## **SPECIFICATIONS ELECTRIC POWERED LIFT TRUCKS** 80V, 4.0 - 5.5 TONNES



# HEAVY DUTY EFFICIENCY



EP40N **EP45N** EP50CN EP50N EP50NH **EP55NH** 

## **POWER UP YOUR DRIVER AND BOOST YOUR BUSINESS**

WITH THE POWER AND EFFICIENCY TO CHALLENGE AN IC ENGINE FORKLIFT, BUT NO EMISSIONS, THIS RANGE MAXIMISES EVERY ELECTRIC ADVANTAGE. ENJOY QUIET COMFORT AND SAFER, FASTER, MORE AGILE PERFORMANCE, WHILE REDUCING YOUR OVERALL OPERATING COSTS.





These environmentally friendly trucks, emitting zero pollution in operation, are more energyefficient – and quieter by far – than any other in their class. Built for demanding indoor and outdoor applications, they offer you uncompromising power, durability and a lower total cost of operation (TCO).



Their exceptional agility gives drivers the feeling of driving a much smaller truck. Dynamic aids include *OmniTurn* all-wheel steering, RDS (Responsive Drive System) and intelligent curve control. *PowerBurst* adds extra acceleration or climbing torque when needed, while electric differential locking helps in slippery conditions. Materials handling is smoother, faster, safer and more precise, thanks to *SmoothFlow* and other hydraulic technologies which optimise mast and fork movements according to load weights and lift heights. Light yet responsive fingertip levers or joysticks give effortless control.



From the spacious, quiet, vibration-free, floating operator compartment, the driver enjoys clear all-round views. Standard equipment levels are generous and weatherproof cabin options are available with additional comforts like air conditioning.

#### LOWER COST OF OWNERSHIP

- Best-in-class energy efficiency extends working hours (runtime) per battery charge.
- ECO mode can be selected to lower electricity bills.
- Li-ion battery option adds even greater efficiency and runtime, along with minimal maintenance needs and much longer life, for lower longterm total cost of operation (TCO).
- Easy access to battery compartment enables guick on-truck servicing and sideways exchange.
- · Battery inspection hatch option allows fast checking and water top-ups for lead-acid batteries.
- Multi-function display encourages correct use and maintenance of truck.
- Simple plug-in diagnostics and troubleshooting reduce downtime and maintain efficient performance.
- Robust construction reduces repair and replacement needs and helps maintain truck's high residual value.

#### **UNMATCHED PRODUCTIVITY**

- PowerBurst automatically delivers extra torgue to maintain ramp speed or provide strong acceleration, even when carrying heavy loads.
- Responsive Drive System (RDS) adapts performance rapidly in reaction to speed of pedal and hydraulic control operation, and ensures all movements, stops and starts are smooth.
- OmniTurn all-wheel steering offers better grip, smoother turning and unbeatably agile manoeuvring, aided by a +100° rear turning axle which enables instant side turns with no initial backward movement.
- Electric differential lock maximises grip on slippery surfaces by locking front wheels to increase traction (activated automatically at small steering angles or manually via an optional pedal function).
- Adaptive steering varies steering ratio and force to optimise comfort, control and stability.
- Intelligent curve control maximises cornering safety by smoothly adjusting truck speed and minimising side forces.
- SmoothFlow hydraulic system automatically adjusts to load weight, ensuring fast but smooth and precise control of all mast and fork actions - whether individual or simultaneous
- Automatic hydraulic control tuning maintains steady mast and chassis movements when lifting above 2.5 metres\*. (\*Activation height depends on mast chosen.)

- Passive sway control allows mast tilting forces to be absorbed by chassis during higher lifts. (Applies mainly above 3.0 metres.)
- Quick-connect access point simplifies opportunity charging of Li-ion batteries and features automatic ventilation for lead-acid.
- Li-ion option enhances performance and permits fast opportunity charging for continuous operation without battery changes.
- Pre-set ECO and PRO modes can be selected for different drivers and tasks, while customised settings (including lifting and lowering) can be applied by service engineers.

