



DP100NM1S - DP120NM1S - DP135NM1S DP150NM1S

Preliminary specifications

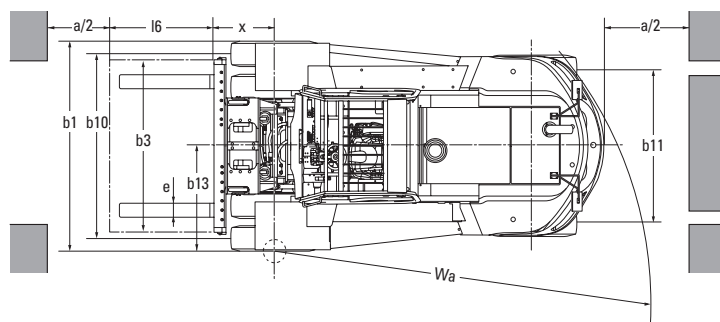
Engine powered lift trucks

10.0 - 15.0 tonnes

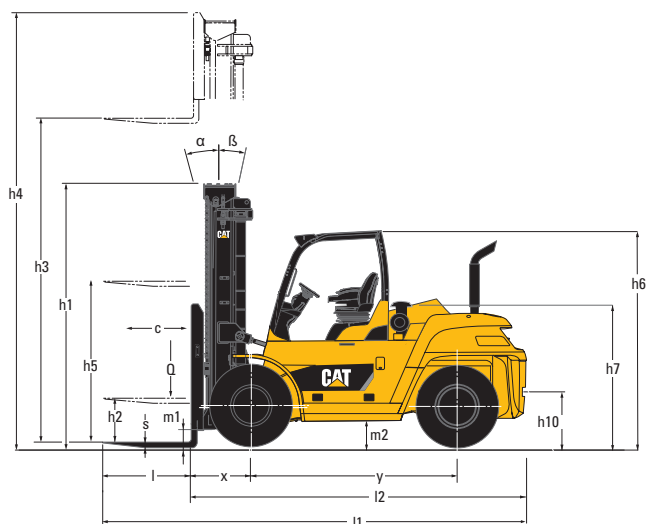
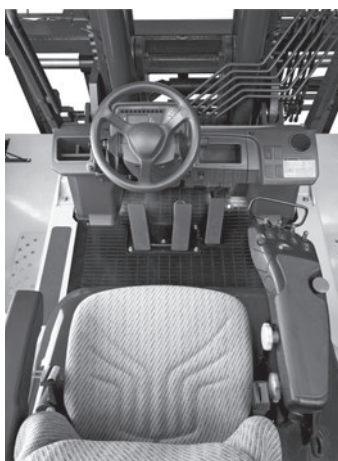


