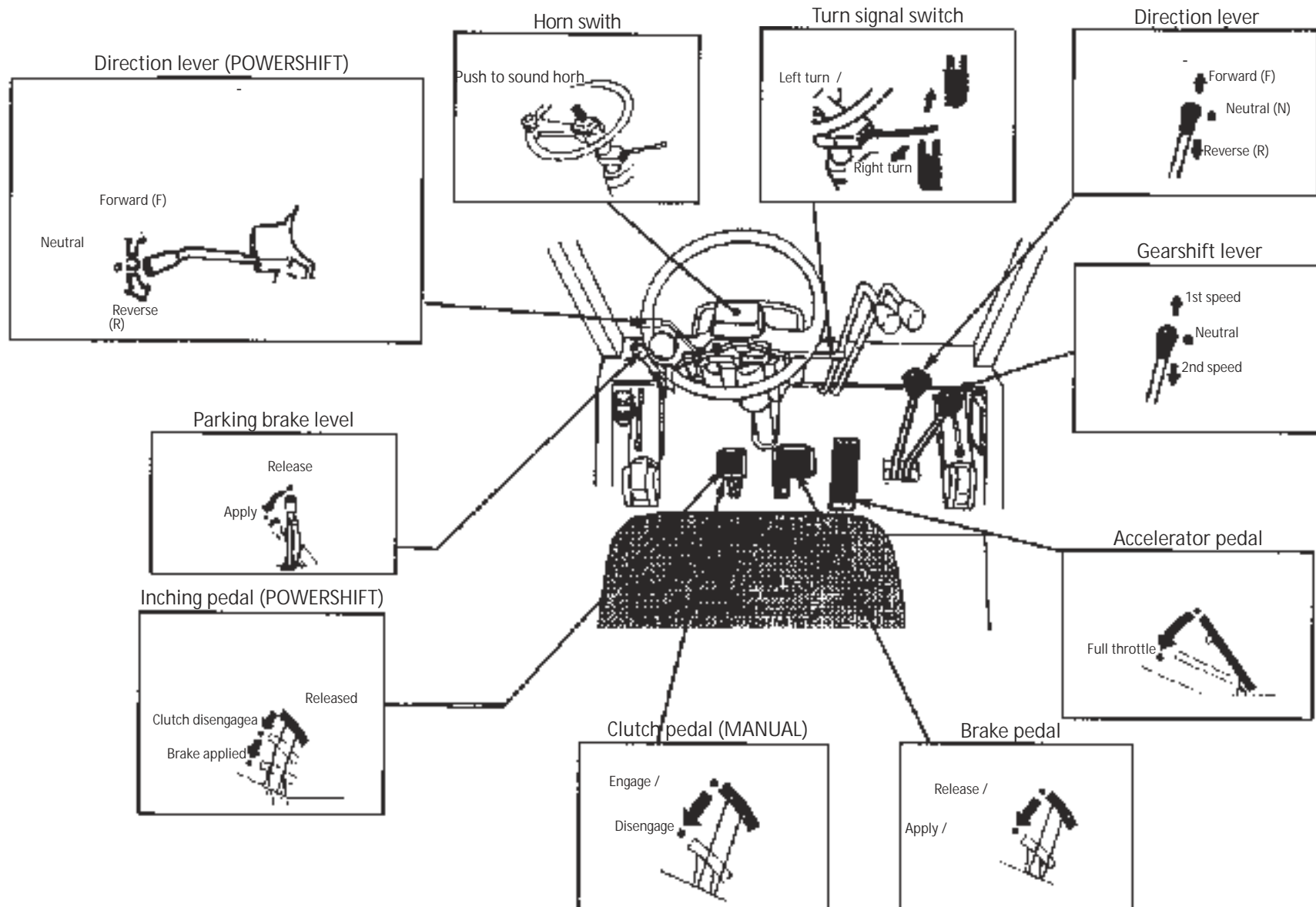
KNOW YOUR FORKLIFT TRUCK /



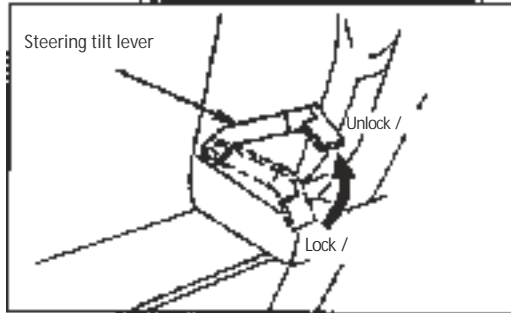
Model View /



KNOW YOUR FORKLIFT TRUCK /

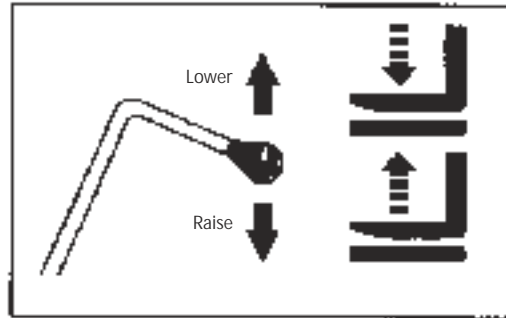


Steering Tilt Lever



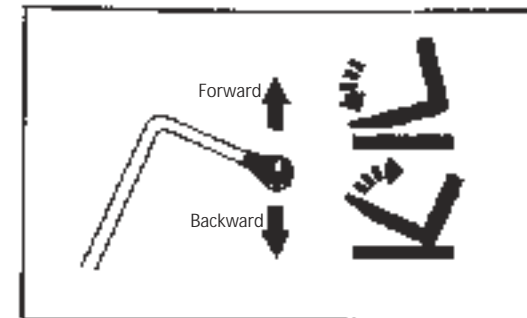
Move the lever in arrow direction to unlock the steering wheel.

Lift Control Lever



Lifting speed is controlled by the speed of the engine (the position of the accelerator pedal) and the position of the control lever.

Tilt Control Lever



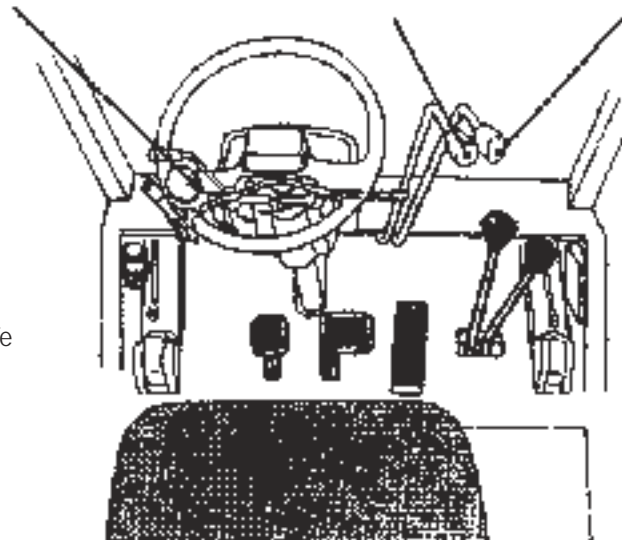
Tilting speed is controlled by the speed of the engine (the position of the accelerator pedal) and the position of the control lever.

Push down the lever to lock the steering wheel

The lever will return to the NEUTRAL position when released



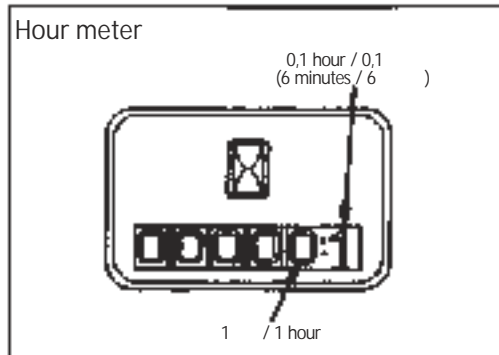
Always adjust the steering wheel tilt angle while stopped at a safe place, as adjustment while driving may lead to accidents.



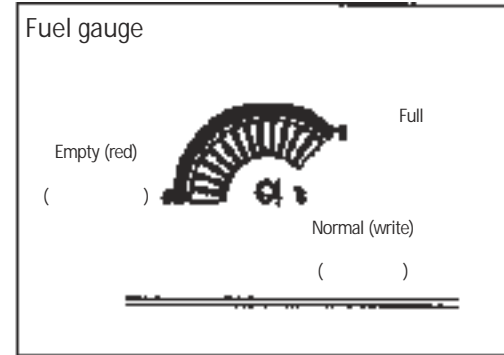
Instrument panel /

Powershift transmissio oil temperature gauge (optional)

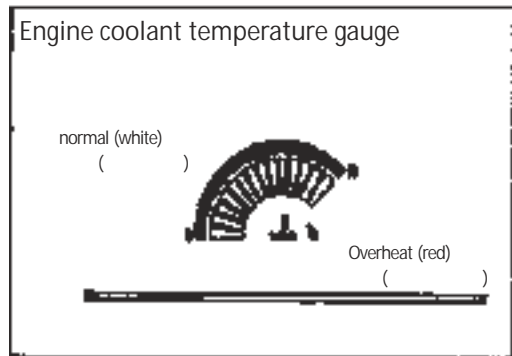
()



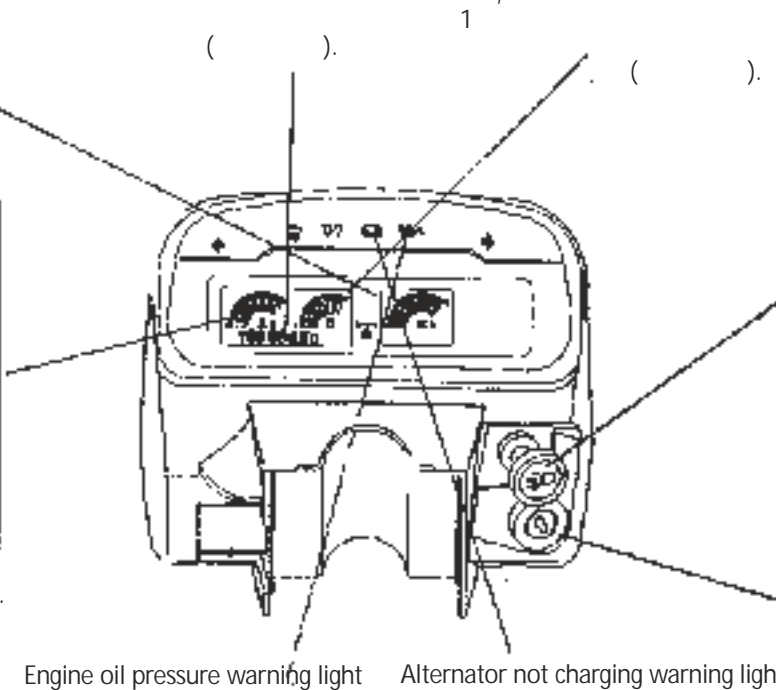
Starts registering the operating hours of the engine when the key is turned to the 1 (ON) position.



Indicates the amount of fuel in the tank when the key is turned to the 1 (ON) position.) To get an accurate gauge reading, be sure the truck is level.



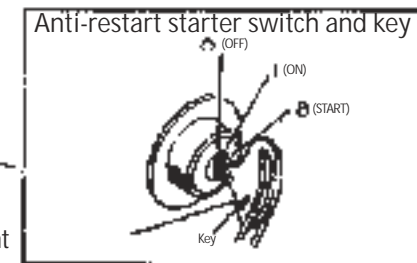
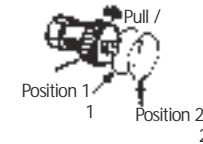
The gauge needle is normally the white zone. If the needle moves into the red zone, set the topic.



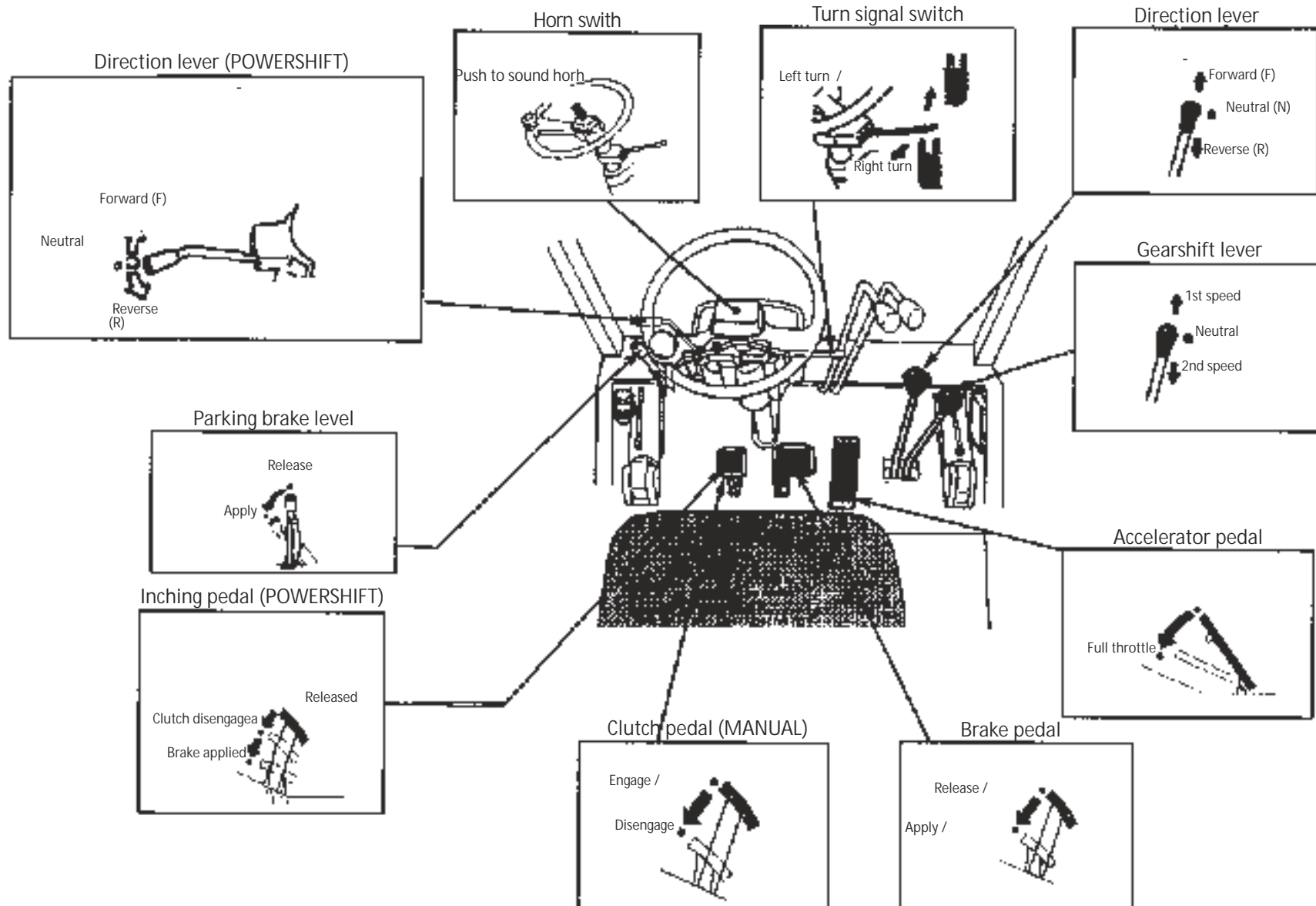
Engine oil pressure warning light

Alternator not charging warning light

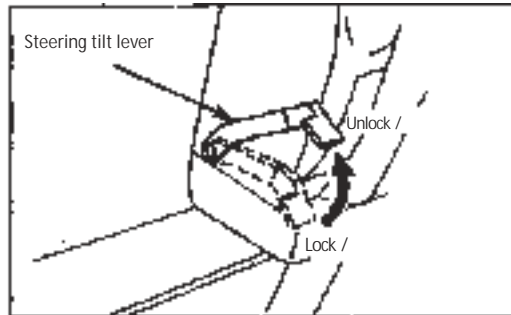
Light switch



Operators Compartment /

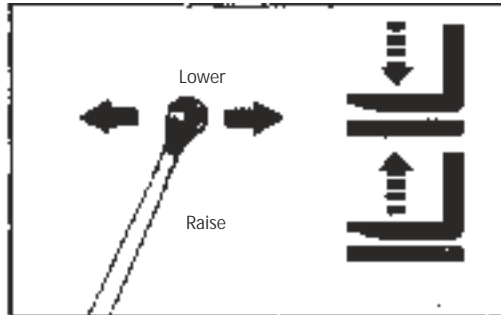


Steering Tilt Lever



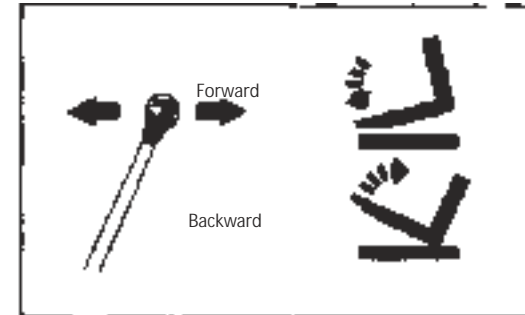
Move the lever in arrow direction to unlock the steering wheel.

Lift Control Lever



Lifting speed is controlled by the speed of the engine (the position of the accelerator pedal) and the position of the control lever.

Tilt Control Lever



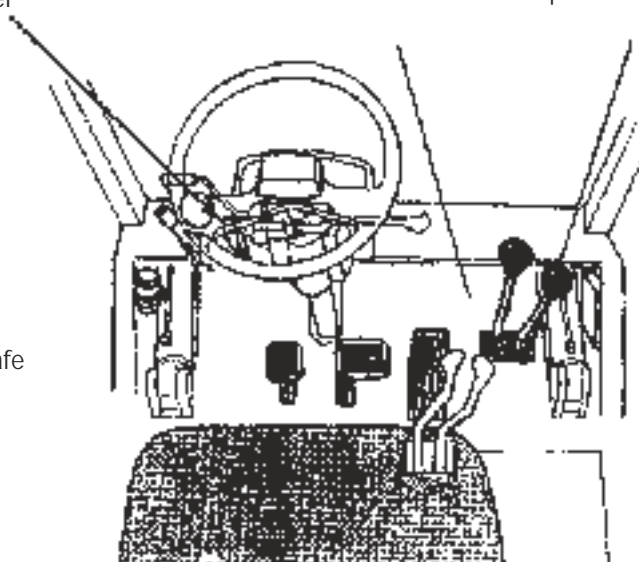
Tilting speed is controlled by the speed of the engine (the position of the accelerator pedal) and the position of the control lever.

Push down the lever to lock the steering wheel

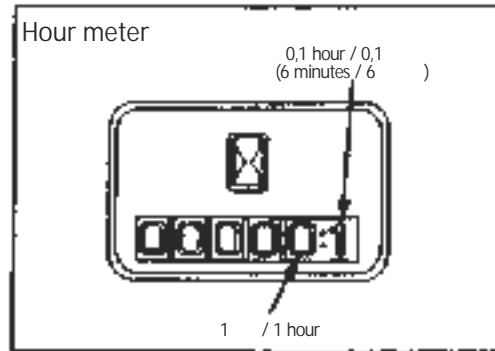
The lever will return to the NEUTRAL position when released



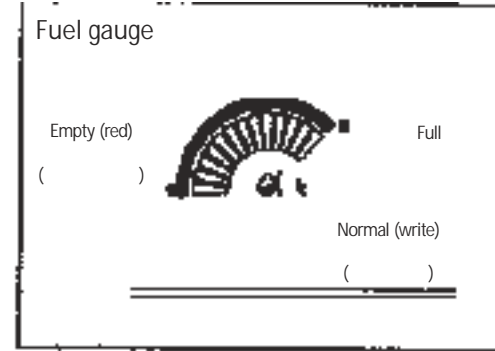
Always adjust the steering wheel tilt angle while stopped at a safe place, as adjustment while driving may lead to accidents.



Instrument panel /



Hour meter
Starts registering the operating hours of the engine when the key is turned to the 1 (ON) position.



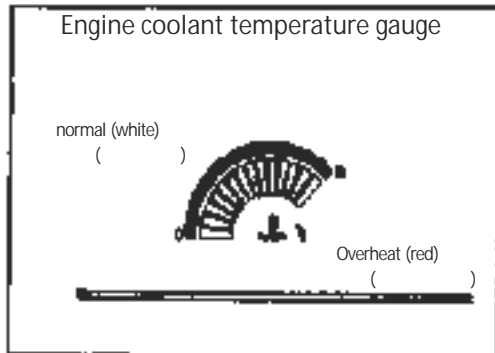
Fuel gauge
Indicates the amount of fuel in the tank when the key is turned to the 1 (ON) position. To get an accurate gauge reading, be sure the truck is level.

Engine oil pressure warning light

()

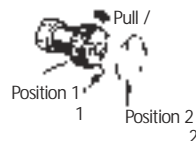
() LCD

() 1

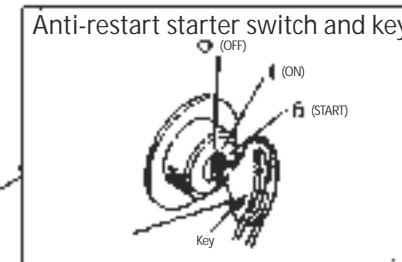


Engine coolant temperature gauge
The gauge needle is normally the white zone. If the needle moves into the red zone, set the topic.