#### SAFETY AND ERGONOMICS

- Market-leading SilentRun+ hydraulic pumps, quiet drive units and other low-noise technologies keep driver comfortable and stressfree, increase awareness of surrounding activity and avoid disturbing neighbours and co-workers.
- Rubber-mounted operator compartment minimises vibration.
- Spacious operator compartment offers comfortable, adjustable seat, large, uncluttered floor and plenty of foot room, as well as easy, smooth entry/exit aided by long grab handle and non-slip step.
- Easy-to-read colour display keeps drivers fully informed.
- Obstacle-free design gives a clear all-round view of the truck's surroundings and outer dimensions - from both open and enclosed cabins - with no need to lean
- Dark operator compartment materials minimise reflections on inside of windows, for clearer vision.
- Useful storage spaces include suitable pockets for tools, mobile devices, bottles, tape dispensers and pens.
- Panel cabin options include acrylic transparent roof, steel doors, windscreen, side and rear windows, and front/rear wipers/washers.
- Air conditioner option focuses ventilation on footwell and windscreen, and provides additional adjustable front and side vents, for welcome comfort in hot weather - without cold draughts around the neck. (Only with panel cabin.)
- Heater option keeps driver warm and windows demisted in cold conditions. (Only with panel cabin.)
- Window options are designed for panoramic vision, ventilation, emergency rear escape, and convenient reach (to operate warehouse door-opening string, for example). (Only with panel cabin.)
- Panel cabin interior package (optional) includes roof liner, radio, speakers and reading light.

- Ergonomic steering wheel has a widely adjustable column and a steering knob which automatically returns to the most convenient position after every turn.
- Palm Steering option offers enhanced forward view, relaxed driving position and operation with minimal effort - ideal if driver is seated for long periods.
- Spring-force-optimised fingertip hydraulic controls on adjustable, comfortable armrest ensure ergonomically perfect hand positioning, anatomical support and free movement.
- Dual joystick option separates functions such as clamp opening, to avoid accidental moves, and is especially useful if fingertip levers are too small for operation with gloves (or large hands).
- Pedal design, position and angles reduce fatigue for drivers of any height or foot size.
- Safety lights (optional) include red lines, highlighting exclusion boundary around truck, and red or blue spots (front and rear) warning pedestrians of truck's approach.
- · Working lights include mast-mounted floodlights as standard, as well as optional front and rear driving light clusters and rooftop beacons.
- Standard safety features include hill hold, automatic park brake and wet disc brakes, for added confidence and control.

## **STANDARD EQUIPMENT AND OPTIONS**

		4 WH				
GENERAL	EP40N	EP45N	EP50CN	EP50N	EP50NH	EP55NH
4-wheel chassis, 80 volts, front wheel dual drive		•				
Key pre-set economy or high performance mode (ECO / PRO)	0	0	0	0	0	0
3-valve hydraulic fingertip control mounted on an ergonomic armrest			•		•	
Variable hydraulic speed control functions		•	•	•		•
Battery compartment side door			•			
Multifunctional interactive full colour display		•	•	•	•	•
Intelligent curve control						
Tiltable steering column				•	•	
TruckTool setup and diagnostics				<b>O</b>	•	•
Presence Detection System (PDS) disables all functions and switches truck to stop mode,		-	-	-	-	-
with parking brake automatically applied, if driver is not seated		•	•		•	
Full-suspension vinyl Grammer MSG65 seat						
CE name plates - language markings			•	•		
Operations and Maintenance Manual						
DIN battery connectors on frame						
Reverse drive horn button				•		
Battery door detection sensor		•	•	•		•
Fingertip control armrest						
Manual control levers	0	0	0	0	0	0
Dual joysticks	0	0	0	0	0	0
	0	0	0	0	0	0
Palm Steering	0	0	0	0	0	0
Air conditioner Heater	0	0	0	0	0	0
POWER SOURCE	0	0	0	0	0	0
		0	0	0		•
Integrated Li-ion battery*	0	0	0	0	0	0
Lead-acid battery	0	0	0	0	0	0
FRAME						
Battery sideways exchange chassis	0	0	0	0	0	0
Battery roller bed		•	•		•	
Battery tray	0	0	0	0	0	0
Battery sideways exchange tool	0	0	0	0	0	0
Battery inspection hatch	0	0	0	0	0	0
Easy charging	0	0	0	0	0	0
T-bar battery stand	0	0	0	0	0	0
LIGHTING						
LED work lights	•	•	•	•	•	•
Red side lines	0	0	0	0	0	0
Amber strobe	0	0	0	0	0	0
Amber strobe mounted low	0	0	0	0	0	0
'Blue point' rear light	0	0	0	0	0	0
'Blue point' rear light mounted low	0	0	0	0	0	0
ELECTRICAL SYSTEM						
Smart reversing alarm	0	0	0	0	0	0
Current output	0	0	0	0	0	0
12V connector	0	0	0	0	0	0
Operator presence pedal	0	0	0	0	0	0
Electronic differential lock	0	0	0	0	0	0
Dual pedal layout	0	0	0	0	0	0
Drive direction selection switch on ergonomic armrest (forward-backward) (only with fingertip controls)			•			
Drive direction lever in steering column (forward-neutral-reverse)	0	0	0	0	0	0
Road light kit	0	0	0	0	0	0
PIN code access with start switch	0	0	0	Ö	0	0
Automated lift controls		•	•	•	•	•
Automatic tilt centring via the F2 button with FC TILT/C	0	0	0	0	0	0
Load weight indicator	0	Ö	0	Ö	0	Ö
			-			







