# TECHNOLOGICAL • INNOVATIONS • FOR A BETTER LIFE

# BYD FORKLIFT

NEW ENERGY FORKLIFT LEADER

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Remodel the business environment with technology revolution







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#### PRODUCUCT RANGE

Light & Medium Duty Counterbalance Forklift

Heavy Duty Counterbalance

Reach Truck

Pallet Stacker

**Logistics Robotics** 

Pallet Truck

**Towing Tractor** 

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INTRODUCTION TO BYD

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INTRODUCTION TO BYD FORKLIFT
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# **ABOUT BYD**

BYD Company Limited, listed on both the Hong Kong and the Shenzhen Stock Exchanges, is a high-tech enterprise specializing in fourindustries: electronics, automobile, new energy and rail transit. Founded in February 1995, BYD started out in the rechargeable battery business. While matching into the automobile industry, we started operating in the renewable energy industry in 2003. In October 2016, BYD ventured into the light rail industry. Currently BYDcompany has 40 production bases globally with a total employee number around 400,000.

#### **TECHNOLOGY BASED, INNOVATION ORIENTED**

BYD always adhered to the development concept of "Technology Based, Innovation Oriented", and has achieved comprehensive development by R&D strength and innovative development model.

40,000+

R & D personnel

11 SEATS

**R&D** Institute

38,000

patent application

26,000

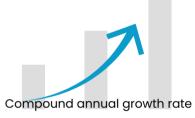
Patents

#### **GROUP REVENUE**

2023 Revenue

**602** billion

43%



#### **SOCIAL RESPONSIBILITY**

From pollution control to congestion control Byd provides innovative technologies and solutions to reduce global warming

35,088,923 kg

Approximately reduce carbon dioxide emissions every day

**2,924,077** tree

Equivalent

#### **CORPORATE HONOR**



2016 Zayed Future Energy Prize



BYD President Mr. Wang. Chuanfu was mentioned as "Stars of Asia" by Business Week



Mentioned as "the 51 companies that changes the world" by Fortune



United Nations' special award for energy



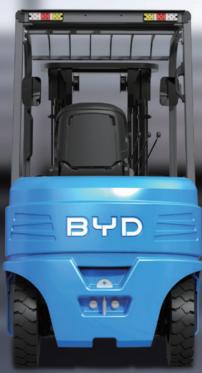
2016 International forklift of the Year



#### **ABOUT BYD FORKLIFT GROUP**

BYD forklift is a significant part of the BYD new energy "seven plus four' market strategy. Based on intensive new energy technology, motivated with passionate innovation spirit, steering market direction accurately, BYD forklift has developed the new energy material handling equipment series like like counterbalance forklift, reach truck, pallet truck, stacker, tractor and automatic guided vehicle, etc. Being the leading company in lithium battery forklift industry,BYD forklift has changed the using habit and business model in traditional forklift industry. We have brought disruptive innovation to the industry, which has risen the green revolution of new energy to the industry.











# **BYD FORKLIFT**

**NEW ENERGY FORKLIFT LEADER** 

10+

years of experience in the forklift industry

40+

Spread across more than 40 countries and regions around the world 200+

More than 200 cities around the world

3500+

more than 3,500 customers

100000+

10,0000+lithium battery forklifts in stock by 2023

# **DEVELOPMENT HISTORY**

2020-11 2022-11 2009-2022 In November 2020, BYD counter-BYD forklift second-generbalanced Automated guided ation product offline vehicles (AGVs) released. 2016-11 BYD forklift was awarded first"China Industrial Truck Innovation Award"(CITIA) 2016-06 BYD forklift was awarded 2014-05 the international forklift of the Year (IFOY) as first Chinese forklift brand. BYD new forklift attended CeMAT exhibition in Germany, got into European market officially. 2011-01 BYD The first 2.0 ton electric counterbalance forklift was completed. 2021-11 2017-09 2015-09 In November 2021 the 75,000th BYD forklift was awarded BYD forklift rolled off the "China Industrial Truck Innovation Award"(CITIA) gold production line. BYD forklift launched in 2013-08

2009-11

BYD 3.5 ton ECB forklift was

completed in Shaoguan.