Light switch



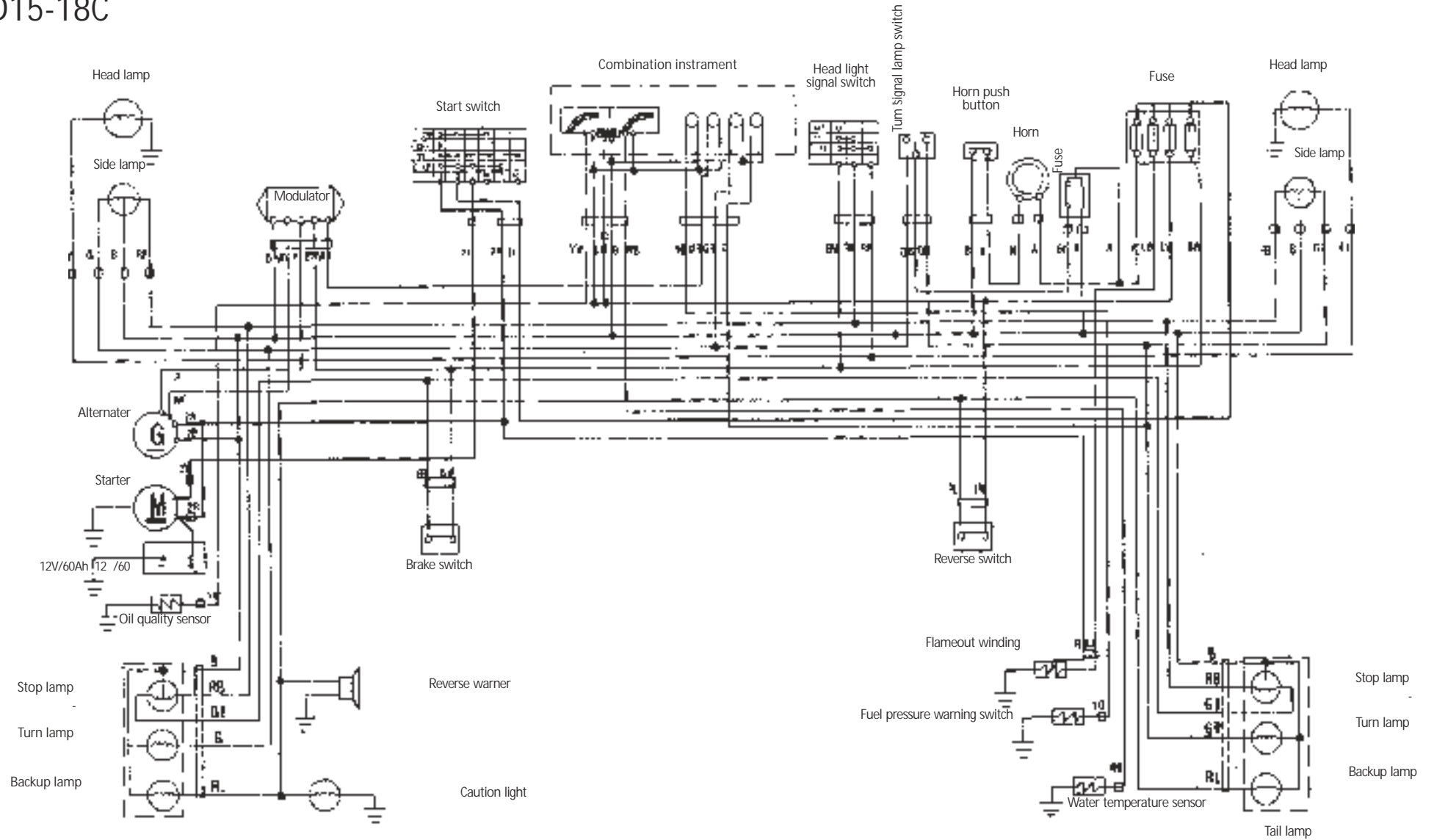
Alternator not charging warning light



Anti-restart starter switch and key

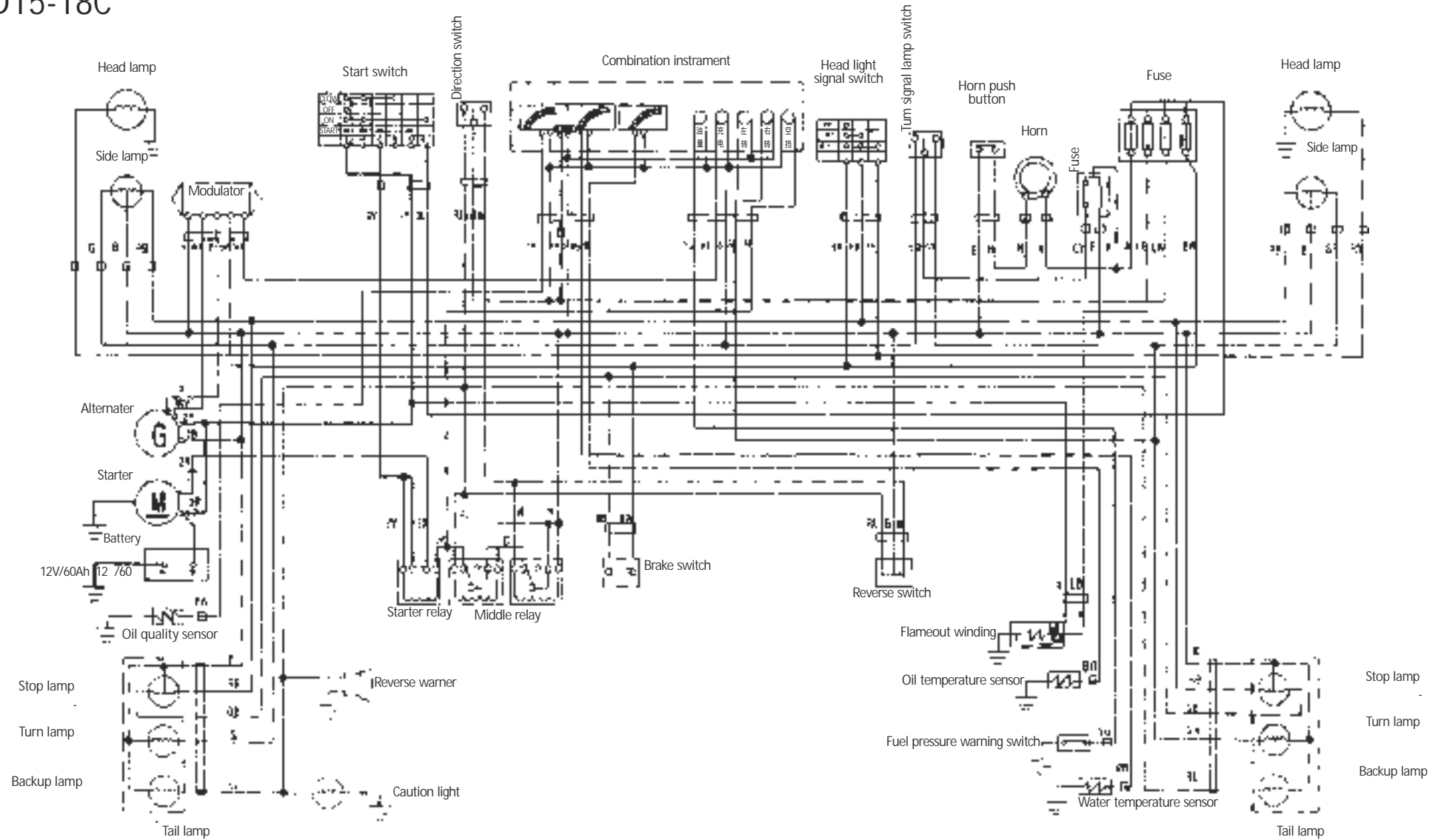
Electric System /

FD15-18C



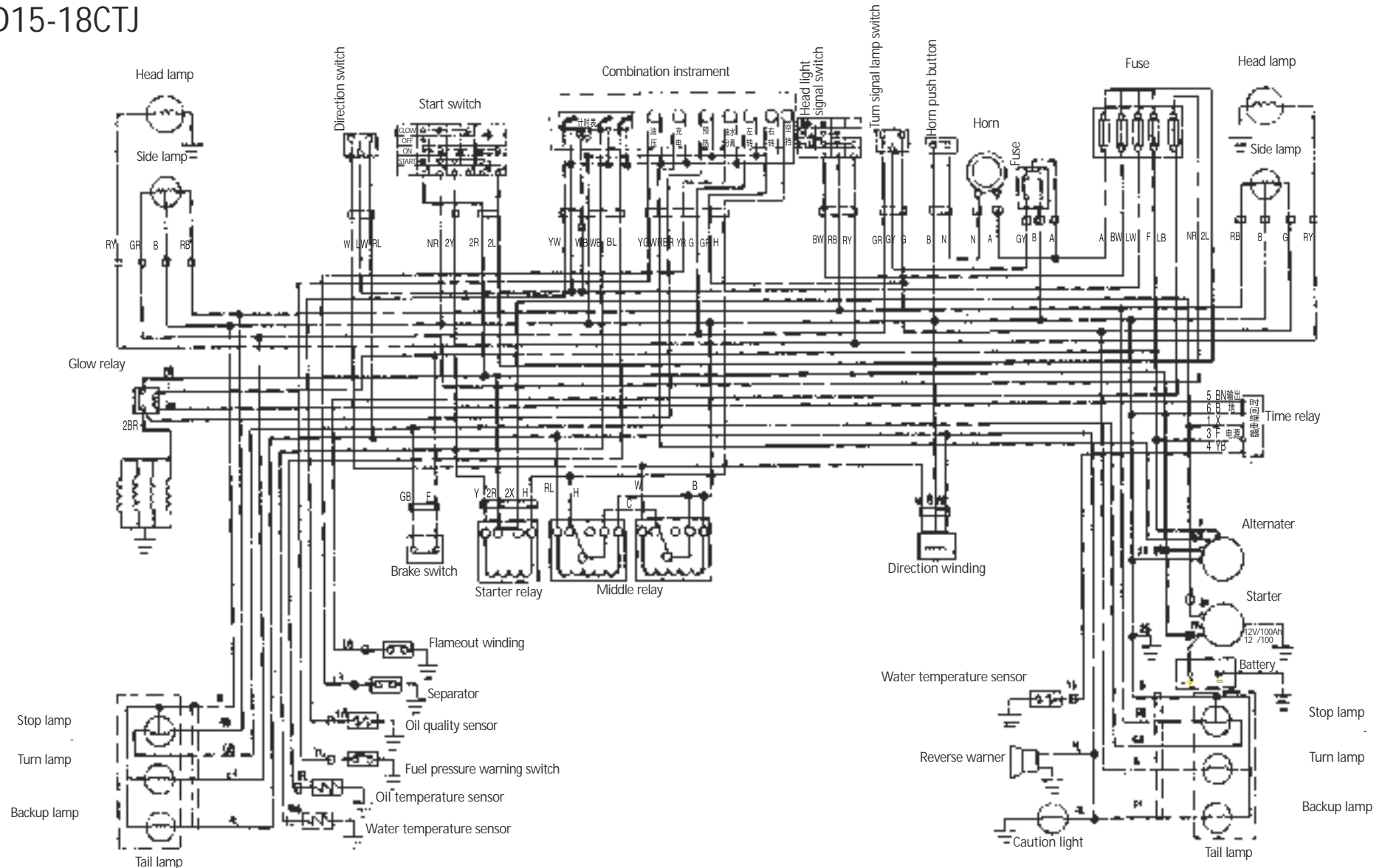
Electric System /

FD15-18C



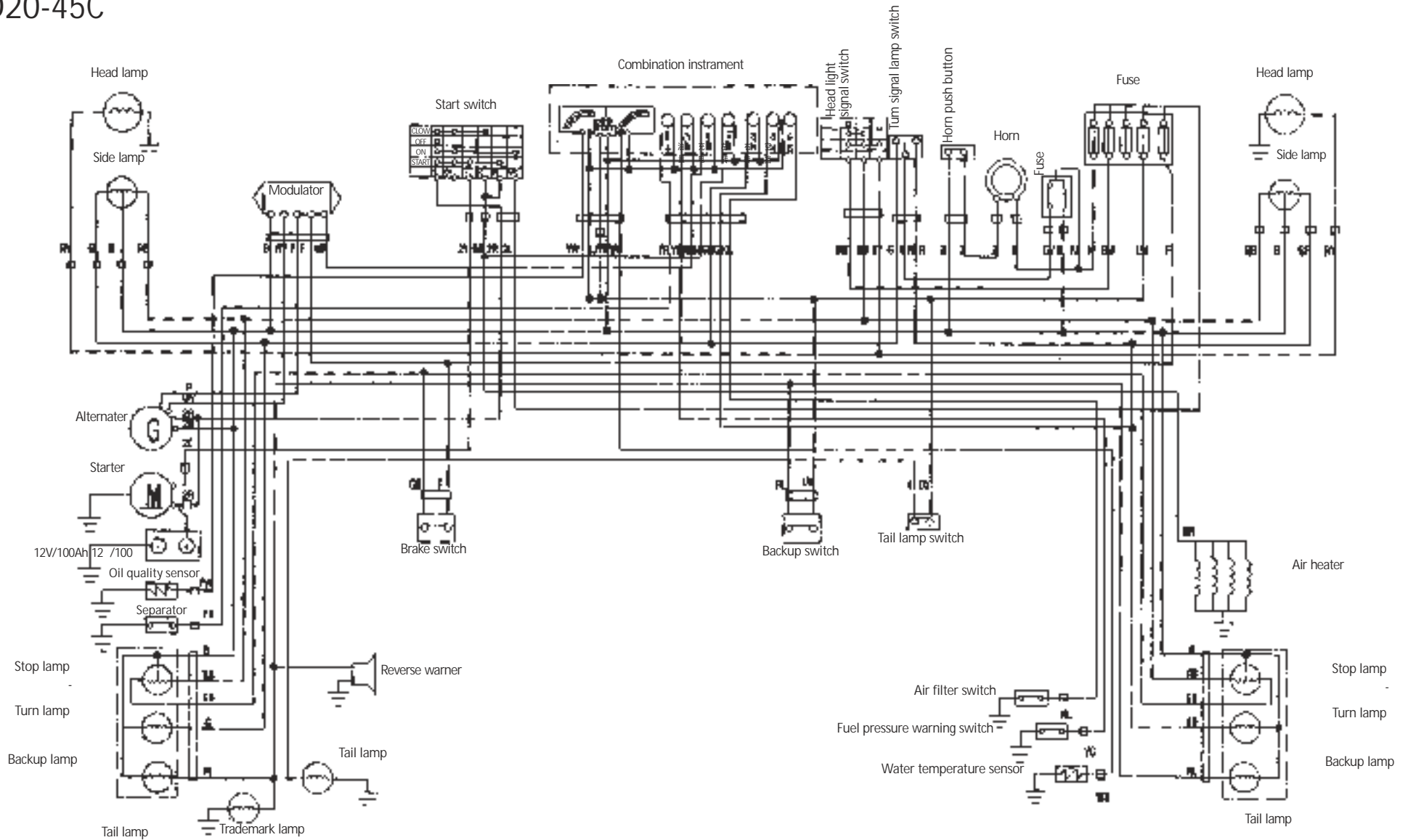
Electric System /

FD15-18CTJ



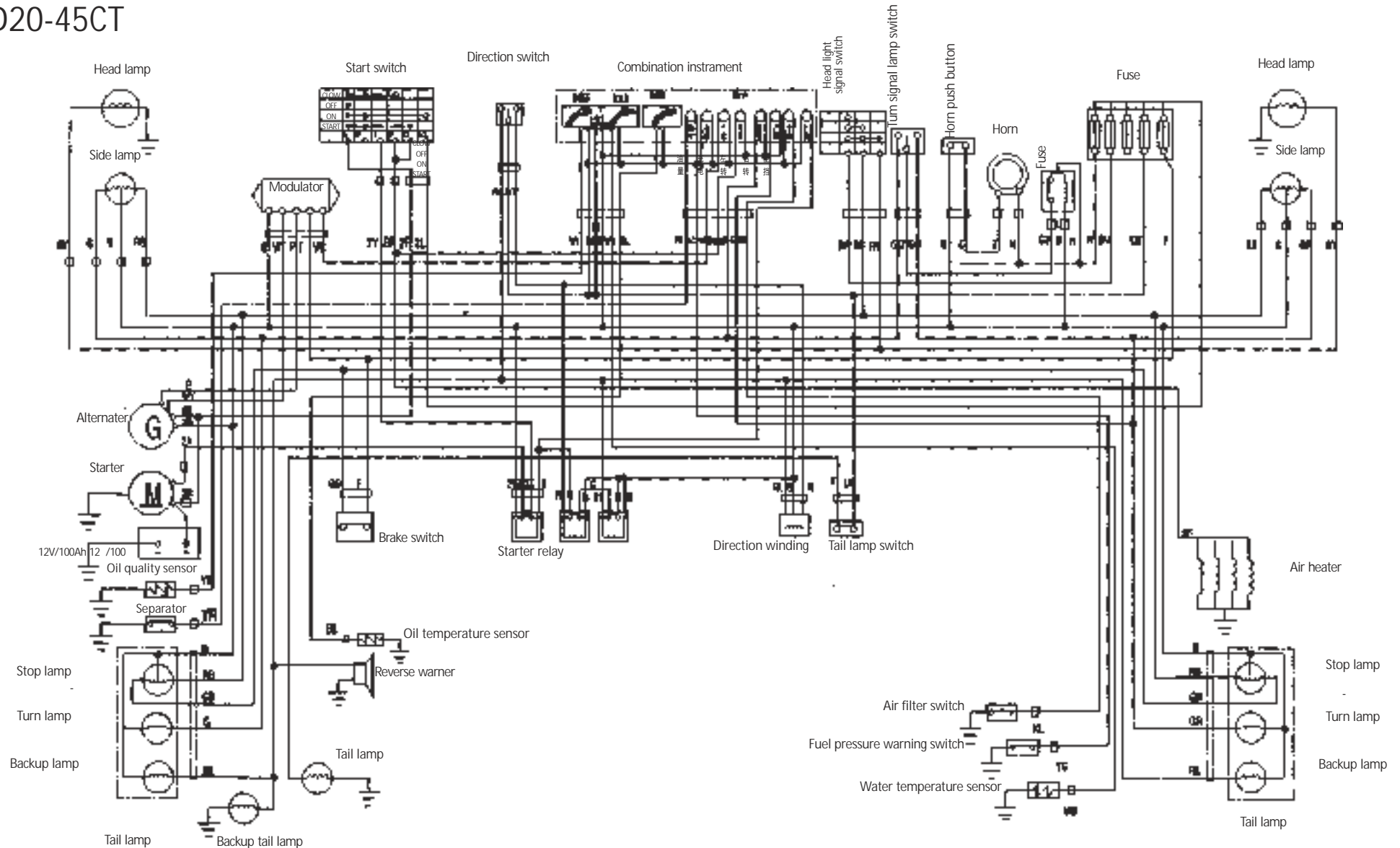
Electric System /

FD20-45C



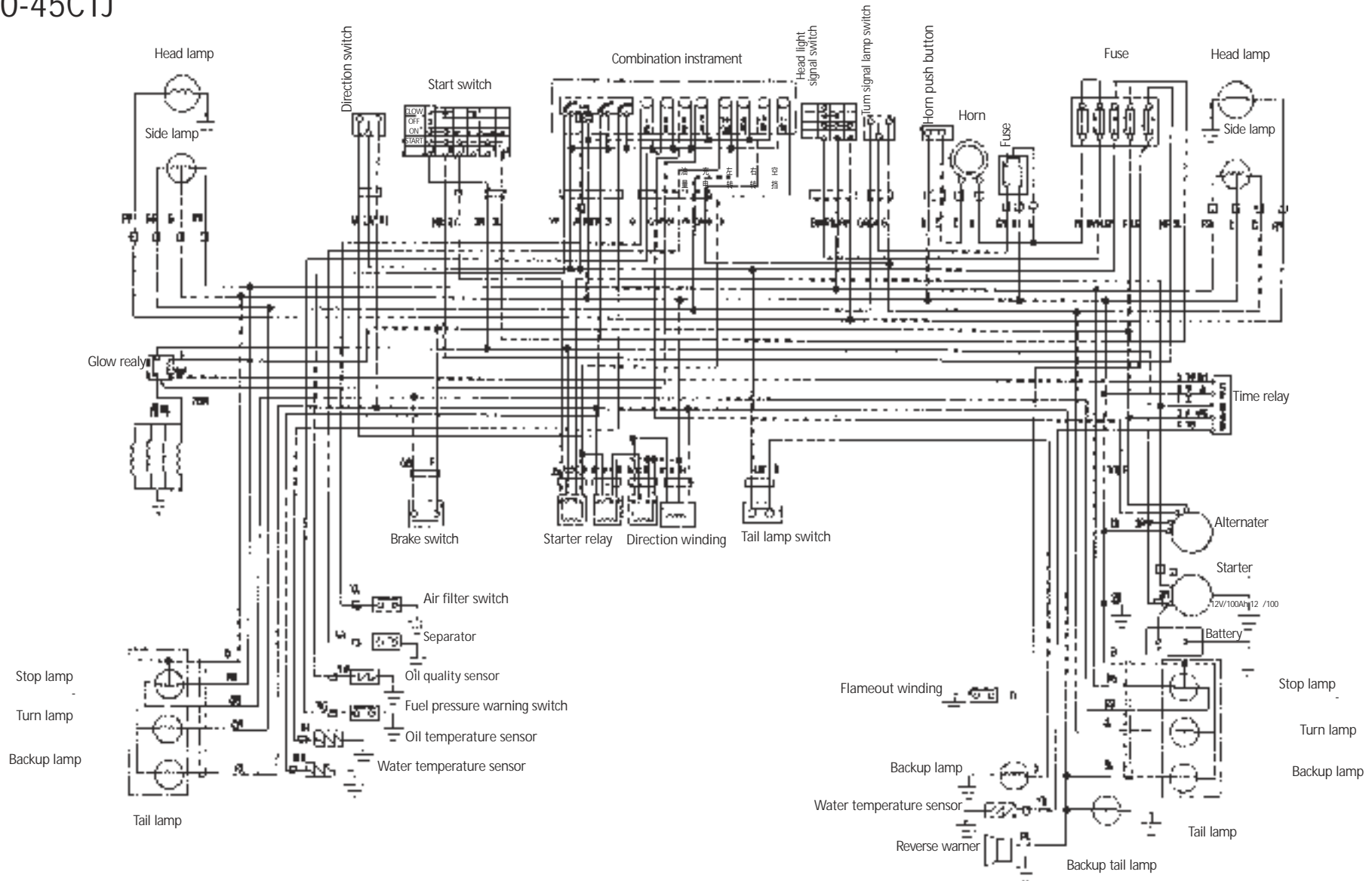
Electric System /

FD20-45CT



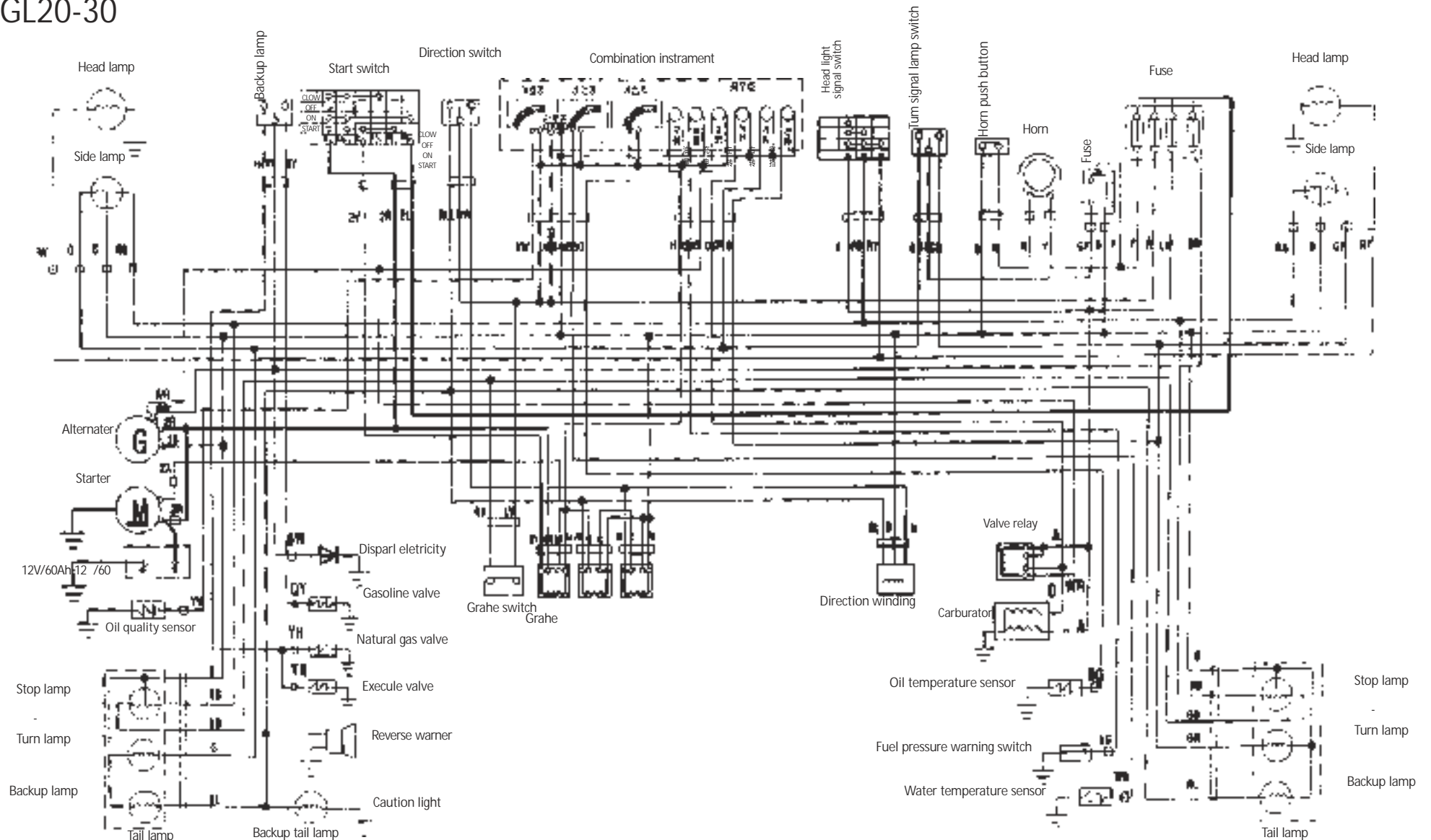
Electric System /

FD20-45CTJ



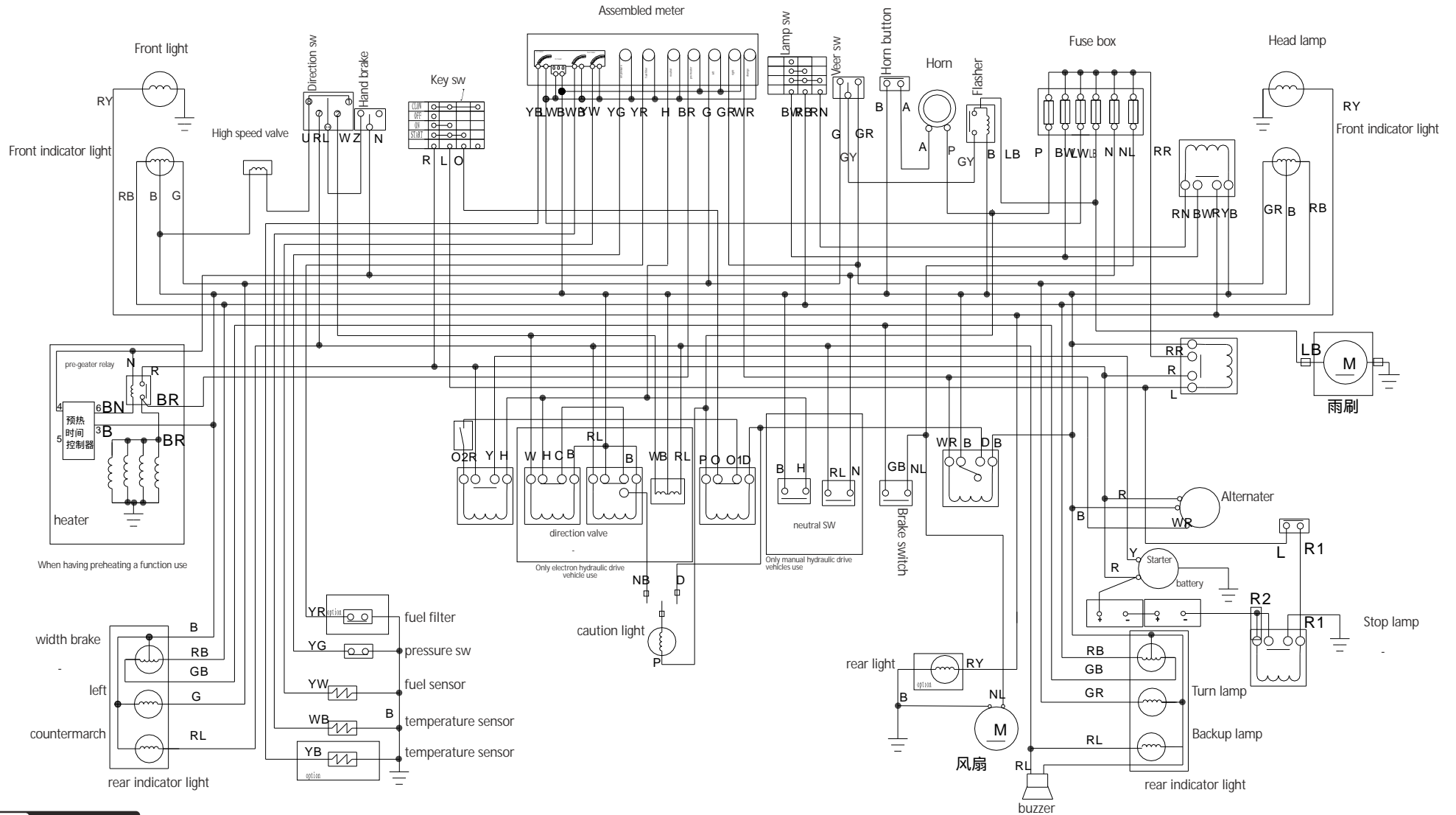
Electric System /

FGL20-30



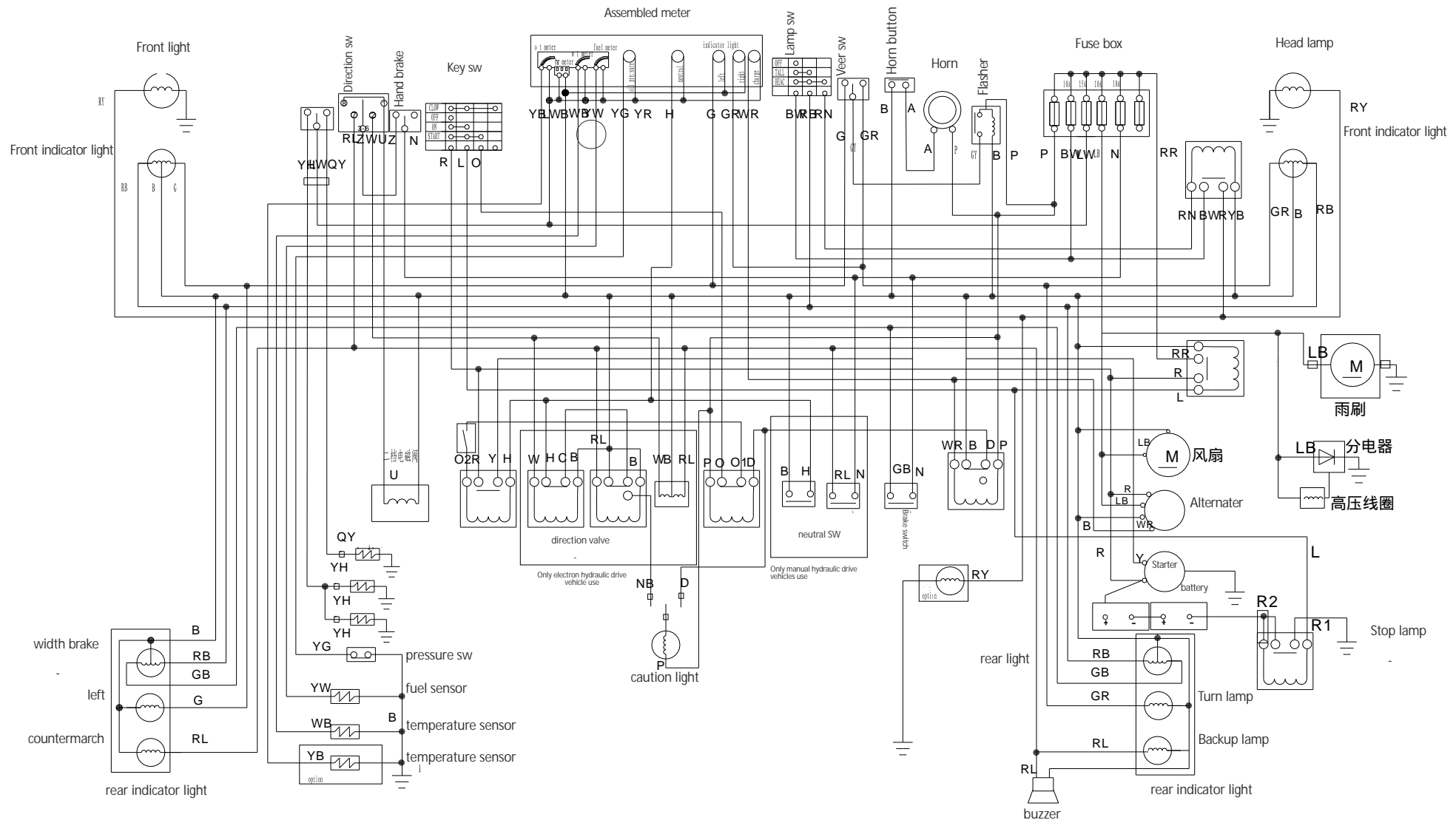
Electric System /

FD40-50X



Electric System /

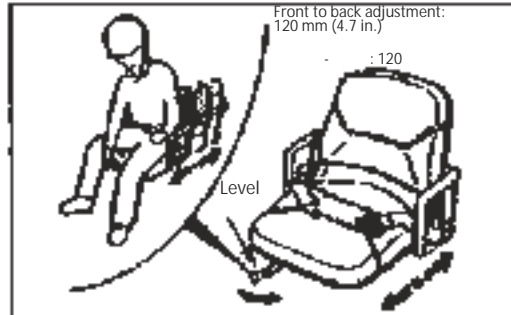
FG40-50X



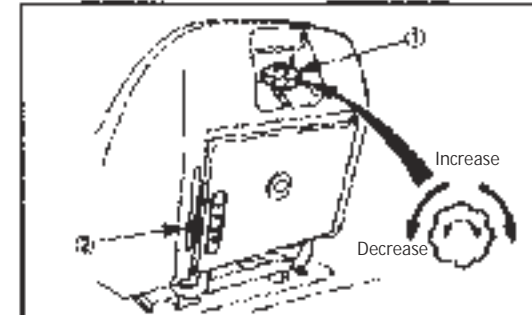
Adjustment of Operator's Seat /



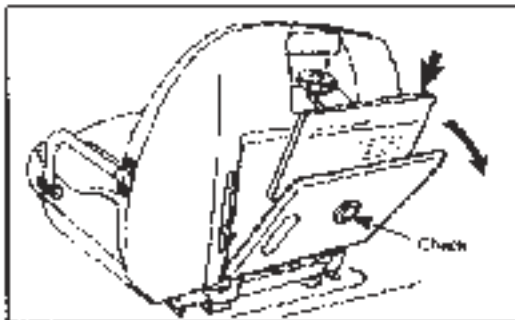
Adjust the seat before starting the engine. After adjusting, jiggle the seat to make sure it is properly locked.



Move the lever to the left, slide the seat to one of the seven positions.



Adjust the suspension before sitting in the seat.



Place the operator's manual in this pocket.

		Truck model	
		FD15C FD15CT FD15CTJ FD18C FD18CT FD18CTJ FD20C FD20CT FD20CTJ FD25C FD25CT FD25CTJ FD30C FD30CT Fd30 CTJ FD35C FD35CT FD35CTJ FD40C FD40CT FD40CTJ FD45C FD45CT FD45CTJ	
(Max. Driving speed without load)	: (oscillation parameter). / ²	16,5 m/s ²	
	: (YawP parameter). dB(A)	< 89 dB(A)	
(Lifting speeds with load)	: (oscillation parameter). / ²	3,69 m/s ²	
	: (YawP parameter). dB(A)	< 89 dB(A)	
1. The way to the noise is up the Euro-criterion 12053:2001 12953:2001			
2. The noise figure will be raised up when the tire has been over damaged and the ground condition is bad.			

Seat Belt /



1. Wear your seat belt anytime you operate a forklift truck. The seat belt will help to restrain you in accidents such as a tipover or front end collision. If you are unrestrained in a tipover, you can fall outside of the operator's compartment and be crushed by the forklift truck.

1.

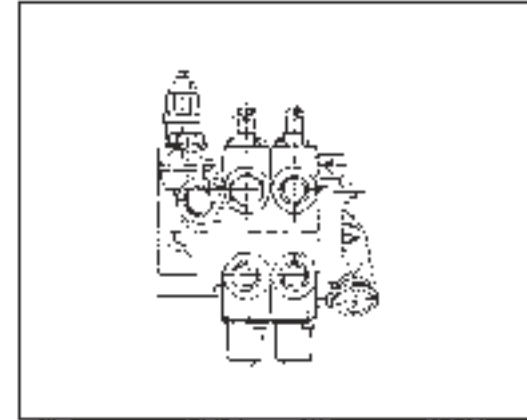
2. Please replace it wherever the seat belt is torn.

2.



3. Also, replace the seat belt assembly if it was worn during an accident.

3.



The safe valve in the multi-valve is used to control the maximum capacity that is allowed or the quickly increasing pressure figure of the hydraulic system when the cylinder piston comes to the position limited. When the capacity pressure is up to 10% of the rated capacity the forklift can realize the operation of rise up, while 25% can not. And it has been adjusted as it was produced, and it can not be adjust privately and freely. If any question, please keep in touch with us FEELER or directly with our sales service department.



