



NRM20N3
NRM25N3



AN EXTRA DIMENSION IN PRODUCTIVITY

SPECIFICATIONS

FOUR-WAY REACH TRUCKS 48V, 2.0 - 2.5 TONNES



EXPAND YOUR OUTPUT IN EVERY DIRECTION

THESE VERSATILE TRUCKS BRING AN EXTRA DIMENSION TO WAREHOUSE PRODUCTIVITY WITH THEIR FOUR-WAY FLEXIBILITY. EQUIPPED FOR EFFICIENT HANDLING OF LONG LOADS IN NARROW AISLES, AS WELL AS PALLET WORK, THEIR DESIGN ALSO KEEPS YOUR DRIVERS COMFORTABLE AND PRODUCTIVE, HOUR AFTER HOUR.



Drivers can handle both normal pallet loads and extremely long items, thanks to a wide hydraulic fork spreader. This combines with fast direction changes and four-way movement – forward, backward, leftward and rightward – to enable swift manoeuvring even in narrow aisles.



Operation is relaxed but precise, via multifunctional joystick and *Palm Steering* control units. Armrest positions and floor height are adjustable for a perfect driver fit, while the strain of viewing loads at height is reduced by a tilting, weight-adjusted seat.



Rapid, smooth and safe performance is ensured by automatic adjustment of drive and hydraulic speed, when necessary, in relation to steering angle, lift height and load weight. Stability-enhancing control of mast tilt is standard or optional depending on your choice of mast.



Downtime and total cost of operation are minimised by robust construction and easy maintenance features, including a user-friendly display, onboard diagnostics and quick access for servicing. Further savings are possible through the virtually maintenance-free Li-ion battery option, with its higher efficiency and longer life.

LOWER COST OF OWNERSHIP

- PIN code identification and programmability prevent unauthorised use and allow matching of truck performance settings to driver experience and application.
- User-friendly display encourages correct use of truck.
- Easy battery access enables driver to make quick checks without leaving the truck.
- Fast service access to systems and components reduces downtime.
- Li-ion battery option adds even greater efficiency and runtime, along with minimal maintenance needs and much longer life, for lower long-term total cost of operation (TCO).
- Robust construction minimises damage and wear, even in demanding multi-shift operations.
- Heavy duty drive wheel is highly durable and easy to maintain, with a larger diameter, extra width and unique tread design which increase grip and stability as well as lifetime.

UNMATCHED PRODUCTIVITY

- 360-degree synchronised steering enables versatile forward, backward and sideways movement, with rapid changes in direction.
- Wide hydraulic fork spreader allows easy adaptation to both long and normal loads.
- Automatic drive speed reduction makes smooth adjustments according to steering angle and fork height to maintain stability, safety and confidence when cornering or carrying raised loads.
- Load-weight-adjusted control of maximum travel speed allows fast but safe performance.
- Automatic hydraulic motion control optimises lift, lower, reach, tilt and side shift speeds according to lift height and keeps all movements smooth, quiet and precise.
- Mast Tilt Control (MTC) damping system reduces oscillations by up to 80%, allowing faster and more stable load handling. (Standard on tilting masts with lift heights above 7.25 m. Optional for other tilting masts.)
- Tilting mast reduces aisle width necessary and enhances safety of handling in lifts up to 10 m.
- Fast travel and lift speeds come as standard.
- Motor-powered battery bed option enables exchanges in just one minute, for 24/7 productivity.
- Li-ion option enhances performance and permits fast opportunity charging for continuous operation without battery changes.

SAFETY AND ERGONOMICS

- *Palm Steering* on adjustable floating armrest offers relaxed driving position and operation with minimal movement, effort or strain – ideal if driver is seated for long periods.
- Multifunctional joystick with adjustable armrest fits hand perfectly, positions all hydraulic controls optimally, minimises effort and enables precise individual and simultaneous actions.
- Optional fingertip hydraulic controls with adjustable armrest ensure ergonomically perfect hand positioning, anatomical support and free movement.
- Electrically adjustable floor height combines with adjustment of armrests and seat to give the perfect fit for each driver.
- Tilting seat tips back by 18 degrees, to reduce strain when viewing and handling loads at height, and is adapted to the driver's weight.
- Tapered seat backrest enables easier turning of body – with less strain – toward driving direction.
- Spacious driver's compartment with high roof safely and comfortably accommodates users of all sizes.
- Excellent all-round view is enabled by design of mast, fork carriage, overhead bars, pillars and chassis, and by use of dark, non-reflective paint.
- Transparent overhead guard roof option gives unobstructed view of forks and load when handling at height and protects driver from both small and large falling objects.
- Heated cabin option gives added comfort in cold workplaces while maintaining clear vision.
- Intuitive display keeps drivers fully informed and is optimally positioned and angled for clear viewing.
- Weight and height indicators provide additional useful information.
- Automotive pedal layout is intuitive to car drivers, while 'dead man' safety switch is effortlessly activated by the weight of the left foot.
- Smooth entry and exit are aided by ergonomic grab handles and low intermediate step with non-slip surface.
- Standard safety features include large load wheels and brakes, automatic parking brake, operator presence switch and mast lock system.

