

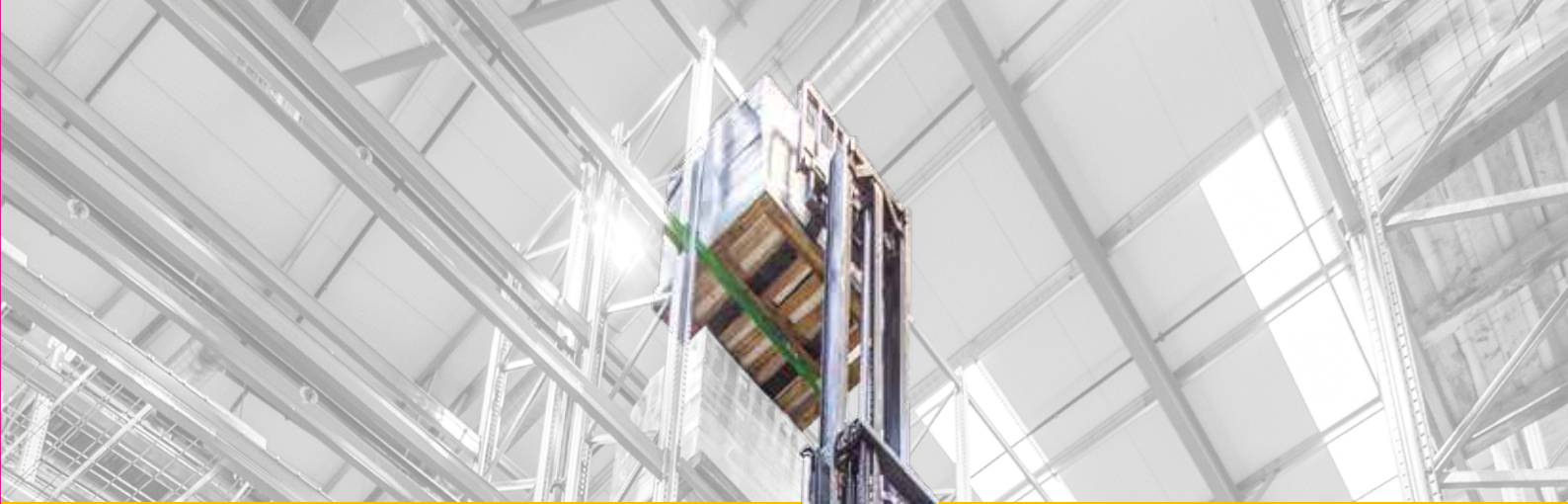


REACH TRUCKS

NR16-25N3(H)(X)

Capacity: 1.6 – 2.5 Tons





LOWER COST OF OWNERSHIP

- 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.
- User-friendly display encourages correct use of truck.
- PIN code identification and programmability prevent unauthorised use and allow matching of truck performance settings to driver experience and application.
- Easy battery access enables driver to make quick checks without leaving the truck.
- Fast service access to systems and components reduces downtime.



EQUIPPED FOR SUSTAINED PRODUCTIVITY

Cat® lift trucks expands choice in its comprehensive reach truck range by adding six NR-N3 standard and heavy duty models. Ergonomically and comfortably equipped for long hours in the driving seat, they maximise your profits with high throughput and low downtime expense.

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.
- Intuitive display keeps drivers fully informed and is optimally positioned and angled for clear viewing.
- Direction control is switched using accelerator pedal, leaving right hand free to concentrate on hydraulic functions.
- 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 operator presence switch, mast lock system and automatic parking brake.

UNMATCHED PRODUCTIVITY

- 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.
- 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. (Not available on NR20N3HX, which has fork tilt instead.)
- 360-degree steering option enables fluid turning without stopping to change direction.
- Fast travel and lift speeds come as standard.
- High-performance option increases top speed from 12.5 to 14.5 km/h. (Not available on NR25N3H or NR20N3HX.)
- Motor-powered battery bed option enables exchanges in just one minute, for 24/7 productivity.