Seat belt can "jack-knife" drivers - the upper body bends tightly at the waist. If you are pregnant or have suffered an abdominal disease or injury, consult a doctor before using the seat belt.

10%

25%

FEELER

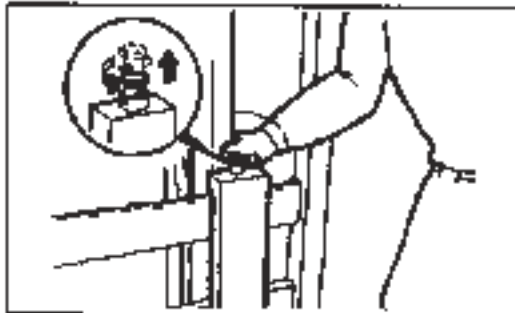
KNOW YOUR FORKLIFT TRUCK /

Fork Stoppers /

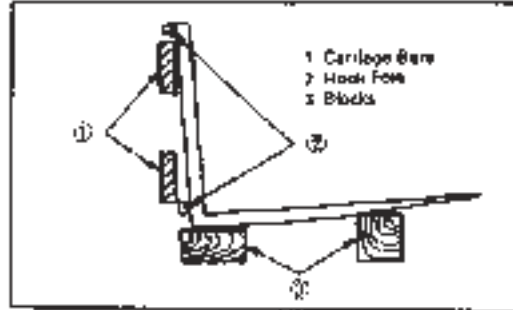
Changing Forks /



When adjusting the fork spread, be careful not to pinch your hand between forks and lift bracket



For load stability, adjust the fork as wide as possible.



Remove a fork from the carriage to replace it or to access other parts of the truck for maintenance. Slide the forks, one at a time, to the installation/removal notch on the bottom carriage bar. Tilt the carriage forward, then lower it until the hook fork disengages the forks from the carriage. Use a lifting device to move the forks away from the truck.

Position the forks side on the floor in a location where they can be approached from the rear by the forklift truck. Slowly drive the forklift truck, with the carriage fully lowered and fully tilted forward, to a point just to the rear of the forks. Carefully slide the forks, one at a time, onto the carriage so the top hook of the fork is placed above the top carriage bar. Raise the carriage to engage the top hooks allowing the bottom hooks to pass through the installation/removal notch. Then carefully slide each fork on the carriage so both the upper and lower hooks engage the carriage. Lock the forks in place by engaging the fork lock pins.

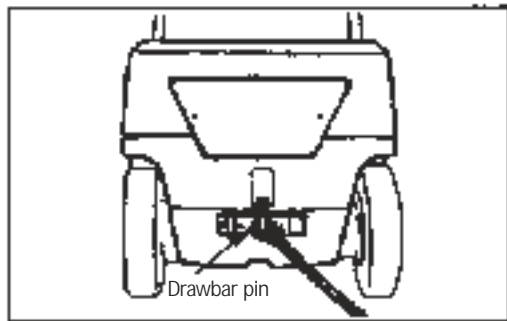
CAUTION /

1. Adjust the fork position according to the size of load to be handled. 1.
2. The forks can be moved to a desired position by pulling out the upper anchor pin. 2.
3. Do not hold the fork when moving the fork. This may cause your fingers to be caught. Push and slide the fork from behind. 3.
4. After moving the fork, securely insert the anchor pin in the fork carriage. 4.

Drawbar Pin



DO NOT use the drawbar pin for towing loads



Use the drawbar pin for:
 - Pulling the truck out of a drop-off or ditch.
 - Loading the truck on a hauling truck.



Precautions for Use of the Drawbar Pin:

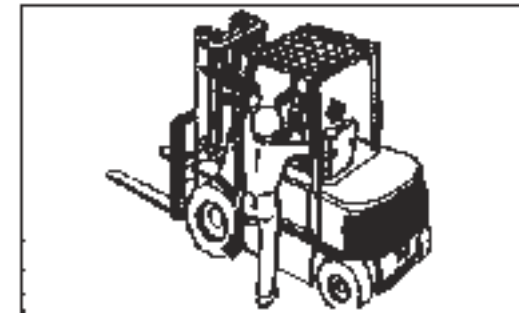
1. When hitching a cable to the pin, make sure the pin is inserted safely.
2. Take up slack slowly - DO NOT jerk. Keep the cable taut. If the cable is slack, the sudden impact of the load can snap it, resulting in an accident.
3. A helper should stand at a safe distance and watch the pin: Stop pulling with the truck, relieve tension, and reduce load if the pin starts to come out.

- 1.
- 2.
- 3.

