

FEP20-50NP

COUNTERBALANCE FORKLIFT

4-Wheel Compact Electric Forklift

NOBLELIFT

Built for better.

OVERVIEW

BUILT FOR BETTER.

The FEP20-50NP is Noblelift's latest generation of lithium-ion electric forklifts, lifting 20–5.0 tonnes on an all-new, compact chassis designed to work comfortably inside the warehouse as well as out in the yard. It brings the power, lift speed and driving feel of an internal-combustion forklift together with the efficiency, quiet running and low costs of lithium electric. Custom-engineered CATL battery cells, permanent-magnet motors and a smart HUD display make it efficient and intuitive, while a spacious, ergonomic cab gives operators room to work in real comfort, shift after shift.



Key Features

1



Excellent ergonomic design

A spacious cab with 30% more operating space than traditional electric forklifts, IC-equivalent legroom, and a smart HUD display that puts intuitive operation, real-time vehicle data and adjustable control settings right in front of the operator.

2



Efficient permanent-magnet motors

Permanent-magnet synchronous motors lifts energy efficiency by 15%, paired with a standard Shimadzu low-noise gear pump for quiet, economical performance.

3



Latest innovation & technology

Custom-engineered, reliable lithium-ion technology using CATL battery cells, backed by industry leading warranty, with battery heating for dependable performance in cold conditions.

4



Industry-leading lift speed

Lift speed approaches that of an internal-combustion forklift at up to 600mm/s (no load), with strong travel speed, climbing ability and slope-hold performance even fully loaded.

5



Easy operations and maintenance

Fully sealed covers protect the controllers, motors and electricals, and a wide-opening hood makes servicing quick and simple.

6



Safe and reliable

A cast steering axle with a large steering cylinder delivers smooth, precise, dependable turning across the full 2.0–5.0t range.

INTELLIGENT SAFE AND RELIABLE.



NOBLELIFT
Built for better.

Comprehensive safety protection.



FEATURE	
Weatherproof rating	IPX4 vehicle and IP65 motor/battery protection for dependable work in dust and wet.
Sealed electrical covers	Fully sealed covers keep dust and water off the controllers, motors and electricals.
Wide-angle hood	The hood opens wide for quick, easy access and maintenance.
EU-standard safety	A standard emergency stop switch and CE certification.
Wide-view mast	An optimised mast layout gives clear sightlines while operating.
Suspension seat	A comfortable, supportive seat for long shifts in the spacious cab.
Fast charging & battery swap	A standard 80V 100A fast charger, with rapid battery swap available for near-continuous runtime.

Type sheet acc. to VDI 2198 - FEP20-25NP

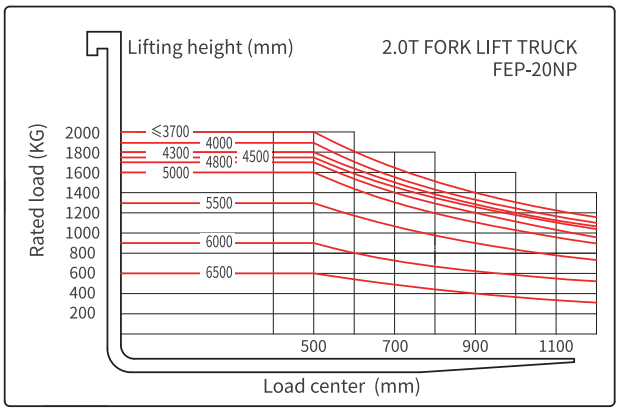
Manufacturer's type designation		FEP-20NP	FEP-25NP
Drive		Electric	Electric
Type of operation		Seated	Seated
Load capacity/rated load	Q (kg)	2000	2500
Load centre distance	c (mm)	500	500
Load distance,centre of drive axle to fork	x (mm)	452	452
Wheelbase	y (mm)	1520	1520
Service weight incl	kg	3790	3942
Axle loading ,laden front/rear	kg	5100/690	5689/753
Axle loading,unladen front/rear	kg	1630/2160	1699/2243
Type:solid rubber,superelastic,pneumatic,polyurethane		Pneumatic tire	Pneumatic tire
Tyres size,front		23×9-10	23×9-10
Tyres size,rear		18×7-8	18×7-8
Track width,front	b10 (mm)	1057	1057
Track width,rear	b11 (mm)	955	955
Mast/fork carriage tilt forward/backward	α/β (°)	6/12	6/12
Lowered mast height	h1 (mm)	2001	2001
Free lift	h2 (mm)	140	140
Lift height	h3 (mm)	3000	3000
Extended mast height	h4 (mm)	4040	4040
Overhead load guardheight	h6 (mm)	2100	2100
Overall length	l2 (mm)	2336	2336
Overall width	b1 (mm)	1283	1283
Fork dimensions	s*e*l (mm)	1070×122×40	1070×122×40
Fork carriage width	b5 (mm)	290/1100	290/1100
Ground clearance ,laden,under mast	m1 (mm)	120	120
Ground clearance,centre of wheelbase	m2 (mm)	125	125
Aisle width for pallets 1000×1200 crossways	Ast (mm)	3752	3752
Aisle width for pallets 800×1200 lengthways	Ast (mm)	3952	3952
Turning radius	Wa (mm)	2100	2100
Travel speed,laden/unladen	km/h	18/19	18/19
Lift speed,laden/unladen Two stage gantry	mm/s	450/600	430/600
Lowering speed,laden/unladen Two stage gantry	mm/s	450/420	470/420
Max.Drawbar pull ,laden/unladen	N	15000	19000
Max.Gradient performance,laden/unladen	%	20/20	20/20
Service brake		Hydraulic	Hydraulic
Parking Brake		mechanical brake	mechanical brake
Drive motor rating S2 60 min	kW	16.6 AC	16.6 AC
Lift motor rating at S3 15%	kW	24 (PMM)	24 (PMM)
Battery voltage,nominal capacity K5	V/Ah	80/268	80/268
Battery weight	kg	220	220
Type of drive control		MOSFET/AC	MOSFET/AC

