



NRM20N2

NRM25N2



VERSATILE MOTION

SPECIFICATIONS

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



THE ULTIMATE IN WAREHOUSE MOBILITY

CAT® MULTI-WAY MODELS SHARE ALL THE PERFORMANCE AND ERGONOMIC ADVANTAGES OF OUR N2 REACH TRUCKS. TO THOSE THEY ADD FLEXIBLE MULTI-DIRECTIONAL TRAVEL CAPABILITIES. PERFECT FOR HANDLING CHALLENGING LOADS IN NARROW AISLES.



Multi-way models benefit from the *Responsive Drive System (RDS)*. Reacting to the speed of accelerator pedal and hydraulic control movement, *RDS* constantly adjusts performance parameters to meet changing needs. It also makes all mast movements fast but smooth, accurate and controlled, with high stability and minimal sway.



The spacious cabin is furnished with a high-comfort Grammer seat, lined walls and convenient storage features. Advanced fingertip hydraulic controls are embedded into an ergonomic, adjustable armrest. Drivers can operate the adjustable steering wheel from a variety of hand positions.



A high-quality fork positioner, with an inbuilt tilt function, provides the wide spread these trucks need. It allows them to carry anything from standard pallets to exceptionally long loads. Pipes, planks and girders, for example. Combined with the all-wheel synchronised steering, it creates an ideal solution for handling such items in narrow aisles.



Each load wheel has an independent steering motor, controller and brake system. They can each turn 360° in either direction, for maximum manoeuvrability, speed and precision – whatever the task.

LOWER COST OF OPERATION

- Durable components and quick service access minimise downtime and bills.
- High-strength, single-unit load wheels, with cast instead of welded parts, turn within the chassis to avoid risk of collision damage and are easy to reach for maintenance.
- Full-colour display panel, with clear information in operator's own language and simple-to-learn functionality, advises on truck status, avoids misuse and protects your investment.

UNMATCHED PRODUCTIVITY

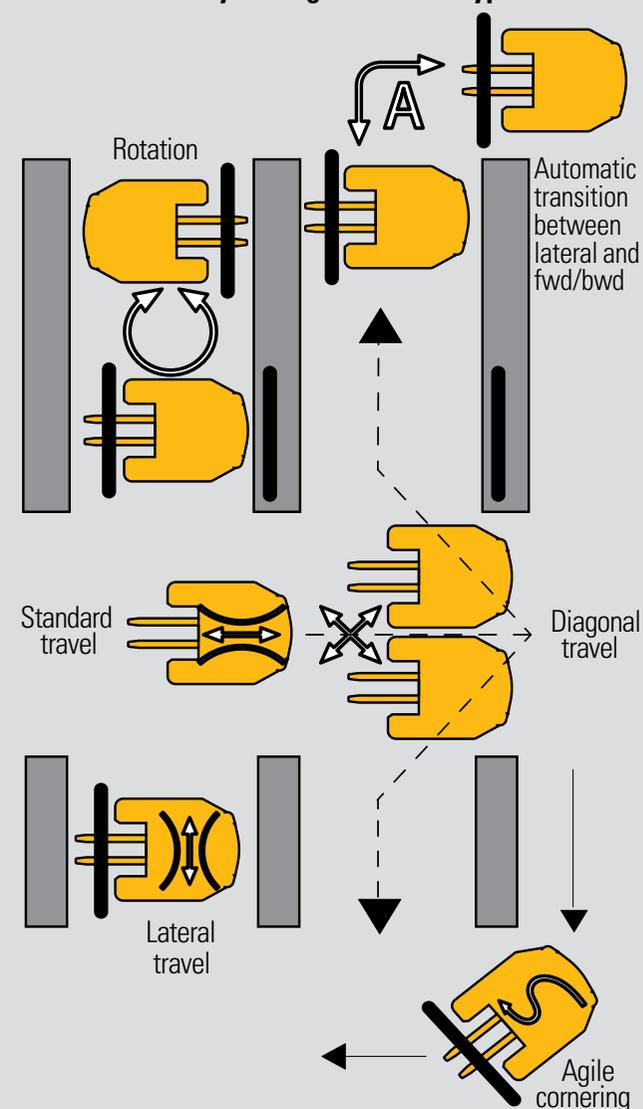
- All-wheel synchronised steering, together with fork positioner, simplifies handling of long loads in narrow aisles.
- Multi-directional travel – forward/backward, sideways, diagonal and rotational – is complemented by an agile cornering mode and another for automatic transition between normal and lateral modes without stopping.
- Each load wheel has an independent steering motor, controller and brake system, and turns 360° in either direction, for unbeatable manoeuvrability, speed and precision.
- *Responsive Drive System (RDS)*, featuring S4 mast handling, reacts to speed of accelerator pedal and hydraulic control movement, adjusting performance mode to meet operator's changing needs.
- High-quality fork positioner, with inbuilt tilt function, has a wide spread to cope with a great variety of load dimensions.

