

G2 series 1-3.5t

Counterbalanced Type
Forklift Truck with Engine

OPERATION & MAINTENANCE MANUAL

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

2.2.3	Protect against fire caused by adhered flammable things.....	22
2.2.4	Protect against fire caused by wire fault.....	22
2.2.5	Protect against fire caused by oil pipe fault.....	22
2.2.6	Cleaning after operation.....	23
2.2.7	If fire occurs.....	24
2.3	Basic notes.....	24
2.3.1	Follow the rules.....	24
2.3.2	Do not operate fault truck.....	24
2.3.3	Proper wearing when operation	25
2.3.4	Fire extinguisher and first-aid kit.....	25
2.3.5	Note on the safety devices.....	25
2.3.6	Practice before operation.....	25
2.3.7	It is prohibited to jump on and off the truck.....	26
2.3.8	Keep the driver's cab clean and tidy.....	26
2.3.9	Notes when flushing truck	26
2.3.10	Beware of scalding.....	27
2.3.11	Protection against fire.....	27
2.3.12	If fire occurs.....	28
2.3.13	Do not modify the truck.....	28
2.3.14	Do not disassemble overhead guard and backrest.....	28
2.3.15	Ensure the working area safety.....	29
2.3.16	Beware of the engine exhausting.....	29
2.3.17	Note on window washing solution.....	29
2.4	Before operation.....	30
2.4.1	Starting check.....	30
2.4.2	Check and adjust before starting.....	30
2.4.3	Starting check.....	30
2.5	Travelling.....	31
2.5.1	Preparation before travelling	31
2.5.2	Notes when travelling.....	32
2.5.3	Notes on truck stopping and parking.....	37
2.5.4	Notes on towing.....	38
2.6	Load carrying operation.....	38
2.7	Check and maintenance notes.....	43
2.7.1	Be sure to carry out the starting check.....	43

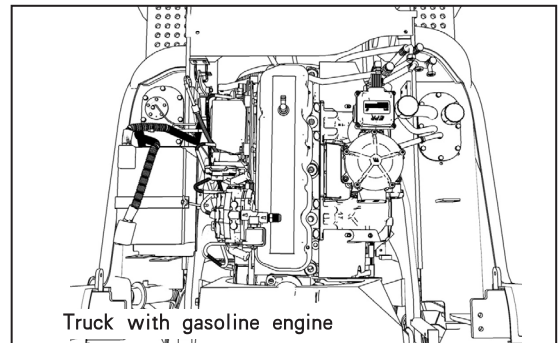
2.2 Protecting against fire

2.2.1 Protect engine against fire

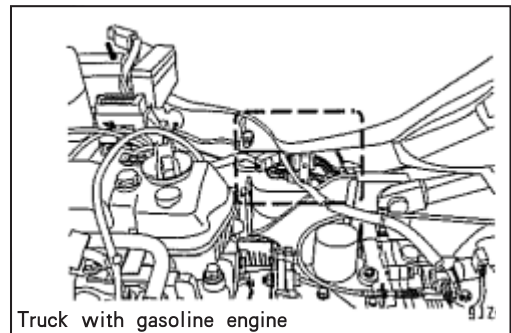
Before starting the engine, check the following parts: if the battery terminal is loose, fix it. And if there is dirt such as smudginess, leaf or paper, remove it.

If problems still exist, contact with HELI dealer for repair.

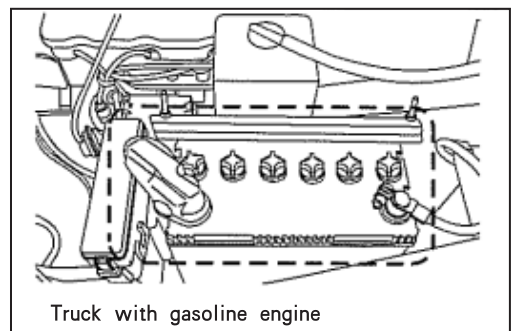
- 1. Check around engine
 - Check if there is any leaves or paper around engine;
 - Check if there is engine oil or fuel leakage around engine;
 - Check if the muffler and air exhaust pipe are well;



- Check if the wire and wire clamps are loose or damage.



