# FE4C25-32

## C SERIES 4-WHEEL ELECTRIC CUSHION

### ADVANTAGES

The FE4C25-32 cushion tire forklifts are highly efficient, durable Lithium-iron forklifts. They are designed for indoor warehouse applications and other applications with hard smooth floors. The mast system, front/rear axles and chassis are engineered to be tough like an Internal Combustion forklift, but with all the advantages of Lithium-iron. AC drive technology is used to achieve high performance with low operating and maintenance costs. Greatly increase your work productivity with these quiet, very low maintenance, ultrasmooth, lithium-iron forklifts.


## HIGHLIGHTS

- Powerful high quality AC drive system
- Infinitely variable hydraulic control speeds
- On-demand fully hydrostatic power steering (FHPS)
- 4-Way proportional hydraulic control valve
- Side-shift
- Multi-function LED Display
- Deluxe suspension seat
- Tilt steering column
- Intelligent Monitoring System (IMS) display indicators
- CAN-bus communications system
- On-board self-diagnostics
- Wireless 4G battery monitoring
- Operator presence sensing system
- Safety Blue light, LED rear work light, headlights, and strobe
- Rear grab bar with horn
- Tilt cylinder boots
- All-around front wheel drive
- Side extraction battery

## COMPACT DESIGN

The Noblelift Cushion Electric forklift truck is small and flexible with its compact design allowing it to be used in confined indoor space and applications yet with great comfort for operators with its ergonomic design.

## HIGH EFFICIENCY

- Optional different speed modes available to accommodate most demanding applications.
- Optional large lead acid or Li-ion battery and regenerative braking system increase application hours significantly with single battery charging.
- High-power oil pump motor and large displacement gear pump are applied to increase lifting and lowering speed, and improve working efficiency.




With its compact design and small turning radius, the truck can operate in confined space.

## COMFORT DESIGN

- Ergonomic designed steering wheel with adjustable angle, driver seat adjustable forward and backward, the operator can choose the best and comfortable driving position.

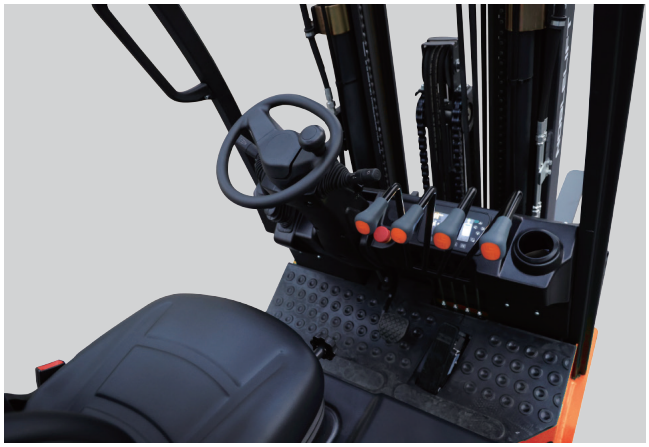
  The operator can select different performance modes on LCD to meet different applications.

  The easy-to-read LCD color display provides information about speed, steer angle & travel direction, battery discharge indicator, hour meter & working mode, which allows the operator to operate easily and efficiently.

  Adjustable for operator weight, lumbar support and position, the full-suspension seat includes an ergonomic operator restraint system which helps support the operator during operation.

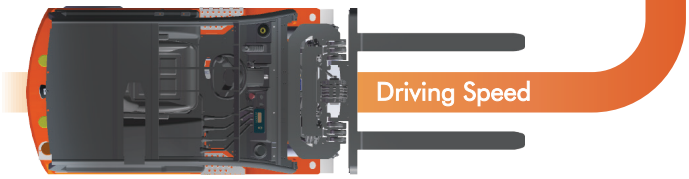
  Spacious foot room is provided for prolonged operator comfort during operation. The integral rubber & plastic pedal pad allows the operator to get on and off the truck comfortably and safely.

Advanced LCD Display





Reduced speed at turning to make sure the safety of the operator and goods from the design point of view.




The rear assist grip with a horn enhances comfort by offering easy horn operation while travelling in reverse.

