CAT Lift Trucks

Operation & Maintenance Manual

MC/FC

GP15N	T25C-65001-up
GP15ZN	T34-52001-up
GP18N	T25C-75001-up
GP18ZN	T34-72001-up
GP20CN	T34-22001-up
GP20N	T17D-10001-up
GP20ZN	T35-10001-up
GP25N	T17D-60001-up
GP25ZN	T35-60001-up
GP30N	T13F-40001-up
GP35N	T13F-60001-up
GPE15N	T34-00001/19001-up
GPE18N	T34-40001/49001-up
GPE20CN	T34-30001/39001-up
GPE20N	T17D-20001/38001-up
GPE20ZN	T35-20001/38001-up
GPE25N	T17D-70001/88001-up
GPE25ZN	T35-70001/88001-up
GPE30N	T13F-10001/20001-up
GPE35N	T13F-80001/90001-up
DP15ND	T16D-54001-up
DP15NT	T16D-54001-up
DP15NDS	T16D-54001-up
DP15NTS	T16D-54001-up
DP15N	T16D-64001-up
DP18ND	T16D-74001-up
DP18NT	T16D-74001-up
DP18NDS	T16D-74001-up
DP18NTS	T16D-74001-up
DP18N	T16D-84001-up
DP20CND	T16D-24001-up
DP20CNT	T16D-24001-up
DP20CNDS	T16D-24001-up
DP20CNTS	T16D-24001-up
DP20CN	T16D-28001-up
DP20ND	T18C-20001-up
DP20NT	T18C-20001-up
DP20NDS	T18C-20001-up
DP20NTS	T18C-20001-up
DP20N	T18C-40001-up
DP25ND	T18C-70001-up
DP25NT	T18C-70001-up
DP25NDS	T18C-70001-up
DP25NTS	T18C-70001-up
DP25N	T18C-90001-up
DP30ND	T14E-10001-up
DP30NT	T14E-10001-up
DP30NDS	T14E-10001-up
DP30NTS	T14E-10001-up
DP30N	T14E-20001-up
DP35ND	T14E-80001-up
DP35NT	T14E-80001-up
DP35NDS	T14E-80001-up
DP35NTS	T14E-80001-up
DP35N	T14E-90001-up

Original Instructions

Keep this manual in your lift truck as a ready reference **99710-36120**

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▶ Truck Models Covered in This Manual

Truck Model	Serial Number	Engine
GP15N	T25C-55001-up	K15
GP15ZN	T34-52001-up	K21
GPE15N (MC)	T34-00001-up	K21E
GPE15N (FC)	T34-19001-up	K21E
GP18N	T25C-75001-up	K15
GP18ZN	T34-72001-up	K21
GPE18N (MC)	T34-40001-up	K21E
GPE18N (FC)	T34-49001-up	K21E
GP20CN	T34-22001-up	K21
GPE20CN (MC)	T34-30001-up	K21E
GPE20CN (FC)	T34-39001-up	K21E
GP20N	T17D-10001-up	K21
GP20ZN	T35-10001-up	K25
GPE20N (MC)	T17D-20001-up	K21E
GPE20N (FC)	T17D-38001-up	K21E

Truck Model	Serial Number	Engine
GPE20ZN (MC)	T35-20001-up	K25E
GPE20ZN (FC)	T35-38001-up	K25E
GP25N	T17D-60001-up	K21
GP25ZN	T35-60001-up	K25
GPE25N (MC)	T17D-70001-up	K21E
GPE25N (FC)	T17D-88001-up	K21E
GPE25ZN (MC)	T35-70001-up	K25E
GPE25ZN (FC)	T35-88001-up	K25E
GP30N	T13F-40001-up	K25
GPE30N (MC)	T13F-10001-up	K25E
GPE30N (FC)	T13F-20001-up	K25E
GP35N	T13F-60001-up	K25
GPE35N (MC)	T13F-80001-up	K25E
GPE35N (FC)	T13F-90001-up	K25E

