



Cat® Lift Trucks offers a complete range of durable lift trucks, from gasoline, LPG, diesel-powered and electric counterbalance lift trucks to warehouse equipment designed to handle your toughest applications. We know you demand uncompromising quality from lift trucks that maximize uptime and get the job done efficiently. Our rugged machines deliver day after day by providing you with all the life-cycle cost of ownership benefits you've come to expect from Cat Lift Trucks.

TOTAL MACHINE SATISFACTION.



RIDE-ON, SIT-ON POWER PALLET TRUCKS

NPR20N/NPS20N SERIES
2.0 TONS

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NPR20N



Safety & Ergonomics

- ✓ Ergonomic, functional steering console for precise and comfortable manoeuvring.
- ✓ Standard console display includes warning lights, drive direction indicator, hour meter and battery charge indicator.
- ✓ The ergonomic layout of the controls on the console contributes to smooth and easy operation. The comfortable operator's compartment has a cushioned backrest and a suspended floor, an arm rest is optional.

Options:

- ✓ Cold store modifications.
- ✓ Wide variety of fork dimensions.
- ✓ Pallet entry and exit rollers.
- ✓ Adjustable arm rest.
- ✓ Choice of drive wheels.
- ✓ Inverted steering direction.
- ✓ Special colours and brand covers.
- ✓ List bracket.
- ✓ Computer holder.
- ✓ Key switch.

Lower Cost of Ownership

- ✓ The NPR20N is especially designed for horizontal transport of loads up to 2.0 tonnes, across the longer distances in your warehouse.
- ✓ A narrow overall chassis width and a fully electronic steering system with limitless 360-degree steering make the NPR20N highly manoeuvrable.
- ✓ The design of the NPR20N allows easy access to all the main components for fast service and maintenance. The controller with built-in diagnostic helps to reduce down time to minimum.
- ✓ Tilting panel with gas spring for easy battery maintenance.

Unmatched Productivity

- ✓ Powerful AC drive motor and state-of-the-art electronics guarantee high productivity with quick acceleration, strong regenerative braking and a high driving speed even with nominal load.
- ✓ Each function can be programmed separately to the application needs and the operator's preference.
- ✓ Limitless 360-degree electric steering system.
- ✓ Traction battery on rollers for easy battery exchange.
- ✓ AC drive motor optimises performance.
- ✓ Latest technology AC controller with fully programmable functions like speed, acceleration, regenerative braking, etc.
- ✓ Rounded fork tips ensure smooth pallet handling.



NPS20N



Safety & Ergonomics

- ✓ Driver well protected by chassis.
- ✓ Ergonomically designed electronic 360° fly-by-wire steering gives precise control at speed.
- ✓ Adjustable seat and armrest keeps the operator comfortable, enhancing concentration during longer shift operations.
- ✓ Standard load weight indicator.
- ✓ Good all round visibility.
- ✓ Automatic speed reduction in curves and castor wheels keep the truck stable or safe and secure handling.

Options

- ✓ Various fork lengths.
- ✓ Customized side plates (for company livery).
- ✓ Pallet entry & exit rollers.
- ✓ Cold store modification.
- ✓ 2500 Kg version.
- ✓ Overhead guard.
- ✓ List bracket or PC support.
- ✓ Key switch instead of start/stop button.

Lower Cost of Ownership

- ✓ AC-drive technology means longer service intervals, reducing the total cost of ownership.
- ✓ Durable chassis and mast construction, designed and built for years of service.
- ✓ Battery discharge indicator (BDI) incorporates lift cut-out for battery protection.

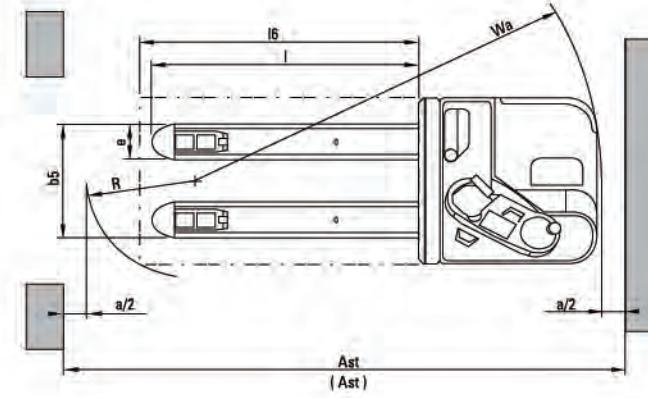
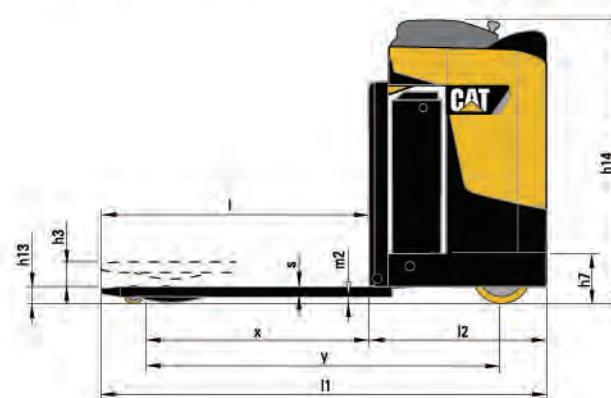
Unmatched Productivity

