CAT Lift Trucks

Operation & Maintenance Manual

DP70NH	**30E-00001-09999**
DP80NH	**30F-00001-09999**
DP100NH	**30G-00001-09999**

Keep this manual in your lift truck as a ready reference

Original Instructions

99700-40100

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TO OWNERS

Thank you very much for your purchase of Cat Lift Trucks. This manual has been written for operators, mechanics and supervisors of Cat lift truck. This operator's manual is your guide to safe operation and regular preventive maintenance. **READ AND UNDERSTAND THIS MANUAL BEFORE OPERATING YOUR LIFT TRUCK.** If any problem or complicated trouble occurs, contact Cat lift truck dealer without hesitation.

Due to continuous improvements in design, it is possible that the latest description contained herein may differ slightly from the truck delivered to you. Moreover, the specification of the lift truck may be changed insignificantly depending on its destination.

- THIS MANUAL SHOULD BE CONSIDERED A PERMANENT PART OF THIS LIFT TRUCK. IT SHOULD STAY WITH THE TRUCK WHEN SOLD TO PROVIDE THE NEXT OWNER WITH IMPORTANT OPERATING, SAFETY AND MAINTENANCE INFORMATION.

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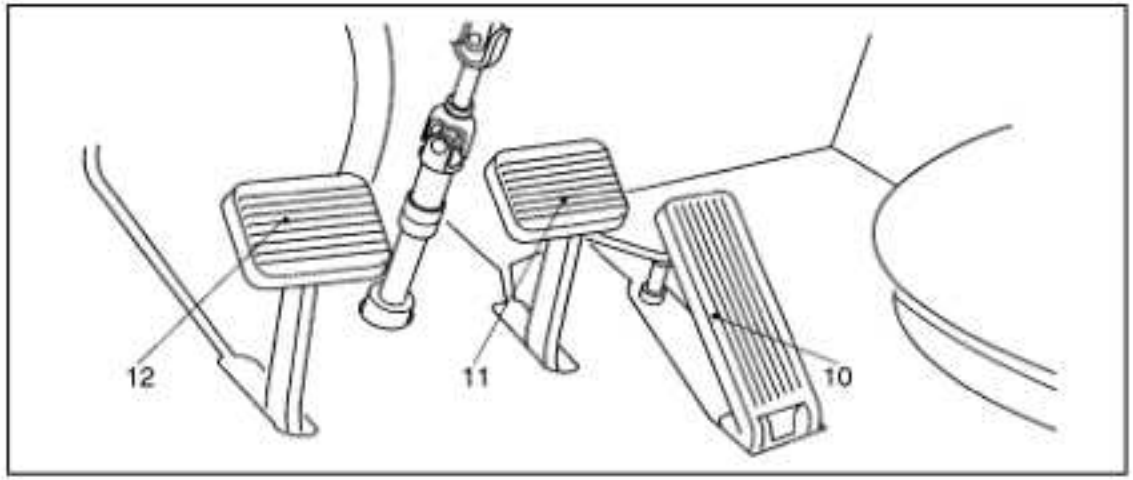
SAFETY

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FOOT CONTROLS

See the above figure for inching pedal (left), brake pedal (center) and accelerator pedal (right).

INCHING PEDAL [12]

⚠ WARNING

Do not use this inching pedal in deceleration during traveling, starting on an uphill nor in deceleration on a downhill. Otherwise, the hydraulic clutch is disengaged and the engine brake becomes ineffective as this pedal is stepped on.

As the inching pedal is pressed, the oil pressure in the hydraulic clutch drops accordingly following the operator to perform inching operation. Use this pedal to inch the truck while operating the hoist system at a high speed. When pressed to the full, this inching pedal serves as a brake pedal.

ACCELERATOR PEDAL [10]

The accelerator pedal increases the engine speed. With this pedal released, the engine runs at idle rpm.

BRAKE PEDAL [11]

Press this brake pedal to slow or stop the truck. At the same time, the brake lights come on.

⚠ WARNING

Do not run the truck while the brake hydraulic oil alarm is sounding. When the alarm is sounding, the brake hydraulic oil pressure drops, and the brake is hardly effective, making running of the truck very dangerous. Run the truck only after the alarm stops sounding.

7- to 8-ton models

⚠ WARNING

This truck is equipped with the power brake. It uses hydraulic fluid, not a usual brake fluid. Consequently, parts for usual brake fluid can not be used for rubber parts for such as the cylinder cup. Never use other than power brake exclusive parts.

7- to 8-ton models

NOTE

Brake Alarm

- In the case where the alarm sounds at turning ON of the ignition switch, start the engine, and step on the brake pedal several times until the alarm stops sounding.