SAFETY AND ERGONOMICS

- State-of-the-art adjustable armrest combines anatomical support with free movement, perfect hand positioning and spring-force-optimised fingertip hydraulic controls for comfortable, low-effort operation.
- 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).
- Intermediate step and ergonomic grab handles allow easy and quick 'swinging' transfers to and from a spacious, high-comfort cabin whose low seat position gives extra headroom.

- Driver comforts include fully adjustable seat and steering wheel, optimally shaped and angled pedals, and other intuitive, ergonomically arranged controls.
- Automatic aids include progressive steering, curve control and reduction of drive and reach speed with mast height, for smooth, safe and efficient driving.
- Lift height and load weight indicators are included as standard to encourage safe handling.
- Hydraulic braking is highly effective, allowing confident high-speed work, and requires little maintenance.

Six multi-way driving modes & keypad icons



STANDARD EQUIPMENT AND OPTIONS

	NRM20N2	NRM25N2
GENERAL		
Operator selectable economy or high performance modes ECO/PRO	●	●
Multifunctional colour display (hour meter, BDI, drive speed, time and date display)	●	●
360-degree steering with fully adjustable steering column	●	●
Drive speed limitation according to lift height	●	●
Load wheel brakes	●	●
SST - Seat Switch Timeout: all functions are disabled, truck enters 'stop mode' and park brake is automatically applied	●	●
Trucktool set-up and diagnostics	●	●
Lateral battery change, chassis integrated roller bed	●	●
Key switch	●	●
PIN code access with start switch	○	○
Finger-tip hydraulics	●	●
POWER SOURCE		
Li-ion battery*	○	○
Lead-acid battery	○	○
MAST, FORKS AND CARRIAGE		
Fork positioner, width over forks 500 -1.700mm	●	●
Fork positioner with sideshift, width over forks 500 - 2.200mm	○	○
DRIVE AND LIFT CONTROLS		
Variable speed control on all hydraulic controls	●	●
Curve control	●	●
Armrest direction control	●	●
6 multiway steering modes	●	●
Electric load wheel brakes	●	●
Dual joystick	○	○
ELECTRIC		
Blue point safety light, towards driving direction	○	○
Reading lamp	○	○
Drive light LED	○	○
Working lights LED, mounted on mast towards fork direction	○	○
Warning light (yellow) on the roof	○	○
Drive alarm	○	○
Pin code access	○	○
Current output	○	○
Audio system, incl. speakers, 3.5mm jack connector	○	○



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.

STANDARD EQUIPMENT AND OPTIONS

	NRM20N2	NRM25N2
OHG AND CABIN		
Grammer MSG20 cloth seat	●	●
Seat belt for MSG20	○	○
Grammer MSG65 cloth seat with seat belt	○	○
Grammer MSG65 cloth seat with seat belt interlock switch	○	○
Grammer MSG65 cloth seat with heating	○	○
Backrest extension for MSG65 seat	○	○
Grammer MSG75 with air suspension, safety belt, arm rest and backrest extension	○	○
Grammer MSG75 cloth seat with seat belt interlock switch	○	○
Grammer MSG75 cloth seat with heating	○	○
Rear view mirror, wide view	○	○
Plexi or steel net roof cover	○	○
Fire extinguisher	○	○
Accessory rack	○	○
A4 list bracket	○	○
Computer bracket	○	○
Operator compartment fan	○	○
WHEEL OPTIONS		
"Powerthane" polyurethan traction and load wheels	●	●
"Vulkollan" traction and load wheels	○	○
Grooved "vulkollan" traction and load wheels	○	○
Power friction traction wheel	○	○
Anti static wheel set	○	○
ENVIRONMENT		
Hot storage modification > 40C°	○	○

