

COUNTERBALANCE FORKLIFT

FE3R16NC

3-Wheel Rear Drive Electric Forklift

NOBLELIFT

Built for better.

OVERVIEW

BUILT FOR BETTER.

The FE3R16NC is a compact three-wheel rear-drive electric forklift lifting 1,600kg, bringing three-wheeler agility to heavier loads. A distinctive variable-wheelbase design tilts the mast by moving the front axle, giving stable, controlled load handling in a remarkably compact frame — just 1,000mm wide with a 1,500mm turning radius for easy work in confined aisles, containers and docks. Ready for lithium power, it pairs a maintenance-free AC drive and intelligent controller with on-board self-diagnostics and side battery extraction for fast changeovers. Full LED lighting, EPS steering and an adjustable seat keep operators comfortable and confident through long shifts, day or night.



Key Features

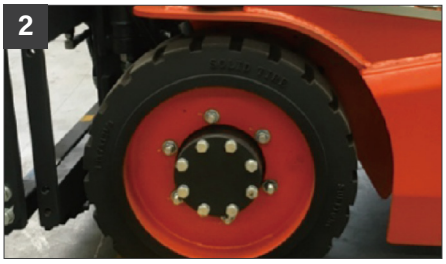
1



Smart, compact design with great mobility

At just 1,000mm wide with a 1,500mm turning radius, it works confined aisles, containers and tight docks with ease.

2



Variable wheelbase design

Mast tilt is achieved by moving the front axle, giving stable, controlled tilt and confident load handling in a compact frame.

3



Ready for lithium power

Designed to run on a lithium battery for efficient operation, with standard side battery extraction for fast changeovers.

4



Maintenance-free AC drive

Smooth, quiet, responsive performance and a long service life with minimal upkeep.

5



Intelligent controller & self-diagnostics

An intelligent computer controller and on-board ZAPI or Curtis self-diagnostic display make operation and fault-finding simple.

6



Fully openable covers for easy service

Fully openable covers give quick, unobstructed access to the drive, hydraulics and battery compartment for fast servicing.

7



Speed reduction at turning

A standard rear-wheel position sensor automatically slows the truck through corners for safer turning.

8



Easy EPS steering & comfort

A small-diameter steering wheel with spinner knob, electric power steering, and adjustable steering and seat make manoeuvring light and keep operators comfortable all shift.

INTELLIGENT SAFE AND RELIABLE.



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Comprehensive safety protection.

FEATURE	
Full LED lighting	Front, steering, rear combination and warning lights as standard for safe work in the dark.
Adjustable seat	Adjusts to suit each operator for comfort through long shifts.
Side battery extraction	A battery compartment with rollers lets the battery be drawn out from the side for fast changeovers.
Small-diameter steering wheel	With a spinner knob and adjustable position for light, precise control.
Small solid front wheels	Small-diameter solid wheels give smooth, easy motion.
Self-diagnostic display	An intelligent ZAPI or Curtis display makes operation and maintenance simple.

Model comparison

	FE3R08N	FE3R10N	FE3R12N
Rated capacity	800kg	1,000kg	1,200kg
Load centre	500mm	500mm	500mm
Lift height (standard)	3,000mm	3,000mm	3,000mm
Turning radius	1,160mm	1,320mm	1,350mm
Travel speed (laden/unladen)	8/9 km/h	7.5/9 km/h	7/9 km/h
Drive motor	2.5 kW	2.5 kW	2.5 kW
Lift motor	3 kW	3 kW	3 kW
Overall width	880mm	880mm	880mm
Service weight	1,800kg	1,910kg	2,080kg
Sound level	70 dB(A)	70 dB(A)	70 dB(A)