BYD(Shaoguan)co.,Ltd was established.

Australian market & Japanese

# GLOBAL OPERATION NETWORK





Manufacturing Sites



27
Branches

12

BYD forklift has established global network and high standard after-sale service team, which could offer our customer with satisfying efficient one-stop service.

Based on the strong global operation network of BYD group, after nearly 10 years' originality creation and concentration operation, BYD forklift has spread its market all around China and gotten in many oversea markets in Germany, Netherlands, Belgium, U.S.A., Brazil, Singapore, Japan and Korea, etc., covering six continents of the world.

# **REFORM THE INDUSTRY** WITH EXCELLENT **TECHNOLOGY**

Remodel the business environment with technology revolution



#### **GLOBAL LEADING BATTERY PRODUCTION APPLICATION CAPABILITY**

BYD is a global manufacturer of lithium iron phosphate batteries with huge production capacity, strong technological innovation capabilities, and 100% independent research and development, design, and production capabilities. Lithium batteries are widely used in various consumer electronics products and new intelligent products, maintaining the sales champion of domestic power batteries for three consecutive years. BYD also has nine major production bases with nearly 400000 employees, has been deeply involved in the battery industry for over 25 years, and has shipped over 5 billion batteries.

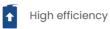




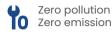


#### **BYD LITHIUM BATTERIES ADVANTAGE**











Opportunity charging





#### BYD LITHIUM BATTERY MEETS THE FOLLOWING CRITERIA













UL 1642







#### 1+1+1>3





Management System





#### **TECHNOLOGY INTEGRATION**

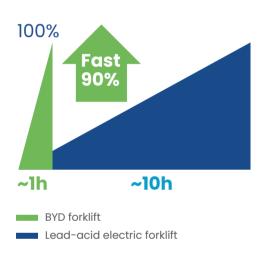
Battery + BMS + charger three perfect integration, in-depth matching, non-successive synergies, forming an inseparable whole, to play 1 + 1 + 1 > 3 integration strength, the product advantage embodied to the fullest!

# CREATE VALUE FOR CUSTOMERS WITH EXCELLENT TECHNOLOGY

BYD has all the technical genes to develop and manufacture high-quality electric forklifts.

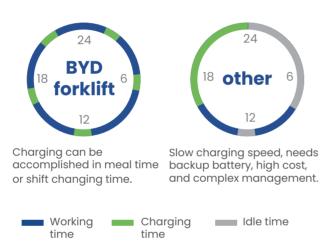
#### **CHARGE**

The disruptive battery and fast charging technology can reduce charging time by up to 90%.



#### **OPPORTUNITY CHARGING**

Fast charging makes vehicle gapless working possible, shorten the waiting time and increase efficiency in large extent.



#### **SUPER LONG WORKING LIFE**

BYD lithium battery could repeat 4000 circles while keep the capacity of 65% in normal charge - discharge condition, with a working life that reaches 10 years.

#### Battery consumption for 10 years



### STRONG POWER, WHICH COULD COMPETE WITH FUEL FORKLIFT

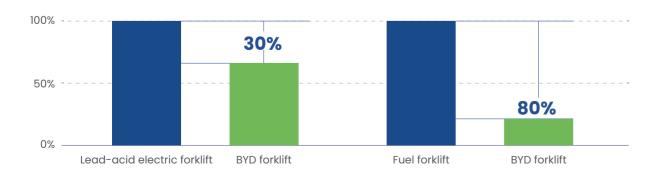
NO matter what kinds of harsh working conditions, BYD forklift can deal with easily.