SPECIFICATION

Characteristics					
1.1	Manufacturer			Cat Lift Trucks	Cat Lift Trucks
1.2	Manufacturer's model designation			NR20N3H	NR20N3HX
1.3	Power source			Battery	Battery
1.4	Operator type			Sit-on	Sit-on
1.5	Load capacity	Q	kg	2000	2000
1.6	Load center distance	c	mm	600	600
1.7	Load wheel axle to fork face (forks lowered)	x	mm	See table	See table
1.8	Wheelbase	y	mm	1530	1530
Weight					
2.1	Truck weight without load, with maximum battery weight		kg	4550	5200
2.2	Axle loadings without load & with maximum battery weight, drive / load side		kg	2400 / 1750	2790 / 2410
2.3	Axle loading, mast forward, with nominal load, drive / load side		kg	650 / 5500	1060 / 6140
2.4	Axle loading, mast retracted, with nominal load, drive / load side		kg	2050 / 4100	2280 / 4920
Wheels, Drive Train					
3.1	Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side			Vul	Vul
3.2	Tyre dimensions, drive side	Ø	mm	355 x 155	355 x 155
3.3	Tyre dimensions, load side	Ø	mm	285 x 105	285 x 105
3.4	Number of wheels, load / drive side (x = driven)			2 / 1 x	2 / 1 x
3.5	Track width (centre of tyres), load side	b11	mm	1128 / 1255	1255
Dimensions					
4.1	Fork tilt, forwards / backwards	∂/β	°	1 / 4	1 / 4
4.2	Height with mast lowered	h1	mm	See table	See table
4.3	Free lift	h2	mm	See table	See table
4.4	Lift height	h3	mm	See table	See table
4.5	Height with mast extended	h4	mm	See table	See table
4.6	Height to top of overhead guard	h6	mm	2205	2205
4.7	Seat or stand height	h7	mm	1.153 ¹⁾	1.153 ¹⁾
4.8	Height of support legs	h8	mm	235	235
4.9	Fork height, fully lowered	h13	mm	65	65
4.10	Overall length	l1	mm	See table	See table
4.11	Length to fork face	l2	mm	See table	See table
4.12	Overall width	b1/b2	mm	1270 / 1397	–
4.13	Fork dimensions (thickness, width, length)	s/ e/ l	mm	401 / 100 / 1150	40 / 100 / 1150
4.14	Fork carriage to DIN			FEM 2A	FEM 2A
4.15	Fork carriage width	b3	mm	830	830
4.16	Outside width over forks (minimum /maximum)	b5	mm	316 - 697	316 - 697
4.17	Inner width of support legs	b4	mm	903 / 1030	1030
4.18	Mast reach	l4	mm	See table	See table
4.19	Ground clearance at centre of wheelbase, (forks lowered)	m2	mm	70	70
4.20	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise	Ast	mm	See table	See table
4.21	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast	mm	See table	See table
4.22	Turning radius	Wa	mm	See table	See table
4.23	Truck length including support legs	l7	mm	1910	–
Performance					
5.1	Travel speed, with / without load		km/h	14.3 / 14.5	12 / 12
5.2	Lifting speed, with / without load		m/s	0.37 / 0.63	0.36 / 0.52
5.3	Lowering speed, with / without load		m/s	0.55 / 0.43	0.54 / 0.45
5.4	Rated drawbar pull, with /without load		N	0.2 / 0.2	0.2 / 0.2
5.5	Maximum gradeability with /without load		%	6.3 / 9.4	6.1 / 8.4
5.6	Acceleration time (10 metres) with /without load		s	4.8 / 4.4	4.8 / 4.4
5.7	Service brakes (mechanical /hydraulic /electric /pneumatic)			Electric	Electric
Electric motors					
6.1	Drive motor capacity (60 min. short duty)		kW	7.2	7.2
6.2	Lift motor output at 15% duty factor		kW	15	15
6.3	Battery voltage/capacity at 5-hour discharge	V / Ah		48 - 620 / 775 / 930	48 - 775 / 930
6.4	Battery weight	kg		892 / 1063 / 1240	1063 / 1240
Miscellaneous					
7.1	Type of drive control			Stepless	Stepless
7.2	Maximum operating pressure for attachments		bar	150	150
7.3	Oil flow for attachments		l / min	25	25
7.4	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)	60.8	60.8

