

# FD4P20-35N

## Internal Combustion Counterbalanced Forklift Truck

### ADVANTAGES

The FD4P20N-35N Series are highly efficient, durable Diesel/Pneumatic forklifts. They are designed to move high volumes and big loads reliably. The mast system, front/rear axles, chassis and overhead guard are engineered for the toughest conditions. Applications can include lumber yards, brick and stone distribution centers, specialized warehouses and heavy-duty manufacturing facilities. These high performance, low maintenance forklifts deliver improved productivity while ensuring operator comfort throughout the entire shift.

### HIGHLIGHTS

- ▶ On-demand fully hydrostatic power steering (FHPS)
- ▶ 4-Way hydraulics to carriage
- ▶ Multi-function LED Display: Speed, travel direction, fuel indicator, engine temp, oil pressure, odometer, hour meter, parking brake and more
- ▶ Operator Presence System (OPS) for safe operation
- ▶ LED rear work light, headlights, and strobe
- ▶ Deluxe suspension seat
- ▶ Spacious operator cab
- ▶ Side-shift
- ▶ Tilt steering column
- ▶ Safety Blue light
- ▶ Rear grab bar with horn
- ▶ Easy serviceability





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



The large, ergonomic cab and user-friendly design ensures operator comfort throughout the entire work shift. Low entrance height provides operator easy and safe access.

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



On-Demand Fully Hydrostatic Power Steering (FHPS) guarantees smooth steering, preventing over-run and kick-back. Spinner knob allows easier one-handed steering.



The angle of the steering column is easily adjusted with a lever on the left-hand side of the steering column.



Equipped with LED lamps: LED rear work lights, headlights, strobe and safety blue light. Bright light with low power consumption provides excellent visibility.





Heavy-duty steel chassis, axles, mast and overhead guard deliver high strength and stability for high lifting heights and heavy loads.



Radiator' splate fin heat dissipation system keeps engine running reliably, even in the most demanding applications.



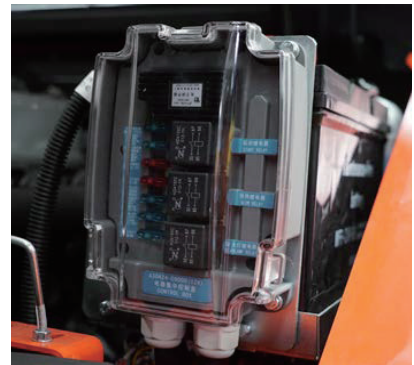
Intelligent buffering effectively protects the ground and cargo from damage while forks descend to the ground.



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



Cast axles increases the bearing load and improves the truck structure, while prolonging vehicle service life.



Durable controller that integrates all electrical components is protected from temperature, water and vibration.



Optimized pedal position gives operator comfort throughout the entire work shift while reducing operator fatigue.



(2) USB connectors for charging of additional devices during operations.



Angled exit ports direct engine air away from the operator and the cab to help operators stay cool.



Gain rapid access to engine and other components with an air spring assisted engine cover and integrated hood lock. Opens wide to allow for complete access.

Automobile-style brake fluid system makes it simple to add and check the brake fluid.

Radiator cover fasteners are easily turned by hand to enable quick inspection or servicing.

Air cleaning system with tangential intake and double seal with safety filter is durable, corrosion-free, and vibration-resistant. It provides optimal filter efficiency and lower intake resistance.



Modular frame is designed based on the same chassis as the NOBLELIFT LPG and Electric forklifts. Main components and configurations are the same. Spare parts inventory is minimized to reduce service and maintenance costs.



NOBLELIFT' sdiesel engines meet the tough EPA Tier IV Final and EU Stage V emission regulations for engine exhaust emissions.

NOBLELIFT has used environment friendly materials when possible -Including non- asbestos brake shoes and a new type of sealing gasket. We are committed to pursuing a clean environment.



