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Instructions for use and maintenance

Internal combustion counterbalanced forklift

CPC type 1.0t-10t

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Statement

Our company produces the following models of vehicles:

CPD full range of forklifts

It is only in specific areas such as factory areas, tourist attractions, and amusement parks specified in the "Regulations on Safety Supervision of Special Equipment"

Special motor vehicles used within the site (factory).

warn

Do not start, operate or service the machine before reading and understanding the instructions and receiving regular training. Using the machine under unsafe conditions or improper use may cause serious injury or death. Operators and maintenance personnel must read this manual and receive training before operating or maintaining the machine. This manual should be kept with the machine for reference. Operators and personnel who come into contact with the machine should read this manual again and again on a regular basis.

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Introduction

The operator should keep this manual and read it repeatedly.

The contents of this manual include: correct selection, simple maintenance and daily inspection. Before operation, please read this manual carefully to ensure safety through proper driving and maintenance. Due to product improvements, the contents of this manual may differ from the actual product.

·When renting or transferring a vehicle, please bring this first test with you. ·If you have any questions, please contact our sales department. Instructions marked with ÿ! or ÿ are very important for your safety and the safety of others. Please follow these instructions.

ÿ! Danger	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious Seriously injured, you must follow the instructions.
ÿ! Warning	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. Instructions must be followed.
ÿ! Attention	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. Instructions must be followed.
ÿNote	Statements directly or indirectly related to personnel safety and forklift maintenance.

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1. About safety

Safety is your business and responsibility. This chapter mainly introduces the basic safety regulations and warnings for typical forklifts in normal use, but it also applies to vehicles with special specifications and masts and attachments. **1.** Main purpose of forklifts (1) Main purpose of forklifts

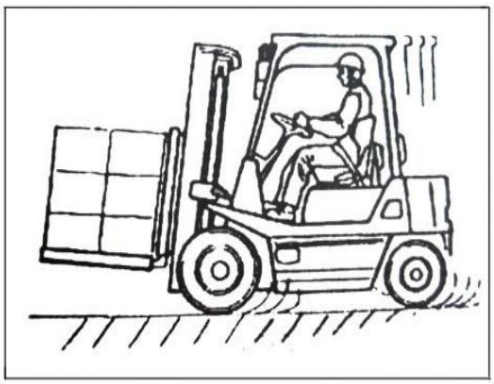
The main purpose of forklifts is to move goods placed on pallets and to stack them at a certain height. In addition, after equipping the forklift with suitable attachments, it can also be used to move and stack goods that are not placed on pallets.

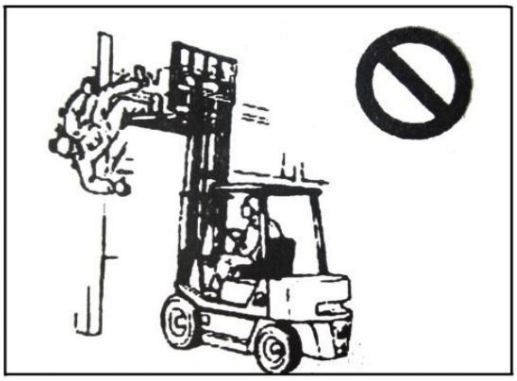
(2) Prohibition of use for purposes other than those intended

The use other than the intended use means driving after carrying people, lifting people very high, or towing other vehicles, etc. The use methods prohibited in this book must not be used and are not allowed.

Examples of use outside the intended use: ÿ

A person stands on the forks and pallet to raise it. ÿ A person stands on the pallet to hold down the cargo. ÿ A wire rope is directly hung on the forks to lift the cargo. ÿ Towing other vehicles. ÿ Using the forks to push cargo or other vehicles. ÿ Using the forks to open and close the doors of other trucks, etc.





2. Forklift use and working environment (1) Ground conditions

The forklift should be used on a flat and solid surface with good ventilation. The performance of the forklift depends on the ground conditions, the operating speed should be adjusted appropriately, and special care should be taken when driving on ramps or rough roads.

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ÿ! Warningÿ

When driving on muddy roads, make sure you can stop in time. ÿ Avoid rocks and tree stumps.

If unavoidable, slow down. Be careful not to damage the vehicle chassis. When driving on icy or snowy roads, use anti-skid chains, avoid sudden acceleration, sudden stops, and sharp turns, and control the driving speed by the accelerator pedal. **ÿ!** Warning After installing anti-skid chains, the driving force of the forklift can be increased, but the side slip resistance is reduced, so special attention should be paid. (2) Climate conditions **ÿ!** Warningÿ In strong winds, try to avoid high lifting of the gantry to prevent cargo from falling.

Cause accidental injury to the driver. (3) Measures to deal with cold and heat a) Oil Use oil that adapts to the ambient temperature. In cold climates, the fuel tank should be filled with fuel frequently. This can minimize the amount of air in the fuel tank and prevent the condensation of moisture from causing the fuel system to rust and cause difficulty in starting. b) Battery ÿ In cold seasons, under normal charging conditions, the freezing point of the electrolyte is about -35 0C. Keep the battery charged in good conditions. The electrolyte will damage the battery shell after solidification. In order to prevent Solidification must be filled to at least 75% of capacity.

The most effective method is to keep the specific gravity at 1.260, but not higher than this value. ÿ In hot seasons, since the water produced by electrolysis is easy to evaporate in hot seasons, please add distilled water at any time. Check once a week and add distilled water. When the ambient temperature is high, the specific gravity of the battery should be reduced to 1.220±0.01. Since the battery has a higher efficiency at high temperatures, no other maintenance is required. **ÿ!** Danger The gas generated by the battery will explode. Do not smoke or use open flames. Do not generate arcs and sparks near the battery. When storing or charging in a closed space, ventilation should be good. The sulfuric acid contained in the battery can cause burns. Do not get sulfuric acid on your eyes, skin and clothes. If you come into contact with sulfuric acid, rinse it with clean water immediately. Go to the hospital if it splashes into your eyes. c) Cooling system The forklift cooling system is equipped with 50% by volume of long-term antifreeze, and the freezing point of this antifreeze is -35 0C. In hot seasons, in order to obtain a good cooling effect, pay extra attention to the water tank and cooling system. It is required to park the vehicle in a cool place. If the cooling fins of the water tank are blocked, overheating will occur. It should be cleaned regularly with compressed air and the water tank should be checked for leaks. Check whether the fan belt is too loose and adjust it to the specified tension. Even if the engine is overheated and the coolant (i.e. water) is boiling, the engine should continue to idle for a while to cool down before shutting off. Because the coolant is mixed with long-lasting coolant,

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Do not add tap water immediately. At this time, you should open the engine cover and let the engine cool down by air. (4) Working environment

When the temperature is between -15 0C and 40 0C, the humidity is between 50% and 70%, and the altitude is ÿ1800m, this forklift can to work normally.

In special working environments, this forklift may not be able to be used with standard specifications.

When using a forklift in an environment with high humidity, please consult our company.

ÿ Harbors and coastal areas with salt turbidity hazards. ÿ Chemical plants where forklifts may be affected by acid or other chemicals. ÿ Environments that may cause explosion hazards due to dust or explosive gases. ÿ Cold, hot areas, or high altitude areas. ÿ Environments that emit a certain amount of harmful substances. Engine-powered forklifts ÿ Do not operate a forklift in adverse weather conditions such as thunderstorms or strong winds.

For example, when thick fog occurs, you should wait until the fog dissipates and visibility is good before operating the forklift. ÿ When using a forklift indoors, exhaust (carbon monoxide) can be dangerous. Therefore, when it is necessary to operate the forklift indoors,

When using the forklift, be sure to open the window to allow for proper ventilation. **3.** Safety issues before use

(1) Obtaining operating qualifications

ÿ! Note ÿ

Only trained and approved operators are allowed to operate the forklift. ÿ The characteristics of the brake, accelerator and hydraulic joystick of each forklift with the same technical parameters may be different. Carefully read this manual and the signs on the vehicle, and familiarize yourself with the various operations before driving the forklift. (2) Wearing when driving a forklift **ÿ!**

Note ÿ Please wear work clothes, labor protection shoes and a safety helmet when driving the vehicle. ÿ For safety, please do not wear loose clothes to avoid being caught and causing unexpected dangers.

(3) It is strictly forbidden to drive after drinking **ÿ! Note**

ÿ! Note

Do not drive a forklift when you are tired, distracted, have used anesthetics or drunk alcohol. (4) Workplace safety **ÿ!** Note ÿ Before starting to operate the forklift, you must first eliminate slippery conditions such as water, oil, sand, ice or snow on the road. Because such a road surface may cause the driver to lose control of the forklift.

ÿ Do not drive the forklift on uneven roads, rutted roads, or roads with sharp protrusions.

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Because any such road surface may damage the forklift or cause the forklift to tip over. The forklift must be driven on a flat road surface to avoid danger.

ÿ If the working environment is too noisy, it will bother the driver and make him tired easily. Pedestrians will also be in danger because they cannot notice the warning sound of the forklift. Therefore, when using a forklift in a noisy environment, the driver must pay extra attention to the surrounding safety. ÿ For safety reasons, the workplace must have sufficient light sources. ÿ When operating on a platform or dock ramp, the forklift is in danger of tipping over. Please use cushions or other Guards to prevent tipping.

(5) Keep the cab clean **ÿ!** Noteÿ The cab should always be kept cleanÿ Do not operate the forklift when your hands are wet or greasyÿ Do not place tools or other metal objects in the cab

(6) Forklift integrity ! Note that the forklift should be equipped with an overhead guard and a shelf guard when leaving the factory.

ÿNote The overhead guard is used to protect objects from falling. Yes, the overhead guard is used to protect against the impact of falling small objects, boxes, etc., but it cannot prevent the impact of falling rated loads. Take pre-protective measures against falling objects. **ÿ!**

Warning

Without the written approval of our company, it is not allowed to modify or add any device to the forklift, otherwise it may affect the rated load or safe operation. Do not install any parts that block the driver's view. Piece.

(7) Regular maintenance

ÿ! Pay attention to daily and regular maintenance.

ÿ! Warning

When the forklift is found to be damaged or faulty, stop operating the forklift and promptly notify the maintenance personnel of the forklift's condition. The forklift cannot be operated before it is thoroughly overhauled.

(8) Avoid fire **ÿ!** Note In order to prevent fire, accidents or other unpredictable situations, set up fire extinguishers and operate them according to the requirements for the use of fire extinguishers.

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(9) Overloading is prohibited !

Be careful

not to overload, comply with the permitted load and load curve of the forklift, and ensure that the center of gravity of the cargo is at the center of the load.

ÿNote:

The permissible load is the maximum load placed at the center of the fork load. (10) Use

an appropriate pallet . ÿ Use a pallet of appropriate

size and

strength to carry the cargo. ÿ Make sure the cargo is fixed to the

pallet and has an

appropriate shape. ÿ Do not carry cargo without a pallet. 4. Safety issues in use and operation

(1) Precautions when starting . ÿ Pull the hand

brake. ÿ Put the shift handle in neutral. ÿ Press

the

clutch pedal or brake pedal. ÿ Adjust the seat

to

facilitate

hand and foot operation.

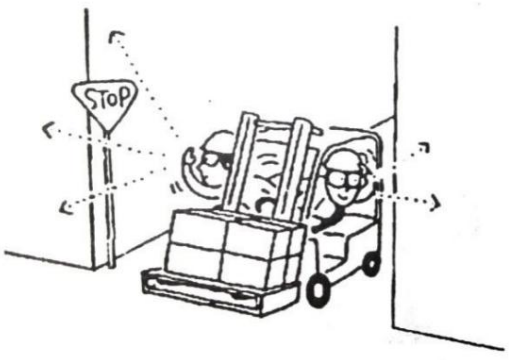
ÿ Make sure there is no one on, off, in front of or behind the forklift.

(2) Safety conditions around the forklift **ÿ!** Noteÿ

When

carrying large cargo and visibility is poor, please drive in reverse or let others

guide you.



ÿ When driving in reverse, face the rear and drive

after confirming that the rear is directly

behind you.

and auxiliary devices such as reversing buzzer.

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ÿ When driving a forklift in a narrow passage, someone should guide it. ÿ The driver should stay at the intersection or other sight lines.

Stop the vehicle in an obstructed area and make sure that there is no one around the forklift before driving. ÿ Make sure that the forklift is at a safe distance from the roadside or the edge of the platform to prevent the forklift from falling. ÿ Unlike cars, forklifts are rear-wheel steering. When approaching a turning point, reduce the driving speed and then turn the steering wheel to turn the rear of the forklift.

(3) Prohibition of brutal driving **ÿ!** Noteÿ Do not turn on the key switch when the accelerator pedal is pressed. ÿ Do not start, brake or turn suddenly. Sudden starting or braking may cause the cargo to fall, and sudden turns may cause the forklift to overturn and cause serious accidents. ÿ Whether fully loaded or unloaded, operate the hydraulic control handle slowly. When the truck is in a high position, if the handle is operated suddenly, there is a risk of cargo falling or the forklift overturning. ÿ Noteÿ Do not run over barriers or obstacles scattered on the road. When driving past other forklifts, lower the Drive at a low speed and honk the horn. ÿ Do not drive on soft surfaces.

ÿ Reduce the driving speed when driving on wet, slippery, uneven or inclined roads. ÿ Ensure a certain gap between the mast and the roof and the exit.

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(4) It is forbidden to drive the forklift with

the forks

raised ! Be careful not to drive the forklift when the forks are raised, otherwise it may cause an unstable situation and may cause the forklift to tip over.

(5) It is forbidden to work with forks !

Be careful

not to use the fork tips to push or lift the goods. When using the fork tips to lift the goods, it may cause the forklift or Vibration of cargo.

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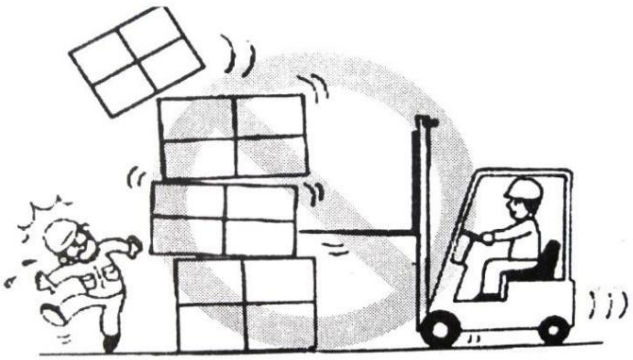
(6) Pushing and pulling operations are

prohibited !

Be careful not to use a forklift to push or pull the goods, otherwise the goods may be damaged or fall.



(7) Driving on a slope **ÿ!** Noteÿ When

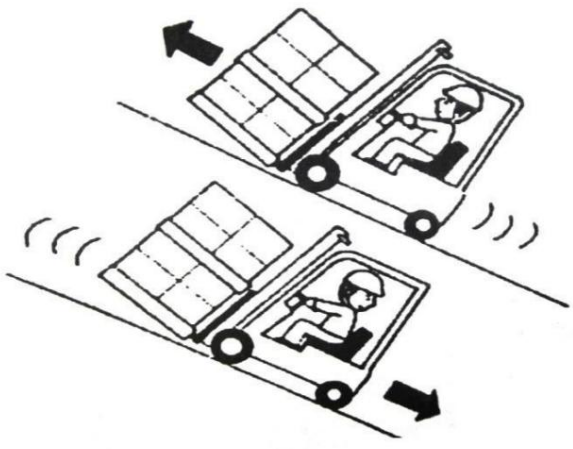
driving a

forklift on a slope, follow the following rules: Loaded: Drive forward when going uphill and

reverse when going downhill. Unloaded: Drive reverse when going uphill and forward when

going downhill.ÿ When driving downhill, brake and drive carefully to ensure that the forks

do not touch the ground.ÿ Do not turn or load and unload on a slope, otherwise the forklift may tip over.



(8) Stacking with uneven loads is

prohibited !

Note: When stacking with a forklift, ensure that the goods are placed safely and securely, and the forks must be inserted accurately into the pallet.

At the same time, keep the center of gravity of the cargo consistent with the center of the forklift.

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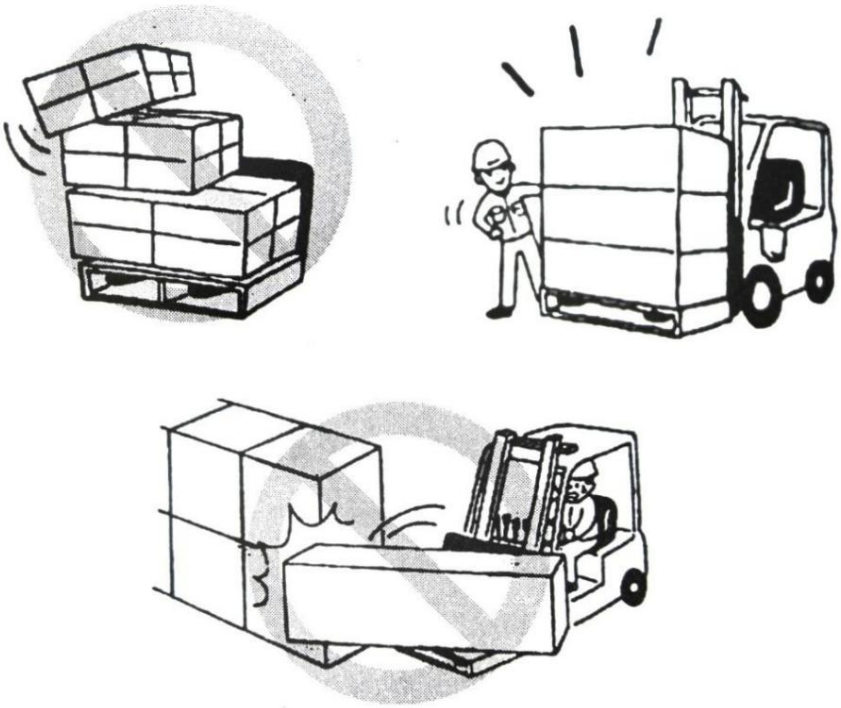
ÿ When carrying off-center loads, the goods may easily fall and the forklift may tip over.



(9) **It** is forbidden to have people on or under the forks of a forklift .

Warning: It is

forbidden to carry people on the forks or pallets. No one

other than the driver is allowed to ride on the forklift. Do not use

people to replace the counterweight. It is forbidden to stand

on the cargo or pass under the forks.

(10) Do not enter the mast mechanism **ÿ!** Warning Do not

allow any part

of your body to enter the mast mechanism or between the mast and the vehicle body. **ÿ!** Note Please place

your body

under the overhead guard and do not allow any part of your body to extend outside the vehicle body.

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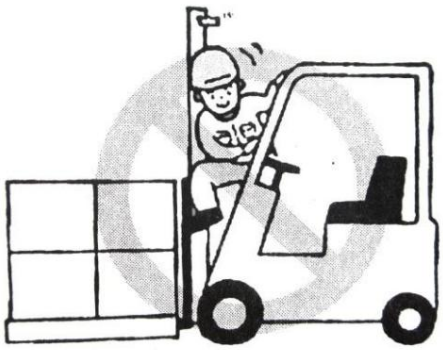
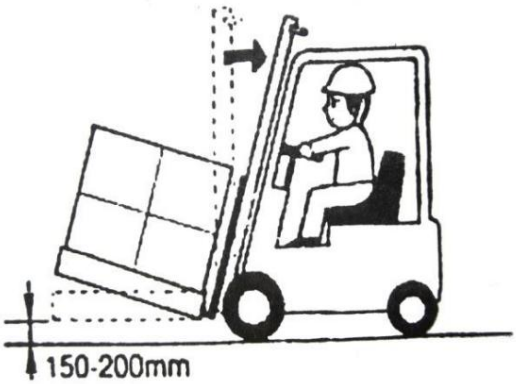


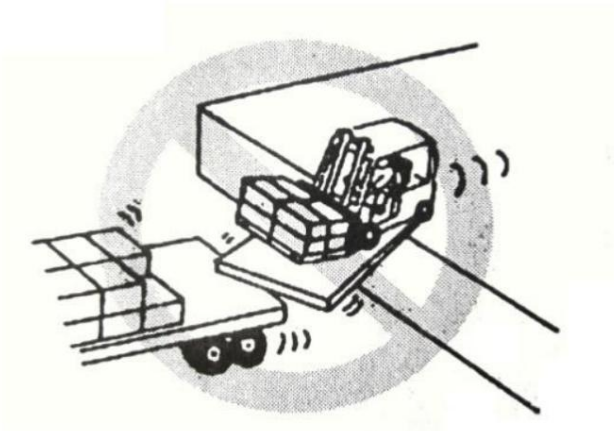
(11) When the mast is tilted forward, the forks are prohibited from rising !

Note: When the mast is tilted forward, do not lift cargo or start the forklift.

The mast should be tilted back to stabilize the cargo. When driving, the distance between the fork and the ground should be kept at 150~200mm. ÿ The mast cannot be tilted forward when the forklift is loading cargo. ÿ When lifting cargo, the vehicle should be parked first. ÿ Do not load or unload cargo when the forklift is in a tilted state.