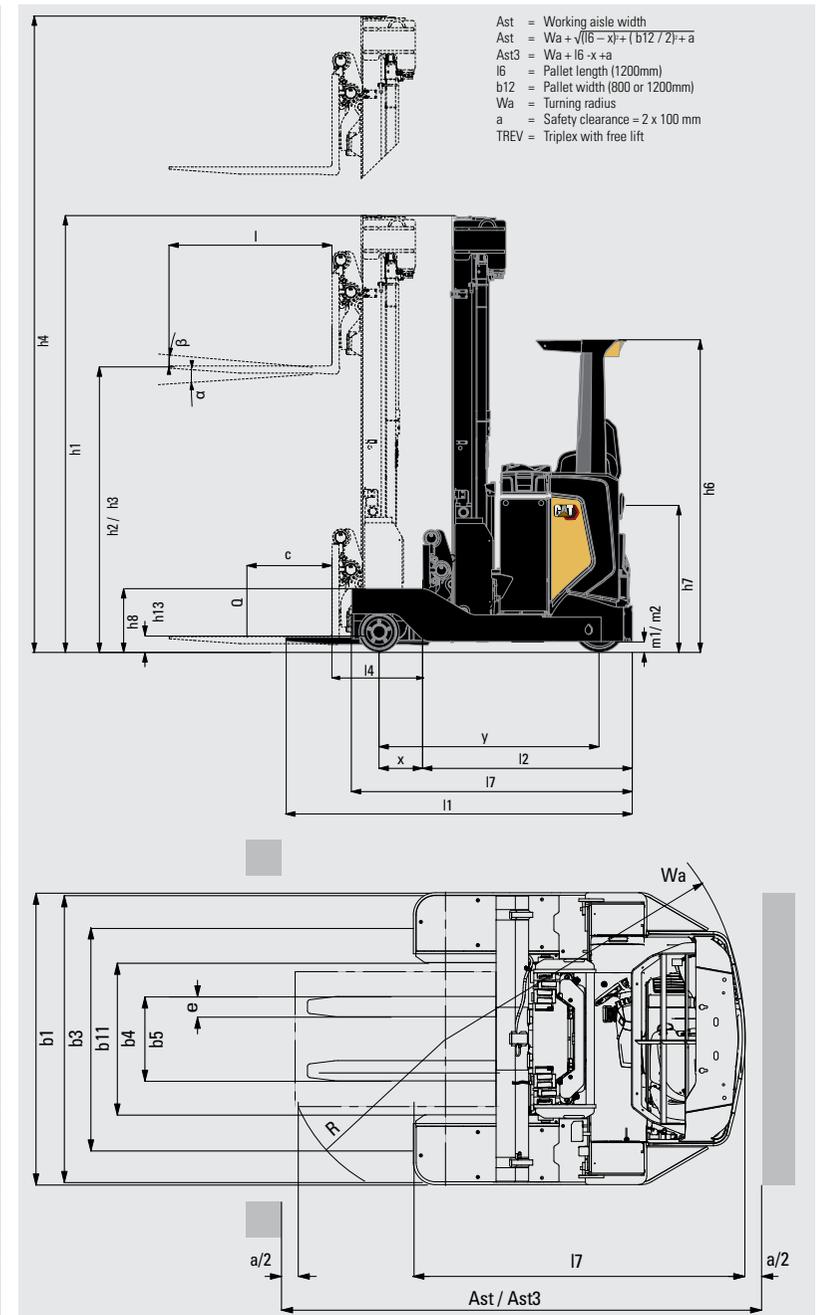


Optional dual joystick

● 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 and 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	(mm)
3.3	Tyre dimensions, load side	(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	∂, B (°)
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)
4.34b	Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise	Ast3 (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
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	kWh / h
Miscellaneous		
8.1	Type of drive control	Stepless
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)
10.7.1	Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871, drive/lift/idle LpAZ	dB (A)
10.7.2	Whole-body vibration (EN 13 059:2002)	
10.7.3	Hand-arm vibration (EN 13 059:2002)	

