

NSP10N
NSP12N
NSP12NI
NSP12NS
NSP16N
NSP16NI
NSP16NS

Specifications

**Pedestrian Stacker
Trucks**

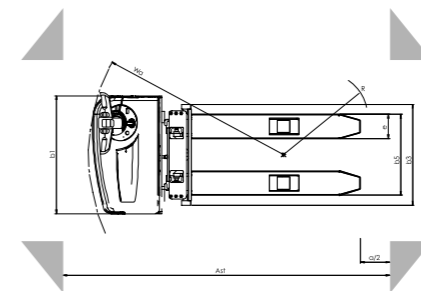
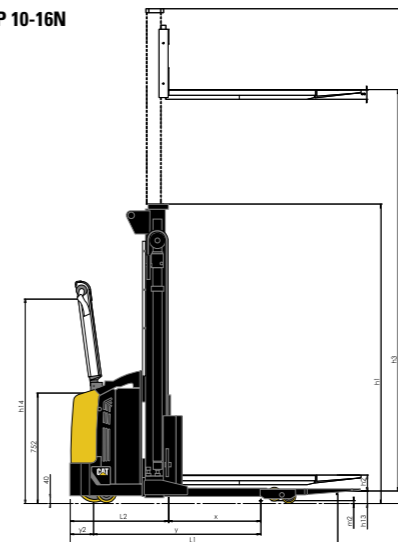
1.0 - 1.6 tonnes



