



MANUAL

Prins Tiger

Tiger L – Tiger XL – Tiger XXL

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2. Foreword

We thank you for purchasing this Prins Tiger forklift from Prins.

In this manual you will find all the important data you need when operating and maintaining your forklift. Before using the forklift, we recommend that you read this manual very carefully. We advise other users to read this manual carefully as well. After studying this manual, keep it in a logical place so that you always have information about maintenance, defects and the like.

If you want to order parts for your Prins forklift, or if you have any questions and/or comments about this, please contact Prins Maasdijk. If you contact Prins Maasdijk, always state the service and serial number of the forklift. These are listed on the plates mounted in the upper left and right corners of the steering column.

3. General Safety Regulations

When working with and performing maintenance on the forklift, you should always be aware of the dangers that can be involved. Pay close attention to the safety rules. Failure to do so may result in serious bodily injury to you or others.

The manufacturer cannot foresee every unsafe situation. As a user, you must therefore also ensure your own and other people's safety while using and maintaining the forklift. Always use the tools and products recommended by the manufacturer. When repairing, use only the original parts.

For your own and others' safety:

- Never overload the truck above the maximum permissible lifting weight indicated in the load diagram on the machine.
- Pay close attention to the load diagram, which can be found on the bonnet of your forklift.
- In the unlikely event that you are forced to take the load on one fork, keep in mind that the maximum load is halved. However, try to avoid this as much as possible.
- When driving with a load, keep your speed low (never top speed!) and keep the load as low as possible above the ground.
- When the load is lifted, keep the speed as low as possible and pay attention to the headroom of the forklift.
- Always carry out the necessary preventive checks on the forklift before working with it. Never start working with the forklift truck until you have fully checked it. Pay particular attention to the tires, battery, brakes, steering, fuel system and electrical components. This prevents accidents.
- Never add fuel while the engine is running. Smoking is not allowed during refueling or oil changes/refills, and there must be no fire or sparks in the immediate vicinity. Explosive gases are released during refueling.
- After refueling or oil change/topping up, always remove spilled liquid from the forklift.

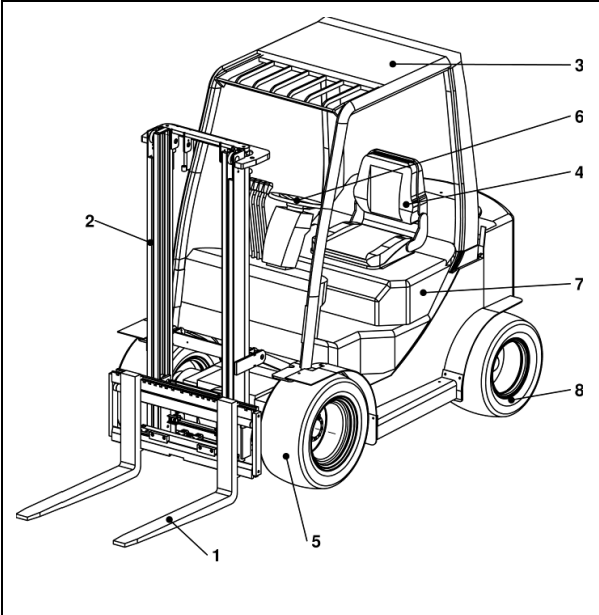
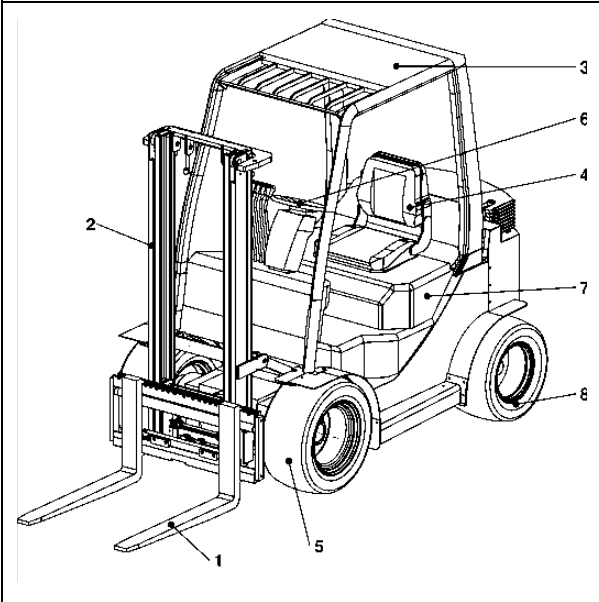
- Before refueling or changing or topping up/refill, check the machine for oil or fuel stains and check where they are coming from. If they are the result of a technical defect, repair them first before working with the forklift.
- When exiting the forklift, always apply the handbrake and put the gearbox in the neutral position.
- An incorrect sitting posture can lead to accidents. Therefore, always adjust the seat first so that you can operate all levers properly and have a good view.
- Never work with a forklift without a safety cage or roll bar (as supplied as standard).
- Always wear a seat belt when using the forklift.
- Always drive at a speed that gives you good control of the forklift.
- Speeding can be dangerous for you and those around you. Sudden braking, accelerating or turning can also cause a dangerous situation.
- If you are working in places with limited headroom, where you have to drive in and out, please note the following points
 - Always check that there is enough space next to and above the forklift.
 - Always keep all parts of the body within the safety cage, hands on the handlebars and your feet on and/or near the pedals.
 - Avoid dangerous situations while driving.
- Operate the levers carefully. This significantly extends the life of your forklift and increases safety.
- Never allow people to walk under the forks with load. This is very dangerous.
- Never let anyone ride on the forklift or use the forks to lift anyone.
- Always lower the load slowly and do this with a horizontal fork or with a slightly backward sloping fork. Never do this with a fork that slopes forward.
- The condition of the machine can be checked by numerous factors.
- Changes in noise, vibration, or reactions to control levers can be indicative of defects or flaws. If you suspect a defect, immediately pull over the forklift and stop the engine. Check the cause and take the necessary measures.

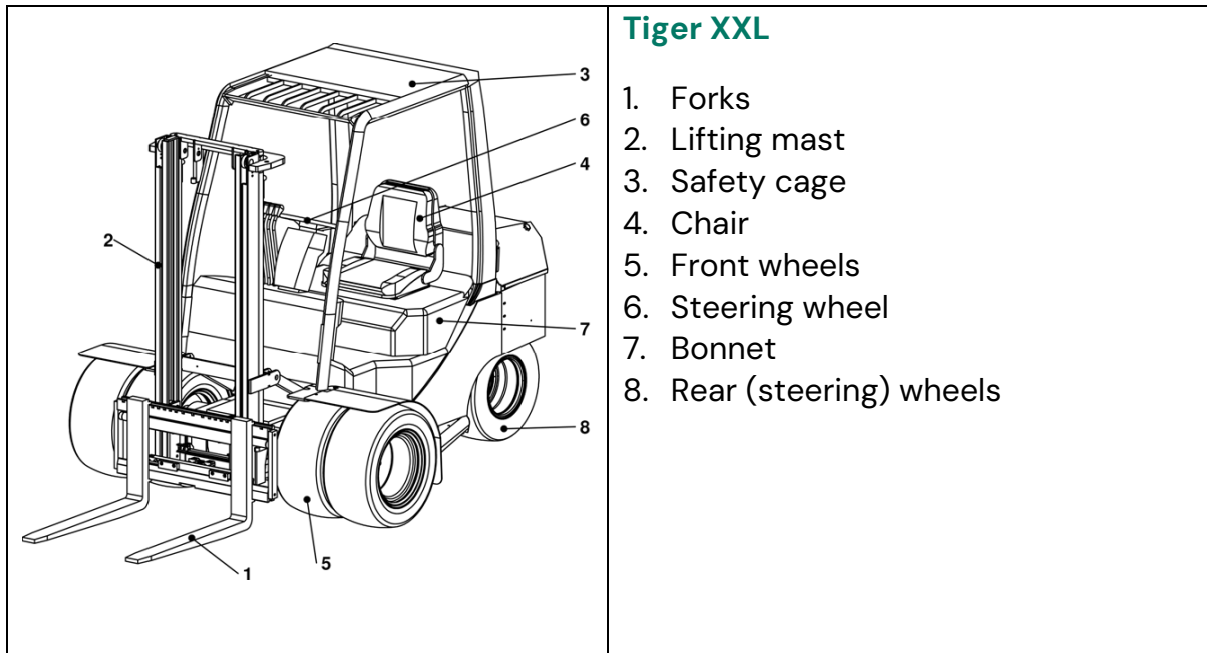
3.1 Meaning of safety symbols

 Follow the directions for use and safety	 Wear safety goggles and protective clothing
 Smoking and open flames prohibited	 Electrolyte is highly corrosive
 Connectors under tension, avoid contact	 Areas where batteries are located or charged must be adequately ventilated

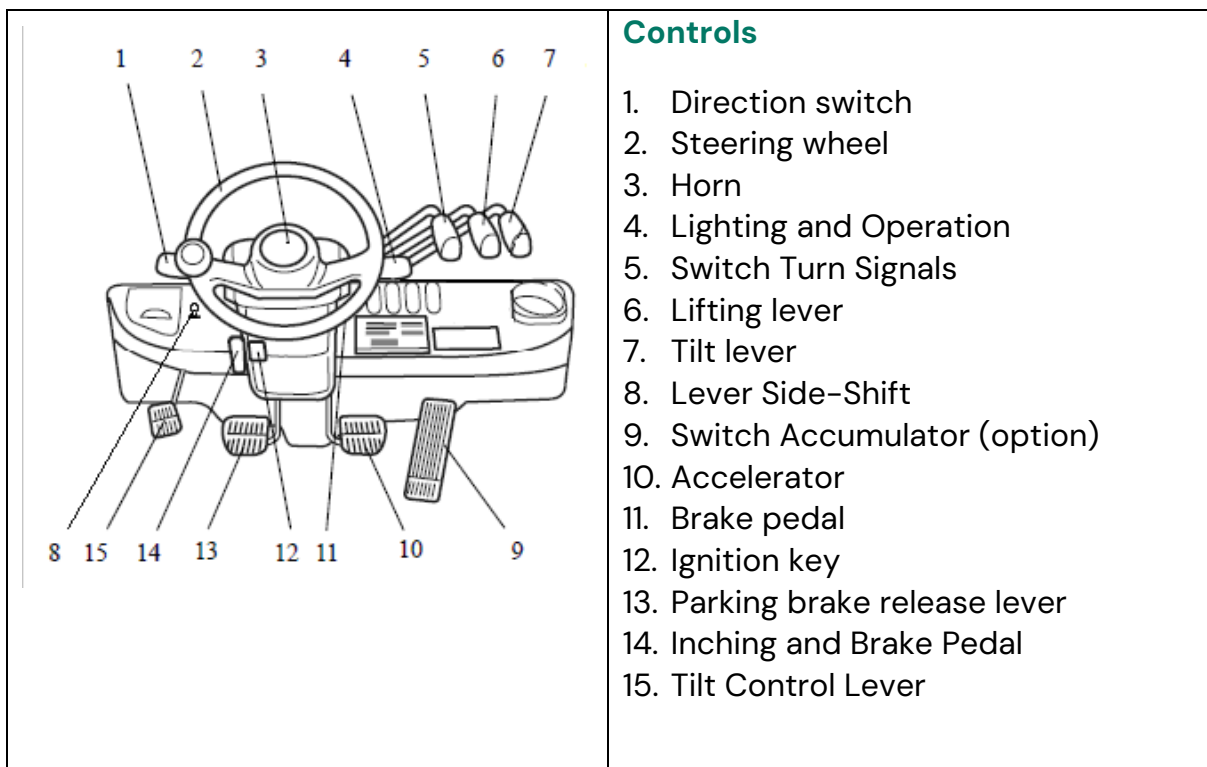
4. Machine and controls overview

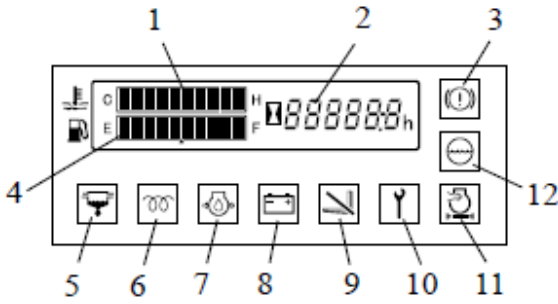
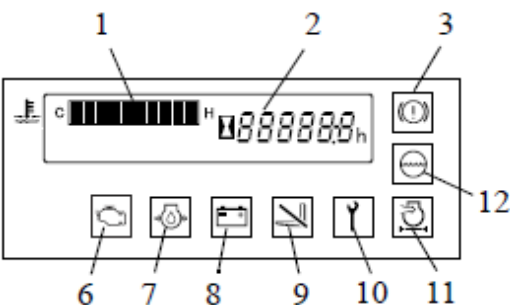
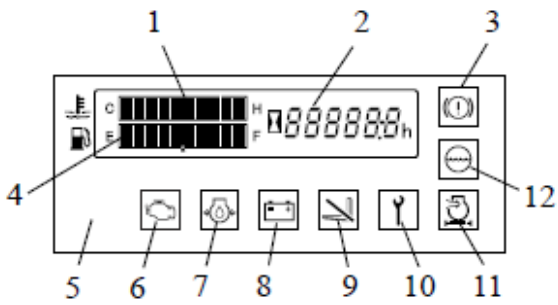
4.1 Machine Overview

	Tiger L 1. Forks 2. Lifting mast 3. Safety cage 4. Chair 5. Front wheels 6. Steering wheel 7. Bonnet 8. Rear (steering) wheels
	Tiger XL 1. Forks 2. Lifting mast 3. Safety cage 4. Chair 5. Front wheels 6. Steering wheel 7. Bonnet 8. Rear (steering) wheel



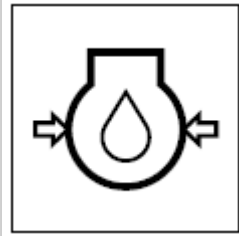
4.2 Overview of controls and instrument cluster



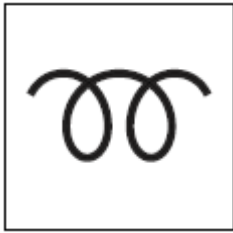
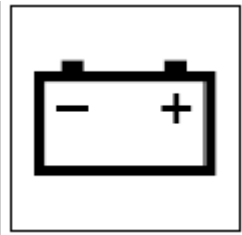
 Models with Diesel engine  Models with Diesel engine  Models with Petrol/LPG engine	Signaling 1. Water temperature gauge 2. Hour meter 3. Brake warning light (OK monitor: option) 4. Fuel gauge (Diesel and petrol/LPG engine models) 5. Sedimenter warning light (diesel engine versions) 6. Preheat indicator light (versions with diesel engine) Engine indicator lamp (versions with LPG and petrol engine/LPG engine) 7. Engine oil pressure warning light 8. Charging warning light 9. OPS light 10. Diagnostic light 11. Air filter warning light (OK monitor: option) 12. Coolant level warning light (OK monitor: option)
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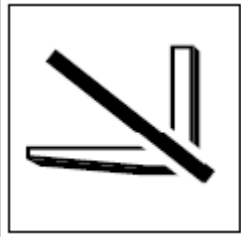
 Getting started	Control method with warning lights Check that all warning lights are on when you turn the ignition key to ON. <i>Note:</i> Use the lighting control switch to check the meter light light. ► Please note! • The preheat indicator lamp (diesel versions) only lights up for 2 seconds if the engine coolant temperature is higher than 50 °C. • Contact Prins Maasdijk for an inspection if a light does not come on.
	The hour meter also acts as a diagnostic light The hour meter is active when the ignition key is set to ON. This indicates the total number of hours of use of the vehicle. The unit of the digit on the right is 1/10 o'clock. Use this meter for the intervals for periodic maintenance and recording the hours of use.

