

COUNTERBALANCE FORKLIFT

FE3R08-12N

3-Wheel Rear Drive Electric Forklift

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Built for better.

OVERVIEW

BUILT FOR BETTER.

The FE3D16-20N1 is Noblelift's N1 Series three-wheel electric forklift, lifting 1,600–2,000kg with the agility only a three-wheeler can offer. A short chassis and tight turning radius give it 40% more maneuvering room than the previous model, so it works in confined spaces, tight aisles and busy docks with ease. Built around a high-capacity 80V lithium-ion battery, it pairs high-power dual front-drive motors with quick, convenient charging, while a wide-view mast and overhead guard keep loads in clear sight. A roomy cabin and suspension seat round out a forklift built for long, comfortable, productive shifts.



Key Features

1



Smart, compact design with great mobility

An extremely compact body and small turning radius (from 1,160mm) make light work of confined aisles, containers and tight docks.

2



Maintenance-free AC drive

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

3



Intelligent controller & self-diagnostics

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

4



Speed reduction at turning

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

5



Easy EPS steering & comfort

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

6



Variable wheelbase design

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

7



Fully openable covers for easy service

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



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.

Type sheet acc. to VDI 2198

Identification				
Manufacture(abbreviation)		Noblelift	Noblelift	Noblelift
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
Operating pressure for attachments	Mpa	11.5	13.5	15.5
Oil volume for attachments	l/min	11	11	11
Sound level at driver's ear according to EN 12 053	dB(A)	70	70	70

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FE3D16-20N1 Series 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		
						FE3R08N	FE3R10N	FE3R12N
Two-stage ZT	2500	95	1715	3365	3/5	800	1000	1200
	2700	95	1815	3565	3/5	800	1000	1200
	3000	95	1965	3865	3/5	800	1000	1200
	3300	95	2155	4165	3/5	750	1000	1200
	3500	95	2215	4365	3/5	720	920	1050
	3700	95	2315	4565	3/5	700	850	950
	4000	95	2515	4865	3/5	650	800	900
Two-stage ZZ	4000	875	1715	3365	3/5	800	1000	1200
	2700	975	1815	3565	3/5	800	1000	1200
	3000	1125	1965	3865	3/5	800	1000	1200
	3300	1275	2155	4165	3/5	750	1000	1200
	3500	1375	2215	4365	3/5	720	920	1050
	3700	1475	2315	4565	3/5	700	800	950
	4000	1625	2515	4865	3/5	650	750	900
Three-stage DZ	4000	1061	1900	4865	3/5	/	750	900
	4350	1161	2000	5215	3/3	/	650	800
	4500	1211	2050	5365	3/3	/	550	700
	4800	1311	2150	5665	3/3	/	450	550
	5000	1411	2250	5865	3/3	/	400	450

Free hight(no load-backrest) +305



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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

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Noblelift New Zealand.