Quality | **Reliability** | **Customer Service**

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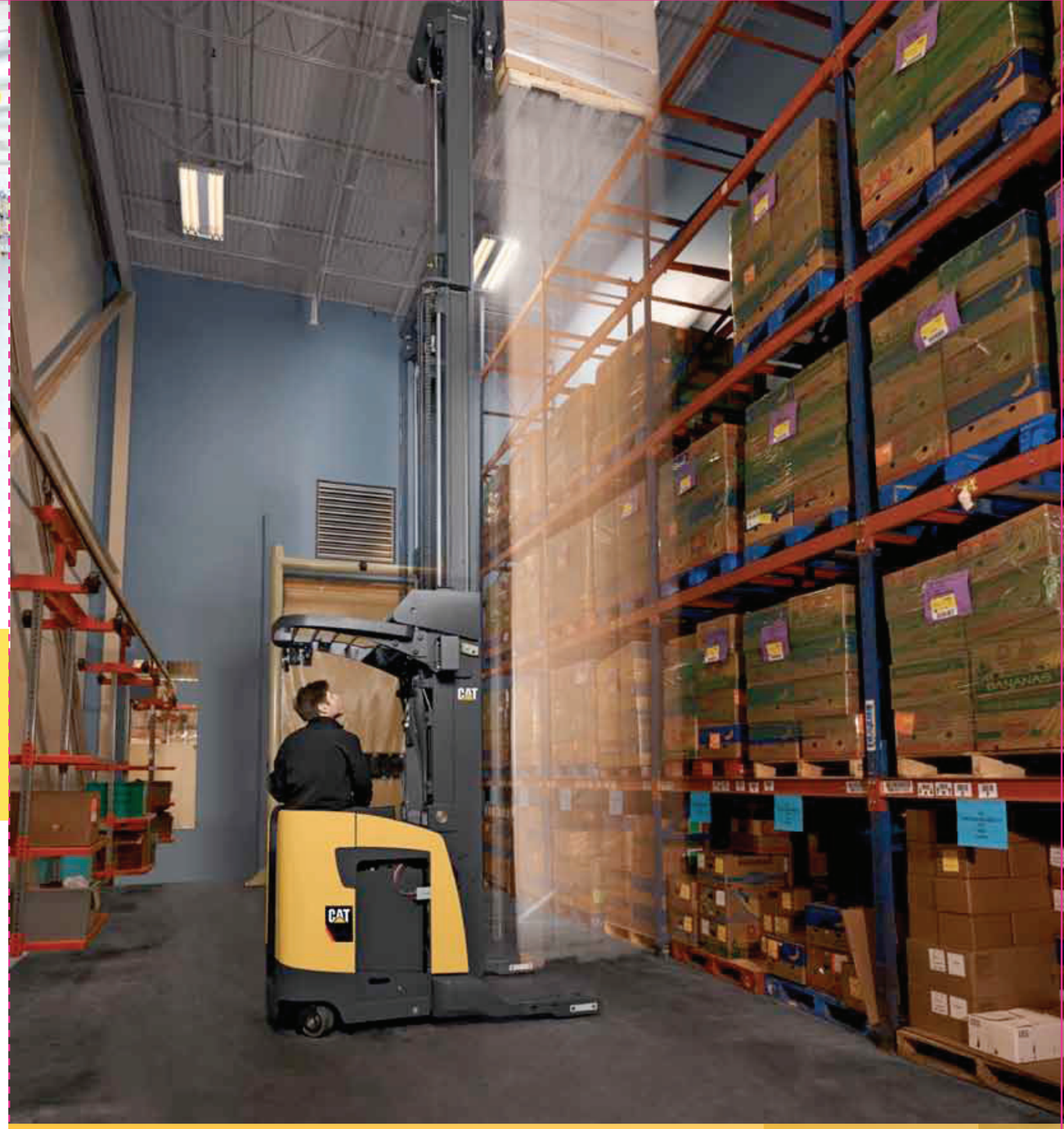
CAT® Lift Trucks



PANTOGRAPH REACH TRUCKS
NR20-23 / ND18 SERIES
CAPACITY 1.5 – 2.0 TON

CAT® Lift Trucks

SURPASS YOUR LIMIT CONFIDENTLY

Increase Efficiency. Double The Effectiveness.

