Zowell

# FRA series
## Electric Reach Truck




Zowell
Electric Industrial Truck Leader

No.588 Zixu Road Xujiang Industry Park,Wuzhong District Suzhou,P.R.China/
Building F7, Industry and investment Industrial park, Hangbu,Shucheng,Lu'an,Anhui,China
**Tel：+0512-68091919(China)/+0086-0512-67080067(International)**
**Service：400-887-1619**
**Email：marketing01@zowell.com.cn(China)/sales@zowell.com.cn(International)**

**www.zowellforklifts.com**

## Outstanding Performance Extraordinary Results

The FRA series reach trucks are equipped with advanced AC drive motors and controllers, ensuring superior performance, minimal energy consumption, and low maintenance costs.

The mast is made of imported steel, providing greater load-bearing capacity at height. The driving experience has been further enhanced with imported hydraulic multi-way valves, delivering smoother and more precise hydraulic control.Make material handling simpler!

Excellent stability enables the FRA series reach trucks to perform exceptionally even under the severe test of high-intensity operation. We believe it will become your reliable working partner!

# Product Features and Advantages

### • Advanced AC Control System

Eliminates motor brushes and direction contactors,greatly reducing maintenance requirements.



### • Stepless Speed Control

Smooth speed regulation without jolting, ensuring more stable and efficient operation, and enhancing driving confidence.

### • Convenient Battery Design

Extremely easy to replace;the front battery cover design facilitates electrolyte refilling.



### • Electric Hydraulic Steering

Light and flexible steering, greatly improving work efficiency.




### • CAN Bus Technology

Simplifies circuit complexity, improves equipment reliability, and facilitates later maintenance and repair.




### • Multifunctional Display

It includes functions such as battery status, operation hour meter, and fault code indication.

### • Easy and Comfortable Operation

Low-profile standing platform for easy and convenient mounting and dismounting.  Meanwhile, the 45° standing operating posture ensures operating comfort.



### Visibility and Safety

The FRA series forklifts adopt a combination of a wide-view mast structure and a reinforced large-view overhead guard, providing an unobstructed view whether looking horizontally or upwards. This greatly improves work safety.



### Functionality

Flexible operation, higher lifting height, stable load-bearing, solid frame design, and longer operating time. Excellent performance makes it trustworthy.



### Comfort

Featuring advanced ergonomic design, the FRA Series Reach Trucks ensure operators remain comfortable, safe and highly efficient even in the most challenging working environments.




*FRA Series Operator Platform

In addition to meeting normal loading and unloading requirements, the FRA Series Reach Trucks offer extensive expandability. Customers can select optional functions according to actual needs, based on on-site warehouse conditions such as rack type and rack height. Examples include fork side shift, fork-mounted cameras, cold storage customization, and more.

## Specifications and Options

● Standard ● Optional

| Item | Specification | Item | Specification |
|---|---|---|---|
| AC controller (drive, hydraulic, steering) | ● | Side Shift Function | ● |
| AC motor (drive, hydraulic, steering) | ● | Camera | ● |
| Electric steering | ● | Lithium Battery | ● |
| Hydraulic multi-way valve (Shimadzu, Japan) | ● | Battery Change Trolley | ● |
| Small-diameter steering wheel | ● | Centralized Battery Watering System | ● |
| Integrated cup holder | ● | LED Rear Working Light | ● |
| Document shelf | ● | LED Search Light | ● |
| Reverse buzzer | ● | On-board Information System | ● |
| LED headlight | ● | Cold Storage Model | ● |
| Drive wheel angle display | ● | Curtis Controller | . |
| Front-pull battery replacement | ● | | |
| Mast landing cushioning | ● | | |
| Cornering speed control | ● | | |
| Panoramic rearview mirror | ● | | |