Truck Model	Serial Number	Engine
DP15ND (MC)	T16D-54001-up	S4Q2
DP15NT (MC)	T16D-54001-up	S4Q2
DP15NDS (MC)	T16D-54001-up	S4Q2
DP15NTS (MC)	T16D-54001-up	S4Q2
DP15N (FC)	T16D-64001-up	S4Q2
DP18ND (MC)	T16D-74001-up	S4Q2
DP18NT (MC)	T16D-74001-up	S4Q2
DP18NDS (MC)	T16D-74001-up	S4Q2
DP18NTS (MC)	T16D-74001-up	S4Q2
DP18N (FC)	T16D-84001-up	S4Q2
DP20CND (MC)	T16D-24001-up	S4Q2
DP20CNT (MC)	T16D-24001-up	S4Q2
DP20CNDS (MC)	T16D-24001-up	S4Q2
DP20CNTS (MC)	T16D-24001-up	S4Q2
DP20CN (FC)	T16D-28001-up	S4Q2
DP20ND (MC)	T18C-20001-up	S4S
DP20NT (MC)	T18C-20001-up	S4S
DP20NDS (MC)	T18C-20001-up	S4S

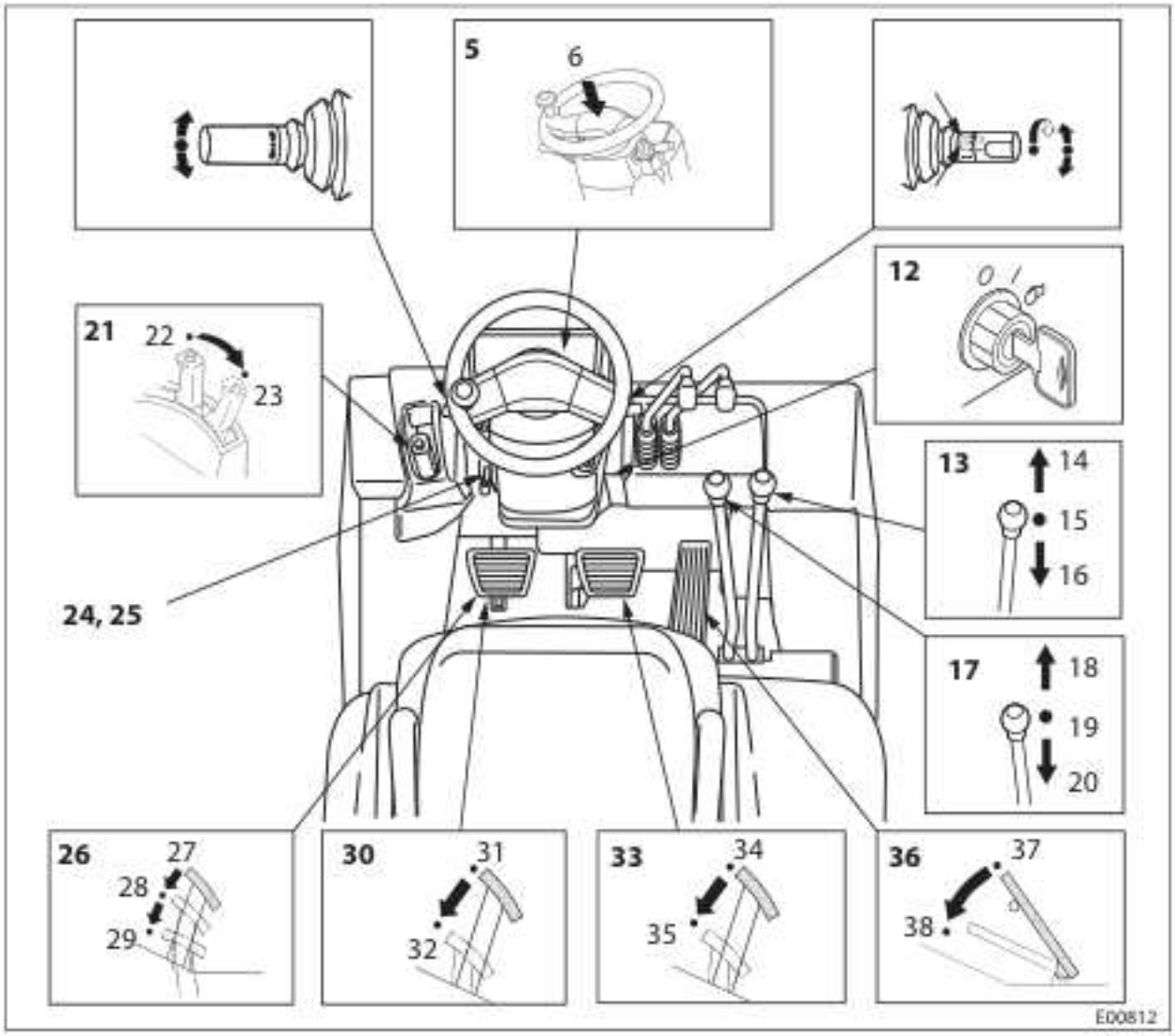
Truck Model	Serial Number	Engine
DP20NTS (MC)	T18C-20001-up	S4S
DP20N (FC)	T18C-40001-up	S4S
DP25ND (MC)	T18C-70001-up	S4S
DP25NT (MC)	T18C-70001-up	S4S
DP25NDS (MC)	T18C-70001-up	S4S
DP25NTS (MC)	T18C-70001-up	S4S
DP25N (FC)	T18C-90001-up	S4S
DP30ND (MC)	T14E-10001-up	S4S
DP30NT (MC)	T14E-10001-up	S4S
DP30NDS (MC)	T14E-10001-up	S4S
DP30NTS (MC)	T14E-10001-up	S4S
DP30N (FC)	T14E-20001-up	S4S
DP35ND (MC)	T14E-80001-up	S4S
DP35NT (MC)	T14E-80001-up	S4S
DP35NDS (MC)	T14E-80001-up	S4S
DP35NTS (MC)	T14E-80001-up	S4S
DP35N (FC)	T14E-90001-up	S4S