(12) Loading operation **ÿ!** Noteÿ Forklifts can only be used for loading and unloading operations on the trailer's fixed cargo platform.ÿ Before starting the operation, secure the bridge plate and check its strength.



(13) Getting on and off a forklift **ÿ!** Noteÿ Do not jump on or off a forklift.ÿ When getting on and off a forklift, hold the handles with your hands and step on the pedals.ÿ When getting on and off a forklift, do not hold the steering wheel or joystick. (14) Do not carry goods that are too high **ÿ!**

Noteÿ The goods should be against the shelf. The height of the goods cannot exceed the shelf, otherwise it will easily cause the goods to fall.

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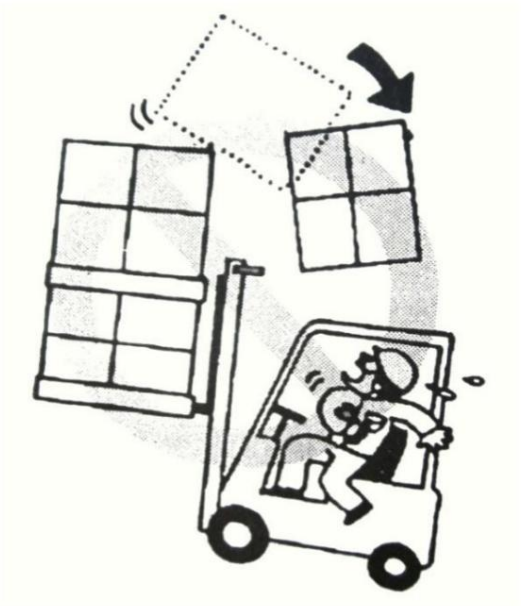
The operator may slip and the driver may be injured by the cargo. ÿ To prevent the overlapping cargo from collapsing, use ropes to secure it before moving. (15) Chain anti-loosening

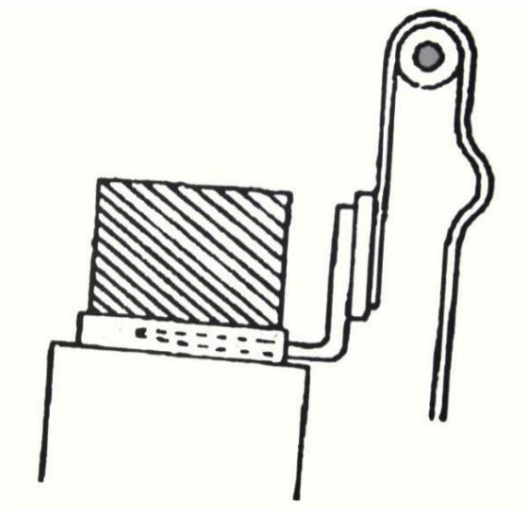
ÿ! Note: When the chain is loose, do not pull the fork out of the pallet, otherwise it will cause the cargo to fall or the forklift to tip over. ÿNote ÿ When the chain is loose, pull the lifting handle upward a little to raise the fork to correct the looseness of the chain.

The forks are then released from the pallet.

ÿ If the chain wears during use, the chain pitch change exceeds 2% of the standard value

The chain must be replaced to ensure safe loading.





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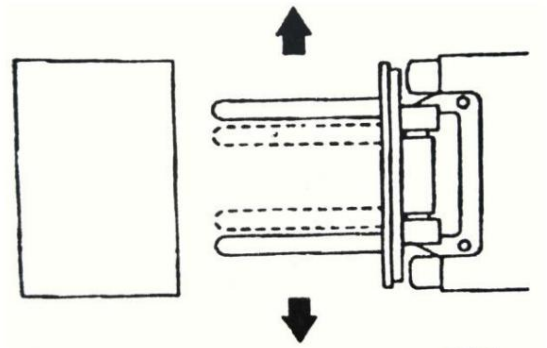
(16) Fork adjustment



ÿ! Noteÿ

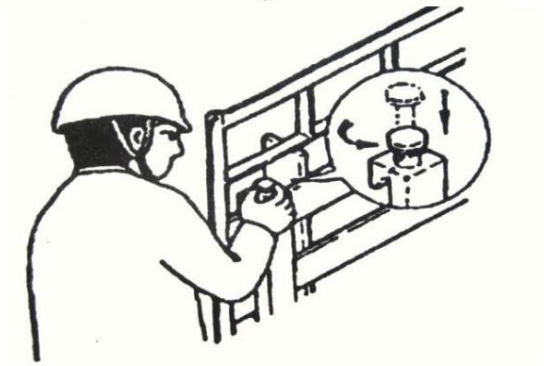
According to the size of the loading pallet,

Adjust the distance between the forks to the most appropriate position. Be careful not to press your hands when

adjusting. ÿ After adjusting the distance between the forks, use the fork fixing pin to fix the forks. If not fixed, the forks are easy to move during driving,

and the goods may fall or be crushed. (17)

Carrying extra-wide goods **ÿ!**



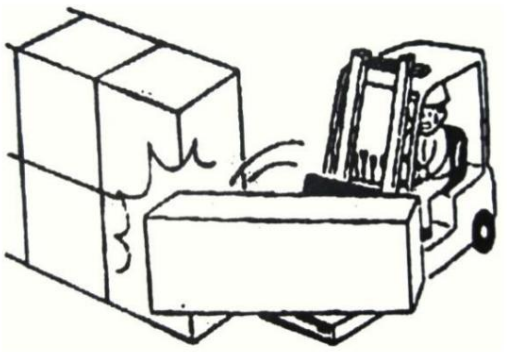
Attention ÿ When carrying extra-long and

extra-wide

goods, drive with special care. ÿ Turn slowly when turning and lifting goods.

While the goods are moving, pay attention to the safety of the surroundings.

ÿ When handling extra-wide cargo, the forklift must be equipped with an appropriate widened fork frame and extended forks. The load capacity of the widened fork frame is within the specified load center. Its load capacity is the same as that of the standard fork frame, but the center of the cargo should coincide with the center of the forklift as much as possible, and the offset from the center of the forklift should be controlled within 100mm. Its load capacity is the same as that of the standard fork frame.



Once the load center moves forward, the

load must

be lowered. (18) It is prohibited to unload cargo by hand **ÿ!** Be careful not to unload cargo by hand, as

there is

a risk of cargo falling off the road. (19) Parking of faulty vehiclesÿNoteÿ If the forklift is parked on the side of the road, a

warning or "fault" mark should be made on the vehicle, and the key should be removed. ÿ When the fork cannot be lowered due to a fault, a more obvious mark should

be made here to prevent collision with other vehicles and pedestrians. (20) After work, leave the forklift before

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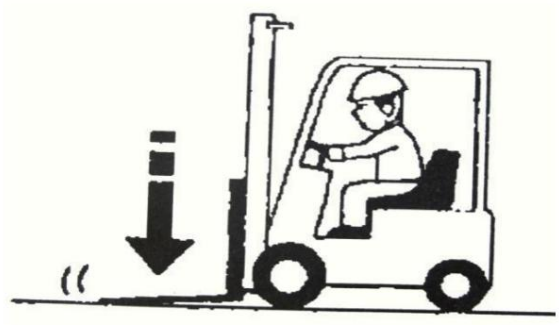
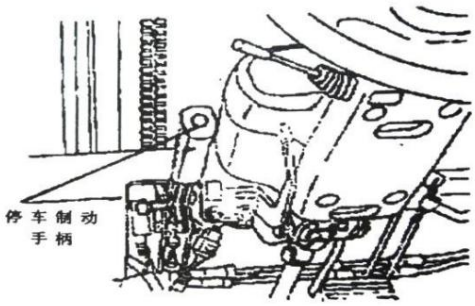
Things to note

ÿNoteÿ

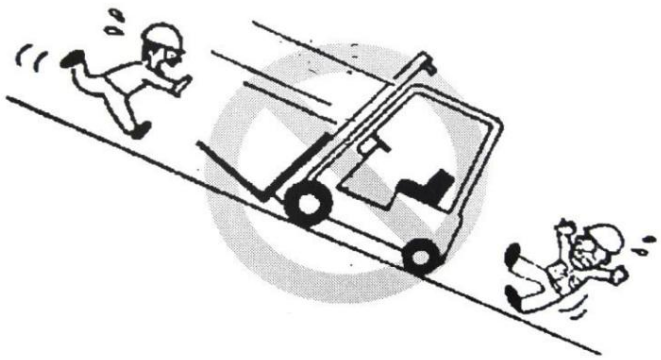
The mast tilts forward slightly and the forks are lowered naturally, otherwise there is a risk of tripping and injury.ÿ The direction handle is in the neutral position.ÿ Pull up the parking brake handle.ÿ Turn off the key switch and remove the key.





(21) Parking **ÿ!** Noteÿ

Please park at the designated place.ÿ The parking place must be strong enough and not hinder traffic safety.ÿ Do not park near or near flammable materials.ÿ Do not park on a slope because the forklift will move unpredictably. If you have to park on a slope, in addition to performing the normal parking procedure, you must also add brake blocks to the tires to prevent the forklift from moving.



(22) Noise

The maximum external noise value of a forklift shall not exceed 89dB(A), and the measurement method shall be carried out in accordance with JB/T3300 standard.

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The sound pressure is used for measurement at the driver's position and the sound power level is used for measurement in the surrounding area. **ÿ!** Note that if the working road surface is rough or uneven, or the tire is deformed greatly, the noise value will increase. **5.** Safety issues in maintenance and servicing

(1) Maintenance and servicing location **ÿ!** Noteÿ It should be a designated location and should provide the service organization with sufficient equipment and safety protection facilities. ÿ The location should be on a level ground. ÿ The location should be well ventilated. ÿ The location should be equipped with a fire extinguisher. (2) Precautions before maintenance and servicing **ÿ!** Noteÿ Smoking is prohibited. ÿ Wear various protective equipment (protective helmets, shoes, eyes, gloves and boots) and appropriate clothing. ÿ Wipe off the leaking oil in time. ÿ When adding lubricating oil, first use a brush or cloth to clean off the original dirty oil or dust on the joint, a Add lubricant. ÿ Except in some cases, turn off the key switch and unplug the battery. ÿ When performing maintenance on the forklift, drop the forks to the ground. ÿ Use compressed air to clean the electrical components. (3) Maintenance and care precautions **ÿ!** Note

ÿ Be careful not to put your feet under the forks and not to be tripped by the forks. ÿ When the forks are raised, use blocks or other items to pad under the inner mast to prevent the forks and mast from falling suddenly. ÿ Be careful to open and close the front bottom plate and battery cover, while squeezing your fingers. ÿ When the work cannot be completed in one time, make a mark so that you can continue the work later. ÿ Because the hydraulic pressure is very high, do not perform maintenance before reducing the internal pressure of the oil circuit. work. ÿ In case of high voltage electric shock, seek medical treatment immediately. ÿ Do not use the mast as a ladder. ÿ Do not put your hands, feet and body between the frame and mast assembly. ÿ When performing maintenance on a hot engine, please note that the transmission or hydraulic system may be at a high temperature, so the vehicle should be cooled before maintenance to prevent accidental burns. (4) Check and replace tires **ÿ!** Noteÿ The removal and installation of tires should be carried out by the service organization specified by our company.ÿ High-pressure air should be carried by professionals.ÿ When using compressed air, goggles should be worn.ÿ When removing tires, do not loosen the bolts and nuts at the hub connection, because there is high-pressure gas in the tire, and loose bolts, nuts and hubs will cause very dangerous situations. (5) Use a jack

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ÿ! Warning

When using the jack to lift the forklift, do not get under the forklift. **ÿ!** Note ÿ Before using

the jack to

lift the forklift, make sure that there is no one and no load on the forklift. ÿ When the wheels of the forklift are off the

ground, stop using the jack and place blocks under the forklift to prevent the forklift from falling. ÿ Before using the jack to lift the forklift, take

measures to prevent the

forklift from sliding. (6) Waste discharge (electrolysis waste liquid, oil, etc.) requirements **ÿ!** Note The

waste liquid on the forklift should be recycled according to the

regulations

of the local government and shall not be discharged at will. **6.** Safety issues when using batteries (1) No

smoking **ÿ!** Note Batteries can produce hydrogen,

which will produce sparks

when short-

circuited. When

A lit cigarette near a battery can cause an explosion or fire. (2) Prevent electric shock !

Note that batteries have

high voltage.

Do not touch them during installation or maintenance.

Touching the battery's conductive body can cause serious burns. (3) Connect

correctly ! Note that when

charging the

battery, the positive and negative poles cannot be connected in reverse, otherwise it will cause high temperature, burning, smoke or explosion.

(4) Do not place metal objects on the battery ! Be careful not to cause a

short circuit

due to the positive and negative poles touching each other due to bolts or tools, which may cause injury and explosion.

(5) Do not over discharge **ÿ!** Be

careful not

to use the forklift until it cannot move, otherwise the battery life will be shortened. When the battery capacity alarm indicator flashes continuously,

the battery needs to be charged. (6) Keep it clean **ÿ!** Noteÿ Keep the battery surface

clean. ÿ Do not use dry cloth

or chemical

fiber cloth to clean the battery surface, and do

not cover it with polyethylene film.

Battery. ÿ

Static electricity can cause explosion. ÿ

Clean the uncovered top of the battery with a damp cloth. (7) Wear

protective clothing **ÿ!** Note When

maintaining

the battery, wear goggles, rubber gloves and rubber boots.

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(8) Battery electrolyte is harmful **ÿ!** Attentionÿ

Battery

electrolyte is made of diluted sulfuric acid. Be careful when handling.ÿ When the electrolyte adheres

to the eyes, skin and clothes, it will cause vision loss and burns. (8) Emergency treatment methodÿNoteWhen an

accident occurs, follow the

following methods to contact a doctor immediately.ÿ Splash on the skin: Wash with

water for 10-15 minutes.ÿ Splash in the eyes: Wash with water for

10-15 minutes.ÿ In case of large-scale contamination: Neutralize

the battery electrolyte with baking soda or wash with water.ÿ Ingestion: Drink plenty of water and milk.ÿ

Splash on clothes: Take off clothes immediately.

(9) Close the battery cover **ÿ!** Attentionÿ Close the

battery cover to prevent leakage of

battery

electrolyte.ÿ Be careful not to add too much electrolyte when adding electrolyte.

Electrolyte overflow will cause leakage. (10) Cleaning **ÿ!** Noteÿ Do not clean the forklift while the battery is

on the forklift, otherwise

the battery

may be damaged. ÿ Tighten the battery cover to prevent water from entering. (11) Seawater **ÿ!** Note that

the battery cannot be wetted by rain or seawater, which

may damage the

battery or

cause a fire.

(12) Abnormal battery phenomena **ÿ!** Note When

the battery

has the following conditions, please contact our sales department: ÿ The battery smells. ÿ

The electrolyte becomes

dirty. ÿ The electrolyte

temperature becomes high. ÿ The

electrolyte decreases too quickly. (14)

Disassembly is prohibited **ÿ!**

Noteÿ Do

not drain the electrolyte from the battery.

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ÿ Do not disassemble the battery. ÿ Do not

repair the battery. (15) Storage **ÿ!** Note:

When the battery is not used

for a long

time, it should be stored in a well-ventilated place where fire is not likely to occur.

(16) Disposal of discarded batteries **ÿ!** Please contact our

sales

department when disposing of discarded batteries. **7.** Safety issues in the installation, commissioning

and use of accessories (1) Installation of accessories To ensure that the accessories

will not slide left and right along the

fork frame of the forklift during use, causing safety problems, a

The installation positioning must be reasonable, reliable and safe.

After the attachments are hung, the upper hook block should be embedded in the gap of the crossbeam so that the offset between the center line of the attachment and the center of the fork frame is less than 50mm, otherwise it will affect the lateral stability of the forklift; for the accessories with rotating functions (paper roll clamp, soft bag clamp, multi-purpose pipe wall clamp, barrel clamp), stop blocks should be welded on both sides of the connection between the upper crossbeam and the attachment of the fork frame after hanging to prevent the left and right side sliding during the operation of the attachment; when installing the attachment with lower hook positioning, the gap between the lower hook and the lower crossbeam of the fork frame should be appropriately adjusted. All kinds of small and medium-tonnage attachments in the world are

installed in the form of hooks. To ensure that there is no problem in the installation and matching of the attachments and forklifts, the attachments and matching forklifts must be selected in strict accordance with the requirements of the international standard ISO2328 «Installation dimensions of forklift hook-type forks and fork frames». (2) Use of attachments a) Operators of forklift attachments should have

practical experience in forklift driving

and operation. They should also be familiar with the relevant instructions on the nameplate of the forklift attachments and read the relevant instruction manuals (especially the user guides and installation instructions of professional attachment companies). They should fully understand the basic performance and operation methods of the forklift attachments, especially the allowable load, lifting height, cargo size and applicable range of the attachments.

b) When operating a forklift attachment with multiple functions (such as side shifting, clamping or rotating functions), you should not

Perform two actions at the same time, and one action must be completed before the other action can be performed.

c) Forklift accessories are strictly prohibited from being overloaded. Offset loading is not recommended at high cargo positions. For high cargo position offset loading operations (especially offset flat clamps controlled by combination valves, i.e. flat clamps with side shift cylinders and distance adjustment cylinders), they can only be operated for a short time, and the offset load is strictly controlled within the range of 100mm on both sides. d) Forklift

accessories are strictly prohibited from driving at high cargo positions. e)

Forklift accessories are within the shadow area directly below and within 1.5 meters outward (except for the driver's seat protected by the overhead guard). It is strictly forbidden to stand there to avoid accidents.

f) Forklift attachments are strictly prohibited from emergency braking during driving. They are required to drive slowly when carrying a load.

Drive.

g) Any changes to the safety and performance of forklift attachments are strictly prohibited without the technical approval of our company. **ÿ!** Note that the "attachment load capacity" specified

in the samples

of various attachment manufacturers is only an evaluation value of the force of the attachment itself, not the load capacity of the entire forklift system. The load capacity should be taken

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The smallest of the rated load capacity of the forklift, the load capacity of the attachments themselves, and the comprehensive load capacity of the vehicle. As the actual load capacity on the label after the forklift and attachments are matched, as long as the mass of the goods being transported does not exceed this allowable value, it can meet various working conditions. Generally speaking, the comprehensive load capacity of the vehicle is the smallest of the three calculated values.

8. Safety issues in the use of liquefied gas forklifts (1) Precautions when refueling a) There are two ways to refuel a liquefied gas forklift: one is to change the bottle, and the other is to directly fill the cylinder on the forklift. ÿ Refueling or changing the bottle must be done outdoors in a well-ventilated, safe place that meets local fire standards. ÿ The forklift must be parked and turned off, and the operator must leave the driver's seat. ÿ Be careful when handling the cylinder. After unloading from the forklift, it must not be bumped, thrown or rolled on the ground. ÿ When refueling, it must be carried out by trained and experienced personnel. ÿ The refueling personnel must monitor the entire process and must not leave the site.

b) Operators should develop a habit of checking the cylinders every time they change or refill the cylinders. ÿ Check whether there are serious dents, scratches or rust on the cylinder body. ÿ Check whether all accessories on the cylinder have obvious damage and whether there is any leakage. ÿ Check whether the safety relief valve on the cylinder is blocked by foreign objects. ÿ Check whether the cylinder is within the validity period of the annual inspection. If it is expired, apply for annual inspection to the local relevant departments as soon as possible. If the cylinder has a service life of 15 years and is not approved by the relevant departments, it should be scrapped. **ÿ!** Note that if any of the above conditions occur, the cylinder shall not be used or refilled, and should be replaced and repaired. (2) The quality and composition of liquefied gas fuel The purity of liquefied gas has a direct impact on the operation and use of the forklift. If the liquefied gas contains impurities, foreign matter, moisture or excessive tar components, it will cause blockage of various pipes and accessories in the liquefied gas system, and then cause malfunctions. At the least, the engine will not run smoothly and the motor output will be insufficient. At the worst, it may even cause the engine to stall and start difficultly. ÿ It is necessary to use high-purity liquefied gas fuel with low impurities, moisture and tar content, especially propylene content should not exceed 5%. ÿ If the user's local source is not good, it is necessary to carry out regular maintenance to remove foreign matter and tar accumulated in the liquefied gas system, replace the filter mesh, etc. to ensure smooth operation of the engine. The worse the fuel quality, the shorter the maintenance cycle. ÿ In cold areas or when the temperature drops below zero, since the natural evaporation rate of liquefied gas is slow, it is advisable to add more propane in the liquefied gas to facilitate volatilization. (3) Handling methods for accidents and emergencies a) Generally, liquefied gas is added with odorants, so it is easy to detect leakage. If you smell an odor: ÿ Immediately drive the forklift to a well-ventilated place outdoors, turn off the engine, and make sure there is no fireworks nearby. ÿ Tighten the manual switch on the cylinder to turn it off. ÿ Check each pipe joint and liquefied gas conversion device step by step to find the leaking part and ask a qualified or experienced technician to repair it.

