



Forklift



CHANGE YOUR MIND
NOT YOUR BATTERY

RTR10i/12i/14i/16i/20i/25i

BYD REACH TRUCK

(1000kg/1200kg/1400kg/1600kg/2000kg/2500kg)

 Lithium /  8 YRS 15,000HRS Battery Warranty / BYD Iron-Phosphate

Core Technology

With many years of experience and innovation, BYD has the most reliable battery technology.

BYD started as a battery manufacturer, producing its first battery in 1997. Currently, BYD batteries are widely applied to passenger vehicles, cabs, buses, coaches, logistic vehicles, sanitation trucks and other commercial vehicles. In order to

accomplish that, we believe in technology innovation and rigorous production processes. BYD batteries have been road-proven in over 1.7 million new energy passenger cars and over 70,000 electric buses around the world.

We are constantly refining our manufacturing, pack design and interconnection hardware to further enhance the battery safety profile. Samples from each batch must pass rigorous impact, collision, vibration and external fire testing before being released for electric vehicle integration.



BYD Iron-Phosphate technology

BYD Iron-Phosphate electric forklift batteries are a major revolution for the industry. A solution for the present and future, synonymous with savings, sustainability, cleanliness, safety and care for the environment.



The BYD battery revolution

BYD has accumulated vast experience to predict and respond to global sustainability challenges. Currently, BYD's patented BYD Iron-Phosphate batteries have been used in over 40 vehicle models, including passenger, commercial, and off-highway vehicles.

Compared to equivalent equipment powered by traditional lead acid batteries, BYD batteries require no maintenance, have a shorter charge time, a longer working life, and use up to 40% less energy. Combined with BYD's intelligent chargers, charging from empty to full can be achieved in under an hour, providing comfortably enough charge for a full eight-hour shift. Furthermore, BYD batteries can be topped-up during short breaks in operations, thus guaranteeing maximum uptime at the lowest-possible cost.

Unlike other Lithium-ion batteries featuring on competitors' forklifts, BYD designs, develops and manufactures its own batteries and chargers, meaning the entire energy ecosystem is optimised to offer maximum performance for your investment.

BYD Iron-Phosphate Battery

Savings

No battery changes, no maintenance, no distilled water or charger room, and with an energy consumption which is well below average.

Sustainable

No pollution from heavy metals or corrosive acid, making BYD Iron-Phosphate batteries the most ecologically friendly on the market.

Safety

No risk of explosion or fire, no flammable gases emissions, nor harm to the health of your employees.

Opportunity Charging

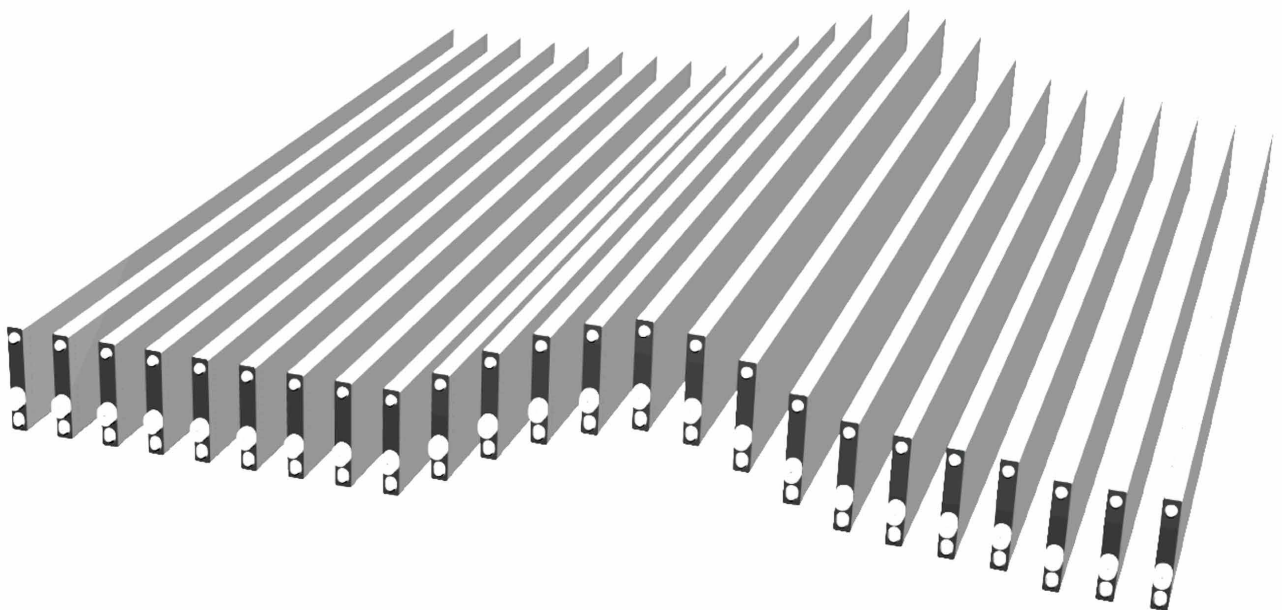
Battery can be partially topped up frequently e.g. during lunch break with no detriment to battery life or capacity.

