



DEPENDABLE PRODUCTIVITY

NSP10N2
NSP12PC
NSP12N2
NSP12N2R
NSP12N2I
NSP12N2IR
NSP14N2
NSP14N2R
NSP14N2I
NSP14N2IR
NSP16N2
NSP16N2R
NSP16N2I
NSP16N2IR
NSP16N2S
NSP16N2SR

SPECIFICATIONS

PEDESTRIAN AND FOLDING PLATFORM STACKER TRUCKS 24V, 1.0 - 1.6 TONNES



YOUR PERFECT SHORT SHUTTLE PARTNER

THIS RANGE OF STACKERS, INCORPORATING ALL THE LATEST TECHNOLOGY, IS DESIGNED FOR SHORT SHUTTLE APPLICATIONS AND STACKING UP TO 5.4 METRES. WITH A WIDE CHOICE OF PEDESTRIAN AND FOLD-DOWN PLATFORM MODELS, YOU WILL FIND A RELIABLE AND PRODUCTIVE WORKHORSE FOR ANY WAREHOUSE.



Energy-saving programmable drive options, robust construction and high resistance to water and dirt reduce running costs and boost productivity. Maintenance needs are minimised by an integrated drive and lift system, with fewer components, and quick access to all major truck parts.



Smooth and precise control characteristics and a comfortable operating position, with a user-friendly tiller arm and excellent visibility through the mast, ensure a satisfying user experience. Height-adjustable castor wheels* and high-strength masts help to maximise stability.



Models with a small fold-down platform are available at 1.2*, 1.4 and 1.6 tonne capacities to take the legwork out of longer distances.



A new compact pedestrian stacker, the 1.2 tonne NSP12PC, is now available. This powerful but space-saving model is ideal for filling store shelves, stacking, order picking and short internal transport work in, for example, warehouses, supermarkets and production areas.

*Excluding the NSP12PC.

LOWER COST OF OWNERSHIP

- Latest AC technology keeps energy consumption and maintenance costs to bare minimum.
- Sturdy chassis construction and endurance-tested forks provide enhanced robustness and reliability even in the toughest conditions.
- Closed chassis and waterproof electrics resist moisture, dirt and corrosion - increasing uptime, cutting maintenance costs and prolonging truck life*.
- Easy access to critical truck components allows faster fault diagnosis and speedier maintenance, squeezing downtime still further.
- Integrated drive and lift system features fewer components than previous models, reducing scope for breakdown.
- Closed compartment with steel cover protects battery against impact, postponing costly battery replacement.
- Standard battery size allows interchangeability with other brands.

UNMATCHED PRODUCTIVITY

- AC motor results in very precise drive control, making life easier for truck operators.
- Ergonomic tiller arm helps keep operators fresh with comfortable, easy-to-use controls.
- Excellent drive and traction characteristics suit intensive work over short and medium distances.
- Advanced programmable controller lets users prioritise between faster performance and smoother handling with lower energy consumption, prolonging shift life.
- Tapered fork tips make for accurate and effortless pallet entry, speeding up handling cycles and preventing pallet or load damage.
- Truck can be driven with tiller arm in vertical position in ultra-low-speed 'tortoise' mode to maximise manoeuvrability in tight spaces.
- Narrower truck body makes handling operations in confined areas much easier.
- The compact NSP12PC model is the narrowest and lightest stacker (at 660 mm and 775 kg including maximum battery) and like the NSP10-16N2/N2I/N2S models, it has an offset tiller arm so the operator can walk alongside.
- N2R models feature fold-down driver platform that prevents operator fatigue over longer distances.
- N2R models' folding platform stays down when lowered, saving time when operators go to remount.
- N2I initial lift models let operator raise mast and forks, increasing ground clearance to protect truck and load when working on ramps.
- N2S straddle models allow wider loads and bottom-boarded pallets to be handled with ease.

SAFETY AND ERGONOMICS

- Latest tiller arm design provides comfortable operating position.
- High-strength masts reduce load movement to a minimum.
- Slim mast profiles and careful hydraulic hose arrangements make for excellent forward visibility.
- Super-quiet oil-filled transmission helps keep noise levels low.
- Height-adjustable castor wheel eliminates play and raises load stability*.
- Large lift and lower levers allow easy, one-handed control, even with gloves.

*Excluding the NSP12PC.