Abbreviation

- MC is short for mechanical control levers.
- FC is short for fingertip control levers.
- D stands for manual transmission.
- T stands for powershift transmission.

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◆ Driving Switches and Controls



1. **Direction Lever (POWERSHIFT)**
2. Forward (F)
3. Neutral (N)
4. Reverse (R)
5. **Horn Switch**
6. Push to activate
7. **Turn Signal / Light Switch**
8. Head Light (Position 2)
9. Clearance Light (Position 1)
10. Left turn
11. Right turn
12. **Key Switch**
13. **Direction lever (MANUAL)**
14. Forward (F)
15. Neutral (N)
16. Reverse (R)
17. **Gearshift lever (MANUAL)**
18. 1st speed
19. Neutral
20. 2nd speed
21. **Parking brake lever**
22. Release
23. Apply
24. **Steering Column Tilt Lever**
25. **Steering column release lever**
26. **Inching pedal (POWERSHIFT)**
27. Released
28. Clutch disengaged
29. Brake applied
30. **Clutch pedal (MANUAL)**
31. Engage
32. Disengage
33. **Brake pedal**
34. Release
35. Apply
36. **Accelerator pedal**
37. Idling
38. Full throttle

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▶ Fuel Filter (Diesel)

Change

- Replace filter.

Refer to "Fuel Filter--Diesel" under "Every 1000 Service Hours or 6 Months, Whichever Comes First."

▶ Fuel Filter (Gasoline)

Change

- Replace filter. (Standard engine)

Refer to "Fuel Filter (Gasoline)" under "Every 1000 Service Hours or 6 Months, Whichever Comes First."

▶ Hydraulic Tank Return Oil Filter

Change

- Replace return filter.

Refer to "Hydraulic System" under "Every 1000 Service Hours or 6 Months, Whichever Comes First. "

▶ Mast Support

Lubricate

- Lubricate mast support bushings.