\* Li-ion battery option is available in selected regions.

## **STANDARD EQUIPMENT AND OPTIONS CONTINUED**

	4 WHEEL 80V											
OPERATOR'S CABIN	EP40N	EP45N	EP50CN	EP50N	EP50NH	EP55NH						
Grammer MSG65 seat			•									
Grammer MSG65 with heater	0	0	0	0	0	0						
Grammer MSG65 with cloth upholstery	0	0	0	0	0	0						
Grammer MSG65 with cloth upholstery and heater	0	0	0	0	0	0						
Grammer MSG75	0	0	0	0	0	0						
Grammer MSG75 with heater	0	0	0	0	0	0						
Grammer MSG75 with cloth upholstery	0	0	0	0	0	0						
Grammer MSG75 with cloth upholstery and heater	0	0	0	0	0	0						
Backrest extension												
ACCESSORIES												
Rear view mirror	0	0	0	0	0	0						
External rear view mirror	0	0	0	0	0	0						
Dead angle mirror	0	0	0	0	0	0						
Wide view mirror	0	0	0	0	0	0						
A4 size paper holder	0	0	0	0	0	0						
Camera	0	0	0	0	0	0						
Accessory clamp	0	0	0	0	0	0						
Fire extinguisher	0	0	0	0	0	0						
CABIN												
Default OHG												
Low OHG	0	0	0	0	0	0						
Battery inspection OHG	0	0	0	0	0	0						
Front screen and roof with wiper/washer	0	0	0	0	0	0						
Low front screen and roof with wiper/washer	0	0	0	0	0	0						
Front screen and roof with wiper/washer and battery inspection	0	0	0	0	0	0						
Bottle Spec Frame, Raised Operator Compartment (300 mm)	0	0	0	0	0	0						
Safety doors	0	0	0	0	0	0						
Deluxe cabin	0	0	0	0	0	0						
EXTERIOR												
Special colour (RAL) for the frame and counterweight	0	0	0	0	0	0						
FORKS & CARRIAGE												
Various fork lengths (1000 - 2400 mm) as well as fork deletion	0	0	0	0	0	0						
Side shifter W1000 mm	0	0	0	0	0	0						
Integrated side shift W1000 mm	0	0	0	0	0	0						
Fork positioner + integrated side shift	0	0	0	0	0	0						
Load backrest												
HYDRAULIC SYSTEM												
3/4/5-way valve armrest-mounted fingertip control	0	0	0	0	0	0						
3/4-way valve manual control	0	0	0	0	0	0						
Lift control	•			•		0						
Double action FC 3 v, for clamp usage Double action FC 4 v, for clamp usage	0	0	0	0	0	0						
Double action MC 3 v, for clamp usage	0	0	0	0	-	0						
Double action MC 4 v, for clamp usage	0	0	0	0	0	0						
Hydraulic accumulator	0	0	0	0	0	0						
Adjustable hydraulic pressure (for 3rd and 4th valve)	0	0	0	0	0	0						
Food grade hydraulic plessare (of Sid and 4an varve)	0	0	0	0	0	0						
Biodegradable hydraulic oil	0	0	0	0	õ	0						
Cold area hydraulic oil VG15	0	0	0	0	0	0						
Hot area hydraulic oil VG46	0	0	0	0	0	0						
3-way piping	0	0	0	0	0	0						
4-way piping	0	0	0	0	0	0						
4-way piping TYRES	0	0	0	0	0							
Solid pneumatic tyres												
Pneumatic tyres	0	0	0	0	0	0						
Non-marking solid tyres	0	0	0	0	0	0						
Cushion tyres	Ö	Ö	õ	ŏ	ŏ	ŏ						
Solid pneumatic twin tyres	0	Ö	ŏ	Ö	ŏ	ŏ						
	•											