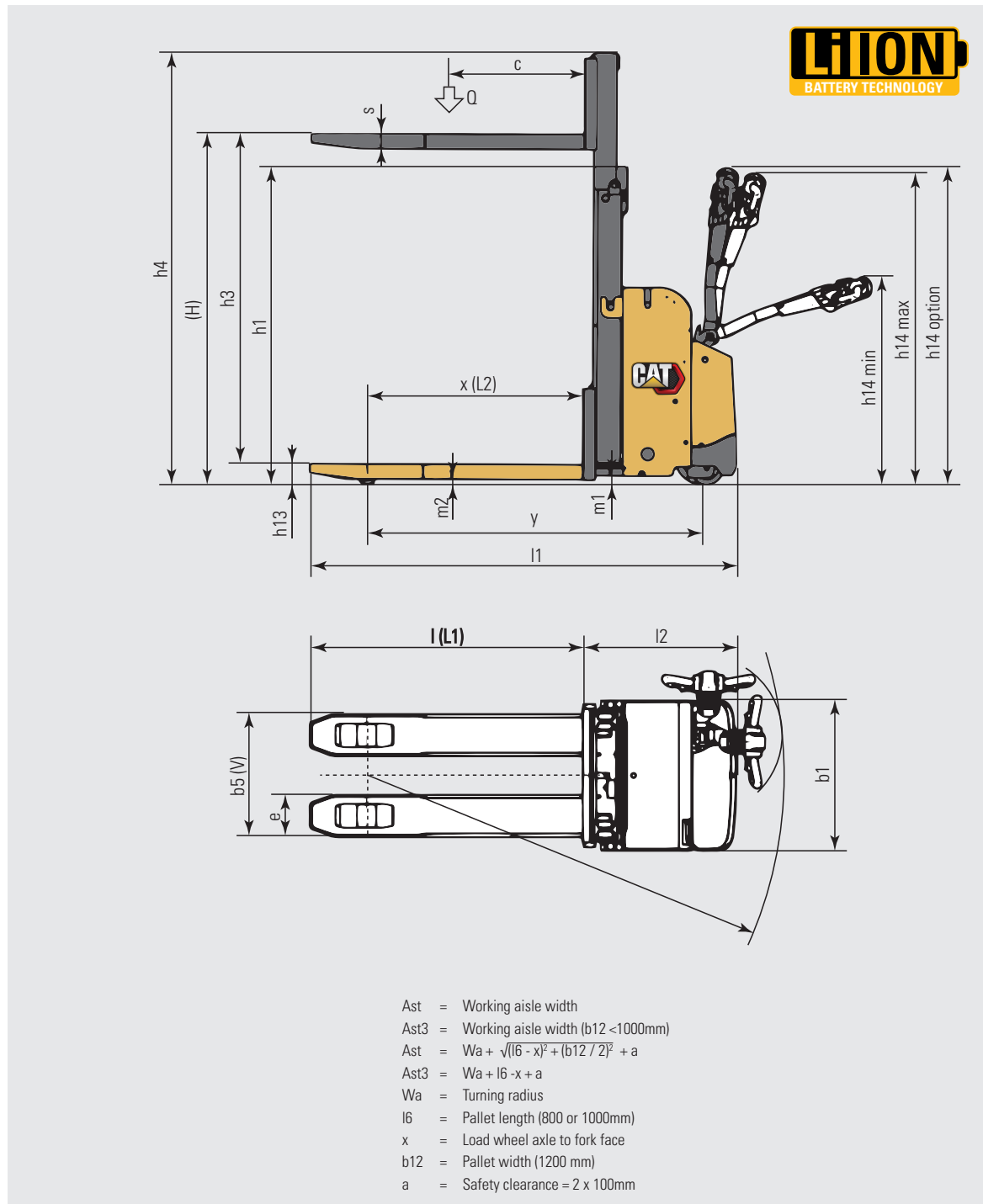


STANDARD EQUIPMENT AND OPTIONS

| | NSP10N2 | NSP12PC | NSP12N2(I) | NSP14N2(I) | NSP16N2(I) | NSP12N2(I)R | NSP14N2(I)R | NSP16N2(I)R | NSP16N2S | NSP16N2SR |
|--|---------|---------|------------|------------|------------|-------------|-------------|-------------|----------|-----------|
| GENERAL | | | | | | | | | | |
| LED discharge indicator, no hour meter | ● | – | ● | ● | ● | ● | ● | ● | ● | ● |
| Multifunctional display, including hour meter | ○ | – | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Micro-computer incl. hour meter and battery indicator with cutout (ATC T4) | – | ● | – | – | – | – | – | – | – | – |
| PIN code login 100 codes | – | ● | – | – | – | – | – | – | – | – |
| PIN code login 4 codes | ○ | – | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Offset tiller arm with display and keypad | – | ● | – | – | – | – | – | – | – | – |
| Chill store design, down to 1°C, with rust-protected axles | – | ● | – | – | – | – | – | – | – | – |
| Proportional valve for lifting and lowering, controlled by fingertip lever on tiller head | ● | – | ● | ● | ● | ● | ● | ● | ● | ● |
| Electric on/off valve for lifting and lowering, controlled by rocker switch on tiller head | – | ● | – | – | – | – | – | – | – | – |
| Polyurethane drive wheel | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Polyurethane drive wheel or rubber | – | ● | – | – | – | – | – | – | – | – |
| Initial lift | – | – | –(●) | –(●) | –(●) | –(●) | –(●) | –(●) | – | – |
| Single load wheels polyurethane | ● | ● | ● | – | – | – | – | – | – | – |
| Tandem load wheels polyurethane | ○ | ○ | ○ | ● | ● | ● | ● | ● | ● | ● |
| Adjustable width between straddle load legs; 900mm - 1300mm | – | – | – | – | – | – | – | – | ● | ● |
| Sideways battery change (250Ah battery only) | – | – | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Li-ion batteries | – | ○ | – | – | – | – | – | – | – | – |
| ENVIRONMENT | | | | | | | | | | |
| Cold store design, 0°C to -35°C | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| DRIVE AND LIFT CONTROLS | | | | | | | | | | |
| Heavy duty tiller head - with key switch entry | – | ○ | – | – | – | – | – | – | – | – |
| Tiller in line with chassis contour | – | ○ | – | – | – | – | – | – | – | – |
| Tiller up drive | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| WHEEL OPTIONS | | | | | | | | | | |
| Polyurethane traction and load wheels | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Power friction traction wheel | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Non-marking drive wheel | – | ○ | – | – | – | – | – | – | – | – |
| Anti-static drive wheel | – | ○ | – | – | – | – | – | – | – | – |
| OTHER OPTIONS | | | | | | | | | | |
| Speed reduction 0,5km/h above 1000mm lift, duplex and triplex masts without free lift | – | – | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Speed reduction 0,5km/h above free lift, duplex and triplex masts with free lift | – | – | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Inbuilt charger, 30A | ○ | – | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Rubber foot protection | – | – | – | – | – | – | – | – | – | – |
| Diselectric band | – | ○ | – | – | – | – | – | – | – | – |
| Key switch | ● | ○ | ● | ● | ● | ● | ● | ● | ● | ● |
| Piezo buzzer instead of standard horn | – | ○ | – | – | – | – | – | – | – | – |
| Special RAL colour | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Load backrest | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Accessory rack | ○ | – | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| List bracket, A4 size | ○ | – | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