#### Dynamic parameter comparison

	BYD forklift	Lead-acid electric forklift
Max.gradeability, with/without load	15%-20%	10%-15%
Travel speed with/without load	15-20 km/h	10%-15%
Lifting speed with/without load	400-450 mm/s	300%-350%

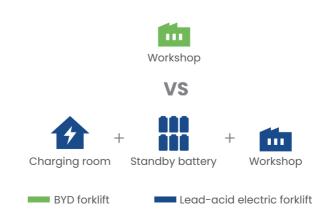
#### **LOW OVERALL COST**

According to five years of data tracking, BYD forklifts can save up to 80% of the total cost compared with fuel forklifts, and 30% compared with Lead-acid electric forklift, in terms of detailed statistics on work shifts, shift times, loading conditions, maintenance costs, and purchasing costs.



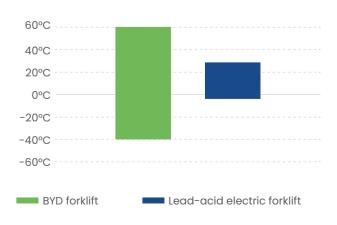
#### NO NEED FOR CHARGINGROOM

No need for charging room, electrolyte or backup battery.BYD forklift could deal with any working condition.



#### SUITABLE FOR COLD STORAGE OPERATION

After passing the extreme test of low temperature  $-40\,\mathrm{C}$ , the battery performance is still excellent, and can easily adapt to the needs of cold storage operations



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# COMPLETE PRODUCT RANGE

BYD FORKLIFT IS ABLE TO DEAL WITH ANY WORKING CONDITION WITH ITS PRODUCT

# G series small and medium-sized tonnage balance weight



#### ECB16S-B/ECB16S-C

Load: 1.6T Weight: 3340KG Turning radius: 1860mm Voltage: 80V Capacity: 270Ah



#### ECB18S-B/ECB18S-C

Load: 1.8T Weight: 3490KG Turning radius: 1860m Voltage: 80V Capacity: 270Ah



#### ECB16D-B/ECB16D-C

Load: 1.6T Weight: 3150KG Turning radius: 1820mm Voltage: 80V Capacity: 270Ah



#### ECB18D-B/ECB18D-C

Load: 1.8T Weight: 3300KG Turning radius: 1820mm Voltage: 80V Capacity: 270Ah



#### ECB35B/ECB35C

Load: 3.5T Weight: 5500KG Turning radius: 2210mm Voltage: 80V Capacity: 540Ah



#### ECB20D/ECB20E

Load: 2.0T Weight: 3620KG Turning radius: 2020mm Voltage: 80V Capacity: 270Ah



#### ECB25D/ECB25E

Load: 2.5T Weight: 4220KG Turning radius: 2020mm Voltage: 80V Capacity: 270Ah



#### ECB30D/ECB30E

Load: 3.0T Weight: 5270KG Turning radius: 2270mm Voltage: 80V Capacity: 540Ah



#### ECB20B/ECB20C

Load: 2.0T Weight: 3600KG Turning radius: 2020mm Voltage: 80V Capacity: 270Ah



#### ECB25B/ECB25C

Load: 2.5T Weight: 4200KG Turning radius: 2020m Voltage: 80V Capacity: 270Ah



#### ECB27B/ECB27C

Load: 2.7T Weight: 4460KG Turning radius: 1895mm Voltage: 80V Capacity: 270Ah



#### ECB30B/ECB30C

Load: 3.0T Weight: 5180KG Turning radius: 2210mm Voltage: 80V Capacity: 540Ah



#### ECB35D/ECB35E

Load: 3.5T Weight: 5600KG Turning radius: 2270mm Voltage: 80V Capacity: 540Ah



#### ECB40B/ECB40C

Load: 4.0T Weight: 6750KG Turning radius: 2600mm Voltage: 80V Capacity: 810Ah



#### ECB45B/ECB45C

Load: 4.5T Weight: 7030KG Turning radius: 2600mm Voltage: 80V Capacity: 810Ah



#### ECB50B/ECB50C

Load: 5.0T Weight: 7350KG Turning radius: 2600mm Voltage: 80V Capacity: 810Ah

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# COMPLETE **PRODUCT RANGE**