Refer to "Mast Support" under "Every 500 Service Hours or 3 Months, Whichever Comes First."

▶ Tilt Socket Pins

Lubricate

- Lubricate tilt socket pins.

Refer to "Tilt Socket Pins" under the "Every 500 Service Hours or 3 Months, Whichever Comes First."

▶ King Pins

Lubricate

- - Lubricate king pins.

Refer to "King Pins" under "Every 500 Service Hours or 3 Months, Whichever Comes First."

▶ Tie Rod Pins

Lubricate

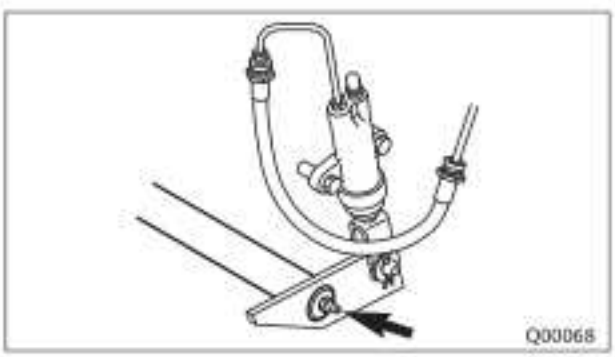
- Lubricate tie rod pins.

Refer to "Tie Rod Pins" under "Every 500 Service Hours or 3 Months, Whichever Comes First."

▶ Clutch Pedal Shifter Shaft (Manual)

Lubricate

Lubricate 1 fitting.



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◆Specifications (Standard Models)

Item			Truck model						
			GP15N	DP15ND DP15NT DP15NDS DP15NTS DP15N	GPE15N	GP15ZN	GP20CN	GPE20CN	DP20CND DP20CNT DP20CNDS DP20CNTS DP20CN
			GP18N	DP18ND DP18NT DP18NDS DP18NTS DP18N	GPE18N	GP18ZN			
Alternator Drive Belt Deflection when pushed inward with 98 N (10 kgf) [22 lbf] pressure, mm (in.)			11 to 13 (0.4 to 0.5)	10 to 12 (0.4 to 0.5)	11 to 13 (0.4 to 0.5)				10 to 12 (0.4 to 0.5)
Spark Plug	Type	NGK	FR2A-D	—	FR2A-D				—
	Gap, mm (in.)		0.9 (0.04)	—	0.9 (0.04)				—
Engine Idling Speed, rpm			700	750	700				750
Steering Wheel Free Play when measured at rim with engine idling, mm (in.)			15 to 30 (0.6 to 1.2)						
Clutch Pedal Free Play when measured at rim with engine idling, mm (in.)			0 to 6 (0 to 0.2)						
Clutch Pedal Free Play (Dry Clutch), mm (in.)			0 to 6 (0 to 0.2)						
Inching Pedal Free Play, mm (in.)			2.5 to 7.5 (0.1 to 0.3)						
Brake Pedal Free Play, mm (in.)	Manual		7 (0.3)						
	Powershift		7 (0.3)						
Parking Brake Lever Operating Effort, N (kgf) [lbf]			150 to 200 (15 to 20) [34 to 45]						
Tire Size	Front Single		6.50-10-10PR				6.50-10 / 5.00		
	Front Dual		4.50-12-8PR				—		
	Rear		5.00-8-8PR				5.00-8 / 3.00		
Tire Pressure, kPa (kgf/cm^2) [BAR] (Pneumatic)	Front Single		700 (7.0) [100]						
	Front Dual		700 (7.0) [100]						
	Rear		700 (7.0) [100]						
Tightening Torque for Wheel Nuts, N-m (kgf-m) [lbf-ft]	Front		157 (16) [116]						
	Rear		157 (16) [116]						
Lift chain elongation limit, mm (in.) / 20 links			327 (12.9)				392 (15.4)		

* Rear tires must have 1050 kg (2315 lb) capacity at 19 km/h (11.8 mph).

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