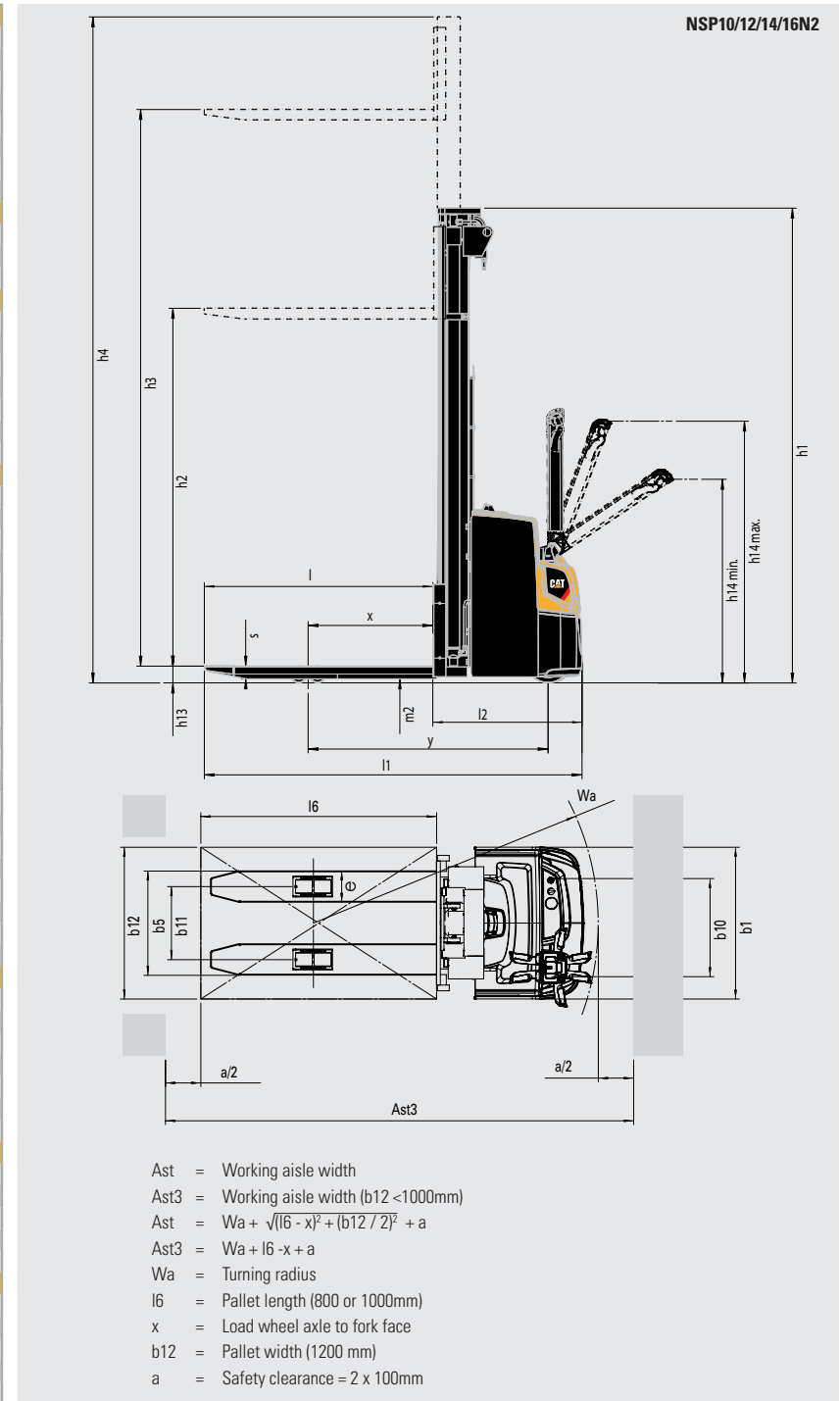
● Standard ○ Option

| 1.0 Characteristics | | |
|-------------------------|---|--------------------------------|
| 1.1 | Manufacturer | Cat Lift Trucks |
| 1.2 | Manufacturer's model designation | NSP12PC |
| 1.3 | Power source | Battery |
| 1.4 | Operator type | Pedestrian |
| 1.5 | Load capacity | Q (kg) 1250 |
| 1.6 | Load centre distance | c (mm) 600 |
| 1.8 | Load wheel axle to fork face (forks lowered) | x (mm) 950 |
| 1.9 | Wheelbase | y (mm) 1473 |
| 2.0 Weight | | |
| 2.1b | Truck weight without load, with maximum battery weight | kg 775 |
| 2.2 | Axle loadings with nominal load & maximum battery weight, drive / load side | kg 875 / 1150 |
| 2.3 | Axle loadings without load & with maximum battery weight, drive / load side | kg 575 / 200 |
| 3.0 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 | (mm) 230 x 70 |
| 3.3 | Tyre dimensions, load side | (mm) 85 x 99 |
| 3.4 | Castor wheel dimensions (diameter x width) | (mm) 140 x 60 |
| 3.5 | Number of wheels, load / drive side (x = driven) | 1 + 1x / 2 |
| 3.6 | Track width (centre of tyres), drive side | b10 (mm) 382 |
| 3.7 | Track width (centre of tyres), load side | b11 (mm) 355 |
| 4.0 Dimensions | | |
| 4.2b | Height | h1 (mm) 1400 / 1550 |
| 4.3 | Free lift | h2 (mm) - |
| 4.4 | Lift height | h3 (mm) 1700 / 2000 |
| 4.5 | Height with mast extended | h4 (mm) 2145 / 2445 |
| 4.6 | Initial lift | h5 (mm) - |
| 4.9 | Height of tiller arm / steering console (min/max) | h14 (mm) 913 / 1368 |
| 4.15 | Fork height, fully lowered | h13 (mm) 90 |
| 4.19 | Overall length | l1 (mm) 1877 |
| 4.20 | Length to fork face | l2 (mm) 677 |
| 4.21 | Overall width | b1/b2 (mm) 660 |
| 4.22 | Fork dimensions (thickness, width, length) | s / e / l (mm) 65 / 185 / 1200 |
| 4.24 | Fork carriage width | b3 (mm) - |
| 4.25 | Outside width over forks (minimum / maximum) | b5 (mm) 540 |
| 4.26 | Inner width of support legs | b4 (mm) - |
| 4.32 | Ground clearance at centre of wheelbase, (forks lowered) | m2 (mm) 25 |
| 4.33c | Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast (mm) - |
| 4.33d | Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast3 (mm) - |
| 4.34a | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise | Ast (mm) 2507 |
| 4.34b | Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise | Ast3 (mm) 2285 |
| 4.34c | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast (mm) - |
| 4.34d | Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast3 (mm) - |
| 4.35 | Turning radius | Wa (mm) 1835 |
| 5.0 Performance | | |
| 5.1 | Travel speed, with / without load | km / h 5.7 / 6 |
| 5.2 | Lifting speed, with / without load | m / s 0.10 / 0.20 |
| 5.3 | Lowering speed, with / without load | m / s 0.11 / 0.12 |
| 5.7 | Gradeability, with / without load | % 7 / 19 |
| 5.8 | Maximum gradeability with / without load | % - |
| 5.9 | Acceleration time (10 metres) with / without load | s 7.60 / 6.76 |
| 5.10 | Service brakes (mechanical / hydraulic / electric / pneumatic) | Electric |
| 6.0 Electric motors | | |
| 6.1 | Drive motor capacity (60 min. short duty) | kW 1.3 |
| 6.2 | Lift motor output at 15% duty factor | kW 2.35 |
| 6.3 | Battery to DIN | no |
| 6.4 | Battery voltage/capacity at 5-hour discharge | V / Ah 24 / 150-230 |
| 6.5 | Battery weight | kg 140 - 215 |
| 8.0 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) 74.6 +/- 0.7 |
| 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) | - |



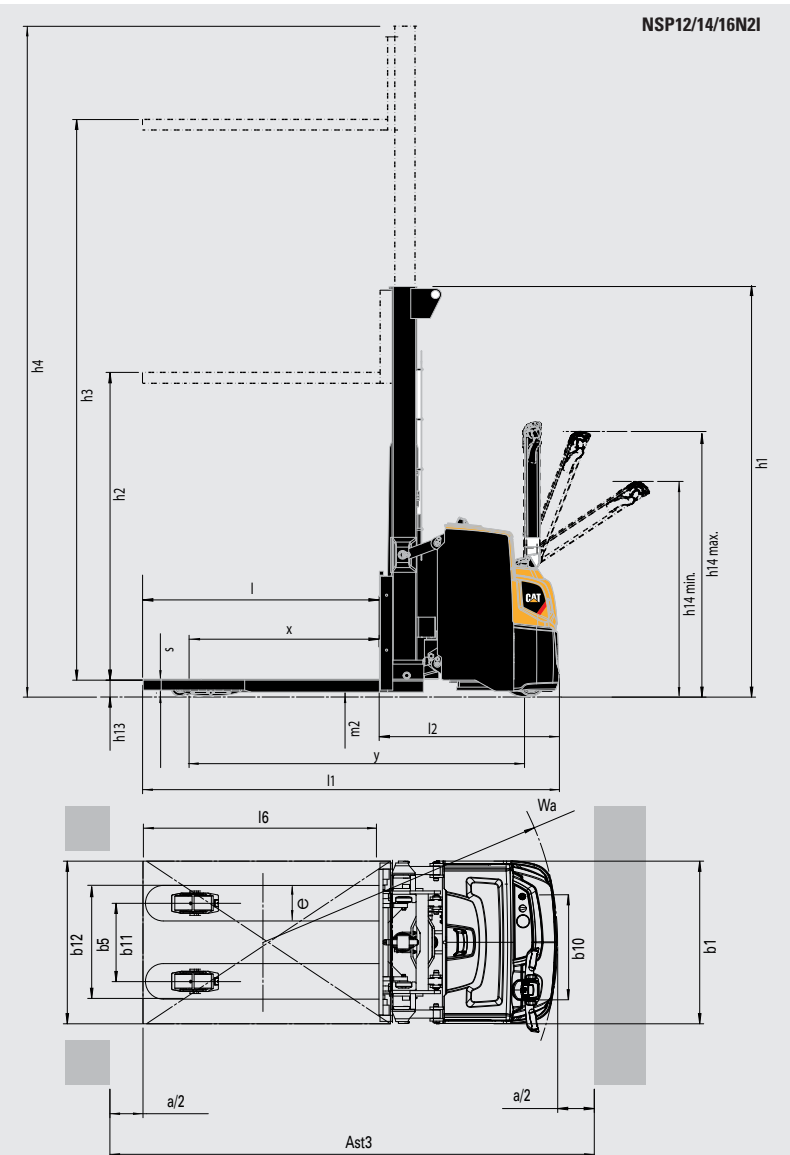
| 1.0 Characteristics | | |
|-------------------------|---|----------------|
| 1.1 | Manufacturer | |
| 1.2 | Manufacturer's model designation | |
| 1.3 | Power source | |
| 1.4 | Operator type | |
| 1.5 | Load capacity | Q (kg) |
| 1.6 | Load centre distance | c (mm) |
| 1.8 | Load wheel axle to fork face (forks lowered) | x (mm) |
| 1.9 | Wheelbase | y (mm) |
| 2.0 Weight | | |
| 2.1b | Truck weight without load, with maximum battery weight | kg |
| 2.2 | Axle loadings with nominal load & maximum battery weight, drive / load side | kg |
| 2.3 | Axle loadings without load & with maximum battery weight, drive / load side | kg |
| 3.0 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) |
| 3.4 | Castor wheel dimensions (diameter x width) | (mm) |
| 3.5 | Number of wheels, load / drive side (x = driven) | |
| 3.6 | Track width (centre of tyres), drive side | b10 (mm) |
| 3.7 | Track width (centre of tyres), load side | b11 (mm) |
| 4.0 Dimensions | | |
| 4.2b | Height | h1 (mm) |
| 4.3 | Free lift | h2 (mm) |
| 4.4 | Lift height | h3 (mm) |
| 4.5 | Height with mast extended | h4 (mm) |
| 4.6 | Initial lift | h5 (mm) |
| 4.9 | Height of tiller arm / steering console (min/max) | h14 (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) |
| 4.32 | Ground clearance at centre of wheelbase, (forks lowered) | m2 (mm) |
| 4.33c | Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast (mm) |
| 4.33d | Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast3 (mm) |
| 4.34a | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise | Ast (mm) |
| 4.34b | Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise | Ast3 (mm) |
| 4.34c | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast (mm) |
| 4.34d | Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast3 (mm) |
| 4.35 | Turning radius | Wa (mm) |
| 5.0 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 |
| 5.7 | Gradeability, with / without load | % |
| 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) | |
| 6.0 Electric motors | | |
| 6.1 | Drive motor capacity (60 min. short duty) | kW |
| 6.2 | Lift motor output at 15% duty factor | kW |
| 6.3 | Battery to DIN | |
| 6.4 | Battery voltage/capacity at 5-hour discharge | V / Ah |
| 6.5 | Battery weight | kg |
| 8.0 Miscellaneous | | |
| 8.1 | Type of drive control | |
| 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 | Cat Lift Trucks | Cat Lift Trucks |
|-----------------|-----------------|-----------------|-----------------|
| NSP10N2 | NSP12N2 | NSP14N2 | NSP16N2 |
| Battery | Battery | Battery | Battery |
| Pedestrian | Pedestrian | Pedestrian | Pedestrian |
| 1000 | 1200 | 1400 | 1600 |
| 600 | 600 | 600 | 600 |
| 625 | 625 | 625 | 625 |
| 1141 | 1205 | 1205 | 1205 |
| 820 | 1205 | 1220 | 1225 |
| 740 / 1080 | 830 / 1575 | 835 / 1785 | 835 / 1990 |
| 605 / 215 | 820 / 385 | 825 / 395 | 825 / 400 |
| Vul / Vul | Vul / Vul | Vul / Vul | Vul / Vul |
| 230 x 70 | 230 x 70 | 230 x 70 | 230 x 70 |
| 85 x 90 | 85 x 90 | 85 x 75 | 85 x 75 |
| 125 x 60 | 125 x 60 | 125 x 60 | 125 x 60 |
| 1 + 1 x / 2 | 1 + 1 x / 2 | 1 + 1 x / 4 | 1 + 1 x / 4 |
| 517 | 517 | 517 | 517 |
| 385 | 385 | 385 | 385 |
| see tables | see tables | see tables | see tables |
| see tables | see tables | see tables | see tables |
| see tables | see tables | see tables | see tables |
| see tables | see tables | see tables | see tables |
| - | - | - | - |
| 1050 / 1372 | 1050 / 1372 | 1050 / 1372 | 1050 / 1372 |
| 90 | 90 | 90 | 90 |
| 1836 | 1900 | 1900 | 1900 |
| 686 | 750 | 750 | 750 |
| 800 | 800 | 800 | 800 |
| 56 / 186 / 1150 | 56 / 186 / 1150 | 56 / 186 / 1150 | 56 / 186 / 1150 |
| 752 | 752 | 752 | 752 |
| 570 | 570 | 570 | 570 |
| - | - | - | - |
| 20 | 20 | 20 | 20 |
| 2291 | 2355 | 2355 | 2355 |
| 1958 | 2022 | 2022 | 2022 |
| Ast | Ast | Ast | Ast |
| Ast3 | Ast3 | Ast3 | Ast3 |
| 2283 | 2347 | 2347 | 2347 |
| 2158 | 2222 | 2222 | 2222 |
| 1383 | 1447 | 1447 | 1447 |
| 6.0 / 6.0 | 6.0 / 6.0 | 6.0 / 6.0 | 6.0 / 6.0 |
| 0.12 / 0.26 | 0.12 / 0.26 | 0.12 / 0.26 | 0.14 / 0.27 |
| 0.35 / 0.40 | 0.35 / 0.40 | 0.35 / 0.40 | 0.35 / 0.40 |
| % | % | % | % |
| 8 / 15 | 8 / 15 | 8 / 15 | 8 / 15 |
| Electric | Electric | Electric | Electric |
| 1.0 | 1.0 | 1.0 | 1.0 |
| 2.2 | 2.2 | 2.2 | 3.2 |
| 24 / 150 | 24 / 150-250 | 24 / 250 | 24 / 250 - 375 |
| 151 | 151 - 212 | 212 | 212 - 294 |
| Stepless | Stepless | Stepless | Stepless |
| 60 / 60 / 41 | 60 / 60 / 41 | 60 / 60 / 41 | 70 / 72 / 41 |
| - | - | - | - |
| < 2.5 | < 2.5 | < 2.5 | < 2.5 |