BYD FORKLIFT IS ABLE TO DEAL WITH ANY WORKING CONDITION WITH ITS PRODUCT

#### **EL-PRO series small and medium-sized** tonnage balance weight



#### **EL20 PRO**

Load: 2.0T Weight: 3550KG Turning radius: 2110mm Voltage: 80V Capacity: 270/540Ah



#### **EL25 PRO**

Load: 2.5T Weight: 3800KG Turning radius: 2110mm Voltage: 80V Capacity: 270/540Ah



#### **EL30 PRO**

Load: 3.0T Weight: 4500KG Turning radius: 2440mm Voltage: 80V Capacity: 270/540Ah



#### ECB60C

Load: 6.0T Weight: 11800KG Turning radius: 3100mm Voltage: 80V Capacity: 1080Ah

**Reach Truck** 



#### ECB70C

**Heavy Duty Counterbalance Trucks** 

Load: 7.0T Weight: 12500KG Turning radius: 3100mm Voltage: 80V Capacity: 1080Ah



BYD

#### ECB80C

Load: 8.0T Weight: 13300KG Turning radius: 3100mm Voltage: 80V Capacity: 1080Ah



#### **EL35 PRO**

Weight: 4820KG Turning radius: 2440mm Voltage: 80V Capacity: 270/540Ah



#### **EL38 PRO**

Load: 3.8T Weight: 4960KG Turning radius: 2540mm Voltage: 80V Capacity: 270/540Ah



#### RTR16

Weight: 4070KG Turning radius: 1758mm Voltage: 80V Capacity: 270/340Ah



#### RTR20

Load: 2.0T Weight: 4170KG Turning radius: 1758mm Voltage: 80V Capacity: 270/340 Ah



#### R18PS

Load: 1.8T Weight: 2515G Turning radius: 1750mm Voltage: 48V Capacity: 210/420Ah



#### R15PS

Load: 1.5T Weight: 2375KG Turning radius: 1600mm Voltage: 48V Capacity: 210/420Ah