	If there is a deviation on the vehicle (diagnostic light goes light up or flash), then the DTC and hour meter are displayed in turn Displayed. ► Please note! When a DTC is displayed, you must park the vehicle in a safe place and contact Prins Maasdijk for an inspection.
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	Engine oil pressure warning light This light will illuminate to indicate low engine oil pressure while the engine is running. - Under normal conditions, the light will illuminate when the ignition key is turned ON and will turn off when the engine is started. - If the light comes on while the engine is running, the engine oil level is low or there is a malfunction in the lubrication system. Stop the machine immediately and contact your dealer for inspection and repair. <i>Note:</i> The "engine oil pressure warning light" does not indicate the oil level. Check
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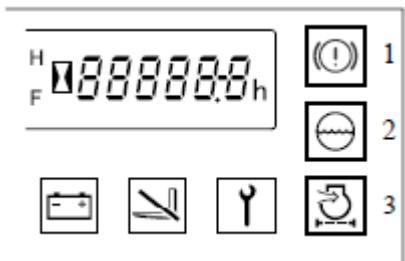
	the oil level using the oil dipstick before using the vehicle
	Sedimenter warning light (diesel engine versions) The sedimenter is a device that separates water from fuel. 1. The warning light will illuminate to indicate that the water in the sedimenter is exceeding the preset level while the engine is running. 2. Under normal conditions, the light will illuminate when the ignition key is turned ON and will turn off when the engine is started. 3. If the light comes on while the engine is running, you should remove the water drain immediately. (See the "Performing Self Maintenance" section for instructions for draining.) ► Please note! • Continuing to use the vehicle while the light is on may cause the injection pump to jam resulting in damage. Always drain the water when the warning light is on

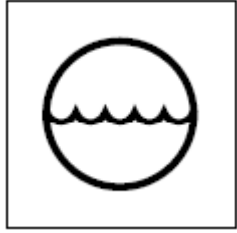
	Preheat indicator light (diesel engine versions) Displays the heating of the glow plugs. When the ignition key is set to ON, the light will illuminate and the glow plugs will be warmed up. The light turns off automatically when the glow plugs are sufficiently heated. The engine starts easily as soon as the glow plugs are heated. <i>Note:</i> The preheat indicator light will be on for 2 seconds if the temperature of the engine coolant is higher than 50 °C.
	Charging warning light 1. This light will illuminate to indicate that there is an abnormality in the charging system while the engine is running. 2. Under normal conditions, the light will illuminate when the ignition key is turned ON and will turn off when the engine is started. 3. Stop immediately if the light is on while the engine is running and park the vehicle in a safe place. Turn off the engine and –

	after the motor has cooled down – inspect the fan belt for cracks or looseness and adjust possibly off. Restart the engine. If the light does not turn off, there may be a fault in the electrical system. Contact Prins Maasdijk immediately for an inspection and repair.
	OPS light When the driver gets off the seat, the OPS light illuminates to indicate that the OPS system is working. (If the operator is back in the driver's seat within 2 seconds, load handling may be reduced continued.) In such a situation, move the control lever to the neutral position and return to the driver's seat. ► Please note! There may be a malfunction in the OPS system in the following cases . Park the vehicle in a safe place and contact Prins Maasdijk for an inspection. • If the driver leaves the driver's seat, the OPS light does not turn • burning.

	• Even if the driver sits back in the driver's seat, it goes • OPS light not off.
	Water temperature gauge Indicates the temperature of the engine coolant. 1. This meter only works when the ignition key is set to ON; The cooling water temperature is displayed on a scale of 0 to 10 (from left to right). 2. The driver is alerted when the water temperature is 115 °C or higher (8 blocks on the scale), at 9 and 10 the light starts flashing. 3. Temporary overheating may result from leaking coolant, low engine coolant level, loose fan belt, or other problems in the cooling system. Take contacted Prins Maasdijk for an inspection.
	Fuel gauge (Models with diesel engine and petrol/LPG engine) This indicates the amount of fuel remaining in the tank on a scale of 1 to 10. The first two blocks will flash to warn the driver that the level of remaining fuel is low.

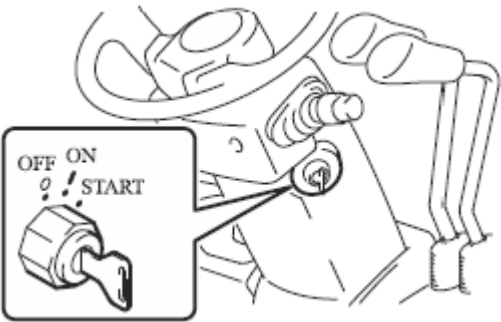
	It takes a while for the display to stabilize again after you have refueled and turned the ignition key to ON. <i>Note:</i> • If the job site is not even, be aware that the correct fuel level may not be displayed. • Once the meter starts flashing, you should use it as soon as possible • refueling. With diesel versions, you need to refuel in time, because when the tank is completely empty, you have to drain the air from the fuel supply system.
	Diagnostic light If an anomaly is recorded by the OPS system or the mini lever, then the relevant lights will light up or flash to warn the driver; the DTC is shown on the hour meter display. If any of the following circumstances occur, there may be a be an anomaly in the system. Neem contact op met Prins Maasdijk for an inspection.

	• The light does not illuminate when the ignition key is switched to ON • Put. • The light will illuminate if the ignition key is set to ON for an extended period of time. • The light flashes when the ignition key is set to ON. ► Please note! • Continuing to use the vehicle while the diagnostic light is on or flashing may result in a malfunction. Stop all operations and park the vehicle in a safe place if the light is on or flashing. Please contact Prins Maasdijk for an inspection. (In diesel versions, the diagnostic lamp may come on during the engine warm-up after a cold start, but this does not indicate a malfunction.) • If the driver remains in the driver's seat for a long time while the ignition key is set to OFF, the diagnostic light may flash as soon as the ignition key is set to ON. If this happens, get out of the chair. The diagnostic light will then go out.
	OK monitor (option) Records engine coolant levels, brake fluid levels, clogged air filter status, and parking brake status. The light will illuminate to indicate a problem. If the

1. Brake warning light 2. Coolant level warning light 3. Air filter warning light	light comes on while the ignition key is set to ON (regardless of the engine speed), then there may be a malfunction in the part in question. Please contact Prins Maasdijk for an inspection. ► Please note! • Always carry out a check before use. Do not rely on the OK monitor even if it does not light up.
	Coolant level warning light 1. If the coolant level of the radiator reserve tank becomes low, the indicator light comes on to warn the driver. 2. If the light comes on while the engine is running, it may indicate a lack of coolant. Stop the engine and check the coolant level in the radiator reserve tank and the radiator itself. Before checking the coolant level in the radiator, you should first wait for it to cool down because it may be pressurized when heated. 3. Even if the coolant warning light is not on, check the coolant level before using the vehicle.

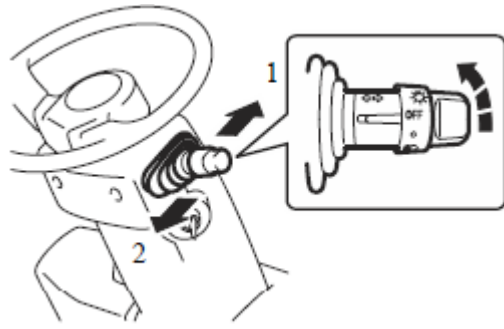
	Air filter warning light 1. The light will come on if any of the elements of the air filter become clogged while the engine is running. 2. Under normal conditions, the light will illuminate when the ignition key is turned ON and will turn off when the engine is started. 3. Stop all operations and park the vehicle in a safe place if the light comes on while the engine is running. Stop the motor and clean the element and the dust cover. Read the Weekly Inspection section for more information on the cleaning method.
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4.3 Switches and levers

	Ignition key O [OFF] – Engine is off. In this position, you can remove the key from the ignition. I [ON] – Motor can be operated. Is one position further (clockwise) than the O [OFF] position. The intake heater is preheated before starting in diesel engine versions. START – Engine, starting position. Is one position further (clockwise) than the position I [ON]. Release the key after the engine is started; the key will automatically return to the I [ON]
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	position. In the torque converter version, the engine does not start before the control lever is in the normal position. ► Please note! • Use the ignition key only when you are in the driver's seat. Otherwise, the fork may become uncontrollable and cause an accident. • When the OPS light is on, move each lever to the neutral position and sit in the driver's seat. • Then check if the light is off. • Do not leave the switch in the [ON] position when the engine is off. This can drain the battery. • Do not move the switch to the START position when the engine is running. • For safety reasons, we recommend that you only start the engine of a vehicle when the gearshift lever of the transmission is in the neutral position. • Do not activate the starter motor for more than 30 seconds at a time. Return the switch to the [OFF] position and wait at least 30 seconds before attempting to start. • In the case of an ignition key with anti-restart (optionally available), move the switch to the [OFF] position before attempting to restart the engine.
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	• the fork cannot be lowered even if the lever is • operated. But if you are in the driver's seat and the • ignition key to ON, you can lower the fork. • (except versions with mini lever). Use the • Lifting lever only when you are in the vehicle and have the engine • . (ignition key set to OFF = lifting locked) • If the diagnostic lamp does not go out even though the driver is in the driver's seat, the battery voltage are low. In such cases, you should not drive the vehicle as long as the light is on, otherwise the vehicle may not work properly. If you are required to drive the vehicle, do so with extreme caution. Stop the machine and ask Prins Maasdijk to carry out an inspection if the light does not turn off within 1–2 minutes after the engine is started or if you run the engine at a high speed for a while. (For vehicles with diesel engines: the diagnostic light may remain on for a short time to warm up the engine after a cold start. However, this does not indicate a malfunction or malfunction in the engine.)
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1. Left turn signal
2. Turn signal right

Integrated switch for lights and indicators

This two-position switch can be used for the lighting and for the turn signals.

Switch for lighting

Regardless of the position of the ignition key, you can use switch the lights on and off. This switch has two positions. Below is indicates which lighting is switched on in the different modes.

► Please note!

- Do not leave the lamps (e.g. headlights) on for a longer period of time when the engine is off. This can drain the battery and the engine cannot start afterwards.

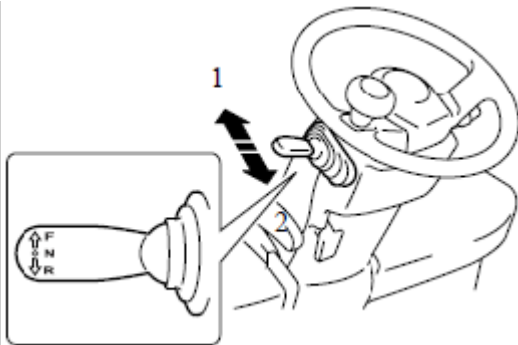
Switch for turn signals

This will cause the indicators to flash.

Turn left – Push forward

Turn right – Pull back

The turn signal only works when the ignition key is set to ON. The turn signal lever automatically returns to its original position when you have made the turn.



Control lever

Lever to switch between forward and backward.

Forward – Push forward

Backward – Pull backward

The neutral position is in the middle between the forward and reverse positions.

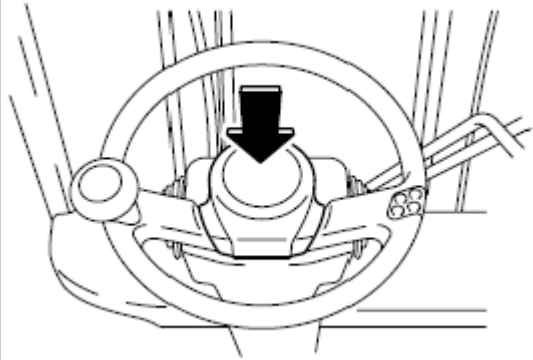
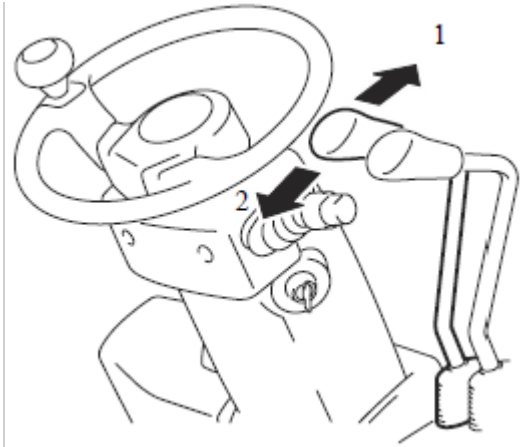
Note:

Release the accelerator pedal completely, turn on the control lever in the neutral position and sit in the driver's seat when the OPS system is activated. You can now drive again. (It is only possible with machine when the control lever is in the neutral position, even if the operator is sitting on the driver's seat.)

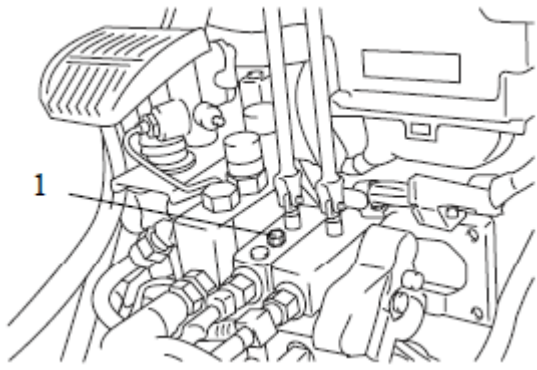
► Please note!

- The engine can only be started when the control lever is in the neutral position.
- Stop the vehicle before switching between forward and reverse travel.

	Torque converter lockout function (option) If you are driving at high speed and move the control lever to a different position from the current direction of travel, the this function automatically blocks driving and puts the torque converter in the neutral position. As soon as the speed falls below the set speed while the vehicle is in neutral position, the direction of travel is automatically changed. If you want to change the direction of travel, use the control lever when the travel speed has decreased sufficiently. Please contact Prins Maasdijk if you want to change the speed setting. ► Please note! • If the lock is activated, you must release the accelerator pedal and use the brake to reduce the speed. If the vehicle is stationary, you can slowly press the accelerator pedal again to continue driving. If you release the lock while keeping the accelerator pedal depressed, the wheels may slip. • Do not switch between driving forward and reversing up slopes. If
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	the control lever is used while driving down a slope, then the torque converter's lockout function may not work properly.
	Horn Press the button in the middle of the steering wheel to activate the horn. The horn is also activated as the ignition key is set to OFF.
 1. Down 2. Up	Lifting lever This allows you to raise and lower the fork. Up – Pull Back Down – Push forward The lifting speed can be determined by pressing the accelerator pedal and pulling the pedal backwards lever. The lowering speed can only be determined by pushing the lever forward. ► Please note! Release the accelerator pedal completely, move the control lever to the neutral position and sit in the driver's seat when the OPS system

	is activated. You can now drive again. (Sitting on the seat while raising the lift lever will react to the the fork 1 second later.) • If you sit on the seat while lowering the lifting lever, the fork will not go down, because of the function. Back to neutral. • Only use the lifting lever when you are sitting properly on the chair. • If the engine is turned off (ignition key set to OFF) and if you push the lift lever down, the fork will not go down. However, if the driver normally sits on the seat and then set the ignition key to ON, the fork down, even though the engine is off. (Does not apply to mini-lever or joystick versions).
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1. Lift lock release bolt

Lifting lock using ignition key

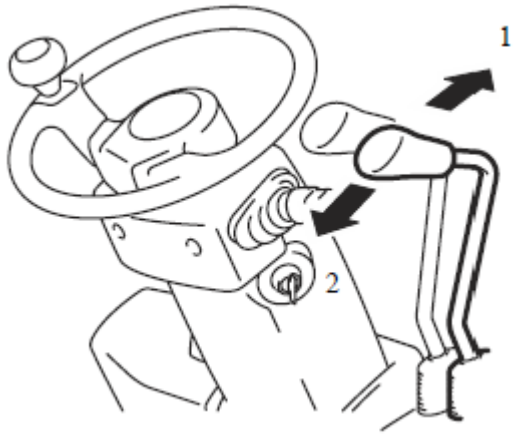
If the ignition key is set to OFF, the fork will not go down even though the lift lever is activated. But if the driver is seated properly in the seat and sets the ignition key to ON, the fork will go down even though the engine is off (except for mini-lever/joystick versions).

If the ignition key cannot be turned ON for any reason, you must place the hand valve on the

Loosen the oil control valve under the footrest and push the lifting lever downwards.

Close and lock the valve again once the fork has been lowered using the release bolt of the

Lift lock



1. Forward tilt
2. Backward tilt

Tilt lever

Tilts the mast forwards and backwards.

Forward – Push forward

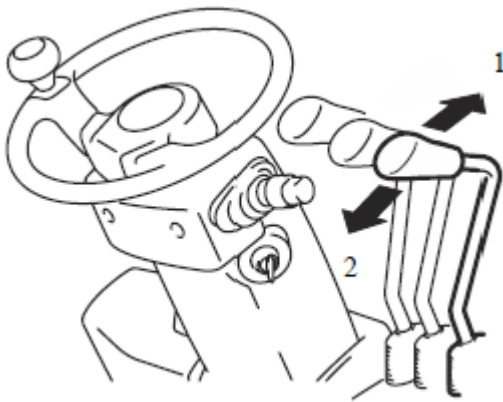
Backward – Pulling backward

The forward and backward tilt speed can be adjusted by pressing the accelerator pedal

and pressing the lever.

► Please note!

- Make sure the loading/unloading control levers are in the neutral position before re-seating the driver's seat. If you do not do this, the loading/unloading functions will start moving 1 second after the driver is back in the seat.
- Always operate the tilt lever while in the driver's seat.
- Release the accelerator pedal completely, move the tilt lever to the neutral position, and sit in the driver's seat when the OPS system is activated. (If the operator is seated in the driver's seat without moving the load/unload control levers to the neutral position, the loading/unloading functions will start 1 second later.)



1. Move to the left
2. Move to the right

Lever for the side-shift

Slide the fork truck to the left or right.

Left – Push forward

Right – Pull back

► Please note!

- Make sure the loading/unloading control levers are in the neutral position before re-seating the driver's seat. If you do not do this, the loading/unloading functions will start moving 1 second after the driver is back in the seat.
- Always operate the side-shift lever while in the driver's seat.
- If the OPS system has been in operation, release the accelerator pedal completely, move the sideshift lever to the neutral position and sit in the driver's seat to re-engage the function. (If the operator is seated in the driver's seat without moving the loading/unloading control levers to the neutral position, the loading/unloading functions will start 1 second later.)



Mini lever (option)

Control lever

Lever to switch between forward and backward.