Cat® NR20-23/ND18 pantograph reach truck series features industry-leading lift speeds and high capacity retention – providing even greater efficiency at higher lift heights, larger run times, efficient handling and confident control.

ADVANTAGES TO YOU:

- **1500 – 2000 kg lift** capacities
- **Selection** of single or double deep reach mast
- **Fastest lift speeds** in the industry - up to 830mm/s
- **Robust mast design** with lift heights up to 11 metres
- **Advanced AC motor** technology for lower energy consumption
- **Longer** run times
- **Intuitive controls** for efficient handling
- **Stability-enhancing** features for confident control
- **Ergonomically-designed** for greater comfort

SUPERIOR PRECISION, MAXIMUM PRODUCTIVITY

Setting New Standards

Cat lift trucks are designed with advanced AC technology to provide unparalleled efficiency and maximum uptime. The NR20-23/ND18 reach trucks help you get the most out of your work day while lowering your total cost of ownership.

EFFICIENT AND RELIABLE DESIGN

- **Advanced AC motors** deliver higher performance levels, while consuming less energy.
- **Sealed components** offer greater durability and lower overall maintenance costs.
- **Advanced regenerative braking** returns kinetic energy to the battery when the truck slows down or reverses. This results in longer run times and great efficiency.

EXCELLENT LOAD HANDLING

These pantograph reach trucks provide superior load handling at high lift heights up to **11 meters**.

- Load weight is balanced evenly with the **exclusive ProTrac® suspended articulating axle** for greater stability during cornering and when working at high lift heights.
- The rigid mast is designed with cushioning at all mast stage transitions for smooth operation.
- **Dual-articulating load wheels** provide more contact with the floor for greater load force distribution.
- **Industry-leading lift speeds, up to 0.84 m/s**, result in faster pickup and placement of loads.
- **Automatic speed reduction** and **automatic parking brake** provide additional control during operation.

CUSTOMIZE YOUR PERFORMANCE:

Three programmable performance levels

These pre-set performance levels provide greater flexibility and control, allowing you to adapt your settings for your specific application.

- **Program 1 -** Ideal for transporting fragile goods or traveling in a congested environment.
- **Program 2 -** Presets average speeds to maximize uptime.
- **Program 3 -** For use in applications that require maximum acceleration, throughput and travel/lift speeds.

*Customized performance settings may be available. Please contact your local dealer for full details.

Compact motor compartment for easy service

MADE FOR COMFORT, FOCUSED ON CONTROL

Get More From Your Work Day

Designed with ergonomic features to maximize operator comfort and control, the NR20-23/ND18 series eases the job of working long shifts – while increasing productivity.

INCREASED CONTROL; SMOOTH, QUIET RIDE

Designed for a smooth, quiet ride, this reach truck series provides key features for greater comfort and less fatigue:

- **Multifunction control handle** allows for simultaneous control of travel and hydraulic functions
- **Pantograph system features** extensive cushioning for increased comfort and better protection of valuable loads

ENHANCED AWARENESS

The **premium operator display panel** features key information in one easy-to-access location:

- **Battery discharge** and **drive wheel direction indicators** keep operators in the know about their lift truck's performance at all times
- The **optional tilt position assist** and **lift height indicator** help operators remain informed and in control

EXCELLENT VISIBILITY, GREATER CONFIDENCE

Greater all-around visibility increases operator confidence when lifting and maneuvering:

- The **standard dual leg overhead guard** offers enhanced side and rear visibility
- **Wide channel spacing** and **stacked hydraulic hosing** maximizes the forward view
- Overhead guard bars are strategically angled for excellent views of the load and mast during operation

Compact, ergonomically-positioned steering wheel
for precise and relaxed handling

Ergo-cushioned floor mat
reduces operator fatigue

Multifunction control handle allows for regulation of multiple truck functions in the palm of your hand

Side stance, Low-entry step height
for easy entry and exit

Soft rubber back, arm and knee cushions
encircle operators in comfort

Ergonomically-Designed For Maximum Comfort

The reach truck's spacious operator cabin is loaded with features to increase comfort and convenience. Less fatigue and easy handling make for a more productive work day.

Cat Lift Trucks is committed to providing industry-leading customer service, delivered by experienced and reliable material handling dealers. Cat Lift Trucks puts its customer's needs first, with one of the most comphrehensive customer support programs in the business.

Dealers you can depend on

Cat® lift trucks dealers are unsurpassed, delivering superior customer service that sets us apart from the competition before, during and after the sale.

Our dealers make available leading support programs with every new Cat lift truck you purchase, including:

- Genuine Cat lift truck OEM parts
- Planned Maintenance
- Rental fleet availability
- Convenient dealer branch locations

PLANNED MAINTENANCE

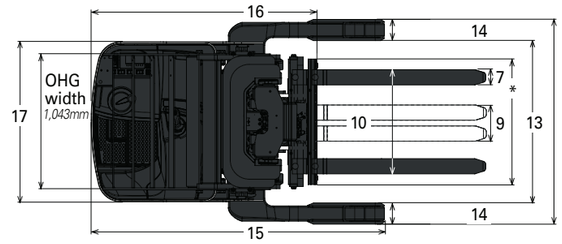
Proper maintenance of your truck helps assure top performance over the long haul and helps extend truck longevity. That's why every Cat lift truck is backed by experienced and reliable dealers who make sure your truck is properly maintained.

With Cat lift truck planned maintenance, you won't have to worry about scheduling maintenance or unexpected downtime. Regular planned maintenance calls are scheduled in advance to avoid interference with your operating schedules. Experienced Cat lift trucks service technicians will regularly perform all periodic maintenance including fluid and lubricant check for a predetermined rate. We'll even identify and fix potential problems before they become major difficulties.

