

LITHIUM

**FE4P220N**

22,000 lbs. Capacity  
Heavy Duty Lithium Forklift



Capacity  
11 Ton



Lithium-ion  
Battery



High  
Performance



Robust  
Design



CAN-bus  
CAN-bus



High  
Efficiency



Easy  
Maintenance



Ergonomic  
Design



CE  
CE Compliant

Why choose between price and quality **WHEN YOU CAN HAVE BOTH!**

# HIGHLIGHTS

- ▶ Curtis / CAN-bus Intelligent Computer Control system
- ▶ Infinitely variable hydraulic control speeds
- ▶ 4-Way proportional hydraulic control valve
- ▶ 96V fully electric AC system
- ▶ Lithium battery: 96V/920Ah with REMA connector
- ▶ Charger: 96V/200A
- ▶ Fast charging 2-2.5 hours
- ▶ Large capacity battery provides multiple shift operation.
- ▶ On-board self-diagnostics
- ▶ Large LED display: lifting weight, lifting height, speed, power, steering, fault code, alarm and more.
- ▶ Side shift fork positioning
- ▶ Front and Back up camera with AI pedestrian detection
- ▶ Speed reduction in turns
- ▶ IPx4 water-proof design



## FE4P220N

**22,000 lbs. Capacity**

Heavy Duty Lithium Forklift

The FE4P220N Heavy Duty Lithium Forklift redefines heavy-capacity material handling by combining 22,000 lbs of lifting power with advanced lithium-ion technology. Engineered for demanding industrial applications, it delivers exceptional uptime, energy efficiency, and operator confidence through intelligent controls, dual-drive performance, rapid charging capability, and industry-leading safety features. Built to handle the toughest jobs, the FE4P220N offers a smarter, cleaner, and more productive alternative to traditional internal combustion forklifts.

# POWERFUL AND HIGHLY PRODUCTIVE FORKLIFT

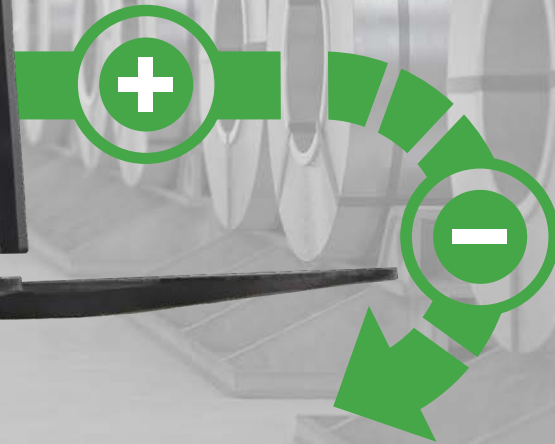


The FE4P220N is a high-capacity lithium workhorse engineered for demanding, multi-shift industrial environments where uptime, energy efficiency, and operator confidence matter.

# SUPERIOR DESIGN AND PERFORMANCE



Automatic decelerating while turning, improves safety, stability and operator comfort, while preventing product damage.



Travel Speed Up To 9.3 mph



Gradeability / Full Load



Fast Lifting Speed Up To 67.5 ftn

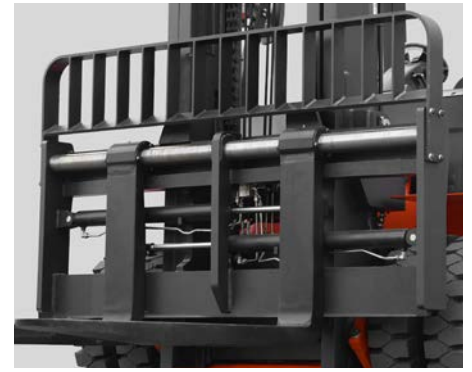
# SUPERIOR DESIGN AND PERFORMANCE



Dual-drive power, premium drive motors, and wet disc brakes deliver exceptional performance while enhancing safety and operational stability.



Dual front tires are designed to maximize load capacity and provide superior stability in demanding applications.



Side shift fork positioner allows for precise movement of the fork carriage without having to move the whole forklift.



Large frame-mounted LCD display improves safety and efficiency by placing the screen in the operator's line of sight.



Easily check condition and troubleshoot with Curtis controller and CAN-bus technology.



Large capacity battery for multiple shift operation.