FE3D16-20N1 Mast Data Sheet

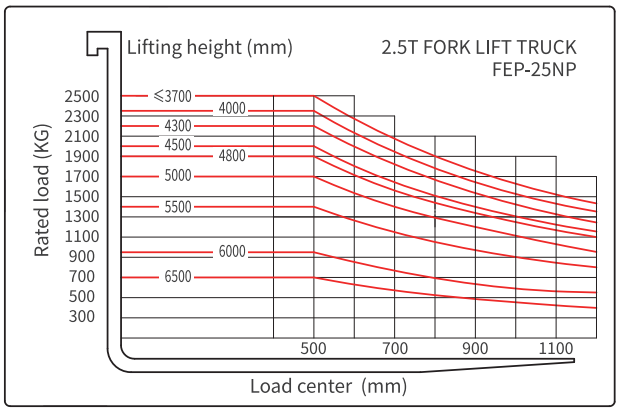
Designation	Lift height h3(mm)	Free Lift height h2(mm)	Closed mast height h1(mm)	Extended mast height h4(mm)	Tilt forward/ backward α/β(°)	Capacity table(kg) C=500mm without sideshift single tyres	
						FEP20NP	FEP25NP
Two-stage ZT	2000	120	1545	2977	6/12	2000	2500
	2500	120	1795	3227	6/12	2000	2500
	3000	120	2045	3977	6/12	2000	2500
	3300	120	2195	4277	6/12	2000	2500
	3500	120	2295	4477	6/12	2000	2500
	3600	120	2345	4577	6/12	2000	2500
	3700	120	2395	4677	6/6	2000	2500
	4000	120	2595	5077	6/6	2000	2500
	4300	120	2745	5377	6/6	1850	2100
	4500	120	2845	5577	6/6	1700	2000
	5000	120	3145	6077	6/6	1400	1600
	5500	120	3395	6677	3/6	1050	1200
	6000	120	3645	7177	3/6	700	800
Two-stage ZZ	2000	558	1545	2971	6/12	2000	2500
	2500	808	1795	3471	6/12	2000	2500
	3000	1058	2045	3971	6/12	2000	2500
	3300	1208	2195	4271	6/12	2000	2500
	3500	1308	2295	4471	6/12	2000	2500
	3600	1358	2345	4571	6/12	2000	2500
	3700	1408	2395	4671	6/6	2000	2500
	4000	1608	2595	4971	6/6	2000	2500
	4300	1758	2745	5271	6/6	1850	2100
	4500	1858	2845	5471	6/6	1700	2000
	5000	2158	3145	5971	6/6	1400	1600
	5500	2408	3395	6471	3/6	1050	1150
	6000	2658	3645	6971	3/6	700	800
Three-stage DZ	4000	983	1970	4981	6/6	1900	2300
	4300	1108	2095	5331	6/6	1700	2000
	4500	1158	2145	5479	6/6	1600	1900
	4800	1258	2245	5779	6/6	1400	1600
	5000	1401	2388	5979	6/6	1300	1500
	5500	1635	2622	6479	3/6	1000	1150
	6000	1868	2855	6979	3/6	700	800