Long life

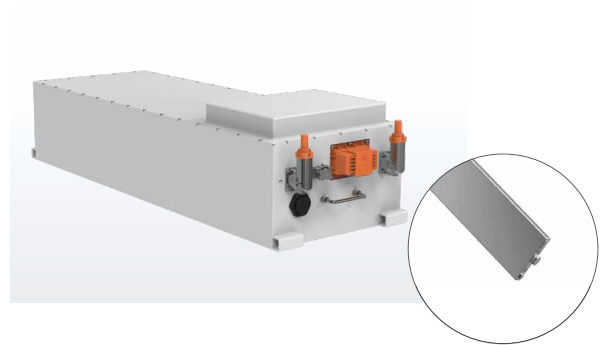
Unrivaled industrial leading warranty 8 year/15,000 hours thanks to BYD active battery protection system standard in 1.5 GEN models.

Fast-Charging

Charging power up to 16kW, with possibility to reduce charging time down to 1 hour, as compared to 8-12 hours charging time for lead acid batteries.



RTR10i/12i/14i/16i/20i/25i



Blade battery

- Based on BYD's strong battery research and development ability, the new forklift is matched with re-design blade batteries. The battery design fully focuses on forklift special operating conditions, making safety and longer warranty possible;
- At the same time, the benefits of blade batteries bring an IP67 protection level and smaller size; This provides a very excellent view in front of the new forklift, increasing it by 20%.

Latest-version chassis

- Developed through integrated, platformized, and serialized chassis, while providing 5 versions of reach trucks; Covering the whole conditions of reach truck;
- 1.0T-1.2T smaller aisle width and flexible turning radius, suitable for narrow tunnel operations;
- 1.4T-1.6T: with comprehensive parameter performance, suitable for the majority of working conditions;
- 2.0T-2.5T: with a larger load and a higher mast, which can reach to 13.0 m; Professional design of OHG makes cabin development more friendly; Top tempered glass optional, improving operational visibility and making user-friendly.

Smart design

- The new forklift is highly user-friendly and intelligently designed, for instance: a four-way adjustable steering wheel, easy on two-stage loading pedals, and abundant storage space.
- The 7-inch integrated display has expanded some diagnostic fault functions and image display functions; There are also a variety of intelligent options, including high position pre-selection, high position speed limit, Fork camera, and fork infrared light reminder.