- 2. Check around the battery
 - Check if the battery terminal, contactors or wire clamps are loose or rust;
 - Check is there are leaves, paper or metal around battery;
 - Check if the cables or harness are damaged.



2.4 Before operation

2.4.1 Starting check

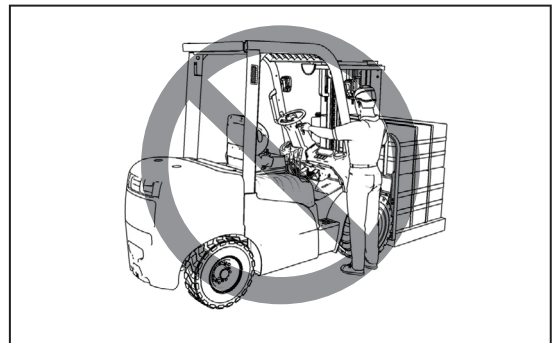
Carry out starting check every day in order to ensure truck safe operation. Refer to “check and maintenance” for the detailed check item.

2.4.2 Check and adjust before starting

- Check the following item before starting
 - Check the lever of cooling liquid, fuel and engine oil. Check if air cleaner is blocked.
 - Adjust seat (seat position, back angle), steering wheel and back mirror. Make sure all lock devices are locked.

- Note when starting engine
 - Before starting, check if the parking brake is applied and forward/backward levers are in neutral position;
 - Before starting, sound the horn to warn around;

When starting, check if it is safe around and sit on driver’s seat;
Never try to make the engine starting circuit short circuit on purpose to start the engine, or serious injury or fire may be caused. Do not start the engine through pushing the truck;



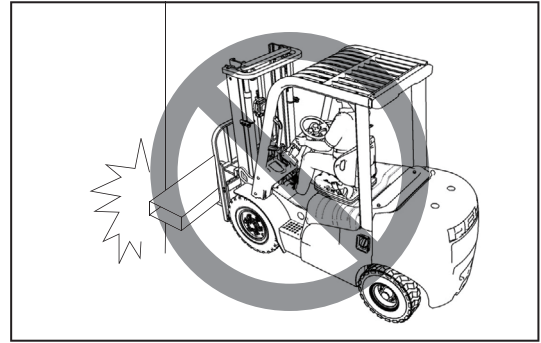
- Notes in cold weather
 - Make the engine warm completely in cold weather, or the truck may move slowly or change direction suddenly which may cause accident.



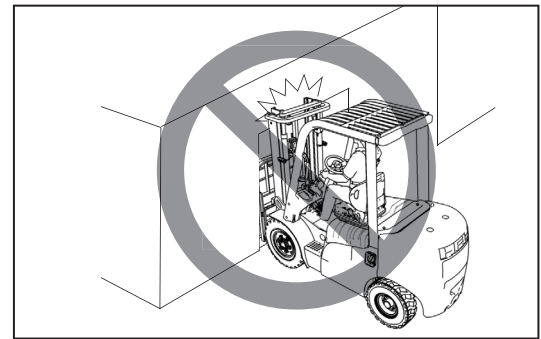
2.4.3 Starting check

- Check the working condition of the meter especially the alarm light;
 - Make sure the operator presence sensing system work well;
 - If there is any abnormal such as noise, vibration, heating, smell, improper adjusting of meter, engine oil or fuel leakage, be sure to remove the faults before operation.

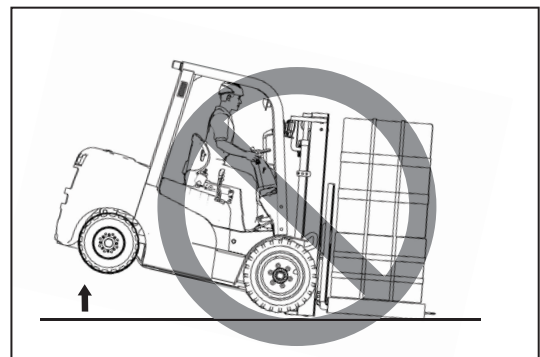
- Take care when carrying long and wide goods;
 - Take care when carrying long and wide goods. Lift the goods slowly so as not to collide anything around;
 - Keep the goods as low as possible and keep balance when changing direction.