Cat Lift Trucks

NR25N3H

Battery

Sit-on

2500

600

See table

1630

4600

2400 / 2000

800 / 6100

2100 / 4100

Vul

355 x 155

285 x 105

2 / 1 x

1255

1 / 4

See table

See table

See table

See table

2205

1.153¹⁾

235

65

See table

See table

1397

45 / 100 / 1150

FEM 2A

830

316 - 697

1030

See table

70

See table

See table

See table

2010

12 / 12

0.33 / 0.52

0.55 / 0.43

0.2 / 0.2

9.2 / 14.7

4.8 / 4.4

Electric

7.2

15

48 - 775 / 930

1063 / 1240

Stepless

150

25

60.8

Ast = Working aisle width

Ast = $Wa + \sqrt{(l6 - x)^2 + (b12 / 2)^2} + a$

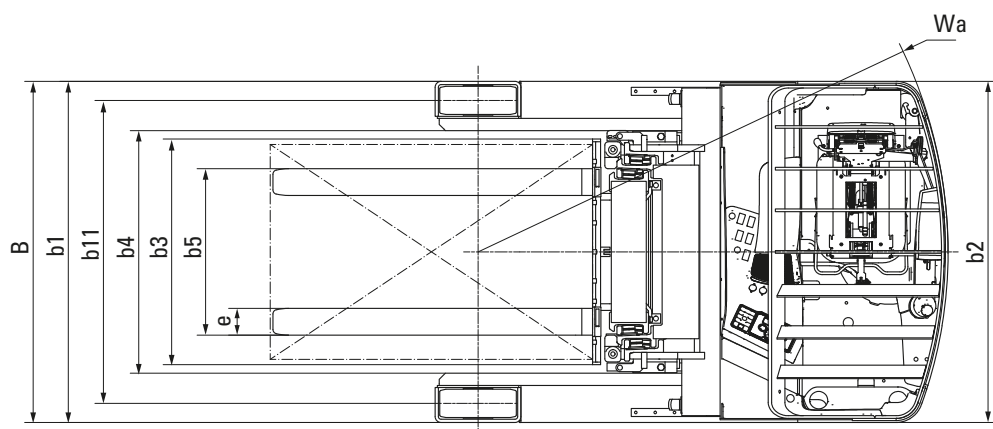
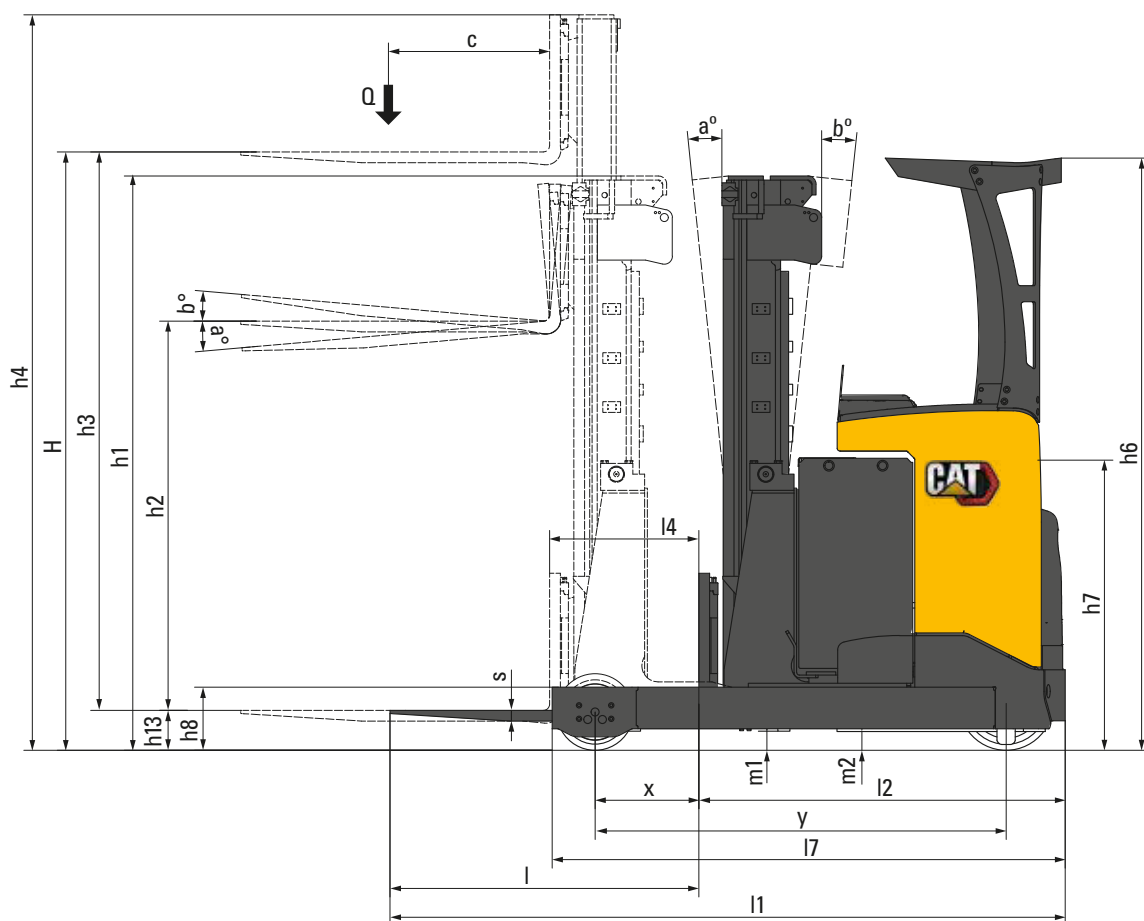
Wa = Turning radius