- ✓ The AC motors in these trucks deliver smooth, controllable power, providing fast, efficient horizontal pallet transport over longer distances.
- ✓ High drive speed, with or without load, and rapid acceleration help maintain fast-paced handling operations.
- ✓ Large battery compartment (up to 500 Ah).
- ✓ Standard PIN code start-up, and driver specific settings.
- ✓ Programmable features for driver.
- ✓ Regenerative (Regen) braking feeds power back into the battery.
- ✓ LCD display with all relevant information.
- ✓ Good service access - a seat which swings open in seconds.
- ✓ Battery roller as standard for quick battery change.
- ✓ Progressive steering for excellent maneuvering at low speeds and stability at high speed.
- ✓ Rounded forks tips for easy pallet entry, when approaching at an angle.
- ✓ Easy to operate driver's menu.



Characteristics			Cat Lift Trucks		
1.01	Manufacturer (abbreviation)				
1.02	Manufacturer's model designation				
1.03	Power source: (battery, diesel, LP gas, petrol)				
1.04	Operator type: pedestrian, (operator)-standing, -seated				
1.05	Load capacity	Q	(kg)	2000	
1.06	Load centre distance	c	(mm)	600	
1.07	Load wheel axle to fork face (forks lowered)	x	(mm)	961	
1.08	Wheelbase	y	(mm)	1525	
Weight			Cat Lift Trucks		
2.01	Truck weight with nominal load & maximum battery weight		kg	2880	
2.02	Axle loadings with nominal load & maximum battery weight, drive/load side		kg	1800/1080	
2.03	Axle loadings without load & with maximum battery weight, drive/load side		kg	220/660	
Wheels, Drive Train			Cat Lift Trucks		
3.01	Tyres: PT=Power Thane, Vul=Vulkollan, drive/load side				Vul/Vul
3.02	Tyre dimensions, drive side				250 x 100
3.03	Tyre dimensions, load side				85 x 75
3.04	Castor wheel dimensions (diameter x width)				150 x 48
3.05	Number of wheels, drive/load side (x=driven)				1x + 1/4
3.06	Track width (center of tyres), drive side	b10	(mm)	375 - 495	
3.07	Track width (center of tyres), load side	b11	(mm)	457	
Dimensions			Dimensions		
4.01	Lift height (see tables)	h3	(mm)	200	
4.02	Seat- or stand height	h7	(mm)	239	
4.03	Height of tiller arm / steering console (min./max.)	h14	(mm)	1365	
4.04	Fork height, fully lowered	h13	(mm)	85	
4.05	Overall length	l1	(mm)	1915	
4.06	Length to fork face (includes fork thickness)	l2	(mm)	763	
4.07	Overall width	b1 / b2	(mm)	790	
4.08	Fork dimensions (thickness, width, length)	s / e / l	(mm)	50/165/1150	
4.09	Outside width over forks (minimum/maximum)	b5	(mm)	540-680	
4.10	Ground clearance at center of wheelbase, (forks lowered)	m2	(mm)	35	
4.11/a	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise	Ast	(mm)	2351	
4.11/b	Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise	Ast3	(mm)	1789	
4.12/a	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast	(mm)	2416	
4.12/b	Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise	Ast3	(mm)	2189	
4.13	Turning circle radius	Wa	(mm)	1750	
Performance			Performance		
5.01	Travel speed, with/without load		km/h	8/11	
5.02	Lifting speed, with/without load		m/s	0.03/0.04	
5.03	Lowering speed, with/without load		m/s	0.07/0.02	
5.04	Gradeability, with/without load		%	6/15	
5.05	Service brakes (mechanical/hydraulic/electric/pneumatic)			Electric	
Electric motors			Electric motors		
6.01	Drive motor capacity (60 min. short duty)		kW	2.2	
6.02	Lift motor output at 15% duty factor		kW	1.2	
6.03	Battery voltage/capacity at 5-hour discharge	V/Ah		24/375-465	
6.04	Battery weight	kg		280 - 355	
Miscellaneous			Miscellaneous		
7.01	Type of drive control			Stepless	
7.02	Noise level, mean value at operator's ear (EN 12053)	dB(A)		67	