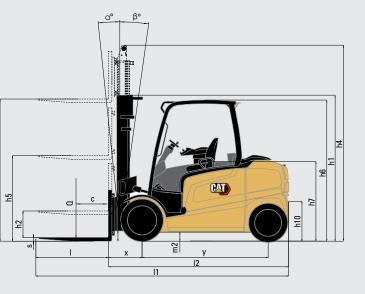


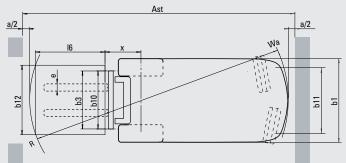


Standard **O** Option

For more information about standard and available optional equipment, please contact your dealer.

	Characteristics								
1.1	Manufacturer (abbreviation)			Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks
1.2	Manufacturer's model designation			EP40N	EP45N	EP50CN	EP50N	EP50NH	EP55NH
.3	Power source: (battery, diesel, LPG, petrol)			Electric	Electric	Electric	Electric	Electric	Electric
.4	Operator type: pedestrian, (operator) - standing, - seated			Seated	Seated	Seated	Seated	Seated	Seated
.5	Load capacity	Q	(kg)	4000	4500	4990	4990	5000	5500
.6	Load centre distance	С	(mm)	500	500	500	500	600	600
.8	Load distance, axle to fork face	х	(mm)	540	540	540	540	560	560
.9	Wheelbase	y	(mm)	1946	1946	1946	2090	2090	2090
	Weight								
2.1	Truck weight, without load / including battery (simplex mast, lowest lift height)		kg	7290	7648	7991	8347	8472	8711
.2	Axle loading with maximum load, front/rear (simplex mast, lowest lift height)		kg	10040 / 1250	10795 / 1353	11574 / 1417	11563 / 1784	12009 / 1463	12799 / 1412
.3	Axle loading without load, front/rear (simplex mast, lowest lift height)		kg	3902 / 3388	3890 / 3758	3902 / 4089	4075 / 4272	4234 / 4238	4246 / 4465
	Wheels, Drive Train		-						
.1	Tyres: V = solid, L = pneumatic, SE = solid pneumatic - front/rear			SE	SE	SE	SE	SE	SE
.2	Tyre dimensions, front			250x15 (710)	250x15 (710)	355/50-15 (710)	355/50-15 (710)	355/50-15 (710)	355/50-15 (710)
.3	Tyre dimensions, rear			7.00x12 (650)	7.00x12 (650)	7.00x12 (650)	7.00x12 (650)	7.00x12 (650)	7.00x12 (650)
.5	Number of wheels, front/rear (x = driven)			2X / 2	2X / 2	2X / 2	2X / 2	2X / 2	2X / 2
.6	Track width (centre of tyres), front	b10	(mm)	1143	1143	1154	1154	1154	1154
.7	Track width (centre of tyres), rear	b11	(mm)	1169	1169	1169	1169	1169	1169
	Dimensions								
.1	Mast tilt, forwards/backwards	∂/ß	0	6/8	6/8	6/8	6/8	6/8	6/8
.2	Height with mast lowered (see tables)	h1	(mm)	2420	2420	2420	2420	2420	2420
.3	Free lift (see tables)	h2	(mm)	150	150	150	150	160	160
.4	Lift height (see tables)	h3	(mm)	3300	3300	3300	3300	3300	3300
.5	Overall height with mast raised	h4	(mm)	4205	4205	4205	4205	4345	4345
.7	Height to top of overhead guard	h6	(mm)	2340	2340	2340	2340	2340	2340
.,	Seat height	h7	(mm)	1320	1320	1320	1320	1320	1320
.12	Tow coupling height	h10	(mm)	675	675	675	675	675	675
12	Overall length	1	(mm)	4025	4025	4025	4170	4190	4190
.20	Length to fork face (includes fork thickness)	12	(mm)	2825	2825	2825	2970	2990	2990
.20	Overall width	b1 / b2	-	1370	1370	1450	1450	1450	1450
.22	Fork dimensions (thickness, width, length)	s/e/l		50 / 150 / 1200	50 / 150 / 1200	50 / 150 / 1200	50 / 150 / 1200	60 / 150 / 1200	60 / 150 / 1200
.23	Fork carriage to DIN 15 173 A / B / no	0,0,1	(	3A 3A	307 1307 1200 3A	307 1307 1200 3A	307 1307 1200 3A	4A	4A