Assist Grip



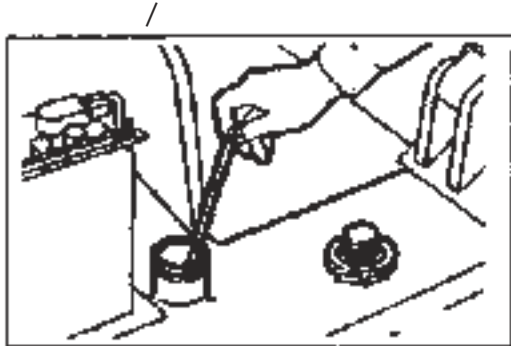
DO NOT grab the steering wheel or lever.
 DO NOT jump on or off the truck.



Grasp the assist grip with the left hand, the seat backrest with the right hand, and step up with the left foot to get on the truck safely.

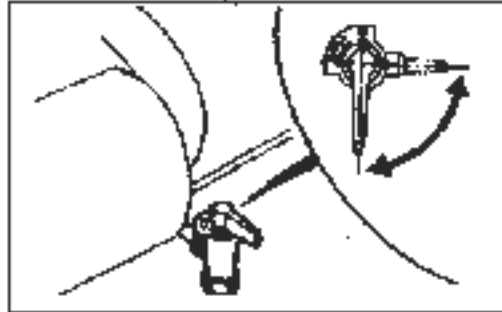
Grasp the assist grip with the right hand, the seat backrest with the right hand, and step up with the left foot to get on the truck safely.

Hydraulic Tank Oil Level / Filter Hole



The oil level/filter hole is located on the right side of the truck inside the engine hood.

Fuel Shut-off Valve



The fuel shut-off valve is located near the air cleaner inside the engine hood. In an emergency or when performing maintenance, close this valve.



Confirm the engine type before filling the tank with the recommended fuel.

Fuel Filter



The fuel filter is located on the left side of the truck. The cap can be removed by turning it counterclockwise.



Never fill tank near an open flame or when the engine is running.



After refueling, close cap tightly and wipe up spillage.

How to a tipover; how survive one



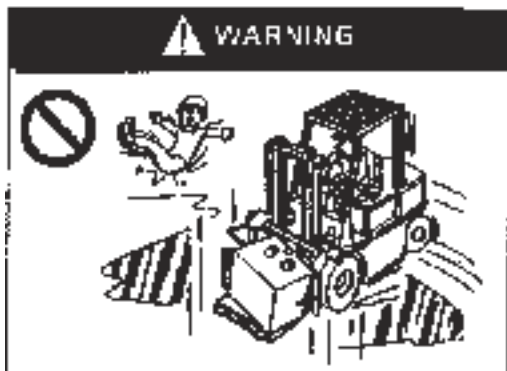
DO NOT tilt elevated loads forward!



DO NOT elevate tilted loads!



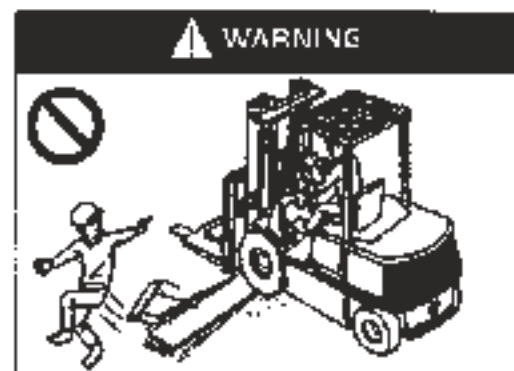
DO NOT pick up an off-center load!



DO avoid slippery surfaces!

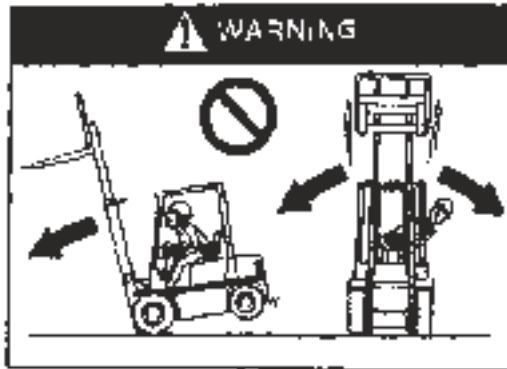


DO NOT attempt to pick up or deposit a load unless the forklift truck is level!



DO NOT go over obstacles - curbs, ditches, ridges and railroad tracks!

How to a tipover; how survive one



DO NOT travel with forks higher than 15 to 20 cm (6 to 8 in.) above the ground!

20 ! 15-



DO NOT make fast or sharp turns with a loaded or unloaded truck!

! !



DO NOT turn too sharply, even with an empty raised mast, to avoid a tipover!

! !



DO fasten your seat belt!

! !



DO NOT jump off your truck if it starts to tipover!

! !



DO wear a hard hat!

! !

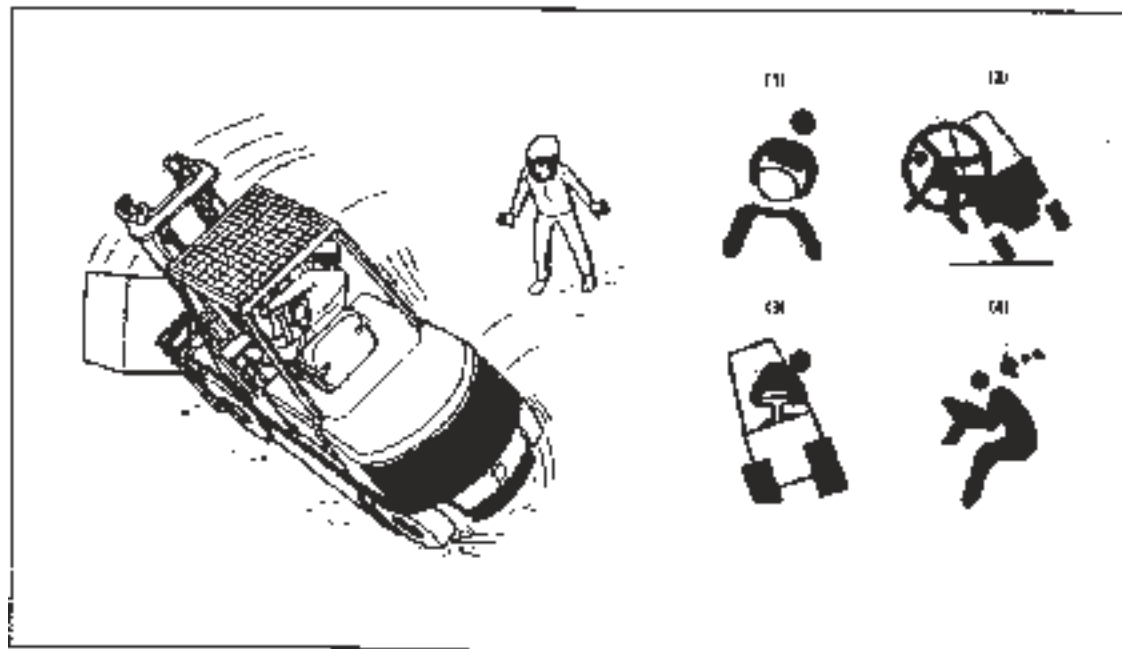
How to a tipover; how survive one

How to Survive in a Tipover

DANGER /

Remember, your chances for survival with your seat belt fastened in a tipover are better if you stay in your truck. If your truck starts to tipover:

1. Firmly hold on the steering wheel and brace your feet.
2. DO NOT jump off!
3. Lean away from impact.
4. Lean forward.



Diesel Engine Equipped

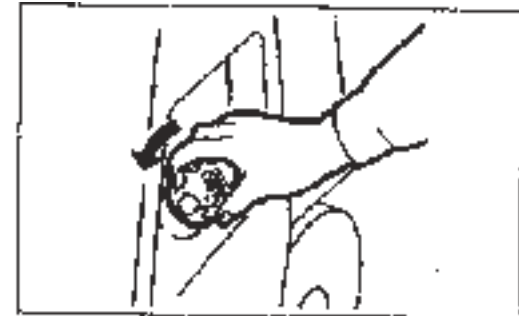
⚠ WARNING /

- Explosive fumes may be present during refueling. -
- Do not smoke in refueling areas. -
- Forklift trucks should be refueled only at designated safe locations. Safe outdoor locations are preferable to those indoors. -
- Stop the engine and get off the forklift truck during refueling. -

NOTICE:

DO NOT allow the forklift truck to become low on fuel or completely run out of fuel. Sediment or other impurities in the fuel tank system. This could result in difficult starting or damage to components.
 Foll the fuel tank at the end of each day of operation to drive out moisture laden air and to prevent cpndensation. DO NOT fill the tank to the top. Fuel expands when it gets warm and may overflow.

1. Park the forklift truck only at a location designated safe.



2. Open the filler cap.

3. Fill the fuel slowly. Close the filler cap. If spillage occurs, wipe off excess fuel and wash down the area with water.

New Forklift Truck Break-In

Before Starting Engine

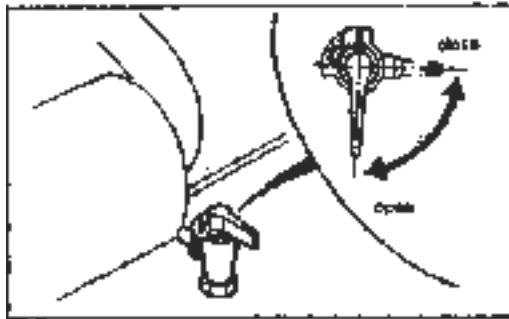
Correct break-in is important for operation and long of your truck. The first 100 service hours of operation is the break-in period for you truck.

100

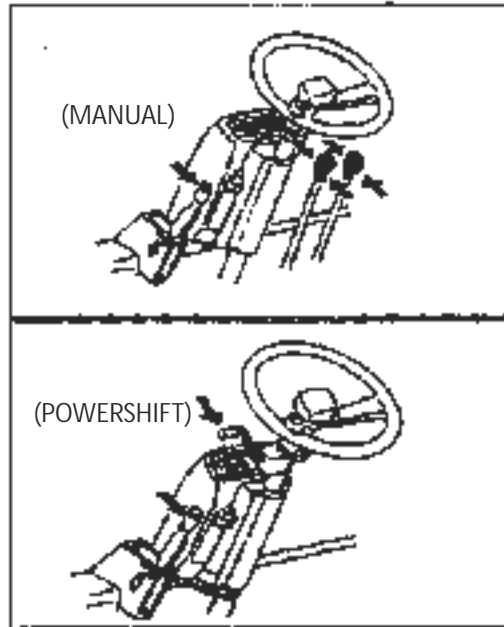
1. If the truck cannot be operation is light and slow, break in the truck under a simulated working condition.
2. Operate the truck under a lighter load and lower speeds than normal.
3. Change oils and relubricate at shorter intervals than normal.

 CAUTION /

1. After starting the engine, BE SURE to run it at idle speeds with no load for about 5 minutes. During this time, check all the OK Monitor indicator lights. AVOID long period of idling. This may cause cylinder wall glazing and prevent the piston rings from seating properly. DO NOT pump the accelerator pedal and DO NOT REV up the engine. This may cause cylinder wall scuffing and scoring.
2. Try NOT to drive the truck continuously at the same speeds as the part tend to better adjust themselves to other parts if various speeds are used.
3. ALSO, try NOT to make severe brake applications to allow the brake linings to seat against the brake drums.
4. Carefully check on and around the truck for loose bolts and nuts. Retighten them as needed.



Open the fuel shutoff



(MANUAL)
NEVER start the engine unless the direction lever is in NEUTRAL position as this may cause the truck to move suddenly.



Be sure to fasten the seat belt before operating the truck.
Remember, the belt will not restrain you in an accident if it is not fastened properly.

- Pull the parking brake lever.
- Be sure the direction lever is in the NEUTRAL position.
- The engine will not start unless the direction lever is in the NEUTRAL position.
- If the engine stalls, place the direction lever in the NEUTRAL position; turn the key to the 0 (OFF) position; and turn it to the (START) position to start the engine.

0 () ;
() ,

Engine Cold in Cool Weather

Engine Warm

Turn the key to the I (ON) position and wait until the heater plug indicator goes out.

I (),

You do not need to turn the key to the I (ON) position and preheat the engine or depress the accelerator.

I (),

Depress the accelerator pedal all the way and hold in this position.

If the engine won't start:

Turn the key to the 0 (OFF) position and wait for about 30 seconds before re cranking the engine.

0 (30)

Turn the key to the (START) position to crank the engine (no more than 10 second at a time).

(10), (), ()

- Release the key when the engine starts.
- Release the accelerator pedal.

If the engine won't start, see the topic, If Engine Won't Start.

» «

Engine Won't Start

Consult your Feeler Forklift Truck Dealer if the engine still fails after you have attempted several times.

FEELER.

Diesel Engine Model

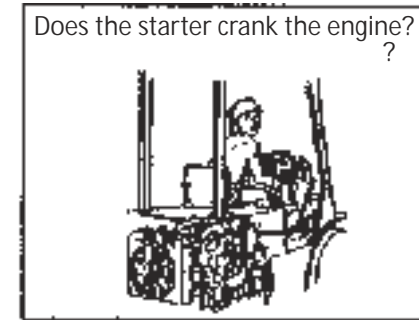


Air may be in the fuel system to cause failure to start. In such a case, prime the fuel system or have your Feeler Forklift Truck Dealer make a check.

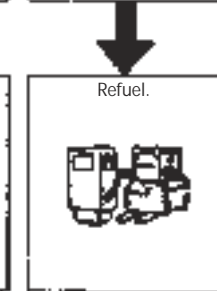
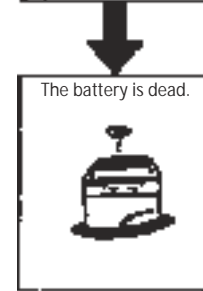
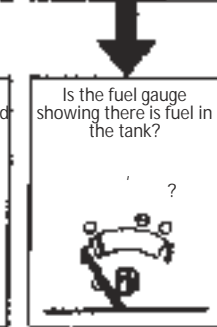
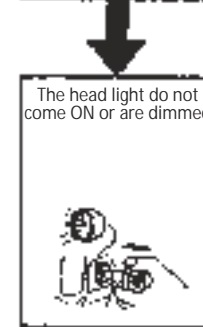
FEELER

CAUTION /

DO NOT start the engine by pushing or towing the truck. This can cause serious injury and damage to the truck.

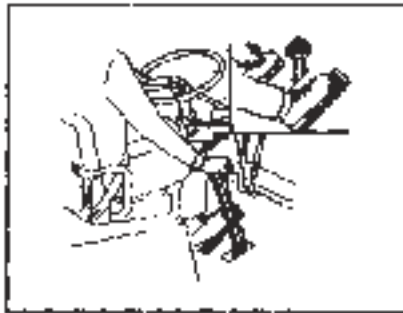


No Yes



Forklift Truck Operation

(MANUAL)



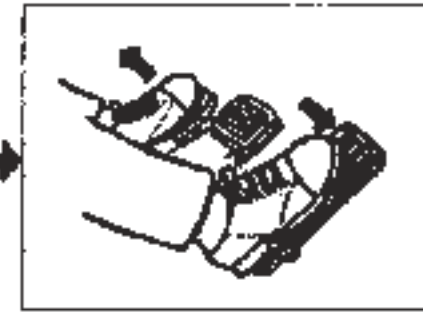
Depress the clutch pedal fully. Move the direction lever to FORWARD or REVERSE position.



Move the gearshift lever to 1ST SPEED position.

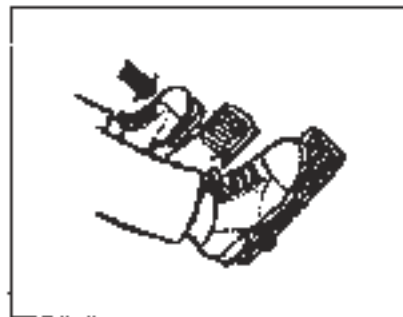


Push the parking brake lever

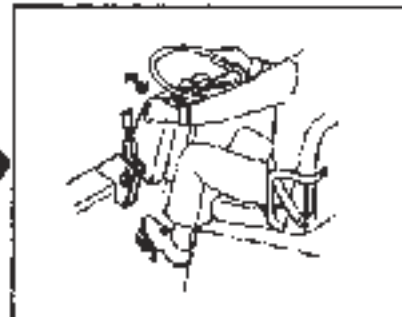


Gradually depress the accelerator pedal while releasing the clutch pedal.

(POWERSHIFT)



Depress the inching pedal all the way.



Move the direction lever to FORWARD or REVERSE travel position.

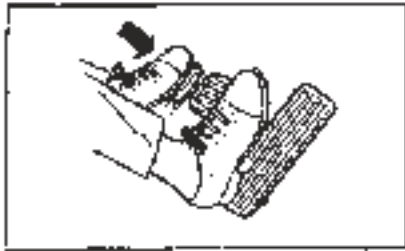


Push the parking brake lever

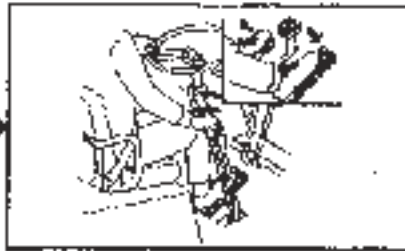


Gradually depress the accelerator pedal while releasing the inching pedal.

Charging Speed (MANUAL)



Depress the accelerator pedal while releasing the clutch pedal.



Move the gearshift lever from 1ST SPEED to 2ND SPEED position or from 2ND SPEED to 1ST SPEED position.



CAUTION

Before operating the speed selector, BE SURE to come to a complete stop.

Release the accelerator pedal and, at the same time, depress the clutch pedal.

Charging Direction (MANUAL)



BE SURE to come to a complete stop when changing direction.



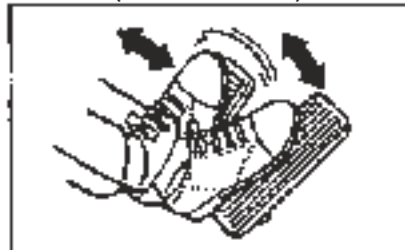
BE SURE to watch for people or hazards in the direction of travel.



CAUTION

Directional changes faster than stated will cause premature damage to the driveline. For greater operator safety and maximum service life of driveline components, it is recommended the operators bring the truck to a complete stop before changing direction.

(POWERSHIFT)



Use the accelerator pedal to increase travel speed. Use the brake pedal to slow down.



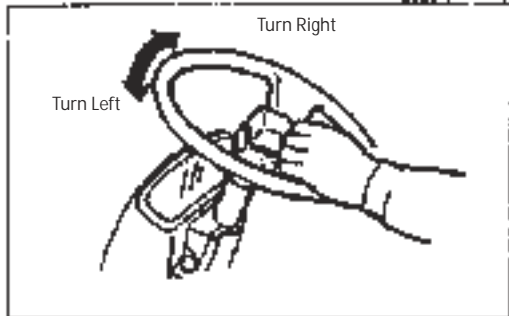
NEVER move the direction lever to NEUTRAL position during traveling. This causes the engine to overspeed.



BE SURE to come to a complete stop when changing direction.

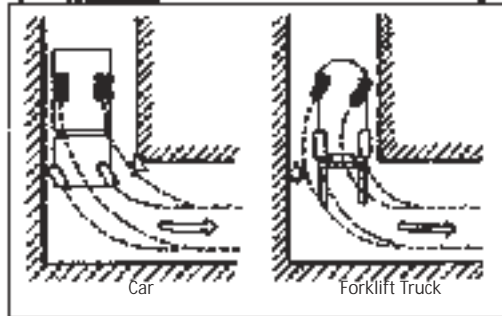


Operating Techniques

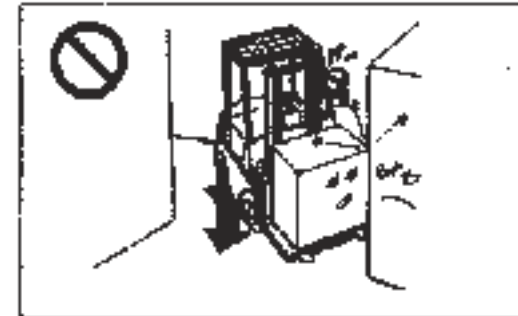


When advancing, turn the steering wheel in the same direction, as the turning direction. When handling loads, stop the truck and move the tilt and lift control levers with the right hand.

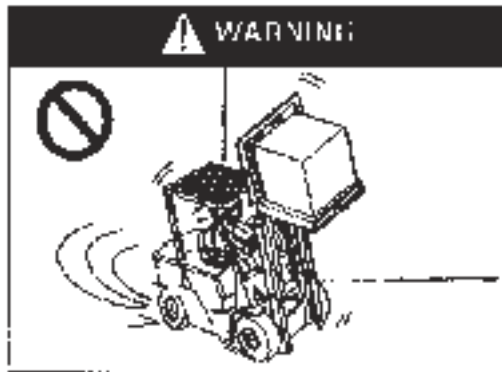
Steering (Turning)



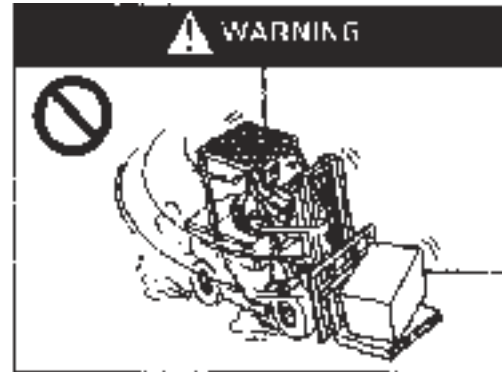
A forklift truck is different from most other vehicles because it is steered by the rear wheels. This causes an exaggerated tail swing.