STANDARD EQUIPMENT AND OPTIONS

	NRM20N3	NRM25N3
GENERAL		
Automatic electric parking brake	●	●
Steering wheel angle indicator	●	●
Battery indicator with cut-out at 20% remaining battery level	●	●
Multifunctional colour display	●	●
Electrically adjustable floor height	●	●
Suspension seat with weight-controlled tilting high backrest	●	●
Chill store design, down to +1° Celsius	●	●
Paper storage and cup holder	●	●
Battery reach-out	●	●
Battery on rollers	○	○
Motor power battery bed	—	○
Other RAL colour	○	○
POWER SOURCE		
Li-ion battery*	○	○
Lead-acid battery	○	○
Battery cover plate	○	○
MAST, FORKS AND CARRIAGE		
Tilting mast	●	●
Integral fork positioner 560 - 1550 mm	●	●
Manual fork positioner 560 - 1550 mm	○	○
Manual fork positioner 560 - 2220 mm	○	○
Fork safe zone system	○	○
Mast Tilt Control (MTC) damping system (std with lift height > 7.2 m, option for < 7.2 m)	●	●
Lift stop with-/without restart	○	○
Lift height indicator	●	●
Level selector	○	○
Level assistance system, LAS	○	○
Load weight indicator (std in S3-2 Increased performance)	●	●
Reverse travel camera	○	○
Horizontal forks	○	○
Automatic hydraulic motion control	●	●



FULL LI-ION* BATTERY INTEGRATION

Full integration of Li-ion battery communication on Cat reach trucks enables all battery-related information to be presented clearly via the truck's inbuilt full-colour display.

* Li-ion battery option is available in selected regions. Li-ion battery option not in combination with cold store design, 0C° to -30C°.

STANDARD EQUIPMENT AND OPTIONS

	NRM20N3	NRM25N3
DRIVE AND LIFT CONTROLS		
Electric-powered <i>Palm Steering</i> in floating armrest	●	●
360-degree steering	●	●
Active Spin Reduction	○	○
Automatic drive speed reduction	●	●
Hand-operated direction control	●	●
Multifunctional joystick	●	●
Fingertip hydraulic control	○	○
Midi steering wheel	○	○
Key switch entry	○	○
Creep speed at preset level 500 mm	○	○
Creep speed at other levels	○	○
Load-weight-adjusted functioning of automatic drive speed control	●	●
ELECTRIC		
Blue /Red point safety light, towards driving direction	○	○
Automatic logoff	○	○
Working lights LED	○	○
Working lights LED for cabin	○	○
Warning light on the roof	○	○
Warning light for heated cabin	○	○
12V connector	○	○
Converter 48 - 12 V	○	○
Radio with MP3	○	○
Service alarm	○	○

** Not in combination with Li-ion battery

	NRM20N3	NRM25N3
OHG AND CABIN		
Heated cabin**	○	○
Window opening in cabin door (CSM)	○	○
2-way intercom for cold store cabin (CSM)	○	○
Transparent overhead guard roof	○	○
Mesh metal on overhead guard	○	○
Heated seat – fabric	○	○
Heated seat – PVC	○	○
Headrest for seat	○	○
Rear view mirror	●	●
Writing desk	○	○
Equipment holder, RAM system size C	○	○
Equipment holder, RAM system size C, 2 pcs	○	○
Equipment holder, RAM system size D	○	○
WHEEL OPTIONS		
Vulkollan® traction wheel 95 Shore	●	●
Tractothan® traction wheel 93 Shore	○	○
ENVIRONMENT		
Cold store design, 0°C to -30°C **	○	○



Optional transparent overhead guard roof.



Optional Midi steering wheel.



Multifunctional joystick.