Forward – Push forward

Backward – Pulling backward

The speed of forward and reverse travel can be

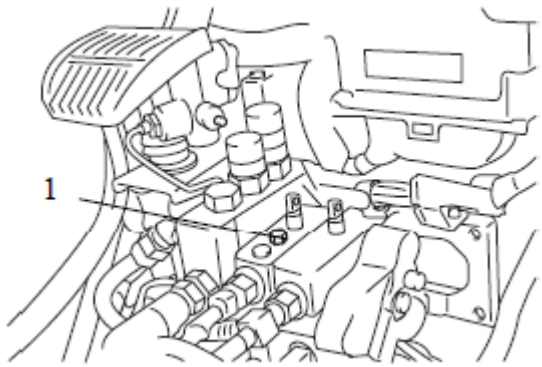
by pressing the accelerator pedal.

Note:

- Stop the vehicle before switching between forward and reverse travel.
- Release the accelerator pedal completely, move the control lever to the neutral position and sit in the driver's seat once the OPS system is activated. You can now drive again.
- Only operate the control lever while in the driver's seat.
- Depending on the vehicle specifications, the position of the control lever may vary.



1. Up
2. Down



1. Lift lock release bolt

Lifting lever

Lifting and lowering the fork.

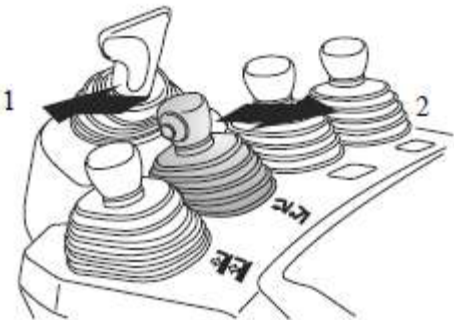
Up – Pull Back

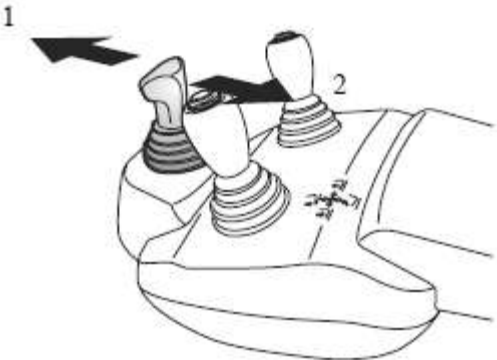
Down – Push forward

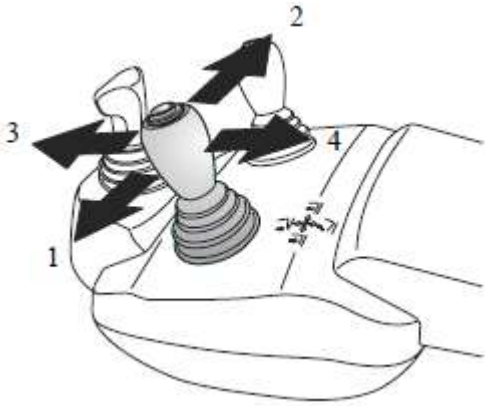
The lifting speed can be changed by pressing the accelerator pedal and pulling the lifting lever backwards. The lowering speed can be changed by pushing the lifting lever forward.

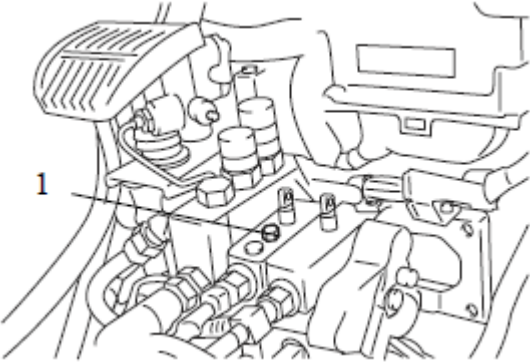
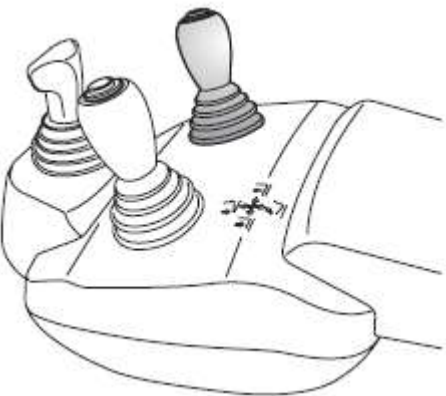
Note:

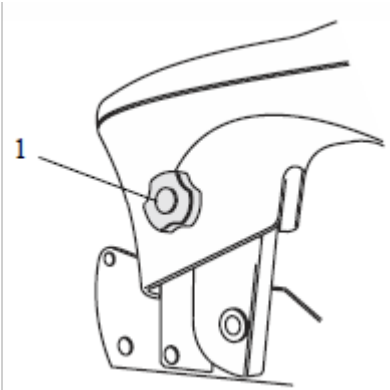
- Release the accelerator pedal completely, move all control levers to the neutral position and press the driver's seat as soon as the OPS system is activated. You can now drive again.
- If you sit back on the seat while lowering the lifting lever, the fork will not go down, due to the Function for back to neutral.
- Always operate the lifting lever while sitting in the driver's seat.
- When the ignition key is set to OFF, the fork will not go down even though the lever is activated.
- (Lifting lock using ignition key)
- If the fork does not lower due to a malfunction in the system or any other cause, it can be lowered by opening the lift lock release bolt.
- If you lower the fork by unscrewing the lift lock release bolt, you will

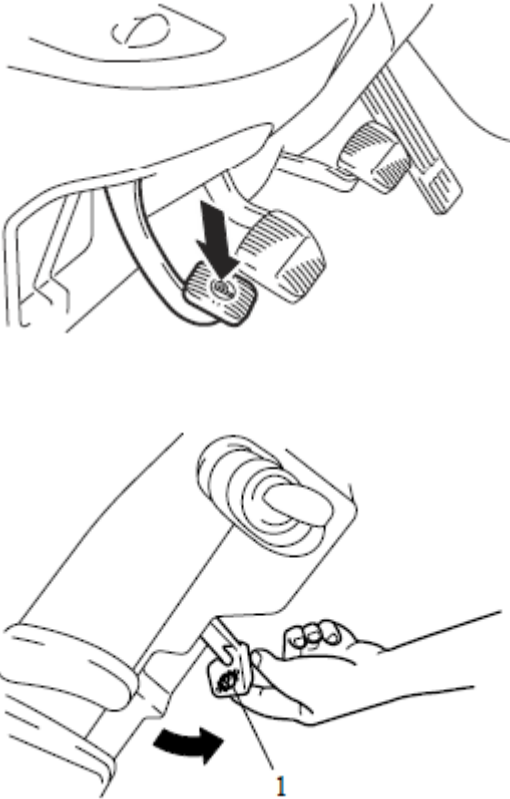
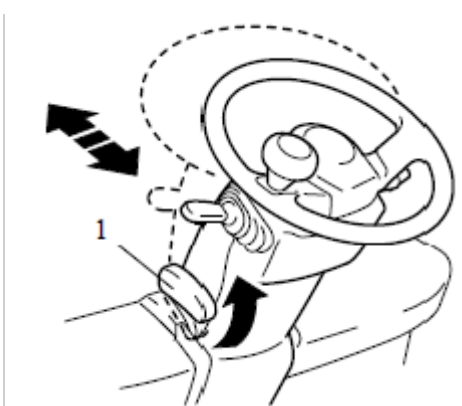
	then need to close and lock the bolt again.
 1. Forward tilt 2. Backward tilt	Tilt lever Tilts the mast forwards and backwards. Forward – Push forward Backward – Pulling backward The forward or backward tilt speed can be changed by pressing the accelerator pedal and using the lever. Note: • Release the accelerator pedal completely, move all control levers to the neutral position and sit in the driver's seat once the OPS system is activated. You can now drive again. • Always operate the tilt lever only while seated properly in the driver's seat.

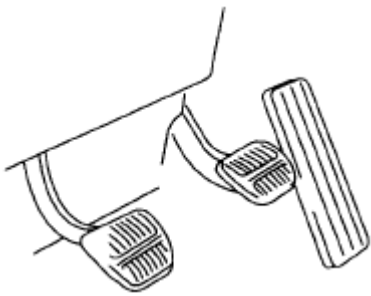
	Attachment lever For operation of the attachment. The speed of the attachment can be changed with the pressing the accelerator pedal and using the lever. <i>Note:</i> - Release the accelerator pedal completely, move all control levers to the neutral position and press the driver's seat as soon as the OPS system is activated. You can now drive again. - Always operate the attachment lever only while in the driver's seat.
 1. Forward 2. Backwards	Joystick (option) Control lever Lever to switch between forward and backward. Forward – Push forward Backward – Pulling backward The speed of forward and reverse travel can be changed by pressing the accelerator pedal.

	Note: • Stop the vehicle before switching between forward and reverse. • Release the accelerator pedal completely, move the control lever to the neutral position and sit in the driver's seat once the OPS system is activated. You can now drive again. • Always operate the control lever only while in the driver's seat. • Depending on the vehicle specifications, the position of the control lever may vary.
 1. Down 2. Up 3. Forward tilt 4. Backward tilt	Tilt and lift lever Left and right for up, forward and backwards for tilting. Up – Move lever to the right Down – Move lever to the left Forward tilt – Move lever forward Backward tilt – Move lever backward The lifting speed and forward or backward tilt speed can be changed by pressing the accelerator pedal and using the lever. The lowering speed can be adjusted with the lever. Note:

 1. Lift lock release bolt	• Release the accelerator pedal completely, move all control levers to the neutral position and press the driver's seat as soon as the OPS system is activated. You can now drive again. • Sitting back on the seat while lowering the lift lever will prevent the fork from lowering due to the function back to neutral. • Always use the loading/unloading lever while seated properly in the driver's seat. • When the ignition key is set to OFF, the fork will not go down even though the lever is activated. • (Lifting lock using ignition key) • If the fork does not lower due to a malfunction in the system or any other cause, it can be lowered by opening the lift lock release bolt. • If you lower the fork by unscrewing the lift lock release bolt, you will then need to close and lock the bolt again.
	Attachment lever For operation of the attachment. The speed of the attachment can be changed by depressing the the accelerator pedal and the use of the lever. <i>Note:</i> • Release the accelerator pedal completely, move all control levers

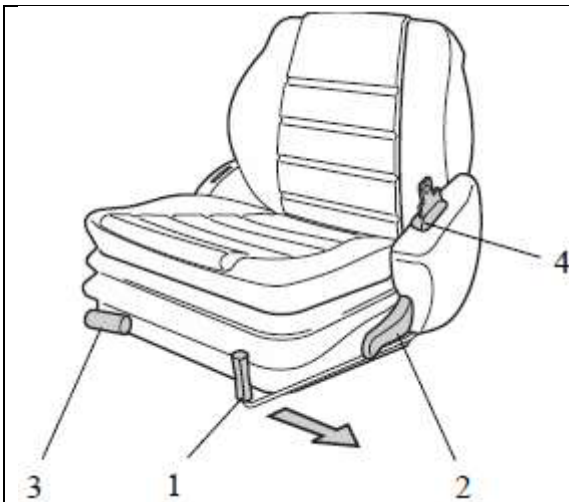
	to the neutral position and press the driver's seat as soon as the OPS system is activated. You can now drive again. You can use the attachment control lever again if you are seated properly in the driver's seat.
 1. Adjustment knob	Adjustment of the armrest position Before starting work with the vehicle, adjust the armrest until the armrest is in the correct position for the driver. Loosen the adjustment knob and set the armrest in the desired position. ► Please note! - After adjusting the armrest, check that the knob is properly secured. If the button comes off the machine during operation, you may make errors during operation. - Do not adjust the position of the armrest while driving or loading/unloading

 1. Release lever	Parking brake pedal Use the parking brake pedal to park or to stop. 1. When you want to engage the parking brake, you must press the brake pedal and press the parking brake pedal fully. 2. When you want to release the parking brake, you must pull the release lever towards you while pressing the brake pedal. Warning! • Before using the parking brake, press the brake pedal and always make sure that the vehicle is completely stationary. • If you park on a slope, you will have to put blocks in front of the wheels. • If you drive without disengaging the brake, braking performance decreases.
 1. Tilt Unity Adjustment Lever	Adjusting the steering wheel tilt 1. The position of the steering wheel can be changed forwards and backwards while the tilt-steering adjustment lever is raised. 2. Lowering the lever again secures the steering wheel in the position it is currently in. 3. After setting, try to move the steering wheel forward and backward; This will help you check if it is attached.

	► Please note! The position of the steering wheel must be adjusted before starting the vehicle. Do not adjust the steering wheel while driving.
	Pedals From right to left: accelerator pedal, brake pedal and inching pedal. The accelerator pedal remains in the neutral position even though the control lever is set to forward/backward. The vehicle only moves when the accelerator pedal is pressed.
	Fuel switch (petrol/LPG engine models) Use this switch to switch the fuel supply of LPG or gasoline on and off. OFF – horizontal position Engine cannot be started because no fuel is supplied. LPG – lowest setting GAS – highest setting <i>Note:</i>

	• If the ignition switch is set to OFF, no fuel is supplied to the engine even if the fuel switch is set to LPG or GAS (PETROL). • If you want to switch off the engine of the LPG version, you must turn the fuel switch to OFF and let the engine run until it stops by itself. After the engine has stopped, take out the gas tank, close the valve, turn the ignition switch to OFF and remove the key from the ignition.
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4.4 Body Parts



Standard seat



Optional seat

1. Slide lever
2. Backrest adjustment knob
3. Weight adjustment knob
4. Belt
5. Lumbar support button

Driver's seat

The driver's seat and seat belt are for your safety. Make it a habit to use the seat belt at all times.

► Please note!

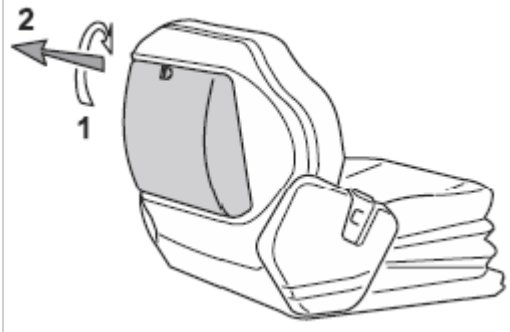
- The seat switch ensures that the vehicle cannot be driven and that loading/unloading is not possible when the driver is not in the seat. Stay on the seat as long as the vehicle is operating. Do not operate the vehicle with objects on the seat. This causes the OPS system to work abnormally.
- Turn the seat switch only when seated on the seat.

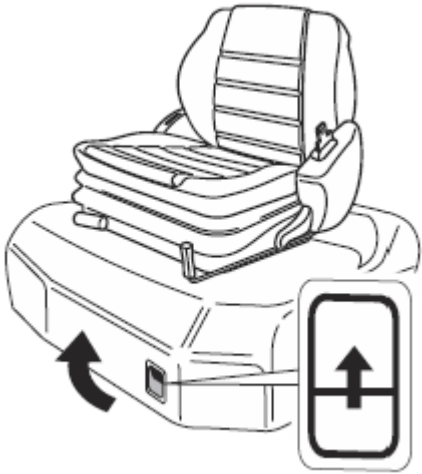
The mechanism for the seat suspension provides a comfortable seating position, based on the weight of the driver. The optimal riding position can be adjusted using the following button and levers.

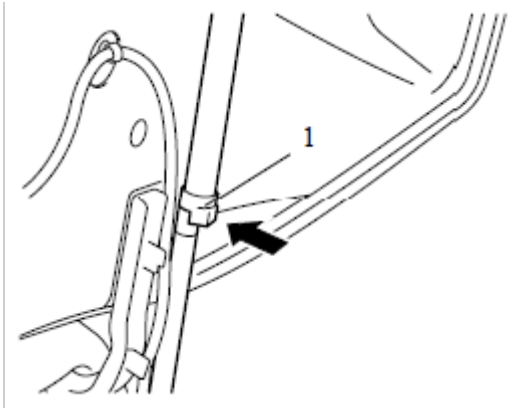
Set.

1. Slide lever

	Pull the slide handle to move the chair backwards and forwards. The seat locks when the lever is released. 2. Backrest adjustment knob Press the button on the back left to adjust the angle of the back of the chair. 3. Weight adjustment knob You can adjust the seat to a higher body weight by turning the knob on the front right of the seat clockwise. Turn the knob counterclockwise to turn the seat to a lower body weight. 4. Belt Lumbar Support Button (Optional Seat) Turn the knob to adjust the lumbar support. ► Please note! • Set the desired seat position before driving the vehicle. If you sit incorrectly on the seat, the vehicle will steer heavily. • After adjustment, move the seat slightly forward and backward to check that the seat is properly locked.
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	Compartment in the chair There is a compartment for the Owner's Manual and the Owner's Manual for Safety Operations on the back of the chair. Press the clamp down and pull the compartment open. If a manual is missing, request a new copy from your assistance center. Make sure the box is properly closed. <i>Note:</i> The compartment in the chair is only available for the standard model chair.
	Seat belt When you want to attach the seat belt, pull the belt out of the mechanism and insert the tab into the buckle. You will hear a click when the end closes in the buckle. Pull the belt to make sure it's secure. The length of the seat belt automatically adjusts to your body. To release the belt, pull the off switch, which will retract it. <i>Note:</i> If the seat belt is locked and cannot go any further then pull the belt hard again and release; Now carefully tighten the belt.