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# COMPLETE PRODUCT RANGE

BYD FORKLIFT IS ABLE TO DEAL WITH ANY WORKING CONDITION WITH ITS PRODUCT

# 20 EULE MACC PRODUCE TO THE

#### **Pallet stacker**



#### SZ14PS-G

Load: 1.4T Weight: 1220KG Turning radius: 1802mm Voltage: 24V Capacity: 210Ah



#### **S14PS**

Load: 1.4T Weight: 1180KG Turning radius: 1490mm Voltage: 24V Capacity: 210Ah



#### **S14JW**

Load: 1.4T Weight: 1200KG Turning radius: 1456mm Voltage: 24V Capacity: 210Ah



**Towingtractor** 

#### Q30TJS

Load: 3.0T Weight: 606KG Turning radius: 1013mm Voltage: 24V Capacity: 210Ah



#### **QD50**

Load: 5.0T Weight: 980KG Turning radius: 1580mm Voltage: 48V Capacity: 210Ah



#### **Q50TPS**

Load: 5.0T Weight: 1065KG Turning radius: 1164mm Voltage: 24V Capacity: 210Ah

#### **Pallet truck**



#### P20JW

Load: 2.0T Weight: 490KG Turning radius: 1515mm Voltage: 24V Capacity: 210Ah



#### P20PS

Load: 2.0T Weight: 650KG Turning radius: 1750mm Voltage: 24V Capacity: 210Ah



#### P20PS-U

Load: 2.0T Weight: 1650KG Turning radius: 1680mm Voltage: 24V Capacity: 210Ah



#### P20PS-B

Load: 2.0T Weight: 880KG Turning radius: 2200mm Voltage: 24V Capacity: 210Ah



#### **Q250LS**

Load: 25.0T Weight: 3750KG Turning radius: 3665mm Voltage: 80V Capacity: 540Ah



#### **Q250L**

Load: 25.0T Weight: 3750KG Turning radius: 3530mm Voltage: 80V Capacity: 540Ah



#### Q250L-01

Load: 25.0T Weight: 4230KG Turning radius: 3530mm Voltage: 80V Capacity: 540Ah

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# COMPLETE PRODUCT RANGE

BYD FORKLIFT IS ABLE TO DEAL WITH ANY WORKING CONDITION WITH ITS PRODUCT

#### **Logistics Robotics**



#### AR16P

Load: 1.6T Weight: 4200KG Turning radius: 1850mm Voltage: 80V Capacity: 270Ah



#### **AS14MPW**

Load: 1.4T Weight: 1200KG Turning radius: 1550mm Voltage: 24V Capacity: 210Ah



#### **ANS15**

Load: 1.5T Weight: 4200KG Turning radius: 1481mm Voltage: 24V Capacity: 210Ah



#### **AP20MPW**

Load: 2.0T Weight: 650KG Turning radius: 1740mm Voltage: 24V Capacity: 210Ah



#### **AQ30MPW**

Load: 3.0T Weight: 520KG Turning radius: 1260mm Voltage: 24V Capacity: 210Ah



#### AF10D

Load: 1.0T Weight: 230KG Turning radius: 600mm Voltage: 48V Capacity: 45Ah



#### AF06D

Load: 0.6T Weight: 200KG Turning radius: 525mm Voltage: 48V Capacity: 27Ah



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#### **CUSTOMIZED PRODUCTS**



#### **PAPERMAKING INDUSTRY**



#### **COLD-CHAIN INDUSTRY**



#### **AUTOMOBILE INDUSTRY**



#### **FEED INDUSTRY**



#### **SPECIAL CO**

# PROFESSIONAL CUSTOMIZATION SERVICE

#### **Customization service**

BYD forklift always focuses on customers usage experience. According to customer's industry and forklift's working condition, we provide our customers with precise customization service and complete solutions, satisfying their different necessity.





Optional finger-control system







Optional driving cab upgrade



Optional dual pedal



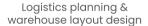


Optional electromagnetic











Vehicle management system



Material equipment evaluation & optimization



Automatic forklift solutions





External system



External equipment



Software



Robot



Charging cabinet

#### **EXTERNAL OBJECTS**



External system

- MES
   Manufacturing Execution
   System
- WMS
   Warehouse Management
   System



External equipment

- Elevator
- Automatic Door
- Roller Conveyor

#### **SOFTWARE**



Software

- RCS
  Robot Control System
- Vehicle motion control program
- Navigation and positioning core algorithm

  Naking and discussion discussions.
- Vehicle monitoring and diagnosis display screen program
- Host system and WCS system

#### **HARDWARE**









Charging cabinet

#### ROBOT SCHEDULING SYSTEM

A visual intelligent scheduling system can achieve multi vehicle joint debugging and rapid deployment. Fuctions are available, such as large-scale cluster scheduling, path planning, collision avoidance, real-time monitoring, task management, vehicle management, and data analysis. Our system are tightly integrated with MES, WMS, ERP and other systems, and are connected to the entire factory datachain, enabling us to quickly provide enterprises with intelligent manufacturing solutions.



# **DEVELOP** WITH CUSTOMERS



#### **OUR APPLICATIONS**



Food and Beverage Industry



Paper industry



Automobile and parts industry



Logistics industry



Household appliance production industry



Plate industry



Processing and manufacturing



Ceramics industry



Beer industry



The pharmaceutical industry



Airport Port Logistics



Wine industry



Feed industry



Household appliance



Drinking water industry

#### **INDOOR LOGISTICS COMPREHENSIVE SOLUTIONS**



#### **DEVELOP WITH CUSTOMERS**



























































# **LEADING THE INDUSTRY IN SERVICE REVOLUTION**

#### **HIGH QUALITY ASSURANCE STANDARDS**

Long-term quality insurance changes traditional business model of forklift industry Charging-room-free changes forklift management model BYD forklift applies the highest quality insurance standard: 2-year-long warranty for whole truck, 5-year-long warranty for battery

Super long quality insurance and low operation cost ensure the customer with great experience.