.23	Fork carriage width	b3	(mm)	1190	1190	1190	1190	1190	1190
.31	Ground clearance under mast, with load	m1	(mm)	150	150	150	150	150	150
.31	Ground clearance at centre of wheelbase, with load (forks lowered)	m2	(mm)	150	150	150	150	150	150
.32 .33	Working aisle width with 1000 x 1200 mm pallets, crosswise	Ast	(mm)	4125	4125	4125	4273	4291	4291
	Working alse width with 1000 x 1200 mm pallets, crosswise	Ast	(mm)	3938	3938	3938	4273	4104	4104
.34a .34b		Ast	(mm)	4264	4264	4264	4000	4104	4104
.34D .35	Working aisle width with 800 x 1200 mm pallets, lengthwise Turning circle radius	Wa	(mm)	2289	2289	2289	2434	2434	2434
.35 .36	Minimum distance between centres of rotation	b13	(mm)	49	49	49	49	49	49
.30	Performance	013	(IIIII)	43	40	40	43	43	43
1			km / h	18 / 20	10 / 20	19 / 20	10 / 20	10 / 20	18 / 20
.1 .2	Travel speed, with/without load		m/s	0.41 / 0.53	18 / 20 0.38 / 0.53	18 / 20 0.35 / 0.53	18 / 20 0.35 / 0.53	18 / 20 0.35 / 0.53	0.32 / 0.53
	Lifting speed, with/without load		m/s m/s					0.35 / 0.53	
.3	Lowering speed, with/without load		m7s N	0.53 / 0.51	0.52 / 0.51	0.52 / 0.51	0.52 / 0.51		0.51 / 0.51
.5	Rated drawbar pull, with/without load		N	16000 / 16400	16800 / 17700	16800 / 17700	17600 / 18100	17500 / 17700	17600 / 18000
6	Maximum drawbar pull, with/without load (5 min short duty)		N %	17300 / 18400	17300 / 18400	17300 / 18400	21500 / 22600	21500 / 22600	21500 / 22600
7	Gradeability, with/without load			15 / 23	15 / 23	14 / 22	14 / 22	13.5 / 21.5	13 / 21
8	Maximum gradeability with/without load		%	15.8 / 26.6	15.6 / 23.7	14.6 / 22.6	16.6 / 28.7	16.5 / 28.2	16.4 / 27.3
.9	Acceleration time (10 metres) with/without load		S	4.6 / 3.9	4.7 / 3.9	4.8 / 4.0	4.6 / 4.1	4.7 / 4.1	4.8 / 4.1
10	Service brakes (mechanical/hydraulic/electric/pneumatic)			Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
1	Eletric motor		1447	0.40	0.10	0.10	0.40	0.40	0.10
1	Drive motor capacity (60 min short duty)		kW	2x16	2x16	2x16	2x16	2x16	2x16
2	Lift motor output at 15% duty factor		kW	34	34	34	34	34	34
3	Battery to DIN 43 531 / 35 / 36 A / B / C / no			DIN 43 536/A	DIN 43 536/A	DIN 43 536/A	DIN 43 536/A	DIN 43 536/A	DIN 43 536/A
.4	Battery voltage/capacity at 5-hour discharge		V / Ah	80 / 775	80 / 775	80 / 775	80 / 930	80 / 930	80 / 930
5	Battery weight		kg	1863	1863	1863	2178	2178	2178
6a	Energy consumption according to EN 16796	k	Wh/h	10.21)	10.6 <sup>1)</sup>	11.0 <sup>1)</sup>	11.2 <sup>1)</sup>	7.8 <sup>2)</sup>	8.2 <sup>2)</sup>
	Miscellaneous								
1	Type of drive control			AC	AC	AC	AC	AC	AC
).1	Maximum operating pressure for attachments		bar	210	210	210	210	210	210
0.2	Oil flow for attachments		I / min	45	45	45	45	45	45
0.7	Noise level, value at operator's ear (EN 12053)		dB (A)	65	65	65	65	65	65
0.8	Towing coupling, DIN type, ref	1		15 170	15 170	15 170	15 170	15 170	15 170