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b) If an accident occurs ÿ Stop the

truck immediately and turn off the engine. ÿ Tighten and close

the manual switch on the cylinder. ÿ Make sure there is no fire or smoke

near the forklift. Use a fan to help disperse the leak if necessary. ÿ Ask a qualified or experienced technician to thoroughly

check the problem and make repairs. a) If a fire occurs: ÿ If possible, tighten and close the manual switch on the cylinder. ÿ If

there is a water source nearby, pour

water on the cylinder to keep it cool. ÿ Immediately notify the fire department to put out the fire. ÿ If the

cylinder also catches fire, evacuate nearby personnel immediately. (4) Precautions during use ÿ Do not operate

the forklift in places where there is a fire source. ÿ All electrical

connectors of the forklift must be secure to prevent short circuits or other faults. ÿ The fuel

indicator on the instrument frame of the single-fuel

LPG forklift is not used. Please refer to the liquid level gauge on the

cylinder. ÿ Do not add flammable liquids to the fuel tank of a single-fuel LPG forklift. However, after clearing the tank, non-

flammable liquids can be used.

Inject burning antifreeze material, and then cover the fuel tank opening. ÿ Use high-

purity, high-quality and high-quality liquefied petroleum gas fuel as much as possible. ÿ Still follow the original gasoline

engine manufacturer's recommendations and perform regular maintenance, including the ignition system, cooling system, intake and exhaust system,

engine body and other mechanical equipment, and regularly replace engine oil, spark plugs and air filters.

ÿ The liquefied gas system should be maintained regularly. ÿ If the

liquefied gas system fails, report it to the original modification factory as soon as possible, and the designated repair shop will be responsible for the repair.

9. The signs are affixed to the

vehicle. The

signs are used to explain the use of the vehicle and the precautions. This is for your sake as well as the sake of the vehicle. If the signs fall off, please re-attach them immediately. (1) Safety signs

ÿ! Warning

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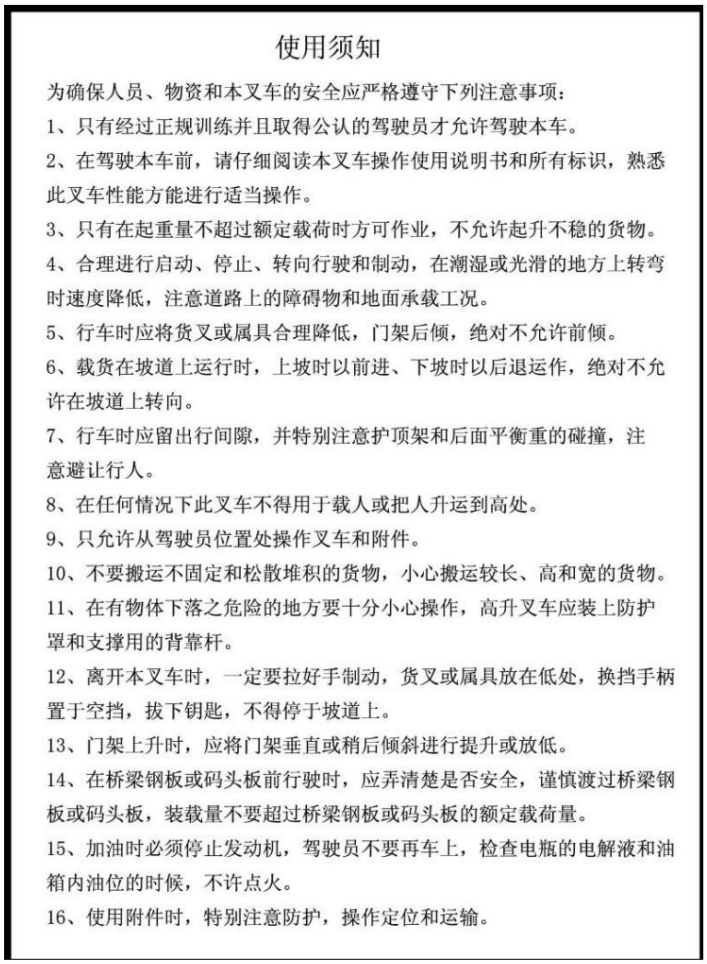
(2) Instructions for use label **ÿ!**

Caution



使用须知

为确保人员、物资和本叉车的安全应严格遵守下列注意事项：

1、只有经过正规训练并且取得公认的驾驶员才允许驾驶本车。

2、在驾驶本车前，请仔细阅读本叉车操作使用说明书和所有标识，熟悉此叉车性能方能进行适当操作。

3、只有在起重量不超过额定载荷时方可作业，不允许起升不稳的货物。

4、合理进行启动、停止、转向行驶和制动，在潮湿或光滑的地方上转弯时速度降低，注意道路上的障碍物和地面承载工况。

5、行车时应将货叉或属具合理降低，门架后倾，绝对不允许前倾。

6、载货在坡道上运行时，上坡时以前进、下坡时以后退运作，绝对不允许在坡道上转向。

7、行车时应留出行间隙，并特别注意护顶架和后面平衡重的碰撞，注意避让行人。

8、在任何情况下此叉车不得用于载人或把人升运到高处。

9、只允许从驾驶员位置处操作叉车和附件。

10、不要搬运不固定和松散堆积的货物，小心搬运较长、高和宽的货物。

11、在有物体下落之危险的地方要十分小心操作，高升叉车应装上防护罩和支撑用的背靠杆。

12、离开本叉车时，一定要拉好手制动，货叉或属具放在低处，换挡手柄置于空挡，拔下钥匙，不得停于坡道上。

13、门架上升时，应将门架垂直或稍后倾斜进行提升或放低。

14、在桥梁钢板或码头板前行驶时，应弄清楚是否安全，谨慎渡过桥梁钢板或码头板，装载量不要超过桥梁钢板或码头板的额定载荷量。

15、加油时必须停止发动机，驾驶员不要再车上，检查电瓶的电解液和油箱内油位的时候，不许点火。

16、使用附件时，特别注意防护，操作定位和运输。

(3) Forklift nameplate

YULI 宇力 | 山东雷腾电动科技有限公司

产品名称			
型号		配置代号	
产品编号		制造日期	
特种设备代码			
额定起重量	kg	发动机功率	kw
标准载荷中心距	mm	自重	kg
蓄电池额定电压	V		

	起升高度	载荷中心距	起重量
最大起重量	mm	mm	kg
最大起升高度	mm	mm	kg

本车仅限在工厂厂区、旅游景区、游乐场所使用

山东省青州市益山工业园齐王路南侧 客服电话：400-629-7808

www.yulichache.com 许可证编号:TS2510A57-2022

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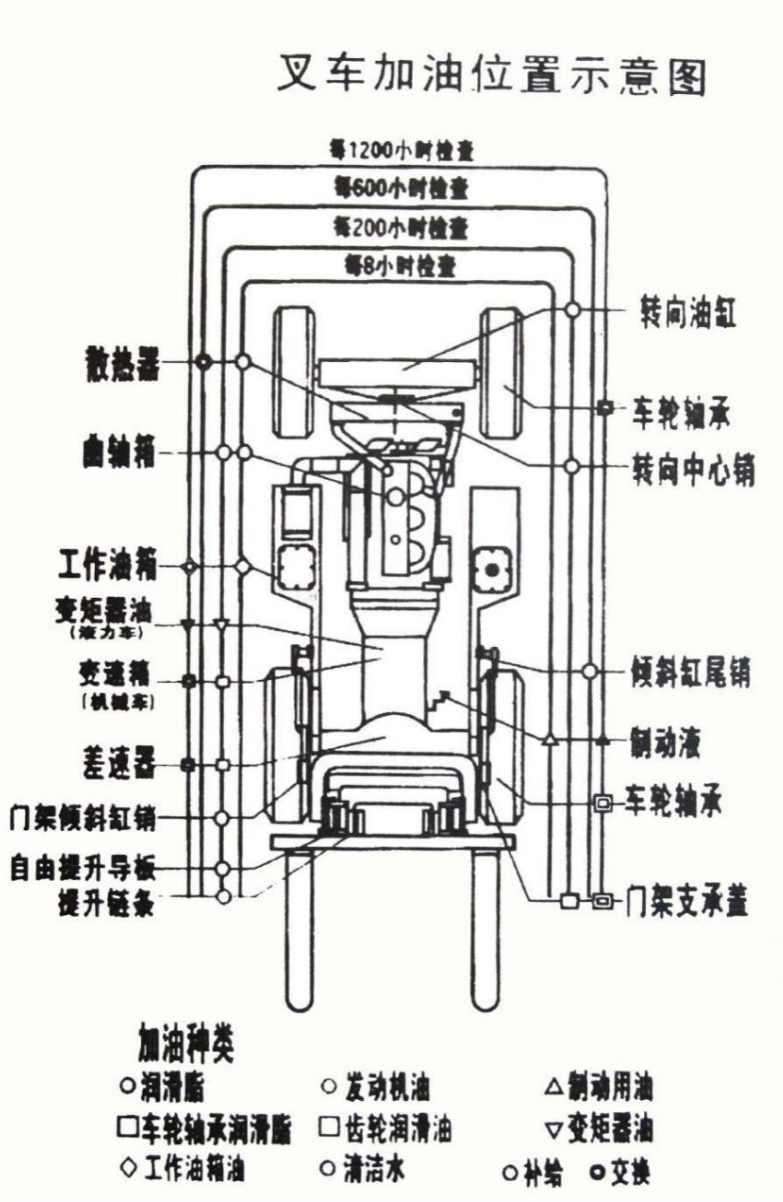
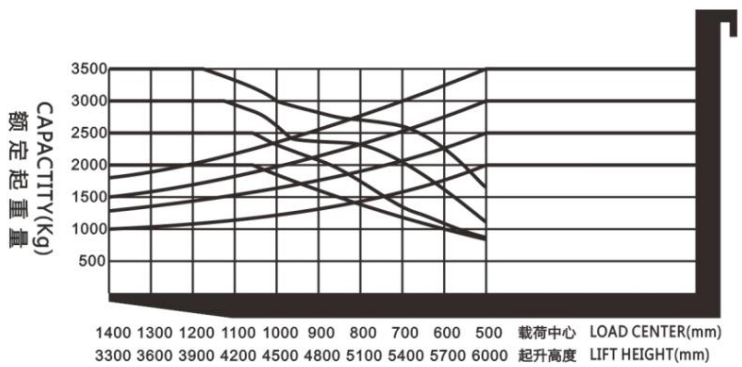
(4) Lubrication system icon plate



(5) Load curve chart (demonstration)



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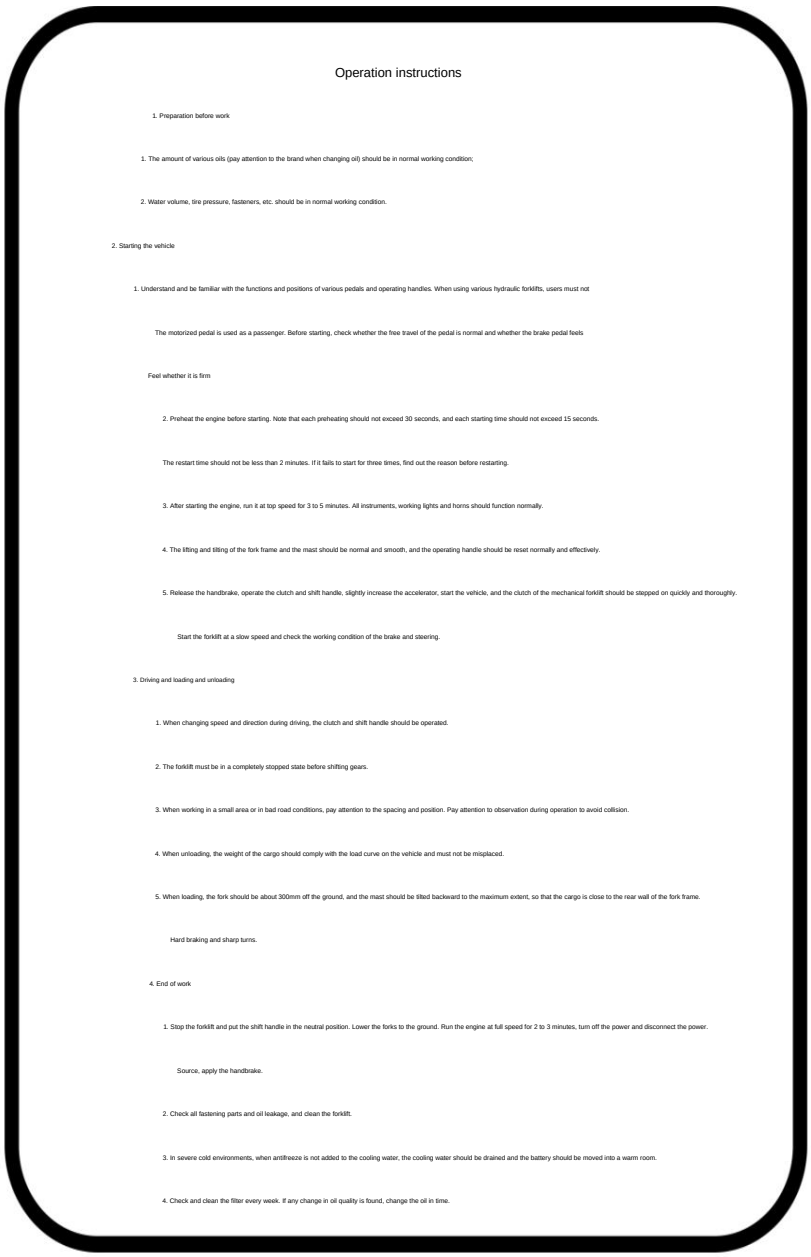
(6) Check the label before starting !



Operation instructions

1. Preparation before work

1. The amount of various oils (pay attention to the brand when changing oil) should be in normal working condition;

2. Water volume, tire pressure, fasteners, etc. should be in normal working condition.

2. Starting the vehicle

1. Understand and be familiar with the functions and positions of various pedals and operating handles. When using various hydraulic forklifts, users must not

The motorized pedal is used as a passenger. Before starting, check whether the free travel of the pedal is normal and whether the brake pedal feels

Feel whether it is firm

2. Preheat the engine before starting. Note that each preheating should not exceed 30 seconds, and each starting time should not exceed 15 seconds.

The restart time should not be less than 2 minutes. If it fails to start for three times, find out the reason before restarting.

3. After starting the engine, run it at top speed for 3 to 5 minutes. All instruments, working lights and horns should function normally.

4. The lifting and tilting of the fork frame and the mast should be normal and smooth, and the operating handle should be reset normally and effectively.

5. Release the handbrake, operate the clutch and shift handle, slightly increase the accelerator, start the vehicle, and the clutch of the mechanical forklift should be stepped on quickly and thoroughly.

Start the forklift at a slow speed and check the working condition of the brake and steering.

3. Driving and loading and unloading

1. When changing speed and direction during driving, the clutch and shift handle should be operated.

2. The forklift must be in a completely stopped state before shifting gears.

3. When working in a small area or in bad road conditions, pay attention to the spacing and position. Pay attention to observation during operation to avoid collision.

4. When unloading, the weight of the cargo should comply with the load curve on the vehicle and must not be misplaced.

5. When loading, the fork should be about 300mm off the ground, and the mast should be tilted backward to the maximum extent, so that the cargo is close to the rear wall of the fork frame.

Hard braking and sharp turns.

4. End of work

1. Stop the forklift and put the shift handle in the neutral position. Lower the forks to the ground. Run the engine at full speed for 2 to 3 minutes, turn off the power and disconnect the power.

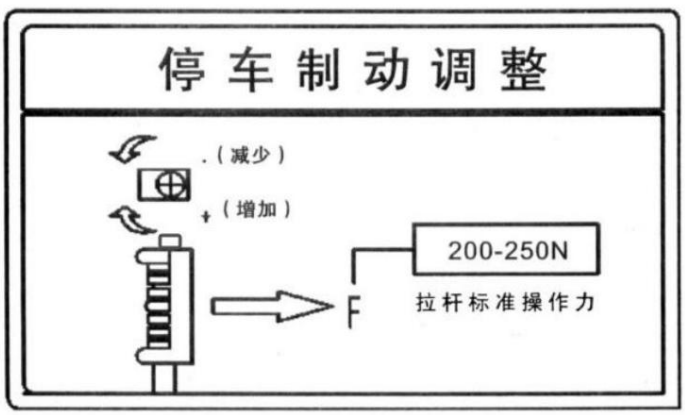
Source, apply the handbrake.

2. Check all fastening parts and oil leakage, and clean the forklift.

3. In severe cold environments, when antifreeze is not added to the cooling water, the cooling water should be drained and the battery should be moved into a warm room.

4. Check and clean the filter every week. If any change in oil quality is found, change the oil in time.

(7) Parking brake adjustment plate



ÿ! Attention

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(8) Filling and refueling label

ÿNote

(9) Tire safety label (pneumatic tire) **ÿ!** Warning

(10) Lifting sign **ÿ!** Caution

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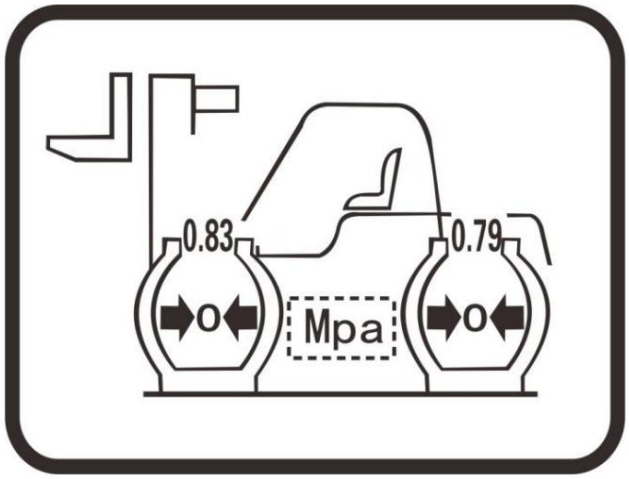
(11) Do not enter the space behind the door frame. Warning

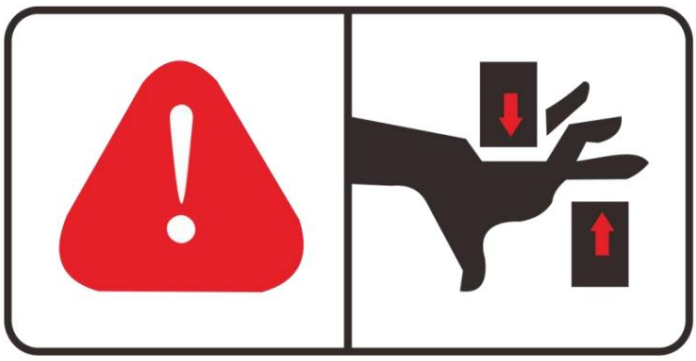
sign **ÿ!**

(12) Tire pressure label (pneumatic tire) (example)



(13) Pay attention to the hand injury

sign **ÿ!** Warning



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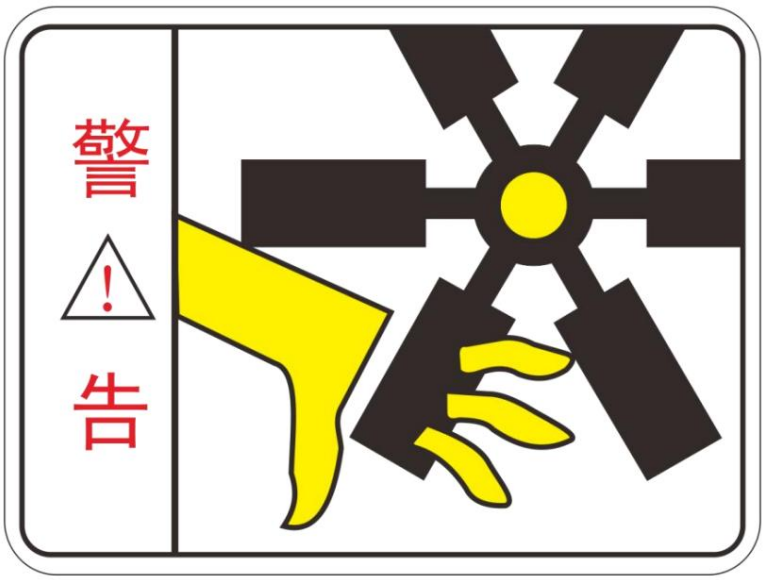
(14) Fuel filling label ÿ Note