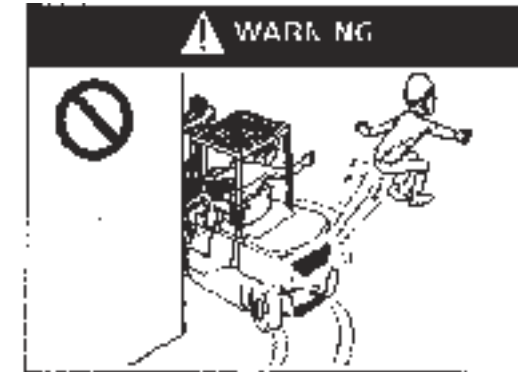
1. When working in close quarters, drive more slowly when making turns.
2. Start the turn as close to the inside corner as the tail swing will permit.



Turning with the forks elevated, with or without a load, can cause a tipover.

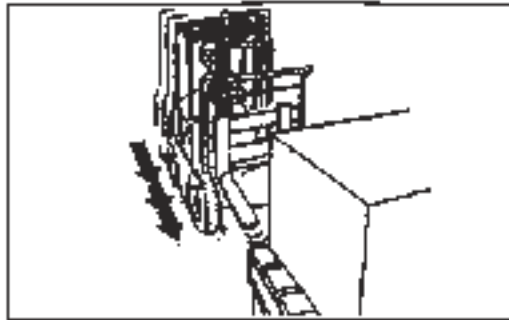


Turning at high speeds, with or without a load, can also cause a tipover.

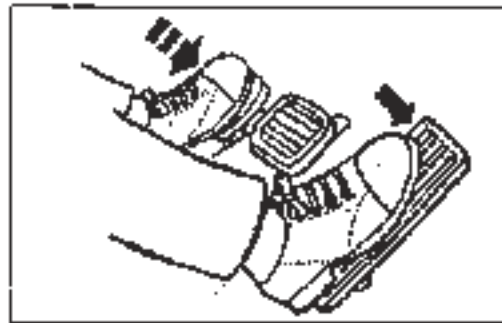


Be aware of tail swing distance. Be sure the tail swing area is clear, before turning, to avoid injury to pedestrians.

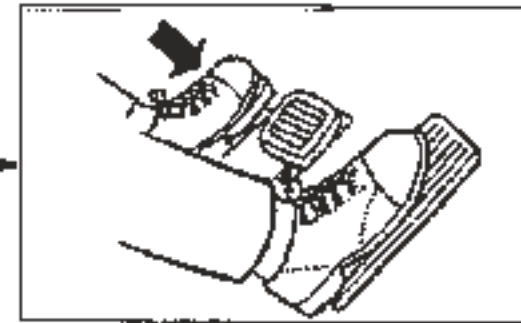
Inching



The purpose of the inching pedal is to provide precise forklift truck inching control at very slow travel speed and high engine rpm. You can move your truck slowly while maintaining the engine speed by varying the position of the inching pedal. Use this pedal when approaching the load when loading and unloading.



1. Stop ahead of the load platform, lock the parking brake lever, set the direction lever to NEUTRAL, place the mast vertically, and raise the fork to the height of the pallet insertion openings.



4. When the left foot is slowly taken off the inching pedal, the fork lift will advance slowly.

2. Depress the inching pedal all the way, move the direction lever to FORWARD, and release the parking brake.

5. Insert the fork slowly, taking care it does not hit the pallet.

3. Gently depress the accelerator pedal.

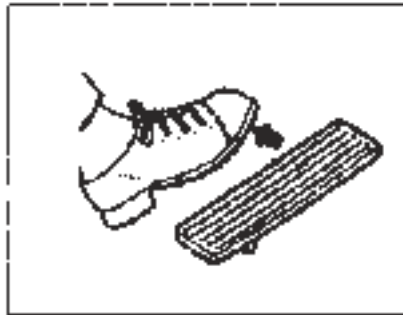
6. Stop after inserting the fork until the root of the fork comes into light contact with the pallet.

CAUTION

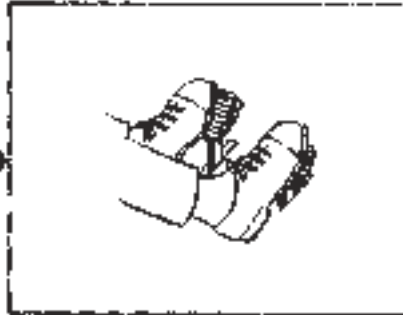
DO NOT "ride" the inching pedal. This produces a partly disengaged condition that will result in premature brake lining wear.

Stopping Forklift Truck

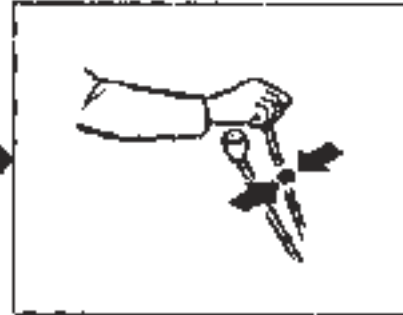
(MANUAL)



1. Release the accelerator pedal.



2. Depressed the brake pedal and, just before the truck stop, depress the clutch pedal.

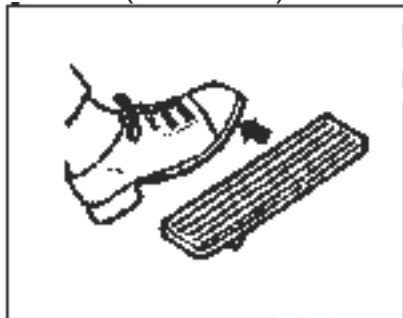


3. After truck has been stopped, move the direction lever to NEUTRAL position.



Avoid sudden stop. This can cause the load to fall off the forks or the truck to tipover.

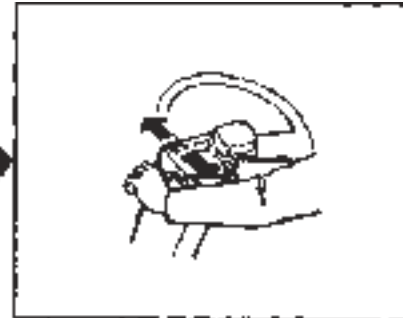
(Powershift)



1. Release the accelerator pedal.

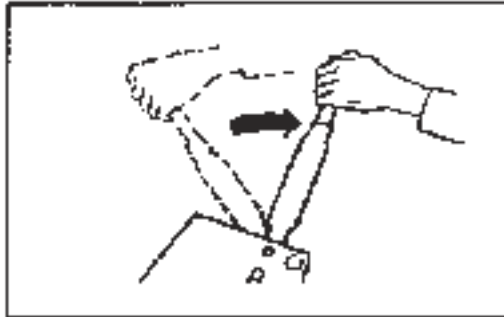


2. Depress the brake pedal.

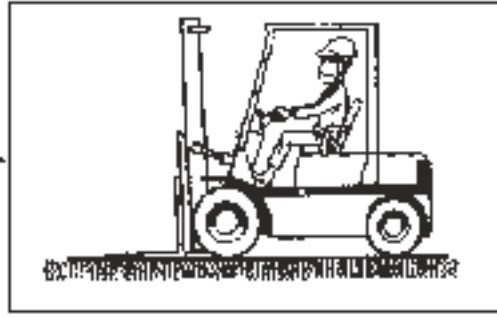


3. Move the direction lever to NEUTRAL position

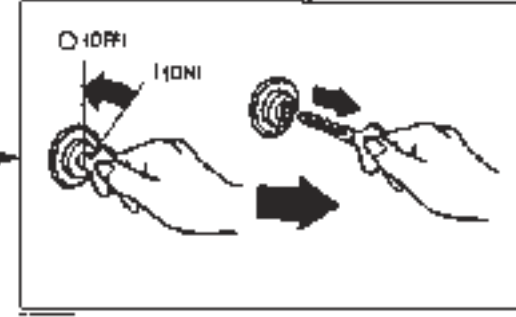
Parking Forklift Truck (After stopping)



Pull the parking brake lever all the way.



Tilt the mast forward just a little and lower the forks to the floor until the fork tips touch the floor.



Turn the key back to the 0 (OFF) position to stop the engine. When leaving the truck, BE SURE to remove the key.

WARNING /

Park safely :

- Select a hard level surface. -
- BE SURE to park in a parking lot if available. -
- If the lift mechanism is disabled and the forks cannot be lowered to the floor, attach a warning tag to the tip of the fork position the forks away from pedestrians. -

Get off safely :

- Get off after the truck has come to a complete stop and the above procedure has been followed. -
- Never jump off -

POST-OPERATION INSPECTION AND STORAGE



Post-operation inspection

After work clean the outside and inside of the vehicle and check following:

1. Check any abnormal point found during operation.
2. Check for visible damage and missing bolts.
3. Check for fluid leakage.
4. Check tires for abnormalities.
5. Check bolts and hydraulic piping for looseness.

WARNING /

- Park a disabled machine safely.
- Repair defects, if any, on the same day.
- Always make the forklift truck ready to operate at any time

Daily Storage

Pay attention to the following points when storing the forklift truck:

1. Park at a dry and flat place.
2. Pull on the parking brake without fail.
3. Tilt the mast to the vertical position and lower the fork to the ground.
4. Turn the key switch OFF and remove the key.
5. Move the lift lever and tilt lever back and forth 3 or 4 times to release the pressure remaining in the cylinder piping.

3-4

Long-term Storage

Pay attention to the following points in addition to those above when storing the forklift truck for a long time:

1. Disconnect the battery plug to prevent discharge and store the vehicle at a dark place.
2. Apply anti-rust grease to shafts, rods and other exposed parts.
3. Cover the breather and other openings where moisture may enter.
4. Cover the entire vehicle with a sheet or the like.
5. Lubricate all lubrication points.
6. Set air pressure of all tires to the specified value.
7. Completely bleed the water and hydraulic oil.



POST-OPERATION INSPECTION AND STORAGE



8. Make the vehicle ready to operate at last once a week and check all operations.

9. Measure the specific gravity and level of the battery electrolyte at least once a month. Charge the battery or replenish water as required.

Pre-operation Inspection

		Check item			Check item
Overall	1	Abnormality found on the previous	Mast	12	Damage and operation of mast
	2	Oil leak from gear cases, cylinders and hoses		13	Damage of back rest and head guard
	3	Lubrication to specified positions		14	Installation of forks and attachment
	4	Damage, wear and air pressure or tires		15	Chair tension
	5	Loose hub nuts		16	Looseness of tilt cylinder rod
	6	Abnormal sound		17	Hydraulic fluid level
Main body	7	Accelerator pedal operation	Guanes	18	Operation of direction indicator
	8	Brake pedal operation		19	Operation of horn
	9	Brake fluid level		20	Operation of lampe and gauge/meters
	10	Parking brake performance		21	Dirt and angle adjustment of rear-view mirror
	11	Play and follow-up performance of steering wheel	Battery	22	Secure connection of battery plug



POST-OPERATION INSPECTION AND STORAGE



Every time driving former check-up item

	Item
1	Whether the hydraulic oil, fuel and cooling water are leaking
2	Whether the surface of hydraulic oil, fuel, cooling water and skid oil are normal
3	Whether vitta and joint are oil-leaking
4	Whether clutch, accelerograph and hand brake are normal
5	Whether pedals of accelerograph, brake and clutch are normal
6	Whether trumpet, turning light, reverse light and warning light are normal
7	Whether the safety belt and armrest are firm
8	Whether the air pressure of the front and rear tires are normal
9	Whether the bolt of joy stick is firm
10	Whether the bolt of mast and tilting urn are firm
11	Whether the top-protecting set, fork and fender are safe
12	Whether the joint of tires and chain are firm
13	Check whether the starter, engine and crankcase are normal
14	Check whether the storage battery and circuitry are normal



Working on Grades

The Engine Stalls on a Grade

Starting on a Grade



1. Apply the parking brake to hold the truck and lower the forks to the ground.
2. Depress the clutch pedal, move the gearshift lever to NEUTRAL position and start the engine.
3. Move the gearshift lever to 1ST. SPEED position.

4. Raise the forks or load to the safe travel position.
5. See that the goods near to the shield which can fix and protect the goods when slope down and up. And the shield can be a surveyor's rod when the goods is lifting to the highest point.
6. Depress the accelerator pedal while gradually releasing the clutch pedal. As soon as the clutch is engaged, gradually release the parking brake lever.

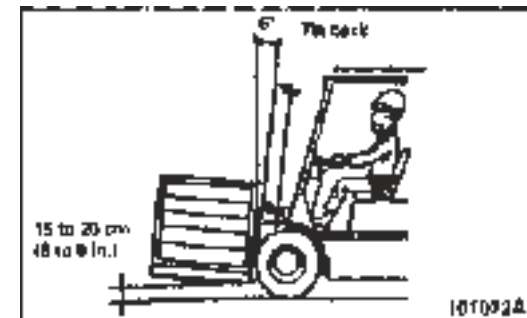
(Safe Travel Position)

- Keep the forks or the load at safe travel height, which is 15 to 20 cm (6 to 8 in.) from the ground.

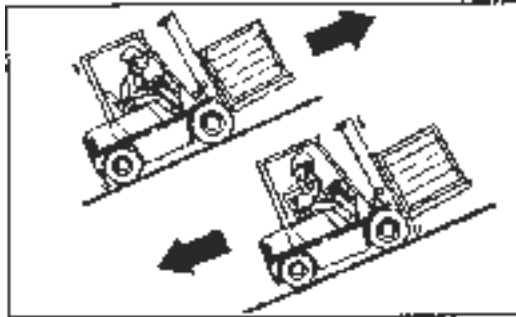
— 15-20

- Tilt the mast back more than 6° when the truck is empty. Tilt it all the way back when the truck is loaded.

6° ,



Traveling on Grade

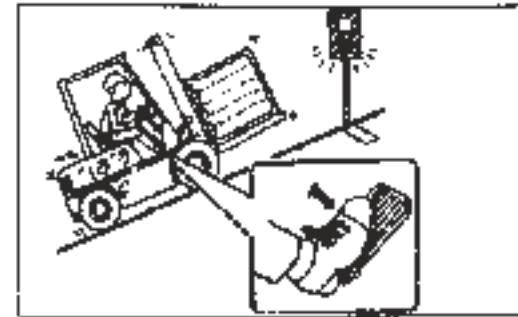


Travel forward up a grade and in reverse down a grade the truck is loaded.

⚠ CAUTION /

Depress the brake pedal when you have to bring the truck to a stop on a grade. DO NOT hold the truck by depressing the accelerator pedal. This can cause clutch plate wear.

Stopping on a Grade



When traveling up or down a steep grade:

1. DO NOT stop the engine.
2. DO NOT make any turns.
3. DO NOT travel across the grade.

⚠ WARNING /

- DO NOT continuously use the brake pedal alone. This can result in brake failure and an accident.
- DO NOT use the inching pedal when traveling down a grade. This prevents the engine from acting as a brake.
- DO NOT move the direction lever to NEUTRAL position when traveling down a grade

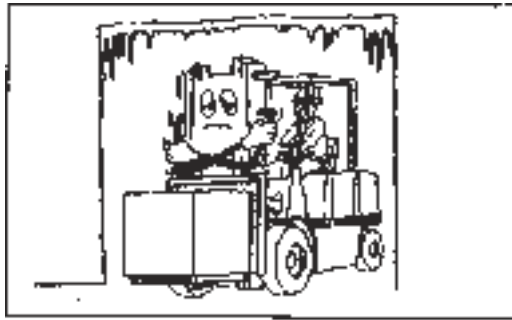
Care in Cold Weather



CAUTION

When the temperature is within the limit -30 C to 50 C, the forklift can work normally. But you must notice as follow:
-30, + 50.

Fuel Oils and Lube Oils



Use diesel fuel to fit the ambient temperatures. The cetane number be 40 minimum. If you operate the truck where ambient temperatures are normally low, you may need fuel with a high cetane number.

40.



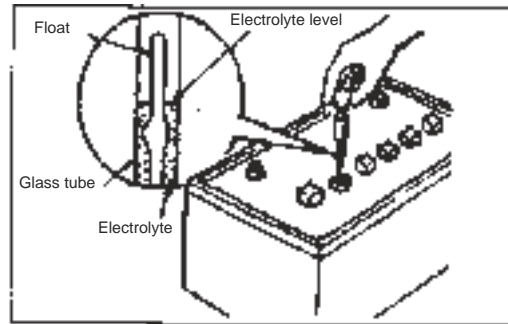
CAUTION

- Cloud point should be 6°C (43°F) below the lowest ambient temperature.

6°

- Use engine oil and gear oil to fit the ambient temperature.

Battery



Maintain the specific gravity of electrolyte above 1.265 as corrected to 27°C

1,265 27°C.

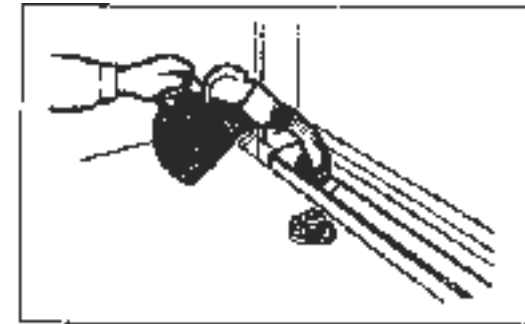


CAUTION

- After distilled water has been added to the battery, run the engine for a while. This mixes the added water with the electrolyte and will reduce the risk of freezing and damaging the battery.

- DO NOT attempt to restore a battery's charge by pouring boiling water over it. This can break the battery case, resulting in acid contact with skin or eyes.

Engine Coolant



- Antifreeze used in the engine cooling system of a new forklift truck shipped from the factory provide sufficient freeze protection to -30°C (-22°F)

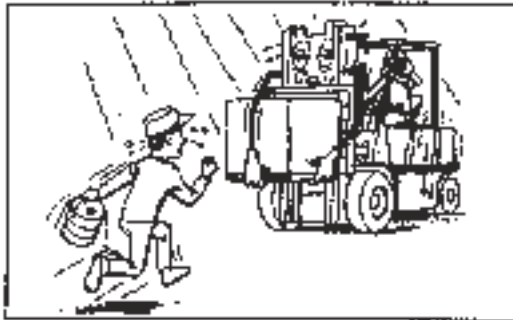
30°

- If ambient temperatures are below -30°C (-22°F), add antifreeze.

30°

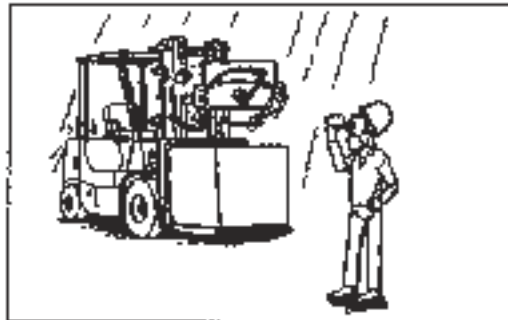
Care in Hot Weather

Fuel Oils and Lube Oils



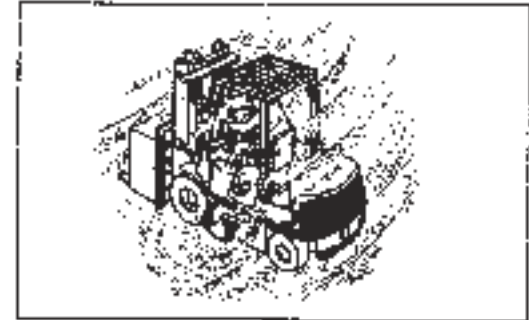
Use fuel oil, engine oil and gear oil to fit the ambient temperatures.

Engine Coolant



Coolant evaporates rapidly and the engine is likely to get overheated when the truck is operated continuously or on a grade. During such an operation, observe the engine coolant temperature gauge for symptoms of overheating.

Care in Severe Dust



Check and service the air element more frequently.

Check the radiator core more frequently for clogging or trash build-up. Clean or wash the truck as necessary.

Battery

In hot, dry weather, check the battery cells for proper electrolyte level more often than in cold weather. Add distilled water whenever the level is low.



CAUTION

Be careful NOT to have scalding hot coolant or steam blow out of the reserve tank.

Common solution to the stoppages in the forklift operation

1. Clutch with friction

Reason& Method
1. If the friction plate of clutch is dirty and oil dirt on it should be cleaned.
2. If the clutch tread has no free route, and the spring of the clutch diaphragm which was in the state of being pressed, in this case you should adjust the route of the tread.
3. If the friction plate was worn and damaged, it should be checked or repaired.
4. If the dust-proof of the release bearing clutch was split or dropped, and the piston was too dirty to return, in this case you should clean the release bearing clutch and change the dust-proof.

2. Shaking of the clutch

Reason& Method
1. If the plate was not completely engaged, you should dismantle it to adjust.
2. The friction plate was split and worn grievously.
3. If the release bearing clutch can not move freely, please clean it then add some lubricant.
4. If it can not speed down in time, you should transit its speed as early as possible.
5. If you did not start it without using gear 1, especially full capacity, should adopt gear 1 to start.
6. Maybe it is over loaded. You should load according to the regulation.

3. Gears in the transmission can not be engaged

Reason& Method
1. The gears were over worn. It should be changed.
2. The spring of ball is too soft. Just change it.
3. Gearshift fork was worn out. It should be changed or welded.
4. The clutch can not separate completely. Just adjust it.

4. Jumping gear of the transmission

Reason& Method
1. The gears were over worn. It should be changed.
2. The spring of ball is too soft. Just change it.
3. Gearshift fork was worn out. It should be changed or welded.

5. Transmission was louder

Reason& Method
1. Upon the middle shaft, front bearing and back bearing are too loose.
2. The gears were over worn. It should be changed.
3. The middle shaft was worn out. Just change it.
4. The lubricants on the gears was too little or too thin. Please add some or change to add a new type of lubricant.