Ast = Working aisle width with load

Ast = Wa + 
$$\sqrt{(16 + x)^2 + (\frac{b12}{2} - b13)^2}$$
 + a

Wa = Turning radius

x = Load distance, axle to fork face

I6 = Pallet length (800 or 1000 mm)

a = Safety clearance

b12 = Pallet width

1) Measured with 60 cycles test 2) Measured with 45 cycles test

#### Standard lifting carriage, forks L1000, L1100, L1150 and L1200

							EP4	10N	EP4	15N	EP	50CN	EP:	50N
Mast Type	h3	h1	h4	h2/h5**	Tilt angle deg	(fwd-rev) rees	0@ c=500mm		0@ c=500mm	0@ c=600mm	0@ c=500mm	0@ c=600mm	0@ c=500mm	0@ c=600mm
	mm	mm	mm	mm	Standard	Cabin	kg	kg	kg	kg	kg	kg	kg	kg
Simplex	3050	2270*	3905	150	6 - 8	6 - 8	4000	4000	4500	4500	4990	4825	4990	4825
	3350	2420	4205	150	6 - 8	6 - 8	4000	4000	4500	4500	4990	4825	4990	4825
	3550	2520	4405	150	6 - 8	6 - 8	4000	4000	4500	4500	4990	4825	4990	4825
	3750	2620	4605	150	6 - 8	6 - 8	4000	4000	4500	4500	4990	4825	4990	4825
	4050	2870	4905	150	6 - 8	6 - 8	4000	4000	4500	4500	4990	4825	4990	4825
	4550	3120	5405	150	6 - 8	6 - 8	4000	4000	4500	4500	4990	4825	4990	4825
	5050	3370	5905	150	6 - 8	6 - 8	4000	3900	4500	4350	4990	4775	4990	4825
	5550	3620	6405	150	6 - 8	6 - 8	4000	3775	4500	4225	4975	4625	4990	4825
	6050	3870	6905	150	6 - 8	6 - 8	3925	3650	3900	3875	4775	4500	4950	4825
Triplex	3750	2070*	4627	1193	6 - 8	6 - 6	4000	4000	4500	4475	4990	4825	4990	4825
	4090	2190*	4967	1313	6 - 8	6 - 6	4000	4000	4500	4475	4990	4825	4990	4825
	4360	2280*	5237	1403	6 - 8	6 - 8	4000	4000	4500	4475	4990	4825	4990	4825
	4550	2340*	5427	1463	6 - 8	6 - 8	4000	3975	4500	4450	4990	4825	4990	4825
	4800	2420	5677	1543	6 - 8	6 - 8	4000	3925	4500	4400	4990	4800	4990	4825
	5100	2520	5977	1643	6 - 8	6 - 8	4000	3850	4500	4300	4990	4725	4990	4825
	5550	2670	6427	1793	6 - 8	6 - 8	4000	3750	4500	4200	4950	4600	4990	4825
	6050	2870	6927	1993	6 - 8	6 - 8	3875	3600	4025	4000	4775	4425	4990	4825
	6550	3070	7427	2193	6 - 8	6 - 8	3600	3475	3075	3050	3725	3675	3900	3875
	7050	3270	7927	2393	6 - 8	6 - 8	2850	2825	2425	2425	2875	2825	3075	3050

Simplex - h3 = 3350mm Capacity (kg) 6000 5000 4000 3000 2000 1000 0 EP55NH EP50NH EP50NH EP50NH EP50(C)N EP45N EP40N

**Capacities at various load centres** 

Load Centre (mm)

1000 1100 1200

\* Lower than overhead guard

\*\* h5 does not include load backrest (with load backrest it is 207mm smaller).