## Optional Lithium batttery

Fast charging with battery fully charged in 2-3 hours. The intelligent high frequency charger with automobile charging technology has a working efficiency of more than 95%, which is much higher than the 80% working efficiency of traditional low frequency charger.

| Model | | Standard | Optional |
|---|---|---|---|
| FE4C25 | Lion | 76.8V/412Ah | 76.8/544Ah |
| | lead-acid | 80V/480Ah | |
| FE4C32 | Lion | 76.8V/412Ah | 76.8/544Ah |
| | lead-acid | 80V/560Ah | |


All lithium-iron batteries are equipped built-in battery management system(BMS) that manages all important data during charging and discharging.
The management of the battery by BMS can ensure the safety of the battery throughout its life cycle.
Lithium-iron batteries have been certified for safe transportation(by air and sea)and operating standards. BMS communicates with the truck management system through CAN. CAN protocol CAN monitor the battery and diagnose and repair the battery through specific software.

### FAST CHARGING Efficiency First

The unique fast-charging feature of lithium batteries makes them an ideal choice for multi-shift operation. On comparison with lead-acid batteries, the lithium batteries show greater performance as they can be charged between operations and during breaks, through the support of opportunity charging, the effective working time of equipment with lithium battery can be prolonged without necessity to replace the battery. Additionally, the opportunity charging has no effect on lithium battery, there is no memory effect and fast consecutive capacity reduction as it is the case for lead-acid batteries.

### ENVIRONMENT-FRIENDLY Strong Versatility

Lithium batteries are completely sealed, there is no evaporation of electrolyte, forming of explosive gases and chemical smell during charging process. Therefore, the lithium batteries are ideal for use in applications with environmental concerns, such as food processing, chemical and pharmaceutical industries.

### SAFETY High Reliability

The lithium battery is using LiFePO4 chemistry (LFP), which is stable and safe. Each battery is equipped with integrated Battery Management System (BMS), which controls various parameters of the cells during charging and discharging operations making the use of lithium batteries safe, reliable and long lasting.

## EASY MAINTENANCE

Easy-removable of side panels enables easy service and maintenance of various systems.


The battery compartment is equipped with a side battery removal assembly for easy removal and replacement.

Innovative dual-door structure, with one door at left side and right side of the truck respectively. enables easy maintenance of oil pump motor, oil pump, and electric control of the truck with good water proof and dust proof performance.

Standard equipped tilt cylinder boot to protect it from the environments and best reliability.

Brake fluid can be added very conveniently by opening the shield cover and oil tank cover.

## SAFETY & RELIABLITY

Safety and reliability are always the focus of Noblelift R&D when we are dedicated to supply products to our customers, Noblelift pays great attention to the details and main points to ensure the best productivity from our trucks.

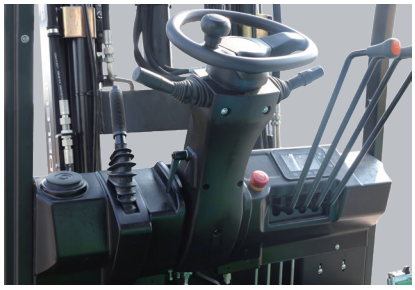

Heavy-duty steel chassis, axles, mast and overhead guard deliver high strength and stability for high lifting heights and heavy loads.


Intelligent buffering when descending to the ground, effectively protects the ground and cargo from damages.

Operator's safety belt restraint warning system is standard to ensure the safety of the operator.

Equipped with LED lamps: LED rear work lights, headlights, strobe and safety blue light. Bright light with low power consumption provides excellent visibility.


Compared with other N series 4-wheel Electric counter balance forklift, this model is smaller in size and more flexible, which is more suitable for working in confined areas.

