

COUNTERBALANCE FORKLIFT

FE3D16-20N1

3-Wheel Dual Drive Electric Forklift

NOBLELIFT

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 manoeuvring 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



Compact three-wheel agility

A short chassis and tight turning radius deliver 40% more manoeuvring space than the previous model, ideal for confined areas and narrow aisles.

2



80V lithium-ion power

A high-capacity lithium-ion battery and high-power dual front-drive motor deliver strong, efficient performance, with fast and convenient charging built in.

3



High-strength chassis, built for lithium

The chassis is engineered around the lithium-ion battery solution for a strong, stable, purpose-built platform.

4



Comfortable, large cabin

An optimised cabin with a suspension seat and generous headroom keeps operators comfortable across long shifts.

5



Wide-view mast and overhead guard

A high-strength, wide-view overhead guard and open mast give a clear line of sight to the load and the racking above.

6



Large-size tilt cylinders

Larger tilt cylinders gives smooth, controlled mast tilt for confident load handling.

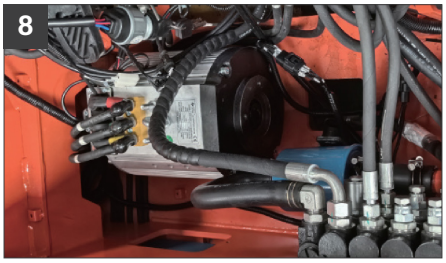
7



High-load rear wheel

Upgraded 140/55-9 rear tyres increase carrying capacity and stability.

8



Easy maintenance and protection

Large inspection access to the drive and hydraulic systems speeds servicing, while IPX4 vehicle and IP65 motor/ battery ratings protect against dust and water.



INTELLIGENT SAFE AND RELIABLE.

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Comprehensive safety protection.



FEATURE	
Dual charging ports	A standard on-board charger with fast and slow charging options, positioned at the rear so multiple trucks charge side by side.
All-in-one overhead display	A single overhead instrument keeps key information in the operator's eyeline.
Suspension seat & roomy cabin	An optimised cabin with suspension seat and generous headroom for all-shift comfort.
Wide-view mast	An open mast makes handling and placing loads easier to see.
High-load rear tyres	Upgraded 140/55-9 rear tyres lift carrying capacity and stability.
Protected drivetrain	IPX4 vehicle and IP65 motor/battery ratings, with electronic controls housed in the counterweight for cooling and protection. .

FE3D16-20N1 Series Battery Balance Weight Type Forklift

Identification				
Manufacture(abbreviation)		Noblelift	Noblelift	Noblelift
Manufacturer's type designation		FE3D16N1	FE3D18N1	FE3D20N1
Drive		electric	electric	electric
Type of operation		seated	seated	seated
Load capacity/rated load	Q(kg)	1600	1800	2000
Load centre distance	c(mm)	500	500	500
Load distance, centre of drive axle to fork	x(mm)	372	377	377
Wheelbase	y(mm)	1360	1360	1360
Weights				
Service weight incl. battery(see line 6.5)	kg	3080	3200	3400
Axle loading ,laden front/rear	kg	4160/520	4450/550	4790/610
Axle loading,unladen front/rear	kg	1470/1610	1530/1670	1640/1760
Wheels Chassis				
Type:solid rubber, superelastic, pneumatic,polyurethane		solid rubber	solid rubber	solid rubber
Tyres size,front		18×7-8	18×7-8	200/50-10
Tyres size,rear		140/55-9	140/55-9	140/55-9
Wheels,number front/rear(x=driven wheels)		2×/2	2×/2	2×/2
Track width,front	b10(mm)	902	902	940
Track width,rear	b11(mm)	210	210	210
Dimensions				
Mast/fork carriage tilt forward/backward	α/β(°)	5/7	5/7	5/7
lowered mast height	h1(mm)	1995	1995	1995
Free lift	h2(mm)	120	125	125
Extended mast height	h3(mm)	3000	3000	3000
Extended mast height	h4(mm)	3955	3955	3955
Overhead load guardheight	h6(mm)	2100	2100	2100
Seat height/standing height	h7(mm)	1005	1005	1005
Coupling height	h10(mm)	520	520	520
Overall length	l1(mm)	2925	3080	3080
Length to face of forks	l2(mm)	2005	2010	2010
Overall width	b1(mm)	1084	1084	1145
Fork dimensions	s/e/l(mm)	35/100/920	40/100/1070	40/100/1070
Fork carriage width	b3(mm)	1040	1040	1040
Ground clearance ,laden,under mast	m1(mm)	115	115	115
Ground clearance, centre of wheelbase	m2(mm)	105	105	105
Aisle width for pallets 1000×1200 crossways	Ast(mm)	3318	3323	3323
Aisle width for pallets 800×1200 lengthways	Ast(mm)	3443	3447	3447
Turning radius	Wa(mm)	1620	1620	1620
Performance Data				
Travel speed,laden/unladen	km/h	15/15	15/15	15/15
Lift speed,laden/unladen	m/s	0.40/0.50	0.40/0.50	0.40/0.50
Lowering speed,laden/unladen	m/s	0.50/0.50	0.50/0.50	0.50/0.50
Max.Drawbar pull,laden/unladen	N	11500/10500	12500/11500	13500/12500
Max.Gradient performance,laden/unladen	%	15/20	15/20	15/20
Service brake		hydraulic	hydraulic	hydraulic
Motors				
Drive motor rating S2 60 min	KW	5.5*2	5.5*2	5.5*2
Lift motor rating at S3 15%	KW	12	12	12
Battery standard		Lion	Lion	Lion
Battery voltage,nominal capacity K5	V/Ah	76.8/150(277/412)	76.8/150(277/412)	76.8/150(277/412)
Battery weight	kg	160/230/300	160/230/300	160/230/300
Battery dimensions l/w/h	mm	819×400×605	819×400×605	819×400×605
Other				
Type of drive control		AC	AC	AC
Operating pressure for attachments	Mpa	17.5	17.5	17.5
Oil volume for attachments	l/min	36	36	36
Sound level at driver's ear according to EN 12 053	dB(A)	73	36	73

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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		
						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

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Noblelift New Zealand.