	► Please note! • Always wear your seat belt while working. • Your seat and seat belt will reduce the risk of serious injury or death in the event of the vehicle tipping over. • If the vehicle rolls over, the risk of serious injury or death is counteracted by remaining with the vehicle in the driver's area. • Read the information in the Safety User Manual on residual rollover risks.
	Bonnet Open 1. Pulling the release lever in the hood unlocks the hood and raises it slightly. 2. Lift the hood. 3. Open the hood completely and then shake it slightly to check that the hood is properly held back before releasing it. Close 1. Lift the hood and press the hood damper latch to release the latch. 2. Gently close the hood and press it down until you hear a click. ► Please note! It is dangerous to work on the engine if the hood is not secured.



1. Damping lock

Bonnet

(Mini lever/joystick versions)

Open

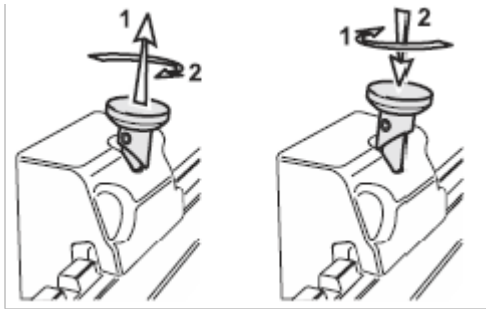
1. Pull the release lever. Tilt the steering rod forward.
2. Pull up on the slide handle and slide the seat all the way forward.
3. Loosen the armrest adjustment knob, tilt the armrest downwards and tighten the knob again.
4. Pulling the release lever in the hood unlocks the hood and raises it slightly.
5. Lift the hood.
6. Open the hood completely and then shake it slightly to check that the hood is properly held back before releasing it.

Close

1. Lift the hood and press the latch to release it.
2. Gently close the hood and press it down until you hear a click.
3. Return the chair and armrest to their normal position.

► Please note!

It is dangerous to work on the engine if the hood is not secured.



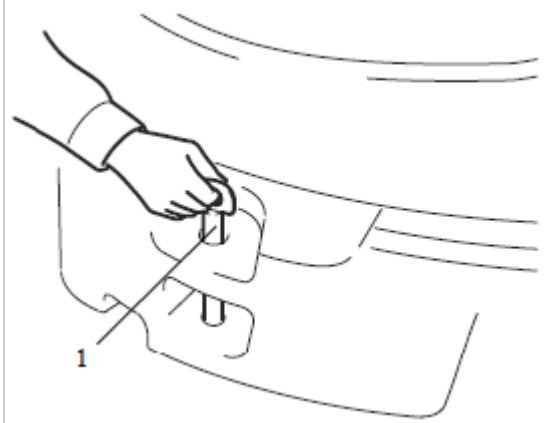
Fork

Raise and unlock the fork stoppers so that the fork can be moved from side to side. Adjust the fork to the position that is most suitable for the load.

When setting the fork, make sure that the center of gravity of the load matches the center of the vehicle. After adjustment, rotate the stoppers to secure the fork.

Warning!

Make sure the fork is locked before transporting a load.



1. Connecting rod

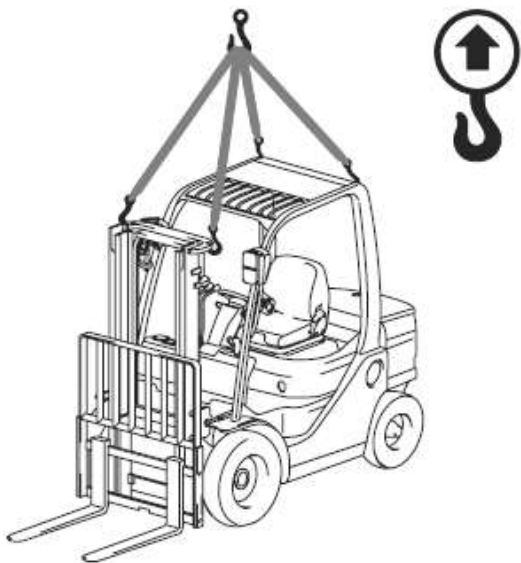
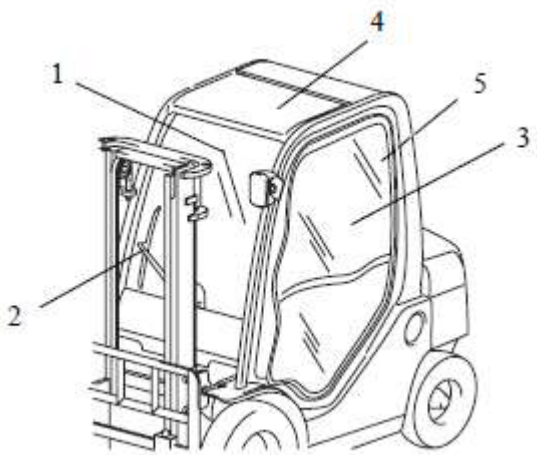
Connecting rod

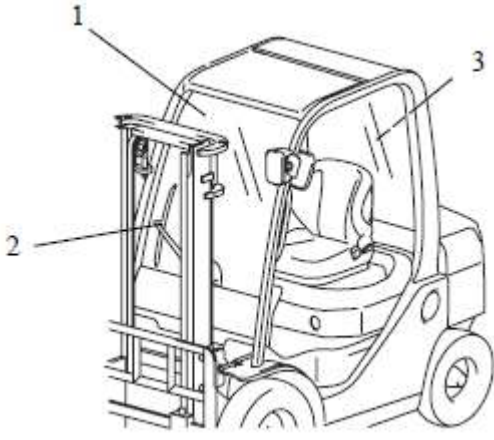
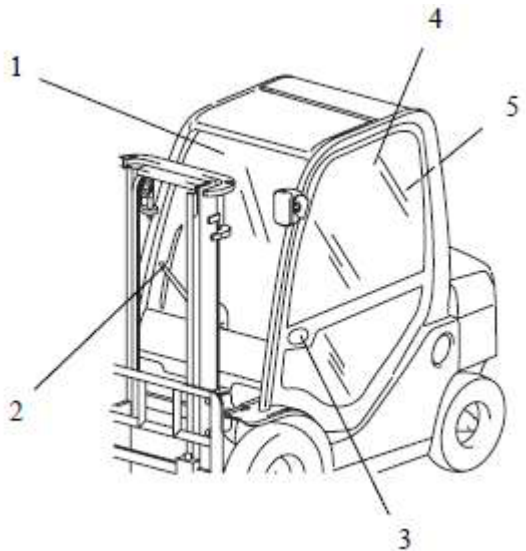
The coupling rod is located at the rear of the counterweight and is used to tow the vehicle if the wheels are stuck in a trench or mud.

This can also be used to place the forklift on a vehicle.

► Please note!

The coupling rod must not be used to tow another vehicle with the forklift.

	Lifting method If the vehicle needs to be lifted, you need to use the lifting holes at the top of the mast (front) and the canopy (rear) as shown in the picture. ► Please note! • Use a steel cable that is strong enough. • Do not use the hole in the top of the counterweight to lift the vehicle.
	Cab (option) Canvas cab 1. Windshield 2. Front windshield wiper 3. Side panel 4. Top panel 5. Rear window

	Half cab 1. Windshield 2. Front windshield wiper 3. Rear window
	Full cab 1. Windshield 2. Front windshield wiper 3. Door handle 4. Glass in the side door 5. Rear window

4.5 Version with LPG system

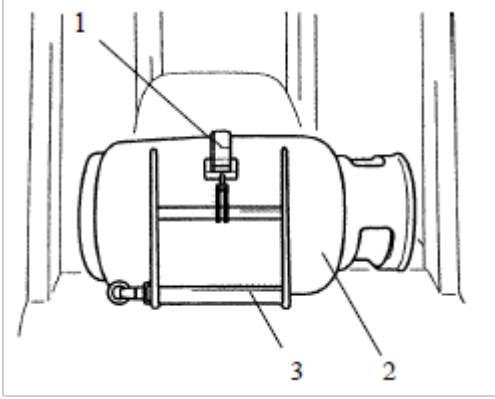
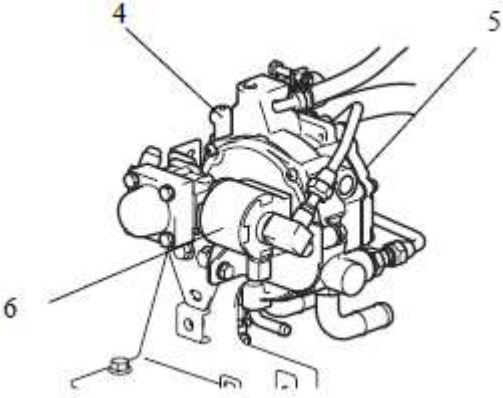
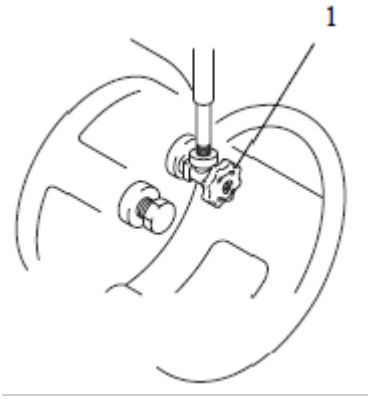
- LPG usually contains a substance that gives off a recognizable odor at concentrations of 1/200 or higher in the air. If a large amount of LPG leaks from the system's tank, it can be detected by the smell. LPG does not contain carbon monoxide and is non-toxic, but it is explosive.

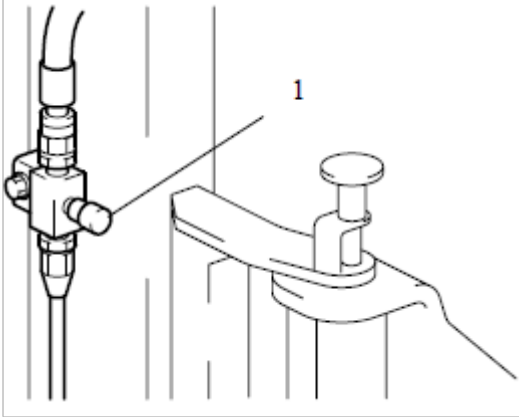
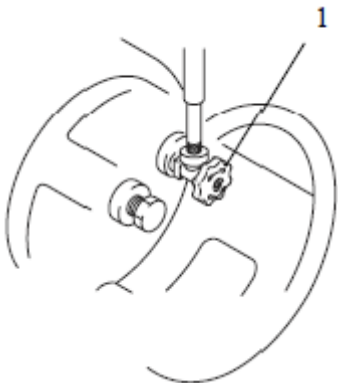
- LPG is a high-pressure gas and can easily leak. The vapor has a size 250 times larger than liquid gas and it has twice the density of air. That is why it mainly collects low to the ground.
- LPG gets a higher pressure when the temperature increases.

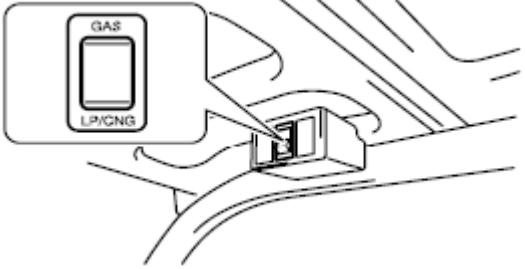
Safety precautions when using forklift trucks with LPG installation

- LPG is flammable. If used carelessly, a small spark can cause a fatal explosion.
- It is essential that the following precautions are strictly observed to avoid dangerous situations.
- Forklift trucks with LPG installation may only be operated and serviced by authorized personnel (including replacement of the LPG tank).
- Never stop or park an LPG forklift near fire.
- Whenever possible, you should never stop or park a forklift with LPG installation in direct sunlight. If there is no other option, we strongly recommend that you use a deck cover. And make sure that the vehicle is well ventilated.
- Never use a forklift with LPG installation near fire.
- Post a 'FIRE HAZARD' sign if you are using or inspecting an LP gas forklift and make sure that people in close proximity to the vehicle do not use fire.
- Remove the ignition key from an LPG forklift before parking or storing it so that unauthorized persons cannot operate the vehicle.
- Use only soapy water or neutral detergent if you want to check the vehicle for gas leaks. Do not use any other liquids.
- If the gas leak inspection is to be carried out at night using a flashlight, turn on the flashlight at a good distance from the vehicle and walk towards the vehicle. The flashlight may emit a spark if turned on and cause an accident.
- If gas leakage is detected, stop any fires immediately, ventilate the area properly and ensure that there is no fire in the area. Then contact a qualified dealer or service workshop.
- Store LP gas tanks in a completely secluded area where a gas detector is present at all times.
- Only have the LPG tank refilled by an employee of an LPG filling station.
- Use LPG with the right chemical composition that is suitable for the weather conditions.

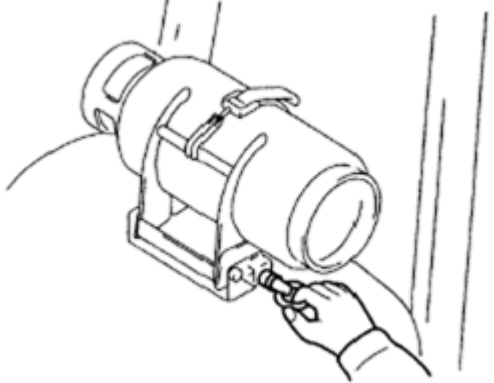
- Use LPG with a relatively high butane content in hot climates; use LPG with a relatively high propane content in cold climates.

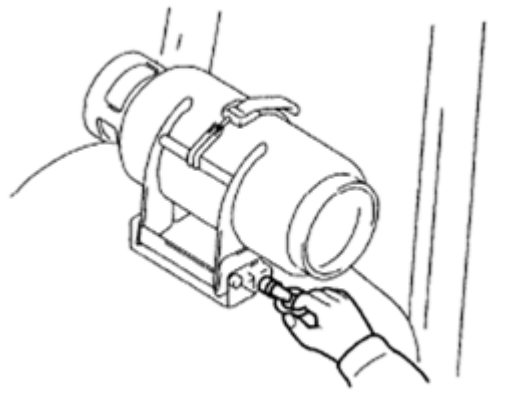
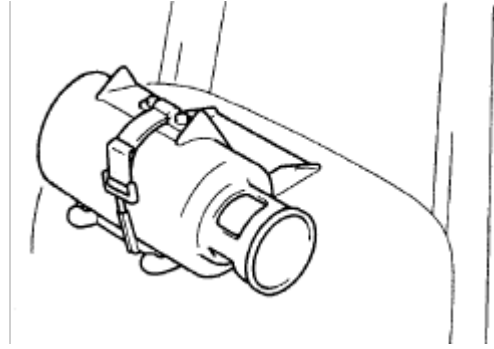
	Components 1. Tank Strap 2. LPG tank 3. Tank bracket
	4. Controller 5. Filter 6. Solenoid valve
 1. Outflow valve	LPG TANK AND PARTS Outflow valve This valve regulates the flow of LPG fuel from the LPG tank to the regulator. Open cover – Turn counterclockwise. Close valve – Turn clockwise.

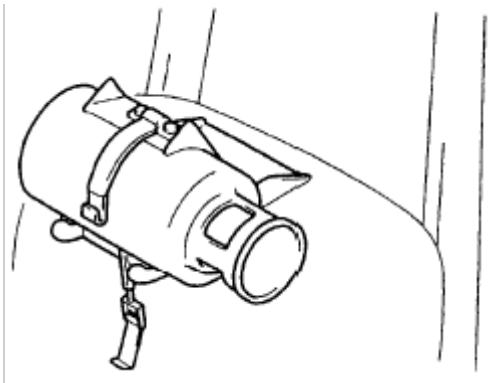
 1. Relief valve	Relief valve This valve prevents explosions that can be caused if the LP gas pressure rises above normal levels or if the pipe deteriorates.
 1. Outflow valve	WORKING WITH A FORKLIFT WITH LPG INSTALLATION Starting the Engine (LPG Engine Models) 1. Turn the tank outflow valve counterclockwise to open it. ► Please note! Never press the accelerator pedal repeatedly and keep it not fully kicked in when starting. The engine then has difficulty starting. 2. Wait for the first ignition of the engine and then press the accelerator pedal a little bit. Wait for the engine to start running and set the ignition key to 'I' (ON). 3. Let the engine idle for 5 to 6 minutes.