Load curve graph

FEP-20NP



FEP-25NP



Type sheet acc. to VDI 2198 - FEP30-35NP

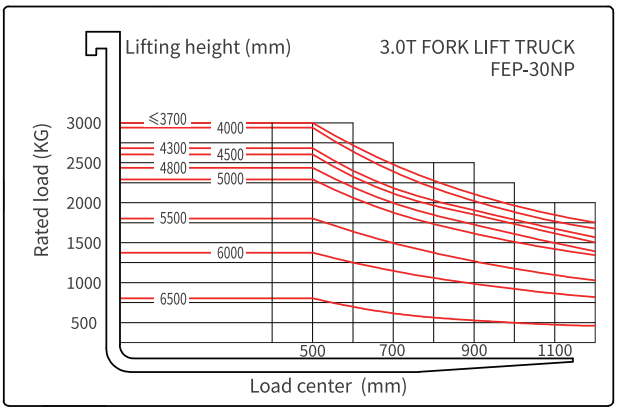
Manufacturer's type designation		FEP-30NP	FEP-35NP
Drive		Electric	Electric
Type of operation		Seated	Seated
Load capacity/rated load	Q (kg)	3000	3500
Load centre distance	c (mm)	500	500
Load distance,centre of drive axle to fork	x (mm)	457	462
Wheelbase	y (mm)	1650	1650
Service weight incl	kg	4573	4748
Axle loading ,laden front/rear	kg	6740/833	7318/930
Axle loading,unladen front/rear	kg	1920/2653	2836/1912
Type:solid rubber,superelastic,pneumatic,polyurethane		Pneumatic tire	solid tire
Tyres size,front		23×9-10	23×10-12
Tyres size,rear		18×7-8	200/50-10
Track width,front	b10 (mm)	1057	1068
Track width,rear	b11 (mm)	955	967
Mast/fork carriage tilt forward/backward	α/β (°)	6/12	6/12
Lowered mast height	h1 (mm)	2151	2151
Free lift	h2 (mm)	145	145
Lift height	h3 (mm)	3000	3000
Extended mast height	h4 (mm)	4135	4135
Overhead load guardheight	h6 (mm)	2100	2100
Overall length	l2 (mm)	2480	2480
Overall width	b1 (mm)	1283	1315
Fork dimensions	s*e*l (mm)	1070×122×45	1070×122×50
Fork carriage width	b5 (mm)	290/1100	290/1100
Ground clearance ,laden,under mast	m1 (mm)	120	120
Ground clearance,centre of wheelbase	m2 (mm)	125	125
Aisle width for pallets 1000×1200 crossways	Ast (mm)	3877	3882
Aisle width for pallets 800×1200 lengthways	Ast (mm)	4077	4082
Turning radius	Wa (mm)	2220	2220
Travel speed,laden/unladen	km/h	18/19	18/19
Lift speed,laden/unladen Two stage gantry	mm/s	410/540	390/540
Lowering speed,laden/unladen Two stage gantry	mm/s	450/420	470/420
Max.Drawbar pull ,laden/unladen	N	22000	23000
Max.Gradient performance,laden/unladen	%	20/20	15/20
Service brake		Hydraulic	Hydraulic
Parking Brake		mechanical brake	mechanical brake
Drive motor rating S2 60 min	kW	16.6 AC	16.6 AC
Lift motor rating at S3 15%	kW	24 (PMM)	24 (PMM)
Battery voltage,nominal capacity K5	V/Ah	80/268	80/268
Battery weight	kg	320	320
Type of drive control		MOSFET/AC	MOSFET/AC

