

RT 16Li

Lithium battery reach truck

Lithium battery ride-on reach truck RT16Li with unique design. The cabin adopts four columns to penetrate the frame which is both beautiful and safe. Wide field of vision and driving space, high elastic shock-absorbing seats, give a unique driving pleasure.

The German 6.4kW three-phase AC drive motor and the American controller are selected to ensure stronger vehicle power and smoother acceleration and deceleration. At the same time, it is equipped with EPS electronic power steering system for easy steering. The 180°/360° steering mode can be switched in real time with the German thumb switch, centralized type central console, fingertip operation, convenient and precise, ensuring high efficiency and driving comfort. Multi-function LCD instrument can display steering wheel position, battery power, power alarm, fault code, running time, driving speed and other information.

Suspension seat

The highly elastic shock-absorbing seat greatly reduces the transmission of vibration to the driver. At the same time, the combination of the automotive-grade bionic curved backrest can effectively reduce the driver's driving fatigue; the seat can be adjusted in multiple positions to meet the operation of different heights and body shapes. According to the needs of users, this car adopts lithium battery which can be charged quickly to meet the requirements of multi-shift working system. The steering wheel and center console can be adjusted freely in all directions to adapt to your best operating habits.

Enjoy the driving experience



Multi-function LCD instrument can display steering wheel position, battery power, power alarm, fault code, running time, driving speed and other information.



The multi-function password lock can manually enter the password or swipe the card to start, which simplifies the authorization operation process and meets the requirements of multi-shift work.



Multifunctional armrest, German thumb switch, direction switch, EPS electronic power steering system, horn switch, emergency power off switch, etc., realize fingertip operation, convenient and accurate.



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Wide vision and driving space, ergonomic layout, embodies the humanized design.



Spacious foot space allows any operator to find a comfortable position and ensures adequate comfort during operation throughout the shift.



RT 16Li

Intelligent security protection

Height limit function:

When the fork is lifted to the maximum height, the lifting motor will automatically power off to ensure the safety of lifting.

Turning Speed Limit Control:

Prevent the forklift from overturning sideways when turning, and ensure the safety.

Motor temperature detection control:

Prevent the motor from being damaged due to overheating.

Motor current detection control:

Prevent the motor from being damaged due to excessive motor current.

Electromagnetic brake and hydraulic brake:

Combination of electromagnetic braking and hydraulic braking, short braking distance, no deviation, no impact, safe and reliable.

Parking electromagnetic brake:

It can realize one-button operation function either on the ramp and smooth ground.



High-precision forward sliding rails and excellent clearance compensation design make the mast more stable during reach application.



The chassis structure is strong, the distribution of the center of mass is reasonable, and the stability of the whole vehicle is excellent.



High-definition monitoring system, real-time monitoring of cargo stacking.



Standard high-performance lithium battery

Comparison of Lithium Battery & Lead Acid

| Model | Lithium battery | Lead-acid batteries |
|-----------------------|---|---|
| Cycle life | 2000-4000cycles | 300-500cycles |
| Safe | Green and pollution-free | corrosion, pollution |
| Charging time | < 2h | Above8h |
| Power conversion rate | Power conversion rate > 97% | Power conversion rate ≤ 80% |
| Volume | Small size: 2/3 of the volume of lead-acid batteries | Big |
| Weight | Light weight: 1/3-1/4 of lead-acid batteries | heavy |
| Maintenance-free | Maintenance free | Distilled water or acid solution needs to be added regularly |
| Powerful | Stable voltage output, low self-weight, strong power | The voltage in the first half is high, the voltage in the second half is low, and the power is attenuated when the voltage is low |
| Memory effect | No memory effect, can be charged and discharged at any time | Has memory (affects battery life) |

FAST CHARGING *Charge your battery whenever and wherever you need*

- The unique fast-charging feature of lithium battery makes it an ideal choice for multi-shift work. Comparing with traditional lead-acid battery, it is no longer needed to change batteries among shifts, or prepare stand-by battery and special charging area for Li-ion powered trucks. Fast charging allows charging at interval from operations which extends greatly the working time of truck. In addition, lithium battery has no memory of charging cycles which will not affect the life time at all. The lithium charger is no longer required to be placed in a specified area due to the environment-friendly feature of lithium battery, which brings much higher flexibility.

ENVIRONMENT-FRIENDLY *High cost performance*

- The Lithium battery is more environment-friendly. There is no acid evaporation, odor and pollution during the charging process. The operation of Li-ion powered trucks are relatively quiet and zero carbon dioxide emissions. Therefore, Li-ion powered trucks is an ideal plan for the industry that has environment concern, such as food processing, chemical and pharmaceutical industry.
- Each lithium truck requires only one battery attributing to its fast charging feature no matter how many work shifts. Life time of lithium battery is three times that of lead acid battery. The maintenance-free feature of lithium battery gives much higher cost performance than lead-acid battery.

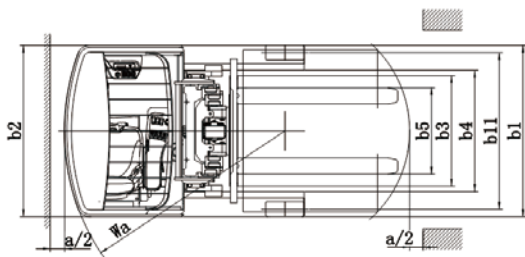
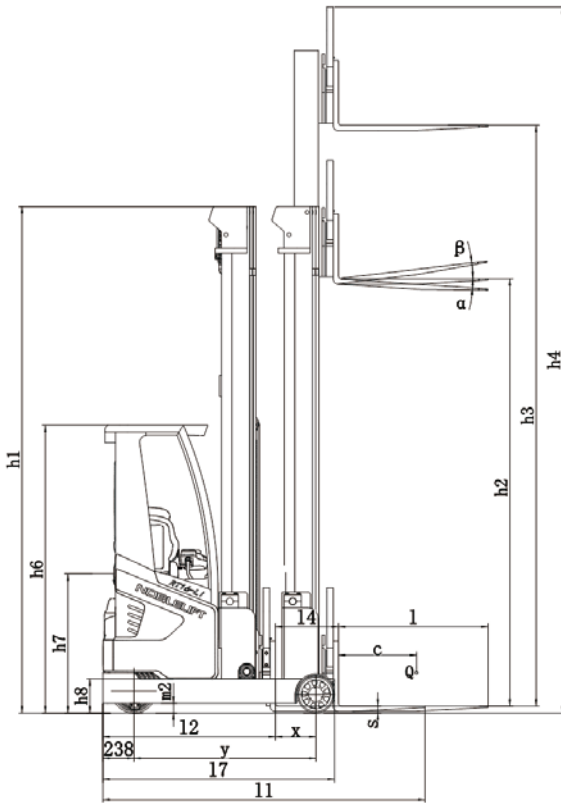
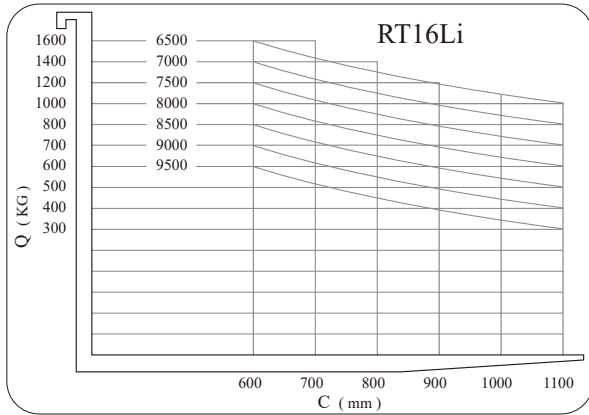
SAFETY *Efficient, Maintenance-free*

- Lithium battery reduces 35% energy consumption, requires no specified charging area and exempts from cost for battery maintenance. It saves space, requires no device to be taken out of truck as well as additional ventilation and liquid filling device.
- The power lithium battery system is composed of high-safety high-density lithium iron phosphate battery, intelligent battery management system (BMS), thermal management system, and automotive-grade DC high-voltage control system. BMS enables the communication network between the power lithium battery and controller, the truck itself, the charger and the remote management platform, real-time detection of the status of the lithium battery, the operating state of the truck and the charging state, so as to maximize the safety and reliability of lithium batteries.



Mast Table (VDI2198)

| | | | | | | | | | |
|-------------------------|----|------|------|-------|------|------|------|------|------|
| Lift | h3 | 4500 | 5000 | 5500 | 6000 | 6500 | 7000 | 7500 | 8000 |
| Height of mast lowered | h1 | 2235 | 2400 | 2568 | 2735 | 2900 | 3068 | 3234 | 3400 |
| Height of mast extended | h4 | 5410 | 5910 | 6410 | 6910 | 7410 | 7910 | 8410 | 8910 |
| Free lift | h2 | 1563 | 1730 | 1897 | 2063 | 2230 | 2397 | 2563 | 2730 |
| Lift | h3 | 8500 | 9000 | 9500 | | | | | |
| Height of mast lowered | h1 | 3567 | 3734 | 3900 | | | | | |
| Height of mast extended | h4 | 9410 | 9910 | 10410 | | | | | |
| Free lift | h2 | 2897 | 3063 | 3230 | | | | | |
| Give priority | h3 | 4500 | 5500 | 6500 | | | | | |



Type sheet for industrial truck acc. to VDI 2198

Identification

| | | | |
|-----|---|--------|-----------|
| 1.1 | Manufacturer | | NOBLELIFT |
| 1.2 | Model | | RT16Li |
| 1.3 | Drive | | Electric |
| 1.4 | Operator type | | Seated |
| 1.5 | Load capacity / rated load | Q (kg) | 1600 |
| 1.6 | Load centre | c (mm) | 600 |
| 1.8 | Load distance, centre of support arm wheel to face of forks | x (mm) | 310/174 |
| 1.9 | Wheelbase | y (mm) | 1400 |

Weights

| | | | |
|-----|---|----|-----------|
| 2.1 | Service weight including battery | kg | 3730 |
| 2.3 | Axle load, mast retracted without load, drive/support arm wheel | kg | 2200/1530 |
| 2.4 | Axle load, mast extended with load, drive/support arm wheel | kg | 620/4710 |
| 2.5 | Axle load, mast retracted with load, drive/support arm wheel | kg | 1820/3510 |

Wheels

| | | | |
|-----|---|----------|-----------|
| 3.1 | Drive/support arm wheel | | PU |
| 3.2 | Wheel size, front | Øxw (mm) | Ø 343X140 |
| 3.3 | Wheel size, rear | Øxw (mm) | Ø 285X110 |
| 3.5 | Wheels, number front/rear (x=driven wheels) | | 1x/2 |
| 3.7 | Track width, rear | b11 (mm) | 1160 |

Dimensions

| | | | |
|------|---|--------------------|-----------------|
| 4.1 | Tilt of fork, forward/backward | α/β (°) | 4°/-2° |
| 4.2 | Height, mast extended | h1 (mm) | 3900 |
| 4.3 | Free lift | h2 (mm) | 3290 |
| 4.4 | Lift height | h3 (mm) | 9500 |
| 4.5 | Extended mast height | h4 (mm) | 10410 |
| 4.7 | Height of overhead guard (cab) | h6 (mm) | 2200 |
| 4.8 | Seat height | h7 (mm) | 960 |
| 4.10 | Height of support arms | h8 (mm) | 270 |
| 4.15 | Height of lowered forks | h13 (mm) | 40 |
| 4.19 | Overall length | l1 (mm) | 2475 |
| 4.20 | Length to face of forks | l2 (mm) | 1325 |
| 4.21 | Overall width | b1 (mm) | 1270 |
| 4.22 | Fork dimensions | s/e/l (mm) | 40/120/1150 |
| 4.23 | Fork carriage ISO 2328, class/type A, B | | 2/A |
| 4.25 | Width across forks | b5 (mm) | 200-740/200-818 |
| 4.26 | Distance between support arms | b4 (mm) | 900 |
| 4.28 | Reach distance | l4 (mm) | 485 |
| 4.31 | Ground clearance, with load, below mast | m1 (mm) | 90 |
| 4.32 | Ground clearance, centre of wheelbase | m2 (mm) | 75 |
| 4.33 | Aisle width for pallets 1000 x 1200 crossways | Ast(mm) | 2770 |
| 4.34 | Aisle width for pallets 800 x 1200 lengthways | Ast(mm) | 2820 |
| 4.35 | Turning radius | Wa (mm) | 1650 |
| 4.37 | Length across support arms | l7 (mm) | 1780 |

Performance data

| | | | |
|------|--------------------------------------|------|--------------------|
| 5.1 | Travel speed, with/without load | km/h | 10.5/10.5 |
| 5.2 | Lift speed, with/without load | m/s | 0.4/0.5 |
| 5.3 | Lowering speed, with/without load | m/s | 0.45/0.45 |
| 5.4 | Reach speed, with/without load | m/s | 0.1/0.1 |
| 5.8 | Max. gradeability, with/without load | % | 10/15 |
| 5.10 | Service brake | | Hydraulic/electric |

Electric motor

| | | | |
|-----|--------------------------------------|------|--------|
| 6.1 | Drive motor rating S2 60 min | kW | 6.4 |
| 6.2 | Lift motor rating S3 15% | kW | 12.5 |
| 6.4 | Battery voltage, nominal capacity K5 | V/Ah | 48/350 |
| 6.5 | Battery weight | kg | 250 |

Other

| | | | |
|-----|--|-------|----|
| 8.1 | Type of drive control | | AC |
| 8.4 | Sound level at the driver's ear according to EN 12 053 | dB(A) | 68 |