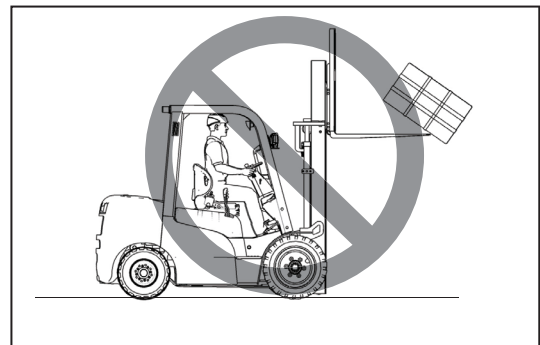
- Pay attention to the mast height
 - The mast height will increase with the lifting of fork. Take care when carry out such operation;
 - Take care not to touch electric wire, pipeline, water sprinkler, cross beam and so on. If there is any touch, goods on fork may fall.



- No over loading.
 - The rear wheel will be away from the ground if the truck is over loaded and thus the truck will be out of balance. Do not exceed the max. capacity listed in the chart.



- Do not tilt the mast forward if there is load on the fork.
 - Do not tilt the mast forward when the load is lifted, or the good may fall down and truck may tip over;
 - Do not travel with the mast tilt forward.



2.7.18 Note when dealing with the waste

Take care to deal with the waste in order to protect the environment.

- Keep the waste liquor such as engine oil and electrolyte in a container like jar. (Do not keep the electrolyte in a metal container and be sure to keep it in a plastic container). Never drain the waste liquor into earth, river, drainage ditch, sea or lake.
- When dealing with injurant such as engine oil, fuel, cooling liquid, solution and battery, stick to the relative law.



2.7.19 Notes after check and repair

- Wipe off the oil and lubricating grease at once. If the truck is dirty, fault such as crack is hard to be found.
- Check if there is any abnormal after the truck is repaired.

2.7.20 Regular check on the key part

- Lubricate, check and maintain the truck especially the key parts regularly in order to ensure the truck safety and long service life. Change then regularly.
 - Parts will go bad, worn or fatigued if they overrun their service time and serious injury and damage will be caused. Parts service life is hard to be distinguished by visual check.
 - Replace the key parts regularly.
 - If there is any abnormal, change the key part even it is undue.
-
- Note
 - Check and change of the key parts and lubrication grease adding should be carried out by HELI dealer or agent.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

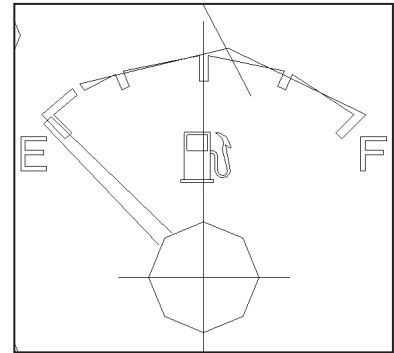
■ Fuel gauge

Oil quantity is shown on the fuel gauge. Check it on a flat ground. Check the oil quantity when the engine starting switch is on ON position.

Position E: it means that the oil level is low.

Position F: it means the oil tank is full.

Add fuel before it runs out.

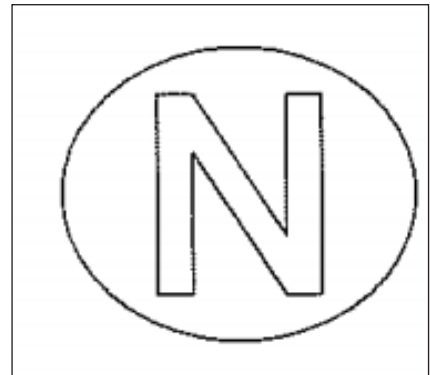


■ Neutral indicator

Neutral indicator means the forward/backward operation lever is on neutral position.

When the starting switch is on ON position, the neutral indicator will light on if the forward and backward operation lever is on neutral position. The indicator turns off when the lever is on forward or backward position.