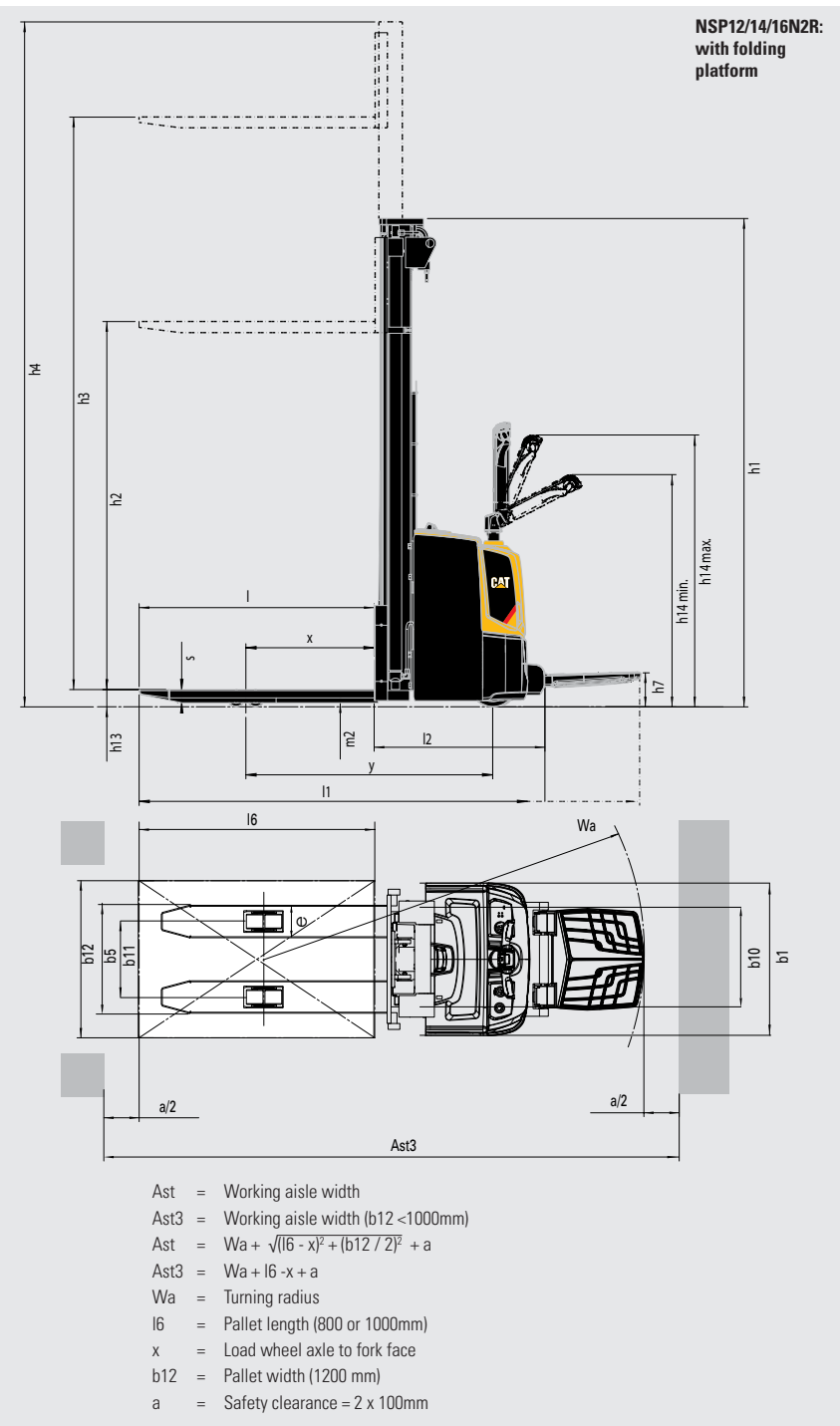
| 1.0 Characteristics | | |
|-------------------------|---|----------------|
| 1.1 | Manufacturer | |
| 1.2 | Manufacturer's model designation | |
| 1.3 | Power source | |
| 1.4 | Operator type | |
| 1.5 | Load capacity | Q (kg) |
| 1.6 | Load centre distance | c (mm) |
| 1.8 | Load wheel axle to fork face (forks lowered) | x (mm) |
| 1.9 | Wheelbase | y (mm) |
| 2.0 Weight | | |
| 2.1b | Truck weight without load, with maximum battery weight | kg |
| 2.2 | Axle loadings with nominal load & maximum battery weight, drive / load side | kg |
| 2.3 | Axle loadings without load & with maximum battery weight, drive / load side | kg |
| 3.0 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) |
| 3.4 | Castor wheel dimensions (diameter x width) | (mm) |
| 3.5 | Number of wheels, load / drive side (x = driven) | |
| 3.6 | Track width (centre of tyres), drive side | b10 (mm) |
| 3.7 | Track width (centre of tyres), load side | b11 (mm) |
| 4.0 Dimensions | | |
| 4.2b | Height | h1 (mm) |
| 4.3 | Free lift | h2 (mm) |
| 4.4 | Lift height | h3 (mm) |
| 4.5 | Height with mast extended | h4 (mm) |
| 4.6 | Initial lift | h5 (mm) |
| 4.9 | Height of tiller arm / steering console (min/max) | h14 (mm) |
| 4.15 | Fork height, fully lowered | h13 (mm) |
| 4.19 | Overall length | l1 (mm) |
| 4.20 | Length to fork face | l2 (mm) |
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| 4.35 | Turning radius | Wa (mm) |
| 5.0 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 |
| 5.7 | Gradeability, with / without load | % |
| 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) | |
| 6.0 Electric motors | | |
| 6.1 | Drive motor capacity (60 min. short duty) | kW |
| 6.2 | Lift motor output at 15% duty factor | kW |
| 6.3 | Battery to DIN | |
| 6.4 | Battery voltage/capacity at 5-hour discharge | V / Ah |
| 6.5 | Battery weight | kg |
| 8.0 Miscellaneous | | |
| 8.1 | Type of drive control | |
| 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 NSP12N2I | Cat Lift Trucks NSP14N2I | Cat Lift Trucks NSP16N2I |
|--|------------------------------------|------------------------------------|------------------------------------|
| | Battery | Battery | Battery |
| | Pedestrian | Pedestrian | Pedestrian |
| | 1200 | 1400 | 1600 |
| | 600 | 600 | 600 |
| | 925 | 925 | 925 |
| | 1615 | 1615 | 1615 |
| | 1350 | 1395 | 1400 |
| | 1180 / 1370 | 1240 / 1555 | 1275 / 1725 |
| | 955 / 395 | 970 / 425 | 970 / 430 |
| | Vul / Vul | Vul / Vul | Vul / Vul |
| | 230 x 70 | 230 x 70 | 230 x 70 |
| | 85 x 90 | 85 x 75 | 85 x 75 |
| | 125 x 60 | 125 x 60 | 125 x 60 |
| | 1 + 1 x / 2 | 1 + 1 x / 4 | 1 + 1 x / 4 |
| | 517 | 517 | 517 |
| | 385 | 385 | 385 |
| | see tables | see tables | see tables |
| | see tables | see tables | see tables |
| | see tables | see tables | see tables |
| | see tables | see tables | see tables |
| | 115 | 115 | 115 |
| | 1050 / 1372 | 1050 / 1372 | 1050 / 1372 |
| | 90 | 90 | 90 |
| | 2007 | 2007 | 2007 |
| | 857 | 857 | 857 |
| | 800 | 800 | 800 |
| | 56 / 186 / 1150 | 56 / 186 / 1150 | 56 / 186 / 1150 |
| | 752 | 752 | 752 |
| | 570 | 570 | 570 |
| | - | - | - |
| | 20 | 20 | 20 |
| | 2653 | 2653 | 2653 |
| | 2123 | 2123 | 2123 |
| | Ast (mm) | Ast (mm) | Ast (mm) |
| | 2533 | 2533 | 2533 |
| | 2323 | 2323 | 2323 |
| | 1848 | 1848 | 1848 |
| | 6.0 / 6.0 | 6.0 / 6.0 | 6.0 / 6.0 |
| | 0.12 / 0.26 | 0.12 / 0.26 | 0.14 / 0.27 |
| | 0.35 / 0.40 | 0.35 / 0.40 | 0.35 / 0.40 |
| | % | % | % |
| | 8 / 15 | 8 / 15 | 8 / 15 |
| | Electric | Electric | Electric |
| | 1.0 | 1.0 | 1.0 |
| | 2.2 | 2.2 | 3.2 |
| | 24 / 150-250 | 24 / 250 | 24 / 250 - 375 |
| | 151 - 212 | 212 | 212 - 294 |
| | Stepless | Stepless | Stepless |
| | 60 / 60 / 41 | 60 / 60 / 41 | 70 / 72 / 41 |
| | - | - | - |
| | < 2.5 | < 2.5 | < 2.5 |