FE3D16-20N1 Mast Data Sheet

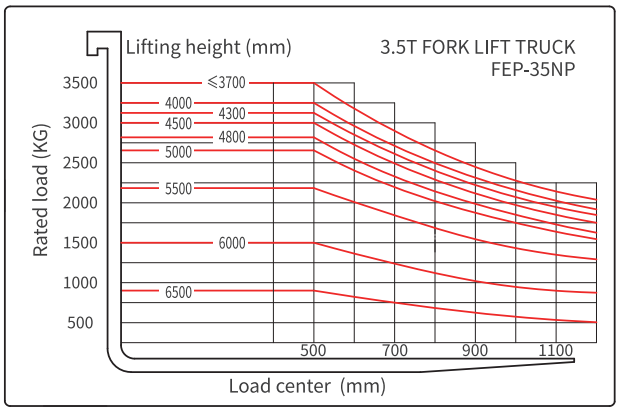
Designation	Lift height h3(mm)	Free Lift height h2(mm)	Closed mast height h1(mm)	Extended mast height h4(mm)	Tilt forward/ backward α/β(°)	Capacity table(kg) C=500mm without sideshift single tyres	
						FEP30NP	FEP35NP
Two-stage ZT	2000	125	1545	2977	6/12	3000	3500
	2500	125	1795	3227	6/12	3000	3500
	3000	125	2045	3977	6/12	3000	3500
	3300	125	2195	4277	6/12	3000	3500
	3500	125	2295	4477	6/12	3000	3500
	3600	125	2345	4577	6/12	3000	3500
	3700	125	2395	4677	6/6	2950	3250
	4000	125	2595	5077	6/6	2850	3000
	4300	125	2745	5377	6/6	2700	2800
	4500	125	2845	5577	6/6	2500	2600
	5000	125	3145	6077	6/6	2100	2200
Two-stage ZZ	2000	563	1545	2971	6/12	3000	3500
	2500	813	1795	3471	6/12	3000	3500
	3000	1063	2045	3971	6/12	3000	3500
	3300	1213	2195	4271	6/12	3000	3500
	3500	1313	2295	4471	6/12	3000	3500
	3600	1363	2345	4571	6/12	3000	3500
	3700	1413	2395	4671	6/6	3000	3500
	4000	1613	2595	4971	6/6	2850	3200
	4300	1763	2745	5271	6/6	2700	2850
	4500	1863	2845	5471	6/6	2500	2600
	5000	2163	3145	5971	6/6	2100	2200
Three-stage DZ	4000	988	1970	4981	6/6	2750	3200
	4300	1113	2095	5331	6/6	2600	3000
	4500	1163	2145	5479	6/6	2400	3000
	4800	1263	2245	5779	6/6	2200	2500
	5000	1406	2388	5979	6/6	2000	2400
	5500	1640	2622	6479	3/6	1500	1750
	6000	1873	2855	6979	3/6	1200	1250

Load curve graph

FEP-30NP



FEP-35NP



Type sheet acc. to VDI 2198 - FEP30-35NP

Manufacturer's type designation		FEP-40NP	FEP-45NP	FEP-50NP
Drive		Electric	Electric	Electric
Type of operation		Seated	Seated	Seated
Load capacity/rated load	Q (kg)	4000	4500	5000
Load centre distance	c (mm)	500	500	500
Load distance,centre of drive axle to fork	x (mm)	555	555	560
Wheelbase	y (mm)	1950	1950	1950
Service weight incl	kg	6210	6535	6965
Axle loading ,laden front/rear	kg	8679/1532	9380/1655	10170/1795
Axle loading,unladen front/rear	kg	2795/3416	2941/3594	3134/3831
Type:solid rubber,superelastic,pneumatic,polyurethane		Pneumatic tire	Pneumatic tire	Pneumatic tire
Tyres size,front		250-15	250-15	28×12.5-15
Tyres size,rear		23×9-10	23×9-10	23×9-10
Track width,front	b10 (mm)	1198	1198	1208
Track width,rear	b11 (mm)	1128	1128	1128
Mast/fork carriage tilt forward/backward	α/β (°)	5/10	5/10	5/10
Lowered mast height	h1 (mm)	2250	2250	2250
Free lift	h2 (mm)	150	150	150
Lift height	h3 (mm)	3000	3000	3000
Extended mast height	h4 (mm)	4240	4240	4240
Overhead load guardheight	h6 (mm)	2250	2250	2250
Overall length	l2 (mm)	2900	2900	2905
Overall width	b1 (mm)	1440	1440	1500
Fork dimensions	s*e*l (mm)	50×122×1070	50×122×1070	55×150×1070
Fork carriage width	b5 (mm)	310/1250	310/1250	310/1250
Ground clearance ,laden,under mast	m1 (mm)	180	180	180
Ground clearance,centre of wheelbase	m2 (mm)	–	–	–
Aisle width for pallets 1000×1200 crossways	Ast (mm)	4355	4355	4360
Aisle width for pallets 800×1200 lengthways	Ast (mm)	4555	4555	4560
Turning radius	Wa (mm)	2600	2600	2600
Travel speed,laden/unladen	km/h	18/18	18/18	18/18
Lift speed,laden/unladen Two stage gantry	mm/s	350/430	350/430	350/430
Lowering speed,laden/unladen Two stage gantry	mm/s	430/480	430/480	430/480
Max.Drawbar pull ,laden/unladen	N	23000	24000	26000
Max.Gradient performance,laden/unladen	%	15/20	15/20	15/20
Service brake		Hydraulic	Hydraulic	Hydraulic
Parking Brake		Mechanical	Mechanical	Mechanical
Drive motor rating S2 60 min	kW	24.5 (PMM)	24.5 (PMM)	24.5 (PMM)
Lift motor rating at S3 15%	kW	32.5 (PMM)	32.5 (PMM)	32.5 (PMM)
Battery voltage / nominal capacity K5	V/Ah	80/536	80/536	80/536
Battery options	V/Ah	80/684, 80/804, 80/906	80/684, 80/804, 80/906	80/684, 80/804, 80/906
Battery weight	kg	430	430	430
Type of drive control		MOSFET/AC	MOSFET/AC	MOSFET/AC
"Type" (as printed)		650+450	650+450	650+450