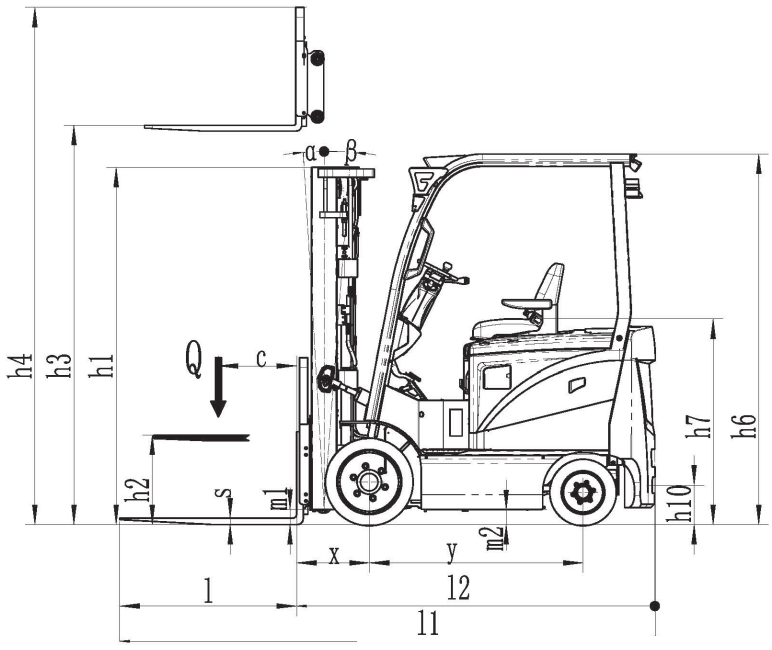


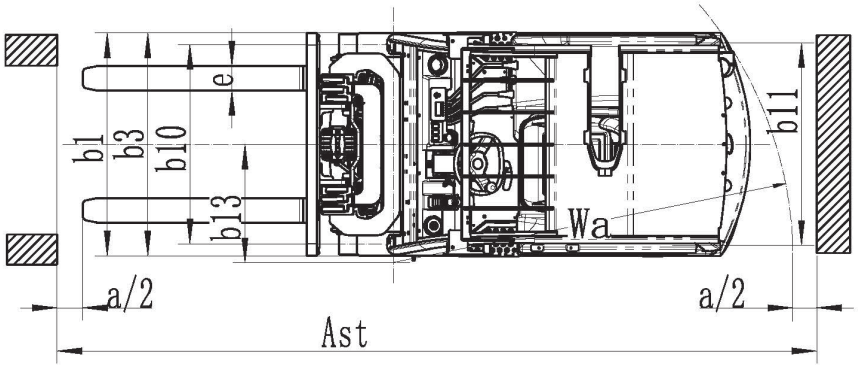
The key electric components such as controllers, displays, main contactors are all well-known brands in the industry to ensure the best performance and reliability. Efficient control system of high-frequency MOSFET integrated controller guarantees smooth and accurate control on running and lifting, and superior speed regulation performance, with regenerative braking, reverse braking, anti-slipping on slope and other functions.

## Mast Table FE4C 25-32

| Designtion | Lift height h3 in(mm) | | Free Lift h2 in(mm) | | Closed mast height h1 in(mm) | | Extended mast height h4 in(mm) | | Tilt forward/backward α / β(°) | | Capacity table(kg) C=24 without sideshift, single pneumatic tyres | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FE4C25 | FE4C32 | FE4C25 | FE4C32 | FE4C25 | FE4C32 | FE4C25 | FE4C32 | FE4C25 | FE4C32 | FE4C25 | FE4C32 |
| Two-stage ZT | 2500 | 2500 | 135 | 135 | 1820 | 1820 | 3445 | 3628 | 6/8 | 6/8 | 2270 | 2950 |
| | 3000 | 3000 | 135 | 135 | 2070 | 2070 | 3445 | 4128 | 6/8 | 6/8 | 2270 | 2950 |
| | 3300 | 3300 | 135 | 135 | 2220 | 2220 | 3945 | 4428 | 6/8 | 6/8 | 2270 | 2950 |
| | 3500 | 3500 | 135 | 135 | 2320 | 2320 | 4445 | 4628 | 6/8 | 6/8 | 2270 | 2950 |
| | 3700 | 3700 | 135 | 135 | 2420 | 2420 | 4645 | 4828 | 6/8 | 6/8 | 2270 | 2950 |
| | 4000 | 4000 | 135 | 135 | 2620 | 2620 | 4945 | 5128 | 6/6 | 6/6 | 2270 | 2950 |
| | 4300 | 4300 | 135 | 135 | 2770 | 2770 | 5245 | 5428 | 6/6 | 6/6 | 2270 | 2910 |