Intelligent buffering effectively protects the ground and cargo from damage while forks descend to the ground.



The powerful FE4P220N has a draw bar tow capacity of 10,880 lbs.

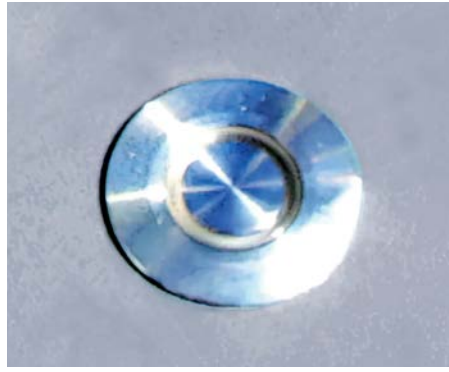


Independent steering system with on-demand hydraulic oil supply for improved energy efficiency.

# SAFE. COMFORTABLE. EASY MAINTENANCE.



A secondary step and enlarged grab handle allow the operator to safely and easily get on and off the forklift.



The electronic parking brake button uses color indicators to display parking and drive modes.



USB connector for charging and powering of additional devices during operations.

**A** LED signal lights improve safety, last a long time and are very durable.

**B** LED rear work light provides excellent visibility while backing up.

**C** Blue LED light projects a blue beam onto the floor to warn pedestrians.

**D** Panoramic rear-view mirror gives the operator a wider rear visibility.

**E** LED strobe flashes while operating the vehicle to alert others in the area.

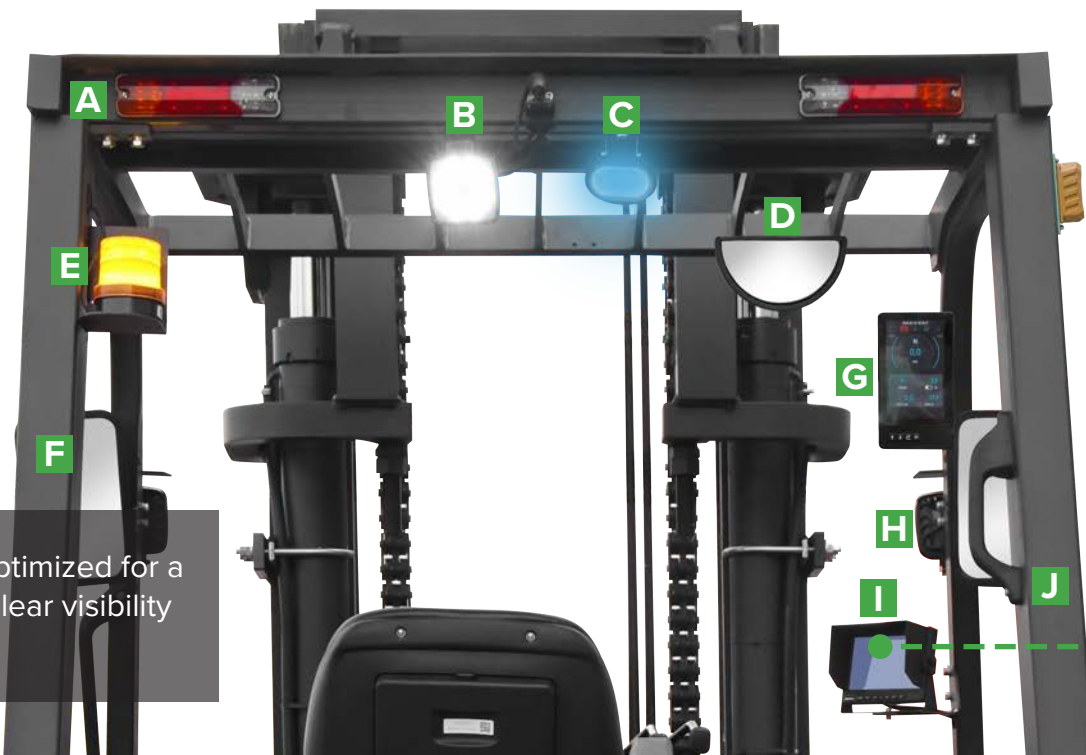
**F** Dual wide angle mirrors help ensure safety.