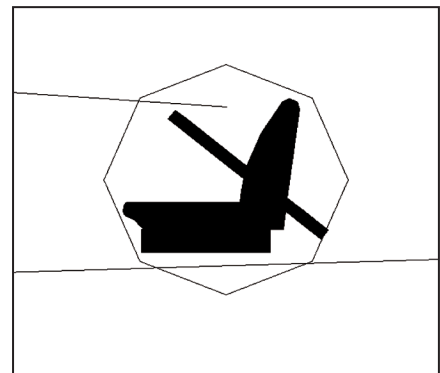
Before starting the engine, turn the starting switch to the ON position and check if the neutral indicator is on.



■ OPS indicator

When OPS is activated, the indicator turns on and the transmission box power is cut.

When you sit on the driver's seat with proper posture and place the forward/backward operation lever, the indicator turns off and the truck is ready for travelling.

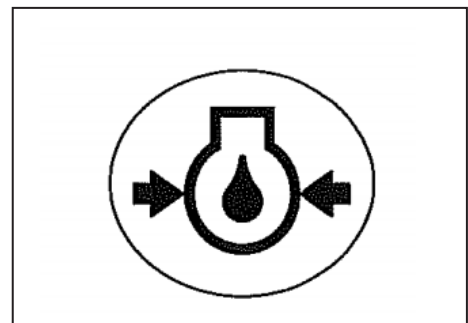


■ Engine oil pressure alarm indicator

It means the abnormal of the engine lubricating oil pressure.

The light will turn on when the starting switch is turned to ON position and it will turn off after the engine is started.

During operation, stop the engine and check the engine lubricating system and engine oil level when it turns on.

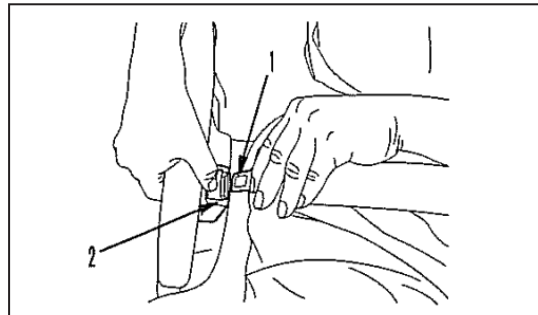
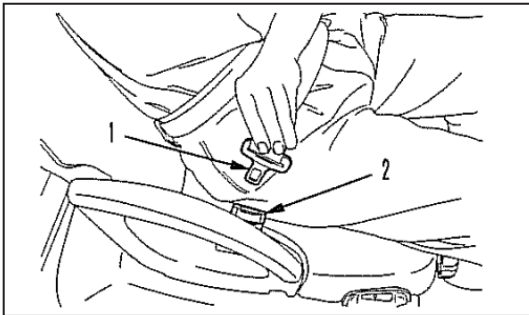


■ Fasten and lose the safety belt

 CAUTION

Wear safety belt during operation.

1. Insert the spring bolt on the left side belt to the lock on the right side. Safety belt is locked when you hear a click.
2. Hold the safety belt with left hand and press the red button on the lock with right hand when loose the belt.
3. Hold the spring bolt to roll the belt slowly.



■ Steering hand wheel position adjusting

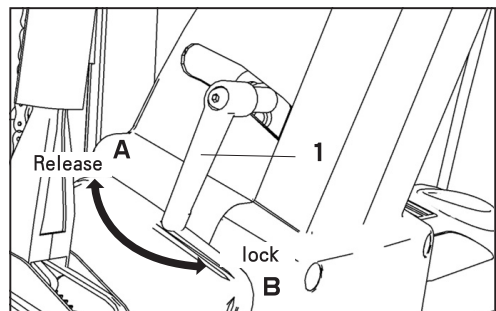
 CAUTION

Park the truck well before adjusting the steering hand wheel position.
After adjusting, move the steering hand wheel forward and backward to check if it is locked.

Suspension adjusting

Adjust the suspension level through adjusting knob.
Pull the knob upward if the operator is light.
Push the knob downward if the operator is heavy.
Place the knob in middle position if the operator is moderate.