| | 4500 | 4500 | 135 | 135 | 2870 | 2870 | 5445 | 5628 | 6/6 | 6/6 | 2230 | 2880 |
| | 5000 | 5000 | 135 | 135 | 3120 | 3120 | 5945 | 6128 | 6/6 | 6/6 | 2080 | 2750 |
| Two-stage ZZ | 2500 | 2500 | 875 | 737 | 1820 | 1820 | 3445 | 3628 | 6/8 | 6/8 | 2270 | 2950 |
| | 3000 | 3000 | 1125 | 987 | 2070 | 2070 | 3945 | 4128 | 6/8 | 6/8 | 2270 | 2950 |
| | 3300 | 3300 | 1275 | 1137 | 2220 | 2220 | 4245 | 4428 | 6/8 | 6/8 | 2270 | 2950 |
| | 3500 | 3500 | 1375 | 1237 | 2320 | 2320 | 4445 | 4628 | 6/8 | 6/8 | 2270 | 2950 |
| | 3700 | 3700 | 1475 | 1337 | 2420 | 2420 | 4645 | 4828 | 6/8 | 6/8 | 2270 | 2950 |
| | 4000 | 4000 | 1675 | 1537 | 2620 | 2620 | 4945 | 5128 | 6/6 | 6/6 | 2270 | 2950 |
| Three-stage DZ | 4000 | 4000 | 935 | 862 | 1880 | 1945 | 4945 | 5128 | 6/6 | 6/6 | 2270 | 2950 |
| | 4350 | 4350 | 1060 | 987 | 2005 | 2070 | 5295 | 5478 | 6/6 | 6/6 | 2270 | 2900 |
| | 4500 | 4500 | 1110 | 1037 | 2055 | 2120 | 5445 | 5628 | 6/6 | 6/6 | 2220 | 2860 |
| | 4800 | 4800 | 1210 | 1137 | 2155 | 2220 | 5745 | 5928 | 6/6 | 6/6 | 2150 | 2810 |
| | 5000 | 5000 | 1285 | 1280 | 2230 | 2363 | 5945 | 6128 | 6/6 | 6/6 | 2060 | 2740 |
| | 5500 | 5500 | 1460 | 1514 | 2405 | 2597 | 6445 | 6628 | 6/6 | 6/6 | 1840 | 2560 |
| | 6000 | 6000 | 1660 | 1747 | 2605 | 2830 | 6945 | 7128 | 6/6 | 6/6 | 1600 | 1900 |
| Four-stage DZ | 6100 | 6100 | 1190 | 1052 | 2135 | 2135 | 7045 | 7228 | 3/5 | 3/6 | 1600 | 1900 |
| | 6600 | 6600 | 1315 | 1777 | 2260 | 2260 | 7545 | 7728 | 3/5 | 3/6 | 1350 | 1500 |
| | 7000 | 7000 | 1495 | 1357 | 2420 | 2420 | 7945 | 8128 | 3/5 | 3/6 | 800 | 950 |