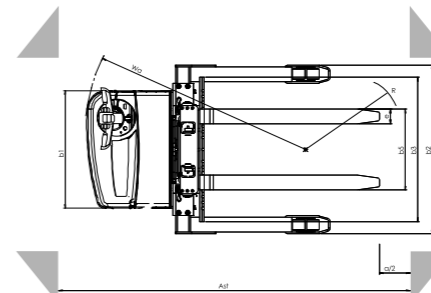
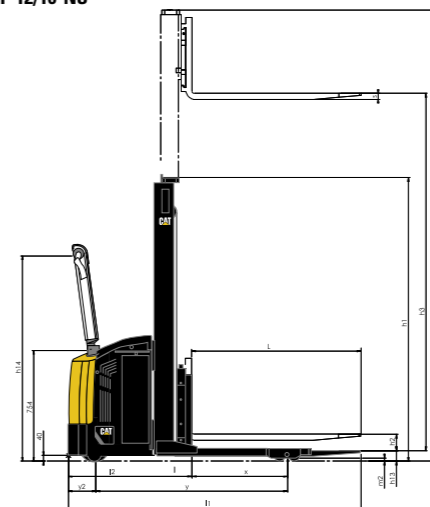
Characteristics			Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks	Cat Lift Trucks		Cat Lift Trucks	Cat Lift Trucks
			NSP10N	NSP12N	NSP12NI	NSP16N	NSP16NI		NSP12NS	NSP16NS
1.01	Manufacturer (abbreviation)		Battery	Battery	Battery	Battery	Battery		Battery	Battery
1.02	Manufacturer's model designation		Pedestrian	Pedestrian	Pedestrian	Pedestrian	Pedestrian		Pedestrian	Pedestrian
1.03	Power source: (battery, diesel, LP gas, petrol)									
1.04	Operator type: pedestrian, (operator)-standing, -seated									
1.05	Load capacity	Q (kg)	1000	1200	1200	1600	1600		1200	1600
1.06	Load centre distance	c (mm)	600	600	600	600	600		600	600
1.08	Load wheel axle to fork face (forks lowered)	x (mm)	788	630	929	630	929		650	650
1.09	Wheelbase	y (mm)	1312	1137	1544	1228	1636		1211	1302
Weight										
2.01	Truck weight with nominal load & maximum battery weight	kg	1813	2088	2253	2670	2835		2050	2600
2.02	Axle loadings with nominal load & maximum battery weight, drive/load side	kg	536/1277	639/1449	1072/1181	815/1855	1248/1587		625/1425	800/1800
2.03	Axle loadings without load & with maximum battery weight, drive/load side	kg	586/227	670/220	766/289	810/260	906/329		600/250	750/250
Wheels, Drive Train										
3.01	Tyres: PT=Power Thane, Vul=Vulkollan, drive/load side		PT	Vul/Vul	Vul/Vul	Vul/Vul	Vul/Vul		Vul/Vul	Vul/Vul
3.02	Tyre dimensions, drive side	(mm)	230x70	230x70	230x70	230x70	230x70		230x70	230x70
3.03	Tyre dimensions, load side	(mm)	85x90	85x90	85x90	85x75	85x75		85x90	85x75
3.04	Castor wheel dimensions (diameter x width)	(mm)	150x50	150x50	150x50	150x50	150x50		150x50	150x50
3.05	Number of wheels, drive/load side (x=driven)		1+1x/2	1+1x/2	1+1x/2	1+1x/4	1+1x/4		1+1x/2	1+1x/4
3.06	Track width (centre of tyres), drive side	b10 (mm)	506	506	506	501	501		506	501
3.07	Track width (centre of tyres), load side	b11 (mm)	375	385	385	385	385		1025-1425	1025-1425
Dimensions										
4.02	Height with mast lowered (see tables)	h1 (mm)	See table	See table	See table	See table	See table		See table	See table
4.03	Free lift (see tables)	h2 (mm)	See table	See table	See table	See table	See table		See table	See table
4.04	Lift height (see tables)	h3 (mm)	See table	See table	See table	See table	See table		See table	See table
4.05	Overall height with mast raised	h4 (mm)	See table	See table	See table	See table	See table		See table	See table
4.06	Initial lift	h5 (mm)	-	-	115	-	115		-	-
4.09	Height of tiller arm / steering console (min./max.)	h14 (mm)	892/1371	892/1371	892/1371	894/1374	894/1374		892/1371	894/1374
4.15	Fork height, fully lowered	h13 (mm)	85	85	92	85	92		85	85
4.19	Overall length	l1 (mm)	1833	1833	1920	1939	2044		1870	1990
4.20	Length to fork face (includes fork thickness)	l2 (mm)	683	666	770	789	894		720	840
4.21	Overall width	b1/b2 (mm)	800	800	800	800	800		1270,1470	1270,1470
4.22	Fork dimensions (thickness, width, length)	s / e / l (mm)	64/165/1150	65/165/1150	65/175/1150	65/165/1150	65/175/1150		40/100/1150	40/100/1150
4.24	Fork carriage width	b3 (mm)	566	684	684	684	684		980	980
4.25	Outside width over forks (minimum/maximum)	b5 (mm)	540	550	560	550	560		200-980	200-980
4.32	Ground clearance at centre of wheelbase, (forks lowered)	m2 (mm)	20	20	20	20	20		20	20
4.33a	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise	Ast (mm)	n/a	n/a	n/a	n/a	n/a		2294	2409
4.33b	Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise	Ast3 (mm)	n/a	n/a	n/a	n/a	n/a		1949	2064
4.34a	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast (mm)	2266	2220	2406	2336	2526		2279	2394
4.34b	Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise	Ast3 (mm)	2104	2094	2194	2210	2314		2149	2264
4.35	Turning circle radius	Wa (mm)	1492	1324	1723	1440	1843		1399	1514
Performance										
5.01	Travel speed, with/without load	km/h	6.0/6.0	6.0/6.0	6.0/6.0	6.0/6.0	6.0/6.0		6.0/6.0	6.0/6.0
5.02	Lifting speed, with/without load	m/s	0.10/0.15	0.13/0.21	0.13/0.21	0.15/0.24	0.15/0.24		0.13/0.21	0.15/0.24
5.03	Lowering speed, with/without load	m/s	0.25/0.21	0.26/0.21	0.26/0.21	0.24/0.24	0.24/0.24		0.26/0.21	0.24/0.24
5.08	Maximum gradeability, with/without load	%	8/15	8/15	8/15	8/15	8/15		8/15	8/15
5.10	Service brakes (mechanical/hydraulic/electric/pneumatic)		Electric	Electric	Electric	Electric	Electric		Electric	Electric
Electric motors										
6.01	Drive motor capacity (60 min. short duty)	kW	0.6	0.6	0.6	0.8	0.8		0.6	0.8
6.02	Lift motor output at 15% duty factor	kW	1.5 / 10	2.2 / 10	2.2 / 10	3.0 / 15	3.0 / 15		2.2 / 10	3.0 / 15
6.04	Battery voltage/capacity at 5-hour discharge	V/Ah	24 / 160, 230	24 / 160, 230	24 / 160, 230	24 / 270, 345	24 / 270, 345		24 / 160, 230	24 / 270, 345
6.05	Battery weight	kg	153-200	153-200	153-200	230-275	230-275		161-204	241-277
Miscellaneous										
8.01	Type of drive control		Stepless	Stepless	Stepless	Stepless	Stepless		Stepless	Stepless

Ast = Wa + R + a
 Ast = Working aisle width
 Wa = Turning radius
 a = Safety clearance = 2 x 100 mm
 $R = \sqrt{(l6 - x)^2 + (b12 / 2)^2}$
 l6 = Pallet length (800 or 1000 mm)
 b12 = Pallet width (1200 mm)

NSP 10-16N



NSP 12/16-NS



Lower Cost of Ownership

- The truck can be set-up to precisely match the application requirements, using the programmable electronic controller while the built-in diagnostics help maximize uptime.
- Regenerative braking helps to extend shift life and there is easy access to all components, although the AC drive motor is virtually maintenance free.
- The standard configuration includes a battery discharge indicator/hour meter.
- The compact chassis, steering angle of 190° and the tiller arm lock bypass guarantee very good maneuverability in confined areas.