| Characteristics | | | Cat Lift Trucks DP100NM1S | Cat Lift Trucks DP120NM1S | Cat Lift Trucks DP135NM1S |
|---------------------|---|------------------|------------------------------|------------------------------|------------------------------|
| 1.1 | Manufacturer (abbreviation) | | Diesel | Diesel | Diesel |
| 1.2 | Manufacturer's model designation | | Seated | Seated | Seated |
| 1.3 | Power source: (battery, diesel, LP gas, petrol) | | | | |
| 1.4 | Operator type: pedestrian, (operator)-standing, -seated | | | | |
| 1.5 | Load capacity | Q (kg) | 10000 | 12000 | 13500 |
| 1.6 | Load centre distance | c (mm) | 600 | 600 | 600 |
| 1.8 | Load distance, axle to fork face | x (mm) | 755 | 765 | 790 |
| 1.9 | Wheelbase | y (mm) | 2800 | 2800 | 2800 |
| Weight | | | | | |
| 2.1 | Truck weight, without load / including battery (simplex mast, lowest lift height) | kg | 14660 | 15900 | 17540 |
| 2.2 | Axle loading with maximum load, front/rear (simplex mast, lowest lift height) | kg | 22200 / 2460 | 25150 / 2750 | 28010 / 3030 |
| 2.3 | Axle loading without load, front/rear (simplex mast, lowest lift height) | kg | 7355 / 7305 | 7310 / 8590 | 7805 / 9735 |
| Wheels, Drive Train | | | | | |
| 3.1 | Tyres: V=solid, L=pneumatic, SE=solid pneumatic - front/rear | | L / L | L / L | L / L |
| 3.2 | Tyre dimensions, front | | 10.00 x 20-14PR | 10.00 x 20-16PR | 12.00 x 20-18PR |
| 3.3 | Tyre dimensions, rear | | 10.00 x 20-14PR | 10.00 x 20-16PR | 12.00 x 20-18PR |
| 3.5 | Number of wheels, front/rear (x=driven) | | 4x / 2 | 4x / 2 | 4x / 2 |
| 3.6 | Track width (centre of tyres), front | b10 (mm) | 1900 | 1900 | 1905 |
| 3.7 | Track width (centre of tyres), rear | b11 (mm) | 1965 | 1965 | 1925 |
| Dimensions | | | | | |
| 4.1 | Mast tilt, forwards/backwards | α/β ° | 15 / 12 | 15 / 12 | 15 / 12 |
| 4.2 | Height with mast lowered (see tables) | h1 (mm) | 3240 | 3240 | 3480 |
| 4.3 | Free lift (see tables) | h2 (mm) | 72 | 79 | 88 |
| 4.4 | Lift height (see tables) | h3 (mm) | 3300 | 3300 | 3300 |
| 4.5 | Overall height with mast raised | h4 (mm) | 4890 | 4890 | 5130 |
| 4.7 | Height to top of overhead guard | h6 (mm) | 2915 | 2915 | 2960 |
| 4.8 | Seat height | h7 (mm) | 1915 | 1915 | 1960 |
| 4.12 | Tow coupling height | h10 (mm) | 695 | 695 | 740 |
| 4.19 | Overall length | l1 (mm) | 5515 | 5595 | 5745 |
| 4.20 | Length to fork face (includes fork thickness) | l2 (mm) | 4295 | 4375 | 4525 |
| 4.21 | Overall width | b1/b2 (mm) | 2515 | 2515 | 2605 |
| 4.22 | Fork dimensions (thickness, width, length) | s, e, l (mm) | 72 / 180 / 1220 | 79 / 180 / 1220 | 88 / 180 / 1220 |
| 4.23 | Fork carriage to DIN 15 173 A/B/no | | - | - | - |
| 4.24 | Fork carriage width | b3 (mm) | 2010 | 2010 | 2260 |
| 4.31 | Ground clearance under mast, with load | m1 (mm) | 260 | 260 | 305 |
| 4.32 | Ground clearance at centre of wheelbase, with load (forks lowered) | m2 (mm) | 310 | 310 | 355 |
| 4.33 | Working aisle width with 1000 x1200 mm pallets, crosswise | Ast (mm) | 5970 | 6040 | 6160 |
| 4.34a | Working aisle width with 800 x1200 mm pallets, lengthwise | Ast (mm) | 6170 | 6240 | 6360 |
| 4.35 | Turning circle radius | Wa (mm) | 4000 | 4060 | 4160 |
| 4.36 | Minimum distance between centres of rotation | b13 (mm) | 1565 | 1565 | 1565 |
| Performance | | | | | |
| 5.1 | Travel speed, with/without load | km/h | 24.5 / 30.0 | 22.5 / 29.5 | 21.0 / 30.0 |
| 5.2 | Lifting speed, with/without load | m/s | 0.46 / 0.50 | 0.39 / 0.50 | 0.34 / 0.42 |
| 5.3 | Lowering speed, with/without load | m/s | 0.46 / 0.48 | 0.46 / 0.46 | 0.48 / 0.40 |
| 5.5 | Rated drawbar pull, with/without load | N | 73000 / 34000 | 72000 / 33000 | 67000 / 35000 |
| 5.7 | Gradeability, with/without load | % | 31.6 / 21.9 | 27.2 / 19.8 | 20.5 / 19.0 |
| 5.10 | Service brakes (mechanical/hydraulic/electric/pneumatic) | | Pneumatic | Pneumatic | Pneumatic |
| IC Engine | | | | | |
| 7.1 | Manufacturer / Type | | 6D16-TL | 6D16-TL | 6D16-TL |
| 7.2a | Rated / Nominal output to ISO 1585 | kW | 100 | 100 | 100 |
| 7.3 | Rated speed to DIN 70 020 | rpm | 2200 | 2200 | 2200 |
| 7.4 | Number of cylinders / cubic capacity | /cm³ | 6 / 7550 | 6 / 7550 | 6 / 7550 |
| Miscellaneous | | | | | |
| 8.1 | Type of drive control | | Powershift / 3 | Powershift / 3 | Powershift / 3 |
| 8.2 | Maximum operating pressure for attachments | bar | 206 | 206 | 206 |
| 8.3 | Oil flow for attachments | l/min | - | - | - |
| 8.4 | Noise level, value at operator's ear (EN 12053) | dB(A) | 85 | 85 | 85 |
| 8.5 | Towing coupling design / DIN type, ref. | | Pin | Pin | Pin |

