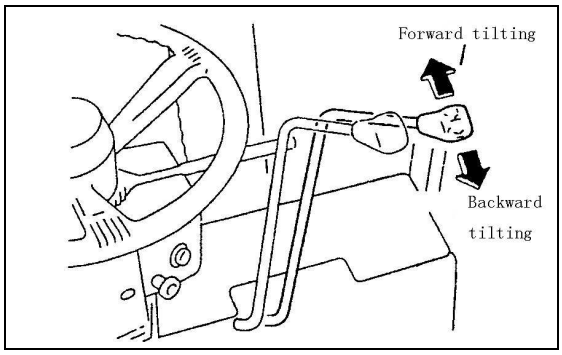
1-3.5 ton R Series Forklift Truck

OPERATION AND MAINTENANCE MANUAL

Warning

- Operator and manager should read this manual carefully.
- Only trained and authorized operator shall be permitted to operate the truck.
- If you operate the truck by fatal error, it will cause you injured even deadly.
- This manual should be saved forever, so all operators and maintenance men can make a reference and inspection.

E-P Equipment Co., Ltd.

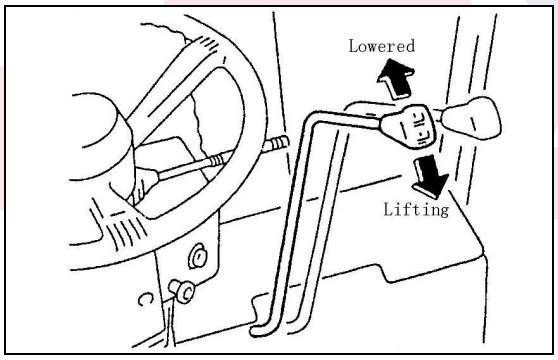


Lift lever [15]

To control the forks raise or low.

Pulling-raise, Pushing-low.

Lifting speed can be controlled by tilt backwards angle of lever and accelerator pedal effort while the lowering speed can be controlled by tilt forwards angle of the lever. The engine speed or accelerator pedal does not have to do with the lowering speed of the forks.



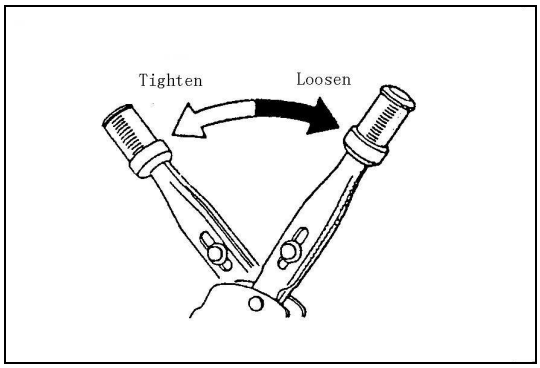
Steering wheel [16]

The steering hand-wheel is operated in the conventional manner, that is, when the wheel is turn right, the truck will turn to the right; when the wheel is turned left, the truck will turn the left. The steer wheels are located at the rear of the truck. These cause the rear of truck to swing out when a turn is made.

Warning

This truck is provided with the power steering, so heavy hand-wheel operation is caused when the engine comes to a stall. To put the power steering in operation again, restart the engine without delay.

Parking brake lever [17]



Use this parking brake lever to park the lift truck. And the parking brakes are applied on the front two wheels by pulling up on this lever. To release the parking brakes, move the lever forwards.

Forward reverse lever [18] (Torque converter type)

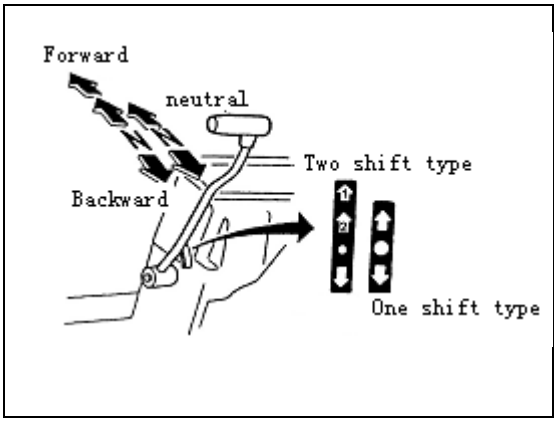
F-forward **N**-neutral **R**-backward

Torque converter type truck have a forward shift and a backward shift.