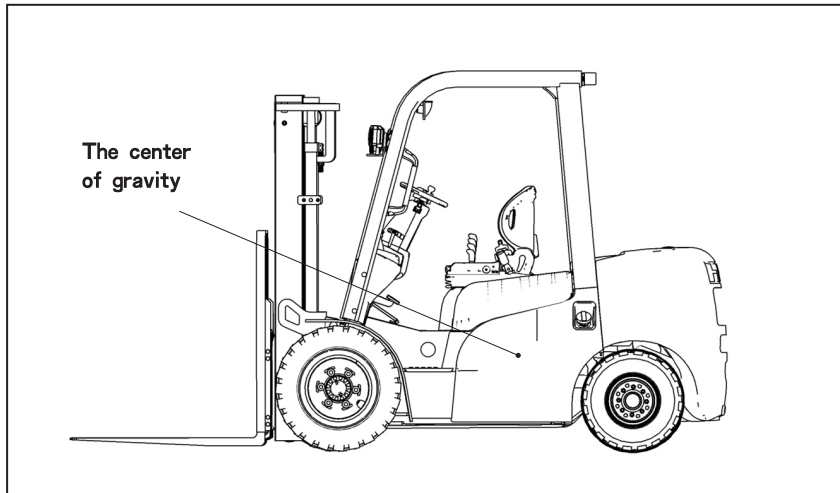
Weight adjusting range: 50-120kg.



3.4 Transporting

Refer the technical parameter for truck size and weight.

Refer to “2.9.3 Combined center of gravity and loaded truck stability” for truck center of gravity. For more information, please contact with HELI dealer.



3.4.1 Truck fixing



Authorized transporting company is recommended to transport the truck through highway, railway and waterway.

No matter which method is chosen to transport the truck, a common fixing method is needed which can reduce the truck and paint damage possibility.

Forklift truck fixing method on a lorry:

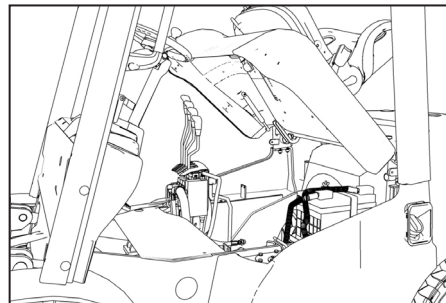
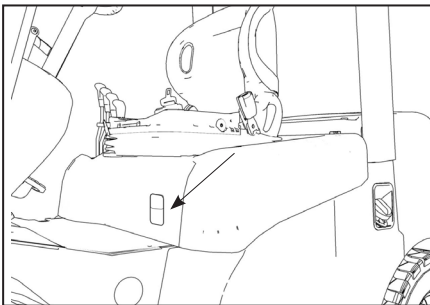
1. Keep a proper distance (at least 10cm) between two trucks for safety during transporting.
2. Put a wood block under the rear axle surface avoiding a bad effect on rear wheel because of the large gravity of counter weight. Apply the parking brake.
3. Bind the truck carefully avoiding appearance damage. Avoid direct contact with the rope. Put a rag on each binding point.
4. when binding, chose the position which can bear large force. Usually, chose the center beam as the front fixing point and hole on the counter weight as the rear fixing point.
5. The steel rope and iron wire must not interfere with the truck important parts such as tilting cylinder, lifting cylinder avoiding deforming because of force.
6. Fix the truck according to the sketch map below in order to bear small force.
7. In principle, place the truck facing opposite the lorry travelling direction. Because a spin may be caused during travelling if center of gravity is moved to one side. According to practical condition, placement of facing the lorry travelling direction and opposite the travelling direction can be mixed. Be sure to fix the load firmly.
8. After arriving, loose the fixing steel rope when unloading. Then lift the counter weight with lifting equipment and remove the wood block. At last the truck can be driven.

