CAT Lift Trucks

Operation & Maintenance Manual

MC

GP15N	CT25C-55001-59999	GPE15N	CT34-00001-09999	DP15N	CT16D-54001-59999
GP15ZN	CT34-52001-59999	GPE18N	CT34-40001-49999	DP18N	CT16D-74001-79999
GP18N	CT25C-75001-79999	GPE20CN	CT34-30001-39999	DP20CN	CT16D-24001-29999
GP18ZN	CT34-72001-79999	GPE20N	CT17D-20001-29999	DP20N	CT18C-20001-29999
GP20CN	CT34-22001-29999	GPE20ZN	CT35-20001-29999	DP25N	CT18C-70001-79999
GP20N	CT17D-10001-19999	GPE25N	CT17D-70001-79999	DP30N	CT14E-10001-19999
GP20ZN	CT35-10001-19999	GPE25ZN	CT35-70001-79999	DP35N	CT14E-80001-89999
GP25N	CT17D-60001-69999	GPE30N	CT13F-10001-19999		
GP25ZN	CT35-60001-69999	GPE35N	CT13F-80001-89999		
GP30N	CT13F-40001-49999				
GP35N	CT13F-60001-69999				

Keep this manual in your lift truck as a ready reference

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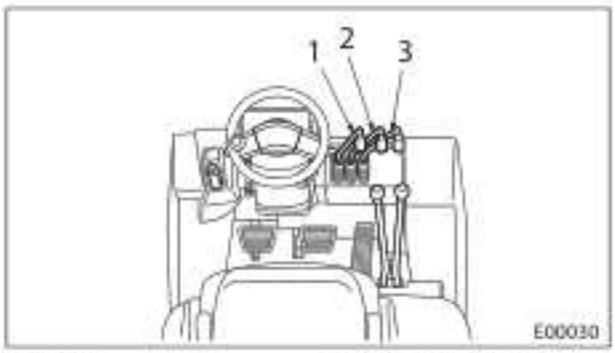
◆Operating Switches and Controls (MC Model)

Equipped with mast interlock system

The mast interlock system is one of the functions of the Presence Detection System on this lift truck.

If you are not properly seated in the operator seat, you cannot operate the mast operate until you are properly seated. In the following case, the mast interlock system disconnects power to the hydraulic control valve and the mast will not lift, lower or tilt even if the control levers are operated:

- The operator leaves the operator seat for approximately 3 seconds with the key switch in the ON position regardless of whether the engine is running or not.

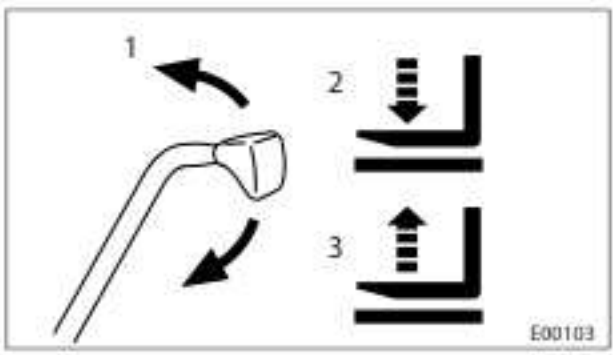


1. Lift lever
2. Tilt control lever/Mast vertical switch (optional)
3. Attachment control lever

▶ Lift Lever

Lifting speed is controlled by the speed of the engine (the position of the accelerator pedal) and the position of the lift lever. Lowering speed is controlled only by the position of the lift lever regardless of the speed of the engine. The lever will return to the NEUTRAL position when released.

To deactivate the mast interlock system, the operator sits on the operator seat while the key switch is in the ON position with the engine running, and then operate the lift lever.

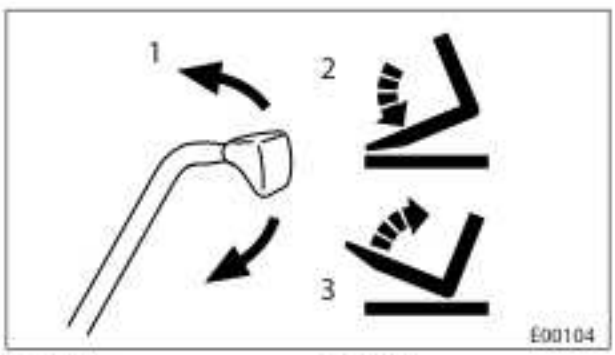


1. Lift lever
2. Lower
3. Raise

▶ Tilt Lever

Tilt speed is controlled by the speed of the engine (the position of the accelerator pedal) and the position of the tilt lever. The lever will return to the NEUTRAL position when released.