$Ast = Wa + R + a$ $a = \text{Safety clearance} = 2 \times 100 \text{ mm}$
 $Ast = \text{Working aisle width}$ $R = \sqrt{(l6 - x)^2 + (b12 / 2)^2}$
 $Wa = \text{Turning radius}$



Characteristics			Cat Lift Trucks		
1.01	Manufacturer (abbreviation)				
1.02	Manufacturer's model designation				
1.03	Power source: (battery, diesel, LP gas, petrol)				
1.04	Operator type: pedestrian, (operator)-standing, -seated				
1.05	Load capacity	Q	(kg)	2000	
1.06	Load center distance	c	(mm)	600	
1.07	Load wheel axle to fork face (forks lowered)	x	(mm)	961	
1.08	Wheelbase	y	(mm)	1525	
Weight			Weight		
2.01	Truck weight with maximum battery weight		kg	955	
2.02	Axle loadings with nominal load & maximum battery weight, drive/load side		kg	1830/1125	
2.03	Axle loadings without load & with maximum battery weight, drive/load side		kg	220/735	
Wheels, Drive Train			Wheels, Drive Train		
3.01	Tyres: PT=Power Thane, Vul=Vulkollan, drive/load side				Vul/Vul
3.02	Tyre dimensions, drive side				85 x 75
3.03	Tyre dimensions, load side				250 x 100
3.04	Castor wheel dimensions (diameter x width)				150 x 48
3.05	Number of wheels, drive/load side (x=driven)				1x + 2/4
3.06	Track width (center of tyres), drive side	b10	(mm)	354 - 514	
3.07	Track width (center of tyres), load side	b11	(mm)	685	
Dimensions			Dimensions		
4.02	Height with mast lowered (see tables)	h1	(mm)	1335	
4.04	Lift height (see tables)	h3	(mm)	200	
4.08	Seat- or stand height	h7	(mm)	850	
4.15	Fork height, fully lowered	h13	(mm)	85	
4.19	Overall length	l1	(mm)	2100	
4.20	Length to fork face (includes fork thickness)	l2	(mm)	950	
4.21	Overall width	b1 / b2	(mm)	1050	
4.22	Fork dimensions (thickness, width, length)	s / e / l	(mm)	50/165/1150	
4.25	Outside width over forks (minimum/maximum)	b5	(mm)	520-680	
4.32	Ground clearance at center of wheelbase, (forks lowered)	m2	(mm)	35	
4.33/a	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up/down	Ast	(mm)	2596	
4.33/b	Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise, platform up/down	Ast3	(mm)	2189	
4.34/a	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up/down	Ast	(mm)	2616	
4.34/b	Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise, platform up/down	Ast3	(mm)	2389	
4.35	Turning circle radius	Wa	(mm)	1950	
Performance			Performance		
5.01	Travel speed, with/without load		km/h	8/11	
5.02	Lifting speed, with/without load		m/s	0.03/0.04	
5.03	Lowering speed, with/without load		m/s	0.07/0.02	
5.07	Gradeability, with/without load		%	6/15	
5.10	Service brakes (mechanical/hydraulic/electric/pneumatic)			Electric	
Electric motors			Electric motors		
6.01	Drive motor capacity (60 min. short duty)		kW	2.2	
6.02	Lift motor output at 15% duty factor		kW	1.2	
6.04	Battery voltage/capacity at 5-hour discharge	V/Ah		24/375-465	
6.05	Battery weight	kg		305/395	
Miscellaneous			Miscellaneous		
8.01	Type of drive control			Stepless	
8.04	Noise level, mean value at operator's ear (EN 12053)	dB(A)		66	

$Ast = Wa + x + l6 + a$ $l6 = \text{Pallet length (800 or 1000 mm)}$
 $Ast = \text{Working aisle width with load}$ $b12 = \text{Pallet width (1200 mm)}$
 $a = \text{Safety clearance (200 mm)}$