Free lifting height without stop shelf + 10.5(266mm)
Four lifting height without stop shelf + 17.7(450mm)



## C SERIES 4-WHEEL ELECTRIC CUSHION

| | | | | | | |
|---|---|---|---|---|---|---|
| Identification | 1.1 | Manufacture(abbreviation) | | | Noblellift | Noblellift |
| | 1.2 | Manufacturer's type designation | | | FE4C25 | FE4C32 |
| | 1.3 | Drive:electric(battery or mains),diesel,petrol gas,manual) | | | electric | electric |
| | 1.4 | Type of operation(hand,pedestrian,standing,seated,order-picker) | | | seated | seated |
| | 1.5 | Load capacity/rated load | Q | lb(kg) | 5000(2270) | 6500(2950) |
| | 1.6 | Load centre distance | C | in(mm) | 24(600) | 24(600) |
| | 1.8 | Load distance,centre of drive axle to fork | x | in(mm) | 17.3(440) | 17.5(445) |
| | 1.9 | wheelbase | y | in(mm) | 51(1295) | 55(1395) |
| Weights | 2.1 | Service weight incl. battery(see line 6.5) | kg | lb(kg) | 9405(4350) | 10175(4850) |
| | 2.2 | Axle loading ,laden front/rear | kg | lb(kg) | 12705/2200(5850/1000) | 14245/2530(6550/1300) |
| | 2.3 | Axle loading,unladen front/rear | kg | lb(kg) | 3465/5940(1650/2700) | 3905/6270(1800/3050) |
| Wheels、Chassis | 3.1 | Type:solid rubber,superelastic,pneumatic,polyurethane | | | solid rubber | solid rubber |
| | 3.2 | Tyres size,front | | | 21×7-15 | 21×8-15 |
| | 3.3 | Tyres size,rear | | | 16x6-10.5 | 16x6-10.5 |
| | 3.5 | Wheels,number front/rear(×=driven wheels) | | | 2×/2 | 2×/2 |
| | 3.6 | Track width,front | b10 | in(mm) | 37.7(882) | 35.5(902) |
| | 3.7 | Track width,rear | b11 | in(mm) | 36.3(922) | 36.3(922) |
| Basic Dimemsions | 4.1 | Mast/fork carriage tilt forward/backward | α/β | ° | 6/8 | 6/8 |
| | 4.2 | lowered mast height | h1 | in(mm) | 85.4(2170) | 85.4(2170) |
| | 4.3 | Free lift | h2 | in(mm) | 4.7(120) | 4.7(120) |
| | 4.4 | Lift height | h3 | in(mm) | 118.1(3000) | 118.1(3000) |
| | 4.5 | Extended mast height | h4 | in(mm) | 156.6(3977) | 160.6(4079) |
| | 4.7 | Overhead load guardheight | h6 | in(mm) | 88.6(2280) | 88.6(2280) |
| | 4.8 | Seat height/standing height | h7 | in(mm) | 49.2(1250) | 49.2(1250) |
| | 4.12 | Coupling height | h10 | in(mm) | 11.6(295) | 11.6(295) |
| | 4.19 | Overall length | l1 | in(mm) | 127(3225) | 133.3(3385) |
| | 4.20 | Length to face of forks | l2 | in(mm) | 84.8(2155) | 91.4(2315) |
| | 4.21 | Overall width | b1 | in(mm) | 42.5(1080) | 42.5(1135) |
| | 4.22 | Fork dimensions | s/e/l | in(mm) | 1.6/4.7/42.1(40/120/1070) | 1.6/4.9/42.1(45/125/1070) |
| | 4.24 | Fork carriage width | b3 | in(mm) | 40.9(1040) | 43.3(1100) |
| | 4.31 | Ground clearance ,laden,under mast | m1 | in(mm) | 4.3(110) | 4.3(110) |
| | 4.32 | Ground clearance,centre of wheelbase | m2 | in(mm) | 4.7(120) | 4.7(120) |
| | 4.33 | Aisle width for pallets 1000×1200 crossways | Ast | in(mm) | 141.3(3590) | 145.5(3755) |
| | 4.34 | Aisle width for pallets 800×1200 lengthways | Ast | in(mm) | 149.2(3790) | 153.3(3955) |
| | 4.35 | Turning radius | Wa | in(mm) | 76.8(1950) | 80.7(2050) |
| Performance Datas | 5.1 | Travel speed,laden/unladen | | mph(km/h) | 9.3/9.3(15/15) | 9.3/9.3(15/15) |
| | 5.2 | Lift speed,laden/unladen | | fpm(mm/s) | 67/79(340/400) | 67/79(340/400) |
| | 5.3 | lowering speed,laden/unladen | | fpm(mm/s) | ＜118(＜0.6) | ＜118(＜0.6) |
| | 5.5 | Drawbar pull ,laden/unladen S2 60 min | | lbf(N) | 7260/5060(3300/2300) | 8360/6160(3800/2800) |
| | 5.7 | Max.Gradient performance,laden/unladen S2 5 min | | % | 15/20 | 15/20 |
| | 5.10 | Service brake | | | Hydraulic | Hydraulic |
| E-Motor | 6.1 | Drive motor rating S2 60 min | | hp(kW) | 16.1(12) | 16.1(12) |
| | 6.2 | Lift motor rating at S3 15% | | hp(kW) | 21.4(16) | 21.4(16) |
| | 6.3 | Battery standard | | | Lion/lead-acid | Lion/lead-acid |
| | 6.4 | Battery voltage,nominal capacity K5 | | V/Ah | Lion 76.8/412(76.8/544) lead-acid（80/480) | Lion 76.8/412(76.8/544) lead-acid（80/560) |
| | 6.5 | Battery weight | | lb(kg) | Lion 704(320) lead-acid 2794(1270) | Lion 704(320) lead-acid 3212(1460) |
| | | Battery dimensions l/w/h | | in(mm) | Lion 38.6/24.8/23.8(980/630/605) | Lion 38.6/24.8/23.8(980/630/605) |
| | | | | | lead-acid 38.6/30.9/23.8(980/785/610) | lead-acid 38.6/35.3/23.8(980/885/610) |
| Other Details | 8.1 | Type of drive control | | | AC | AC |
| | 8.2 | Operating pressure for attachments | | psi(bar) | 2538(175) | 2538(175) |
| | 8.3 | Oil volume for attachments | | l/min | 570(36) | 570(36) |
| | 8.4 | Sound level at driver's ear according to EN 12 053 | | dB(A) | 73 | 73 |