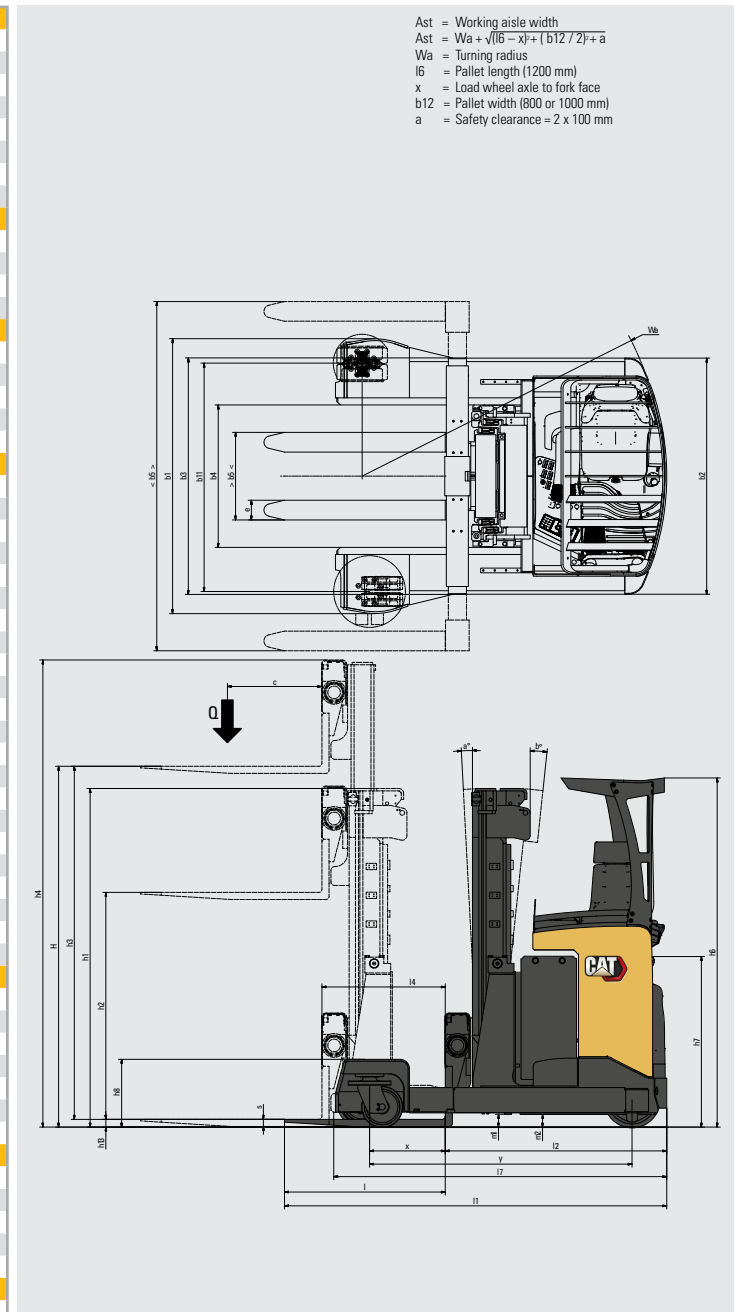


Optional writing desk.

● Standard ○ Option

Characteristics		
1.1	Manufacturer	
1.2	Manufacturer's model designation	
1.3	Power source	
1.4	Operator type	
1.5	Load capacity	Q (kg)
1.6	Load centre distance	c (mm)
1.8	Load wheel axle to fork face (forks lowered)	x (mm)
1.9	Wheelbase	y (mm)
Weight		
2.1b	Truck weight without load, with maximum battery weight	kg
2.3	Axle loadings without load & with maximum battery weight, drive / load side	kg
2.4	Axle loading, mast forward, with nominal load, drive / load side	kg
2.5	Axle loading, mast retracted, with nominal load, drive / load side	kg
Wheels, Drive Train		
3.1	Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side	
3.2	Tyre dimensions, drive side	Ø (mm)
3.3	Tyre dimensions, load side	Ø (mm)
3.5	Number of wheels, load / drive side (x = driven)	
3.7	Track width (centre of tyres), load side	b11 (mm)
Dimensions		
4.1	Fork tilt, forwards / backwards	∂/β °
4.2a	Height with mast lowered	h1 (mm)
4.3	Free lift	h2 (mm)
4.4	Lift height	h3 (mm)
4.5	Height with mast extended	h4 (mm)
4.7	Height to top of overhead guard	h6 (mm)
4.8	Seat or stand height	h7 (mm)
4.10	Height of support legs	h8 (mm)
4.15	Fork height, fully lowered	h13 (mm)
4.19	Overall length	l1 (mm)
4.20	Length to fork face	l2 (mm)
4.21	Overall width	b1/b2 (mm)
4.22	Fork dimensions (thickness, width, length)	s / e / l (mm)
4.24	Fork carriage width	b3 (mm)
4.25	Outside width over forks (minimum / maximum)	b5 (mm)
4.26	Inner width of support legs	b4 (mm)
4.28	Mast reach	l4 (mm)
4.32	Ground clearance at centre of wheelbase, (forks lowered)	m2 (mm)
4.33a	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise	Ast (mm)
4.34a	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast (mm)
4.35	Turning radius	Wa (mm)
4.37	Truck length including support legs	l7 (mm)
Performance		
5.1	Travel speed, with /without load	km / h
5.2	Lifting speed, with /without load	m / s
5.3	Lowering speed, with /without load	m / s
5.5	Rated drawbar pull, with /without load	N
5.8	Maximum gradeability with /without load	%
5.9	Acceleration time (10 metres) with /without load	s
5.10	Service brakes (mechanical /hydraulic /electric /pneumatic)	
Electric motors		
6.1	Drive motor capacity (60 min. short duty)	kW
6.2	Lift motor output at 15% duty factor	kW
6.4	Battery voltage/capacity at 5-hour discharge	V / Ah
6.5	Battery weight	kg
6.6b	Energy consumption according to VDI 60 cycle	kW / h
Miscellaneous		
8.1	Type of drive control	
10.1	Maximum operating pressure for attachments	bar
10.2	Oil flow for attachments	l / min
10.7	Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871 in work LpAZ	dB (A)