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



| | |
|--|-------------------------------------|
| | Cat Lift Trucks DP150NM1S |
| | Diesel |
| | Seated |
| | 15000 |
| | 600 |
| | 795 |
| | 3100 |
| | |
| | 18010 |
| | 29910 / 3100 |
| | 8170 / 9840 |
| | |
| | L / L |
| | 12.00 x 20-18PR |
| | 12.00 x 20-18PR |
| | 4x / 2 |
| | 1905 |
| | 1925 |
| | |
| | 15 / 12 |
| | 3480 |
| | 88 |
| | 3300 |
| | 5130 |
| | 2960 |
| | 1960 |
| | 735 |
| | 6050 |
| | 4830 |
| | 2605 |
| | 88 / 180 / 1220 |
| | - |
| | 2280 |
| | 300 |
| | 355 |
| | 6555 |
| | 6755 |
| | 4550 |
| | 1815 |
| | |
| | 19.5 / 29.5 |
| | 0.33 / 0.42 |
| | 0.48 / 0.40 |
| | 67000 / 38000 |
| | 21.2 / 19.7 |
| | Pneumatic |
| | |
| | 6D16-TL |
| | 100 |
| | 2200 |
| | 6 / 7550 |
| | |
| | Powershift / 3 |
| | 206 |
| | - |
| | 85 |
| | Pin |



Lower Cost of Ownership

- Robust steel frame designed using Finite Element Analysis gives durable structure with low centre of gravity, resulting in higher residual capacity.
- Fully floating drive axle adds extra durability and capacity compared to semi- or non-floating alternatives.
- Steer axle construction as a single solid unit maximises strength and rigidity.
- Dependable engine and strong resistance of all truck components to damage and wear helps minimise repair and service bills.
- Easy and quick access to all areas for routine checks and maintenance keeps truck in sound working condition, saves time and reduces expense.

Unmatched Productivity

- High-powered 6D16 in-line 6-cylinder 7.5 litre diesel engine provides superior performance.
- Automatic transmission in drive train converts engine power directly into torque, with three forward and three reverse speeds, to tackle heavy-duty applications effectively.
- Low-speed torque delivers controlled but powerful acceleration for maximum productivity, while fast-response turbocharger further enhances driver experience and output.
- Design of frame and counterweight optimises weight positioning and residual capacity for strong lifting.

Safety and Ergonomics

- Noise and vibration limitation features include rubbermounted key components, fully insulated steel engine hood and helical transmission gears.
- Electronic direction control permits easy and smooth shifting between forward and reverse travel, without removing hands from steering wheel, at any speed up to 4.0 km/h.
- Fully hydrostatic assisted steering via small-diameter steering wheel ensures accurate and rapid response with little effort.
- Counterweight design allows small turning circle and clear view to the rear for precise manoeuvring.
- Mast with narrow channels and small-diameter lift cylinders increases forward vision and uses six load rollers with side rollers to achieve high load stability.
- Choice of up-to-date, ergonomic fingertip or lever controls is available for precise, low-effort operation of hydraulic functions.
- Presence Detection System (PDS) gives audible warning if seat belt is not fastened and prevents all travel and hydraulic movement if operator is not correctly seated.
- Tilttable steering column, adjustable full-suspension seat and generous legroom allow each user to find the perfect driving position.
- Conveniently placed grab bars and steps ease access to operator compartment.

Options

- Oil-cooled disc brakes.
- Fingertip hydraulic control (electric over hydraulic).
- Wide range of side shifters and fork positioners.
- Options for operation in dusty environments.
- Working light and rear mirror kit options for increased safety.

Cat® Lift Trucks.

Your partner in materials handling.

| DP100NM1S | | | | | | |
|-----------|------|------|------|-------|--------------------------------|------------------------|
| Mast Type | h3 | h1 | h4 | h2/h5 | Tilt angle Fwd./Bwd. deg | Q @ c = 600mm kg |
| | mm | mm | mm | mm | | |
| Simplex | 3000 | 3090 | 4490 | 70 | 15 / 12 | 10000 |
| | 3300 | 3240 | 4790 | 70 | 15 / 12 | 10000 |
| | 3500 | 3340 | 4990 | 70 | 15 / 12 | 10000 |
| | 3700 | 3440 | 5190 | 70 | 15 / 12 | 10000 |
| | 4000 | 3590 | 5490 | 70 | 15 / 12 | 10000 |
| | 4500 | 3840 | 5990 | 70 | 15 / 12 | 10000 |
| | 5000 | 4090 | 6490 | 70 | 15 / 12 | 10000 |
| | 5500 | 4340 | 6990 | 70 | 15 / 12 | 10000 |
| | 6000 | 4640 | 7490 | 70 | 6 / 6 | 9800 |
| | 6600 | 4940 | 8090 | 70 | 6 / 6 | 9400 |
| | 7000 | 5190 | 8490 | 70 | 6 / 6 | 9200 |