**G** Frame-mounted LCD display mounted in the operator's line of sight.

**H** LED headlights brighten dimly lit areas for optimal visibility.

**I** Camera monitor and AI pedestrian detection.

**J** Rear grab bar with horn provides easy horn operation while traveling in reverse.



Mast layout is optimized for a wide view and clear visibility while operating.

# SAFE. COMFORTABLE. EASY MAINTENANCE.



The large, ergonomic cab and user-friendly design ensures operator comfort throughout the entire work shift.

Deluxe suspension, fully adjustable seat reduces vibration to the driver to effectively reduce driver fatigue for all sizes of operators.

Operator Presence System (OPS) — When operator is not in seat, the hydraulic lift and tilt controls automatically lock out and traveling is disabled.



**I** The front and back-up camera and monitor, coupled with the AI pedestrian detection system, sounds an alarm when it detects a pedestrian. If a pedestrian gets too close, it will stop the forklift.



Wide-opening tilt-up operator compartment and rear access panel simplifies daily inspections and routine maintenance.

Optimized component layout promotes efficient heat dissipation while providing easy access for maintenance.

# APPLICATIONS



Steel Service Centers  
Manufacturing Facilities  
Ports and Intermodal Facilities  
Heavy Equipment Manufacturers  
Paper Mills  
Lumber and Building Materials  
Precast Concrete Operations  
Wind and Solar  
Large Industrial Warehouses

## LONG LASTING AND SAFE LITHIUM POWER

NOBLELIFT uses LiFePO<sub>4</sub> chemistry, the longest lasting and safest lithium battery chemistry available. Our lithium batteries are equipped with a Battery Management System (BMS), thermal management system, and an automotive-grade DC high-voltage control system. BMS manages charging and discharging data to ensure safety throughout its life cycle.

FE4P220N forklifts have a 10 year or 20,000 hour warranty on the on the lithium battery cells.



# ADVANTAGES OF LITHIUM POWER

# 96 VOLT



REMA/  
Anderson  
plug-in



Fast-charging maintenance-free Lithium battery is fully charged in 2-2.5 hours. Battery can be opportunity charged during user breaks and during shift changes which allows the truck to run continuously through multi-shift operations. No battery changes are necessary.

## LITHIUM BATTERY ADVANTAGES

### Lead-Acid Battery

### Lithium Battery

Lower fleet availability - Work is interrupted because battery needs to be fully charged before next use

**Productivity - Memory Effect**

100% Fleet availability - Opportunity charging allows battery to be charged in between use

Periodic battery replacement

**Service Life**

Batteries last 3 times longer and do not need to be replaced

Outsourced or in-house maintenance personnel required

**Ongoing Maintenance**

No maintenance cost

8-10 Hours - 2 or more batteries per lift truck

**Charge Duration**

2-2.5 Hours - 1 Battery per lift truck

Build an expensive battery room with ventilation

**Battery Room**

No battery room needed

Releases hydrogen while charging - Can result in explosion - Acid burns can happen during maintenance