When shift must stop the truck first.

Caution

Do not fail to place the forward-reverse lever in the neutral position before starting the engine.



8 hour (daily or every shift) check

1. Check leaks of oil, fuel or water

Warning!

Don't attempt to operate the truck if leaked fuel is found through pre-operational check. Correct the leak before starting engine

Check if the engine, connector of hydraulic pipe, radiator and driving system are leakage or not. Do not use an open flame to check level, or for leakage, of fuel, electrolyte or cooling water.

2. Check water level in the radiator

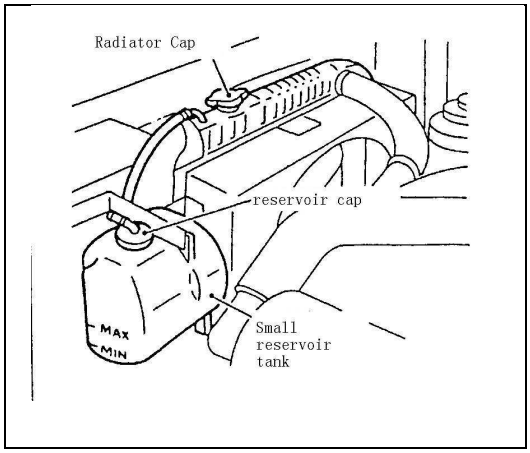
Inspect the small reservoir tank to see the coolant level is between Min and Max position when the engine is cool. If there is no coolant any more in the reservoir tank, please add some coolant to radiator. Otherwise it may damage to engine.

Warning!

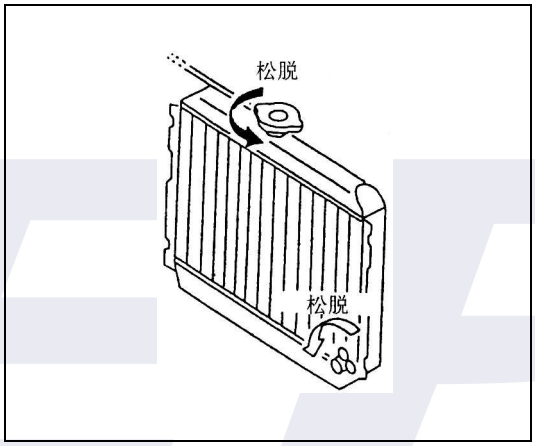
When the water temperature of the engine higher than 70 degree, please do not open the pressure cap of the radiator. Loosen cap slowly to allow steam to escape. After that, tighten cap securely. It is good practice to use thick waste cloth or the like when removing the cap. Avoid putting on gloves, since you may get burnt at your hand if hot water splashes on it.

Caution

Adding clean water to radiator. If you use antifreeze, use the same brand of antifreeze.



3. Replace the engine cooling fluid



① Open the radiator cover and loosen the drain cover, let the oil flow out, then wash the cooling system.
② Screw the drain cover tighten.
③ Add cooling fluid to radiator up to way out.
④ Let the engine run fully.
⑤ Stop the engine, after cool down fully, still add cooling fluid to radiator up to way out, and add cooling fluid to coolant reservoir "MAX" position.
⑥ Check the drain cover if leakage.

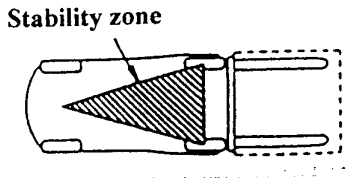
warning

When the water temperature of the engine higher than 70 degree, please do not open the pressure cap of the radiator avoiding scald.

Caution | **the stability zone of the barycenter**

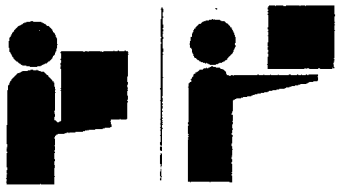
In order to make the truck stable, the combined center must be in the triangle which is made up of two points that the two front wheels attach ground and the midpoint of the back driving axle.