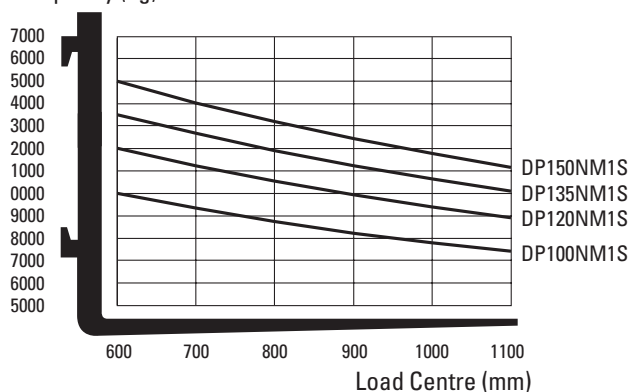
| DP120NM1S | | | | | | |
|-----------|------|------|------|-------|--------------------------------|------------------------|
| Mast Type | h3 | h1 | h4 | h2/h5 | Tilt angle Fwd./Bwd. deg | Q @ c = 600mm kg |
| | mm | mm | mm | mm | | |
| Simplex | 3000 | 3090 | 4490 | 75 | 15 / 12 | 12000 |
| | 3300 | 3240 | 4790 | 75 | 15 / 12 | 12000 |
| | 3500 | 3340 | 4990 | 75 | 15 / 12 | 12000 |
| | 3700 | 3440 | 5190 | 75 | 15 / 12 | 12000 |
| | 4000 | 3590 | 5490 | 75 | 15 / 12 | 12000 |
| | 4500 | 3840 | 5990 | 75 | 15 / 12 | 12000 |
| | 5000 | 4090 | 6490 | 75 | 15 / 12 | 12000 |
| | 5500 | 4340 | 6990 | 75 | 15 / 12 | 12000 |
| | 6000 | 4640 | 7490 | 75 | 6 / 6 | 11800 |
| | 6600 | 4940 | 8090 | 75 | 6 / 6 | 11300 |
| | 7000 | 5190 | 8490 | 75 | 6 / 6 | 11100 |

| DP135NM1S | | | | | | |
|-----------|------|------|------|-------|--------------------------------|------------------------|
| Mast Type | h3 | h1 | h4 | h2/h5 | Tilt angle Fwd./Bwd. deg | Q @ c = 600mm kg |
| | mm | mm | mm | mm | | |
| Simplex | 3000 | 3335 | 4930 | 90 | 15 / 12 | 13500 |
| | 3300 | 3485 | 5230 | 90 | 15 / 12 | 13500 |
| | 3500 | 3635 | 5430 | 90 | 15 / 12 | 13500 |
| | 3700 | 3735 | 5630 | 90 | 15 / 12 | 13500 |
| | 4000 | 3885 | 5930 | 90 | 15 / 12 | 13500 |
| | 4500 | 4135 | 6430 | 90 | 15 / 12 | 13500 |
| | 5000 | 4385 | 6930 | 90 | 15 / 12 | 13500 |
| | 5500 | 4685 | 7430 | 90 | 15 / 12 | 13500 |
| | 6000 | 4935 | 7930 | 90 | 6 / 6 | 13300 |
| | 6600 | 5285 | 8530 | 90 | 6 / 6 | 12800 |
| | 7000 | 5485 | 8930 | 90 | 6 / 6 | 12600 |

| DP150NM1S | | | | | | |
|-----------|------|------|------|-------|--------------------------------|------------------------|
| Mast Type | h3 | h1 | h4 | h2/h5 | Tilt angle Fwd./Bwd. deg | Q @ c = 600mm kg |
| | mm | mm | mm | mm | | |
| Simplex | 3000 | 3335 | 4930 | 90 | 15 / 12 | 15000 |
| | 3300 | 3485 | 5230 | 90 | 15 / 12 | 15000 |
| | 3500 | 3585 | 5430 | 90 | 15 / 12 | 15000 |
| | 3700 | 3685 | 5630 | 90 | 15 / 12 | 15000 |
| | 4000 | 3885 | 5930 | 90 | 15 / 12 | 15000 |
| | 4500 | 4135 | 6430 | 90 | 15 / 12 | 15000 |
| | 5000 | 4385 | 6930 | 90 | 15 / 12 | 13500 |
| | 5500 | 4685 | 7430 | 90 | 15 / 12 | 15000 |
| | 6000 | 4935 | 7930 | 90 | 6 / 6 | 14600 |
| | 6600 | 5285 | 8530 | 90 | 6 / 6 | 14200 |
| | 7000 | 5485 | 8930 | 90 | 6 / 6 | 13800 |

Capacities at various load centres

Capacity (kg) Simplex - h3 = 3700mm



Mast Performance and Capacity

- h1 Height with mast lowered
- h2 Standard free lift
- h3 Lift height
- h4 Height with mast raised
- h5 Full free lift
- Q Lifting capacity, rated load
- c Load centre (distance)

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