4.2.3 Open the engine hood to check



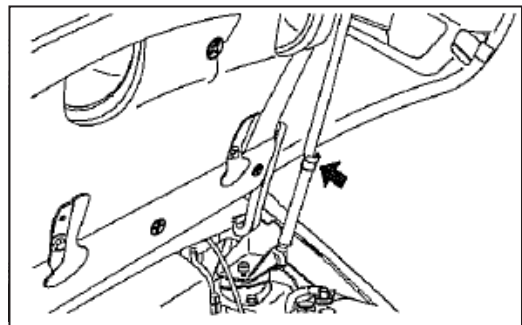
- Before opening the engine hood, shut off the engine.
- Take care not to press your hand when opening or closing the engine hood.
- Only authorized person is allowed to open the engine hood.

1. Release the hood lock through pushing the hand shank on the left front of the engine hood.
2. Push then engine hood upward until the red stopper of the engine hood supporting gas spring is taken its place.



■ Methods of closing the engine hood

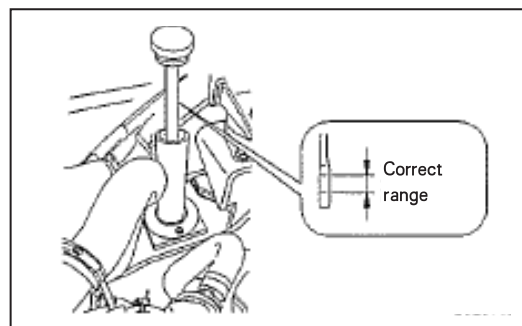
- Press the support's red stopper (marked with press) to the direction of arrow (backward) with one hand and close the engine hood with the other hand slowly.
- Check if the engine hood is closed and locked.



■ Hydraulic oil level check

Check if the hydraulic oil is added to regulated level.

1. Place the truck on a flat ground. Lower the fork to the ground and keep the mast be vertical.
2. Draw out the oil dipstick on the right side of the truck (integrated with the ventilating device). Clean the oil dipstick with rag and then insert it to the oil tank.
3. Draw out the oil dipstick and check if the adhered oil is in normal range.
4. Add oil if oil level is low; if oil run out, clean it.



IMPORTANT

Only pure HELI hydraulic oil or recommended oil can be used.

4.2.9 Safety function check



- Park the truck on a flat ground before carrying out the check.
- Make sure there are no people and barriers around and there is enough driving space.

■ OPS (travelling function) check

The truck is not allowed to move by the OPS system when the driver goes away from the seat. Check the safety function.

■ Checking steps

1. Park the truck on a flat and solid ground and apply the parking brake.
2. Place the forward/backward operation lever on neutral position and lift the fork 15cm above the ground.
3. Move foot way from the brake pedal, inching pedal and acceleration pedal.
4. Place the forward / backward operation lever on forward or backward position and move you buttock away from the seat.
5. Check if the OPS alarm indicator on the meter lights on after 5s.
6. Release the parking brake.
7. Make sure the truck will not move when you press the acceleration pedal with buttock away from the seat.
8. Release the OPS (driving function).

Sit on the seat with correct posture and place the forward/backward operation lever on neutral position. The truck will return to normal operation condition and the flickering OPS alarm indicator turns off.

■ OPS (loading function) check

The truck is not allowed to lift by the OPS system when the driver goes away from the seat. Check the safety function.

■ Checking steps

1. Park the truck on a flat and solid ground and apply the parking brake.
2. Place the forward/backward operation lever on neutral position and lift the fork 1m from the ground.
3. Move foot way from pedals and move your buttock from the seat.
4. Check if the OPS alarm indicator on the meter lights on after 5s.
5. Ensure the following points:

Fork will not be lifted or lowered even the lifting and lowering operation lever is operated.

Mast will not tilt forward or backward even the tilting operation lever is operated.

6. Release OPS (loading function)

The truck will return to normal operation condition and the flickering OPS alarm indicator turns off when sitting on the seat with correct posture.

■ Neutral position safety function check

The function is used to avoid truck moving suddenly when starting the engine as the forward/backward operation lever is placed on forward or backward position.