(15) Add antifreeze label ÿNote

(16) Fan safety label **ÿ!**

Warning



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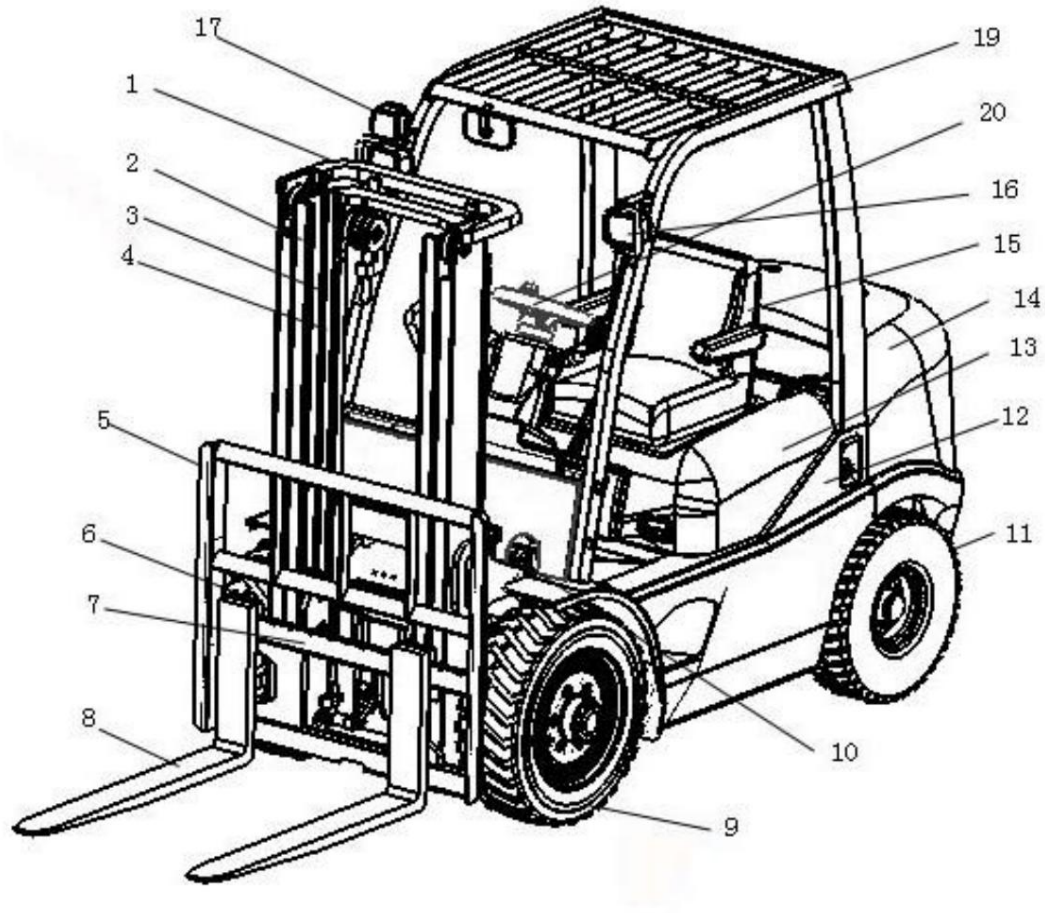
2. Operating device and usage



1. External mast 2. Inner door frame

3. Lifting chain 5. 4. Lifting cylinder

Shelf guard 7. 6. Fork positioning pin

Fork frame 9. 8. Forks

Drive axle 11. 10. Tilt cylinder

Steering wheel 13. 12. Fuel tank cap

Internal combustion 14. Counterweight

engine hood 15. 16. Headlights

Driver seat 17. Front 18.Rear combination lights

combination lamp 19. Overhead guard 20. Steering Wheel

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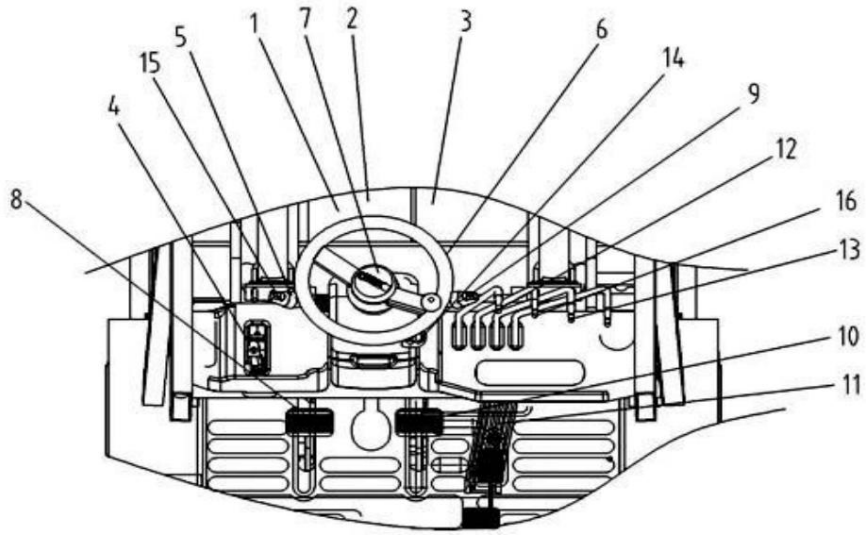

1. Hour meter 2. Water temperature gauge

3. Fuel gauge 4. Parking brake handle

5. Forward-reverse handle 6. Steering wheel

7. Horn button 8. Pedal not moved

9. Light switch 10. Brake pedal

11. Accelerator pedal 12. Tilt handle

13. Lift handle 14. Preheat start switch

15 Turn signal handle

16.Measurement and movement handle

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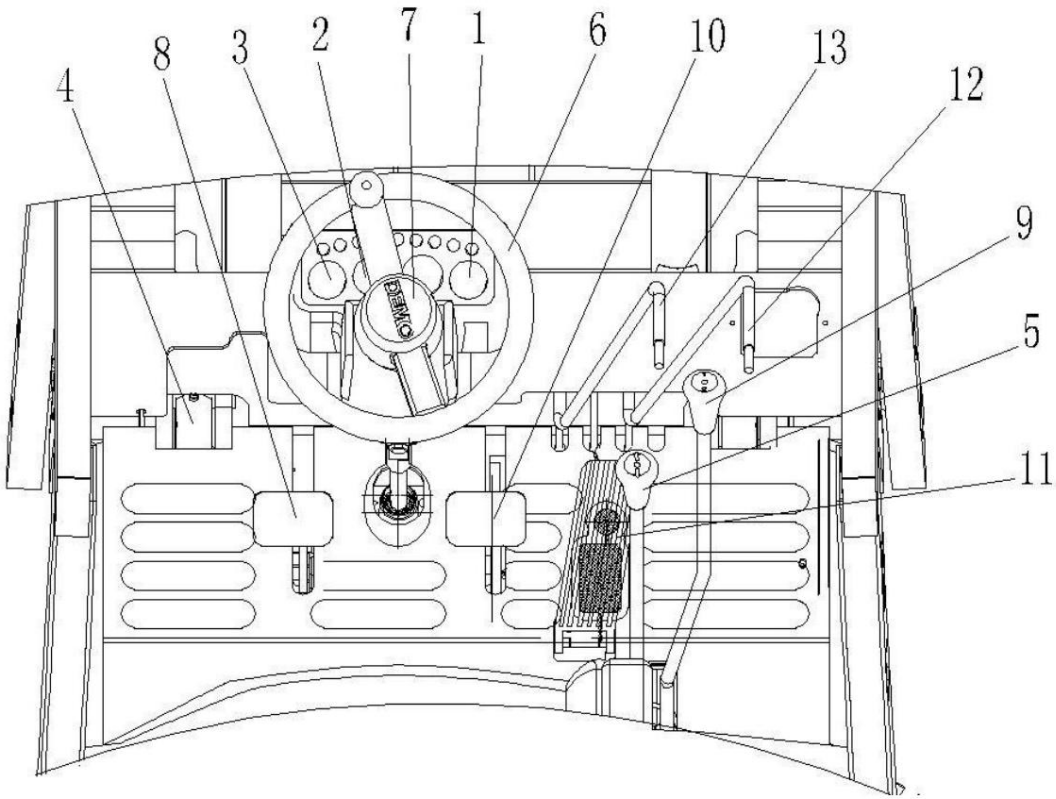
Hydraulic transmission forklift



1. Hour meter 3. 2. Water temperature gauge

Fuel gauge 5. 4. Parking brake handle

Forward-reverse handle 7. Horn 6. Steering wheel

button 9. Shift handle 8. Clutch pedal

11. Accelerator pedal 10. Brake pedal

13. Tilt handle 12. Lifting handle

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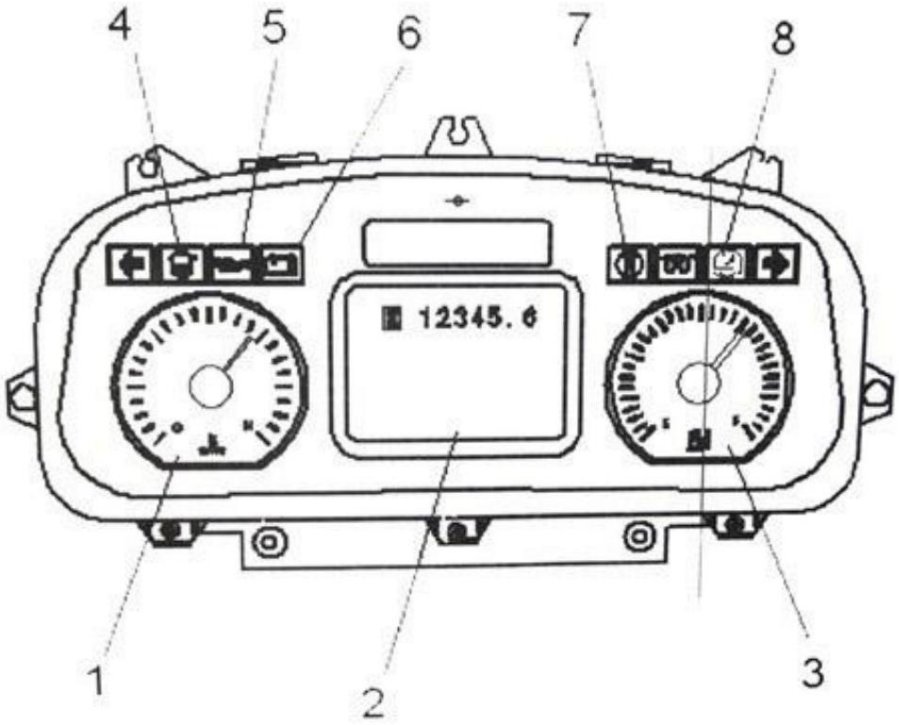
Mechanical transmission forklift

1. LCD instrument



1. Water temperature gauge 2. Hour meter 3. Fuel gauge 4. Oil-water separator indicator 5. Oil pressure indicator 6. Charging indicator 7. Neutral indicator 8. Air filter indicator

1) Water temperature gauge: indicates the temperature of the engine coolant. 2) Hour meter: accumulated engine working hours. 3) Fuel gauge: indicates the amount of fuel stored in the tank. 4) Oil-water separator signal indication: before starting the engine, turn the start switch clockwise to the first gear (power-on gear). At this time, the water precipitation signal indicator light will light up. After the engine starts, it will automatically shut down. If the engine is in the working state and the oil pressure indicator light is on, it means that the engine oil pressure is too low and the lubrication is not good. You should stop the car for inspection. 5) Engine oil pressure signal: before starting the engine, turn the start switch clockwise to the first gear (power-on gear). At this time, the oil pressure indicator light will light up. After the engine starts, it will automatically shut down. If the engine is in the working state and the oil pressure indicator light is on, it means that the engine oil pressure is too low and the lubrication is not good. You should stop the car for inspection. No charging signal indication: before starting the engine, turn the start switch clockwise to the first gear (power-on gear). 6) The charging indicator light is on at this time, and will automatically go out after the engine is started. If the charging indicator light is on while the engine is in operation, it means that there is a fault in the charging circuit and the vehicle will not charge. The vehicle should be stopped for inspection.

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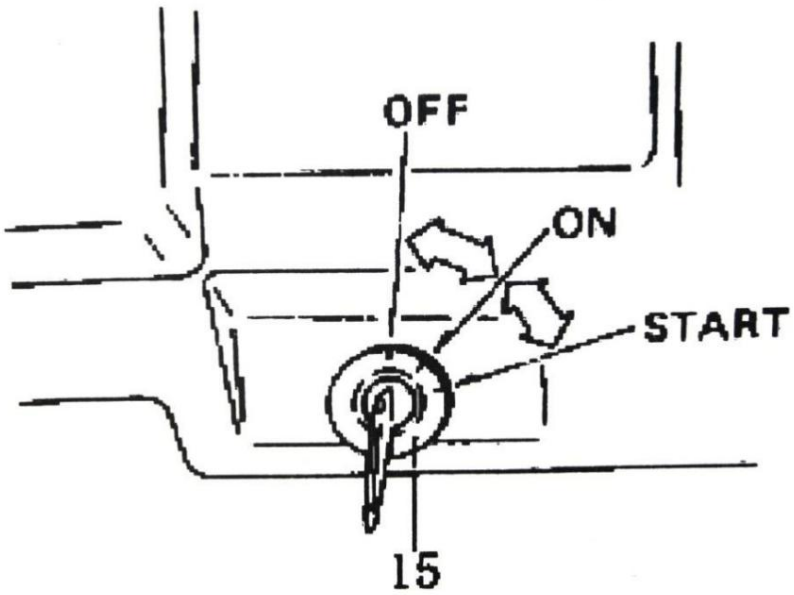
2. Switch part



(1) Preheat start switch 15

OFF

This is the key-inserted or key-out position in which both petrol and diesel engines stop running.

When the start switch is in the "ON" position, the circuit is closed.

Bit.

When

the START key is turned to the "START" position, the starter motor engages.

ÿ! Note ÿ When the engine is turned off,

do not

leave the start switch in the "ON" position, which may cause battery leakage .

electricity.

ÿ When the engine is running, do not turn the start switch to the "START" position, as this may damage the starter motor. ÿ Do not

engage the engine for more than 15 seconds at a time, and wait for about 20 seconds before starting again.

ÿ2ÿ

Light switch 9 The light

switch can be pulled out to the second position.

Machine Translated by Google

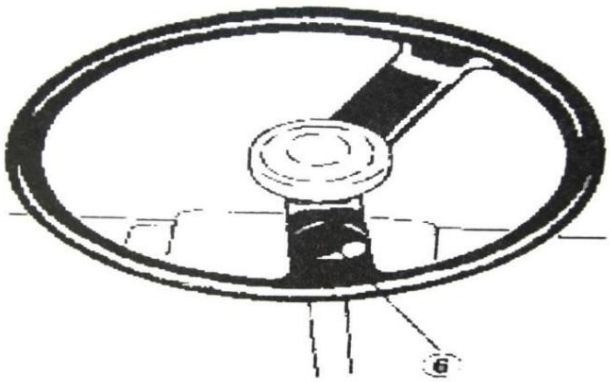
lamp / files	0ÿOFFÿ	1st gear	2nd gear
Width lights	OFF	ON	ON
Headlights	OFF	ON	ON

ÿ! Attention

The above lights are turned on and off by the light switch and are independent of the position of the start switch.

3. Control section

(1) Steering wheel 6



The steering wheel is operated in the usual way, that is, when the steering wheel is turned to the right, the forklift moves to the right. When the steering wheel is turned to the left, the forklift turns left. The steering wheel is installed at the rear of the forklift, which makes The rear of the forklift can swing outward when turning. With a little practice, this type of steering is easy to master. .

ÿ! Warning

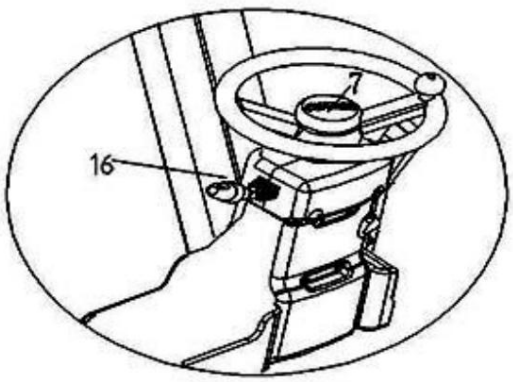
The forklift is powered by the engine and has a hydraulic steering device, so steering is difficult when the engine is turned off. To use hydraulic steering again, you must restart Start the engine without delay.

(2) Horn button 7

Press the rubber cover in the center of the steering wheel to make a buzzer sound Even when the start switch is off, the horn Can also make sounds.

(3) Turn signal handle 16

Use this handle to indicate the turning direction of the forklift. When the handle is in the turning position, the turn signal light flashes.



R	Right turn signal
N	Median
L	Left turn signal

ÿ! Attention

The turn signal handle does not automatically return to the neutral position like ordinary vehicles and must be reset manually.

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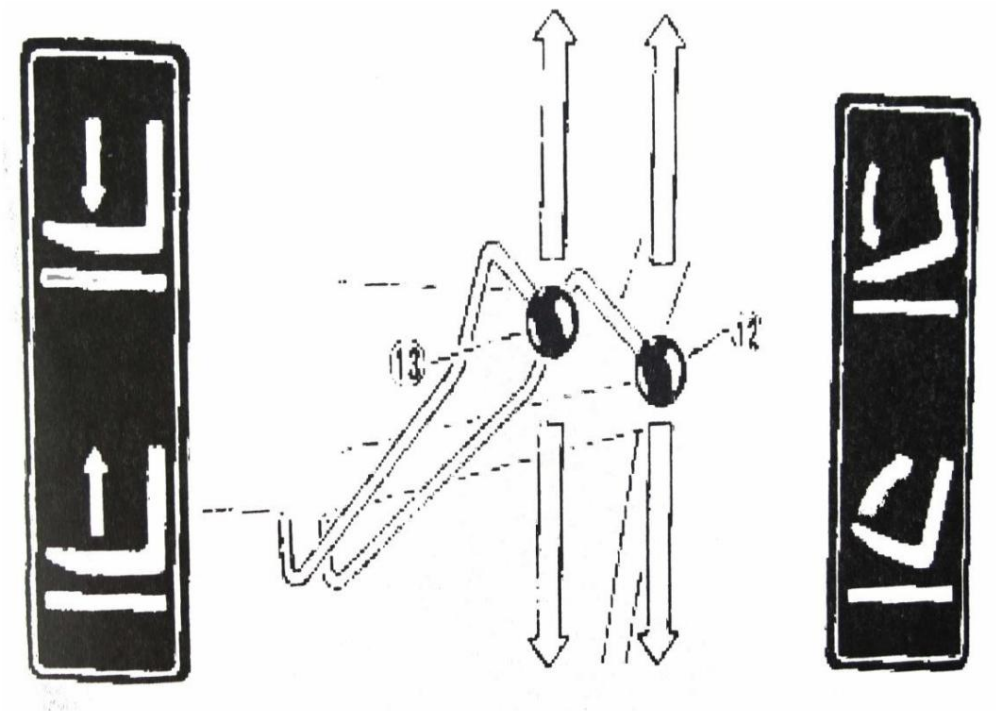
(4) Lifting handle 13



Pulling this handle backward or pushing it forward can raise or lower the fork. The lifting speed is controlled by the tilt angle of the handle and the force of the accelerator pedal. The lowering speed can be controlled by the tilt angle of the handle. The larger the angle, the faster the speed. The engine speed or the accelerator pedal has nothing to do with

the lowering speed of the fork.

(5) Tilt handle 12 The mast can be tilted by operating this tilt handle. Pulling this handle backward will tilt the mast backward, and pushing this handle forward will tilt the mast forward. The tilting speed can be controlled by the tilt angle of the handle and the force of the accelerator pedal. The larger the angle, the faster the speed.

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ÿ! Attention

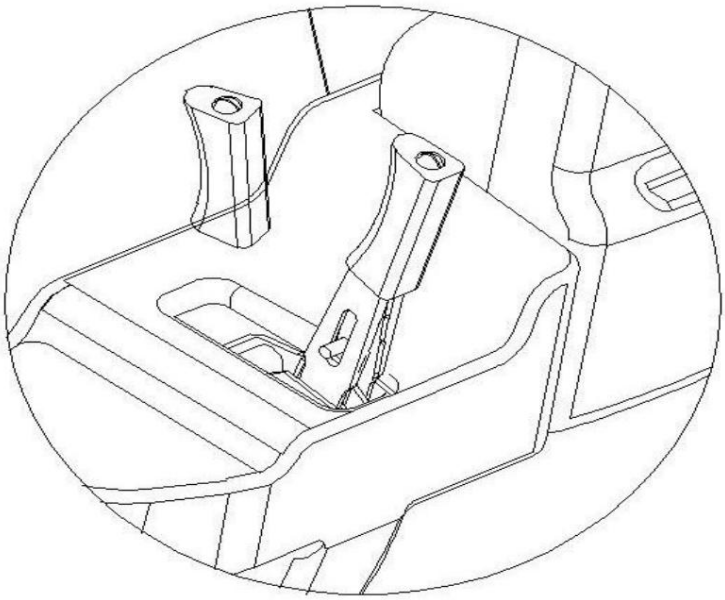
When the engine is turned off, even if the handle is pushed forward, the tilt locking device installed in the multi-way valve makes the mast

It does not lean forward in the self-locking state.