Cat Lift Trucks	Cat Lift Trucks
NRM20N3	NRM25N3
Battery	Battery
Sit-on	Sit-on
2000	2500
600	600
See table	See table
1505	1665
4360	4960
2550 / 1810	2880 / 2080
800 / 5560	660 / 6800
2360 / 4000	2830 / 4630
Vul	Vul
355 x 155	355 x 155
260 x 85	260 x 85
2 + 2 / 1x	2 + 2 / 1x
1444	1444
1.5/3.5 ⁹⁾ 1/3 ⁹⁾ 1/1 ⁹⁾	1.5/3.5 ⁹⁾ 1/3 ⁹⁾ 1/1 ⁹⁾
See table	See table
See table	See table
See table	See table
See table	See table
2215	2215
1087 ¹⁾	1087 ¹⁾
430	430
50	65
2473	2555
1323	1405
1744 / 1498	1744 / 1498
45 / 125 / 1150	45 / 125 / 1150
1500 / 2170	1500 / 2170
556-1546 / 2216	556-1546 / 2216
903	903
704	782
80	80
2787	2896
2823	2915
1772	1932
1942	2102
13 / 13	13 / 13
0.33 / 0.55	0.32 / 0.53
0.54 / 0.47	0.53 / 0.53
0.2 / 0.2	0.2 / 0.2
10 / 15	9 / 14
5.7 / 5.0	6.2 / 5.2
Electric	Electric
7.2	7.2
15	15
48 - 465 / 620 / 775 / 930	48 - 620 / 775 / 930
712 / 892 / 1063 / 1567	892 / 1063 / 1567
6.0	6.0
Stepless	Stepless
150	150
25	25
59.7	59.7



1) Measured with standard seat to SIP point
9) Mast tilt

NRM20N3				
Mast Type	h3 + h13	h1	h2 + h13	h4
	mm	mm	mm	mm
DTFV	4350	2165	1487	5063
	4950	2365	1687	5663
	5250	2465	1787	5963
	5850	2665	1987	6563
	6300	2815	2137	7013
	6800	2982	2304	7513
	7500	3215	2537	8213
	8000	3382	2704	8713
	8500	3548	2870	9213

Mast Performance and Capacity

- h1 Lowered mast height
- h2 + h13 Free lift
- h3 + h13 Lift height
- h4 Raised mast height
- Q Lifting capacity, rated load
- c Load centre (distance)

NRM25N3				
Mast Type	h3 + h13	h1	h2 + h13	h4
	mm	mm	mm	mm
DTFV	4500	2365	1687	5213
	4800	3465	1787	5513
	5400	2665	1987	6113
	5850	2815	2137	6563
	6350	2982	2304	7063
	7050	3215	2537	7763
	7550	3382	2704	8263
	8050	3548	2870	8763
	8500	3698	3020	9213
	9000	3865	3187	9713
	9350	3982	3304	10063
	9700	4098	3420	10413

Model	Battery Capacity	Battery Weight	1.8 x
	Ah	kg	mm
NRM20N3	465	708	449
	620	892	377
	775	1063	305
	930	1240	233
NRM25N3	620	892	527
	775	1063	455
	930	1240	383



LI-ION BATTERIES

TIME TO SWITCH?



Lithium-ion (Li-ion) battery technology is available in the 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.



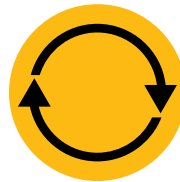
LONGER
LIFE



HIGHER
EFFICIENCY



LONGER
RUNTIME



CONSISTENT
PERFORMANCE



FASTER
CHARGING



NO BATTERY
CHANGING



NO DAILY
MAINTENANCE



INBUILT
PROTECTION

Cat Li-ion advantages over lead-acid

Li-ion is an investment which should be viewed against 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 check-ups, which give extra peace of mind.

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



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