RTR10i/12i/14i/16i Reach Truck Specifications

Identification	1.1	Manufacturer		BYD	BYD	BYD	BYD
	1.2	Model		RTR10i	RTR12i	RTR14i	RTR16i
	1.3	Drive		Electric	Electric	Electric	Electric
	1.4	Operator type		Seat	Seat	Seat	Seat
	1.5	Rated capacity	Q (kg)	1000	1200	1400	1600
	1.6	Load center	C (mm)	600	600	600	600
	1.7	Load distance, center of drive axle to fork	X (mm)	190/198	190/253	190/298	190/343
	1.8	Wheelbase	y (mm)	1275	1330	1380	1430
Weights	2.1	Net weight including battery	(kg)	3483	3490	3600	3615
	2.2	Axle loading, fork advanced, unladen front/rear	(kg)	1489/1994	1501/1989	1521/2079	1537/2078
	2.3	Axle loading, fork retracted, unladen front/rear	(kg)	1985/1498	2043/1447	2132/1468	2183/1432
	2.4	Axle loading, fork advanced, laden front/rear	(kg)	870/3613	788/3902	689/4311	620/4595
	2.5	Axle loading, fork retracted, laden front/rear	(kg)	1669/2814	1730/2960	1801/3199	1869/3346
Wheels	3.1	Wheel type		PU	PU	PU	PU
	3.2	Tyre size, front	(mm)	Ø343x136	Ø343x136	Ø343x136	Ø343x136
	3.3	Tire size, rear	(mm)	Ø285x100	Ø285x100	Ø285x100	Ø285x100
	3.5	Wheels, number front rear (x=driven wheels)		1x/2	1x/2	1x/2	1x/2
	3.7	Tread width, rear	b11 (mm)	1182	1182	1182	1182
Basic Dimensions	4.1	Tilt of mast/fork carriage forward/backward	α / β (°)	2/4	2/4	2/4	2/4
	4.2	Mast height (lowered)	h1 (mm)	3111	3111	3496	3496
	4.3	Free lift	h2 (mm)	2401	2401	2296	2296
	4.4	Lift height	h3 (mm)	7200	7200	8500	8500
	4.5	Extended mast height	h4 (mm)	8446	8446	9746	9746
	4.7	Height of overhead guard	h6 (mm)	2200	2200	2200	2200
	4.8	Seat height/standing height	h7 (mm)	1100	1100	1100	1100
	4.9	height of support arms	h8 (mm)	305	305	305	305
	4.11	Overall length	l1 (mm)	2467	2467	2472	2477
	4.12	Length to face of forks	l2 (mm)	1317	1317	1322	1327
	4.13	Overall width	b1/b2 (mm)	1270/1282	1270/1282	1270/1282	1270/1282
	4.14	Fork dimensions	s/e/l	35/100/1150	35/100/1150	40/100/1150	45/100/1150
	4.15	Fork carriage ISO 2328, class/type A, B		2A	2A	2A	2A
	4.16	Fork carriage width	b3 (mm)	730	730	730	730
	4.17	Width across forks	b5 (mm)	210/710	210/710	210/710	210/710
	4.18	Width between support arms/loading areas	b4 (mm)	930	930	930	930
	4.19	Reach distance	l4 (mm)	388	443	488	533
4.20	Ground clearance, under the mast	m1 (mm)	76	76	76	76	
4.21	Ground clearance, center of wheelbase	m2 (mm)	80	80	80	80	
4.22	Aisle width for pallets 1000×1200 crossways	Ast (mm)	2716	2728	2743	2759	
4.23	Aisle width for pallets 800×1200 lengthways	Ast (mm)	2794	2798	2806	2816	
4.24	Turning radius	Wa (mm)	1515	1570	1620	1670	
4.25	Length across support arms	l7 (mm)	1665	1720	1770	1820	
Performance Data	5.1	Travel speed, with/without load	(km/h)	14/14	14/14	14/14	14/14
	5.2	Lift speed, with/without load	(mm/s)	550/700	500/700	450/700	400/700
	5.3	Lowering speed, with/without load	(mm/s)	550/500	550/500	550/500	550/500
	5.4	Max reaching speed, with/without load	(mm/s)	180/180	180/180	180/180	180/180
	5.4a	Mast retracting speed, with/without load	(mm/s)	180/180	180/180	180/180	180/180
	5.5	Max. gradeability, with/without load	%	10/15	10/15	10/15	10/15
5.6	Service brake		Hydraulic/Mechanic	Hydraulic/Mechanic	Hydraulic/Mechanic	Hydraulic/Mechanic	
Motor	6.1	Drive motor, S2-60 minute/Max. rating	(kW)	6.8	6.8	6.8	6.8
	6.2	Lift motor, S2-60 minute/Max. rating	(kW)	12	12	12	14.8
	6.3	Steering motor, S2-60 minute/Max. rating	(kW)	0.75	0.75	0.75	0.75
	6.4	Battery voltage/kwh	(v/kwh)	80/21.6	80/21.6	80/21.6	80/21.6
	6.5	Battery weight	(kg)	350	350	350	350
	6.6	Battery type		Blade battery	Blade battery	Blade battery	Blade battery
Others	7.1	Type of drive control		AC	AC	AC	AC
	7.2	Available Working pressure for attachments	(bar)	200	200	200	200
	7.3	Noise level at operator's ear	dB(A)	≤70	≤70	≤70	≤70

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RTR20i/25i Reach Truck Specifications