	► Please note! Never step on the accelerator pedal all the way. This provides an extra amount of LPG and the heat from the evaporation can freeze the regulator and damage the motor.
	Starting the engine (only on petrol/LPG engine models) If the ambient temperature is high enough, you can start the engine in the same way as in versions with LPG engine. If the temperature is very low and the engine starts poorly on LPG fuel, turn off the fuel switch then press GAS and start the engine. Set the fuel setting to the LPG setting after the engine warms up (stop the engine first). 1. Set the fuel switch to the GAS position. 2. Start the engine and warm it up, just as you would with a normal petrol engine. 3. See the other user manual for the engine starting procedures. 4. Turn the fuel switch to the OFF position and allow the engine to stop by itself. 5. Set the fuel switch to the LPG position and restart the engine,

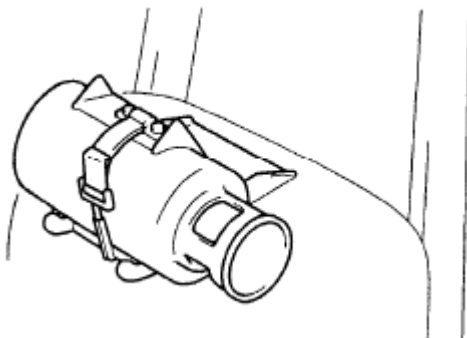
	just as you would with the engine of an LPG version. ► Please note! Never change the position of the fuel switch from GAS to LPG while the engine is running. The engine speed is then quickly increased, possibly resulting in serious damage to the engine.
	Extending the life of the engine Treat the vehicle with care, especially if it is still new. Parking <i>Short-term parking.</i> 1. Move the fuel switch to the OFF position. 2. Allow the engine to stop by itself so that the remaining LPG that is still in the pipes is removed from the system. Move 3. the ignition key to 'O' (OFF) and remove the key. <i>Long-term parking.</i> 1. Turn the LPG tank outlet valve clockwise to shut off the fuel supply. 2. Allow the engine to stop by itself so that the remaining LPG that is still in the pipes is removed from the system. Move

	the fuel switch and the ignition key to 'O' (OFF) and remove the key.
	REPLACING THE LPG TANK ► Please note! The LPG tank must not be replaced under any circumstances in the vicinity of a lit cigarette, lighted match, gas stove, electric heater, motor or other electrical equipment that may emit sparks, flames or other forms of fire (collectively described below with the term 'fire'). Warning! To avoid serious accidents due to fire or explosion, please follow the rules below: • Turn the ignition key to OFF and turn off the lights. Replace the tank only in a well-ventilated and • Approved space. • No fire or flames allowed. • Check all connections for damage or missing parts. • Check for leaks. • Do not restart the unit until all gas smell has disappeared.

	• Contact a qualified mechanic for an inspection if the vehicle will not start. • The tank must be filled according to a special procedure. Make sure someone explains all the procedures to you properly.
	Removing the LP Gas Tank 1. Stop the engine using the instructions for "Long-term parking". 2. Turn the LPG tank outlet valve clockwise to shut off the fuel supply. 3. Let the engine stop by itself. Move the fuel switch to the 'O' (OFF) position. 4. Disconnect the pipes of the LPG tank (turn the screw counterclockwise). 5. Pull the adjustment pin on the bottom left of the tank bracket.
	6. Push the clamped tank with the bracket downwards, towards the rear of the vehicle.



7. Pull the tank clamp towards you to release the latches from the tires.
8. Push the tires away from you and remove the tank.



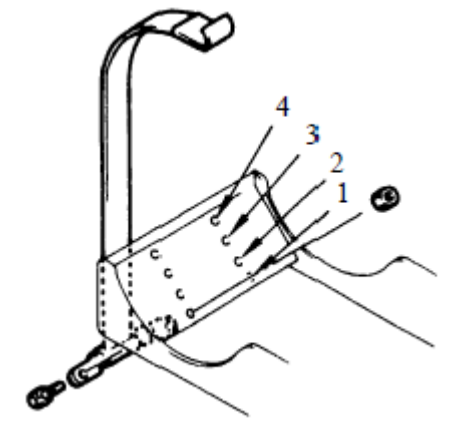
Assembling the tank

1. Attach the clamps to the straps and raise them.
2. Shift the fuel bracket back toward the front of the vehicle and ensure that the adjustment pin is locked.

Note:

Set the position of the tires to the correct tank size:

1. $\varnothing$ 290 mm
2. $\varnothing$ 300 mm
3. $\varnothing$ 310 mm
4. $\varnothing$ 320 mm



The position of the tires

3. Securely mount the pipes on the maintenance valve and check for air bubbles.

4. Do not attempt to start the engine until all the gas smell has disappeared.

Warning!

	If a gas leak is detected, inform your supervisor immediately so that they can call in an authorized technician or the dealer for repair. Hang a sign on the vehicle that says "Out of Service." ► Please note! After inspection, always wipe the soapy water off the vehicle.
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5. Check before use

Part	Inspection
Previously observed defects	Correct
Exterior	Water leakage, loose parts, external damage
Wheels	Tire pressure, wear or tear damage, rim, wheel nut
Lamps	Condition of the lamps, damaged bulbs
Hydraulic oil	Oil level, pollution, consistencies
Radiator	Coolant level, if any Required antifreeze
Engine	Oil level, pollution, consistency,

	noise, emissions
Brake pedal	Play in the pedal, braking efficiency
Brake fluid	Fluid level
Parking brake	Operating force, braking efficiency
Steering wheel	Looseness, play, vibration, deviation
Horn	Sound
Instruments	Operation
Loading/unloading system	Parts, oil leakage, cracking, looseness.
Fuel	Quantity

Pre-use checks and weekly inspections are the responsibility of the forklift operator. For safety reasons, always carry out a check before starting work.

Warning!

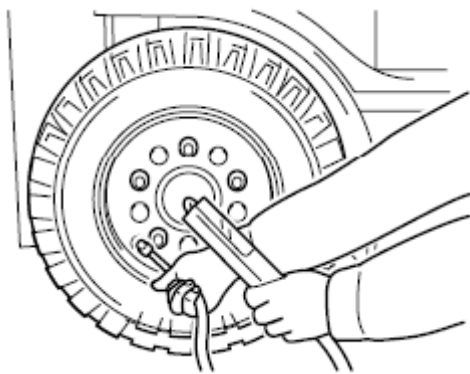
If any abnormalities are found, if the diagnostic light flashes or if a fault code is shown on the display, you must immediately stop the machine and have the vehicle checked by Prins Maasdijk.

EXTERIOR INSPECTION

Stability of the vehicle Does the vehicle lean very far to the side? If so, check if any of the tires are flat and if there is a problem with the undercarriage.

Under the vehicle

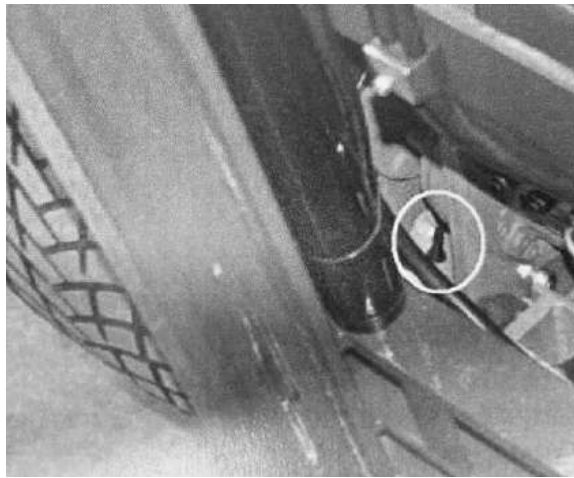
Check for oil or water stains on the ground where the vehicle has been parked. Check for loose parts or damage. Contact Prins Maasdijk for an inspection if an abnormality is found.



Checking the pneumatic tires

Make sure the tires are always at the correct tire pressure. Low tire pressure ensures that the tire has a shorter lifespan. A difference in the tire pressure left and right makes steering more difficult.

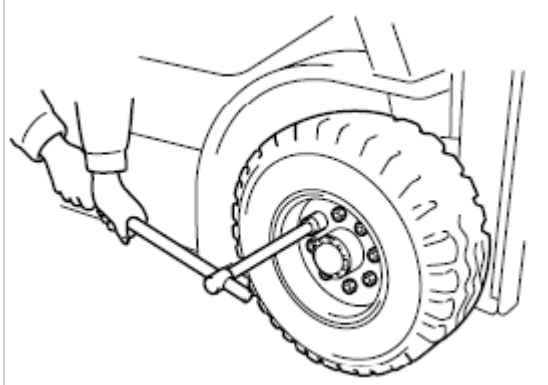
Turn the valve to the left and remove it. Use a tire pressure gauge to check the pressure and set it to the correct value. See the maintenance data for the specified tire pressure.



1. Inner wheel valve location for twin wheels

After checking the tire pressure, make sure that there is no air leaking from the valve. Then tighten the valve back to its original position.

If there is a difference in wear on the front and rear tires or left and right or if damage or a bent rim is found, you must have the vehicle checked by Prins Maasdijk.



Checking the lug nuts (inside and outside wheel)

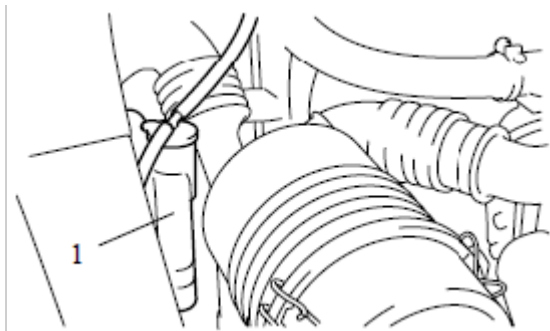
Check that the lug nuts are properly tightened. Tighten all nuts evenly to avoid varying torques.

See the maintenance data for the correct torque.

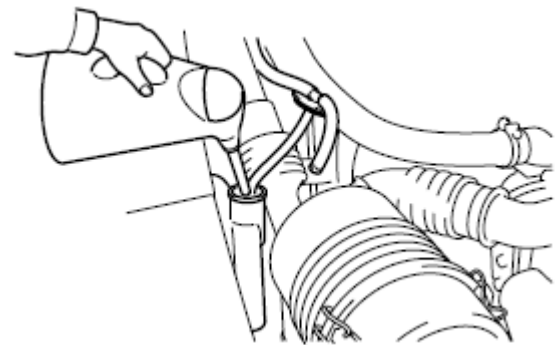


Checking the Lights (Rearview mirror is optional)

Are the wires intact? Is the lens damaged? Make sure the lenses are always clean so that you have a good view of the front.



1. Reservoir



INSPECTION OF THE ENGINE COMPARTMENT

Checking and topping up the engine coolant Check the level and top up the engine coolant as needed (do this when the coolant has cooled).

1. Open the hood while the engine is off and check the engine coolant level in the reservoir.

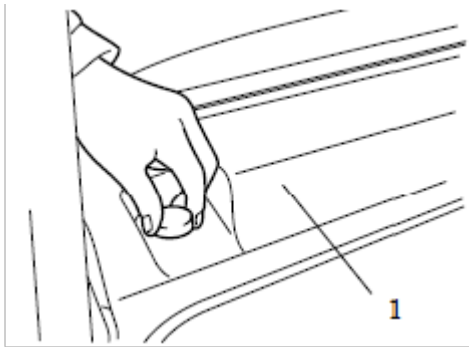
Note:

The reservoir mounted near the radiator automatically delivers engine coolant if the amount of coolant in the radiator is insufficient.

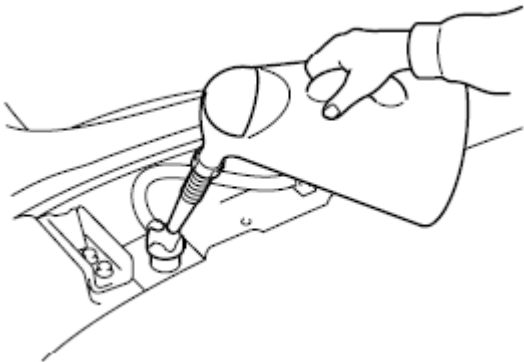
2. The coolant level is good if it is between the upper and lower limits. If the level is below the lower limit, you will need to top up coolant to the upper limit.
3. The concentration of the LLC (long-life coolant) in the engine compartment must be 50%.

Note:

If there is no engine coolant in the reservoir, also check the coolant level in the radiator.



1. Radiator cap



Checking the Engine Coolant Level in the Radiator

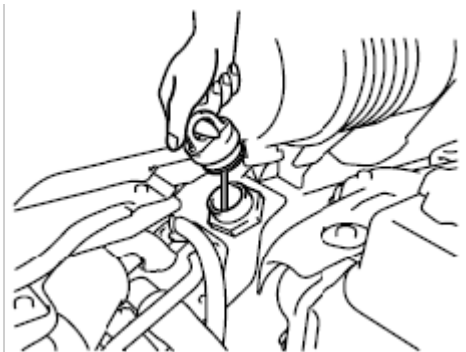
1. Remove the radiator cap.
2. Remove the cap and check the coolant level through the filler opening.
3. If the engine coolant is not visible, add properly diluted coolant (LLC) through the opening.

Note:

To close and tighten the radiator cap, make sure the pawl on the back of the cap fits into the notch on the filler opening; Turn the cap clockwise and press it down at the same time.

Warning!

If the engine is hot, removing the cap is very dangerous. The coolant level should only be checked when the engine is cold.

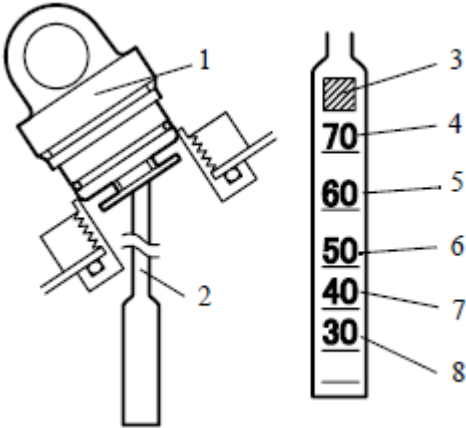
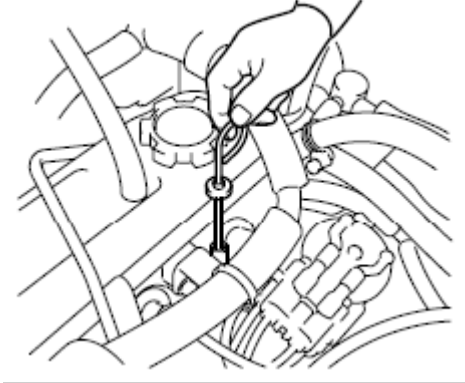


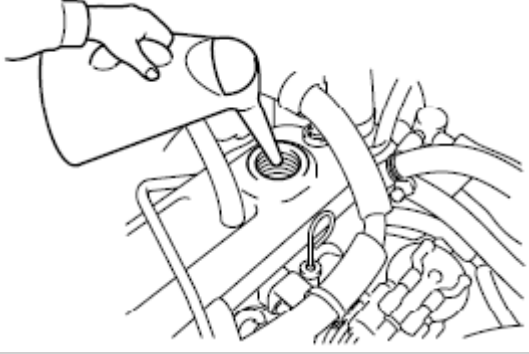
Checking the Hydraulic Oil Level

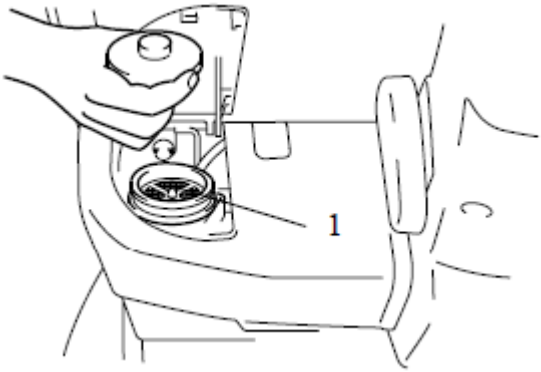
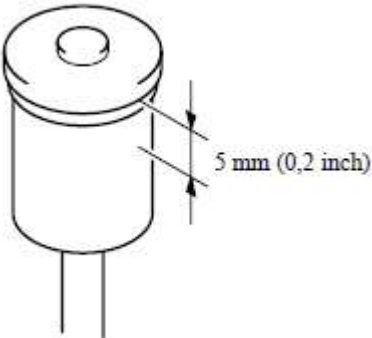
Stop the engine and always put the fork on the ground before checking the hydraulic oil level.

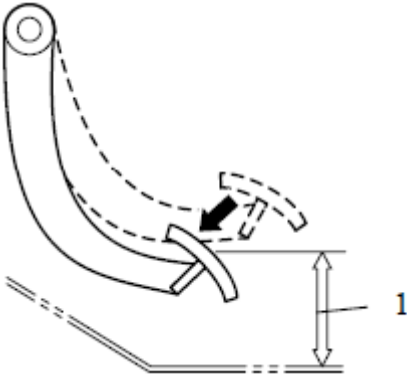
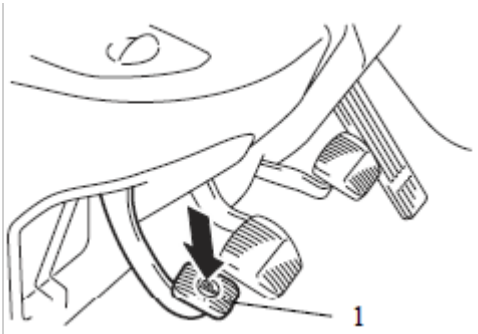
1. Open the hood and remove the oil cap.
2. Wipe the oil dipstick with a clean cloth and put it back in the tank.