Low cost





1 year

2 year

Vehicle warranty



1 year

5 year

Other mainstream electric forklifts BYD forklift

#### ADAPT TO MULTIPLE WORK ENVIRONMENTS

No need for charging room, electrolyte or back up battery BYD forklift could deal with any working condition.





Charging room

Standby battery

Workshop

Workshop

Lead-acid electric forklift

BYD forklift



# **CUSTOMER FOCUS SERVICE PRINCIPLE**

- Comprehensive distribution
- Make service assurance always close to every customers.
- BYD forklift has established global network and high standard after-sale service team, which could offer our customer with satisfying efficient one-stop service.



#### CUSTOMER FOCUS SERVICE PRINCIPLE



Service system



Training system



LMS Training Academy



400 Smart Customer Service



400 intelligent customer service



Customer service center



DMS service system



Intelligent Wearing

#### ☐ EFFICIENT AND FAST PROCESSING **PLATFORM**

#### **400 SMART CUSTOMER SERVICE**

Deep concatenation. Various service before, during, and after sales Fully meet customer needs.





#### **BYD FDS**

Portable intelligent diagnostic app







#### **• INTELLIGENT WEARING**

Realizing real-time audio and video synchronization at the front-end.

Remote operation guidance Improving the timeliness of after-sales service.



Video surveillance



Electronic fence



Voice call



Personnel positioning

Mage acquisition Near electric warning



Drop alarm



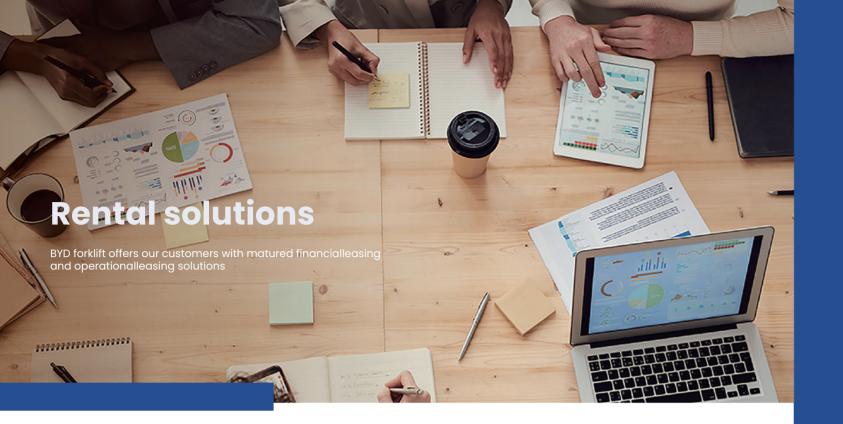
Hazard rescue



Climbing warning



Track playback



#### **Financing leasing**

According to the customer's necessity & credit, customized financial leasing plan could be provided.







Grading rate



Leased properties











Strong financial strength

Professional&efficient Convenient application

Prudent auditing

## **Operational leasing**

BYD forklift provides customers with flexible operational leasing plan, adapting to customers needs in usage &finance.



#### **LOW ONE-TIME INVESTMENT**

Relieve short-term financial pressure







#### **FLEXIBLE LEASING PERIOD**

Short-term & long-term are both available





short-term

Long term



#### **STRONG ADAPTION**

Changeable leasing perlod & rate









#### **LEASED PROPERTIES COULD BE DISPOSED FLEXIBLY**

After one leasing period, customers could choose to off-lease or to renew









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