Identification	1.1	Manufacturer		BYD	BYD
	1.2	Model		RTR20i	RTR25i
	1.3	Drive		Electric	Electric
	1.4	Operator type		Seat	Seat
	1.5	Rated capacity	Q (kg)	2000	2500
	1.6	Load center	C (mm)	600	600
	1.7	Load distance, center of drive axle to fork	X (mm)	220/380	220/420
	1.8	Wheelbase	y (mm)	1520	1670
Weights	2.1	Net weight including battery	(kg)	4500	4755
	2.2	Axle loading, fork advanced, unladen front/rear	(kg)	1678/2822	1763/2992
	2.3	Axle loading, fork retracted, unladen front/rear	(kg)	2599/1901	2743/2012
	2.4	Axle loading, fork advanced, laden front/rear	(kg)	595/5905	535/6720
	2.5	Axle loading, fork retracted, laden front/rear	(kg)	2306/4194	2473/4782
Wheels	3.1	Wheel type		PU	PU
	3.2	Tyre size, front	(mm)	Ø343x136	Ø343x136
	3.3	Tire size, rear	(mm)	Ø350x100	Ø350x100
	3.5	Wheels, number front rear (x=driven wheels)		1x/2	1x/2
	3.7	Tread width, rear	b11 (mm)	1182	1182
Basic Dimensions	4.1	Tilt of mast/fork carriage forward/backward	$\alpha/\beta(^{\circ})$	2/4	2/4
	4.2	Mast height (lowered)	h1 (mm)	4646	4646
	4.3	Free lift	h2 (mm)	3446	3446
	4.4	Lift height	h3 (mm)	11500	11500
	4.5	Extended mast height	h4 (mm)	12746	12746
	4.7	Height of overhead guard	h6 (mm)	2200	2200
	4.8	Seat height/standing height	h7 (mm)	1100	1100
	4.9	height of support arms	h8 (mm)	370	370
	4.11	Overall length	l1 (mm)	2530	2640
	4.12	Length to face of forks	l2 (mm)	1380	1490
	4.13	Overall width	b1/b2 (mm)	1270/1282	1270/1282
	4.14	Fork dimensions	s/e/l	45/100/1150	45/100/1150
	4.15	Fork carriage ISO 2328, class/type A, B		2A	2A
	4.16	Fork carriage width	b3 (mm)	730	730
	4.17	Width across forks	b5 (mm)	210/710	210/710
	4.18	Width between support arms/loading areas	b4 (mm)	930	930
	4.19	Reach distance	l4 (mm)	600	640
4.20	Ground clearance, under the mast	m1 (mm)	76	76	
4.21	Ground clearance, center of wheelbase	m2 (mm)	76	76	
4.22	Aisle width for pallets 1000×1200 crossways	Ast (mm)	2823	2944	
4.23	Aisle width for pallets 800×1200 lengthways	Ast (mm)	2872	2986	
4.24	Turning radius	Wa (mm)	1760	1910	
4.25	Length across support arms	l7 (mm)	1940	2090	
Performance Data	5.1	Travel speed, with/without load	(km/h)	14/14	14/14
	5.2	Lift speed, with/without load	(mm/s)	350/550	350/550
	5.3	Lowering speed, with/without load	(mm/s)	500/450	500/450
	5.4	Mast reaching speed, with/without load	(mm/s)	180/180	180/180
	5.4a	Mast retracting speed, with/without load	(mm/s)	180/180	180/180
	5.5	Max. gradeability, with/without load	%	10/15	10/15
	5.6	Service brake		Hydraulic/Mechanic	Hydraulic/Mechanic
Motor	6.1	Drive motor, S2-60 minute/Max. rating	(kW)	6.8	6.8
	6.2	Lift motor, S2-60 minute/Max. rating	(kW)	14.8	14.8
	6.3	Steering motor, S2-60 minute/Max. rating	(kW)	0.75	0.75
	6.4	Battery voltage/kwh	(v/kwh)	80/21.6	80/21.6
	6.5	Battery weight	(kg)	350	350
	6.6	Battery type		Blade battery	Blade battery
Others	7.1	Type of drive control		AC	AC
	7.2	Available Working pressure for attachments	(bar)	200	200
	7.3	Noise level at operator's ear	dB(A)	≤70	≤70

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RTR10i/12i/14i/16i/20i/25i MAST TABLE

- h3** Lifting Height (mm)
h2 Full Free Lift Height (mm) (Load Backrest 1000mm)
h1 Height, Mast Fully Lowered (mm)
h4 Height, Mast Fully Extended (mm) (Load Backrest 1000mm)
 α Tilt Forward
 β Tilt Backward