Type sheet acc. to VDI 2198

Identification				
Manufacturer's type designation		FE3R08N	FE3R10N	FE3R12N
Drive		electric	electric	electric
Type of operation		seated	seated	seated
Load capacity/rated load	Q(kg)	800	1000	1200
Load centre distance	c(mm)	500	500	500
Load distance, centre of drive axle to fork	x(mm)	265	265	265
Wheelbase	y(mm)	841/923	951/1033	991/1073
Weights				
Service weight incl. battery	kg	1800	1910	2080
Axle loading, laden front/rear	kg	2300/300	2600/310	2950/330
Axle loading, unladen front/rear	kg	770/1020	850/1060	880/1220
Wheels Chassis				
Type:solid rubber, superelastic, pneumatic, polyurethane		solid rubber/polyurethane	solid rubber/polyurethane	solid rubber/polyurethane
Tyres size, front		13×4 1/2×8	13×4 1/2×8	13×4 1/2×8
Tyres size, rear		Φ250×82	Φ250×82	Φ250×82
Wheels, number front/rear(×=driven wheels)		2/1×	2/1×	2/1×
Track width, front	b10(mm)	765	765	765
Track width, rear	b11(mm)	0	0	0
Dimensions				
Mast/fork carriage tilt forward/backward	α/β(°)	3/5	3/5	3/5
Lowered mast height	h1(mm)	1965	1965	1965
Free lift	h2(mm)	95	95	95
Extended mast height	h3(mm)	3000	3000	3000
Extended mast height	h4(mm)	3865	3865	3865
Overhead load guardheight	h6(mm)	1975	1975	1975
Seat height/standing height	h7(mm)	980	980	980
Coupling height	h10(mm)	540	540	540
Overall length	l1(mm)	2290	2400	2460
Length to face of forks	l2(mm)	1370	1480	1545
Overall width	b1(mm)	880	880	880
Fork dimensions	s/e/l(mm)	35/100/920	35/100/920	40/120/920
Fork carriage width	b3(mm)	825	825	825
Ground clearance, laden, under mast	m1(mm)	80	80	80
Ground clearance, centre of wheelbase	m2(mm)	90	90	90
Aisle width for pallets 1000×1200 crossways	Ast(mm)	2716	2921	2951
Aisle width for pallets 800×1200 lengthways	Ast(mm)	2879	3039	3069
Turning radius	Wa(mm)	1160	1320	1350
Performance Data				
Travel speed, laden/unladen	km/h	8/9	7.5/9	7/9
Lift speed, laden/unladen	m/s	0.17/0.28	0.16/0.22	0.15/0.22
Lowering speed, laden/unladen	m/s	0.23/0.22	0.16/0.20	0.17/0.20
Max.Drawbar pull, laden/unladen	N	1500/1700	1500/1700	1800/2300
Max.Gradient performance, laden/unladen	%	6/10	6/10	6/10
Service brake		hydraulic	hydraulic	hydraulic
Motors				
Drive motor rating S2 60 min	KW	2.5	2.5	2.5
Lift motor rating at S3 15%	KW	3	3	3
Battery standard		DIN	DIN	DIN
Battery voltage,nominal capacity K5	V/Ah	24/280 (360/400)(Optional)	24/420(480/540)(Optional)	24/420(480/540)(Optional)
Battery weight	kg	280/364/428	392/440/488	392/440/488
Battery dimensions l/w/h	mm	806/263/628	806/372/628	806/372/628
Other				
Type of drive control	AC	AC	AC	AC
Operating pressure for attachments	11.5	13.5	15.5	15.5
Oil volume for attachments	11	11	11	11
Sound level at driver's ear according to EN 12 053	70	70	70	70