(6) Parking brake handle

The parking brake is used to disengage the two front brakes by pulling this hand. Push this hand forward to disengage the parking brake !

Warning: If you do not park on a steep slope, you must use the wheel wedges.



Motion Time feat On the wheel, To Move, can Pattern. tell Already in When Pad the car

(7) Shift handle

Mechanical transmission forklift

Forward-reverse handle

F	go ahead
N	Neutral
R	Back

Speed Shifter

1	Low speed
N	Neutral
2	high speed

The transmission control is a baseplate fixed device, and has two speeds for forward and reverse.

Fully depress the clutch pedal. Fully brake before changing the direction of travel. When moving the handle to reverse, the reverse light

Bright.

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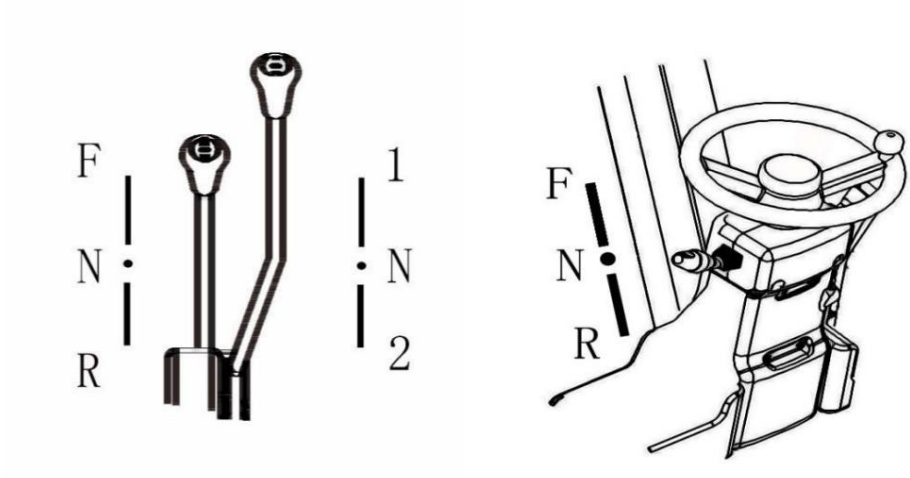


Hydraulic transmission forklift

Forward-backward handle 5

F	go ahead
N	Neutral
R	Back

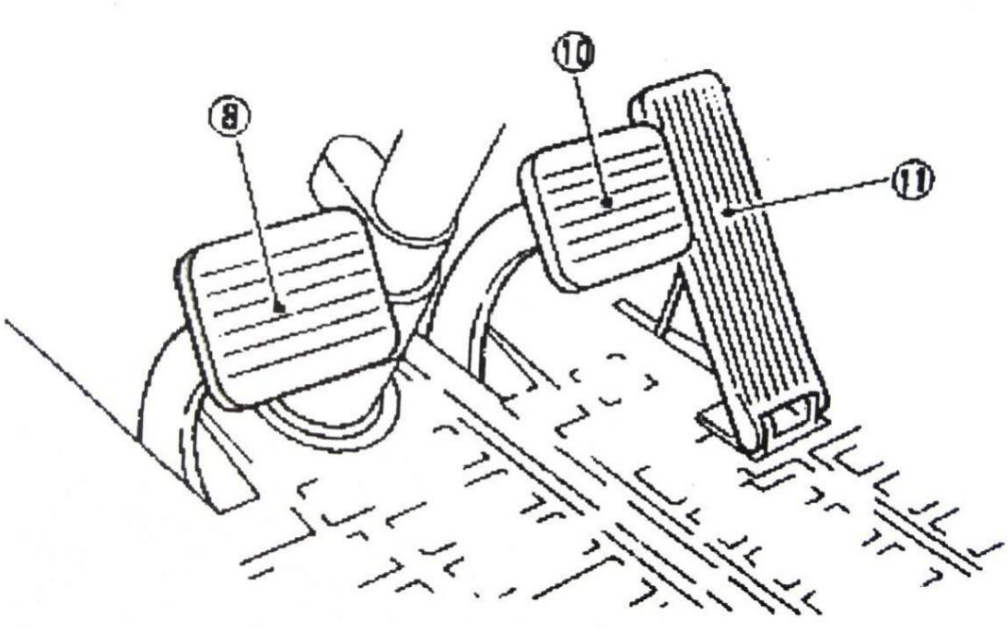
The transmission control is a column-fixed device, and has one speed for forward and reverse.

Be sure to stop the car completely, and the reversing lights will come on when you move the handle to reverse.

ÿ! Attention

If a neutral switch is installed, do not forget to move the handle to the neutral position before starting the engine.

(8) Foot control



Machine Translated by Google

See the figure above: the clutch pedal or brake pedal (left), the brake pedal (center) and the accelerator pedal (right). Mechanical Transmission Forklift Clutch Pedal 8 The purpose of the clutch is to allow the operator to engage or disengage the engine and transmission. When the clutch pedal is depressed, the engine and transmission are disengaged, and when the clutch pedal is released, power is transferred from the engine to the transmission through the clutch.

ÿ! Note that it is not allowed to operate the forklift in a semi-clutch state. When the inching pedal is pressed, the oil pressure of the hydraulic clutch decreases accordingly (the pointer of the oil pressure gauge moves to the left), allowing the operator to perform inching operation. When operating the lifting system at high speed, this pedal can be used to slowly move the vehicle.

When the pedal is fully depressed, it also acts as a brake pedal. **ÿ!** Danger When driving downhill or starting on a slope, do not use the inching pedal, but the brake pedal. If you use the inching pedal when driving downhill, the engine will not have any braking effect and the vehicle will move downward by inertia. Therefore, the braking effect of the vehicle is very poor. If you use the inching pedal when starting on a slope, the vehicle will slide downward by inertia, which is very dangerous. Accelerator pedal 11 Pressing the accelerator pedal increases the engine speed. Releasing this pedal will cause the engine to idle. Brake pedal 10 Pressing the brake pedal slows down or stops the vehicle. At the same time, the brake lights come on. **4.** Vehicle body (1) Seat A seat suitable for the operator is installed in the vehicle. **ÿ!** Note: If a seat with a seat belt is installed, please be sure to fasten the seat belt. In case of rollover, the driver should hold the steering wheel with his hands and lean his body to the other side. Jumping out of the vehicle is not allowed. (2) Seat adjustment handle

By adjusting the seat adjustment handle, the seat position can be adjusted to suit the operator's physique, the impact and vibration of the vehicle are absorbed, and all hand and foot controls can be easily accessed. Move the adjustment handle to the right and the seat will be unlocked. Adjust the seat before working and make sure the seat is securely locked.

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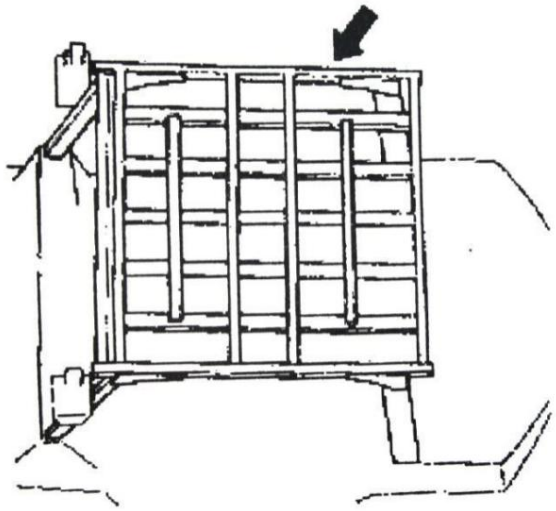
(3) Overhead guard



ÿ! Warning

The overhead guard is an important part to prevent the upper objects from falling and protect the operator's safety. If it is loosely installed, used after being removed, or modified, it is very dangerous for the user and may cause serious accidents. (4) Shelf Guard

ÿ! Caution

It is an important safety component that prevents the goods loaded on the fork from sliding toward the operator when the shelf is blocked. Using or modifying the engine after disassembly is extremely dangerous. (5)

Internal combustion engine hood

The engine hood can be fully opened for maintenance and service. To open the engine hood, pull up the hood lock. With the help of the hood gas spring, the hood can be opened with very little force. To close the engine hood, press the front of the hood down until the lock is locked. **ÿ!** Warning When closing the engine hood, be careful not to get your fingers stuck inside.

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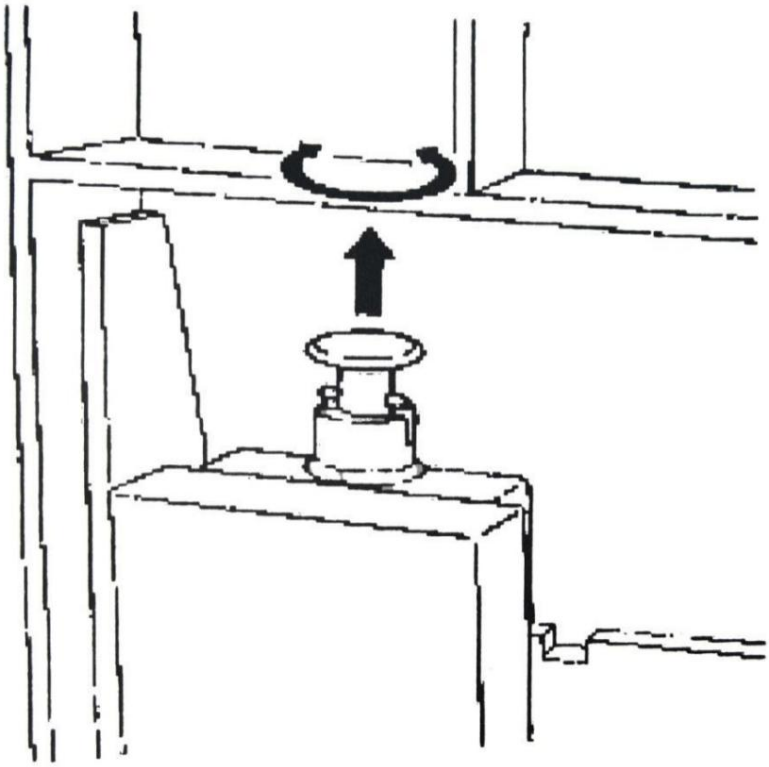

(6) Fork locating pin The fork locating

pin locks the fork in a certain position. To adjust the distance between the forks, pull up the fork locating pin, turn it 1/4 turn, and adjust the fork to the required position. The adjustment of the distance between the forks should be based on the cargo to be loaded and unloaded. **ÿ!** Warning After the forks are symmetrical with the center line of the vehicle, lock the fork

locating pin.

(7) Towing pin The towing pin is only used in the following occasions: ÿ Used to escape when the vehicle

cannot be driven (such as

when the tire is stuck in the side ditch, etc.); ÿ

When loading or unloading the vehicle from a truck during transportation. **ÿ!** Be careful not to use it for

towing or being towed. (8) Safety footrest and safety handle

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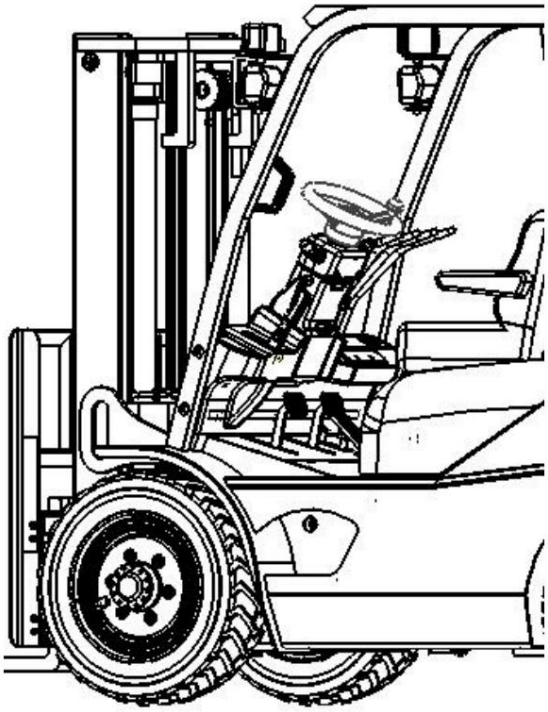
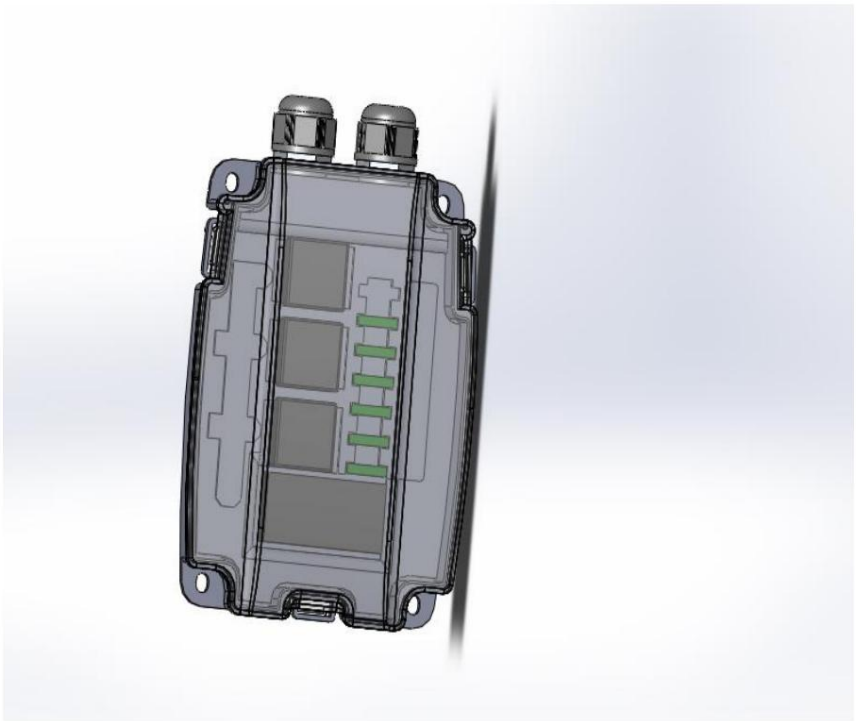


Safety footrests are provided on both sides of the vehicle body, and the safety handle is located on the left front support of the overhead guard. Use the safety footrest and safety handle when using the vehicle. (9) Fuse box



The fuse box is mounted on the right side of the inner surface of the instrument panel.

(10) Brake fluid tank

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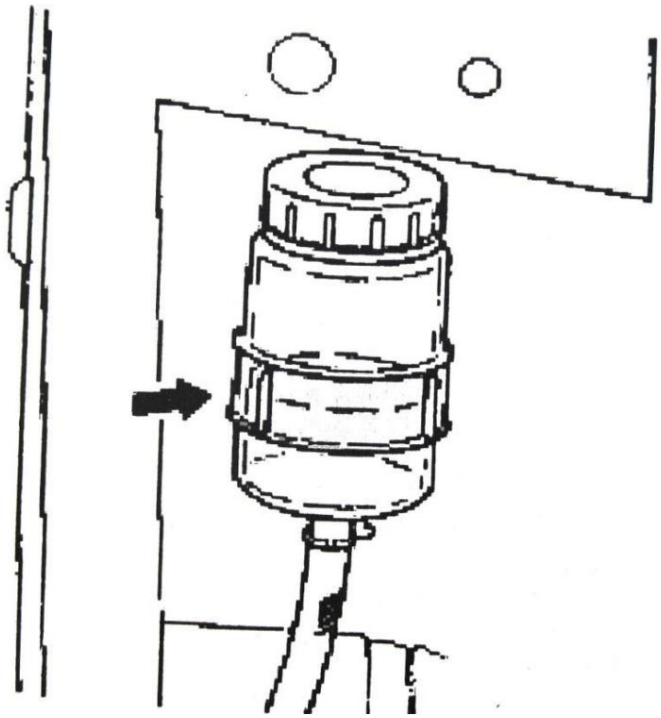

The brake fluid tank is mounted on the inner left side of the instrument panel. The translucent tank allows the brake fluid level to be checked from the

outside. (11) Hydraulic oil tank cap

The hydraulic oil tank cap is installed on the right inner side of the internal combustion engine cover, and the hydraulic oil is injected from this oil filling hole. A dipstick is installed on the cap.

(12) Fuel tank cap

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The fuel tank cap is located on the left rear side of the vehicle. Turn it counterclockwise to

open it. **ÿ!**

Note that there is a vent hole in the fuel tank cap to allow air to enter the fuel tank. If the vent hole is blocked, the fuel system

There will be trouble. Check the vent every time you refuel to see if it is in good condition. **ÿ!**

Pay

attention to

refueling ÿ Park the car, turn off the engine and pull the parking brake handle. Make sure there is no open flame nearby and do not smoke.

The driver should not stay in the vehicle while refueling.

ÿ After refueling, be sure to close the cap tightly. A loose cap may cause fuel leakage or

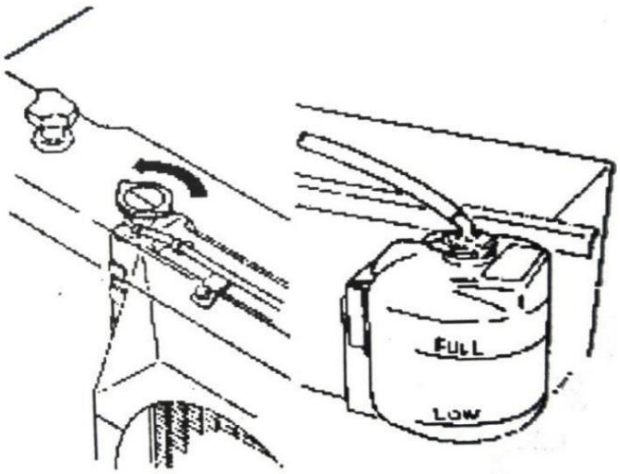
Caused a fire.

ÿ Before starting the engine, make sure the fuel tank cap is securely closed and there is no spillage on or around the vehicle.

ÿ When checking

the oil level, never use an open flame such as firewood or a lighter. (13) Radiator cap

The water tank cap is located under the rear cover of the internal combustion engine hood. It is not necessary to open this cap during daily inspection.



(14) Radiator The

auxiliary radiator is located next to the

battery. **ÿ!**

Warning ÿ When the engine temperature is high, do not open the radiator cap suddenly. Turn the cap slightly to the left to reduce

the pressure in the radiator before opening the cap. ÿ

Do not open the radiator cap while wearing

gloves. (15) Lights

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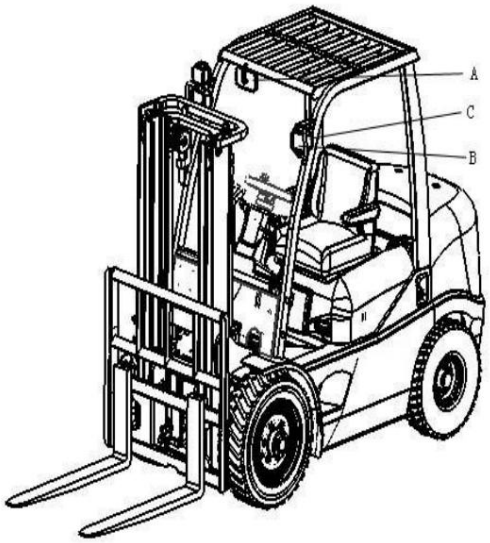

ÿ! Warning

ÿ Check the working condition of the lamp. If the bulb is burned out, the lampshade is damaged or dirty, replace it immediately. or repair.

ÿ If you need to install rear lights, please contact our sales department and we will send someone to install them. The front of the vehicle is equipped with two headlights B and front combination lights C (turn signal lights and width lights). The rear of the vehicle is equipped with rear combination lights, including turn signal lights D, width lights E, brake lights F and reverse lights G. (16)

Rearview mirror A **ÿ!** Note ÿ

The

rearview mirror surface should be kept

clean. ÿ Adjust the rearview mirror to a position where you can see the rear well.