## TECHNICAL DATA

| | | | | | | |
|---|---|---|---|---|---|---|
| Specification | 1.1 | Model | | FRA115 | FRA120 | FRA130s |
| | 1.2 | Drive Mode | | Electric | Electric | Electric |
| | 1.3 | Operation Mode | | Standing-on | Standing-on | Standing-on |
| | 1.4 | Load Capacity | Q(kg) | 1500 | 2000 | 3000 |
| | 1.5 | Load Center Distance | C(mm) | 500 | 500 | 500 |
| | 1.6 | Front Overhang | x(mm) | 385/175 | 450/180 | 500/180 |
| | 1.7 | Wheelbase | y(mm) | 1345 | 1530 | 1800 |
| | 1.8 | Dead Weight | kg | 2400 | 2700 | - |
| Tires | 2.1 | Tires | | PU | PU | PU |
| | 2.2 | Drive Wheel Size | mm | Φ330x145 | Φ380x165 | Φ380x165 |
| | 2.3 | Balance Wheel Size | mm | Φ178x73 | Φ204x76 | Φ204x76 |
| | 2.4 | Load Wheel Size | mm | Φ254x120 | Φ267x127 | Φ267x150 |
| | 2.5 | Front Track Width | mm | 977 | 1063 | 1090 |
| | 2.6 | Rear Track Width | mm | 634 | 720 | 720 |
| | 2.7 | Tilt Angle | deg(α/β) | 3/5 | 3/5 | 3/5 |
| Basic Dimensions | 3.1 | Overall Height (Non-lifting) | h1(mm) | 1995 | 1995 | 2633 |
| | 3.2 | Free Lift Height | h2(mm) | 105 | 110 | 115 |
| | 3.3 | Rated Lift Height | h3(mm) | 3000 | 3000 | 5000 |
| | 3.4 | Maximum Height | h4(mm) | 3900 | 3900 | 5998 |
| | 3.5 | Overhead Guard Height | h6(mm) | 2250 | 2295 | 2295 |
| | 3.6 | Standing Height | h7(mm) | 312 | 355 | 355 |
| | 3.7 | Overall Length | L1(mm) | 2230 | 2225 | 2665 |
| | 3.8 | Distance from Fork Tip to Front | L2(mm) | 1160 | 1325 | 1595 |
| | 3.9 | Overall Width | b1/b2(mm) | 1081/1093 | 1190/1190 | 1240/1190 |
| | 3.10 | Fork Size | L/e/s(mm) | 35/100/1070 | 40/120/1070 | 45/125/1070 |
| | 3.11 | Adjustable inner width of forks (min/max) | b5(mm) | 200/720 | 280/770 | 280/680 |
| | 3.12 | Inside Width of Legs | b4(mm) | 739 | 805 | 805 |
| | 3.13 | Reach Distance | L4(mm) | 560 | 630 | 680 |
| | 3.14 | Minimum Ground Clearance of Mast | m1(mm) | 75 | 75 | 103 |
| | 3.15 | Minimum Ground Clearance of Frame | m2(mm) | 75 | 75 | 65 |
| | 3.16 | Right angle stacking channel width1000*1200 | Ast(mm) | 2642 | 2830 | 3096 |
| | 3.17 | Right angle stacking channel width800*1200 | Ast(mm) | 2512 | 2711 | 2985 |
| | 3.18 | Minimum Turning Radius | Wa(mm) | 1582.5 | 1816 | 2112 |
| | 3.19 | Body Length | L7mm) | 1675 | 1915 | 2235 |
| Performance | 4.1 | Travel Speed (Loaded/Unloaded) | km/h | 9.5/10.5 | 10 | 9 |
| | 4.2 | Lifting Speed (Loaded/Unloaded) | mm/s | 330/350 | 290/320 | 200/240 |
| | 4.3 | Lowering Speed (Loaded/Unloaded) | mm/s | 290/266 | 345/250 | 345/250 |
| | 4.4 | Reach Speed | mm/s | 60 | 60 | 60 |
| | 4.5 | Maximum climbing speed KB3'1.5km/h (full load/no load) | % | 10/14.3 | 4/7 | 4/7 |
| | 4.6 | Braking Type | | Mechanical | Mechanical | Mechanical |
| Battery and Motor | 5.1 | Drive Motor Power KB60' | kw | 6 | 6 | 6 |
| | 5.2 | Lift Motor Power 15% ED | kw | 11 | 11 | 11 |
| | 5.3 | Steering Motor Power | kw | 0.3 | 0.4 | 0.6 |
| | 5.4 | Voltage/Capacity | V/Ah | 48/280 | 48/350 | 48/350 Lithium |
| | 5.5 | Battery Weight | kg | 450 | 530 | 635 |
| | 5.6 | Battery Size | mm | 956×375×570 | 956×395×570 | 1116×395×570 |
| Remark | 【2】The company reserves the right to modify the parameters listed in the above table! | | | | | |

# Mast Parameter Table

| **FRA115/118** 2-stage wide-view mast | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lifting height | h3(mm) | 2700 | 3000 | 3300 | 3500 | 3700 | 4000 | 4500 | 5000 | | |
| Mast closed height | h1(mm) | 1845 | 1995 | 2145 | 2245 | 2345 | 2545 | 2795 | 3045 | | |
| Mast fully extended height | h4(mm) | 3600 | 3900 | 4200 | 4400 | 4600 | 4900 | 5400 | 5900 | | |
| Free lifting heigh | h2(mm) | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | | |

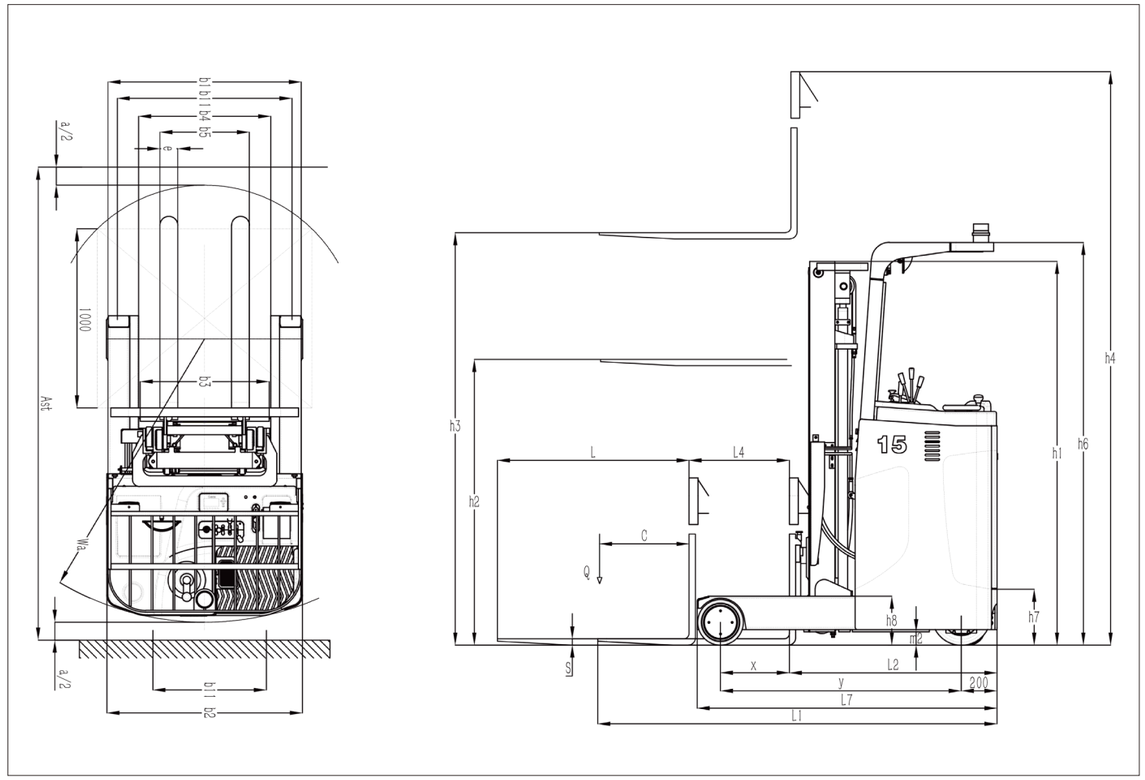
| **FRA115/118** 3-stage fully free mast | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lifting height | h3(mm) | 3600 | 4000 | 4350 | 4800 | 5000 | 5500 | 6000 | 6500 | 7000 | 7500 |
| Mast closed height | h1(mm) | 1745 | 1870 | 1995 | 2145 | 2245 | 2410 | 2595 | 2810 | 3030 | 3190 |
| Mast fully extended height | h4(mm) | 4500 | 4900 | 5250 | 5700 | 5900 | 6400 | 6900 | 7400 | 7900 | 8400 |
| Free lifting heigh | h2(mm) | 810 | 935 | 1060 | 1210 | 1310 | 1475 | 1660 | 1875 | 2095 | 2255 |

| **FRA120/125** 2-stage wide-view mast | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lifting height | h3(mm) | 2700 | 3000 | 3300 | 3500 | 3700 | 4000 | 4500 | 5000 | | |
| Mast closed height | h1(mm) | 1845 | 1995 | 2145 | 2245 | 2345 | 2545 | 2795 | 3045 | | |
| Mast fully extended height | h4(mm) | 3600 | 3900 | 4200 | 4400 | 4600 | 4900 | 5400 | 5900 | | |
| Free lifting heigh | h2(mm) | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | | |

| **FRA120/125** 3-stage fully free mast | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lifting height | h3(mm) | 3600 | 4000 | 4350 | 4800 | 5000 | 5500 | 6000 | 6500 | 7000 | 7500 |
| Mast closed height | h1(mm) | 1880 | 2013 | 2130 | 2280 | 2347 | 2513 | 2680 | 2847 | 3013 | 3180 |
| Mast fully extended height | h4(mm) | 4515 | 4915 | 5265 | 5715 | 5915 | 6415 | 6915 | 7415 | 7915 | 8415 |
| Free lifting heigh | h2(mm) | 925 | 1058 | 1175 | 1325 | 1392 | 1558 | 1725 | 1892 | 2058 | 2225 |

| **FRA130/130s** 2-stage wide-view mast | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lifting height | h3(mm) | 2700 | 3000 | 3300 | 3500 | 3700 | 4000 | 4500 | 5000 | | |
| Mast closed height | h1(mm) | 1900 | 2050 | 2200 | 2300 | 2400 | 2600 | 2850 | 3100 | | |
| Mast fully extended height | h4(mm) | 3650 | 3950 | 4250 | 4450 | 4650 | 4950 | 5450 | 5950 | | |
| Free lifting heigh | h2(mm) | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | | |

# Two-view Drawing




# Load Curve Chart