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FE3D16-20N1 Mast Data Sheet

Designation	Lift height h3(mm)	Free Lift height h2(mm)	Closed mast height h1(mm)	Extended mast height h4(mm)	Tilt forward/ backward α/β(°)	Capacity table(kg) C=500mm without sideshift single solid tyres		
						FE3D16N1	FE3D18N1	FE3D20N1
Two-stage ZT	2500	125	1745	3455	5/7	1600	1800	2000
	2700	125	1845	3655	5/7	1600	1800	2000
	3000	125	1995	3955	5/7	1600	1800	2000
	3300	125	2145	4255	5/7	1600	1800	2000
	3500	125	2245	4455	5/7	1600	1800	2000
	3700	125	2345	4655	5/7	1600	1800	2000
	4000	125	2545	4955	3/5	1500	1800	2000
	4300	125	2695	5255	3/5	1450	1700	1900
	4500	125	2795	5455	3/5	1400	1600	1800
Two-stage ZZ	4500	790	1745	3455	5/7	1600	1800	2000
	2700	890	1845	3655	5/7	1600	1800	2000
	3000	1040	1995	3955	5/7	1600	1800	2000
	3300	1190	2145	4255	5/7	1600	1800	2000
	3500	1290	2245	4455	5/7	1600	1800	2000
	3700	1390	2345	4655	5/7	1600	1800	2000
	4000	1590	2545	4955	3/5	1500	1750	1900
Three-stage DZ	4000	985	1940	4955	3/5	1500	1750	1900
	4350	1110	2065	5305	3/5	1450	1700	1850
	4500	1160	2115	5455	3/5	1400	1600	1800
	4799	1200	2155	5755	3/5	1300	1500	1600
	5000	1360	2315	5955	3/5	1200	1450	1500
	5500	1510	2465	6455	3/5	1100	1200	1300
	6000	1710	2665	6955	3/5	800	900	1000
	6500	1910	2865	7455	3/5	500	650	750



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LITHIUM BATTERY

LONG LASTING AND SAFE LITHIUM POWER.

NOBLELIFT uses LiFePO4 chemistry — the longest-lasting and safest lithium battery chemistry available. Every battery is equipped with a Battery Management System (BMS), a thermal management system, and an intelligent control system. The BMS monitors all charging and discharging data to keep the battery safe throughout its life cycle.

Our lithium battery packs are backed by a 5-year / 10,000 hour warranty.

Advantages of Lithium Power

	LEAD-ACID BATTERY	LITHIUM BATTERY
PRODUCTIVITY	Lower fleet availability — work is interrupted because the battery must be fully charged before next use.	100% fleet availability — opportunity charging tops the battery up between use.
SERVICE LIFE	Periodic battery replacement.	Lasts up to 3 times longer and doesn't need replacing.
ONGOING MAINTENANCE	Outsourced or in-house maintenance personnel required.	No maintenance cost.
CHARGE DURATION	8–10 hours — 2 or more batteries per machine.	2–3 hours — 1 battery per machine.
BATTERY ROOM	Requires an expensive, ventilated battery room.	No battery room needed.
SAFETY	Releases hydrogen while charging (explosion risk); acid burns possible during maintenance.	No dangerous substances.
POWER SAVINGS	Power loss.	No power loss — reduces energy consumption by up to 35%.



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SERVICING, PARTS & SUPPORT.

At Noblelift, we understand that reliable servicing and maintenance are essential to keeping your operation running smoothly. That's why we offer comprehensive support tailored to the needs of your Noblelift fleet. With our commitment to excellence and customer satisfaction, you can trust us to keep your equipment operating at peak performance.

Through our nationwide New Zealand network we can provide:

NATIONAL TECHNICAL SUPPORT

Help by phone or on site, nationwide.

FULLY STOCKED PARTS

Genuine parts held in stock across NZ.

MAINTENANCE & SERVICE CONTRACTS

Flexible plans built around your operation.

DEDICATED SERVICE TEAM

Factory-trained technicians with the product knowledge and diagnostic tools to keep your fleet running.

GENUINE PARTS & ACCESSORIES

A full inventory of genuine Noblelift parts, ready when you need them.

BACK-UP MACHINERY

A rental and support fleet on standby to keep you moving through any downtime.

CUSTOMER TRAINING & SUPPORT

Hands-on operator and maintenance training so your team works safely and efficiently.

SCHEDULED MAINTENANCE PROGRAMS

Proactive, tailored servicing that catches issues early and prevents costly breakdowns.

24/7 EMERGENCY SUPPORT

Round-the-clock help to get you back up and running fast.



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Talk to our team for sales and enquires

enquiries@noblelift.nz

09 956 5992

Noblelift New Zealand.