l6 = Pallet length (1200 mm)

x = Load wheel axle to fork face

b12 = Pallet width (800 or 1000 mm)

a = Safety clearance = 2 x 100 mm



1) Measured with standard seat to SIP point

STANDARD EQUIPMENT AND OPTIONS

● = Standard
○ = Option

	NR16N3	NR16N3H	NR20N3	NR20N3H	NR25N3H	NR20N3HX
GENERAL						
Automatic electric parking brake	●	●	●	●	●	●
Steering wheel angle indicator	●	●	●	●	●	●
Battery indicator with cut out at 20% remaining battery level	●	●	●	●	●	●
Multifunctional colour display	●	●	●	●	●	●
Integrated side shift DTFV mast	●	●	●	●	●	●
Electrically adjustable floor height	●	●	●	●	●	●
Suspension seat with weight-controlled tilting high backrest	●	●	●	●	●	●
Increased drive speed 14.5 km/h	○	○	○	○	–	–
Chill store design, down to +1° C	●	●	●	●	●	●
Paper storage and cup holder	●	●	●	●	●	●
Battery reach-out	●	●	●	●	●	●
Battery on rollers	○	○	○	○	○	○
Motor power battery bed	○	○	○	○	○	○
Other RAL colour	○	○	○	○	○	○
POWER SOURCE						
Lead-acid battery	○	○	○	○	○	○
Battery cover plate	○	○	○	○	○	○
MAST, FORKS AND CARRIAGE						
Tilting mast	●	●	●	●	●	–
Fork tilt	○	○	○	○	○	●
Integral fork positioner/sideshift DTFV mast	○	○	○	○	○	–
Load backrest	○	○	○	○	○	○
Load backrest in combination with fork positioner/sideshift	○	○	○	○	○	–
Mast Tilt Control (MTC) damping system on tilting masts (std with lift heights >7.2 m, option for <7.2 m)	●	●	●	●	●	–
Lift stop with-/without restart	○	○	○	○	○	○
Lift height indicator (std with load-weight-adjusted control option)	○	○	○	○	○	○
Level selector	○	○	○	○	○	○
Level assistance system, LAS	○	○	○	○	○	○
Load weight indicator (std with load-weight-adjusted control option)	○	○	○	○	○	○
Fork camera with RLED display	○	○	○	○	○	○
Horizontal forks	○	○	○	○	○	○
Central position of side shift	○	○	○	○	○	○
Automatic hydraulic motion control	●	●	●	●	●	●
DRIVE AND LIFT CONTROLS						
Electric-powered <i>Palm Steering</i> unit on floating armrest	●	●	●	●	●	●
180-degree steering	●	●	●	●	●	●
360-degree steering	○	○	○	○	○	○
Active Spin Reduction	○	○	○	○	○	○
Automatic drive speed reduction	●	●	●	●	●	●
Hands-free direction control, HFDC, via accelerator pedal	●	●	●	●	●	●
Hand operated direction control	○	○	○	○	○	○
Multifunctional joystick	●	●	●	●	●	●
Fingertip hydraulic controls	○	○	○	○	○	○

● = Standard
○ = Option

	NR16N3	NR16N3H	NR20N3	NR20N3H	NR25N3H	NR20N3HX
DRIVE AND LIFT CONTROLS						
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 and hydraulic motion controls	○	○	○	○	○	○
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	○	○	○	○	○	○
12 Volt connector	○	○	○	○	○	○
Converter 48 - 12 V	○	○	○	○	○	○
Radio with MP3	○	○	○	○	○	○
Service alarm	○	○	○	○	○	○
OHG AND CABIN						
Heated cabin	○	○	○	○	○	○
Window opening in cabin door	○	○	○	○	○	○
2-Way intercom for cold store cabin	○	○	○	○	○	○
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 93 Shore	●	●	●	●	–	●
Vulkollan® traction wheel 95 Shore	○	○	○	○	●	○
Tractothan® traction wheel 93 Shore	○	○	○	○	○	○
Load wheel Ø 230mm	●	○	○	○	–	–
Load wheel Ø 285mm	–	●	●	●	●	●
Load wheel brakes, incl. Ø 285mm load wheel	–	○	○	○	●	○
Load wheel covers	○	○	○	○	○	○
ENVIRONMENT						
Cold store design, 0°C to -35°C**	○	○	○	○	○	○

** Not in combination with cold store design, 0°C to -35°C

MAST PERFORMANCE AND CAPACITY

NR16N3 - NR20N3				
Mast Type	h3 + h13 mm	h1 mm	h2 + h13 mm	h4 mm
DTFV	4800	2153	1645	5345
	5400	2353	1845	5945
	5700	2453	1945	6245
	6300	2653	2145	6845
	6750	2803	2295	7295
	7250	2970	2462	7795
	7950	3203	2695	8495
	8450	3370	2862	8995
	8950	3536	3028	9495

NR16N3H				
Mast Type	h3 + h13 mm	h1 mm	h2 + h13 mm	h4 mm
DTFV	6350	2972	2432	6890
	7050	3205	2665	7590
	7550	3372	2832	8090
	8050	3538	2998	8590
	8500	3688	3148	9040
	8950	3838	3298	9490
	9600	4055	3515	10140
	10200	4255	3715	10740
	10800	4455	3915	11340