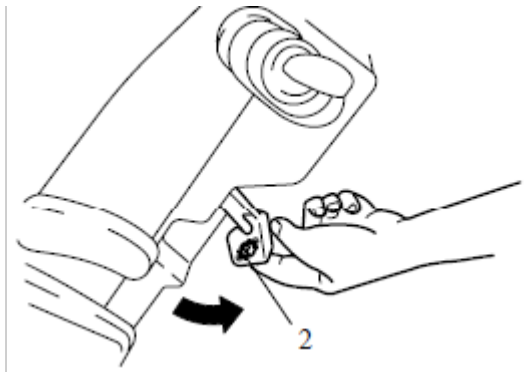
Note:

 1. Oil Cap 2. Oil dipstick 3. Dipstick identification 4. Lifting height 6,100 – 7,000 mm 5. Lifting height 5,500 – 6,000 mm 6. Lifting height 4,500 – 5,000 mm 7. Lifting height 3,300 – 4,000 mm 8. Lifting height 3,000 mm or lower	You can check the oil level by inserting the oil dipstick into the opening of the oil inlet without pushing the oil cap in. 3. Carefully remove the oil dipstick from the tank and check if there is oil to the top of the oil gauge line. 4. If there is not enough oil in the tank, you will need to top it up. Spilled and splashed oil should be removed thoroughly. Make sure that the oil level falls within the range of 0 to +10 mm on the marking on the oil dipstick (see the illustration).
Dipstick identification	Applicable versions
10, 18, K2, K3	Series 1.5 – 1.8 – 2.0 ton
20, 25	Series 2.5 ton
28, 30, 35	Series 3.0 – 3.5 ton
	Checking the engine oil 1. Park the vehicle on a flat surface. If the vehicle is tilted, the level displayed may not be correct. 2. The oil level should be checked before starting the engine or at least 3 minutes after the engine has stopped. 3. Remove the oil dipstick from the tank and wipe it clean with a clean cloth. Put it back in the tank and

	check that the oil level is between levels F and L. 4. If the oil level is below the L line, top up oil to the F line.
	Topping up engine oil 1. If you want to refill oil, you must remove the filler cap and pour oil into the filler opening. Never allow the oil level to rise above the F-line. 2. The oil used should be suitable for the season. SAE40 Ambient temperature greater than 30°C (86°F) SAE30 Ambient temperature 0°C to 30°C (32°F–86°F) SAE20 Ambient temperature –10°C to 0°C (14°F–32°F). ► Please note! Always use oil from the same brand whenever possible. Leak control Check the engine compartment for oil or fuel leaks. Clean the radiator if it is clogged and check for any foreign material, such as paper, on the radiator grille.

 1. Reservoir 	INSPECTION IN THE VEHICLE Checking the Brake Fluid When the engine is switched off, check the level of brake fluid in the reservoir. The level must be within the range shown in the image. If the level is below the lower limit, top up brake fluid to the correct level. If the consumption of brake fluid is extremely high, there may be a leak in the braking system. Contact Prins Maasdijk as soon as possible for an inspection. Warning! • Never use oil other than brake fluid. • Do not allow dirt to get into the reservoir. Even a small amount of dirt in the brake fluid can cause problems when braking. • Periodically check that the small vent in the reservoir cap is not clogged by debris.
	Checking the Brake Pedal 1. Press the brake pedal fully and check that there is still space between the pedal and the floor. Note:

 1. Space between brake pedal and floor	See the Maintenance Data section for the required space between pedal and floor. 1. Make sure that the pedal does not sink further when you keep it depressed. 2. Also check that there are no deviations when pressing and releasing the pedal. 3. Check the play by pushing the brake pedal down with your hand until you feel resistance. <i>Note:</i> See the Maintenance Data section for the value of the play in the brake pedal. Warning! Contact your dealer for an inspection if there is too much play, the pedal movement is off, or the brakes are not working properly.
 1. Parking brake pedal	Checking the parking brake 1. Fully depress the parking brake and check that the brake is working normally. 2. Press the parking brake pedal all the way down, pull the parking brake release lever towards you, and check that the parking brake is released.



1. Parking brake release lever



1. Inching and brake pedal

Checking the Inching and Brake Pedals

1. Check the play by pressing down on the brake and inching pedal with your hand until you feel resistance.

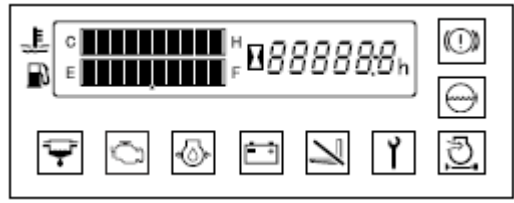
Note:

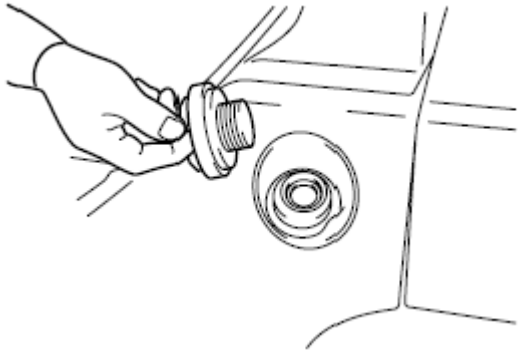
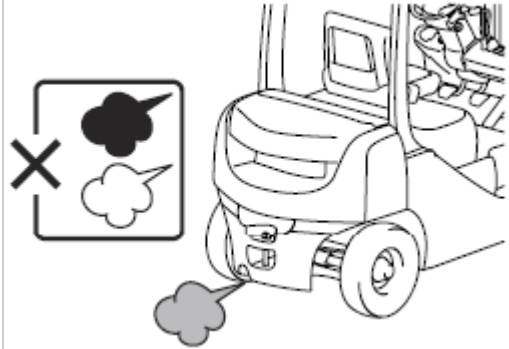
See the Maintenance Data section for the value of the play in the inching and brake pedals.

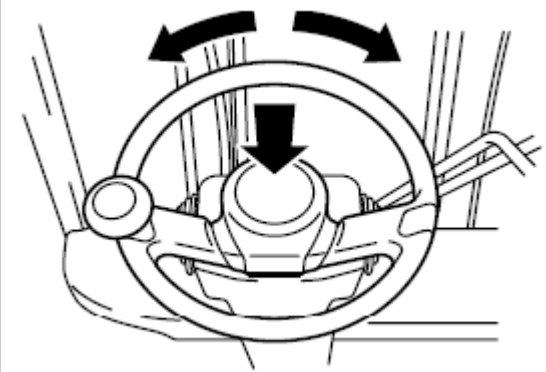
2. Press the inching and brake pedals and check that there are no defects or abnormal resistance.

► Please note!

Please contact Prins Maasdijk for an inspection if you notice any abnormality.

	Checking the OPS light Sit in the driver's seat, start the engine, and check that the OPS light is off. The OPS system may have malfunctioned in the following cases. Park the vehicle in a safe place and contact Prins Maasdijk. • The OPS light does not illuminate even though the driver leaves the seat. • The OPS light does not go out even though the driver is back in the driver's seat.
	Checking the instruments Start the engine and check that the instruments are working properly.
	Checking and topping up the fuel level 1. Keep an eye on the fuel gauge to see if there is enough fuel. <i>Note:</i> Fill the fuel tank at the end of a working day so that the moisture in the air does not mix with the fuel.

	2. Stop the engine and remove the fuel cap when refilling fuel. Turn the cap counterclockwise and pour the fuel into the filling opening. 3. After refueling, tighten the cap tightly. ► Please note! • Always make sure the engine is switched off and that there are no burning objects nearby when refueling. • When refueling, make sure that no water or dirt can get into the tank.
	Checking the engine Start the engine and warm it up sufficiently. 1. Check every meter and warning light for deviations. 2. Check that the motor produces normal noise and vibration. 3. Check that the color of the exhaust gas is normal. Colorless or light blue exhaust gases indicate complete combustion; black exhaust gases indicate incomplete combustion; White exhaust gases indicate the combustion of oil because it has entered the cylinders. Warning!

	• Inhaling exhaust fumes can cause serious injury. Make sure there is adequate ventilation if you need to start the engine in a building or enclosed space. • The carburetor of the petrol engine is equipped with an automatic choke that ensures that the engine continues to idle for a while at relatively high speeds. • The engine will run at a normal speed when the engine is warm enough.
	Loading/unloading system 1. Check the fork installation for cracks and bends. 2. Check the mast for deformation, check the chain tension, and check if oil is leaking from the cylinders and pipes. 3. Operate the lift and tilt levers to check their operation. Contact Prins Maasdijk for an inspection if an abnormality is found.
	Checking the steering wheel <i>Note:</i> Carry out an inspection after starting the engine. 1. Check the play on the steering wheel with the rear wheel facing straight ahead. See the Maintenance Data section for the standard steering wheel clearance.

	2. Rotate the steering wheel and move it up and down to make sure it's secure. 3. Press the horn to check if it sounds normal. 4. Please contact Prins Maasdijk for an inspection if you notice any abnormality.
	WHEN DRIVING SLOWLY Disconnecting and slipping Press the inching pedal and check the clutch while driving. ► Please note! Make sure that the gear lever or control lever is working properly in each gear, and then perform the above check while driving slowly. Braking effectiveness Check if there are any abnormalities when the brake pedal is pressed and if the brakes only work on the side. Activate the parking brake; Check that the vehicle can be stopped and that it will remain stationary. ► Please note! Stop the vehicle immediately if you notice any abnormalities and have the vehicle inspected by your dealer.

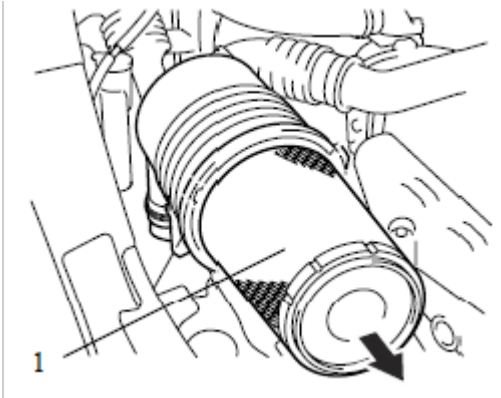
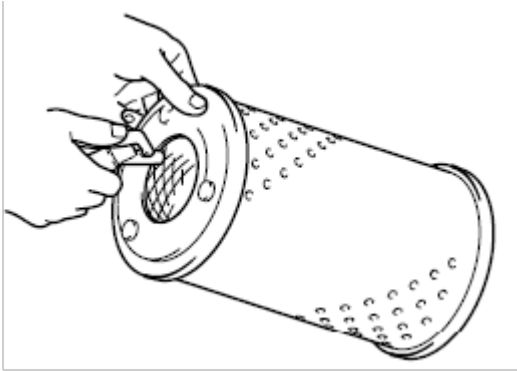
	Checking the Steering Turn the steering wheel left and right while running the vehicle slowly in a safe environment; This allows you to check for deviations. BEFORE PUTTING THE VEHICLE IN THE GARAGE Remove any debris from all vehicle parts and then do the following. 1. Check for water or oil leaks. 2. Check each part for warping, scratches, dents, or cracks. 3. Clean the air filter element and lubricate the required parts. 4. Raise the fork all the way up, then lower it 5. to lubricate the inside of the lifting cylinder. ► Please note! Even a small deviation can cause a serious accident. Do not use the vehicle until the repair has been carried out. If you noticed anything unusual during use, you should alert your supervisor.
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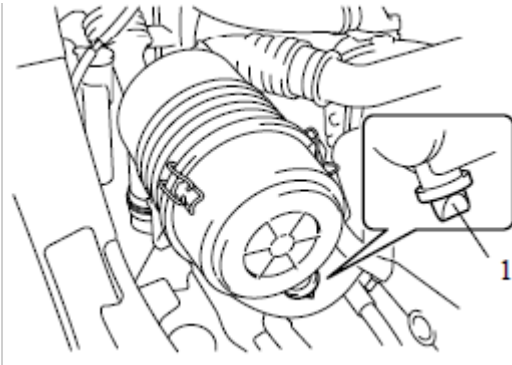
6. Weekly Maintenance

Check the points below in addition to the points you check each time before use. Have any adjustments or replacements carried out by Prins Maasdijk. Check the vehicle thoroughly so that you can work safely and comfortably.

Points for the weekly check-up (40 hours):
Air filter – cleaning
Fan belt – check
Torque Converter Oil Level – Check
Nuts and bolts – re-tighten
Mast and steering mechanism – lubrication
Chain lubrication – motor oil

	Retighten nuts and bolts Re-tighten every bolt and nut on the chassis and the loading/unloading system. Lubricate mast and steering mechanism Lubricate in accordance with the lubrication table. ► Please note!
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	• Clean the lubrication mounting points thoroughly before lubricating. • Wipe off the excess grease after lubricating.
	Cleaning the Air Filter The element can be removed after you have removed the Removed locks. Cleaning the Element 1. Gently tap the filter paper without causing damage or blow the fabric away from the inside with compressed air (7 kg/cm² or less). 2. Once the element has been cleaned, remove the dust from the 3. Remove the discharge valve. <i>Note:</i> • Always replace the element if the filter paper is torn or damaged. • Wash the element if there is a lot of dirt on it.
	Washing the Element 1. Soak the element in water containing a neutral detergent for about 30 minutes and then wash it off. Make sure that the filter paper is not scratched. 2. After washing, you can rinse the element with clean water (the water pressure should be less than 2.8 kg/cm²). 3. Let the element air dry or use a dryer (cold air). Never use compressed air or flames.

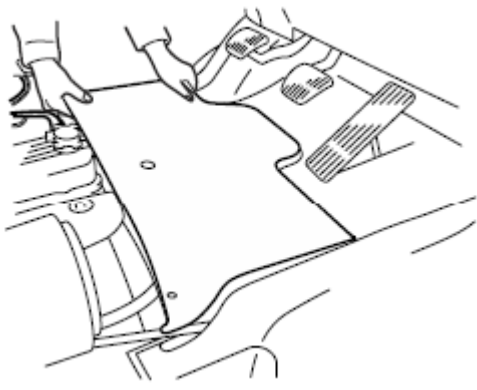


Note:

- The element must be replaced after six washes or after a period of use of one year.
- The inner element does not need to be cleaned when the double cyclone air filter (OPT) is cleaned.

• Clean only the outer element.

It is essential that you replace both the inner and outer elements in time.



Checking the torque converter oil level

1. Park the vehicle in a safe place on a flat surface and stop the engine.

► Please note!

Check the following points with the parking brake engaged and the fork on the ground:

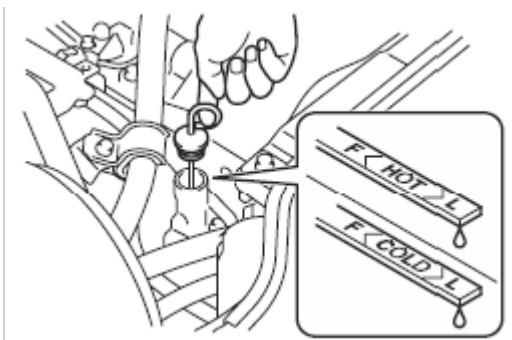
2. Open the bonnet and remove the footrest.

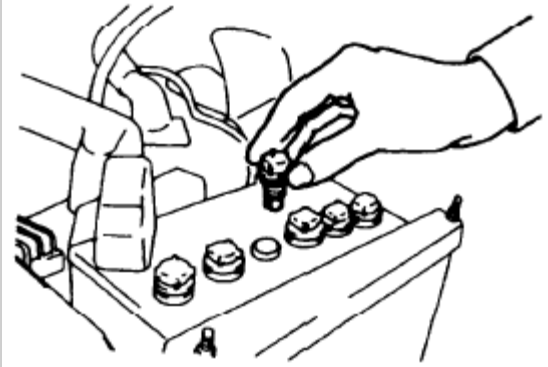
3. Remove the oil dipstick from the tank and wipe it clean with a clean cloth.

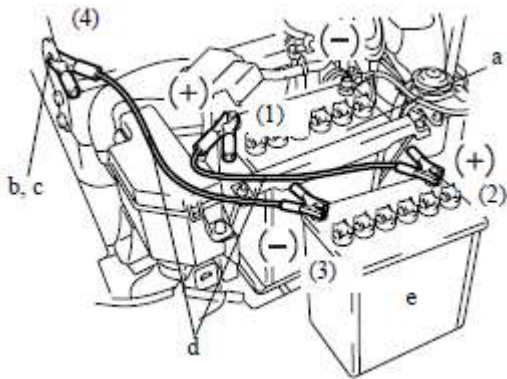
4. Put it back in the tank and take it out again. Check that the oil level is between levels F and L

State.

Note:



	• Perform these checks using the 'COLD' side of the oil dipstick before operating the vehicle. • The oil dipstick is marked "COLD" and "HOT" on each side respectively. Carry out an inspection using the 'COLD' side before using the vehicle and if the oil temperature is 40C° or lower. • If you have used the vehicle and the oil temperature is 60°C or higher, you must use the 'WARM' side when checking. However, do not do this until at least 30 seconds and at most 5 minutes after the engine has stopped. 5. If the oil level is near or below the L line, top up oil to the F line
	Checking the Electrolyte Level of the Battery 1. The electrolyte level of the battery should be between the upper and lower levels (10 to 15 mm below the top of the plates). 2. If the electrolyte level is below the lower level, remove the cap and fill distilled water through the water inlet opening to the upper level. ► Please note! Always use distilled water. Wear protective goggles when working on the battery.



- A. Vehicle with empty battery
- B. Lifting eye for engine
- C. To frame
- D. Jumper cable
- E. Spare battery

When the battery is empty

If jumper cables are present, the engine can be connected using the battery of another vehicle.

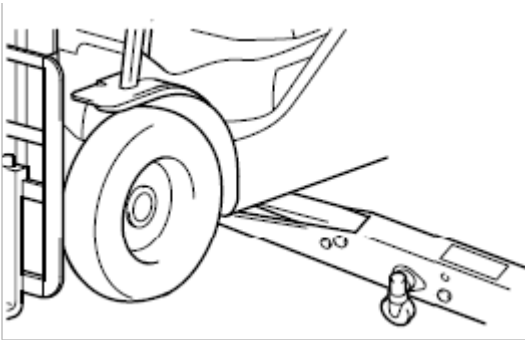
Started. Connect the jumper cables according to the order shown in the figure.