To deactivate the mast interlock system, the operator sits on the operator seat while the key switch is in the ON position with the engine running and then operate the tilt lever.



1. Tilt lever
2. Forward
3. Backward

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▶ Engine Oil

Replace oil and filter

- Replace oil and filter.

See 11-43 "Engine Oil".

▶ Bolts and Nuts (Frame & Chassis)

Check

Bolts and nuts of frame and chassis should be retightened.

▶ Tar in Vaporizer (LPG Model)

Check / Drain

Check the tar in vaporizer for dirt.

▶ Fuel Filter (Diesel Model)

Replace

- Replace filter.

See 11-46 "Fuel Filter (Diesel Model)".

▶ Fuel Filter (Gasoline Model)

Replace

- Replace filter. (Standard engine)

See 11-46 "Fuel Filter (Gasoline Model)".

▶ Hydraulic Tank Return Oil Filter

Replace

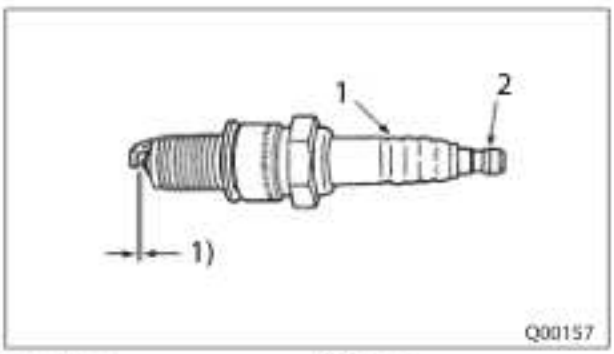
- Replace return filter.

See 11-47 "Hydraulic System".

▶ Spark Plug

Check gap

- Visually check electrode for dirt and damage and insulator for burning.
- Check if the electrode gap is within the standard (0.8 to 0.9 mm [0.0315 to 0.0354 in.]) with a feeler gauge.



1. Insulator
2. Terminal

1) Point gap

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■ SERVICE DATA

◆Fuel Information

Use only fuel recommended in this section.

▶ Gasoline (Gas) Specification

Your lift truck must use unleaded gasoline only.

Oxygenated gasoline

Some gasoline sold at service stations contain oxygenates such as ethanol, methanol, and MTBE (Methyl Tertiary Butyl Ether), although they may not be so identified. The use of fuels containing oxygenates is not recommended.

Ethanol (Gasohol)

A mixture of 10% ethanol (grain alcohol) and 90% unleaded gasoline may be used in your lift truck, provided the octane rating is at least as high as that recommended for unleaded gasoline.

Methanol

DO NOT operate your lift truck on gasoline containing methanol (wood alcohol). The use of this type of alcohol could result in lift truck performance problems and could damage critical fuel system parts.

MTBE (Methyl Tertiary Butyl Ether)

A mixture of 15% or less MTBE and unleaded gasoline may be used in your lift truck provided the octane rating is at least as high as that recommended for unleaded gasoline.

Note: If you experience driving problems which you suspect are fuel related, try switching to a different fuel.

▶ Diesel Fuel Specifications

Fuel types

The recommended fuels provide maximum engine service life and performance. They are distillate fuels. They are commonly called diesel fuel, furnace oil, gas oil, or kerosene (for cold weather operation).

Note: The manufacturer strongly recommends the use of fuels that meet the recommended fuels specification.

Fuel sulfur content

- The percentage of sulfur in the fuel will affect the engine oil recommendations. Fuel sulfur is chemically changed during combustion to form both sulfurous and sulfuric acid. These chemically attack metal surfaces and cause corrosive wear.
- Any API classification performance of oil should have sufficient TBN for fuels with less than 0. 5% sulfur.
- For fuels with 0.5% to 1. 5% sulfur by weight, engine oil must have a TBN of 20 times the percentage of fuel sulfur as measured by the ASTM (American Society of Testing Materials) D-2896 method. (ASTM D-2896 can normally be found at your local technological society, library or college.)

▶ Liquefied Petroleum (LPG Model)

Specifications

Use grade HD5 LPG.

Note: LP-Gas is a highly volatile fuel with an octane rating of 100 to 140. Follow local ordinances regarding storage and/or filling of LPG tanks.

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