**Dangerous Substances**

No dangerous substances

Power loss

**Power Savings**

No power loss - Reduces energy consumption by 35%

## TOTAL COST OF OWNERSHIP

UP TO  
**47%**  
SAVINGS OVER 5 YEARS

Opportunity Charging Increases Productivity



Electric Cost  
Maintenance Cost

Lead-Acid Battery Acquisition Cost



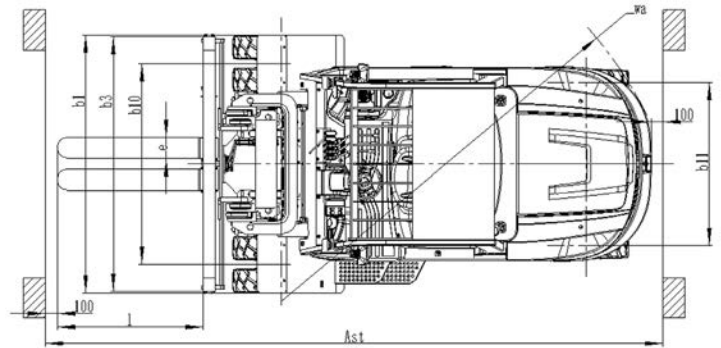
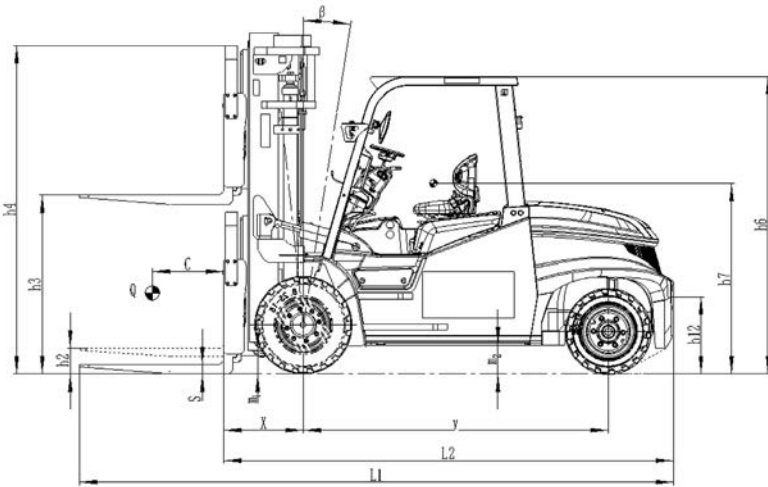
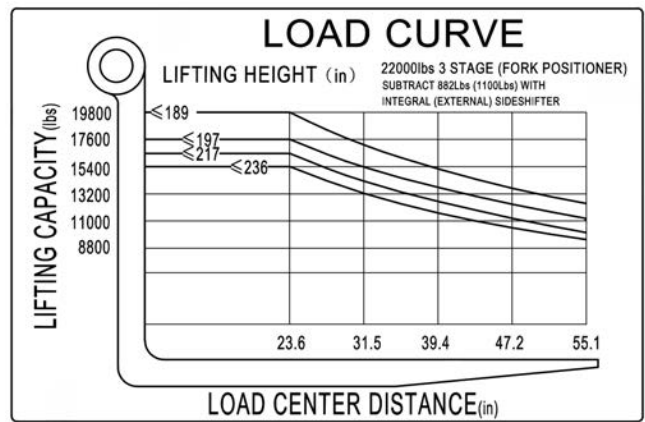
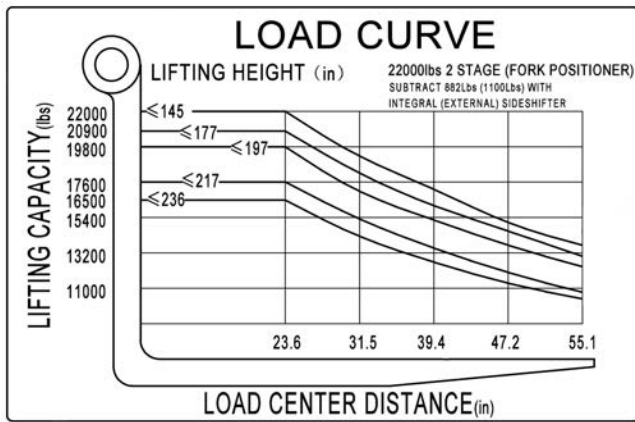
Battery Changing, Extra Batteries, Dedicated Battery Room

Internal Combustion Acquisition Cost



Maintenance Cost

Mast Table FE4P220N						
Designation	Lift height h3 (in)	Free lift height h2 (in)	Closed mast height h1 (in)	Extended mast height h4 (in)	Tilt forward/backward a/b (°)	Capacity table (lb) C=24in without sideshift
<b>FE4P220N</b>						
Two-stage	118	8.7	112	170.8	6 / 9	22,000
	137.8	8.7	121.9	190.6	6 / 9	22,000
	157.5	8.7	133.7	212.2	6 / 9	20,944
	177	8.7	143.5	231.9	6 / 6	20,944
	196.9	8.7	153.3	251.6	6 / 6	19,841
	216.5	8.7	165.2	273.2	3 / 6	19,841
	236.2	8.7	175	292.9	3 / 6	16,535
Three-stage	177	64	112	229.9	6 / 6	17,637
	189	67.9	115.9	241.7	6 / 6	17,637
	196.9	70.7	118.7	249.6	6 / 6	16,535
	216.5	77.2	125.2	269.2	3 / 6	15,432
	236.2	83.7	131.7	288.8	3 / 6	13,228