6. Abnormal noise in drive axle

Reason& Method
1. The circular cone gear was worn out or the clearance was too wide.
2. The crossing shaft of the differential worn out. Just change a new one.
3. The circular cone roller bearing was worn out or loose. Just change a new one or adjust the bearings.

7. The main reduction of the drive axle was too hot

Reason& Method
1. The bearings of the drive gears are too tight. Just readjust the bearings pretightening force.
2. The lubricants of the gears are too much or too little. If the oil starts to output from the plug, it is the right volume.

8. Turn sharply or can not turn at all

Reason& Method
1. The safe load pressure of the shunt valve which keeps a steady volume is too low.
2. There maybe air among the oil pipes in the turning system. Just drain the air off.
3. The return function of the turning unit is out of work, and the elasticity of the positioned spring is not enough and is torn out. You should change a new one.
4. The turning angle of the steering tire is not right. Adjust the turning angle (inside and outside).

5. The body of the steering axle is out of shape. Should be repaired.
6. The tilting cylinder has over-leakage inside. You should check and change the seal and piston.

9. Floating when turning and stringing of the tire

Reason& Method
1. The volume when turning is over. Just adjust the volume of the shunt valve and adjust the bolts.
2. The level to turning connected not tightly. Pinch it tightly.
3. The nut to fix the wheel is too loose, or the bearing of the wheel shell is too loose. Please adjust and change a new one.

10. The brake by foot is out of work

Reason& Method
1. The part of auto-adjustment is out of work. And the clearance between the brake drum and the friction plate of the brake unit is too wide or is out of the position. Just adjust and correct.
2. The master cylinder and the liquid for input and output are out of work. Have to dismantle them to check and repair.
3. The cup piston is blocked because it is bloated. Change a new cup piston.
4. Maybe air inside or leak. Just drain the air off and repair the leak part.
5. The friction of the bake plate is worn out. Change a new one.
6. The two wheels can not brake at the same time. Please adjust the clearance and drain the air inside the pipe.
7. Too much free route of the brake pedal. Just to adjust it.
8. The brake loses the function of force-generation. You should check and adjust.

11. The foot brake heat

Reason& Method
1. The part of auto-adjustment is out of work. And the clearance between the brake drum and the friction plate of the brake unit is too wide or is out of the op-sition. Just adjust and correct.
2. The spring of the brake was too weak. just change a new one.
3. The cup piston is blocked because it is bloated. Change a new cup piston.

12. The hand brake is out of work

Reason& Method
1. The celebrate between the brake drum and the friction plate of the brake unit is too wide or is out of the position. Just adjust and correct.
2. The spring of the brake was too weak. Just change a new one.
3. The strut is too loose. Please adjust the pretightening.
4. The strut is blocked. You should make it to operate flatly and smoothly.

13. It is difficult to load or can load at all.

Reason& Method
1. The gear of the pump and pump are mutually worn and torn seriously. And the clearance is too wide. You can change a new gear or pump.
2. The piston ring of the lifting cylinder has been worn and torn and also over-leakage. You should change a new piston ring.
3. Multi-valve and the spring of the safe valve are out of work. You should change a new spring.
4. Mutual wear and tear between the control lever of the multi valve and the valve lead to over-leadage. You should plate chromium on the lever.
5. Leakage among the valves. You should reconfigure after grinding, then tighten the screw in sequence.
6. Hydraulic pipeline leaks, should connect the nut closely. And check whether the nut connects the sealed liner was damaged or not.

7. The temperature of the hydraulic oil is too high or the hydraulic oil is too thin. Maybe the flow is insufficient. In this case, you should change the hydraulic oil which is stipulated to conform to or reduce the oil when parking. Find out why the temperature is so high.
8. Overload, please operate according to the regulation.
9. The slide valve of the shunt valve was blocked. Just dismant the shunt valve to repair.

14. The mast and the fork shelf can not tilt freely itself.

Reason& Method
1. The wall of tilting cylinder and seal ring are worn excessively. Just change the seal ring or the cylinder.
2. The spring of the lever on the , multi-valve is out of work. Just change a new one.

15. The fork shelf can not lift and tilt flexibly

Reason& Method
1. The piston blocks the casing wall or the cylinder rod is crooked. Just change the damaged the damaged one.
2. Jar is too dirty and it is sealed too tightly. You should wash it and adjust the sealing cover to a proper degree.

16. The alarm light for charge can not go off after the engine started

Reason& Method
1. The voltage of the engine is not stable. Just repair it or change a new one.
2. The adjustor has stoppage. Just repair it or change a new one.

17. Light kit-head light, turning light, rear light can not stay brighth.

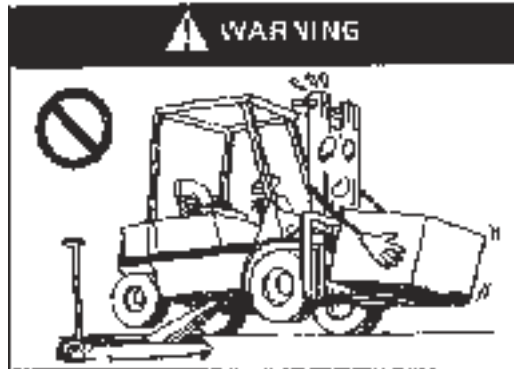
Reason& Method
1. The plug can not connect well. Just tighten the plug.
2. The start switch is damaged or can not connect well. Just change a new one.

3. The bubble is damaged. Just change a new one.
4. The connection is not well. Please tighten the bolts

11. The deficiency of the pump pressure.

Reason& Method
1. The seal ring for deal with the tighten parts is worn and torn, which lead to leakage. Just change a new one.
2. The seal ring of the oil cap inside, just change a new one.
3. The surface of the bearing was worn and torn. Changing!
4. The gear was worn and torn. Just change a new oil pump.
5. The rotational direction is wrong. Please correct it.
6. The hydraulic oil sneaks into the air and spumes, and the pipe leak. Mabe there is also deficiency hydraulic oil. You should clear up air and repair leak point.

Changing a Tire



DO NOT attempt to change the tire with the truck loaded. Injury and/or damage may result.



Stop raising the truck when the tire clears the ground. DO NOT raise the truck more than necessary.



BE SURE no one is on the truck when raising the front or rear tires.



DO NOT place any part of your body under the truck. SECURELY SUPPORT the truck with blocks after jacking it up.

! WARNING

- Consult your Feeler Forklift Truck Dealer for proper tire changing procedure.

Feeler.

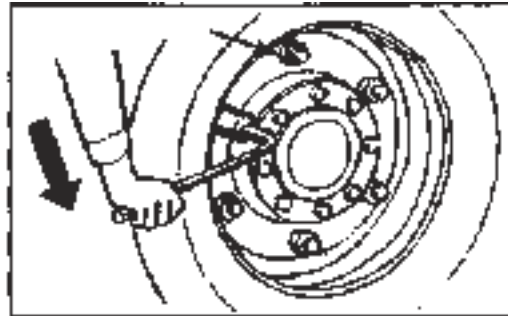
- Changing of tire and adjustment procedure must be made by a trained mechanic or dealer personnel.

- Perform all maintenance in the factory with proper equipment.

Single Tire



Park the truck on level ground with parking brake applied, transmission in neutral, forks lowered and engine stopped.



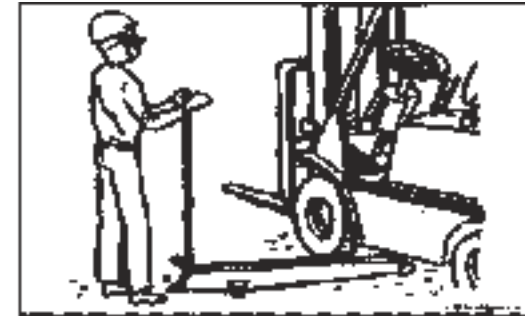
1. Loosen the wheel nuts about two rotations.

NOTICE: Only loosen the wheel nuts. DO NOT remove them.

2. Position the jack under the truck at the specified jacking point.

3. Raise the truck by operating the jack until the tire just clears the ground.

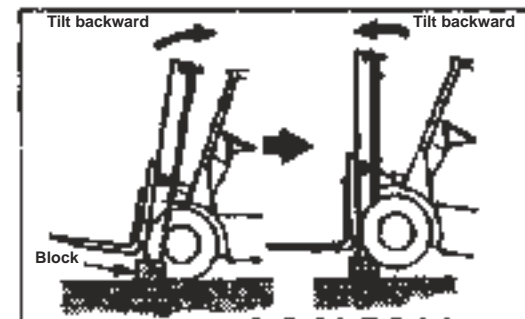
To rise Front Tire



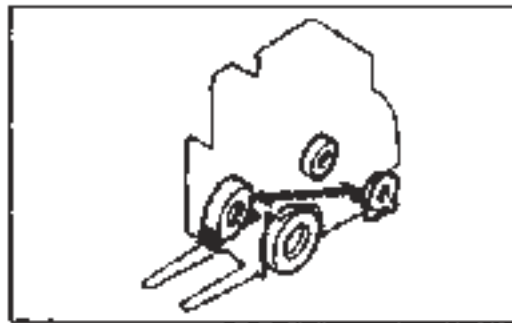
Position the jack under the frame and raise the truck until the front tire clears the ground.

Next, place stands or blocks of wood on both sides under the frame to support it.

Other Method



Tilt the mast all the way back, place blocks under the mast, and tilt the mast forward.



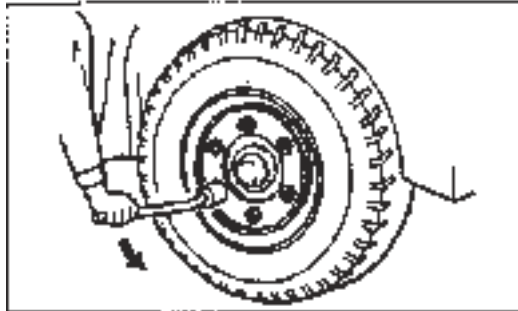
Prepare tools, jack and wheel blocks.

Jack Capacities

5 tons minimum
5

Block the diagonally opposite wheel.

Changing Tire



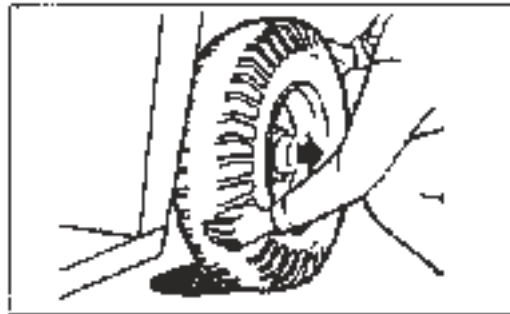
To Remove Tire

1. Loosen the wheel nuts about two turns.

NOTICE: DO NOT remove the wheel nuts. ONLY loosen them.

2. Position the jack under the truck at the specified jacking point.

3. Raise the truck by operating the jack until the tire just clears the ground.



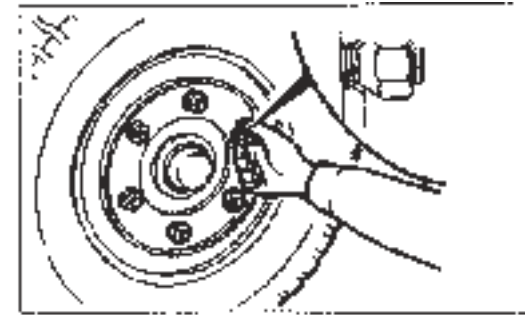
4. Remove the wheel nuts by hand.

5. Firmly grip the tire with both hands, and remove it from the truck.



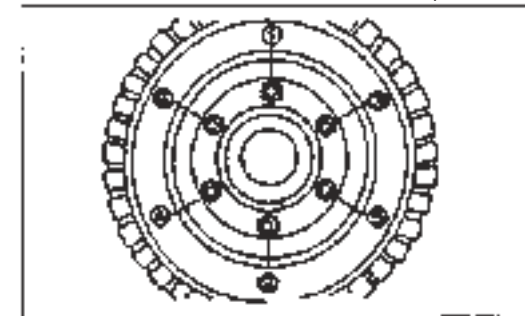
CAUTION

When removing the tire, be careful not to strip the wheel bolt threads on the edges of the bolt holes in the rim.



To Install Tire

1. Tighten the wheel nuts just enough to hold the tire without rattling, making sure the clamping surface of each nut comes in fullface contact with the counterbore of the wheel disc.



To Install Tire

2. Lower the truck until the tire touches the ground. Tighten the wheel nuts, in two or three steps, to the specified torque. Each of the steps must follow the tightening sequence show above

Attentions:
!

1. Mend in time if trouble found, and forklift owning mending shouldn't be used.
2. Forklifts owning mending should be parked in the appointed area, and be stuck with warning card showing unavailable.
3. When gearing attained, forklift should be towed to the appointed area, and park with warning card.
4. When being towed, semi-axletree should be took off, and shift pole should be set in vacancy.

SPECIAL NOTE
:

- Exhaust gas from engine is bad for health.
- Don't use forklift truck in airproof space.
- When new forklift truck leaving factory exhaust emission has Reached standard of protecting the natural environment.
- After maintaining the engine, you should go to the protecting Environment department to detect exhaust emission, exhaust Emission which is reached standard can be used.
- When maintaining truck should protect environment, scrap Watch oil and scrap accessory should put in appointed place, Avoiding to pollute environment.
- When the warning decals on forklift truck disrepair or loss, please call Feeler company or Feeler appointed agent to repair in time.
- When maintaining truck, please choose Feeler company or Feeler appointed agent's supply fitting
-
-
-
-
- FEELER FEELER
- FEELER FEELER.

MAINTENANCE



For periodic inspection and periodic change of parts, however, rely on the expert knowledge of the factory-trained servicemen, and the service facilities at your FEELER Forklift Truck Dealer's workshop. Always use the FEELER Forklift genuine parts for replacement parts.

Every 10 Service Hour or Daily (Pre-Start), whichever Comes First, continued

As the operator, you are responsible for the performance of daily pre-start inspection. You are also responsible for those items listed under Every 50 Service Hours or Weekly, Whichever Comes First to keep your forklift truck in proper working condition.

Periodic inspection time intervals	• One month after delivery of a new truck.
	• Ever 200 service hours or monthly, whichever comes first. 200
	• Every 1200 service hours or 6 months, whichever comes first. 1200
	• Every 2400 service hours or 1 year, whichever comes first. 2400

Every 10 Service Hours or Daily Whichever Comes First
10

Item	Service
Damaged or faulty operation found the day before	Check
Lights	Check
Load backrest extension	Check
Tilt cylinder socket bolts	Check
Overhead guard	Check
Assist grip	Check
Accelerator pedal	Check

Item	Service
Brake pedal	Check
Inching pedal	Check
Clutch pedal	Check
Parking brake lever	Check
Seat belt	Check
Horn	Check
Steering wheel	Check movement
Amount of fuel	Check
Stop lights	Check
OK monitor	Check
Lift chains	Check / adjust /
Engine	Check
Clutch	Check
Service brakes	Check
Backup lights	Check
Engine crankcase	Check oil level
Engine coolant	Check coolant level



Every 10 Service Hours or Daily (Pre-start),
Whichever Comes First, continued

10

Item	Service
Hydraulic oil	Check oil level
Service brakes	Check fluid level
Clutch oil	Check oil level
Wheel nuts	Check
Tire and rims	Check
Mast and forks	Check
Battery	Check electrolyte level

Every 50 Service Hours or Weekly, Whichever
Comes First

50

Item	Service
Air cleaner	Clean / inspect
Alternator drive belt	Check / adjust
Mast support	Lubricate

One Month After Delivery of a New Truck

Item	Service
Hydraulic tank return oil filter	Change
Fuel filter - Diesel	Change

Every 200 Service Hours or Monthly, Whichever
Comes First

200

Item	Service
Wheel nuts	Retighten
Powershift transmission	Check oil level
Engine crank-case - Diesel	Change oil and filter

CAUTION

Improper disposal (in drainage or ground, burning, etc.) of waste battery and oil generated through the inspection may pollute the surrounding (water, soil or atmosphere). This may be banned by law.

Every 200 Service Hours or Monthly, Whichever Comes First
200

Item	Service
Mast strip roller surface	Lubricate
Lift bracket side rollers	Lubricate
Lift chains	Lubricate / inspect /
Tilt socket pins	Lubricate
Brake pedal	Lubricate
Rear axle center pins	Lubricate
Tilt cylinder pins	Lubricate
Fuse	Check
Drag link end	Lubricate
Bellcrank pin	Lubricate
King pins	Lubricate
Front axle support	Lubricate
Change levers	Lubricate
Control valve	Check

Every 1200 Service Hours or 6 Months, Whichever Comes First
1200

Item	Service
Powershift transmission	Change oil / wash strainer /
Hydraulic system	Change return oil filter / wash strainer /
Air cleaner	Change element
Fuel filter - Diesel	Change
Engine coolant	Change

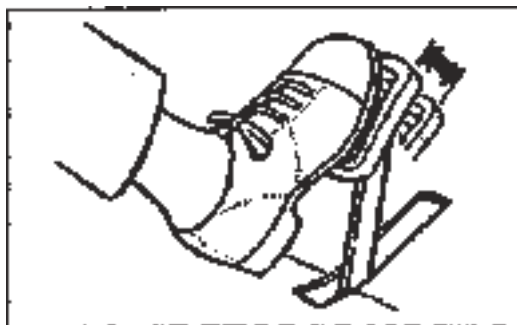
Every 2400 Service Hours or 1 Year, Whichever Comes First
2400

Item	Service
Hydraulic oil	Change
Service brake fluid	Change
Clutch oil	Change

 CAUTION

When check the safe valve, just to check whether the bolts are loosen or not, and whether there is any abnormal in the connection of the oil pipes. If any, please keep in touch with our sales service.

Inching Pedal



Is the free play correct?

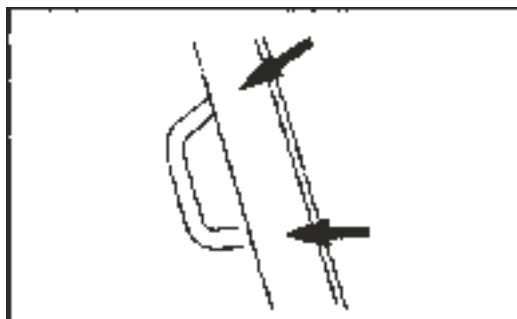
?

Correct Free Play

Unit: mm

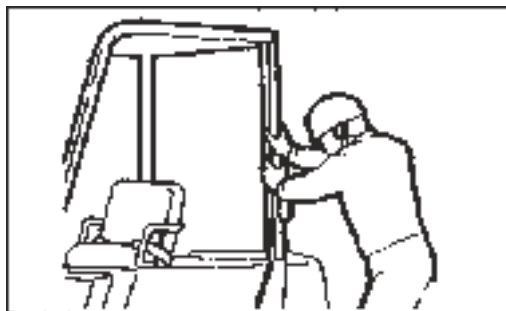
All model	5
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Assist Grip



Inspect, and if necessary, tighten the screws of the assist grip.

Overhead Guard

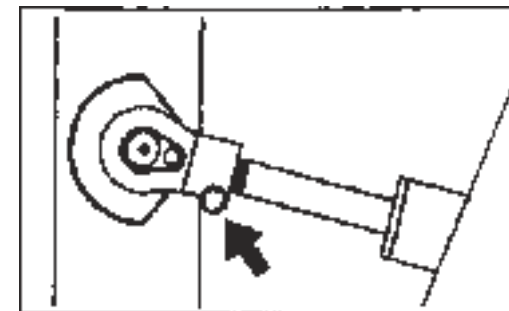


Check the front and rear overhead guard mounting bolts on each side.

Inspect overhead guard for bent or cracked sections.

If overhead guards are found in the safety devices, repair them immediately before starting operation.

Tilt Cylinder Socket Bolts



- Are the bolts tightened property?

?

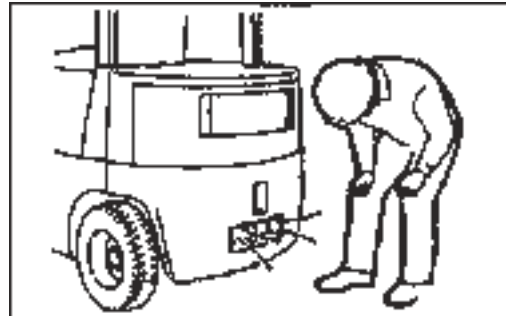
NOTICE:

After retightening the bolt, put a mark across the bolt and tilt cylinder socket. This permits you to easily notice loosening of the bolt.

Engine

CAUTION

Exhaust fumes can kill you! If it is necessary to start the engine in an enclosed area, make sure there is adequate ventilation. And you should check the regulation exhaust according to the Euro-criterion if you find that exhaust is abnormal.
 Fire hazards! Clean up spillage of fuel, oil, or other flammable materials in the engine compartment. Know the location of all emergency devices (such as fire extinguisher, first aid kit, etc.) and how to use them.



- Is exhaust smoke normal?
- Listen for abnormal noise or excessive vibration.

Clutch

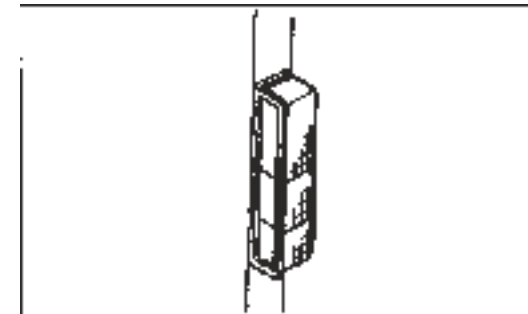
Does the flywheel clutch (MANUAL) or any transmission clutch (POWERSHIFT) grab or slip? The clutch grabs if the truck does not slow down when the clutch pedal (MANUAL) or the inching pedal (POWERSHIFT) is depressed. It slips if the truck does not pick up speed when the accelerator pedal is depressed.