NR25N3H				
Mast Type	h3 + h13 mm	h1 mm	h2 + h13 mm	h4 mm
DTFV	4800	2450	1795	5490
	5850	2800	2145	6540
	6350	2967	2312	7040
	7050	3200	2545	7740
	7550	3367	2712	8240
	8050	3533	2878	8740
	8500	3683	3028	9190
	8950	3833	3178	9640

NR20N3H				
Mast Type	h3 + h13 mm	h1 mm	h2 + h13 mm	h4 mm
DTFV	6350	2970	2462	6895
	7050	3203	2695	7595
	7550	3370	2862	8095
	8050	3536	3028	8595
	8500	3686	3178	9045
	8950	3836	3328	9495
	9600	4053	3545	10145
	10200	4253	3745	10745
	10800	4453	3945	11345
	11500	4686	4178	12046

NR20N3HX				
Mast Type	h3 + h13 mm	h1 mm	h2 + h13 mm	h4 mm
DTFV	9600	4053	3545	10145
	10200	4253	3745	10745
	10800	4453	3945	11345
	11100	4553	4045	11645
	11600	4720	4210	12145
	12100	4886	4378	12645

- h1

h2 + h13

h3 + h13

h4

Q

c
- Lowered mast height

Free lift

Lift height

Raised mast height

Lifting capacity, rated load

Load centre (distance)

Model	Battery Capacity	Battery Weight	4.33a Ast	4.33a Ast	4.28 L4	4.20 L2	4.19 L1	1.8 x	4.35 Wa
	Ah	kg	mm	mm	mm	mm	mm	mm	mm
NR16N3	465	708	2689	2728	596	1229	2379	439	1668
	620	892	2740	2792	524	1301	2451	367	1668
	775	1063	2794	2857	452	1373	2535	295	1668
NR16N3H	620	892	2761	2823	490	1335	2485	306	1643
	775	1063	2816	2889	418	1407	2557	234	1643
NR20N3	620	892	2770	2808	625	1310	2460	551	1750
	775	1063	2821	2873	553	1382	2532	369	1750
	930	1240	2875	2938	481	1454	2604	297	1750
NR20N3H	620	892	2788	2831	600	1335	2485	416	1750
	775	1063	2839	2895	528	1407	2557	344	1750
	930	1240	2894	2961	456	1479	2629	272	1750
NR20N3HX	930	1240	2906	2976	430	1495	2645	256	1750
NR25N3H	775	1063	2871	2910	628	1412	2562	439	1850
	930	1240	2921	2974	556	1484	2634	367	1850