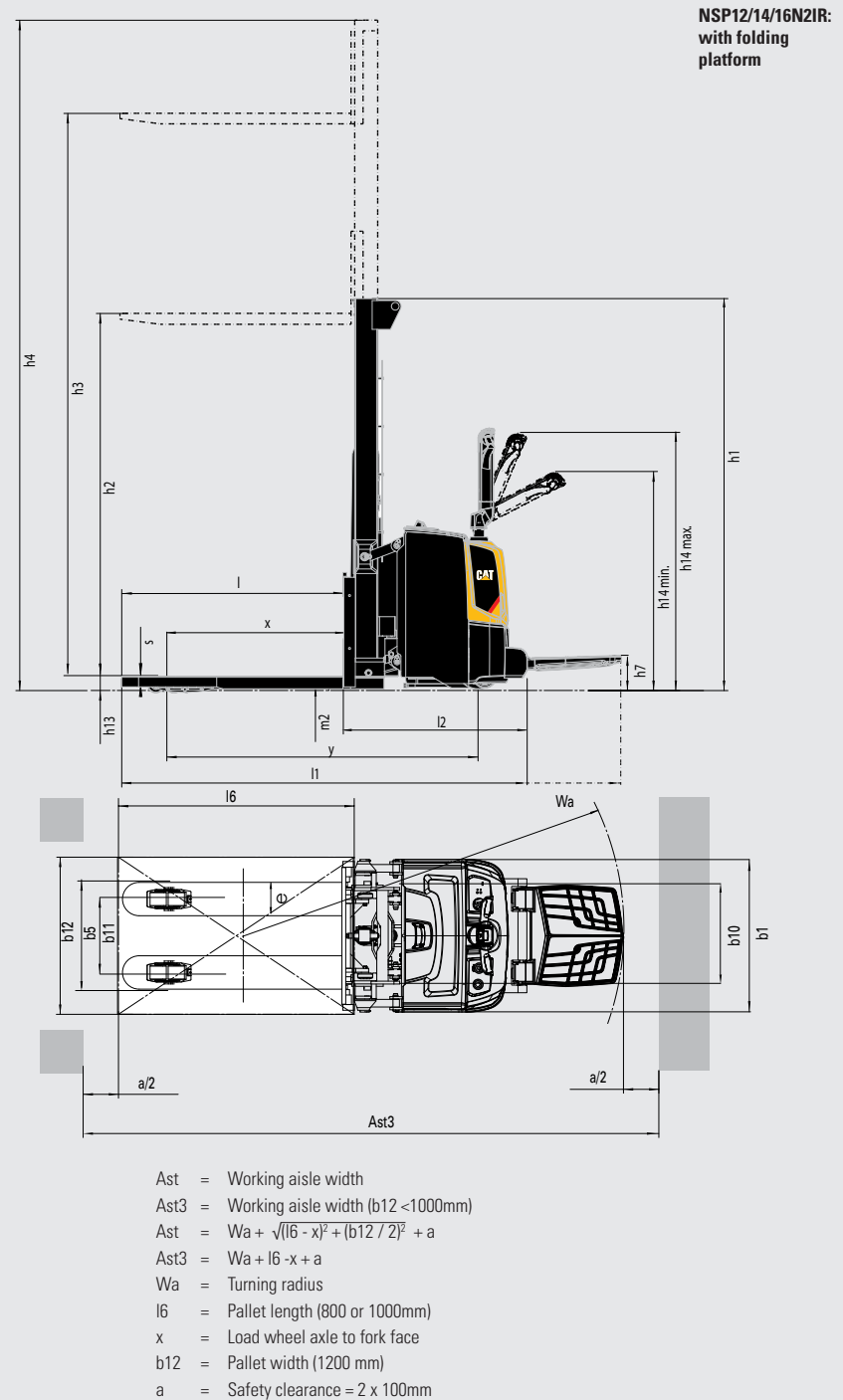


- Ast = Working aisle width
- Ast3 = Working aisle width (b12 < 1000mm)
- Ast = $Wa + \sqrt{(l6 - x)^2 + (b12 / 2)^2} + a$
- Ast3 = $Wa + l6 - x + a$
- Wa = Turning radius
- l6 = Pallet length (800 or 1000mm)
- x = Load wheel axle to fork face
- b12 = Pallet width (1200 mm)
- a = Safety clearance = 2 x 100mm