If the combined center is in the front driving axle, the two front wheels become two fulcrums, the truck will overturn. If the combined center departures the triangle, the trucks shall overturn in the corresponding direction.



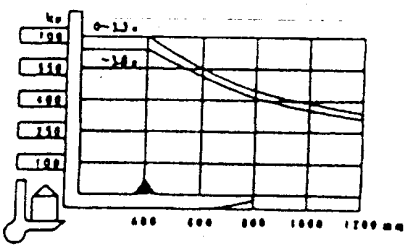
Caution | **the max load**

The distance between the load center and the front surface of forklift or load bracket (select the min) on the forklift is called LOAD CENTER DISTANCE. The max gravity that the truck can load is called MAX LOAD on condition that the load is on the load center distance. The relationship of MAX LOAD and LOAD CENTER DISTANCE is specified on the load capability chart. If the load center is moved near the front of forklift, the load should be cut down.



Caution | **the load capability chart**

This chart shows the relationship of MAX LOAD And the location of LOAD CENTER DISTANCE. Check whether the load and load center distance is in the range referred by the chart. Put the most important parts near the load bracket if the shape of goods is complex.



Caution | **speed and acceleration**

It is very dangerous to press the brake suddenly. It may result in capsizal or sliding down of the load because of huge force to the front.

Centrifugal force will be formed during turning and its direction is from the turning center to the outer. The force may result in the capsizal of truck. Right-and-left stable zone is very small, so the truck's speed must be reduced when turning to prevent capsizal. If the truck conveys the load which is on the high location, feasibility of capsizal is very big.

3.Table for bolt's tight moment

unit：N•m

Bolt's diameter	Grade			
	4.6	5.6	6.6	8.8
6	4∽5	5∽7	6∽8	9∽12
8	10∽12	12∽15	14∽18	22∽29
10	20∽25	25∽31	29∽39	44∽58
12	35∽44	44∽54	49∽64	76∽107
14	54∽69	69∽88	83∽98	121∽162
16	88∽108	108∽137	127∽157	189∽252
18	118∽147	147∽186	176∽216	260∽347
20	167∽206	206∽265	245∽314	369∽492
22	225∽284	284∽343	343∽431	502∽669
24	294∽370	370∽441	441∽539	638∽850
27	441∽519	539∽686	637∽784	933∽1244

Note: • Use entirely 8.8 grade bolt in the important joint position.

• Bolt's grade can be found in the head of the table, if it can't be found, the grade is 8.8.

Model		CPC10N-RG26 CPCD10N-RG26 CPC10N-RG26-J CPCD10N-RG26-J	CPC15N-RG26 CPCD15N-RG26 CPC15N-RG26-J CPCD15N-RG26-J	CPC18N-RG26 CPCD18N-RG26 CPC18N-RG26-J CPCD18N-RG26-J
Rated capacity Kg		1000	1500	1800
Load center mm		500	500	500
Max. lifting height mm		3000	3000	3000
Free lifting height mm		155	155	155
Max lifting speed mm/s		460	510	510
Tilting angle F/B		6°/12°	6°/12°	6°/12°
Max traveling speed Km/h		14.5	14.5	14.5
Ground clearance mm		115	115	115
Min turning radius mm		1925	1970	2005
Max grade ability %		20	20	20
Wheel base mm		1400	1400	1400
Wheel thread (F/R)		890/900	890/900	890/900
Service weight Kg	Mechanical	2395	2685	2875
	Hydrodynamic	2450	2740	2930
Overall dimension (L × W × H) (including forks)		3145×1080×2110	3185×1080×2110	3220×1080×2110
Tyre (F/R)		6.5-10-10PR/2 5.00-8-10PR/2	6.5-10-10PR/2 5.00-8-10PR/2	6.5-10-10PR/2 5.00-8-10PR/2
Battery V/ capacity Ah		12/100/20h	12/100/20h	12/100/20h
Diesel engine	Model	NB485BPG		
	Rated capacity/rpm	30KW/2600 r/min		
	Max torque/rpm	131N • m/1800 r/min		
	Displacement cc	2270		