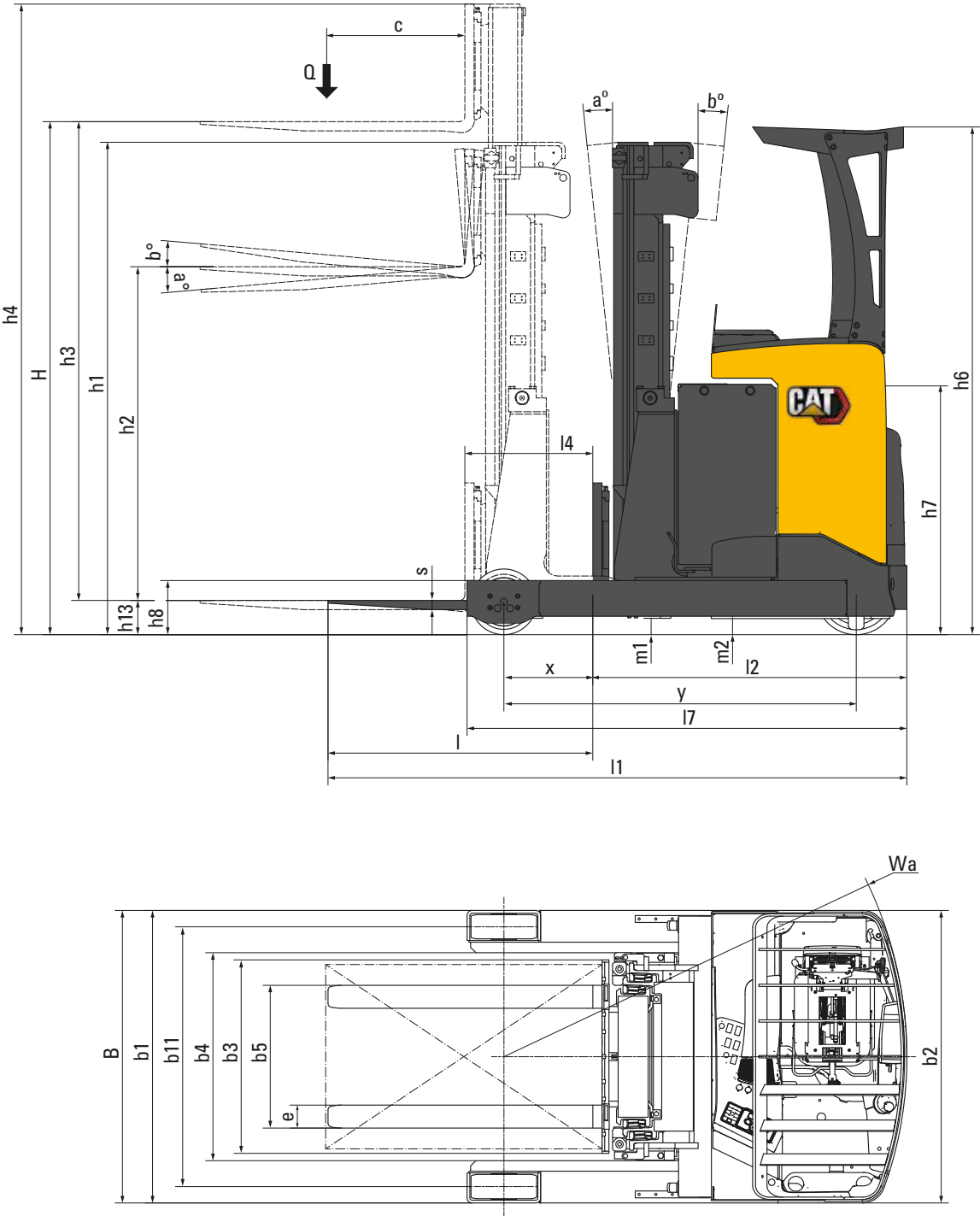


SPECIFICATION

Characteristics					
1.1	Manufacturer			Cat Lift Trucks	Cat Lift Trucks
1.2	Manufacturer's model designation			NR16N3	NR16N3H
1.3	Power source			Battery	Battery
1.4	Operator type			Sit-on	Sit-on
1.5	Load capacity	Q	kg	1600	1600
1.6	Load center distance	c	mm	600	600
1.7	Load wheel axle to fork face (forks lowered)	x	mm	See table	See table
1.8	Wheelbase	y	mm	1448	–
Weight					
2.1	Truck weight without load, with maximum battery weight		kg	3590	4320
2.2	Axle loadings without load & with maximum battery weight, drive / load side		kg	2000 / 1190	2360 / 1760
2.3	Axle loading, mast forward, with nominal load, drive / load side		kg	650 / 4140	1040 / 4680
2.4	Axle loading, mast retracted, with nominal load, drive / load side		kg	1750 / 3040	1900 / 3820
Wheels, Drive Train					
3.1	Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side			Vul	Vul
3.2	Tyre dimensions, drive side	Ø	mm	355 x 155	355 x 155
3.3	Tyre dimensions, load side	Ø	mm	285 x 105	285 x 105
3.4	Number of wheels, load / drive side (x = driven)			2 / 1 x	2 / 1 x
3.5	Track width (centre of tyres), load side	b11	mm	1128	1128 / 1255
Dimensions					
4.1	Fork tilt, forwards / backwards	∂/β	°	1 / 4	1 / 4
4.2	Height with mast lowered	h1	mm	See table	See table
4.3	Free lift	h2	mm	See table	See table
4.4	Lift height	h3	mm	See table	See table
4.5	Height with mast extended	h4	mm	See table	See table
4.6	Height to top of overhead guard	h6	mm	2205	2205
4.7	Seat or stand height	h7	mm	1.153 ¹⁾	1.153 ¹⁾
4.8	Height of support legs	h8	mm	235	235
4.9	Fork height, fully lowered	h13	mm	65	65
4.10	Overall length	l1	mm	See table	See table
4.11	Length to fork face	l2	mm	See table	See table
4.12	Overall width	b1/b2	mm	1270	1270 / 1397
4.13	Fork dimensions (thickness, width, length)	s/ e/ l	mm	40 / 100 / 1150	40 / 100 / 1150
4.14	Fork carriage to DIN			FEM 2A	FEM 2A
4.15	Fork carriage width	b3	mm	830	830
4.16	Outside width over forks (minimum /maximum)	b5	mm	316 - 697	316 - 697
4.17	Inner width of support legs	b4	mm	912	903 / 1030
4.18	Mast reach	l4	mm	See table	See table