Make sure that the positive and negative poles (+ and -) of the cable are properly connected.

► Please note!

- Connection (1): The positive pole (+) of the empty battery.
- Connection (4): Use a frame other than the battery.
- Do not connect the batteries directly to avoid the risk of explosion. (Flammable gases from the batteries may catch fire.)

7. Carry out maintenance yourself



Changing tires

► Please note!

- Observe proper precautions when jacking up the vehicle.
- Never get under the fork or chassis.
- • See the maintenance data for the tightening torque of the wheel nuts and the tire pressure.
- The correct tire pressure is on the tire (with double wheels always the outer wheel 1 bar less).
- Never exceed the prescribed air pressure.
- Never change a tire without turning the ignition key to ON before jacking up the vehicle. After replacing the tire, you can turn the ignition key on
- Turn OFF.

Antifreeze refill

If a vehicle is placed in an area where the temperature is below 0°C, the coolant will freeze, which can cause damage to the radiator and/or cylinder block. In such cases, you should use antifreeze. If Super Long Life Coolant (LLC) is used, the coolant should be changed every two years. The freezing temperature depends on the amount of antifreeze added.

Antifreeze mixture (%)

Temperature freeze protection (°C)	-12	-15	-24	-35
Mixture (%)	25	30	40	50

► Please note!

The antifreeze is flammable, so be careful with fire. Before adding antifreeze, check the radiator, water pump, pipes, and cylinder block for leaks.

The procedure for topping up antifreeze is as follows:

1. Remove the radiator cap. Open the drain valve on the radiator and cylinder block and drain the coolant.
2. Flush the radiator and cylinder block by pouring clean water through the radiator feeder.
3. After the water has drained from the radiator and cylinder block, turn off the radiator and engine drain valves.
4. Fill the correct amount of antifreeze through the radiator feeder and fill the remaining space with clean water.
5. If hot weather is expected and there is no longer any chance of freezing, you can drain the coolant with antifreeze again (except LLC, which is replaced every 2 years). Flush the radiator and engine block, and refill them with clean water.

Cleaning the pre-filter (option)

Check the pre-filter and clean it if a white line of dust has built up.

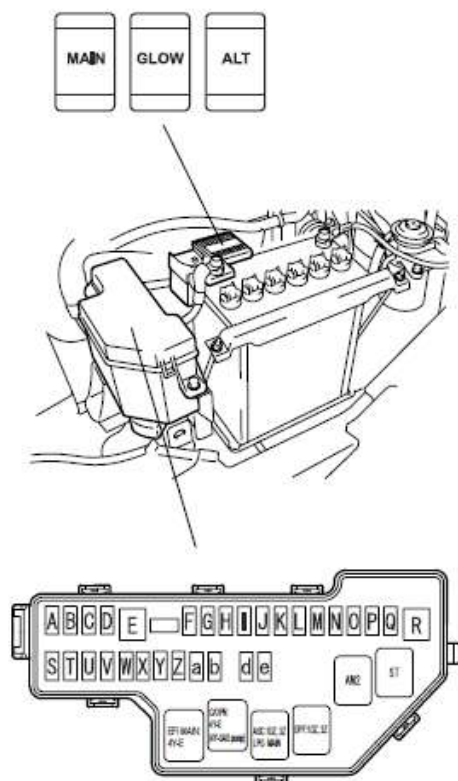
Fuse replacement

If a lamp is not lit or an electrical appliance is not functioning, the corresponding fuse may have blown. Check the fuse of each appliance. The fuse box is located in the front left of the open hood.

Note:

See the table below to see which fuse belongs to which device.

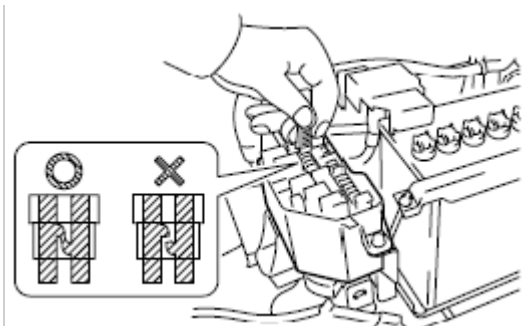
Which fuse belongs to which device.



A	25 A	BLR
B	30 A	RR-WIP
C	20 A	FR-WIP

D	20 A	FR-WIP
E	40 A	AM1
F	15 A	HORN
G	-	-
H	15 A	EFI: 4Y-E DPF: 1DZ, 3Z
I	7.5 A	ALT-S
J	7.5 A	STOP
K	7.5 A	ACC-B (for RADIO)
L	7.5 A	TAIL
M	7.5 A	ECU-B
N	7.5 A	E-THRO: 4Y-E ECU-B2: IDZ, 3Z
O	15 A	HTR
P	15 A	WORK_LP
Q	15 A	HEAD
R	40 A	AM2
S	30 A	SPARE
U	7.5 A	SPARE
V	7.5 A	HME
W	10 A	ST
X	10 A	GAUGE
Y	10 A	BACK_LP
Z	10 A	SFT
a	15 A	TURN

	7.5 A	
b	15 A	IGN: 4Y-E IGN: 1DZ, 3Z
c	10 A	SPARE
d	10 A	SPARE



The fuses must be checked and replaced as follows:

1. Set the ignition key to OFF.
2. Remove the fuse box plate and loosen the fuse box clip.
3. Place the fuse clip on a fuse to remove it.
4. The fuse is blown if it looks like the one shown on the right in the illustration on the left. Replace the fuse.

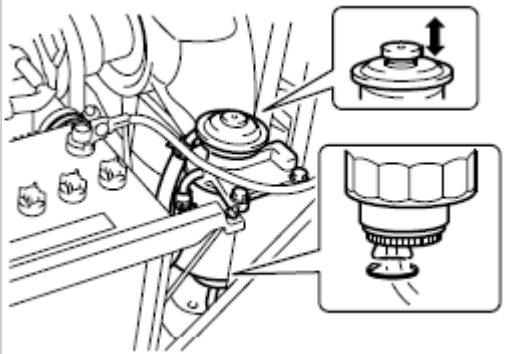
► Please note!

- Only use a fuse with the same capacity as the old one.
- Contact your dealer for an inspection if the replaced fuse blows again.
- If necessary, ask your dealer to replace the GLOW or ALT fuse.

Draining air in fuel system

(versions with diesel engine)

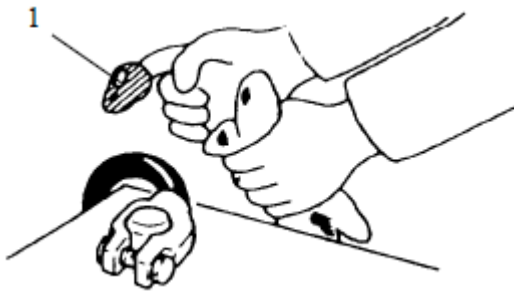
If the fuel has run out or if the fuel system has been serviced, you need to drain the air as follows:

	1. Open the hood. 2. Move the pump up and down to vent it.
	Draining the sedimenter (versions with diesel engine) The sedimenter separates the water present in the fuel. It is integrated into the fuel filter. If the sedimenter warning light comes on, you should immediately drain the water according to the procedure below, because the collected water in the sedimenter has risen above a specific level. 1. Place a water collector under the open end of the drain hose under the fuel filter. 2. Rotate the drain valve once or twice to turn it open and move the pump up and down to drain the water in the sedimenter. 3. As soon as light oil is discharged after the water, close the drain valve firmly again.
1. Pump	► Please note! Carefully wipe the light oil from the nearby parts. Cleaning the radiator louver Clean the radiator and radiator fin. If dirt has accumulated in it, it can cause overheating.

2. Drain plug
3. Drain hose

► Please note!

- Check that the engine has cooled down sufficiently (after stopping it) before you start cleaning. If you take the right precautions, you will avoid burns.
- When cleaning the radiator fin, make sure that it does not deform.
- Always wear protective goggles and dust mask when cleaning.



1. grease

Maintaining the battery

Clamps

1. A loose or rusting clamp will cause interference during the connection: where necessary, remove the white powder by pouring warm water over it. Grease Then the clamp in.
2. Remove the clamp and if it is quite rusty, remove it with a wire brush or sandpaper. Then attach the clamp firmly to the battery and lubricate the clamp.

Note:

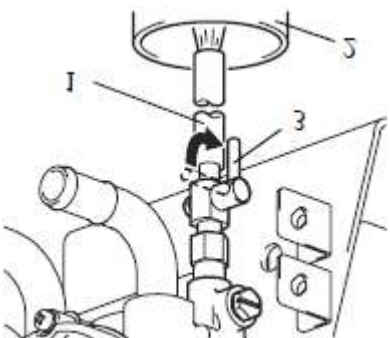
Disconnect the negative terminal (-) first before removing the battery. Connect the positive (+) terminal first when you reinstall the battery.

► Please note!

	• Stop the motor if you want to work on the battery and the terminals. • Be sure to secure the cover securely so that no foreign material gets into the battery. • Avoid short-circuiting the battery and do not come near fire, such as cigarettes, as the gas that will be • the battery emissions are flammable. • Make sure that you do not have contact with the electrolyte of the battery. • If you get electrolyte in your eyes or on your skin, you should • Rinse it immediately with plenty of water and consult a doctor. • Charge the battery with the cover off and in a good • ventilated room. • If electrolyte is spilled from the battery, rinse the affected area and its surroundings thoroughly with water.
	Checking the fuel tank Check the fuel tank, fuel cap, fuel inlet, and drain plug for possible leaks. Follow the steps below: 1. Try to see if you can smell a leak. 2. Try to see if you can spot a leak. 3. Try touching the possible leak. Contact Prins Maasdijk if you find a leak and ask him to repair the tank immediately.

	► Please note! Never carry out welding or other repairs yourself, as this may cause an explosion or fire.
	Inspection and maintenance of forklift trucks with LPG installation Check and maintain LPG forklifts like any conventional forklift. In addition, there are additional checks and maintenance points, as described below. • Inspection before use. • LPG leakage control • Wipe the soapy water or neutral detergent from the wet parts after the gas leak check is complete. • If a gas leak is detected, stop any fires immediately, ventilate the area properly, and ensure that there is no fire in the area. Then contact a qualified dealer or service workshop. ► Please note! Never check for LP gas leakage near fire. Make sure that there is no fire source in the area during the entire check. Warning!

	If you want to prevent serious accidents due to fire or explosion, you must follow the rules below: • Turn the ignition key to OFF and turn off the lights. • Only check for leaks in a well-ventilated and approved area. • Smoking, fire or flames are not allowed. • Apply soapy water to all joints, any air bubbles indicate leakage. • Never use any other liquid or open flame. • Do not start the engine until all the gas smell has disappeared. • If a gas leak is detected, you must immediately alert your supervisor so that he or she can call in a qualified technician or Prins Maasdijk for repair. The vehicle must not be used. 1. Turn the LP tank outlet valve counterclockwise to open it. 2. Set the ignition key to 'I' (ON). 3. Turn the fuel switch to "I" (ON) and "O" (OFF) several times in succession and release the switch is finally in the 'O' (OFF) position. 4. Wet the hose and the connections on the LP tank and regulator with soapy water or neutral detergent. Check for gas leaks. 5. Press the fuel test rod on the regulator out a few times.
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	6. Wet the hose and connections to the regulator and carburetor with soapy water or neutral detergent. Check for gas leaks. Monthly inspection and maintenance • Gas leakage at pipes and connections • Damage to pipes and connections • Adjusting the Controller • Cracks, damage to and gas leakage at the tank • Loose or damaged tank bracket • Damage to electrical wiring, loose terminals Turning of drain valve for liquid Gas leak in the regulator housing • Quarterly inspection and maintenance • Carburetor and adapter • Operation of the controller (disassembly and repair every year) • Solenoid valve • Filter
	Removing Tar from the Regulator Tar tends to accumulate in the regulator and this should be removed weekly at the end of the working day. Allow the engine to cool and remove the tar as described below.

1. Snake 2. Oil pan 3. Drain valve (option)	1. Move the fuel switch to the 'O' (OFF) position and open the bonnet. 2. Connect a hose to the drain valve under the regulator. 3. Place an oil pan under the drain tap. 4. Open the drain valve and allow the tar to drip into the oil pan. 5. Close the drain valve after all the tar has been removed from the regulator and disconnect the hose. ► Please note! If there is tar on the vehicle, you should remove it completely with a cloth.
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8. Periodic maintenance

Periodic inspection and maintenance are necessary to keep your forklift running smoothly. The number of hours allotted in the inspection cycle is as follows:

Daily (check before use)	Every 8 hours
Weekly	Every 40 hours
6 weeks	Every 250 hours
3 months	Every 500 hours
6 months	Every 1000 hours
Annually	Every 2000 hours

If the use of the vehicle exceeds 250 hours within 6 weeks, you must maintain the number of hours for conducting a periodic inspection. The pre-use checks and weekly inspections should preferably be carried out by the user. The 6-weekly, 3-monthly, 6-monthly, and annual inspection must be carried out by Prins Maasdijk because it requires advanced technology and special tools. See the periodic maintenance table for inspection and maintenance points and for inspection cycles. Use only genuine spare parts for replacement parts and use the recommended lubricants.

8.1 Periodic Replacement/Refresh Table

REPLACEMENT PERIOD (Combined hours of use or monthly period of use, whichever comes first)	Every Every	6 weeks 250	3 500	6 1000	12 2000	MonthsHours
Engine oil		● *	● **	←	←	
Engine oil filter		● *	●	←	←	
Coolant (except LLC, this must be done every 2 years replaced)			●	←	←	
Air filter element					●	
Oil for torque converter				●	←	
Oil filter for torque converter				●	←	
Differential oil					●	
Hydraulic oil				●	←	
Hydraulic oil filter		● *		●	←	
Wheel Bearing Lubricant					●	

Spark plugs				●	←	
Master cylinder, wheel cylinder caps and seals					●	
Brake fluid				●	←	
Power steering line (Every 2 years)						
Power steering rubber parts (Every 2 years)						
Hydraulic line				Every 2 years)		
Backup tank line				Every 2 years)		
Fuel line				Every 2 years)		
Rubber hose for torque converter				Every 2 years)		
Fork damper (OPT)				Every 2 years)		
Chain				Every 2 years)		
Hydraulic oil pump seal				(Every 3 years)		
Catalytic Attenuation (OPT)				(Every 3 years ● or after 6000 hours)		
3-way catalytic attenuation (OPT)				(Every 5000 operating hours)		

* The engine oil and oil filter of new vehicles should be changed/replaced after 6 weeks or 250 hours.

** for API CF-4 and higher oil quality (diesel engine)

Note:

- In harsh working conditions, we recommend a maintenance interval of 170 hours or 1 month.
- Affected engine versions: 4Y, 1DZ-III, 3Z
- Engine oil is restricted to vehicles that use engine oil of the following or higher class:
 - Diesel engines: API class CF-4 or higher
 - Petrol/LPG engines: API class SL or higher

8.2 Periodic Maintenance Table

INSPECTION METHOD

I: Inspect, correct and replace where necessary

T: Tighten

C: Cleaning

L: Lubrication

M: Measuring, correcting and adjusting where necessary.