Service Brakes

Do the brakes apply and the truck properly - without dragging, chattering squealing?

?

Backup Lights



When you move the direction lever into REVERSE position:

- Do all backup lights come ON?
- Does the backup buzzer sound (if equipped)?

Engine Crankcase

Check Oil level

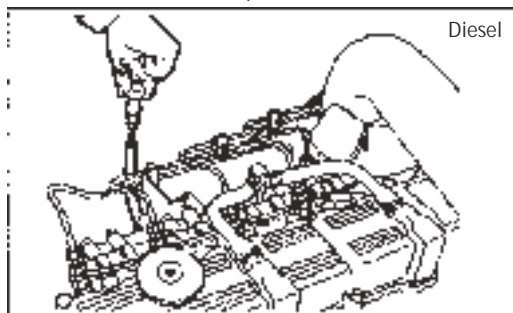


Hot oil and components can cause serious injury. Do not allow hot oil or components to contact your skin.

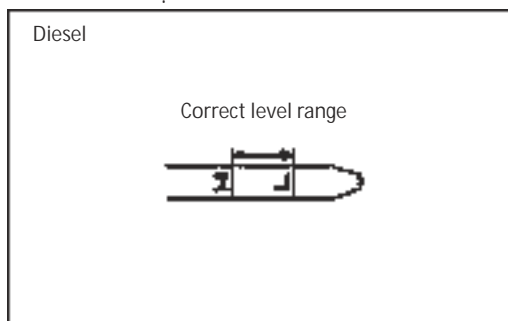
Park the forklift truck with the forks lowered, parking brake applied, transmission in NEUTRAL, and the engine stopped.

Raise the hood

Remove the dipstick and wipe it clean, then insert it all the way.



Maintain the correct level range on the dip stick.



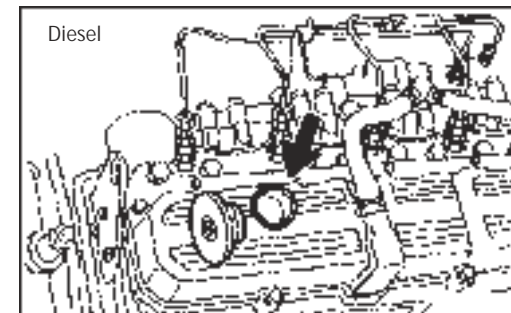
Close and secure the hood.

Adding Engine Oil



- Perform the work on level ground.
- Clean the filler hole to prevent dirt from dropping into the engine.
- DO NOT overfill.
- Clean up spillage.

Remove the oil filler cap.



Hydraulic Oil

Check Oil level

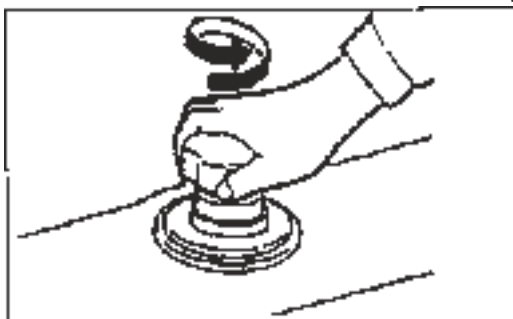


Hot oil and components can cause serious injury. Do not allow hot oil or components to contact your skin.

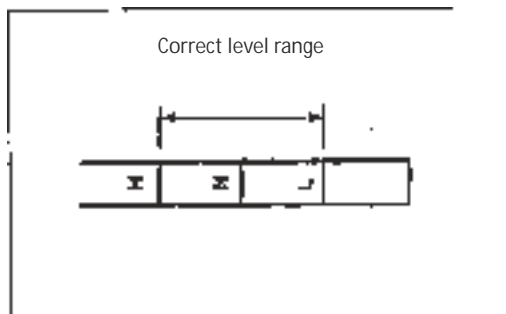
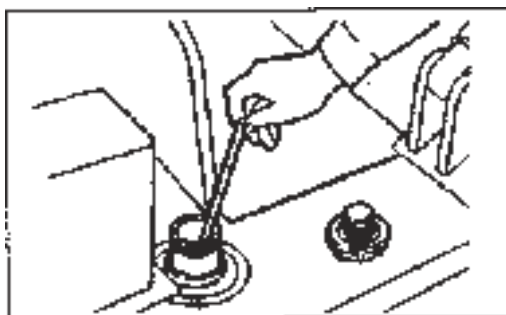
Operate the forklift truck for a few minutes to warm the oil.

Park the forklift truck on a level surface, with the forks lowered, mast tilted back, parking brake applied, transmission in NEUTRAL and the engine stopped.

Remove the hydraulic tank filler cap.



Add oil needed to raise it to the correct level range on the dipstick.



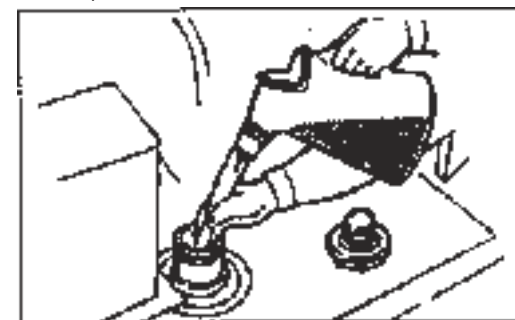
Put the hydraulic tank filler cap back on.

Check for oil leaks.

Close and secure the hood.

Adding Hydraulic Oil

Remove the hydraulic tank filler cap.



After adding oil, make sure the level is in the correct range on the dipstick.

Insert the dipstick into the filler port and install the hydraulic tank filler cap securely.

Close and secure the hood.

Service Brakes

Check Fluid Level

WARNING

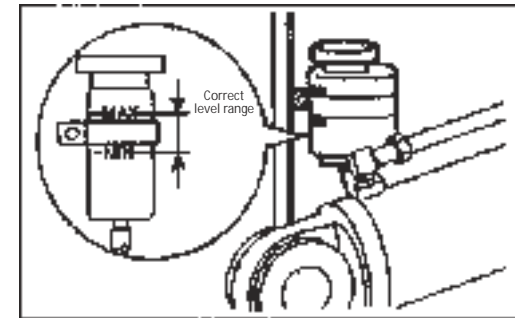
If the brake fluid in the reservoir decreases rapidly, the brake system is leaking.

CAUTION

Before refilling the reservoirs, clean the ports to prevent dirt from getting inside the reservoirs.

Park the forklift truck with the forks lowered, parking brake applied, transmission in NEUTRAL, and the engine stopped.

1. Check the brake fluid level at the reservoir.



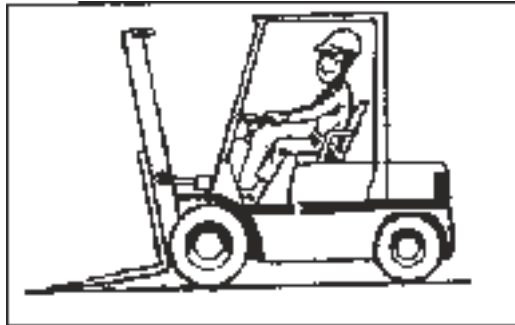
2. Maintain the brake fluid level between the MAX and MIN marks on the reservoir.

MAX MIN.

Adding Brakes Fluid

1. Remove the reservoir cap.
2. Add brake fluid to the reservoir.
3. Put the reservoir cap back on.

Mast and Forks Check



- Does the mast move up and down smoothly when you operate the lift control lever?

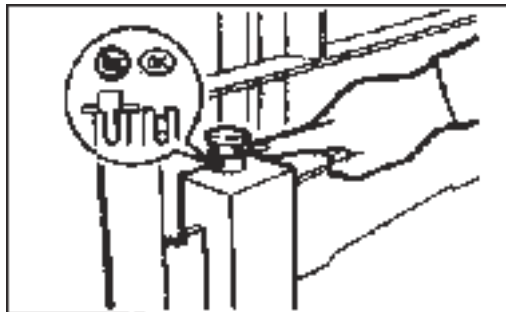
?

- Does the mast tilt forward and back smoothly when you operate the tilt control lever?

?

- Are there any oil leaks from the cylinders and hydraulic lines?

?



- Is the stopper properly engaged?

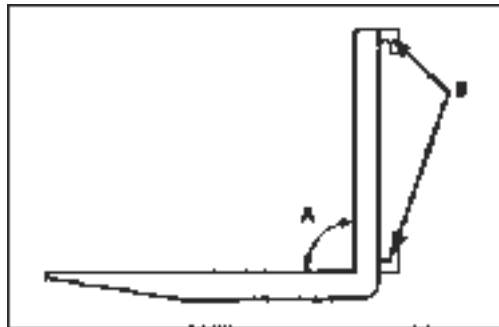
?

- Are the fork free of distortion and cracks?

?

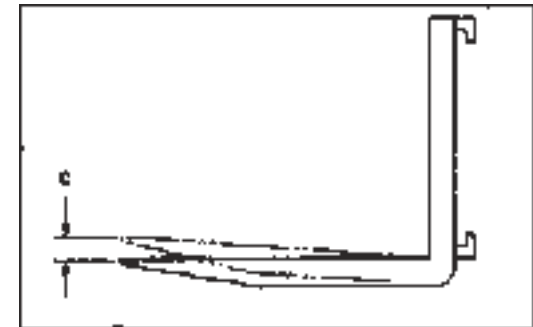
- Are the welds of the hangers free of cracks?

?



If the truck is being used to carry maximum capacity loads, the forks should be checked daily.

1. Carefully inspect the forks for cracks. Special attention should be given to the heel section A, all weld areas and mounting brackets B.

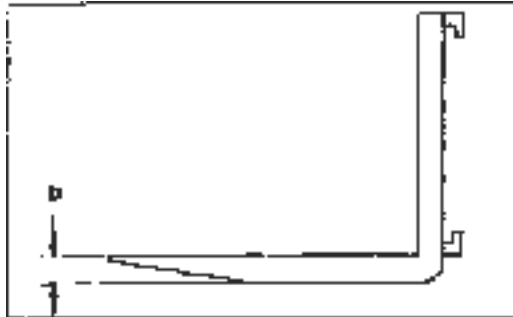


2. Check the difference in height of one fork tip to the other when mounted on the fork carrier. A difference in fork tip height can result in uneven support of the load and cause problem when entering loads.

The maximum allowable difference in fork tip elevation C is 5 mm for pallet forks. Replace one or both forks when the difference in fork tip height exceeds the maximum allowable difference.

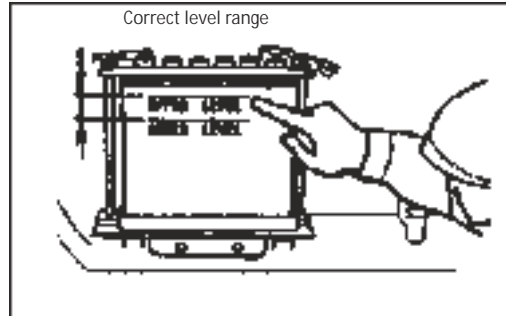
5

Battery Check Electrolyte Level



3. Check the fork blade D. The fork should be withdrawn from service if the thickness is reduced to less than the tolerant thickness D.

Fork blade length may also be reduced by wear, especially on tapered forks and platens. Remove the fork from service when the blade length is no longer adequate for the intended loads.



1. If the electrolyte level is low, remove the filter caps and add distilled water to the cells. Before removing the caps, clean the top of the battery.

2. After adding the water, tighten the caps securely.



WARNING

If acid gets in your eyes, FLUSH THEM IMMEDIATELY WITH LARGE AMOUNTS OF WATER AND SEE A DOCTOR AT ONCE.

3. Using a battery hydrometer, check the specific gravity of the battery cells. Take the reading at eye level.

Specific gravity corrected to 20°C (68°F)	Battery condition
20°C	Fully charged
1.260 to 1.280	Three-fourths charged (to be recharged)
1.220 to 1.260	3/4 ()
Below 1.220	Completely discharged (to be recharged and retested)
	()



CAUTION

If distilled water has to be often added, have your Feeler Forklift Truck Dealer check the battery.

FEELER

Every 50 Service Hours or Weekly, Whichever Comes First
50

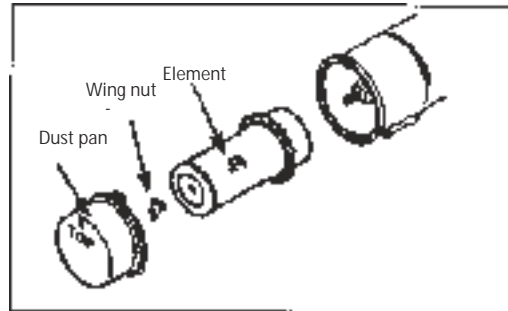
Air Cleaner

Clean and Inspect

CAUTION

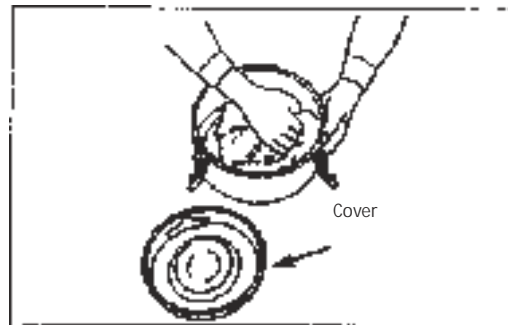
Never service the air cleaner with the engine running. Do not clean the elements by striking them against another object. Always inspect the element before and after cleaning. Use a light inside the element. Park the forklift truck on a level surface, with the forks lowered, the parking brake applied, the transmission in NEUTRAL and the engine stopped.

Raise the hood.



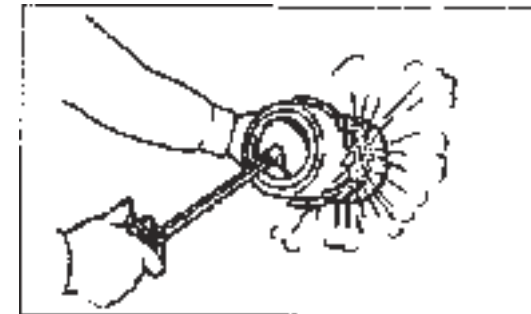
2. Remove the dust pan by releasing the latches at three places.

3. Unscrew the wing nut, and remove the element by pulling it.

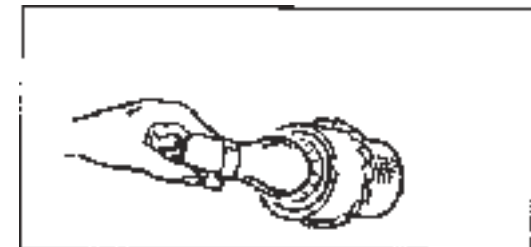


4. Remove the cover from the dust pan, and clean the inside of the pan by removing dust.

5. Clean the inside of the air cleaner housing.



6. Direct air inside the element along the length of the pleats, and lightly tap it



7. Insert a light inside a clean, dry element and check. Discard the element if tears or rips are found.

8. Put the elementary back in place.

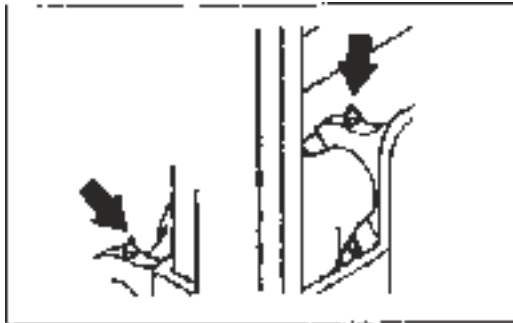
9. Reinstall the dust cap.

10. Close the hood.

One Month After Delivery of a New Truck

You must read and understand the warnings and instructions contained in this manual before performing any operation or maintenance procedure.

Mast Supports Lubricate



Lubricate 1 fitting on each support for a total of 2 fittings.

Hydraulic Tank Return Oil Filter Change

Filter should be changed.

See Hydraulic System, Change Return Oil Filter in the Every 1200 Service Hours.

1200

Fuel Filter - Diesel Change

Filter should be changed.

See Fuel Filter - Diesel, Change in the Ever 1200 Service Hours.

1200

Every 200 Service Hours or Monthly, Whichever Comes First 200

You must read and understand the warnings and instructions contained in this manual before performing any operation or maintenance procedure.

Wheel Nuts Retighten

Nuts should be retightened.

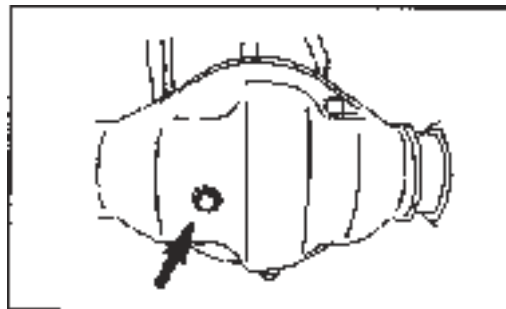
See Wheel Nuts, Check-Tighten, when required.

Check Oil Level

Park the forklift truck on a level surface, parking brake applied, transmission in NEUTRAL and the engine stopped.

Raise the lift bracket high enough to gain access to the level/fill plug

Use blocking under the inner mast to secure the lift bracket in this position.



Remove the level/fill plug. Maintain lubricant level to the bottom of the plug brake operating.

Clean the level/fill plug and put it back in place.

Remove the blocking. Lower the lift bracket.

SERVICE DATA



Item Наименование		Модель погрузчика Truck mode			Модель погрузчика Truck mode			Модель погрузчика Truck mode			Модель погрузчика Truck mode		
		FD20C	FD20CT	FD20CTJ	FD25C	FD25CT	FD25CTJ	FD30C	FD30CT	FD30CTJ	FD35C	FD35CT	FD35CTJ
Refill capacities litre Вместимость тар жидкостей в литрах	Fule tank Топливный бак	52											
	Engine cooling system Система охлаждения двигателя	8			9			9			9		
	Torque convertor Трансформатор крутящего момента	4.2			5.2			5.5			5.5		
	Manual Differential Механический дифференциал	10						10.5					
	Powershift differential Автоматический дифференциал	10						12.5					
	Hydraulic Гидравлика	35											
	Brake fluid reservoir Бачок тормозной жидкости	0.2											
Battery electrolyte specific gravity corrected to 20°C: Удельная плотность электролита аккумулятора при температуре 20°C:		1.28											

Item Наименование		Модель погрузчика Truck mode			Модель погрузчика Truck mode			Модель погрузчика Truck mode			Модель погрузчика Truck mode				
		FD20C	FD20CT	FD20CTJ	FD25C	FD25CT	FD25CTJ	FD30C	FD30CT	FD30CTJ	FD35C	FD35CT	FD35CTJ		
Rated capacity, kg		2000			2500			3000			3500				
Truck weight, unloaded, kg Вес погрузчика, не загруженного, кг		3730			3970			4350			4700				
Forklift Overall Dimensions L x W x T, mm Габариты погрузчика, мм		2620 x 1175 x 2070			2680 x 1175 x 2070			2680 x 1225 x 2090			2740 x 1225 x 2090				
Engine Двигатель		Model Модель		490BPG-1 ISUZU2400JH 4JG2			490BPG-1 ISUZU2400JH 4JG2			490BPG-1 ISUZU2400JH 4JG2			490BPG-1 ISUZU2400JH 4JG2		
		Rated output / r.p.m. , Kw Номинальная мощность / обороты в минуту, кВт		37Kw/2650r/min 34.5Kw/2500r/min 44.9kw/2450r/min			37Kw/2650r/min 34.5Kw/2500r/min 44.9kw/2450r/min			37Kw/2650r/min 34.5Kw/2500r/min 44.9kw/2450r/min			37Kw/2650r/min 34.5Kw/2500r/min 44.9kw/2450r/min		
Tired Шины	Tire pressure, Mpa Давление шин, МПа	Model Модель		7.00 - 12 - 12PR			7.00 - 12 - 12PR			28 x 9 - 15 - 12PR			28 x 9 - 15 - 12PR		
		Tire pressure, Mpa Давление шин, МПа		0.75			0.75			0.75			0.75		
	Tire pressure, Mpa Давление шин, МПа	Model Модель		6.00 - 9 - 10PR			6.00 - 9 - 10PR			6.50 - 10 - 10PR			6.50 - 10 - 10PR		
		Tire pressure, Mpa Давление шин, МПа		0.65			0.65			0.65			0.65		
Fork size, L x W, mm Размер виЛ мм		920 x 120			920 x 120			1070 x 135			1070 x 135				



SERVICE DATA



Item Наименование		Модель погрузчика Truck mode					
		FD15C	FD15CT	FD15CTJ	FD18C	FD18CT	FD18CTJ
Rated capacity, kg		1500			1800		
Truck weight, unloaded, kg Вес погрузчика, не загруженного, кг		2690			2900		
Forklift Overall Dimensions L x W x T, mm Габариты погрузчика, мм		3150 x 1075 x 1995			2680 x 1175 x 2070		
Engine Двигатель		Model Модель		485DPG-1A ISUZU C240PKJ		485DPG-1A ISUZU C240PKJ	
		Rated output / r.p.m. , Kw Номинальная мощность / обороты в минуту, кВт		30KW/2600rpm 34.5KW/2500rpm		30KW/2600rpm 34.5KW/2500rpm	
Tired Шины	Tire pressure, Mpa Давление шин, МПа	Model Модель		6.5 - 10 - 10PR		6.5 - 10 - 10PR	
		Tire pressure, Mpa Давление шин, МПа		0.75		0.75	
	Tire pressure, Mpa Давление шин, МПа	Model Модель		5.0 - 8 - 8PR		5.0 - 8 - 8PR	
		Tire pressure, Mpa Давление шин, МПа		0.65		0.65	
Fork size, L x W, mm Размер вил мм		920 x 100			920 x 100		