Mast spec (mm)	h3	h2 (with backrest)	h1	h4	α	β	MAST OPTION					
							RTR10i	RTR12i	RTR14i	RTR16i	RTR20i	RTR25i
2-stage Standard Mast	2700	45	1971	3946	2°	4°	●	●	●	●	●	●
	3000	45	2121	4246	2°	4°	●	●	●	●	●	●
	3500	45	2371	4746	2°	4°	●	●	●	●	●	●
	3800	45	2521	5046	2°	4°	●	●	●	●	●	●
	4000	45	2621	5246	2°	4°	●	●	●	●	●	●
	4500	45	2871	5746	2°	4°	●	●	●	●	●	●
	4800	45	3021	6046	2°	4°	●	●	●	●	●	●
	5000	45	3121	6246	2°	4°	●	●	●	●	●	●
3-stage FFL Mast	4800	1401	2261	6046	2°	4°	●	●	●	●	●	●
	5100	1501	2361	6346	2°	4°	●	●	●	●	●	●
	5550	1651	2511	6796	2°	4°	●	●	●	●	●	●
	6450	1951	2811	7696	2°	4°	●	●	●	●	●	●
	6750	2151	2961	7996	2°	4°	●	●	●	●	●	●
	7200	2301	3111	8446	2°	4°	●	●	●	●	●	●
	7650	2451	3261	8896	2°	4°	●	●	●	●	●	●
	8100	2601	3411	9346	2°	4°	○	○	●	●	●	●
	8500	2641	3496	9746	2°	4°	○	○	●	●	●	●
	9000	2891	3746	10246	2°	4°	○	○	●	●	●	●
	9500	3041	3896	10746	2°	4°	○	○	●	●	●	●
	10000	3165	4096	11246	2°	4°	○	○	○	●	●	●
	10500	3315	4246	11746	2°	4°	○	○	○	●	●	●
	11000	3565	4471	12246	2°	4°	○	○	○	●	●	●
	11500	3765	4646	12746	2°	4°	○	○	○	●	●	●
	12000	3765	5046	13246	2°	4°	○	○	○	○	○	●
12500	3965	5221	13746	2°	4°	○	○	○	○	○	●	
13000	4165	5396	14246	2°	4°	○	○	○	○	○	●	

Note: Forward and backward tilt refers to the tilt of the fork carriage. ● - available ○ - Not available

LOAD CAPACITY

RTR10i	with integral sideshifter			with hook-on sideshifter		
Q	1000	1000	900	1000	1000	850
H3	3300	7200	7650	3300	7200	7650
Lc	600	600	600	600	600	600

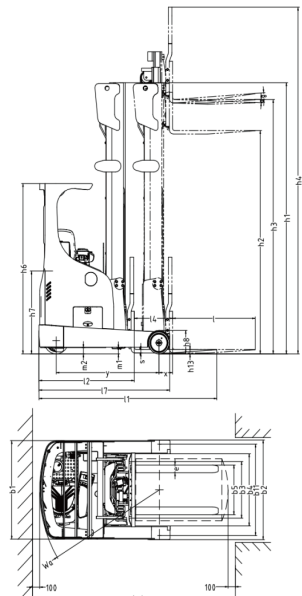
RTR12i	with integral sideshifter			with hook-on sideshifter		
Q	1200	1200	1000	1200	1200	950
H3	3300	7200	7650	3300	7200	7650
Lc	600	600	600	600	600	600

RTR14i	with integral sideshifter				with hook-on sideshifter			
Q	1400	1400	1100	800	1400	1400	1050	750
H3	3300	6500	8500	9500	3300	6500	8500	9500
Lc	600	600	600	600	600	600	600	600

RTR16i	with integral sideshifter				with hook-on sideshifter			
Q	1600	1200	900	750	1600	1150	850	700
H3	6500	8500	10000	11500	6500	8500	10000	11500
Lc	600	600	600	600	600	600	600	600

RTR20i	with integral sideshifter				with hook-on sideshifter			
Q	2000	1500	1100	950	2000	1450	1050	900
H3	6000	8500	10000	11500	6000	8500	10000	11500
Lc	600	600	600	600	600	600	600	600

RTR25i	with integral sideshifter				with hook-on sideshifter			
Q	2500	1700	1350	1200	2500	1650	1300	1150
H3	3500	8500	10000	11500	3500	8500	10000	11500
Lc	600	600	600	600	600	600	600	600





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BYD forklifts conform to the European Safety Requirements

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