| 1.0 Characteristics | | | Cat Lift Trucks | Cat Lift Trucks | Cat Lift Trucks |
|--|----------------|--|-----------------------|-----------------------|-----------------------|
| 1.1 Manufacturer | | | NSP12N2R | NSP14N2R | NSP16N2R |
| 1.2 Manufacturer's model designation | | | Battery | Battery | Battery |
| 1.3 Power source | | | Pedestrian / Stand-on | Pedestrian / Stand-on | Pedestrian / Stand-on |
| 1.4 Operator type | | | | | |
| 1.5 Load capacity | Q (kg) | | 1200 | 1400 | 1600 |
| 1.6 Load centre distance | c (mm) | | 600 | 600 | 600 |
| 1.8 Load wheel axle to fork face (forks lowered) | x (mm) | | 625 | 625 | 625 |
| 1.9 Wheelbase | y (mm) | | 1205 | 1205 | 1205 |
| 2.0 Weight | | | | | |
| 2.1b Truck weight without load, with maximum battery weight | kg | | 1245 | 1260 | 1265 |
| 2.2 Axle loadings with nominal load & maximum battery weight, drive / load side | kg | | 870 / 1575 | 875 / 1785 | 875 / 1990 |
| 2.3 Axle loadings without load & with maximum battery weight, drive / load side | kg | | 860 / 385 | 865 / 395 | 865 / 400 |
| 3.0 Wheels, Drive Train | | | | | |
| 3.1 Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side | | | Vul / Vul | Vul / Vul | Vul / Vul |
| 3.2 Tyre dimensions, drive side | (mm) | | 230 x 70 | 230 x 70 | 230 x 70 |
| 3.3 Tyre dimensions, load side | (mm) | | 85 x 90 | 85 x 75 | 85 x 75 |
| 3.4 Castor wheel dimensions (diameter x width) | (mm) | | 125 x 60 | 125 x 60 | 125 x 60 |
| 3.5 Number of wheels, load / drive side (x = driven) | | | 1 + 1 x / 2 | 1 + 1 x / 4 | 1 + 1 x / 4 |
| 3.6 Track width (centre of tyres), drive side | b10 (mm) | | 517 | 517 | 517 |
| 3.7 Track width (centre of tyres), load side | b11 (mm) | | 385 | 385 | 385 |
| 4.0 Dimensions | | | | | |
| 4.2b Height | h1 (mm) | | see tables | see tables | see tables |
| 4.3 Free lift | h2 (mm) | | see tables | see tables | see tables |
| 4.4 Lift height | h3 (mm) | | see tables | see tables | see tables |
| 4.5 Height with mast extended | h4 (mm) | | see tables | see tables | see tables |
| 4.6 Initial lift | h5 (mm) | | - | - | - |
| 4.9 Height of tiller arm / steering console (min/max) | h14 (mm) | | 1150 / 1350 | 1150 / 1350 | 1150 / 1350 |
| 4.15 Fork height, fully lowered | h13 (mm) | | 90 | 90 | 90 |
| 4.19 Overall length | l1 (mm) | | 2020 / 2500 | 2020 / 2500 | 2020 / 2500 |
| 4.20 Length to fork face | l2 (mm) | | 870 / 1350 | 870 / 1350 | 870 / 1350 |
| 4.21 Overall width | b1/b2 (mm) | | 800 | 800 | 800 |
| 4.22 Fork dimensions (thickness, width, length) | s / e / l (mm) | | 56 / 186 / 1150 | 56 / 186 / 1150 | 56 / 186 / 1150 |
| 4.24 Fork carriage width | b3 (mm) | | 752 | 752 | 752 |
| 4.25 Outside width over forks (minimum / maximum) | b5 (mm) | | 570 | 570 | 570 |
| 4.26 Inner width of support legs | b4 (mm) | | - | - | - |
| 4.32 Ground clearance at centre of wheelbase, (forks lowered) | m2 (mm) | | 20 | 20 | 20 |
| 4.33c Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast (mm) | | 2475 / 2955 | 2475 / 2955 | 2475 / 2955 |
| 4.33d Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast3 (mm) | | 2142 / 2622 | 2142 / 2622 | 2142 / 2622 |
| 4.34a Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise | Ast (mm) | | | | |
| 4.34b Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise | Ast3 (mm) | | | | |
| 4.34c Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast (mm) | | 2467 / 2947 | 2467 / 2947 | 2467 / 2947 |
| 4.34d Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast3 (mm) | | 2342 / 2822 | 2342 / 2822 | 2342 / 2822 |
| 4.35 Turning radius | Wa (mm) | | 1567 / 2047 | 1567 / 2047 | 1567 / 2047 |
| 5.0 Performance | | | | | |
| 5.1 Travel speed, with / without load | km / h | | 6.0 / 6.0 | 6.0 / 6.0 | 6.0 / 6.0 |
| 5.2 Lifting speed, with / without load | m / s | | 0.12 / 0.26 | 0.12 / 0.26 | 0.14 / 0.27 |
| 5.3 Lowering speed, with / without load | m / s | | 0.35 / 0.40 | 0.35 / 0.40 | 0.35 / 0.40 |
| 5.7 Gradeability, with / without load | % | | | | |
| 5.8 Maximum gradeability with / without load | % | | 8 / 15 | 8 / 15 | 8 / 15 |
| 5.9 Acceleration time (10 metres) with / without load | s | | | | |
| 5.10 Service brakes (mechanical / hydraulic / electric / pneumatic) | | | Electric | Electric | Electric |
| 6.0 Electric motors | | | | | |
| 6.1 Drive motor capacity (60 min. short duty) | kW | | 1.0 | 1.0 | 1.0 |
| 6.2 Lift motor output at 15% duty factor | kW | | 2.2 | 2.2 | 3.2 |
| 6.3 Battery to DIN | | | | | |
| 6.4 Battery voltage/capacity at 5-hour discharge | V / Ah | | 24 / 150 - 250 | 24 / 250 | 24 / 250 - 375 |
| 6.5 Battery weight | kg | | 151 - 212 | 212 | 212 - 294 |
| 8.0 Miscellaneous | | | | | |
| 8.1 Type of drive control | | | Stepless | Stepless | 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) | | 60 / 60 / 41 | 60 / 60 / 41 | 70 / 72 / 41 |
| 10.7.2 Whole-body vibration (EN 13 059:2002) | | | 0.8 | 0.8 | 0.8 |
| 10.7.3 Hand-arm vibration (EN 13 059:2002) | | | < 2.5 | < 2.5 | < 2.5 |

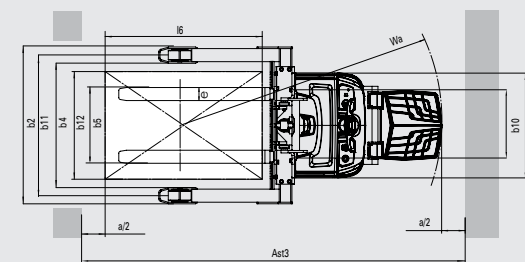
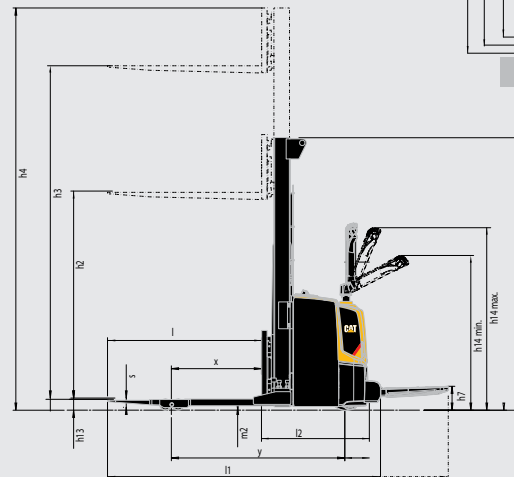
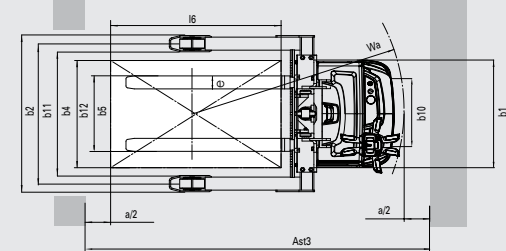
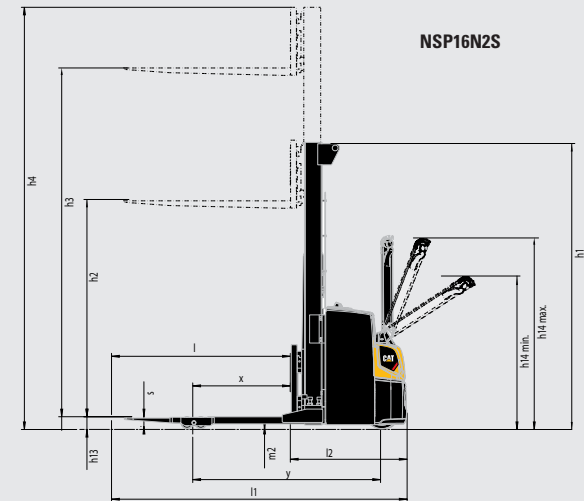