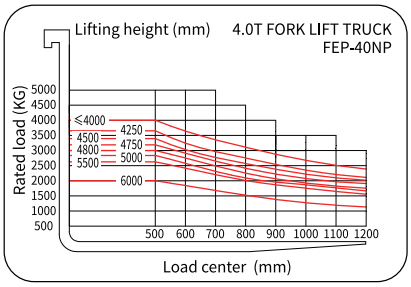
FE3D16-20N1 Mast Data Sheet

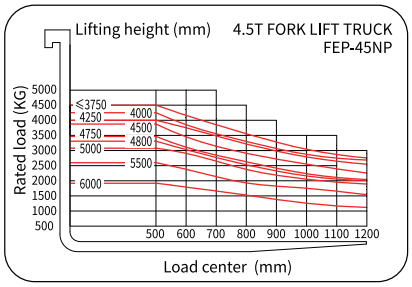
Designation	Lift height h3(mm)	Free Lift height h2(mm)	Closed mast height h1(mm)	Extended mast height h4(mm)	Tilt forward/ backward α/β(°)	Capacity table(kg) C=500mm without sideshift single tyres		
						FEP40NP	FEP45NP	FEP50NP
Two-stage ZT	3000	150	2250	3910	5/10	4000	4500	4990
	3500	150	2500	4410	5/10	4000	4500	4990
	4000	150	2800	5010	5/10	4000	4500	4750
	4500	150	3050	5510	5/6	3400	3800	4250
	5000	150	3300	6010	5/6	2800	3150	3500
Two-stage ZZ	3000	1495	2250	3915	5/10	4000	4500	4990
	3500	1745	2500	4415	5/10	4000	4500	4990
	4000	1995	2750	4915	5/10	4000	4200	4650
	4500	2246	3000	5415	5/6	3350	3750	4150
	5000	2495	3250	5916	5/6	2700	3050	3400
Three-stage DZ	4500	1340	2250	5400	5/6	3200	3600	4000
	4800	1439	2350	5701	5/6	3000	3350	3650
	5000	1539	2450	5899	5/6	2800	3150	3400
	5500	1689	2610	6400	3/6	2250	2550	2850
	6000	1904	2820	6900	3/6	1700	1950	2200

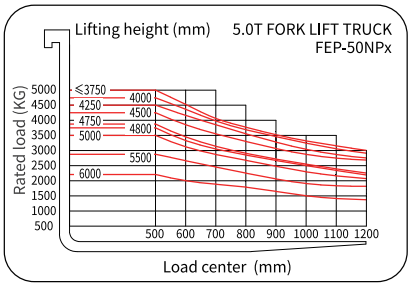
Other lift heights available on request (ZT/ZZ from 2000 mm, DZ up to 6500 mm).

Load curve graph

FEP-40NP	FEP-45NP	FEP-50NP









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%.

NOBLELIFT
Built for better.



4-Wheel Compact Electric Forklift **Noblelift New Zealand**



NOBLELIFT
Built for better.

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.



NOBLELIFT

Built for better.

Talk to our team for sales and enquires

enquiries@noblelift.nz

09 956 5992

Noblelift New Zealand.