							EP50NH	EP55NH
Mast Type	h3	h1	h4	h2/h5	Tilt angle (fwd-rev) degrees		0@ c=600mm	0@ c=600mm
	mm	mm	mm	mm	Standard	Cabin	kg	kg
Simplex	3060	2270*	4045	160	6 - 8	6 - 8	5000	5500
	3360	2420	4345	160	6 - 8	6 - 8	5000	5500
	3560	2520	4545	160	6 - 8	6 - 8	5000	5500
	3760	2620	4745	160	6 - 8	6 - 8	5000	5500
	4060	2870	5045	160	6 - 8	6 - 8	5000	5500
	4560	3120	5545	160	6 - 8	6 - 8	5000	5500
	5060	3370	6045	160	6 - 8	6 - 8	5000	5500
	5560	3620	6545	160	6 - 8	6 - 8	5000	5500
	6060	3870	7045	160	6 - 8	6 - 8	4950	4725
Triplex	3760	2070*	4757	1073	6 - 8	6 - 6	5000	5500
	4100	2190*	5097	1193	6 - 8	6 - 6	5000	5500
	4370	2280*	5367	1283	6 - 8	6 - 8	5000	5500
	4560	2340*	5557	1343	6 - 8	6 - 8	5000	5500
	4810	2420	5807	1423	6 - 8	6 - 8	5000	5500
	5110	2520	6107	1523	6 - 8	6 - 8	5000	5500
	5560	2670	6557	1673	6 - 8	6 - 8	5000	5500
	6060	2870	7057	1873	6 - 8	6 - 8	5000	4775
	6560	3070	7557	2073	6 - 8	6 - 8	3800	3625
	7060	3270	8057	2273	6 - 8	6 - 8	2975	2825

#### Mast Performance and Capacity

- h1 Height with mast lowered
- h2 Standard free lift
- h3 Lift height
- h4 Height with mast raised
- h5 Full free lift
- Q Lifting capacity, rated load
- c Load centre (distance)

#### **Battery Dimensions**

		EP40N	EP45N	EP50CN	EP50N	EP50NH	EP55NH
Battery voltage	V	80	80	80	80	80	80
Capacity at a 5-hour discharge	Ah	775	775	775	930	930	930
Battery weight, min	kg	1760	1760	1760	2060	2060	2060
Battery weight, max	kg	1960	1960	1960	2290	2290	2290

500

600

700

800

900

## **CAT® LI-ION BATTERIES**

### TIME TO SWITCH?

Lithium-ion (Li-ion) battery technology is now available as an option in almost all Cat® electric counterbalance and warehouse truck ranges. While lead-acid batteries remain a popular choice for our customers, and still have much to offer, they present various challenges which Li-ion can overcome.

Perhaps the most noticeable change when switching to Li-ion is the use of opportunity charging. Instead of exchanging batteries between shifts, you can simply plug into a fast charger during short breaks and keep the same battery going 24/7. This, together with other efficiency, environmental and safety benefits, makes Li-ion a very appealing alternative.



#### Cat Li-ion advantages over lead-acid

Switching to Li-ion requires a higher initial investment, but this should be viewed against Li-ion's ongoing savings on energy, equipment, labour and downtime.

- Longer life 3 to 4 times lead-acid lifespan reduces overall battery investment
- Higher efficiency energy losses during charging and discharging are up to 30% lower, so electricity consumption is reduced
- Longer runtime thanks to more efficient battery performance and use of opportunity charges, which can be given at any time without damaging the battery or shortening its lifespan
- **Consistently high performance** with a more constant voltage curve maintains greater truck productivity, even toward the end of a shift
- Faster charging enables full charge in as little as 1 hour with the fastest chargers
- No battery changing fast opportunity charges 15 minutes for several hours of extra runtime enable continuous operation with just one battery and minimise the need to buy, store and maintain spares
- No daily maintenance the battery stays on board the truck for charging and there is no need for water top-ups or electrolyte checks
- No gas or acid spills avoids the space, equipment and running costs of a battery room and ventilation system
- Inbuilt protection intelligent battery management system (BMS) automatically prevents excessive discharge, charge, voltage and temperature, as well as virtually eliminating misuse

Batteries and chargers with different capacities are available. Your dealer will identify the best combination for your needs. You should also ask your dealer about optional 5-year warranties, subject to annual checkups, which give extra peace of mind.

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improvement. For this reason, some materials, options and specifications could change without notice.

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NOTE: Performance specifications may vary depending on standard manufacturing tolerances, vehicle condition, types of tyres, floor or surface conditions, applications, or operating environment. Trucks may be

shown with non-standard options. Specific performance requirements and locally available configurations should be discussed with your Cat lift trucks Dealer. Cat Lift Trucks follows a policy of continual product









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