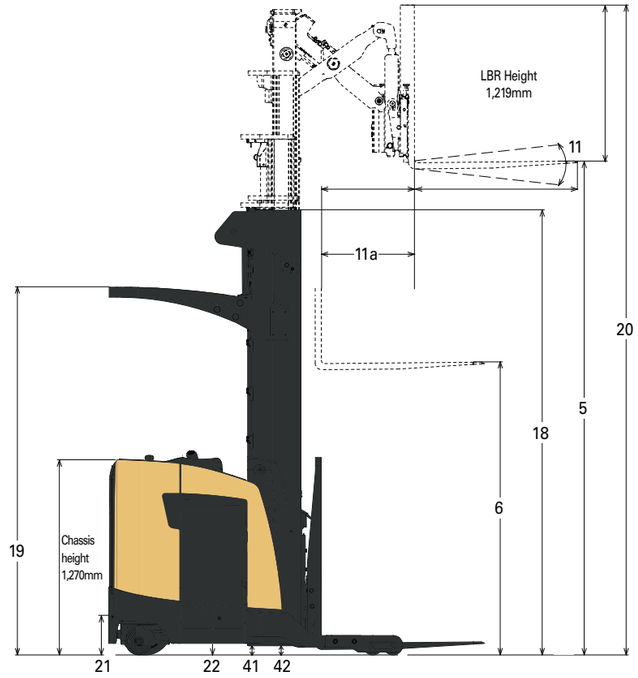
Specifications

	Characteristics			NR20		NR23		ND18	
1	Type			Single Reach		Single Reach		Double Deep Reach	
2	Power voltage			36		36		36	
3	Capacity at rated load center	lb	*kg*	4,000	*1,810*	4,500	*2,040*	3,500	*1,580*
4	Capacity load center – distance from fork face	in	*mm*	24	*600*	24	*600*	24	*600*
	Dimensions			**NR20**		**NR23**		**ND18**	
5	Maximum fork height	in	*mm*	242	*6,145*	242	*6,145*	242	*6,145*
6	Free fork height	in	*mm*	59	*1,500*	59	*1,500*	59	*1,500*
7	Fork width	in	*mm*	3.9	*100*	3.9	*100*	3.9	*100*
8	Fork thickness	in	*mm*	1.6	*40*	1.6	*40*	1.4	*35*
9	Fork spacing - out-to-out minimum	in	*mm*	12	*305*	12	*305*	12	*305*
10	Fork spacing - out-to-out maximum [1)]	in	*mm*	31.5	*802*	31.5	*802*	31.5	*802*
11	Tilt angle - forward / backward	deg		3° / 4°		3° / 4°		3° / 4°	
11a	Reach stroke	in	*mm*	24	*610*	24	*610*	42	*1,067*
12	Mast width [2)]	in	*mm*	32.2	*816*	32.2	*816*	32.2	*816*
13	Baseleg opening	in	*mm*	33 - 49	*839 - 1,245*	33 - 49	*839 - 1,245*	33 - 49	*839 - 1,245*
14	Baseleg width [3)]	in	*mm*	5.5	*140*	5.5	*140*	5	*127*
15	Overall length	in	*mm*	76.1	*1,932*	76.1	*1,932*	78.1	*1,983*
16	Length to fork face	in	*mm*	55	*1,397*	55	*1,397*	62.3	*1,582*
17	Overall chassis width	in	*mm*	41.5	*1,054*	41.5	*1,054*	41.5	*1,054*
18	Overall lowered height	in	*mm*	107	*2,720*	107	*2,720*	107	*2,720*
19	Overall height to top of overhead guard	in	*mm*	95	*2,413*	95	*2,413*	95	*2,413*
20	Overall height with extended mast	in	*mm*	290	*7,370*	290	*7,370*	290	*7,370*
21	Step height	in	*mm*	9.8	*250*	9.8	*250*	9.8	*250*
22	Battery roller height	in	*mm*	7	*178*	7	*178*	7	*178*
23	Minimum outside turning radius	in	*mm*	70.74	*1,797*	70.74	*1,797*	70.74	*1,797*
24	Minimum aisle - 90° stack - zero clearance	in	*mm*	Please consult your Cat Lift Trucks dealer					
25	Load wheel centerline [4)]	in	*mm*	5.3	*133*	5.3	*133*	5.3	*133*
	Performance			**NR20**		**NR23**		**ND18**	
26	Grade clearance [5)]	%		15.5		15.5		15.5	
27	Travel speed loaded / empty – standard [6)]	mph	*km/h*	7.5 / 7.5	*12.1 / 12.1*	7.5 / 7.5	*12.1 / 12.1*	7.5 / 7.5	*12.1 / 12.1*
28	Travel speed loaded / empty – high performance [6)]	mph	*km/h*	7.5 / 8.0	*12.1 / 12.9*	7.5 / 8.0	*12.1 / 12.9*	7.5 / 8.0	*12.1 / 12.9*
29	Lift speed loaded / empty – standard	fpm	*m/s*	75 / 120	*0.38 / 0.60*	75 / 120	*0.38 / 0.60*	75 / 120	*0.38 / 0.60*
30	Lift speed loaded / empty – high performance	fpm	*m/s*	90 / 165	*0.45 / 0.83*	90 / 165	*0.45 / 0.83*	90 /165	*0.45 / 0.83*
31	Lower speed loaded / empty – standard	fpm	*m/s*	110 / 110	*0.55 / 0.55*	110 / 110	*0.55 / 0.55*	110 / 110	*0.55 / 0.55*