| 1.0 Characteristics | | Cat Lift Trucks | Cat Lift Trucks | Cat Lift Trucks | |
|-------------------------|---|-----------------------|-----------------------|-----------------------|-----------------|
| | | NSP12N2IR | NSP14N2IR | NSP16N2IR | |
| | | Battery | Battery | Battery | |
| | | Pedestrian / Stand-on | Pedestrian / Stand-on | Pedestrian / Stand-on | |
| 1.1 | Manufacturer | | | | |
| 1.2 | Manufacturer's model designation | | | | |
| 1.3 | Power source | | | | |
| 1.4 | Operator type | | | | |
| 1.5 | Load capacity | Q (kg) | 1200 | 1400 | 1600 |
| 1.6 | Load centre distance | c (mm) | 600 | 600 | 600 |
| 1.8 | Load wheel axle to fork face (forks lowered) | x (mm) | 925 | 925 | 925 |
| 1.9 | Wheelbase | y (mm) | 1615 | 1615 | 1615 |
| 2.0 Weight | | | | | |
| 2.1b | Truck weight without load, with maximum battery weight | kg | 1390 | 1435 | 1440 |
| 2.2 | Axle loadings with nominal load & maximum battery weight, drive / load side | kg | 1220 / 1370 | 1280 / 1555 | 1315 / 1725 |
| 2.3 | Axle loadings without load & with maximum battery weight, drive / load side | kg | 995 / 395 | 1010 / 425 | 1010 / 430 |
| 3.0 Wheels, Drive Train | | | | | |
| 3.1 | Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side | Vul / Vul | Vul / Vul | Vul / Vul | |
| 3.2 | Tyre dimensions, drive side | (mm) | 230 x 70 | 230 x 70 | 230 x 70 |
| 3.3 | Tyre dimensions, load side | (mm) | 85 x 90 | 85 x 75 | 85 x 75 |
| 3.4 | Castor wheel dimensions (diameter x width) | (mm) | 125 x 60 | 125 x 60 | 125 x 60 |
| 3.5 | Number of wheels, load / drive side (x = driven) | | 1 + 1 x / 2 | 1 + 1 x / 4 | 1 + 1 x / 4 |
| 3.6 | Track width (centre of tyres), drive side | b10 (mm) | 517 | 517 | 517 |
| 3.7 | Track width (centre of tyres), load side | b11 (mm) | 385 | 385 | 385 |
| 4.0 Dimensions | | | | | |
| 4.2b | Height | h1 (mm) | see tables | see tables | see tables |
| 4.3 | Free lift | h2 (mm) | see tables | see tables | see tables |
| 4.4 | Lift height | h3 (mm) | see tables | see tables | see tables |
| 4.5 | Height with mast extended | h4 (mm) | see tables | see tables | see tables |
| 4.6 | Initial lift | h5 (mm) | 115 | 115 | 115 |
| 4.9 | Height of tiller arm / steering console (min/max) | h14 (mm) | 1150 / 1350 | 1150 / 1350 | 1150 / 1350 |
| 4.15 | Fork height, fully lowered | h13 (mm) | 90 | 90 | 90 |
| 4.19 | Overall length | l1 (mm) | 2127 / 2607 | 2127 / 2607 | 2127 / 2607 |
| 4.20 | Length to fork face | l2 (mm) | 977 / 1457 | 977 / 1457 | 977 / 1457 |
| 4.21 | Overall width | b1/b2 (mm) | 800 | 800 | 800 |
| 4.22 | Fork dimensions (thickness, width, length) | s / e / l (mm) | 56 / 186 / 1150 | 56 / 186 / 1150 | 56 / 186 / 1150 |
| 4.24 | Fork carriage width | b3 (mm) | 752 | 752 | 752 |
| 4.25 | Outside width over forks (minimum / maximum) | b5 (mm) | 570 | 570 | 570 |
| 4.26 | Inner width of support legs | b4 (mm) | - | - | - |
| 4.32 | Ground clearance at centre of wheelbase, (forks lowered) | m2 (mm) | 20 | 20 | 20 |
| 4.33c | Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast (mm) | 2773 / 3253 | 2773 / 3253 | 2773 / 3253 |
| 4.33d | Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast3 (mm) | 2243 / 2723 | 2243 / 2723 | 2243 / 2723 |
| 4.34a | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise | Ast (mm) | | | |
| 4.34b | Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise | Ast3 (mm) | | | |
| 4.34c | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast (mm) | 2653 / 3133 | 2653 / 3133 | 2653 / 3133 |
| 4.34d | Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast3 (mm) | 2443 / 2923 | 2443 / 2923 | 2443 / 2923 |
| 4.35 | Turning radius | Wa (mm) | 1968 / 2448 | 1968 / 2448 | 1968 / 2448 |
| 5.0 Performance | | | | | |
| 5.1 | Travel speed, with / without load | km / h | 6.0 / 6.0 | 6.0 / 6.0 | 6.0 / 6.0 |
| 5.2 | Lifting speed, with / without load | m / s | 0.12 / 0.26 | 0.12 / 0.26 | 0.14 / 0.27 |
| 5.3 | Lowering speed, with / without load | m / s | 0.35 / 0.40 | 0.35 / 0.40 | 0.35 / 0.40 |
| 5.7 | Gradeability, with / without load | % | | | |
| 5.8 | Maximum gradeability with / without load | % | 8 / 15 | 8 / 15 | 8 / 15 |
| 5.9 | Acceleration time (10 metres) with / without load | s | | | |
| 5.10 | Service brakes (mechanical / hydraulic / electric / pneumatic) | | Electric | Electric | Electric |
| 6.0 Electric motors | | | | | |
| 6.1 | Drive motor capacity (60 min. short duty) | kW | 1.0 | 1.0 | 1.0 |
| 6.2 | Lift motor output at 15% duty factor | kW | 2.2 | 2.2 | 3.2 |
| 6.3 | Battery to DIN | | | | |
| 6.4 | Battery voltage/capacity at 5-hour discharge | V / Ah | 24 / 150 - 250 | 24 / 250 | 24 / 250 - 375 |
| 6.5 | Battery weight | kg | 151 - 212 | 212 | 212 - 294 |
| 8.0 Miscellaneous | | | | | |
| 8.1 | Type of drive control | | Stepless | Stepless | 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) | 60 / 60 / 41 | 60 / 60 / 41 | 70 / 72 / 41 |
| 10.7.2 | Whole-body vibration (EN 13 059:2002) | | 0.8 | 0.8 | 0.8 |
| 10.7.3 | Hand-arm vibration (EN 13 059:2002) | | < 2.5 | < 2.5 | < 2.5 |



| 1.0 Characteristics | | | Cat Lift Trucks | Cat Lift Trucks |
|-------------------------|---|----------------|-------------------|-----------------------|
| 1.1 | Manufacturer | | NSP16N2S | NSP16N2SR |
| 1.2 | Manufacturer's model designation | | Battery | Battery |
| 1.3 | Power source | | Pedestrian | Pedestrian / Stand-on |
| 1.4 | Operator type | | | |
| 1.5 | Load capacity | Q (kg) | 1600 | 1600 |
| 1.6 | Load centre distance | c (mm) | 600 | 600 |
| 1.8 | Load wheel axle to fork face (forks lowered) | x (mm) | 650 | 650 |
| 1.9 | Wheelbase | y (mm) | 1295 | 1295 |
| 2.0 Weight | | | | |
| 2.1b | Truck weight without load, with maximum battery weight | kg | 1397 | 1437 |
| 2.2 | Axle loadings with nominal load & maximum battery weight, drive / load side | kg | 1941 / 1056 | 1981 / 1056 |
| 2.3 | Axle loadings without load & with maximum battery weight, drive / load side | kg | 945 / 452 | 985 / 452 |
| 3.0 Wheels, Drive Train | | | | |
| 3.1 | Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side | | Vul / Vul | Vul / Vul |
| 3.2 | Tyre dimensions, drive side | (mm) | 230 x 70 | 230 x 70 |
| 3.3 | Tyre dimensions, load side | (mm) | 85 x 75 | 85 x 75 |
| 3.4 | Castor wheel dimensions (diameter x width) | (mm) | 125 x 60 | 125 x 60 |
| 3.5 | Number of wheels, load / drive side (x = driven) | | 1 + 1 x / 4 | 1 + 1 x / 4 |
| 3.6 | Track width (centre of tyres), drive side | b10 (mm) | 517 | 517 |
| 3.7 | Track width (centre of tyres), load side | b11 (mm) | 1025-1425 | 1025-1425 |
| 4.0 Dimensions | | | | |
| 4.2b | Height | h1 (mm) | see tables | see tables |
| 4.3 | Free lift | h2 (mm) | see tables | see tables |
| 4.4 | Lift height | h3 (mm) | see tables | see tables |
| 4.5 | Height with mast extended | h4 (mm) | see tables | see tables |
| 4.6 | Initial lift | h5 (mm) | - | - |
| 4.9 | Height of tiller arm / steering console (min/max) | h14 (mm) | 1050 / 1372 | 1150 / 1350 |
| 4.15 | Fork height, fully lowered | h13 (mm) | 85 | 85 |
| 4.19 | Overall length | l1 (mm) | 1967 | 2087 / 2567 |
| 4.20 | Length to fork face | l2 (mm) | 817 | 937 / 1417 |
| 4.21 | Overall width | b1/b2 (mm) | 800 / 1140 - 1575 | 800 / 1140 - 1575 |
| 4.22 | Fork dimensions (thickness, width, length) | s / e / l (mm) | 40 / 100 / 1150 | 40 / 100 / 1150 |
| 4.24 | Fork carriage width | b3 (mm) | 980 | 980 |
| 4.25 | Outside width over forks (minimum / maximum) | b5 (mm) | 260-900 | 260-900 |
| 4.26 | Inner width of support legs | b4 (mm) | 900-1300 | 900-1300 |
| 4.32 | Ground clearance at centre of wheelbase, (forks lowered) | m2 (mm) | 20 | 20 |
| 4.33c | Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast (mm) | 2430 | 2550 / 3030 |
| 4.33d | Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast3 (mm) | 2085 | 2205 / 2685 |
| 4.34a | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise | Ast (mm) | | |
| 4.34b | Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise | Ast3 (mm) | | |
| 4.34c | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast (mm) | 2415 | 2535 / 3015 |
| 4.34d | Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast3 (mm) | 2285 | 2405 / 2885 |
| 4.35 | Turning radius | Wa (mm) | 1535 | 1655 / 2135 |
| 5.0 Performance | | | | |
| 5.1 | Travel speed, with / without load | km / h | 6.0 / 6.0 | 6.0 / 6.0 |
| 5.2 | Lifting speed, with / without load | m / s | 0.14 / 0.27 | 0.14 / 0.27 |
| 5.3 | Lowering speed, with / without load | m / s | 0.35 / 0.40 | 0.35 / 0.40 |
| 5.7 | Gradeability, with / without load | % | | |
| 5.8 | Maximum gradeability with / without load | % | 8 / 15 | 8 / 15 |
| 5.9 | Acceleration time (10 metres) with / without load | s | | |
| 5.10 | Service brakes (mechanical / hydraulic / electric / pneumatic) | | Electric | Electric |
| 6.0 Electric motors | | | | |
| 6.1 | Drive motor capacity (60 min. short duty) | kW | 1.0 | 1.0 |
| 6.2 | Lift motor output at 15% duty factor | kW | 3.2 | 3.2 |
| 6.3 | Battery to DIN | | | |
| 6.4 | Battery voltage/capacity at 5-hour discharge | V / Ah | 24 / 250 - 375 | 24 / 250 - 375 |
| 6.5 | Battery weight | kg | 212 - 294 | 212 - 294 |
| 8.0 Miscellaneous | | | | |
| 8.1 | Type of drive control | | Stepless | 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) | 70 / 72 / 41 | 70 / 72 / 41 |
| 10.7.2 | Whole-body vibration (EN 13 059:2002) | | - | 0.8 |
| 10.7.3 | Hand-arm vibration (EN 13 059:2002) | | < 2.5 | < 2.5 |