Unmatched Productivity

- The NSP Series of pedestrian stackers are designed for stacking pallets up to 5.4 metres and for horizontal transport up to 30 metres.
- Available in a wide variety of masts and nominal capacities from 1.0 to 1.6 tonne, these stackers are ideally suited for many applications in retail, distribution and manufacture.
- The comfortable and rugged tiller arm makes operating the truck easy, improving productivity and safety.
- The AC drive motor means lower energy consumption and greater power and gives excellent traction and ramp capability, even when laden.
- Initial lift 'I' models are designed for driving on ramps and on uneven floors and for handling two loads simultaneously.
- Equipped with FEM 2A forks, 'S' models feature straddle legs for handling bottom-boarded pallets, such as UK-pallets. The opening between the load legs is easily adjustable from 900 to 1300 mm.

Safety & Ergonomics

- The ergonomic tiller head with dual-hand control enables safe and easy maneuvering; essential in confined areas.
- The short and low power head provides excellent fork tip visibility and, together with the overall ergonomic design, gives the operator effortless control.
- Proportional or stepless lowering (standard on the NSP16N/NI/NS and optional on the NSP12N/NI/NS) enables safe handling of vulnerable goods. While the NSP10N & 12N feature 1-speed lifting and 2-speed lowering as standard.

Options

- Choice of drive and load wheels to suit application
- Cold storage modification (class III, - 35°C)
- Battery changing trolley
- Pin pad
- Proportional lifting and lowering for NSP12N/12NI/12NS
- Load back rest
- Wide variety of fork lengths and widths
- Built-in charger
- Special RAL color
- Wide variety of lifting heights



Cat® Lift Trucks.

Your partner in materials handling.

NSP10N				
Mast Type	h3+h13 mm	h1 mm	h4 mm	h2+h13 mm
Simplex	1500	1980	1980	1500
Duplex	2500	1775	3000	195
	2900	1975	3400	195
	3300	2175	3800	195

NSP12N / NSP16N				
Mast Type	h3+h13 mm	h1 mm	h4 mm	h2+h13 mm
Simplex	1500	1950	1950	1500
Duplex	2500	1835	3000	200
	2900	2035	3400	200
	3300	2235	3800	200
	3600	2385	4100	200
	4300	2735	4800	200
Duplex Free-lift	2500	1775	2940	1355
	2900	1975	3340	1555
	3300	2235	3800	1755
	3600	2385	4100	1905
	4300	2735	4800	2255
Triplex*	4100	1955	4640	–
	4300	2020	4840	–
	5400	2385	5940	–
Triplex Free-lift*	4100	1955	4640	1475
	4300	2020	4840	1540
	5400	2385	5940	1905

NSP12NI/NSP16NI				
Mast Type	h3+h13 mm	h1 mm	h4 mm	h2+h13 mm
Simplex	1500	2055	2055	1505
Duplex	2500	1940	3105	200
	2900	2140	3505	200
	3300	2340	3905	200
	3600	2490	4205	200
	4300	2840	4905	200
Duplex Free-lift	2500	1940	3105	1360
	2900	2140	3505	1560
	3300	2340	3905	1760
	3600	2490	4205	1910
	4300	2840	4905	2260
Triplex*	4100	2060	4745	–
	4300	2125	4945	–
	5400	2490	6045	–
Triplex Free-lift*	4100	2060	4745	1480
	4300	2125	4945	1545
	5400	2490	6045	1910

Mast Performance and Capacity

h1	Height with mast lowered	h3+h13	Lifting height
h2	Standard free lift	h2+h13	Free lift
h3	Lift height	Q	Lifting capacity, rated load
h4	Height with mast raised	c	Load centre (distance)
h5	Full free lift	* only the 16N, NI or NS model	

NSP12NS / NSP16NS				
Mast Type	h3+h13 mm	h1 mm	h4 mm	h2+h13 mm
Simplex	1500	2030	2030	1500
Duplex	2500	1915	3080	195
	2900	2115	3480	195
	3300	2315	3880	195
	3600	2465	4180	195
	4300	2815	4880	195
Duplex Free-lift	2500	1915	3080	1355
	2900	2115	3480	1555
	3300	2315	3880	1755
	3600	2465	4180	1905
	4300	2815	4880	2255
Triplex*	4100	2035	4720	–
	4300	2100	4920	–
	5400	2465	6020	–
Triplex Free-lift*	4100	2035	4720	1475
	4300	2100	4920	1540
	5400	2465	6020	1905



The tiller is the connecting part between truck and driver. Cat Lift Trucks has therefore developed a tiller that combines a comfortable way of working for the driver with durability and strength.

The tiller arm is made of strong but light aluminium, and at the same time has a comfortable grip and easy access to all functions. It makes the truck easy to control and keeps the driver relaxed so he can concentrate on the work at hand.

catliftruck@mcfenl
www.catliftruck.com

WESC1099(01/09)ok

Copyright ©2009, MCFE. All rights reserved.

CATERPILLAR, CAT, their respective logos, 'Caterpillar Yellow' and the 'Power Edge' trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

Printed in The Netherlands

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

CAT® Lift Trucks