32	Lower speed loaded / empty – high performance	fpm	*m/s*	110 / 110	*0.55 / 0.55*	110 / 110	*0.55 / 0.55*	110 / 110	*0.55 / 0.55*
33	Gradeability - loaded / empty - maximum	%		9 / 9		9 / 9		9 / 9	
	Weight			**NR20**		**NR23**		**ND18**	
36	Truck weight - empty - without battery	lb	*kg*	7,050	*3,200*	7,050	*3,200*	7,400	*3,350*
37	Battery weight - minimum	lb	*kg*	2,000	*910*	2,000	*910*	2,000	*910*
38	Battery weight - maximum	lb	*kg*	2,300	*1,050*	2,300	*1,050*	2,300	*1,050*
	Chassis			**NR20**		**NR23**		**ND18**	
39	Chassis type (stand/sit)			Stand		Stand		Stand	
40	Wheelbase	in	*mm*	61.5	*1,562*	61.5	*1,562*	61.5	*1,562*
41	Ground clearance - center of wheelbase	in	*mm*	2.4	*61*	2.4	*61*	2.4	*61*
42	Ground clearance - lowest point at mast	in	*mm*	2.4	*61*	2.4	*61*	2.4	*61*
43	Tire size - steer	in	*mm*	13.5 x 5.5	*343 x 140*	13.5 x 5.5	*343 x 140*	13.5 x 5.5	*343 x 140*
44	Tire size - caster	in	*mm*	7 x 4	*180 x 100*	7 x 4	*180 x 100*	7 x 4	*180 x 100*
45	Tire size - load wheels	in	*mm*	5 x 3.62	*127 x 92*	5 x 3.62	*127 x 92*	5 x 3.62	*127 x 92*
46	Park brake			Electromagnetic Disc		Electromagnetic Disc		Electromagnetic Disc	
	Motors / Battery			**NR20**		**NR23**		**ND18**	
47	Traction / pump / steer motor type			AC Induction		AC Induction		AC Induction	
48	Traction motor output (60 minute rating) – standard	hp	*kW*	6.0	*4.5*	6.0	*4.5*	6.0	*4.5*
49	Traction motor output (60 minute rating) – high performance	hp	*kW*	9.2	*6.9*	9.2	*6.9*	9.2	*6.9*
50	Pump motor output (5 minute rating)	hp	*kW*	27.2	*20*	27.2	*20*	27.2	*20*
51	Steer motor output (60 minute rating)	hp	*kW*	1.0	*0.7*	1.0	*0.7*	1.0	*0.7*
52	Battery maximum capacity - A/H (6 hour rating)			1,120		1,120		1,120	
53	Battery compartment (length x width x height) [7)]	in	*mm*	16.25 x 38.42 x 31.65	*413 x 976 x 804*	16.25 x 38.42 x 31.65	*413 x 976 x 804*	16.25 x 38.42 x 31.65	*413 x 976 x 804*

NR20-NR23/ND18



*fork carriage width
34 inches
864mm



1) Maximum fork spacing 27.5 inches (698 mm) with 33 inch BLO.
2) Out-to-out dimension across mast outer channels.
3) 5.9 inches (150 mm) on single reach trucks with MFH over 332 inches (8430 mm).
4) 7.3 inches (186 mm) on single reach trucks with mast MFH above 332 inches (8430 mm).
5) Reduce grade clearance by 1.5% with 18.25 inch (463 mm) battery compartment length or 21.25 inch (539 mm) battery compartment length vs. 16.25 inch (412 mm) length.
6) Maximum speed attainable, after break-in period, varies with truck travel direction, weight, rolling resistance, mast height, options and battery condition.
7) 21.25 inch (539 mm) battery compartment length standard on chassis with MFH over 332 inches (8430 mm).