	Cat Lift Trucks	Cat Lift Trucks
	NRM20N2	NRM25N2
Battery	Battery	Battery
Sit-on	Sit-on	Sit-on
2000	2000	2500
600	600	600
337	337	337
1552	1552	1552
4888 ⁵⁾	4888 ⁵⁾	5284 ⁵⁾
2672 / 2 x 1108 ⁵⁾	2672 / 2 x 1108 ⁵⁾	2907 / 2 x 1188 ⁵⁾
591 / 2 x 3148 ⁵⁾	591 / 2 x 3148 ⁵⁾	521 / 2 x 3631 ⁵⁾
2292 / 2 x 2298 ⁵⁾	2292 / 2 x 2298 ⁵⁾	2292 / 2 x 2298 ⁵⁾
Vul	Vul	Vul
Ø360 x 140	Ø360 x 140	Ø360 x 140
Ø285 x 75 x 2	Ø285 x 75 x 2	Ø285 x 75 x 2
2 + 2 / 1 x	2 + 2 / 1 x	2 + 2 / 1 x
1384	1384	1384
2.0 / 6.0	2.0 / 6.0	2.0 / 6.0
See table	See table	See table
See table	See table	See table
See table	See table	See table
See table	See table	See table
2190	2190	2190
1.030 ¹⁾	1.030 ¹⁾	1.030 ¹⁾
447	447	447
50	65	65
2630	2630	2630
1480	1480	1480
1730	1730	1730
50 / 120 / 1150	50 / 120 / 1150	50 / 120 / 1150
1700 / 2200	1700 / 2200	1700 / 2200
500 - 1700 / 2200	500 - 1700 / 2200	500 - 1700 / 2200
900	900	900
610	610	610
75	75	75
2887	2887	2887
2850	2850	2850
1787	1787	1787
1982	1982	1982
14 / 14 ⁴⁾	14 / 14 ⁴⁾	14 / 14 ⁴⁾
0.43 / 0.58	0.39 / 0.58	0.39 / 0.58
0.50 / 0.55	0.50 / 0.55	0.50 / 0.55
0.1 / 0.1	0.1 / 0.1	0.1 / 0.1
11.0 / 17.0	11.0 / 17.0	11.0 / 17.0
5.4 / 5.0	5.6 / 5.1	5.6 / 5.1
Electric	Electric	Electric
7.5	7.5	7.5
14	14	14
48-775 / 930	48-775 / 930	48-775 / 930
1100 / 1300	1100 / 1300	1100 / 1300
4.5 ⁷⁾	4.5 ⁷⁾	4.5 ⁷⁾
Stepless	Stepless	Stepless
68	68	68
80	80	80
0.5	0.5	0.5
<2.5	<2.5	<2.5



- 1) Measured with standard seat to SIP point
- 4) Max drive speed to fork direction 9 km / h
- 5) Weight values measured with 5700mm lift height mast & 775Ah battery
- 6) Weight values measured with 10000mm lift height mast & 930Ah battery
- 7) Energy consumption values measured with 5700mm lift height mast

NRM20N2 / NRM25N2				
Mast Type	h1	h2	h3	h4
	mm	mm	mm	mm
TREV	2230	1655	4800	5630
	2510	1800	5400	6200
	2610	1900	5700	6500
	2677	1967	5900	6700
	2810	2100	6300	7100
	3043	2333	7000	7800
	3210	2500	7500	8300
	3377	2666	8000	8800
	3543	2833	8500	9300
	3710	3000	9000	9800
	3877	3167	9500	10300
	4043	3334	10000*	10800

Mast Performance and Capacity

- TREV Triplex with free lift
- h1 Lowered mast height
- h2 Free lift
- h3 Lift height
- h4 Raised mast height

* only available for NRM25N2

Model	Battery Capacity	Battery Weight	4.33 (1000 x 1200mm crosswise)	4.34 (800 x 1200mm lengthwise)	4.28 L4	4.20 L2	4.19 L1	1.8 x
	Ah	kg	Ast mm	Ast3 mm	mm	mm	mm	mm
NRM20N2 & NRM25N2	775	1100	2887	2850	610	1480	2630	337
	930	1300	2887	2850	610	1480	2630	337



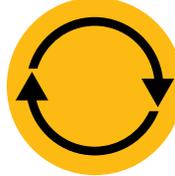
LI-ION BATTERIES

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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