ENGINE Basic Parts						
Starting state and unusual noise		I *	I	←	←	
Rotation state during idle		M *	M	←	←	
Rotation state during acceleration		M *	M	←	←	

Exhaust gas condition		I *	I	←	←	
Air filter element		C *	C	←	←	
Valve clearance					M	
Compression					M	
Cylinder head bolt					T	
Rubber suspension silencer					T	
Blow-through gas reduction device						
Clogging and damage to PCV valve and piping		I *	I	←	←	
Controller						
Maximum no-load stabilized rotation speed		M *	M	←	←	
Lubrication system						
Oil leakage		I *	I	←	←	
Oil level		I *	I	←	←	
Clogging and blockage of oil filter			I	←	←	
Fuel system						
Fuel leakage		I *	I	←	←	
Contamination and damage fuel filter element			I	←	←	
Injection timing				M	←	

Injection pressure and atomizer condition					M	
Draining sedimenter				I	←	
Cooling system						
Coolant level and radiator leakage		I *	I	←	←	
Wear rubber pipe		I *	I	←	←	
Radiator Cap Condition		I *	I	←	←	
Tension and damage fan belt		I *	I	←	←	
Radiator rubber suspension					I	
Three-way exhaust emission control system						
Exhaust gas (carbon monoxide) concentration measurement					M	
Looseness and damage to exhaust system pipe connections					I	
Damage to vacuum lines			I	←	←	
Damage to Vacuum Sensor					I	

Cleaning and damage injector					I	
Registry damage					I	
ABCV damage						
Water temperature sensor damage					I	
Damage oxygen sensor					I	

INSPECTION PERIOD (based on hours of use or time in months, whichever comes first) applies)	Every	6 weeks	3	6	12	Months
	Every	250	500	1000	2000	Hours
POWER TRANSMISSION SYSTEM						
Differential						
Oil leakage			I	←	←	
Oil level			I	←	←	
Loose bolts					T	
Torque converter and transmission						
Oil leakage			I	←	←	
Oil level			I	←	←	
Operation and loose control mechanism			I	←	←	
Control valve and clutch operation			I	←	←	
Inching valve operation			I	←	←	
Slate and oil pressure measurement				M	←	
Cardan shaft and drive shaft						
Loose connection			T	←	←	

Loose sliding wedge connection					I	
Loose universal connection					I	
Twisting and cracking of drive shaft					I	
RIDING EQUIPMENT						
Wheels						
Tire pressure			M	←	←	
Cuts and damage in tires and uneven treads			I	←	←	
Loose rim and lug nuts			T	←	←	
Depth of treads		M *	I	←	←	
Metal particles, pebbles or other foreign objects in the Tires		I *	I	←	←	
Damage to rim, side ring and wheel disc		I *	I	←	←	
Abnormal sound and loose front wheel bearing		I *	I	←	←	

Abnormal sound and loose rear wheel layer		*		←	←	
Front axle						
Cracks in and damage to housing						
Rear axle						
Bursting in, damage to, and deformation of connecting rod					M	
Loose axle rod forward and backward direction						
STEERING SYSTEM						
Steering wheel						
Slack and looseness		*		←	←	
Working conditions		*		←	←	
Control valve						
Oil leakage		*		←	←	
Loose fitting attachment		*		←	←	
Power steering						
Oil leakage				←	←	
Loose fitting and connections				←	←	
Power steering line damage						

Knuckle pin						
Loose knuckle			I	←	←	
Cracking and deformation					I	

INSPECTION PERIOD (based on hours of use or time in months, whichever comes first) applies	Every	6 weeks	3	6	12	Months
	Every	250	500	1000	2000	Hours
BRAKING SYSTEM						
Brake pedal						
Slack and reserve			M	←	←	
Braking effect			I	←	←	
Parking brake						
Working Ability			I	←	←	
Braking effect			I	←	←	
Loosening and damage to connections and cable		I *	I	←	←	
Brake line and hose						

Leakage, damage and installation condition			I	←	←	
Brake fluid						
Level		I	←	←	←	
Master cylinder or wheel cylinder						
Operation, wear, damage and loosening of the fastener					I	
Brake drum and shoe						
Space between drum and liner			M	←	←	
Shoe glide part and wear lining					I	
Working condition brake shoe					I	
Rust anchor bolt					I	
Wear of the counter spring, etc					M	
Operation automatic adjustment function					I	
Anchor plate						
Deformation, cracking and damage					I	
Loose attachment					T	

LOADING/UNLOADING SYSTEM						
Fork						
Fork and stop condition				←	←	
Uniformity of left and right fork sections				←	←	
Cracks in fork base and welded part					* *	
Mast and lifting arm						
Deformation, damage and cracking in welded part				←	←	
Loose mast and lifting arm				←	←	
Wear and damage of mast support bushing						
Wear and damage and cylinder rotation condition				←	←	
Wear and damage of cylinder pin						
Wear and damage mast strip				←	←	
Chain and sprocket						

Tension, deformation and damage to the chain		*		←	←	
Chain lubrication				←	←	
Stretching of chain						
Condition of the chain anchor bolt				←	←	
Wear and damage and rotation condition of the sprocket				←	←	
Various attachments (option						
Deviations and Assembly Condition				←	←	

INSPECTION PERIOD (based on hours of use or time in months, whichever comes first) applies)	Every Every	6 weeks 250	3 500	6 1000	12 2000	Months Hours
HYDRAULIC SYSTEM						
Cylinder						
Looseness and damage to cylinder attachment			T	←	←	
Deformation and damage of rod, rod screws and Rod end			I	←	←	
Cylinder operation			I	←	←	
Natural fall and natural forward tilt			M	←	←	
Oil leakage and damage			I	←	←	
Wear and damage pin and cylinder shaft support			I	←	←	
Lifting speed			M	←	←	
Uneven movement			I	←	←	
Oil pump						

Oil leakage and abnormal noise			I	←	←	
Hydraulic Oil Tank						
Oil level and pollution			I	←	←	
Tank and oil strainer				C	←	
Oil leakage			I	←	←	
Control lever						
Loose connections			I	←	←	
Operation			I	←	←	
Oil Control Valve						
Measurement of relief pressure			I	←	←	
Relief Valve and Tilt Lock Valve Operation			T	←	←	
Oil pressure pipes						
Oil leakage			I	←	←	
Deformation and damage			I	←	←	
Loose connections			T	←	←	
ELECTRICAL SYSTEM						
Ignition system						
Cracks in distributor cap		I *	I	←	←	

Combustion and electrode gap spark plugs		*		←	←	
Combustion clamp distributor side		*		←	←	
Wear and damage to the center piece of distributor cap		*		←	←	
Internal disconnection of the ignition wire						
Ignition timing				M	←	
Starter motor						
Interlocking driving wheel				←	←	
Charger						
Charging effect		*		←	←	
Battery						
Battery electrolyte level				←	←	
Specific gravity				M	←	
Electrical wiring						
Damage to wiring harness				←	←	
Fuses				←	←	
Preheater						

Faulty glow coil glow plug				I	←	
Open circuit in inlet heater				I	←	

INSPECTION PERIOD (based on hours of use or time in months, whichever comes first) applies)	Every	6 weeks	3	6	12	Months
	Every	250	500	1000	2000	Hours
SAFETY FEATURES, ETC.						
Canopy						
Cracks in welded part			I	←	←	
Deformation and damage			I	←	←	
Backrest						
Loose attachment			T	←	←	
Deformation, cracking and damage			I	←	←	
Lighting system						
Operation and installation condition			I	←	←	
Horn						
Operation and installation condition			I	←	←	

Instrument						
Operation			I	←	←	
Reversing buzzer (option)						
Operation and installation condition			I	←	←	
OPS						
Operation			I	←	←	
Driver's seat						
Looseness and damage to fastener			I	←	←	
Damage and/or operation of seat belts			I	←	←	
Working state of seat switch			I	←	←	
Bodywork						
Damage to and cracks in chassis, crossbeam, etc.					I	
Loose bolts					T	
Cab (option)						
Deformation, cracking and damage			I	←	←	
Cracks in welds			I	←	←	
Wear and cracks in silicone sealing strips					I	

Wear and damage of rubber material for Cab suspension					I	
Rear-view mirror (option)						
Dirt, damage			I	←	←	
Backward reflection			I	←	←	
Other						
Lubrication			L	←	←	

* For new vehicles

** Crack and Break Detector

Note:

In harsh working conditions, we recommend a maintenance interval of 170 hours or 1 month.

9. Maintenance data

Value adjustment table

Part	Facts			Series 1.5 tons	Series 1.8 tons	Series 2.0-2.5 tons	Series 3.0 tons	Series 3.5 tons
Fan belt tension (10 kg (22 lb) under pressure)	Mm (inch)			8-13 (0.31-0.51)				
Spark plug electrode gap	Mm (inch)		4Y	0.7-0.8 (0.028-0.031)				
Spark plug type			4Y	W9EXR-U				
Ignition timing (BTDC)	degrees/rpm		4Y	7/750				
Ignition series			4Y	1-3-4-2				
Fuel Injection Timing (BTDC)	mm lift/TDC		1DZ-III 3Z	0.77 0.90				

Fuel injection series			1DZII I• 3Z	1-3-4-2				
Valve clearance (when hot)	mm (inch)	IN	4Y	0 (self-adjusting)				
			1DZ-III	0.18-0.22 (0.007-0.009)				
			3Z	0.15-0.25 (0.006-0.010)				
		EX	4Y	0(self-adjusting)				
			1DZ-III	0.33-0.37 (0.013-0.015)				
			3Z	0.31-0.41 (0.012-0.016)				
Idle speed	rpm		4Y	750 ± 30				
			1DZ-III	750				
			3Z	775 ± 25				
	rpm		4Y	2570				

Maximum speed without load			1DZ-III	2600				
			3Z					2400
Engine compression	MPa/rpm (psi/rpm)	Std	4Y	1.2/250 (174/250)				
			1DZ-III	3.3/260 (479/260)				
			3Z	3.9/260 (566/260)				
		Border	1DZ-III	2.6/260 377/260)				
			3Z	3.5/260 (508/260)				
Steering wheel clearance (at idle)	Mm (inch)			20-50 (0.79-1.97)				
Set pressure oil control valve	kg/cm ² (psi)	Lifting		182 (2580)		191 (2710)		
		Tilt		120 (1710)		150 (2130)		

Brake pedal play	Mm (inch)			1-5 (0.04-0.20)				
Space between brake pedal and floor	Mm (inch)			135 (5.31) or more				
Backlash, inching and brake pedal	Mm (inch)			1-3 (0.039-0.12)				
Sound pressure level (LPA) in accordance with EN 12053* (EN spec)	dB (A)			77	77	77	77	77
				79	79	79	79	79
Vibration level in accordance with EN 13059* (EC spec.)	m/s ²			0.9	0.9	0.9	0.9	0.9

Value adjustment table

Part	Facts	Series 1.5-1.8 tons	Series 2.0-2.5 tons	Series 3.0-

						3.5 tons
Tightening torque wheel nut	N-m (kg-m) [ft-lb]	Front wheels	Single band	118-196 (12-20) [87-145]	←	294-588 (30-60) [217-434]
			Double strap	177-392 (18-40)[130-289]	177-392 (18-40)[130-289]	294-588 (30-60) [217-434]
		Rear wheels	Side ring rim	89-157 (9-16) [65-116]	177-392 (18-40) [130-289]	118-196 (12-20) 87-145
Specific gravity of battery electrolyte 20 °C (°F) 1.28						

Lubricant Capacity and Types

Part	Facts			Series 1.5-1.8 tons	Series 2.0-2.5 tons	Series 3.0-3.5 tons	Type
Engine oil	l(Am.gallon)	LPG	4Y	4.0 (1.06)	←	←	API SL, SM SAE 30 for SAE Normal

							Environment s 20 for low temperature s
		Diese l	IDZ -III	7.9 (2.09)	←	←	API: CF-4
			3Z	-	-	9.4 (2.48)*	
Torque converter	l(Am.gallon)	1 gear		6.0 (1.58)	←	←	Automatic transmission flow- fabric GM Dexron II
Differenti al	l(Am.gallon)			5.8 (1.53)	6.1 (1.61)	8.2 (2.16)	API GL-4, GL-5 Hypoid Gear Oil SAE85W-90
Fuel tank	l(Am.gallon)			45 (11.9)	60 (15.8)		
Wheel bearings, chassis, tilt steering, and mast and lubricatio n mounts					Right amoun t	←	MP lubricant

Brake line	l(Am.gallon)			0.2 (0.05)			SAE J-1703 DOT-3
Engine cooling system (excluding reserve tank)	l(Am.gallon)		4Y	8.4 (2.22)	8.5 (2.24)	9.7 (2.56)	LLC*
			IDZ -III	7.0 (1.85)	8.4 (2.22)		
			3Z	-	-	9.3 (2.46)* *	
Radiator reserve tank (at FULL marking)	l(Am.gallon)			0.47 (0.124)			
Hydraulic oil	l(Am.gallon)			30 (7.9)	33 (8.7)	34 (9.0)	ISO VG 32

* Long Life Coolant (sufficiently diluted with clean water). The level of the hydraulic oil refers to the V-mast with a lifting height of 3,000 mm.

** 3.5 ton models only

Note:

- A. Don't just use water.
- B. Using the wrong coolant may result in damage to the cooling system.
- C. Use only coolant with the correct specifications:
 - silicate-free, ethylene glycol-based
 - amine-free
 - Nitrite-free
 - borate-free engine coolant with long-life hybrid organic acid technology.

Coolant with a long-life hybrid organic acid technology consists of a combination of organic and phosphoric acids in a low concentration.

10. Engine Specifications

Engine	1DZ-III		3Z	4Y	
Fuel type	Diesel		Diesel	LPG	
Series Truck	1.5 – 1.8 tons	2.0 – 2.5 – 3.0 ton	3.5 tons	1.5 – 1.8 – 2.0 – 2.5 ton	3.0 – 3.5 tons
Displacement (l)	2.486		3.469	2.237	
Bore – Stroke (mm)	86x107		98x115	91x86	
Compression ratio	21.5			8.8	
Power (kW)	38	41	42	38	42
Max. torque (Nm / rpm / min)	157 / 2300	157 / 2500	200 / 1600	160 / 2100	160 / 2200

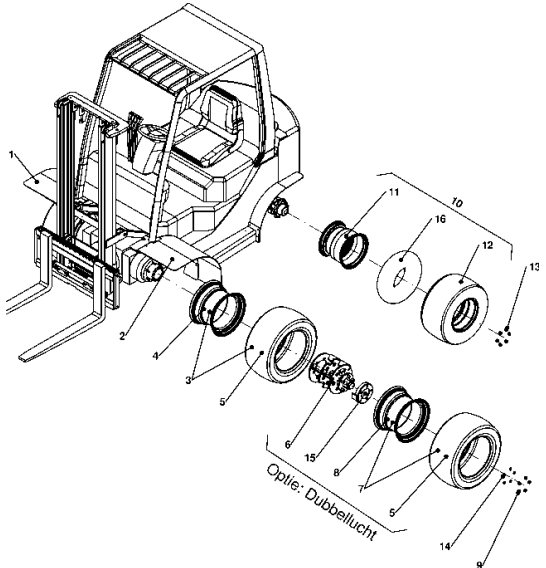
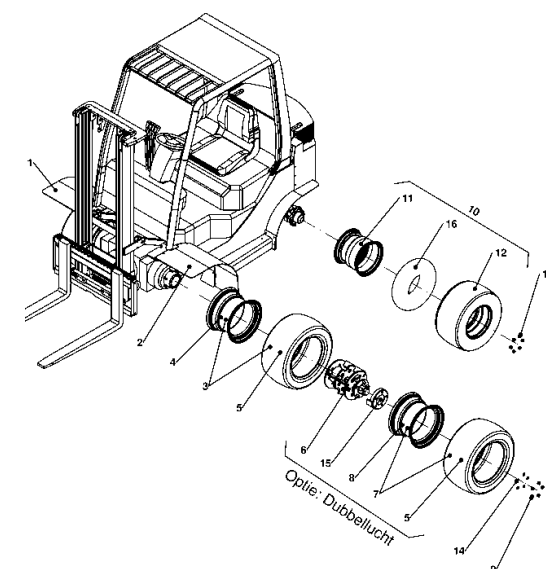
11. Wheels and tires

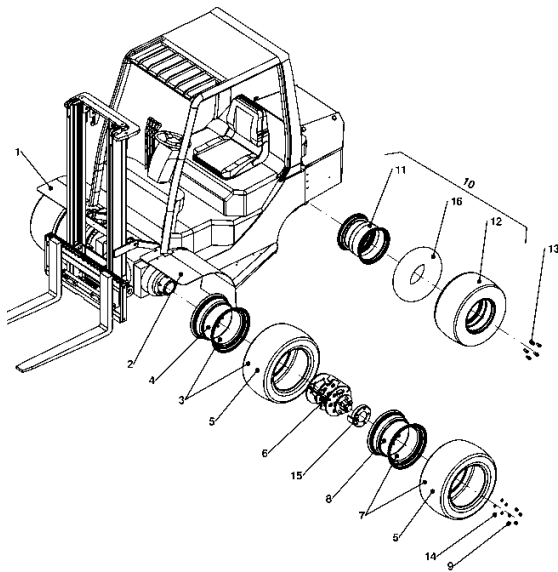
11.1 Tire pressure

With single wheels:	Tiger L	Tiger XL	Tiger XXL
Rear tires	2.5 bar	1.5 bar	1.5 bar
Front tires	3 bar	3 bar	3 bar

In the case of double tires:	Tiger L	Tiger XL	Tiger XXL
Front tires (indoor)	3 bar	3 bar	3 bar
Rear tires (outside)	2 bar	2 bar	2 bar

11.2 Overview Wheels and Tracks

	Tiger L 1. Front screen double wheel right 2. Front screen double wheels left 3. Drive wheel 295x50-15 complete 4. Rim 295x50-15 5. Tire 295x50-15 6. Freehub (option) 7. Drive wheel 295x50-15 complete outer wheel (option) 8. Rim 295x50-15 outer wheel (option) 9. Wheel nut 10. Rear wheel 20x10-10 complete 11. Rim 20x10-10 12. Tire 20x10-10 13. Wheel Bolt 14. Ring 15. Stop plate 16. Freehub 17. Inner tube 20x10-10
	Tiger XL 1. Front screen double wheel right 2. Front screen double wheels left 3. Drive wheel 295x50-15 complete 4. Rim 295x50-15 5. Tire 295x50-15 6. Freehub (option) 7. Drive wheel 295x50-15 8. complete outer wheel (option) 9. Rim 295x50-15 outer wheel (option) 10. Wheel nut 11. Rear wheel 24x13-12 complete 12. Rim 24x13-12 13. Tire 24x13-12 Wheel Bolt 14. Ring 15. Stop plate Freehub 16. Inner tube 24x13-12



Tiger XXL

1. Front screen double wheel right
2. Front screen double wheels left
3. Drive wheel 295x50-15 complete
4. Rim 295x50-15
5. Tire 295x50-15
6. Freehub
7. Drive wheel 295x50-15 complete outer wheel
8. Rim 295x50-15 outer wheel
9. Wheel nut
10. Rear wheel 24x13-12 complete
11. Rim 24x13-12
12. Tire 24x13-12
13. Wheel Bolt
14. Ring
15. Impact plate Freehub
16. Inner tube 24x13-12