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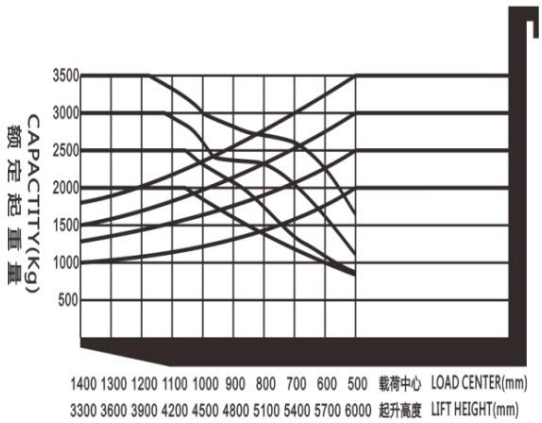
3. Driving and Operation

In order to keep your vehicle in good condition, safe to use and in regular operation, here are some correct Notes on correct driving operation. **1.** Use of new vehicles The service life of your vehicle depends on how it is used when it is new. During the first 200 hours of operation, please pay special attention to the following matters: **ÿ!** Note ÿ Regardless of the season, the engine must be warmed up before operation. ÿ Maintenance should be done as much as you think. ÿ Do not operate it roughly or use it unreasonably. ÿ Add lubricating oil, grease and change oil in time. ÿ Do not let the engine idle at high speed. **2.** Relationship between load and forklift stability Within the load curve, the forklift uses the center of the front wheel as the fulcrum to keep the load of the vehicle body and the fork balanced. Pay attention to the load amount and load center to maintain the stability of the vehicle. **ÿ!** Warning Exceeding the load curve, the rear wheel is in danger of being lifted and in a bad condition. The forklift may tip over and cause a serious accident. As shown in the figure, the cargo close to the fork tip has the same result as increasing the cargo weight. In this case, the load should be reduced accordingly.



3. Load center and load curve The load center is the distance from the front face of the fork to the center of gravity of the cargo. The above load curve example shows the relationship between the load center of the forklift and the permissible load (permissible load). The load curve label is affixed to the vehicle. If the label is damaged or lost, replace it with a new one. **ÿ!** Warning If the vehicle is equipped with attachments for handling cargo, such as side shifters, buckets or swivel forks, its permissible load is reduced compared to the corresponding standard vehicle (without any attachments) for the following reasons: a) The load of the same attachment weight is reduced. b) The permissible load is reduced by the same principle due to the forward shift of the load center caused by the length of the attachment. ÿ The forward shift of the load center caused by the installation of the attachment is called "load center loss". ÿ Do not exceed the permissible load of the load curve affixed to the vehicle or attachment.

Machine Translated by Google

4. Forklift Stability The stability

standards of forklifts are specified in ISO or other standards. However, the stability described in these standards is not

Qualitative evaluation is not suitable for all operating conditions. The stability of the forklift varies with the operating conditions. Maximum stability is

ensured in the following operating conditions: a) The ground is level and hard. b)

Operating in standard empty or loaded

conditions. Standard empty condition: The forks or other load-

bearing accessories are 30 cm off the ground, and the mast is tilted back without load. Standard loaded condition: The forks or other load-bearing

accessories are 30 cm off the ground, the allowable load is applied at the standard load center, and the mast is tilted back. **ÿ!** Warning: When loading and

unloading goods, try to minimize the forward and

backward

tilting, unless the load is firmly fixed or a rigid rack is used.

5. Transportation and loading and unloading of forklifts (1) Transportation

of forklifts **ÿ!** Note ÿ When transporting by

truck, in order to prevent the forklift

from moving

in the truck, the wheels must be stopped and the forklift must be completely secured with ropes, etc. ÿ When loading and unloading and transporting on the

road, pay attention to the full length, full

width and full height, and comply with relevant

Regulations.

(2) Forklift loading and unloading **ÿ!**

Note ÿ Please

use a platform with sufficient length, width and strength to effectively pull the truck brake and stop

Hold the wheel.

ÿ The slats should be firmly fixed in the center of the vehicle compartment. No grease should be attached to the slats.

ÿ The height of the slats on the left and right should be the same so that the vehicle can run smoothly when loading and unloading. ÿ To

prevent danger, please do not change direction or move sideways on the slats. ÿ When loading the forklift onto the

truck, in order to ensure that the left and right tires are on the slats at the same time, slowly reverse the slats.

(3) Lifting the

forklift **ÿ!** Noteÿ Lifting the

forklift should

be done by specially trained personnel.ÿ The rope should be hooked to the

designated lifting position on the forklift.ÿ The rope used should have sufficient

bearing capacity.ÿ The removable parts on the forklift also have

designated lifting positions. **6.** Before and after starting the engine (1) Before starting the

engineÿ Before the vehicle is running, check that all control devices

and warning devices are operating

normally. If any

If there is any damage or malfunction, do not start the forklift before it is corrected. ÿ

Check the safety conditions around the vehicle. ÿ Confirm that

the shift handle and multi-way valve handle are in neutral and the parking brake handle is fully engaged. a) Start the gasoline engine ÿ Cold engine

Machine Translated by Google

Press the accelerator pedal 2-3 times and then release it. Take your foot off the pedal and turn the preheating start switch to the "START" position. Start the engine at the same time, and release the key after

starting. ÿ Press

the accelerator pedal halfway down and hold it, and turn the preheating start switch to the "START" position to start the engine, and release the key after starting. **ÿ!** Note

that when

starting a hot engine, do not press the accelerator pedal to the bottom, as this may make it difficult to start. Pressing the pedal several times may also cause starting difficulties. b) Start the

diesel engine and turn the

preheating start switch to "ON" until the preheating display indicator goes out, then turn the preheating start switch to the "START" position. If the engine is difficult to start, check whether the fuel level is low, the air mixture in the fuel system, or whether the preheating wire is broken.

(2) After the engine starts ÿ Preheat

the engine (about 5 minutes) ÿ Check the engine

rotation (sound and gear) **ÿ!** Note ÿ Check the ignition (or misfire)

sound ÿ

Check the exhaust condition (concentration). ÿ Confirm that all

indicator lights are off. ÿ After the engine is fully

preheated, operate the multi-way valve control handle

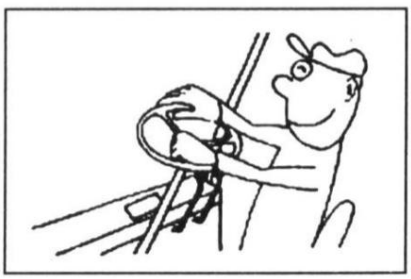
2~3 times to check its working condition.

7.

Operation (1)

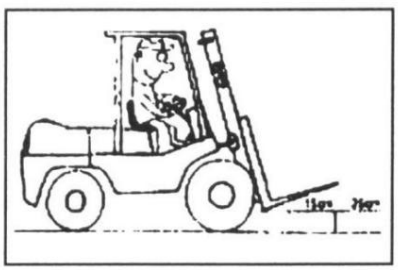
Operator's posture

Hold the steering wheel with your left hand, place your right hand lightly on the steering wheel and be ready for loading and unloading operations.



(2) In the basic operating state, the bottom

of the fork is 15 to 20 cm above the ground and the mast is tilted backwards.

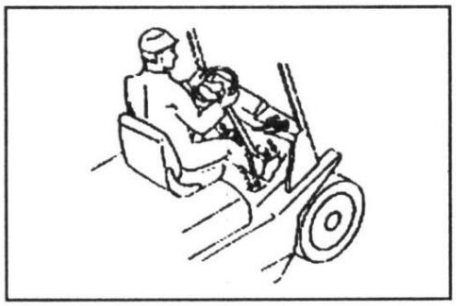


Look around the forklift to check that it is safe. Signal before starting the vehicle.

Machine Translated by Google

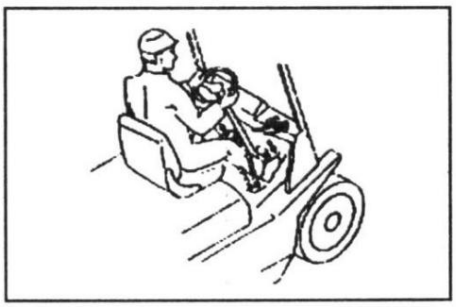
Mechanical transmission forklift

Depress the clutch pedal and operate the shift handle.



Release the parking brake handle.

While depressing the accelerator pedal, slowly release the clutch pedal to start the vehicle.



Be careful

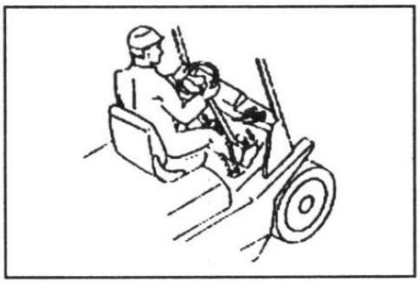
not to step on the clutch pedal during operation. For hydraulic transmission

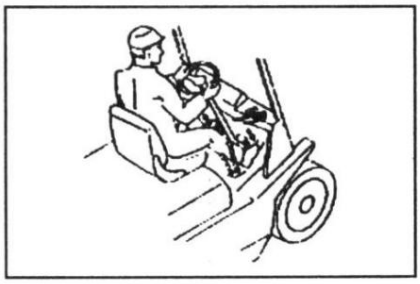
forklifts, press the brake pedal

and operate the front and rear shift handles. Release the parking brake handle.

Machine Translated by Google

Release the brake pedal, press the accelerator pedal, and the vehicle will start moving.





(3) When the gear is shifted

and there is no load, the vehicle can be started in high gear. However, in a load situation, the vehicle needs to be started in low gear.

Vehicle.

Mechanical transmission

forklift a) Stop the vehicle before changing the direction of travel. b) When

shifting from high speed to low speed or from low speed to high speed, release the accelerator pedal after the engine accelerates. At the same time, press the

clutch pedal, shift the shift handle to the desired gear, then release the clutch pedal and press the accelerator pedal. Hydraulic transmission forklift a)

Stop the vehicle before changing the direction of travel.

(4) Deceleration Mechanical

transmission forklift Since this type of forklift uses a synchronous speed

change device,

there is no need for secondary

clutch operation. Release the accelerator pedal, press the clutch pedal to the bottom, put the shift handle in the first gear position, release the clutch pedal, and then press the accelerator pedal. Hydraulic transmission forklift Release the accelerator pedal slightly and press the brake pedal when necessary. **ÿ!** Warning: You must slow down.

ÿ At intersections. ÿ Rough

places or other uneven surfaces. ÿ Near cargo or obstacles. (5) Steering in crowded places.

Unlike ordinary

vehicles, the

steering wheels of forklifts are

installed at the rear. This makes the rear turn outward when turning. Slow down

the vehicle and turn to the side you want to

turn. The steering wheel should be turned

slightly earlier than that of vehicles with front-wheel steering. (6) Stop or slow down the vehicle. Press the brake pedal to stop the vehicle (for mechanical transmission forklifts, the clutch pedal is also pressed at the same time), and put the shift handle in neutral. **ÿ!** Note that when going uphill, do not stop the vehicle

by pressing the accelerator pedal to stop the clutch in the semi-clutch state or the torque converter in operation. This will cause abnormal wear of the friction plate or abnormal increase in the oil temperature of the torque converter,

thereby

shortening the life of the clutch or torque converter. Parking: Park the vehicle in a place that does not hinder traffic and a) pull the parking brake handle b) the forks are on the ground

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c) Turn the key switch to the "OFF" position to turn off the engine.

ÿ!

Warning Parking safely a) Park the vehicle

on level

ground,

preferably in a spacious place. If you have to park on a slope, place the vehicle horizontally on the slope and block the wheels with blocks to prevent accidental sliding down b) Park the vehicle in a designated area or a place

that does not hinder traffic. If necessary, set up signs around the vehicle.

Signal or signal light

c) Park the vehicle on a hard surface and avoid parking on soft, muddy or slippery surfaces. d) If the lifting system is damaged

and the forks cannot fall to the ground, hang a warning flag on the end of the forks and park the vehicle in a place that does not hinder traffic. (7) Emergency repair of faulty forklifts **ÿ!** Note that

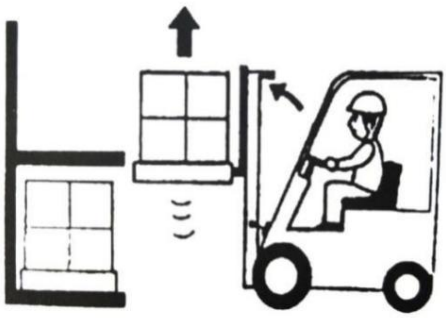
if a forklift suddenly breaks down during

use, it

should be towed away for repair in time to avoid hindering the operation of other vehicles or personnel. **8.** Loading

(1) For good lateral stability, the fork

The spacing should be as large as possible.



(2) When inserting the fork into the pallet or directly into the cargo, the forklift and the cargo should be

aligned. (3) The fork must be inserted parallel to the pallet. (4)

The fork should be fully inserted until the fork is fully inserted.

(5)

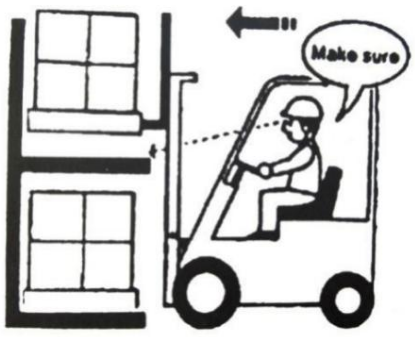
Lifting the cargo. a) First, lift

the fork 5-10 cm off the ground to confirm that the cargo is stable.

b) Then, tilt the mast back

to the correct position, lift the cargo 15-20 cm off the ground, and then start driving. (6) When carrying large cargo that

obstructs vision, drive in reverse except when climbing a slope.



ÿ! Note ÿ

The loading direction of the fork must not be opposite to the design loading direction.

ÿ The fork is not allowed to pick up the goods

alone. ÿ The fork is not allowed to drag the

goods. ÿ All parts of the fork are not allowed to be welded.

9. Stacking

ÿ! Note:

Before starting to operate the forklift, you should check the

following items: a) Make sure that there will be no cargo falling or damage in the loading area.

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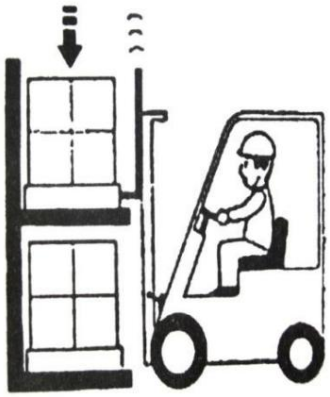
b) Ensure that no cargo or cargo stacking will impede safety. When stacking, the following procedures should be followed:

(1) Slow down when approaching the stacking area. (2) Stop in front of the stacking area. (3) Check whether the area around the stacking area is safe. (4) Adjust the forklift so that it is in front of the location where the goods are placed in the stacking area. (5) The mast is vertical to the ground and the forks are raised above the height of the goods. (6) Check the stacking position and drive forward, and stop at a suitable location.



(7) Make sure the goods are above the stacking position and slowly lower the forks to ensure that the goods are properly placed.

ÿNote

ÿ When the goods are not completely placed on the shelf or bracket:

a) Lower the forks until they are no longer carrying any weight. b) Move the forklift back 1/4 of the fork length. c) Raise the forks another 50-100mm, move the forklift forward and place the cargo in the appropriate stacking position.

(8) Observe the space behind the forklift and move the forklift backwards to avoid collision between the forks and the pallet or cargo.

(9) Make sure the front of the fork is away from the cargo or pallet, and lower the fork for easy travel. (150-200mm from the ground)

10. When stacking and dismantling, the following procedures should be followed:

(1) Slow down when approaching the cargo to be transported. (2) Stop in front of the cargo (the cargo should be 30 cm away from the fork tips. (3) Adjust the forklift position in front of the cargo. (4) Make sure the cargo is not overloaded. (5) The mast is perpendicular to the ground. (6) Observe the position of the forks and move the forklift forward until the forks are fully inserted into the pallet.

ÿNote

ÿ When the forks are difficult to fully insert into the pallet:

a) Insert 3/4 of the fork length and lift the pallet a little (50-100mm), pull out the pallet about 100-200mm, and then lower the pallet. b) Insert the fork completely into the pallet. (7) After the fork is inserted into the pallet, lift the pallet (50-100mm). (8) Observe the surrounding space and move the forklift backwards until the load is lowered.

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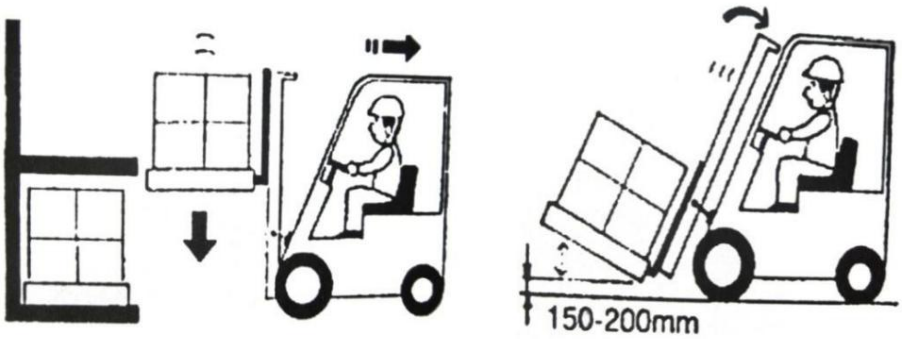
(9) Lower the cargo until it is 1500-200 mm above the ground.

(10) The mast tilts backward to ensure the stability of the cargo.

(11) The cargo is transported to the destination.



11. Storage (1)

Before storing, clean

the forklift thoroughly and inspect it according to the following procedures: a) Clean the oil

and grease attached to the body with a cloth and water as needed. b) Clean the body and inspect the

overall condition of the vehicle, especially for dents or damage.

Check whether the tire is punctured, whether there are nails or stones embedded in the

tread. c) Fill the fuel tank with the specified fuel. d)

Check for oil leakage. e) Add

grease as needed. f) Check whether the joint

surface of the wheel hub nut and the cylinder piston rod is loose, and whether the piston rod surface is damaged.

g) Check whether

the mast roller rotates smoothly. h) Raise the lifting cylinder

to the top and let the oil fill the cylinder. i) In winter or cold seasons, long-

term antifreeze does not need to be drained, but cooling water needs to be drained. **ÿ!** Warning ÿ As long as it is found that the forklift

needs repair,

failure or unsafe factors, the situation should be reported to the management personnel and the forklift should be stopped until it is

restored to a safe state. (2) Daily storage a) Park the forklift in the designated

place and pad the wheels

with wedges. b) Put the shift handle in the neutral position and pull the parking brake

handle. c) Turn off the engine with the key switch in the "OFF" position, operate the multi-way

valve stem, and release the remaining pressure in the cylinder or pipeline. d) Remove the key and keep it in a safe place. (3) Long-term

storage

Perform the following maintenance checks based on the “Daily Storage” maintenance:

a) Considering the rainy season, park the vehicle on a higher and harder surface. b) Remove the

battery from the forklift. If the forklift is parked indoors (outdoors), the battery may also be damaged if the location is hot and humid.

It should be placed in a dry and cool place and charged once a month.

c) Apply anti-rust oil to exposed parts such as cylinder piston rod and places that may rust.

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d) Cover parts that are easily affected by

moisture. e) Start the vehicle at least once a week. If the cooling water is drained, add cooling water, install the battery,

remove the grease on the piston rod and shaft, start the engine and fully preheat it, let the vehicle run forward and

backward slowly, and operate the hydraulic control

times. f) Avoid parking the vehicle on soft roads such as asphalt in summer. (4)

Operation of forklifts after long-term storage. a)

Remove the anti-rust oil from exposed parts

b) Drain the engine crankcase oil, remove the gears in the gearbox and differential or the hydraulic transmission oil.

Oil (gearbox at night) clean the inside and add new oil.

c) Clear foreign matter and water from the hydraulic oil tank and fuel

tank. d) Remove the engine cylinder head, valves, rocker shafts, and check whether the clearance of each valve is

normal. e) Add coolant to the specified level. f)

Charge the battery, install the forklift and connect the battery leads. g) Perform

a careful startup inspection. h) Preheat

the forklift. IV. Regular

Inspection and Maintenance A

comprehensive inspection of the forklift in advance can avoid production failures and failure to achieve its expected service life. The hours listed in the regular maintenance schedule are based on the forklift working 8 hours a day and 200 hours a month. Make detailed records after the

inspection and keep the records for 3 years. **ÿ!** Note ÿ Only trained or qualified

personnel

can perform maintenance and repairs on the forklift. ÿ Daily and monthly inspections and maintenance can be

completed by the operator himself. a) Inspection requirements (1) Only use genuine parts (2) Only

use genuine or

specified grease (3) Clean the oil filling port

and grease nipple with a brush or rag before

refueling or grease. (4) When checking the oil level and refueling, the vehicle should be parked

on a level surface. (5) Perform protection, maintenance and repair regularly, and

be careful not to hurt yourself. (6) If you have to work under a raised fork or attachment, use

a support rod to support the fork attachment to prevent the fork and inner mast from sliding off. (7) If you find any damage

or malfunction, report it to the

management staff and do not use it before repair.

b) Inspection

contents (1) Hydraulic

oil, fuel, and water leakage inspection

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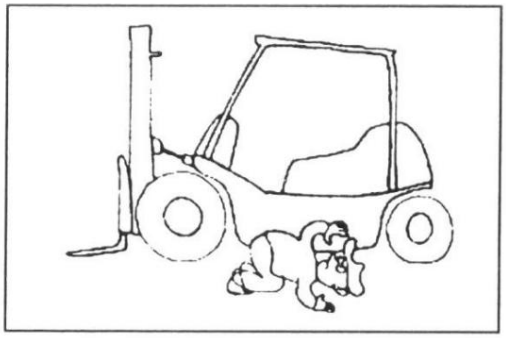


Check the joints of the hydraulic pipes, the engine, the water tank, and the drive system for water or oil leakage.