4.4.6 Fuse changing

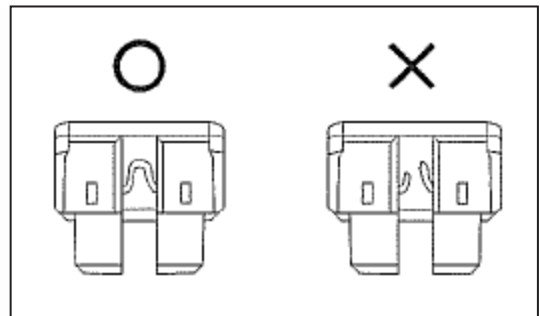
Fuse may be broken if lights or indicators or the controlling system do not work. Check if the fuses protecting each devices and systems are burn.

⚠ CAUTION

- Before changing the fuse, turn off the power. (turn the starting switch to OFF position)
- Change the fuse with the same standard and capability.
- If the replaced fuse is burn again, it may be caused by the abnormal electric system. please contact with HELI dealer or agent.

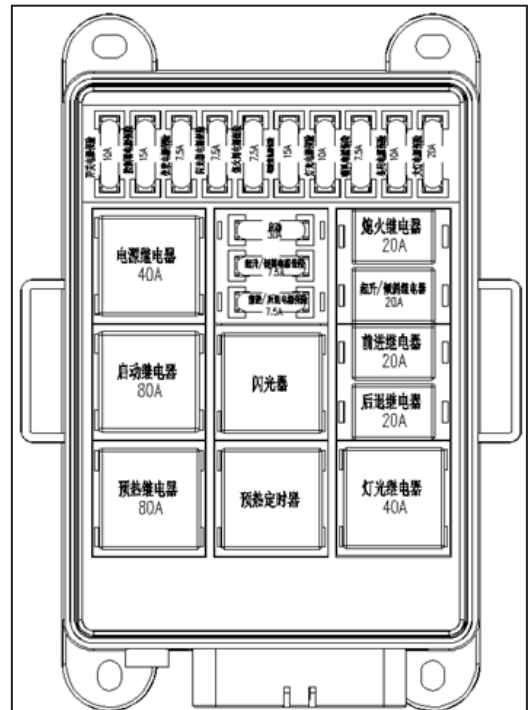
■ Diesel engine and gasoline engine

1. Switch the starting key switch to OFF position.
2. Open the engine hood, fuses are in the electric cabinet n the left side of the truck.
3. Disassemble the fuse box cover and puller inside the fuse box.
4. Clamp the fuse with puller and remove it. Check if it is broken visually.
5. If fuse is broken, change it with the same standard and capability.



■ Electric cabinet

Refer to the following table for fuse capability and corresponding electric parts.



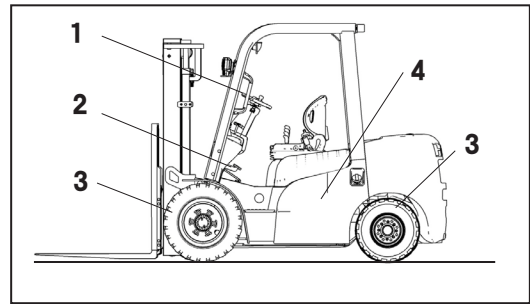
4.10 Truck cleaning



CAUTION

There is a danger of truck being out of work or mis-moving if water entering into electric system (controller, sensor, contactor and so on). Do not clean the electric system with water or air with high pressure.

Cleaning steps

1. Turn the starting key switch to the OFF position and draw out the key.
2. Clean the parts (1~4) shown in the figure and follow the notes described in the table.
3. Dry the cleaning parts.
4. Insert the key and turn it to ON position after the cleaning parts are dry completely. Check if there is any abnormal and then begin to operate.



No.	Cleaning parts	Cleaning method
1	Cabinet surface	Clean it with water from pipeline NOTE: when cleaning, reduce the water flow so as to reduce the water pressure as shown in the figure below. (for part 1 and part 2)
2	Front floor board	 
3	Front and rear tyres Front and rear axle	Clean with air or water with high pressure from pipeline
4	External parts except the parts above	Clean with air or water with high pressure from pipeline
	Other notes	<ol style="list-style-type: none"> 1. Do not clean the interior of the meter; 2. Cover the engine, transmission box and their electric devices such as electric wire, contactor and fuses and so on with water proof cloth when cleaning engine hood and parts under the floor board with high pressure air and water.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL