RT 16Li

Lithium battery reach truck

Robust Design

High-performance lithium battery

Cost-effective

Capacity 1600Kg

Easy Maintenance

Low noise

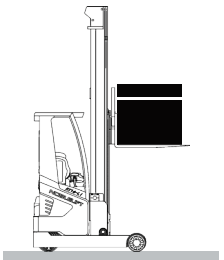
Lithium battery ride-on reach truck RT16Li with unique design. The cabin adopts four columns to penetrate the frame which is both beautiful and safe. Wide field of vision and driving space along with high elastic shock-absorbing seats provide a unique driving pleasure.

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.

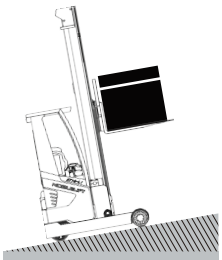
Suspension seat
The highly elastic shock-absorbing seat greatly reduces the transmission of vibration to the driver. At the same time, the combination of the automotive-grade bionic curved backrest can effectively reduce the driver's driving fatigue; the seat can be adjusted in multiple positions to 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.

High performance guarantees high efficiency

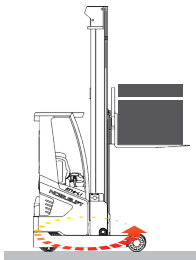
The AC variable frequency speed control technology enables the driving, hoisting, and steering drive to realize stepless closed-loop speed control, which is accurate and reliable. Electro-hydraulic proportional control system, good fretting performance, more stable work and more precise control.



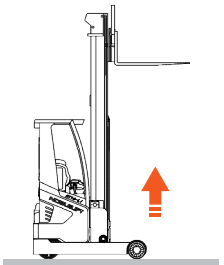
The driving speed 10.5km/h



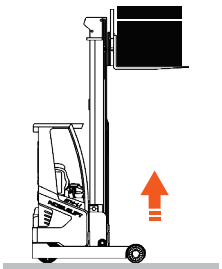
The maximum grad-ability with full load10%



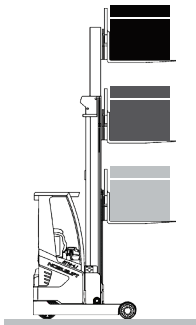
The turning radius only 1650mm



Unload lifting speed 0.5m/s



Full load lifting speed 0.4m/s



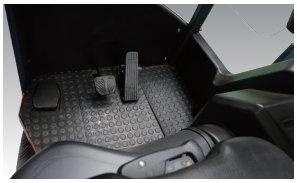
High capacity at high position

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.



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

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 needs of different heights and figures.

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

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.

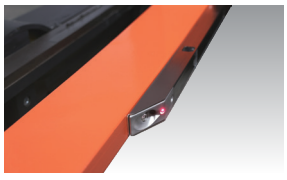
Motor current detection control:
Prevent the motor from being damaged due to excessive motor current.

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-FRIENFLY 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

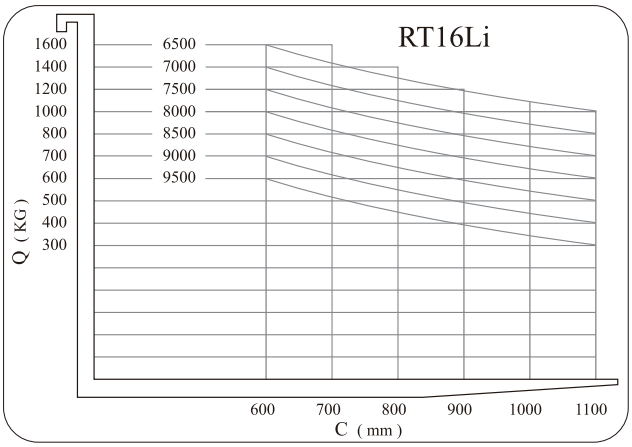
- Lithium battery reduces 35% energy consumption, requires no specified charging area and exempts from cost for battery maintenance. It saves space, requires no device to be taken out of truck as well as additional ventilation and liquid filling device.
- The power lithium battery system is composed 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.

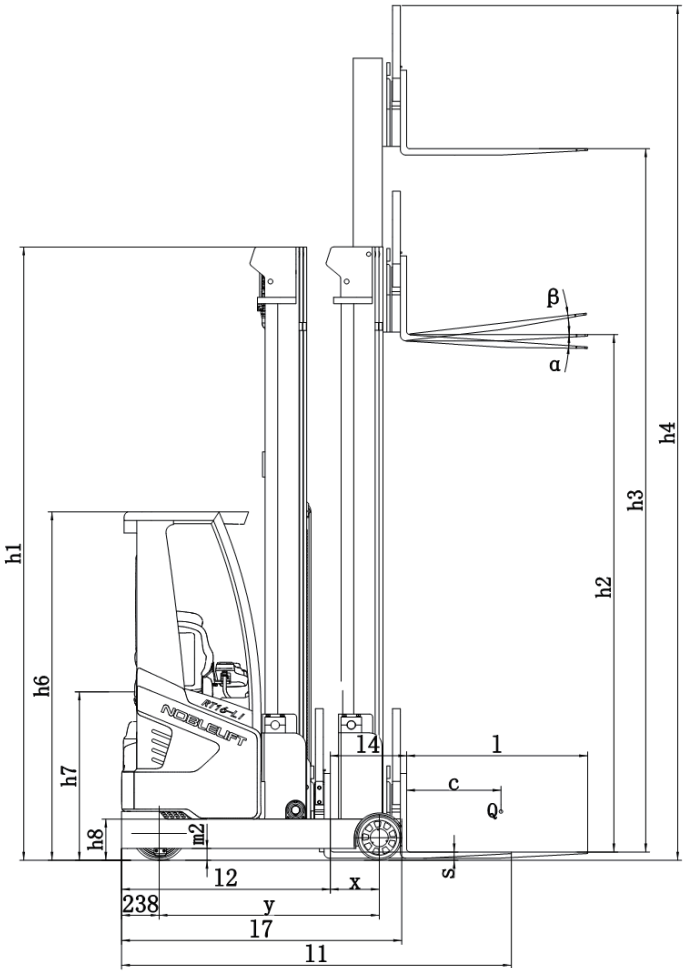
Mast Table （VDI2198）

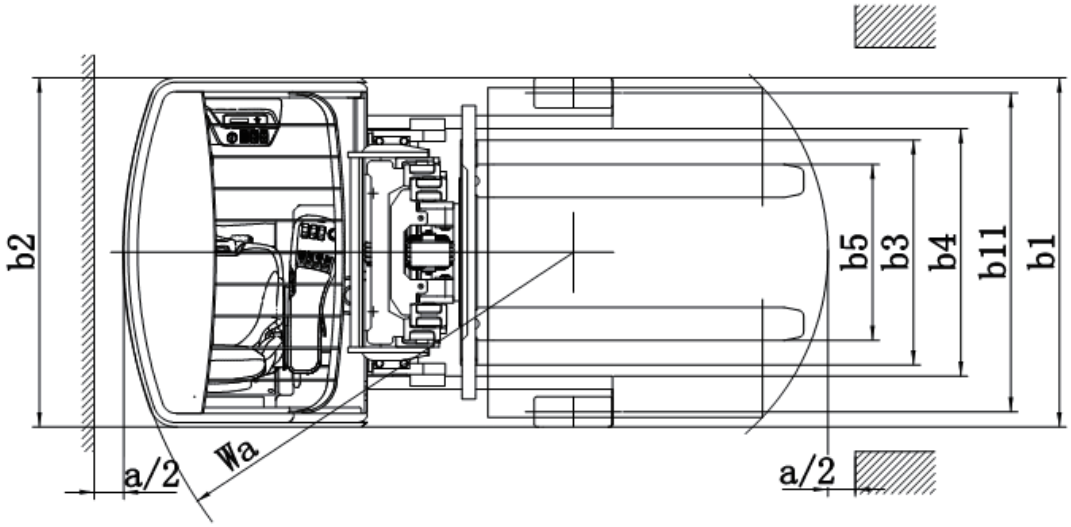
Lift	h3	4500	5000	5500	6000	6500	7000	7500	8000
Height of mast, lowered	h1	2235	2400	2568	2735	2900	3068	3234	3400
Height of mast, extended	h4	5410	5910	6410	6910	7410	7910	8410	8910
Free lift	h2	1563	1730	1897	2063	2230	2397	2563	2730

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

1KG=2.2LB 1INCH=25.4MM

	Identification		
1.2	Manufacturer's type designation		RT16Li
1.3	Drive:electric(battery or mains),diesel,petrol gas,manual)		electric
1.4	Type of operation(hand,pedestrian,standing,seated,order-picker)		seated
1.5	Load capacity/rated load	Q(kg)	1600
1.6	Load centre distance	c(mm)	600
1.8	Load distance,centre of drive axle to fork	x(mm)	310/174
1.9	wheelbase	y(mm)	1400
	Weights		
2.1	Service weight incl. 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、Chassis		
3.1	Type:solid rubber,superelastic,pneumatic,polyurethane		pu
3.2	Tyres size,front	∅xw (mm)	∅343×140
3.3	Tyres size,rear	∅xw (mm)	∅285×110
3.5	Wheels,number front/rear(×=driven wheels)		1×/2
3.7	Track width,rear	b11(mm)	1160
	Basic Dimemsions		
4.1	Mast/fork carriage tilt forward/backward	α/β(°)	4°/-2°
4.2	lowered mast height	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	Overhead load guardheight	h6(mm)	2200
4.8	Seat height/standing 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)	35/100/1150
4.23	Fork carriage ISO 2328, class/type A, B		2A
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 ,laden,under mast	m1(mm)	90
4.32	Ground clearance,centre of wheelbase	m2(mm)	75
4.33	Aisle width for pallets 1000×1200 crossways	Ast(mm)	2770
4.34	Aisle width for pallets 800×1200 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,laden/unladen	km/h	10.5/10.5
5.2	Lift speed,laden/unladen	m/s	0.4/ 0.5
5.3	lowering speed,laden/unladen	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
	E-Motor		
6.1	Drive motor rating S2 60 min	kW	6.4/7
6.2	Lift motor rating at S3 15%	kW	12.5
6.4	Battery voltage,nominal capacity K5	V/Ah	48/350
6.5	Battery weight	kg	250
	Other Details		
8.1	Type of drive control		AC
8.4	Sound level at driver's ear according to EN 12 053	dB(A)	68