- Ast = Working aisle width
- Ast3 = Working aisle width (b12 < 1000mm)
- Ast = $Wa + \sqrt{(l6 - x)^2 + (b12 / 2)^2} + a$
- Ast3 = $Wa + l6 - x + a$
- Wa = Turning radius
- l6 = Pallet length (800 or 1000mm)
- x = Load wheel axle to fork face
- b12 = Pallet width (1200 mm)
- a = Safety clearance = 2 x 100mm



NSP16N2SR:
with folding platform

| NSP12PC | | | |
|-------------------|--------|------|--------|
| Mast Type | h3+h13 | h1* | h2+h13 |
| | mm | mm | mm |
| Duplex | 1790 | 1400 | NA |
| Without Free Lift | 2090 | 1550 | NA |

* h1 closed mast height includes polycarbonate finger protection. Mast height excl. finger protection is 1343mm / 1493mm

| NSP10N2 | | | | |
|-----------|--------|------|------|--------|
| Mast Type | h3+h13 | h1* | h4 | h2+h13 |
| | mm | mm | mm | mm |
| Simplex | 1500 | 1980 | 1980 | 1500 |
| Duplex | 2500 | 1775 | 3000 | 195 |
| | 2900 | 1975 | 3400 | 195 |
| | 3300 | 2175 | 3800 | 195 |

| NSP12/14/16N2 / NSP12/14 /16N2R | | | | |
|---------------------------------|--------|------|------|--------|
| Mast Type | h3+h13 | h1* | h4 | h2+h13 |
| | mm | mm | mm | mm |
| Simplex | 1500 | 1950 | 1950 | 1500 |
| | 2500 | 1835 | 3000 | 200 |
| | 2900 | 2035 | 3400 | 200 |
| | 3300 | 2235 | 3800 | 200 |
| | 3600 | 2385 | 4100 | 200 |
| Duplex Free Lift | 4300 | 2735 | 4800 | 200 |
| | 2500 | 1775 | 2940 | 1355 |
| | 2900 | 1975 | 3340 | 1555 |
| | 3300 | 2235 | 3800 | 1755 |
| Triplex | 3600 | 2385 | 4100 | 1905 |
| | 4300 | 2735 | 4800 | 2255 |
| | 4100 | 1955 | 4640 | |
| | 4300 | 2020 | 4840 | |
| Triplex Free Lift | 4700 | 2153 | 5250 | |
| | 5400* | 2385 | 5940 | |
| | 4100 | 1955 | 4640 | 1475 |
| | 4300 | 2020 | 4840 | 1540 |
| Triplex Free Lift | 4700 | 2153 | 5250 | 1673 |
| | 5400* | 2385 | 5940 | 1905 |

| NSP12/14/16N2I / NSP12/14/16N2IR | | | | |
|----------------------------------|--------|------|------|--------|
| Mast Type | h3+h13 | h1* | h4 | h2+h13 |
| | mm | mm | mm | mm |
| Simplex | 1500 | 2055 | 2055 | 1505 |
| | 2500 | 1940 | 3105 | 200 |
| | 2900 | 2140 | 3505 | 200 |
| | 3300 | 2340 | 3905 | 200 |
| | 3600 | 2490 | 4205 | 200 |
| | 4300 | 2840 | 4905 | 200 |
| Duplex Free Lift | 2500 | 1940 | 3105 | 1360 |
| | 2900 | 2140 | 3505 | 1560 |
| | 3300 | 2340 | 3905 | 1760 |
| | 3600 | 2490 | 4205 | 1910 |
| Triplex | 4300 | 2840 | 4905 | 2260 |
| | 4100 | 2060 | 4745 | |
| | 4300 | 2125 | 4945 | |
| | 4700 | 2260 | 5345 | |
| Triplex Free Lift | 5400* | 2490 | 6045 | |
| | 4100 | 2060 | 4745 | 1480 |
| | 4300 | 2125 | 4945 | 1545 |
| | 4700 | 2260 | 5345 | 1673 |
| Triplex Free Lift | 5400* | 2490 | 6045 | 1910 |

| NSP16N2S / NSP16N2SR | | | | |
|----------------------|--------|------|------|--------|
| Mast Type | h3+h13 | h1* | h4 | h2+h13 |
| | mm | mm | mm | mm |
| Simplex | 1500 | 2030 | 2030 | 1500 |
| | 2500 | 1915 | 3080 | 195 |
| | 2900 | 2115 | 3480 | 195 |
| | 3300 | 2315 | 3880 | 195 |
| | 3600 | 2465 | 4180 | 195 |
| | 4300 | 2815 | 4880 | 195 |
| Duplex Free Lift | 2500 | 1915 | 3080 | 1355 |
| | 2900 | 2115 | 3480 | 1555 |
| | 3300 | 2315 | 3880 | 1755 |
| | 3600 | 2465 | 4180 | 1905 |
| Triplex | 4300 | 2815 | 4880 | 2255 |
| | 4100 | 2035 | 4720 | |
| | 4300 | 2100 | 4920 | |
| | 4700 | 2233 | 5320 | |
| Triplex Free Lift | 5400* | 2465 | 6020 | |
| | 4100 | 2035 | 4720 | 1475 |
| | 4300 | 2100 | 4920 | 1540 |
| | 4700 | 2233 | 5320 | 1753 |
| Triplex Free Lift | 5400* | 2465 | 6020 | 1905 |

Mast Performance and Capacity

- * = only NSP14-16N2R & NSP14-16N2(I)R
- S = Simplex
- DS = Duplex with clear view mast
- DEV = Duplex with full free lift
- TR = Triplex with clear view mast
- TREV = Triplex with full free lift
- h3+h13 = Lifting height
- h1 = Lowered mast height
- h4 = Raised mast height
- h2+h13 = Free lift



LI-ION BATTERIES

CONSIDER THE BENEFITS OF LI-ION BATTERY TECHNOLOGY ON THE NSP12PC MODEL



Lithium-ion (Li-ion) battery technology is now available as an option in almost all 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.



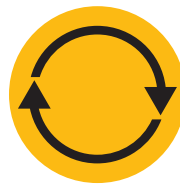
LONGER LIFE



HIGHER EFFICIENCY



LONGER RUNTIME



CONSISTENT PERFORMANCE



FASTER CHARGING



NO BATTERY CHANGING



NO DAILY MAINTENANCE



INBUILT PROTECTION

Cat Li-ion advantages over lead-acid

Switching to Li-ion requires a higher initial investment, but this should be viewed against Li-ion's 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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