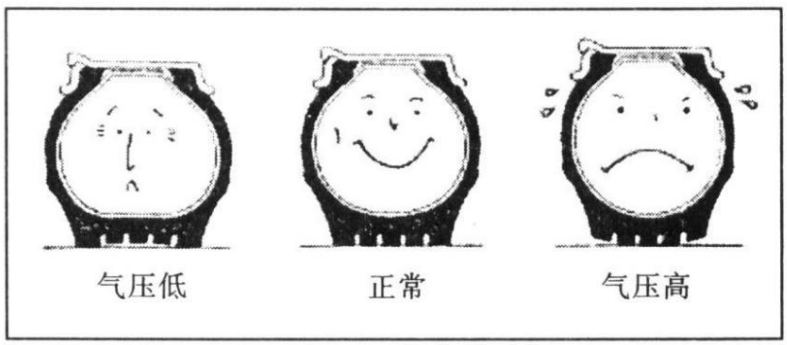
Or visual inspection.

Check the fuel for foreign matter.

ÿ! Warning

ÿ .Do not start the vehicle if you find fuel leakage before work. The engine can only be started after the leakage is eliminated.

(2) Tire pressure check (pneumatic tires)



Check the condition of the tires. Low air pressure will reduce the life of the tires and increase fuel consumption.

Different air pressures or tire damage will result in different steering forces.

The label attached to the left front side of the internal combustion engine hood indicates the standard tire pressure.

Forklift tonnage / Tire pressure	1-1.8t 2-2.5t 3-3.5			4t 4-4.5t 5-7t 8-10			
Front wheel/KPa	790	860	890 930 930 830 760				
Rear wheel/KPa	1000	860	790 790 860 830 760				

Unscrew the valve cap counterclockwise, measure the tire pressure with a pressure gauge, and adjust it to the specified value if necessary.

There is no floor climate to screw on the cap.

Check the contact patch and sides of the tire for damage and whether the rim is deformed.

Since forklift tires require high air pressure to withstand heavy loads, even the slightest deformation of the rim or the tire

Damage to the ground can lead to accidents.

ÿ! Warning

ÿ After the tire and rim are assembled, all bolts and nuts must be tightened to the specified torque before the tire can be inflated.

The inflated tire has expansion energy. The tire pressure cannot exceed the specified value.

ÿ When using an air compressor to inflate, you should first adjust the pressure.

If the pressure is too high and the adjustment is improper, serious accidents may occur.

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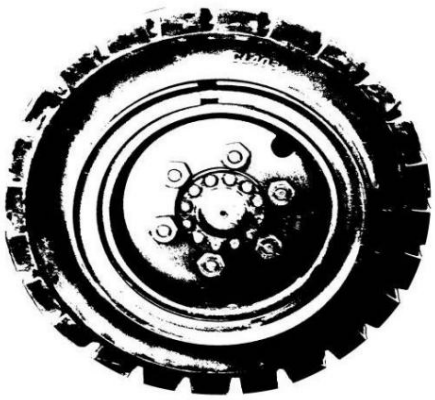
(3) Wheel nut torque check Check

whether the wheel nut torque is correct. Tighten

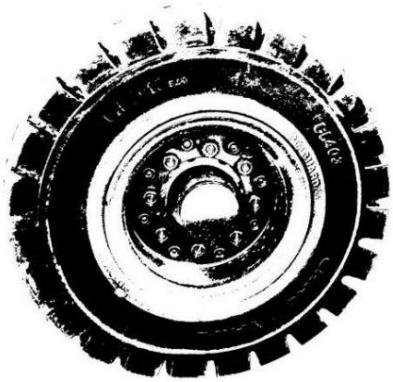
all wheel nuts to the specified torque.

1-1.8t: 150-175N.M

2-10t: 480-560N.M



Drive wheel



steering wheel

ÿ! Note ÿ

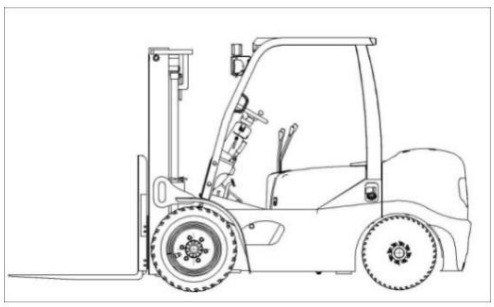
When removing the wheel nut, do not accidentally disassemble the integrated rim bolts. ÿ

Loose wheel nuts are very dangerous. If loose, the wheel may fall off, causing the vehicle to overturn.

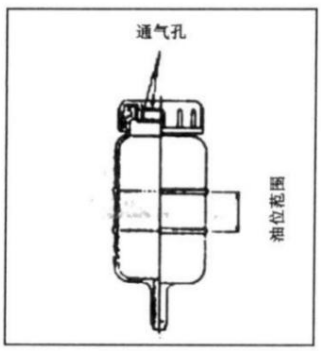
(4)

Overhead guard inspection

The overhead guard acts as a protector, make sure it is securely mounted and all structural components are secure.



(5) Check the brake fluid



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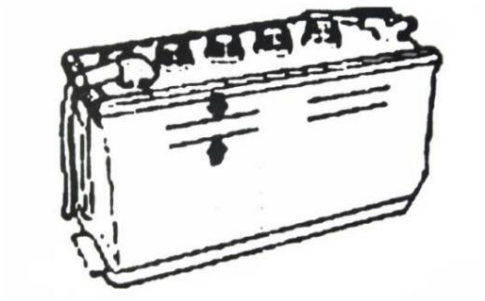
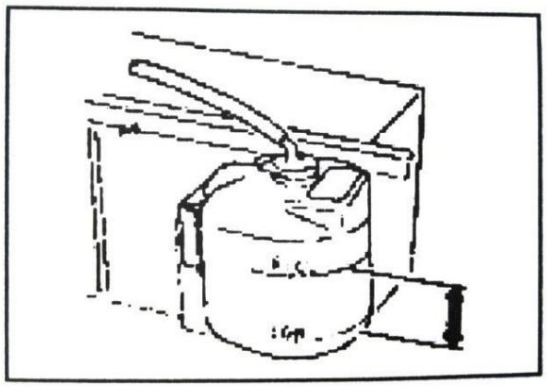
Check the oil level in the brake oil reservoir. The oil level should be between the two grids. When adding oil, avoid dust or water entering the reservoir.

Opening the internal combustion engine hood Open the internal combustion engine hood from the left side of the vehicle body.



(6) Battery electrolyte inspection Check the battery electrolyte level. There are upper and lower liquid level scale lines on the battery box. The operator can observe the liquid level. The liquid level should be between the two lines. **ÿ!** Danger Do not allow open flames to approach the battery filling hole, because hydrogen will be generated there and cause an explosion. (7) Coolant level inspection



Check the liquid level in the auxiliary water tank. It should be between the upper and lower scale lines. It is necessary to add coolant. **ÿ!**

Warning ÿ Be especially careful when opening the water tank pressure cap. If it is opened under pressure, the sudden release of pressure will generate steam flow, causing personal injury. Wrap the cap with a thin cloth or something similar, slowly loosen the cap to let the steam overflow, and then unscrew the cap. Do not wear gloves to prevent the hot water from scalding your hands. (8) Engine oil level check The engine vernier is located on the left side of the engine body.

Pull out the vernier, wipe the ruler head, reinsert it and pull it out to check.

Check whether the oil level is between the two scale lines.

(9) Check the tension of the fan belt

Check the fan belt for tension and damage by pressing your thumb on the middle of the belt between the water pump and the generator.

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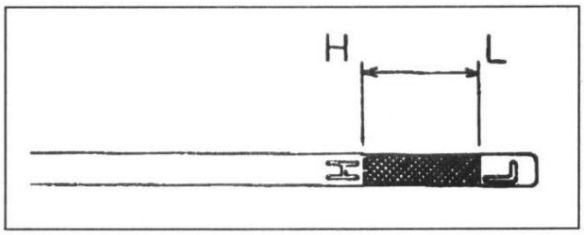
ÿ! Warning

ÿ The engine must be turned off when checking the fan tension. (10) Rear combination light inspection Check the rear combination lights (tail lights, parking lights, and reverse lights) for damage or dirt.

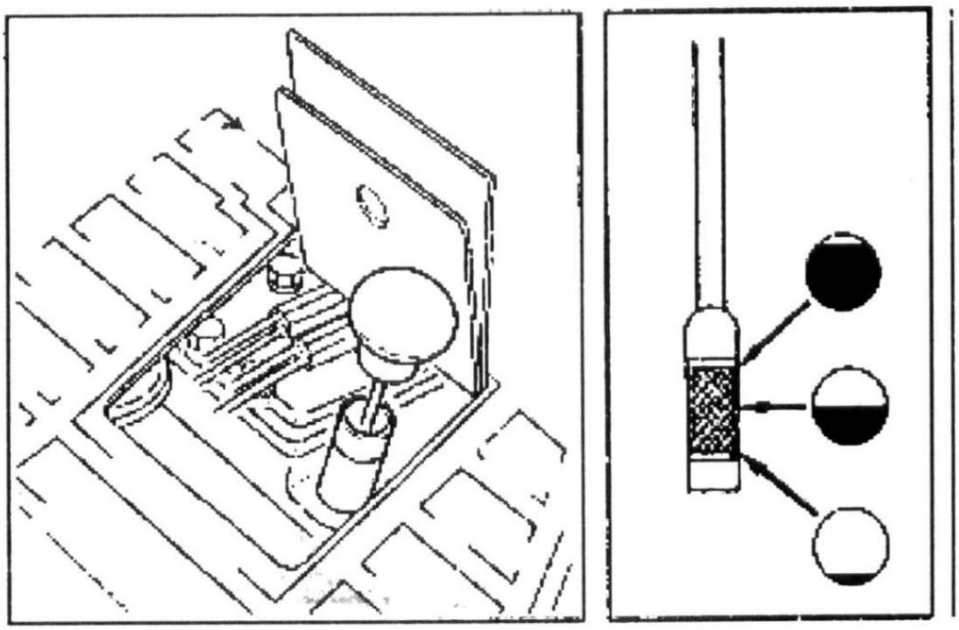
(11) Hydraulic oil level



Use a vernier to check the hydraulic oil level. Pull out the vernier, wipe it clean, re-insert it and pull it out to see if the oil level is between the high and low scale lines. **ÿ!** Note ÿ

When checking the oil level, the engine should be turned off, the forks should be lowered to the ground, and the forklift should be parked on a horizontal surface.

(12) Pipes and Cylinders Visually check the hydraulic pipelines and the lifting and tilting cylinders for oil leaks. (13) Power shift transmission oil level



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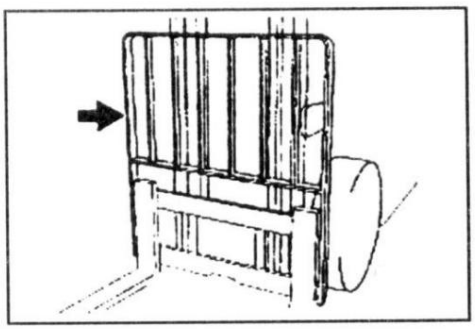
Open the inspection cover of

a hydraulic forklift and pull out the refueling port. Check the oil gauge to make sure the oil level is on the scale. If necessary, refill the oil.

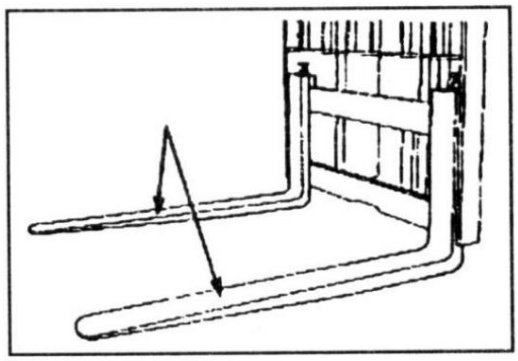
If the hydraulic oil is too high, please add the specific

hydraulic oil. (14) Inspection of the backrest



Check if the rack mounting bolts are loose and tighten if necessary. (15) Forks and fork locating

pins



Check the installation of the fork locating pin and whether the fork is deformed or cracked.

(16) Check the headlights and front combination lights to

see if the lampshades are clean and free of damage.

Be careful when sitting on the seat to avoid crushing your fingers. (17) Seat adjustment

Make sure the seat is in the proper position. If it is not in the proper position, pull the adjustment handle to the right and adjust the seat to a position that is easy for your feet and hands to operate.

After adjustment, move the seat slightly forward and backward to ensure that it is securely locked. (18) Shift handle inspection

Check whether the shift handle is loose and the

operating feel. (19) Multi-way valve operating handle inspection Check whether

the operating handles (lifting, tilting and attachments) are loose

and whether the operation is smooth. (20) Parking brake operation inspection

After the parking brake operating handle is pulled up, make sure that the parking brake is safe and reliable.

Before starting the

engine, make sure that the shift handle is in neutral and the parking brake is reliable.

(21) Instrument hour meter,

water temperature meter and fuel meter enable the operator to understand the vehicle's operating conditions. (22) Fuel quantity check

The fuel gauge is installed on the dashboard to check whether the fuel level is sufficient for a day's work.

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(23) Lights and lighting Turn on

the light switch and confirm that the corresponding lights are working

properly. (24) Turn signal check

Operate the turn signal handle to confirm whether the turn signal light is normal. (25)

Horn button operation check Press the horn

operation button to confirm whether the horn sounds. (26) Clutch

pedal check Mechanical transmission

forklift Check whether the

clutch pedal operates smoothly. For forklifts with

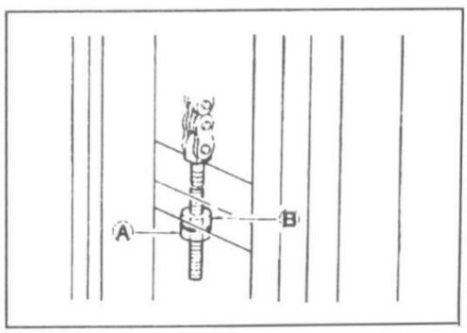
hydraulic clutch, start the engine and press the clutch to check. (27) Brake pedal idle travel

Press the brake pedal and the inching pedal (only for hydraulic transmission forklifts) to confirm that each pedal movement is correct. Smooth and can also be reset without interference. (28) Mast

Operation

Press the horn, operate the lifting and tilting handles, and confirm that the fork frame is lifted and lowered normally, and the mast is tilted smoothly. Confirm that the piston of the piston cylinder has reached the end of its stroke, and that the overflow valve is working and the sound of overflow is normal. Pay attention to

the sound of system operation. (29) Check the tension of the lifting chain



Check the tension of the lifting chain and whether there is any abnormality.

When checking the tension, lift the fork about 5cm off the ground and press the middle of the chain with your thumb to confirm whether the tension of the left and right chains is consistent. If it is inconsistent, loosen the locking nut (A) of the fixing pin and adjust the nut (B) to adjust the chain.

ÿ! Note ÿ Please use mechanical

oil (such as

hydraulic oil) to lubricate the lifting chain, do not use grease.

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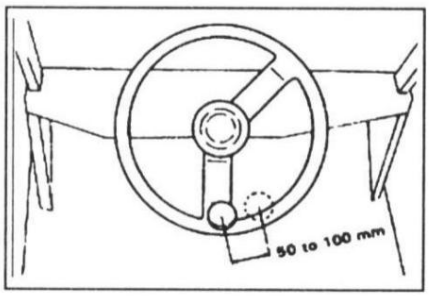
(30) Free travel of the steering wheel



Check the rotation of the steering wheel and the axial looseness. The normal free form is 50-100mm, and axial looseness is not allowed.

(31) Exhaust inspection Check the

exhaust after the engine is

preheated. No smoke and fire. Light blue is normal:

Complete combustion. Black is abnormal: Incomplete combustion.

White is abnormal: Burning oil. Check the engine and drive system for

abnormal noise or vibration. **ÿ!** Danger ÿ The exhaust gas

discharged by the engine is harmful. When starting and using the forklift in a

closed

space, the exhaust gas discharged when the engine is running may cause poisoning. Therefore, ensure that there is enough oxygen.

Check the exhaust emission value regularly. The exhaust inspection should be carried out outdoors. Pay attention to avoid fire, especially pay attention to oil or fuel leakage. Do not leave waste cloth or paper on the engine body. Confirm the location of the fire extinguishing equipment and understand how to use it. Run at low speed (in a safe place) ÿ After the engine is repaired and adjusted, the exhaust emission value should be rechecked and

comply with the local government

(32) Clutch operation

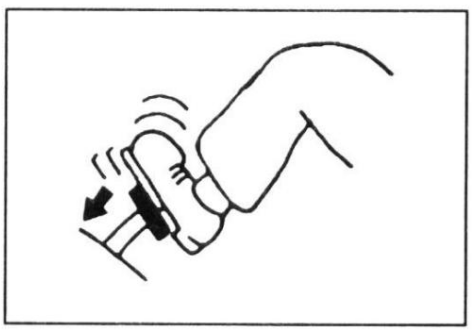
inspection (mechanical transmission forklift) Depress the clutch pedal to

confirm that the clutch is engaged normally and does not slip. Inching pedal inspection

(hydraulic transmission vehicle) Lightly depress the

inching pedal to check whether the vehicle speed is reduced. (33) Brake

inspection



Drive the vehicle slowly and press the brake pedal to check the braking effect. When the brake pedal is pressed, the brake light comes on.

(34) Steering check

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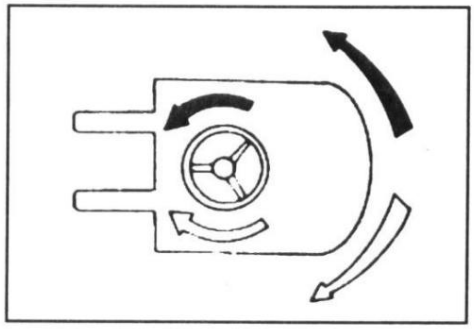


When the vehicle is driving slowly, turn the steering wheel to check whether the left and right steering forces are consistent and whether there are any other abnormalities. Normal phenomenon exists.

(35) Parking check Confirm that the slow-

moving vehicle can be stopped by braking after the parking brake handle is pulled. (36) Reverse check The reverse light is on when

the shift handle or direction control handle

is in reverse gear. **c)** Maintenance Drain water from the oil-water separator When the oil-water separator

indicator light is on

for diesel vehicles a) Turn off the engine, run

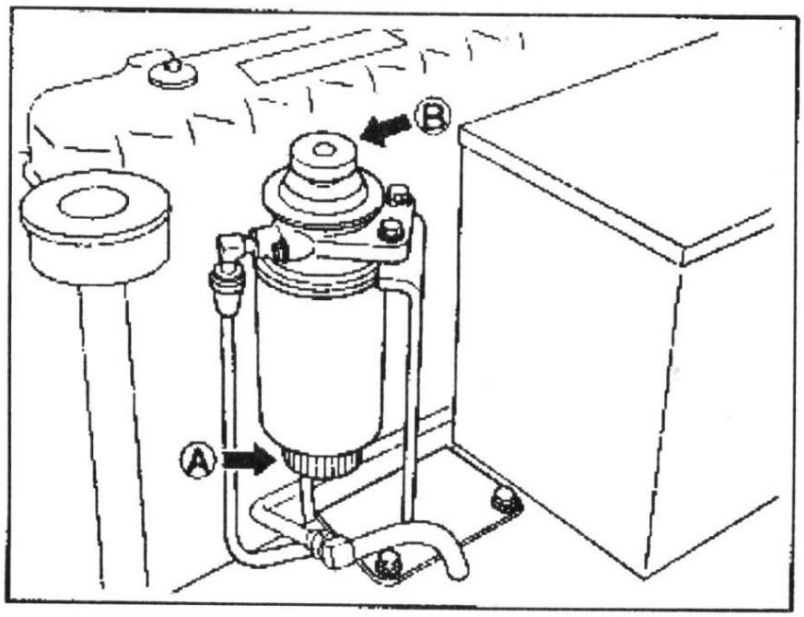
(A) 4-5 times,

loosen the drain screw, press the pump (B), and keep

pressing the pump (B) until the water in the oil-water separator is drained.

b) Tighten the waterproof plug and press the pump (B) several times to observe whether there is any leakage from the plug.

c) After starting the engine, make sure the indicator light does not come on.