4.19	Ground clearance at centre of wheelbase, (forks lowered)	m2	mm	70	70
4.20	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise	Ast	mm	See table	See table
4.21	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast	mm	See table	See table
4.22	Turning radius	Wa	mm	See table	See table
4.23	Truck length including support legs	l7	mm	1800	1800
Performance					
5.1	Travel speed, with / without load		km/h	14.3 / 14.5	14.3 / 14.5
5.2	Lifting speed, with / without load		m/s	0.49 / 0.80	0.48 / 0.68
5.3	Lowering speed, with / without load		m/s	0.49 / 0.48	0.5 / 0.48
5.4	Rated drawbar pull, with /without load		N	0.2 / 0.2	0.2 / 0.2
5.5	Maximum gradeability with /without load		%	14.9 / 19.6	11 / 15.2
5.6	Acceleration time (10 metres) with /without load		s	4.8 / 4.4	5.1 / 4.6
5.7	Service brakes (mechanical /hydraulic /electric /pneumatic)			Electric	Electric
Electric motors					
6.1	Drive motor capacity (60 min. short duty)		kW	7.2	7.2
6.2	Lift motor output at 15% duty factor		kW	15	15
6.3	Battery voltage/capacity at 5-hour discharge	V / Ah		48 - 465 / 620 / 775	48 - 620 / 775
6.4	Battery weight		kg	712 / 892 / 1063	892 / 1063
Miscellaneous					
7.1	Type of drive control			Stepless	Stepless
7.2	Maximum operating pressure for attachments		bar	150	150
7.3	Oil flow for attachments		l / min	25	25
7.4	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)	60.8	60.8

Cat Lift Trucks
NR20N3
Battery
Sit-on
2000
600
See table
1530
4140
2290 / 1450
550 / 5190
2040 / 3700
Vul
355 x 155
285 x 105
2 / 1 x
1128 / 1255
1 / 4
See table
See table
See table
See table
2205
1.153 ¹⁾
235
65
See table
See table
1270 / 1397
42 / 100 / 1150
FEM 2A
830
316 - 697
903 / 1030
See table
70
See table
See table
See table
1910
14.3 / 14.5
0.37 / 0.63
0.55 / 0.43
0.2 / 0.2
11 / 16.5
4.8 / 4.4
Electric
7.2
15
48 - 620 / 775 / 930
892 / 1063 / 1240
Stepless
150
25
60.8

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



1) Measured with standard seat to SIP point



Cat lift truck 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.

LET'S DO THE WORK.™

**TOTAL MACHINE
SATISFACTION.**



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