7- to 8-ton models

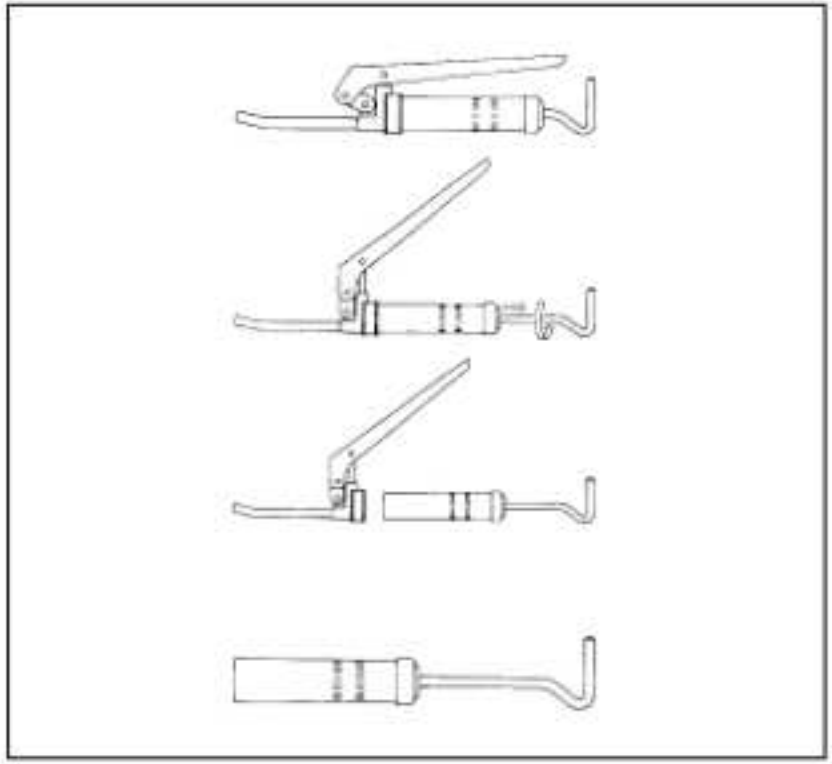
⚠ CAUTION **8- and 10-ton models**

The 8- and 10-ton trucks have no automatic brake shoe clearance adjusting system. Check the shoe clearance monthly.

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GREASE-UP PROCEDURE



- Add grease suitable for ambient temperature to each part.
- When supplying new grease or adding grease, take care to prevent any foreign matter from mixing in.

(1) A grease gun is optionally attached to your lift truck.
Pull out the grease gun rod to the full, and lock by twisting it.
(2) Remove the gun head from the cylinder.
(3) Fill the cylinder with a good quality chassis grease.
(4) Screw the grease gun head into the cylinder.
(5) Apply grease through all fittings shown on the next page.

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SPECIFICATIONS

SPECIFICATIONS

Characteristics

1	Manufacturer					Cat Lift Truck		
2	Model	Manufacturer's designation				DP70NH (7-ton model)	DP80NH (8-ton model)	DP100NH (10-ton model)
3	Capacity	Q	Rated capacity		kg	7000	8000	10000
4	Load center	C	Distance		mm		600	
5	Power type	Electric (battery), Diesel, Petrol					Diesel	
6	Control type	Hand, Pedestrian, stand-on, rider seated					Rider seated	
7	Tire equipment	V = Cushion, L = Pneumatic			front/rear		L/L	
8	Wheels (x = driven)	Number			front/rear		4x2	

Dimensions

9	Lift telescopic	h3	Lift height		mm		3000	
10		h2	Standard free lift		mm	215	205	
13	Fork size	L1	Length		mm		1220	
		B1	Width		mm	150	170	175
		S	Thickness		mm	70	75	
14	Tilt angle	α = Forward / β = Backward			°		6/12	
15	Overall dimension	L2	Length to face of forks		mm	3800	3940	4265
16		B	Width		mm	1995	2165	2245
17		h1	Height, upright lowered		mm	2500	2700	2850
18		h4	Height, upright extended		mm	4420		4330
19		h6	Height, overhead guard		mm	2450	2560	
20		h7	Seat height		mm	1310	1415	
21	Turning radius	Wa			mm	3360	3650	3900
22	Load distance	X	From center of front axle		mm	625	720	710
23	Aisle width	Ast3	Min. intersecting		mm	3020	3290	3540
		Ast4	Right angle stacking		mm	5405	5790	6030

Performance

24	Speeds	Travel speed	with load		km/h	26	25	24
			without load		km/h	30		30
25		Lift speed	with load		mm/s	460	450	390
			without load		mm/s	520	470	410
26		Lowering speed	with load		mm/s	490		470
			without load		mm/s	500	450	340
27	Max. drawbar pull	with load			kN (kgf)	52.9 (5400)	57.3 (5850)	
		without load			kN (kgf)	21.6 (2200)	27.4 (2800)	31.4 (3200)
29	Gradeability	with load (at 1.6 km/h)			%	29	27	22
		without load			%	19		20

Weight

32	Service weight				kg	9360	10980	12300
33	Axle loading	with load	front		kN (kgf)	142.3 (14530)	167.0 (17030)	197.1 (20100)
			rear		kN (kgf)	17.9 (1830)	18.9 (1930)	21.6 (2200)
34		without load	front		kN (kgf)	36.8 (3750)	47.2 (4810)	53.2 (5420)
			rear		kN (kgf)	55.0 (5610)	60.3 (6150)	67.9 (6880)

Chassis

35	Tires	Number			front/rear		4/2	
36		Size	front			8.25-15-14PR(I)	9.00-20-14PR(I)	
37			rear					
38	Wheel base	y			mm	2250	2500	2800
39	Tread	Center of tires	front		mm	1470	1600	
			rear		mm		1700	
40	Ground clearance	at lowest point			mm	190	245	
41		Center of frame			mm	220	320	
42	Brakes	Mechanical/Hydraulic/Electronic					Hydraulic/Mechanical	
43		Foot (pedal)/Parking (hand)					Foot/Parking	

Power train

45	Battery	Number-Volts/Ampere hrs. (capacity)			V/Ah		2-12/80	
49	Internal combustion engine	Make-Model					ISUZU "6BG1"	
50		Rated output			kW (PS)	82.4 (JIS 112)	84.6 (JIS 115)	
		Governed speed			rpm	2000	2100	
51		Torque			N-m (kgf-m)/rpm		417 (JIS 42.5)/1500	
52		Number of cylinders-Bore x stroke			mm		6-105 x 125	
		Displacement			cc		6494	
55	Transmission	Type-Number of speeds (forward/reverse)					Automatic Power shift-2/2	
57	Working pressure	For attachment			MPa (kgf/cm²)		19.6 (200)	

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