Identification			
1.2	Model		FE4P220N
1.3	Drive (electric – battery or mains, diesel, petrol, gas, manual)		Electric
1.4	Type of operation (hand, pedestrian, standing, seated, order picker)		Seated forklift
1.5	Load capacity / rated load	Q (lb)	22,000
1.6	Load center distance	c (in)	24
1.8	Load distance, center of drive axle to fork	x (in)	26.4
1.9	Wheel base	y (in)	101.6
Weights			
2.1	Service weight including battery (see line 6.5)	lb	31,020
2.2	Axle loading, laden rear	lb	4,510
2.3	Axle loading, unladen rear	lb	15,576
Wheels, Chassis			
3.1	Tires (solid rubber, superelastic, pneumatic, polyurethane)		Solid pneumatic
3.2	Tire size, front		8.25-15
3.3	Tire size, rear		250-15
3.5	Wheels, number front / rear (x = driven wheels)		4x / 2
3.6	Track width, front	b <sub>10</sub> (in)	66.4
3.7	Track width, rear	b <sub>11</sub> (in)	55.9
Basic Dimensions			
4.1	Mast / fork carriage tilt forward / backward	a/b (°)	6 / 9
4.2	Lowered mast height	h <sub>1</sub> (in)	111.2
4.3	Free lift	h <sub>2</sub> (in)	7.7
4.4	Lift height	h <sub>3</sub> (in)	118
4.5	Extended mast height	h <sub>4</sub> (in)	170.5
4.7	Overhead load guard height	h <sub>6</sub> (in)	98.8
4.8	Seat height / standing height	h <sub>7</sub> (in)	53.4
4.12	Coupling height	h <sub>12</sub> (in)	18.4
4.19	Overall length	l <sub>1</sub> (in)	197.4
4.20	Length to face of forks	l <sub>2</sub> (in)	149.4
4.21	Overall width	bl (in)	85.2
4.22	Fork dimensions	s/e/l (in)	3.2 / 6.9 / 48
4.24	Fork carriage width	b <sub>3</sub> (in)	85.2
4.31	Ground clearance, laden, under mast	m <sub>1</sub> (in)	8.9 / 8.1
4.32	Ground clearance, center of wheelbase	m <sub>2</sub> (in)	9.7 / 9.3
4.33	Right angle stack with 40x48 pallet	Ast (in)	197.2
4.35	Turning radius	Wa (in)	131.9
Performance Data			
5.1	Travel speed, laden / unladen	mph	8.7 / 9.3
5.2	Lift speed, laden / unladen	fpm	57.6 / 67.5
5.3	Lowering speed, laden / unladen	fpm	91.3 / 71.5
5.5	Drawbar pull, laden / unladen S2 60 min	blf	10,880
5.7	Max. Gradient performance, laden / unladen S2 5 min	%	15 / 20
5.10	Service brake		Hydraulic
E-Motor			
6.1	Drive motor rating S2 60 min	HP	2x26.8
6.2	Lift motor rating at S3 15%	HP	2x33.5
6.3	Battery standard		Lion
6.4	Battery voltage, nominal capacity K5	V/Ah	96 / 920
6.5	Battery weight (96V/920Ah)	lb	2,200
6.6	Battery dimensions 1/w/h	in	50.4 / 40.7 / 25.2
Other Details			
8.1	Type of drive control		AC
8.2	Operating pressure for attachments	psi	2,030
8.3	Oil volume for attachments	gmp	19.5
8.4	Sound level at driver's ear according to EN 12 053	dB(A)	75

NOBLELIFT reserves the right to make technical changes and improvements to our products to maintain or enhance the quality, delivery, and efficiency.

# A GLOBAL LEADER

NOBLELIFT is a global leader in Lithium Technology. We manufacture more than 200 categories and around 30 series of each product. Our products are designed to meet different application demands and are well accepted by our customers in more than 100 countries and regions in Europe, America, Asia, Africa and more.

**Products include:** sit-down forklifts, rough terrain forklifts, narrow aisle forklifts, walkie-stackers, order pickers, electric pallet trucks, scissor lifts, tuggers, tow tractors, scrubbers/sweepers, lift tables, manual pallet jacks and more.



FORKLIFTS



NARROW AISLE



STACKERS



POWERED PALLET TRUCKS



SCISSOR LIFTS



TUGGERS



SCRUBBERS

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