Item Наименование		Модель погрузчика Truck mode				
		FD15C	FD15CT	FD15CTJ	FD18C	FD18CT
Refill capacities litre Вместимость тар жидкостей в литрах	Fule tank Топливный бак	35				
	Engine cooling system Система охлаждения двигателя	8				
	Torque convertor Трансформатор крутящего момента	4.2				
	Manual Differential Механический дифференциал	10				
	Powershift differential Автоматический дифференциал	10				
	Hydraulic Гидравлика	35				
	Brake fluid reservoir Бачок тормозной жидкости	0.2				
Battery electrolyte specific gravity corrected to 20°C: Удельная плотность электролита аккумулятора при температуре 20°C:		1.28				



SERVICE DATA



Item Наименование		Модель погрузчика Truck mode						FD40C FD40CT FD40CTJ FD45C FD45CT FD45CTG			FD40X FD45X FD50X		
		FD40C	FD40CT	FD40CTJ	FD45C	FD45CT	FD45CTG	FD40X	FD45X	FD50X			
Refill capacities litre Вместимость тар жидкостей в литрах	Fule tank Топливный бак	70						90					
	Engine cooling system Система охлаждения двигателя	9						9					
	Torque convertor Трансформатор крутящего момента	5.5						12					
	Manual Differential Механический дифференциал	10						-					
	Powershift differential Автоматический дифференциал	12.5											
	Hydraulic Гидравлика	35						90					
	Brake fluid reservoir Бачок тормозной жидкости	0.2						0.2					
Battery electrolyte specific gravity corrected to 20°C: Удельная плотность электролита аккумулятора при температуре 20°C:		1.28						1.28					

Item Наименование		Модель погрузчика Truck mode						FD40C FD40CT FD40CTJ FD45C FD45CT FD45CTG			FD40X FD45X FD50X		
		FD40C	FD40CT	FD40CTJ	FD45C	FD45CT	FD45CTG	FD40X	FD45X	FD50X			
Rated capacity, kg		4000						4000 4500 5000					
Truck weight, unloaded, kg Вес погрузчика, не загруженного, кг		5390						6150 6370 6650					
Forklift Overall Dimensions L x W x T, mm Габариты погрузчика, мм		4040 x 1360 x 2190						4224 x 1480 x 2270					
Engine Двигатель		Model Модель		A490BPG ISUZU 4JG2						R4105G32 1104D-44			
		Rated output / r.p.m. , Kw Номинальная мощность / обороты в минуту, кВт		45KW/2500r/min 44.9KW/2450r/min						59KW/2300r/min 55.9KW/2200r/min			
Tired Шины	Tire pressure, Mpa Давление шин, МПа	Model Модель		250 - 15 - 20PR						300 - 15 - 18PR			
		Tire pressure, Mpa Давление шин, МПа		0.75						0.8			
	Tire pressure, Mpa Давление шин, МПа	Model Модель		7.00 - 12PR						7.00 - 12PR			
		Tire pressure, Mpa Давление шин, МПа		0.65						0.65			
Fork size, L x W, mm Размер вил мм		1070 x 145						1070 x 150					



SERVICE DATA



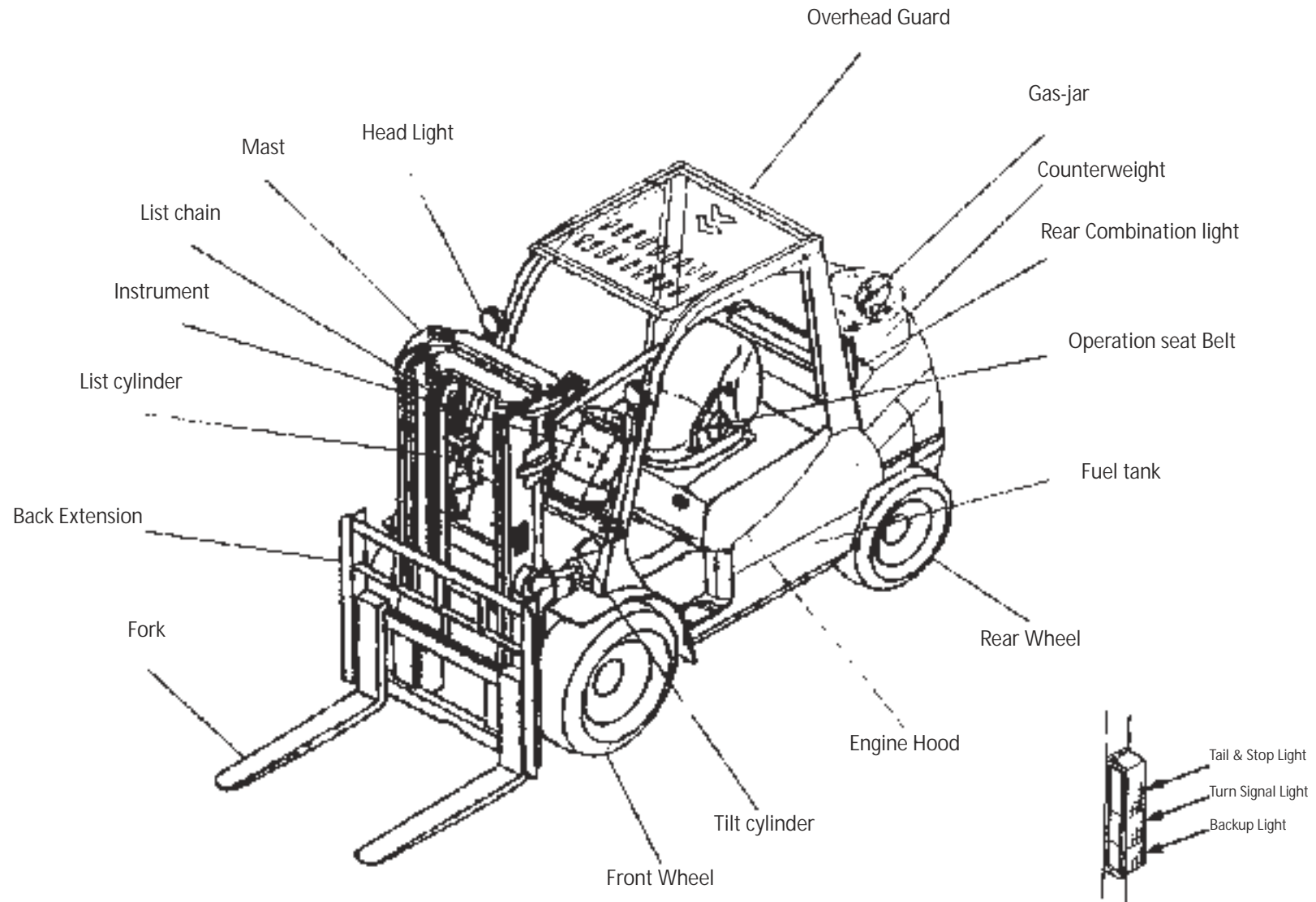
Recommended fuels and oils

Fuel or oil	Recommendation for ambient temperatures °C						
	-30	-20	-10	0	10	20	30
Fuel	-10#			-10#			
Engine oil	CD40			SAE 10W-40			
Gear oil	8						
Hydraulic oil	YA-N46			YA-N32			
Brake fluid	SBF2115						
Grease	3# 3# LIBASE GREASENTE						

Antifreeze solution	Ambient temperature, °C	0	-37	-24	-18	-15	-12	0
	Concentration (%)	(%)	50	40	33	30	25	0

NOTICE: Avoid mixing lubricants/ In some cases, different brands of lubricants are not compatible with each other and deteriorate when mixed. It is best to stick with the same brand at successive service intervals.
For refill capacities and measurements, see Specifications in this section.

GASOLINE FORKLIFT



GASOLINE FORKLIFT



Main specifications of gasoline engine

Specification	Model	H15KA4GGR00	H20KA4GR00	H25KA4GR00	491GP
Format		four-stroke	water cooling	straight arranging	top installed value
Urnamount - diametr x length mm		4 - 75.5 83.0	4 - 87.2 83.0	4 - 92.0 93.0	4 - 91.0 86.0
Total displacement		1.486	1.982	2.472	2.237
Compression ratio		9.0	8.7	8.7	8.8
Rated power / rotate speed kw/rpm		25/2400	32.4/2300	42.7/2400	42/2400
Rated torque / rotate speed N.m/rpm		113/1600	142/1600	179/1600	161/1800
Minimum rotate speed of aerial holding rpm		800	800	800	800
Minimum consumption ratio of fuel g/ps.h		215	210	200	275
length x width x height mm		688.2 561 677	708.2 561 677	708.2 561 677	750 570 625
Running direction		clockwise (seeing from the fan side)			
Cooling system		compulsive circular cooling			
Lubrication system		compulsive lubricating			
Storage battery V/Ah		12/60			
Lubrication l		3.8			4.2
Cooling water l		3.5			7.9

SERVICE DATA



Name	Brand or Code	
	Domestic	Overseas
Fuel		JISK2204/2# (general region)/Jisk2204/3#(cold region) Use normal gasoline with no plumbum. Octane number: 89 JISK2202-1998,NO.2 JISK2204/2# () / JISK2204/3# () : 89. JISK2202-1998, 2
Grease oil	Select refer to engine manual of working condition. Diesel: GB5323-85 : GB5323-85	SEA10W () / SAE30 () SAE10W (winter) / SAE30 (summer)
Hydraulic	N32#/N46#/N32# or N46#	ISOVG30
Torque converter oil	6# torque converter oil 6	SAE10W
Gear oil	85W / 90	SAE85W/90
Brake fluid	DOT3 Compound brake fluid DOT-3	
Grease	3#lithium base grease (drop point 170) #3 (170)	ISOVG30
Antifreezc solution	Water or -35°C Long life Coolant (FD-2) -35° (FD-2)	

NOTICE: Avoid mixing lubricants/ In some cases, different brands of lubricants are not compatible with each other and deteriorate when mixed. It is best to stick with the same brand at successive service intervals.
For refill capacities and measurements, see Specifications in this section.

Maintenance cycle and content of gasoline engine:

1. Daily maintenance:

- Check the oil lever, cooling water and gasoline, add if needed.
- Check whether water, gasoline or air leaked.
- Check whether the engine driver normally by listening after starting it, and check the working of meter.

2. Thousand kilometers-driving:

- Keep the daily maintenance.
- Check the proportion of the storage battery's electrolyte and the voltage.
- Check joints of engine, adjuster, igniter winding, spark plug and all other accessories.
- Check the electrical touch of the adjuster, polish or adjust if need be.
- Clean out the air cleaner.
- Check the consistence of gasoline engine.
- Check and adjust the freedom extent of clutch pedal.

1. Maintenance after every three thousand kilometers-driving

- Keep the maintenance after every one thousand kilometer-driving.
- Clean out the electrodes of spark plug and adjust the gap between them.

- Replace the oil cleaner (the first replacement after toning).
- Replace the air cleaner.

4. Maintenance after every five thousand kilometer-driving:

- Keep the maintenance after every three thousand kilometers-driving.
- Adjust the ignition time.
- Clean out the carburetor, gasoline tank and the gasoline route.
- Replace the engine oil.

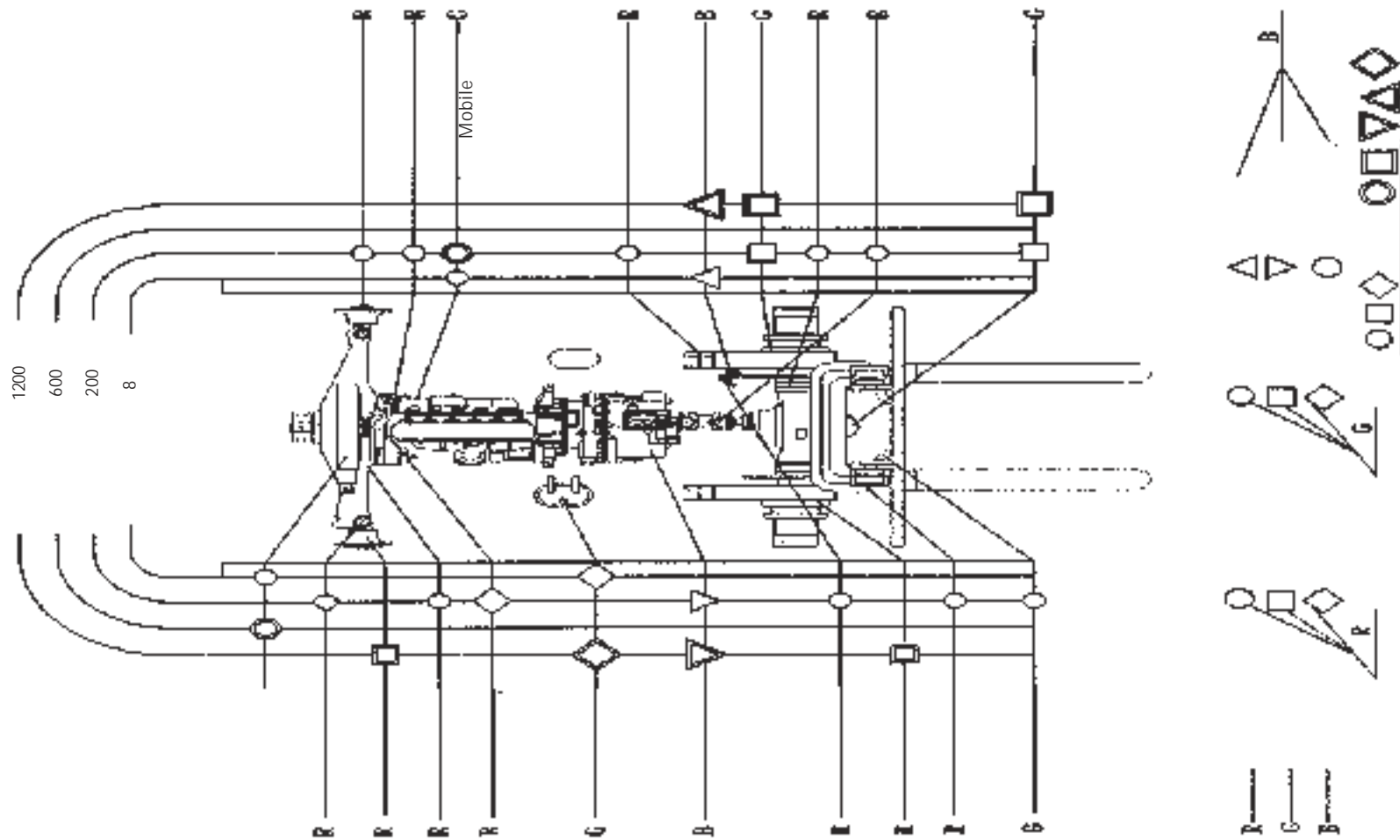
5. Maintenance after every ten thousand kilometers-driving:

- Keep the maintenance after every five thousand kilometers-driving.
- Clean away the accumulated carbon, disconnect the hood if needed.
- Clean away the accumulated dirt in aspirator and releaser.
- Check the fan belt, adjust or replace it if need be.
- Replace the spark plug and high-pressure wires.
- Check the slowdown and quick slowdown.

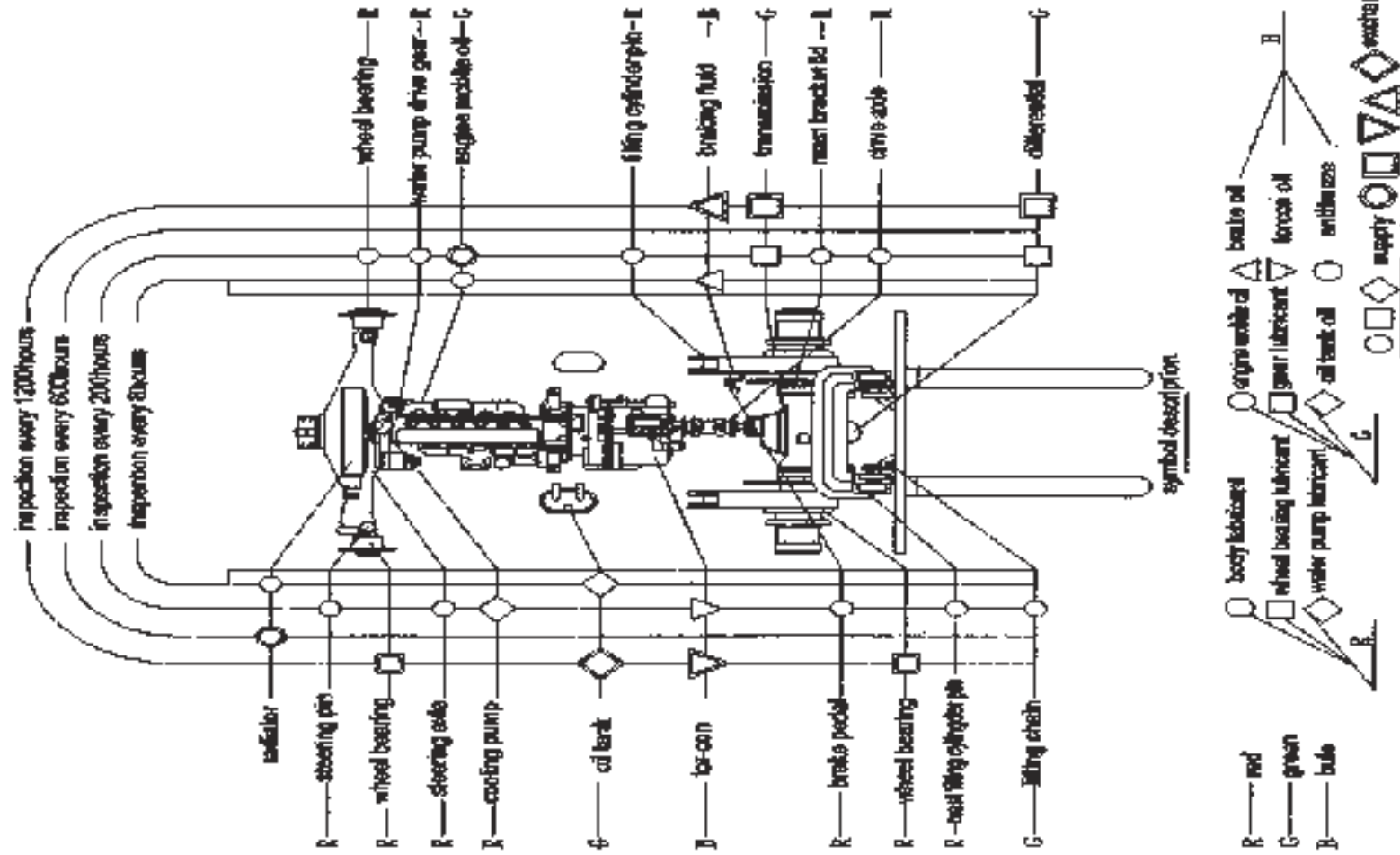
6. Have a cooling water replacement after every twenty thousand kilometers-driving.

7. Have an oil cleaner replacement after every forty thousand kilometers-driving.

SERVICE DATA



SERVICE DATA



1. Fuel control system

The forklift adopt gas-fired equipment, and the fuel control system which is composed of the relief valve, the flow-limiting valve, the one-way and the mechanic sensor of the liquid level is the control system which is made of cuprum out of the liquified gas storage tank.

The main Spec.

Normal pressure	2.0 Mpa
The pressure for relief valve unsealed	$2.50 \pm 0,2$ Mpa
The pressure for flow-limiting valve locked	0.10S
Max capacity	40 ± 2 L
Temperature	- 40°C ~ 160°C

2. Caution

Only authorized or trained operator can charge of change the liquified gas storage tank. The operators with the exposure suit charge the fuel at the appointed place, and carefully carry the liquified gas storage tank which can not be dropt, threw, rolled and dragged. It will use proper haulage equipment when carrying several tanks together. Before Charging, please make sure tum off the engine, brake the forklift and the driver should leave the vehicle. Please don't change to excess. The LPG forklift can not be parked of charged by the source of neat, naked flame and similar ignition source, and say nothing of the entrance of the bried channel, the elevator and similar areas.

GASOLINE FORKLIFT



Check the liquified gas storage tank before charging if it is defective or damaged as below:

- a) there is the dint and nick on the tank.
- b) the valve and the sensor of the liquid level is damaged; the cover of the relief valve is damaged or lost; there is the impurity in the relief valve.
- c) The valve or the joint leakage

Do not operate the forklift before rehab!

Item	Truck model	
	FGL20	FGL25 FGL30
Max. Driving speeds without load	oscillation parameter, m/s^2	16.5 m/s^2
	Yawp parameter, dB	<89 dB (A)
Lifting speeds with load	oscillation parameter, m/s^2	3.69 m/s^2
	Yawp parameter, dB	<89 dB (A)
1. The way to test the noise is up the Euro - criterion 12053:2001 2. The noise figure will be raised up when the tire has been over damaged and the ground is bad		



SERVICE DATA



(Name)	(Data)	Проверка деталей (Inspection part)	(lubrication parts)	Замена деталей (Replacement parts)	(Remark)



SERVICE DATA



(Name)	(Data)	Проверка деталей (Inspection part)	(lubrication parts)	Замена деталей (Replacement parts)	(Remark)