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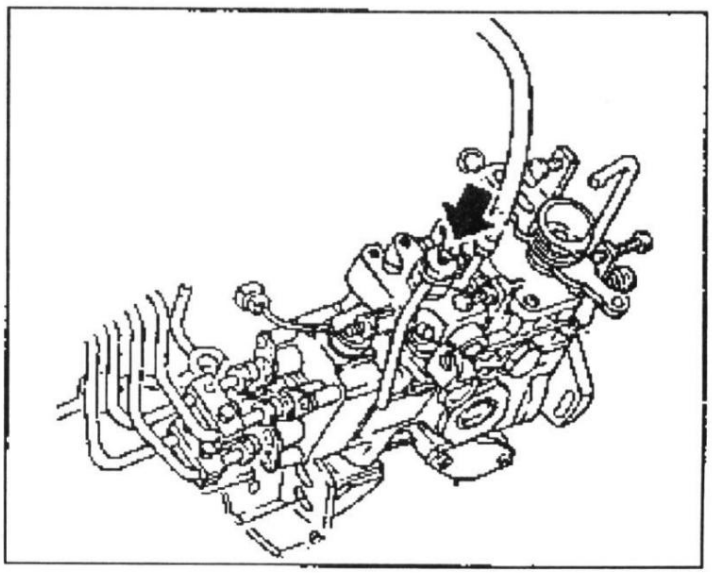
(1) Fuel system exhaust diesel

vehicle



a) Turn off the engine, loosen the vent plug (C) on the fuel injection pump, and press the pump to vent until the fuel flows out of the screw plug.

until.

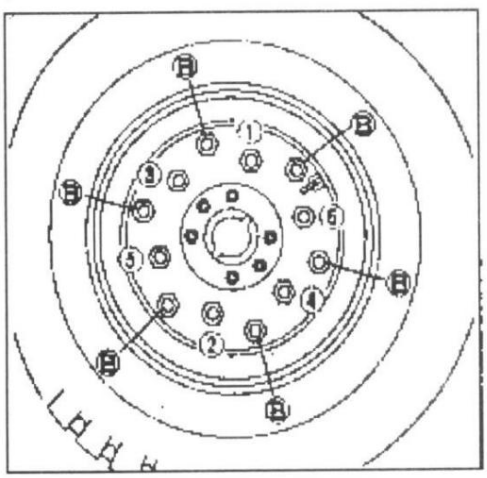
b) Tighten the vent plug and make sure there is no fuel leakage.

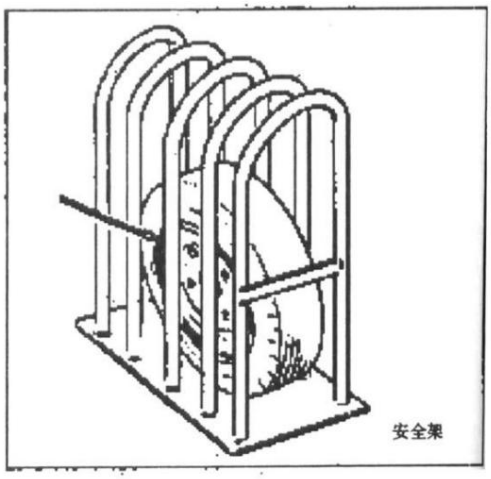
(2) Replace the fuel. Fuses

protect the electrical system from excessive current. Use the specified ampere current to check whether the components in the circuit are working properly. If any component does not work, the corresponding fuse may have burned out. Replace it with a fuse of the same capacity. If one of the parts does not work properly, the ball contact point may have burned out. Replace it with an outlet of the same capacity.

(3) Replace or repair the tire. Prepare the tools and jack

before replacing or repairing.





a) Front wheel

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ÿ Park the vehicle on a hard surface and turn off the engine. Remove all loads. ÿ Place the parking brake handle in the upper position with a wedge and place the jack under the vehicle. ÿ Lift the vehicle and keep the tire on the ground. Loosen the wheel nuts but do not remove them. ÿ Continue to push the vehicle until the tire is off the ground, remove the nuts and remove the tire. ÿ The tire installation is the opposite of the removal order. Tighten the wheel nuts in diagonal order. Check the wheel after installation.

b) The rear wheels are repaired and replaced in the same way as the front wheels, except that the jack is placed under the counterweight. **4.** Regular maintenance schedule This schedule is based on standard working hours and operating conditions. If the forklift is working under harsh conditions,

Please perform maintenance in advance (“•” indicates replacement)

Machine Translated by Google

engine

examine project	Check Content Tool		every day (8 hours)	every day (200 hours)	3 months (600 hours)	6 months (1200 hours)	Per year (2400 hours)
engine	Visual inspection engine Machine operating status		•	•	•	•	•
	Engine sound		•	•	•	•	•
	Exhaust color		•	•	•	•	•
	Clean and replace the air filter Filter element			•	•	•	•
	Check crankcase cleanliness Clean dirt				•	•	•
	Check and adjust the valve gap	Thick plug regulation				•	•
	Tighten the cylinder head bolt	Torque wrench		• gasoline engine First time only			• C240 only diesel engine
	Check cylinder compression pressure	pressure count					•
Crankshaft Wind device	Check valves and pipe plugs Blockage or damage					•	•
Speed regulator or Jet Pump	Check no-load maximum Operation speed	Rotating speed surface					•
lubricating system	Is the engine leaking? Oil		•	•	•	•	•
	Check the oil level Cleanliness		•	•	•	•	•
	Replace engine Oil			• First time 50 hours hour	•	•	•
	Replace engine Oil filter			• First time 50 hours hour	•	•	•

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engine

examine project	Check Content Tool		every day (8 hours)	every day (200 hours)	3 months (600 hours)	6 months (1200 hours)	Per year (2400 hours)
engine	Visual inspection engine Machine operating status		•	•	•	•	•
	Engine sound		•	•	•	•	•
	Exhaust color		•	•	•	•	•
	Clean and replace the air filter Filter element			•	•	•	•
	Check crankcase cleanliness Clean dirt				•	•	•
	Check and adjust the valve gap	Thick plug regulation				•	•
	Tighten the cylinder head bolt	Torque wrench		• gasoline engine First time only			• C240 only diesel engine
	Check cylinder compression pressure	pressure count					•
Crankshaft Wind device	Check valves and pipe plugs Blockage or damage					•	•
Speed regulator or Jet Pump	Check no-load maximum Operation speed	Rotating speed surface					•
lubricating system	Is the engine leaking? Oil		•	•	•	•	•
	Check the oil level Cleanliness		•	•	•	•	•
	Replace engine Oil			• First time 50 hours hour	•	•	•
	Replace engine Oil filter			• First time 50 hours hour	•	•	•

Machine Translated by Google

Powertrain

examine project	Check Content	Tool	every day (8 hours)	per month (200 hours)	3 months (600 hours)	6 months (1200 hours)	Per year (2400 hours)
clutch	Check the clutch pedal The degree of emptiness and separation When the clutch is disengaged Between the board and the bottom board Gap	Scale ruler	•	•	•	•	•
	Sound and operation condition		•	•	•	•	•
	Slide and combine condition		•	•	•	•	•
mechanical Gearbox	Gear lever operation Condition and whether it is loose			•	•	•	•
	Check for leaks		•	•	•	•	•
	Oil Change					•	•
Hydraulic Gearbox	Leakage		•	•	•	•	•
	Check oil level and change Oil			•	•	•	•
	Gear lever operation And looseness			•	•	•	•
	Control Valves and Hydraulics Clutch performance		•	•	•	•	•
	Micro valve performance		•	•	•	•	•
	Inching pedal empty travel Course and exercise		•	•	•	•	•
	Replace the oil suction filter			• First time 200 hours hour		•	•
Front axle	Leakage		•	•	•	•	•
	Oil Change					•	•
	Mounting bolts loose Condition	examine hammer		•	•	•	•

Machine Translated by Google

wheel

examine project	Check Content	Tool	every day (8 hours)	per month (200 hours)	3 months (600 hours)	6 months (1200 hours)	Per year (2400 hours)
tire	Inflation pressure	Air pressure surface	•	•	•	•	•
	Cracks or damage		•	•	•	•	•
	Landing wear Condition			•	•	•	•
	Abnormal wear condition	depth ruler	•	•	•	•	•
	Is the tire There are nails and stones Head or other abnormal thing			•	•	•	•
Tire Installation	Check that the bolts are No loose	Detection hammer	•	•	•	•	•
	Check for damage condition		•	•	•	•	•
Rim spoke,	Rim, spokes, Disc wheel damage condition		•	•	•	•	•
Bridge bearings	Check for looseness and noise			•	•	•	•
	Wipe clean and reapply lubricating oil					•	•
bridge	Check bridge deformation Shape, crack or Damage			•	•	•	•

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steering system

examine project	Check Content Tool		every day (8 hours)	per month (200 hours)	3 months (600 hours)	6 months (1200 hours)	Per year (2400 hours)
steering wheel	Check clearance		•	•	•	•	•
	Check for axial looseness		•	•	•	•	•
	Check radial looseness		•	•	•	•	•
	Check operation		•	•	•	•	•
Steering gear	Check that the mounting bolts are No loose			•	•	•	•
Rear axle rotation Towards	Check if the kingpin is loose Movement or injury			•	•	•	•
	Check for bending, deformation, Cracks or damage			•	•	•	•
	Check the installation	Detection hammer		•	•	•	•
Steering cylinder	Check operation		•	•	•	•	•
	Check if		•	•	•	•	•
	Check the installation and hinge Is it loose when connected?			•	•	•	•

Braking System

examine project	Check Content Tool		every day (8 hours)	per month (200 hours)	3 months (600 hours)	6 months (1200 hours)	Per year (2400 hours)
brake pedal	Empty trip		•	•	•	•	•
brake pedal	Pedal travel	Scale ruler	•	•	•	•	•
	Operation		•	•	•	•	•
	Is there any Air		•	•	•	•	•
Parking system Dynamic Manipulation	Is braking safe? Rely on and have enough lines Process		•	•	•	•	•
	Maneuverability		•	•	•	•	•
	Maneuverability		•	•	•	•	•
Rod, Lasso et al.	Is the connection loose?		•	•	•	•	•

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Braking System

examine project	Check Content Tool		every day (8 hours)	per month (200 hours)	3 months (600 hours)	6 months (1200 hours)	Per year (2400 hours)
Pipeline	Damage, leakage, breakage crack			•	•	•	•
	Connection and tightening parts Looseness			•	•	•	•
brake Master cylinder Slave Cylinder	Leakage			•	•	•	•
	Check oil level and change oil		•	•	•	•	•
	Master pump and slave pump action Condition						•
	Master pump, sub-pump leakage, Damage						•
Brake drum and brake hoof	Brake drum mounting parts Is it loose?	Detection		•	•	•	•
	Friction plate wear	cursor Caliper					•
	Brake shoe action						•
	Is the fixing pin rusted?						•
	Damage to return spring condition	Scale ruler					•
	Check the self-adjusting device Is the gap appropriate?						•
	Brake drum wear and tear Injury						•
Brakes Base Plate	Is the floor deformed?						•
	Is it cracked?						•
	Is it loose during installation?						•

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Lifting system

examine project	Check content	work Tool	every day (8 hours)	per month (200 hours)	3 months (600 hours)	6 months (1200 hours)	Per year (2400 hours)
Forks	Fork damage, deformation, Wear		•	•	•	•	•
	Damage and wear of positioning pins Damage				•	•	•
	Fork root hook welding Part cracking and wear			•	•	•	•
Door rack cargo Fork	On inner and outer door frames Is the crossbeam welding open? Crack injury			•	•	•	•
	Tilt steel bracket and door frame Is the welding spot welded? Good, cracked, damaged			•	•	•	•
	Are the inner and outer door frames welded? Defective cracking, damage			•	•	•	•
	Is the roller loose?			•	•	•	•
	Is the fork frame cracked? damage			•	•	•	•
	Is the roller loose?			•	•	•	•
	Mast support bearing wear Condition, damage						•
	Mast support cover bolts are No loose			•		•	•
	Lifting cylinder bottom screw Bolt, piston rod head screw Bolts, U-bolts, loose Moving beam guide rail bolts are No loose			•		•	•
	Roller, roller shaft and welding Cracks and damages in joints condition			•		•	•
Chain, Sprocket	Check chain tension state, damage, rust eclipse		•	•	•	•	•
	Chain oiling			•	•	•	•
	Rivet pins and looseness			•	•	•	•
	Sprocket deformation and damage condition			•	•	•	•
	Is the sprocket bearing loose?			•	•	•	•

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Lifting system

examine project	Check content	work Tool	every day (8 hours)	per month (200 hours)	3 months (600 hours)	6 months (1200 hours)	Per year (2400 hours)
Check whether the attachment is in normal state				•	•	•	•
Lifting cylinder	Piston rod, piston rod screw Is the thread connection loose? Deformation and damage	Inspection Measurement hammer	•	•	•	•	•
	Operation		•	•	•	•	•
	Leakage		•	•	•	•	•
	Pin and cylinder steel back bearings Wear and damage			•	•	•	•
Hydraulic pump	Is the hydraulic pump leaking? There is noise		•	•	•	•	•
	Hydraulic pump driving gear grinding Damage			•	•	•	•

Hydraulic system

examine project	Check content	work Tool	every day (8 hours)	per month (200 hours hour)	3 months (600 hours)	6 months (1200 hours)	Per year (2400 hours)
Hydraulic oil box	Oil level check, oil change		•	•	•	•	•
	Clean the oil filter					•	•
	Eliminate foreign matter					•	•
Oil return filter core	Replace the oil return filter					•	•
Control valve Rod	Is the connection loose?		•	•	•	•	•
	Operation		•	•	•	•	•
Multi-way valve	Oil Leakage		•	•	•	•	•
	Safety valve and tilt lock Valve operation			•	•	•	•
	Measuring safety pressure	Oil Pressure surface				•	•
Pipe connection head	Leakage, looseness, rupture, Deformation and damage		•	•	•	•	•
	Replace the tube						• 1-2 years

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electric

examine project	Check content	work Tool	every day (8 hours)	per month (200 hours hour)	3 months (600 hours hour)	6 months (1200 hours)	Per year (2400 hours)
Ignition Kit Position (steam Oil engine)	Is the distributor cover cracked?				•	•	•
	Is the spark plug less ablated?						•
	Adjust spark plug gap	Plug regulation			•	•	•
	Cleaning the spark plug gap				•	•	•
	Installation of covers and high voltage wires condition						•
	Is the distributor less burned?						•
	Grinding of the center part of the distributor Damage						•
	Light shaft filling lubricating oil				•	•	•
	Damage of high voltage wires	Reality Test count					•
Start the horse DA	Pinion gear engagement				•	•	•
Battery	Electrolyte volume, cleaning			•	•	•	•
	Check the electrolyte specific gravity				•	•	•
electric wire	Harness damage, loose fixing Dynamic situation			•	•	•	•
	Loose circuit connection				•	•	•

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Safety devices and accessories

examine project	Check content	work Tool	every day (8 hours)	per month (200 hours hour)	3 months (600 hours hour)	6 months (1200 hours)	Per year (2400 hours)
Seats	Check the bolts for damage or loose					•	•
Body	Check whether the frame and beam are damaged or cracked						•
	Are the rivets and bolts loose? move	Inspection check hammer					•
	If necessary, check the repair The treated area		•	•	•	•	•
	Comprehensive inspection						•
Home Lubrication Grease or replace Oil	Check chassis lubrication after cleaning Slippery	yellow Oil gun	•	•	•	•	•
	Check the oil in the tank						•

ÿ! Attention

ÿ When using oil, coolant or antifreeze different from those specified in this machine, the replacement cycle cannot be the same as that specified in this manual. Therefore, the replacement time should be shortened by half or 1/4 of the time specified in this manual.

ÿ Although high viscosity oil has a wider operating temperature range, it still needs to be replaced frequently. This is because the additives It will deteriorate slowly and will seriously damage the hydraulic system when exposed to high temperatures.

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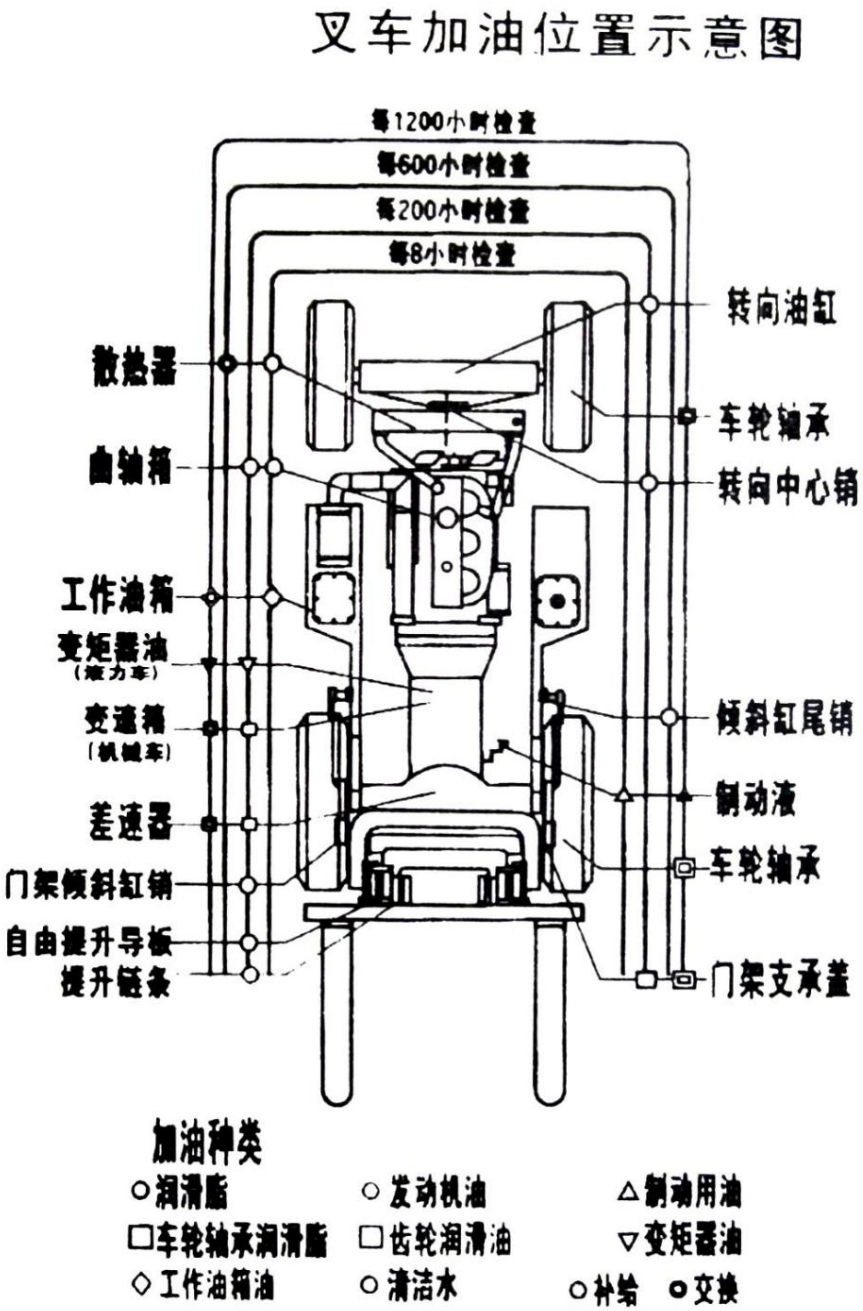
5. Others

1. Lubrication system diagram



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1. Forklift oil

NameOriginal oil		Brand, code and operating temperature				
gasoline		93# or 97#				
diesel fuel		Light diesel grade	0#	-10	-20	-35
		Operating temperature (ÿ)	ÿ4	ÿ-5	ÿ-14	ÿ-29
Gasoline Engine Oil (SF) Kunlun		Viscosity Grade	5W/30	10W/40	10W/30	15W/40
		Operating temperature (ÿ)	-30~+30	-25~+40	-25~+30	-20~+40
Diesel Engine Oil (CD) Kunlun		Viscosity Grade	5W/30	10W/30	15W/40	20W/50
		Operating temperature (ÿ)	-30~+30	-25~+30	-20~+40	-15~+50
Hydraulic oil	Kunlun	Viscosity Grade	L-HM32 anti-wear hydraulic oil L-HV32 low temperature anti-wear hydraulic oil			
		Operating temperature (ÿ)	ÿ-5		ÿ-20	
Hydraulic transmission oil Kunlun		6# hydraulic transmission oil				
Brake fluid	Seeking Truth	DOT3 synthetic brake fluid (GB12981-2003HZY-3)				
grease	Kunlun	3# general purpose lithium-based grease (-20ÿ~+120ÿ)				
Heavy duty vehicle gear Wheel oil	Kunlun	Viscosity Grade	GL-5 85W/90		GL-5 80W/90	
		Operating temperature (ÿ)	-15~+49		-25~+49	
antifreeze	Kunlun	Code	FD-1	FD-2	FD-2A	FD-3
		Operating temperature (ÿ)	ÿ-25	ÿ-35	ÿ-45	ÿ-50

ÿ! Attention

ÿ It is recommended to use corresponding products of Kunlun brand.

ÿ Different brands of oil cannot be mixed.