## YANMAR (Diesel)

### Type:A3

Rated output **42.1/2300**kw/rpm  
Rated torque:**177.6 196.3/1700**N.m/rpm

Model:4TNE98-BQFLC(EUIII)

No. of cylinder:4

Bore x Stroke:98×110mm

Displacement:3.318L



## MITSUBISHI (Diesel)

### Type:B3

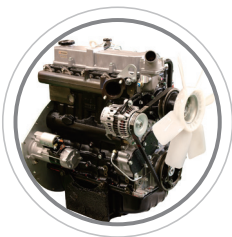
Rated output **35.3/2250**kw/rpm  
Rated torque:**169/1700**N.m/rpm

Model:S4S(EUIIA)

No. of cylinder:4

Bore x Stroke:94×120mm

Displacement:3.331L



## LS Mtron (Diesel)

### Type:L3

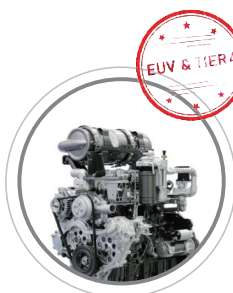
Rated output **42/2300**kw/r.p.m  
Rated torque:**208/1700**N.m/r.p.m

Model:L4CRTV4(EUV)

No. of cylinder:4

Bore x Stroke:88×103mm

Displacement:2.505L



## XINCHAI (Diesel)

### Type:G (1) 3

Rated output **36.8/2500**kw/r.p.m  
Rated torque:**156/1700-1900**N.m/r.p.m

Model:4D27G31-012

No. of cylinder:4

Bore x Stroke:90×105mm

Displacement:2.67L



## HYUNDAI (LPG)

### Type:N3/P3; K3/L3

Rated output **43.5/2500**kw/r.p.m  
Rated torque:**177/1600**N.m/r.p.m

Model:THETA2.4

No. of cylinder:4

Bore x Stroke:88×97mm

Displacement:2.359L



Mast Table FD20-25N												
Designation	Lift height		Free Lift		Closed mast height		Extended mast height		Tilt forward/backward		Capacity table(kg) C=600mm without sideshift, single pneumatic tyres	
	h3 (mm)		h2 (mm)		h1 (mm)		h4 (mm)		$\alpha / \beta(^{\circ})$		FD20	FD25
Two-stage ZT	2000		135		1570		2974		6/10		2000	2500
	2500		135		1820		3474		6/10		2000	2500
	3000		135		2070		3974		6/10		2000	2500
	3300		135		2220		4274		6/10		2000	2500
	3500		135		2320		4474		6/10		2000	2500
	3600		135		2370		4574		6/10		2000	2500
	3700		135		2420		4674		6/10		2000	2500
	4000		135		2620		4974		6/6		2000	2450
	4300		135		2770		5274		6/6		1950	2300
	4500		135		2870		5474		6/6		1900	2100
5000		135		3120		5974		6/6		1450	1850	
Two-stage ZZ	2000		631		1570		2968		6/10		2000	2500
	2500		881		1820		3468		6/10		2000	2500
	3000		1131		2070		3968		6/10		2000	2500
	3300		1281		2220		4268		6/10		2000	2500
	3500		1381		2320		4468		6/10		2000	2500
	3600		1431		2370		4568		6/10		2000	2500
	3700		1481		2420		4668		6/6		2000	2500
4000		1681		2620		4968		6/6		2000	2400	
Three-stage DZ	4000		1056		1980		4978		6/6		1900	2350
	4350		1181		2105		5328		6/6		1800	2200
	4500		1231		2155		5476		6/6		1750	2000
	4800		1331		2255		5776		6/6		1700	1900
	5000		1474		2398		5976		6/6		1600	1700
	5500		1708		2647		6476		3/6		1300	1400
	6000		1941		2865		6976		3/6		900	950
	6500		2174		3098		7476		3/3		600	700

Mast Table FD30N-35N												
Designation	Lift height		Free Lift		Closed mast height		Extended mast height		Tilt forward/backward		Capacity table(kg) C=500mm without sideshift, single pneumatic tyres	
	h3 (mm)		h2 (mm)		h1 (mm)		h4 (mm)		$\alpha / \beta(^{\circ})$		FD30N	FD35N
Two-stage ZT	2000	2000	140	145	1575	1685	3079	3079	6/10	6/10	3000	3500
	2500	2500	140	145	1825	1935	3579	3579	6/10	6/10	3000	3500
	3000	3000	140	145	2075	2185	4079	4079	6/10	6/10	3000	3500
	3300	3300	140	145	2225	2335	4379	4379	6/10	6/10	3000	3500
	3500	3500	140	145	2325	2435	4579	4579	6/10	6/10	3000	3500
	3600	3600	140	145	2375	2485	4679	4679	6/10	6/10	3000	3500
	3700	3700	140	145	2425	2535	4779	4779	6/10	6/10	3000	3500
	4000	4000	140	145	2625	2735	5079	5079	6/6	6/6	2950	3300
	4300	4300	140	145	2775	2885	5379	5379	6/6	6/6	2850	3250
	4500	4500	140	145	2875	2985	5579	5579	6/6	6/6	2600	3100
5000	5000	140	145	3125	3235	6079	6079	6/6	6/6	2400	2650	
Two-stage ZZ	2000	2000	563	491	1575	1575	3079	3079	6/10	6/10	3000	3500
	2500	2500	813	741	1825	1825	3579	3579	6/10	6/10	3000	3500
	3000	3000	1063	991	2075	2075	4079	4079	6/10	6/10	3000	3500
	3300	3300	1213	1141	2225	2225	4379	4379	6/10	6/10	3000	3500
	3500	3500	1313	1241	2325	2325	4579	4579	6/10	6/10	3000	3500
	3600	3600	1363	1291	2375	2375	4679	4679	6/10	6/10	3000	3500
	3700	3700	1413	1341	2425	2425	4779	4779	6/6	6/6	3000	3450
4000	4000	1613	1541	2625	2625	5079	5079	6/6	6/6	2950	3300	
Three-stage DZ	4000	4000	988	916	2000	2000	5079	5079	6/6	6/6	2900	3250
	4350	4300	1113	1041	2125	2125	5429	5429	6/6	6/6	2700	3150
	4500	4500	1163	1091	2175	2175	5579	5579	6/6	6/6	2600	3000
	4800	4800	1263	1191	2275	2275	5879	5879	6/6	6/6	2400	2800
	5000	5000	1406	1334	2418	2418	6079	6079	6/6	6/6	2300	2650
	5500	5500	1640	1568	2652	2652	6579	6579	3/6	3/6	1800	2200
	6000	6000	1873	1801	2885	2885	7079	7079	3/6	3/6	1400	1500
	6500	6500	2107	2034	3118	3118	7579	7579	3/3	3/3	800	900

## 2-3.5T IC truck main spec

General				FD20	FD25	FD30	FD35
1	Model			FD20	FD25	FD30	FD35
2	Rated capacity	kg		2000	2500	3000	3500
3	Load center	mm		500	500	500	500
Characteristic & Dimension							
4	Lift height	mm		3000	3000	3000	3000
5	Mast tilt angle	F/R	Deg	6/10	6/10	6/10	6/10
6	Fork	L×W×T	mm	1070×100×45	1070×122×40	1070×125×45	1070×130×50
7		Regulating range	mm	200-1040	200-1040	250-1100	260-1100
8	Front overhang	mm		478	478	478	478
9	Rear overhang	mm		496	543	530	607
10	Mast width	Outer width of steel channel	mm	700	700	700	700
11	Min ground clearance (Bottom of frame)	Unladen	mm	131	131	156	156
12		Laden	mm	120	120	140	140
13	Min ground clearance (Bottom of mast)	Unladen	mm	125	125	140	140
14		Laden	mm	115	115	130	130
15	Overall dimensions	Overall length (without forks)		mm	2560	2620	2700
16		Overall width		mm	1150	1150	1210
17		Overall height	Overhead guard height	mm	2180	2180	2205
18			Mast	mm	2010	2010	2075
19		Mast extended height	mm	4090	4090	4182	
20	Min turning radius	mm		2180	2230	2450	2520
21	Wheelbase	mm		1600	1600	1700	1700
22	Traction pin height from the ground	mm		305	305	330	330
23	Lowered seat to overall guard inside height	mm		1050	1050	1050	1050
24	Tyre pressure	Front	MPa	0.86	0.86	0.97	0.97
25		Rear	MPa	0.86	0.86	0.79	0.79
26	Tread	Front	mm	970	970	1000	1000
27		Rear	mm	980	980	980	980
28	Tyre center height from the ground	Unladen	Front	mm	320	320	345
29			Rear	mm	250	250	260
30		Laden	Front	mm	310	310	330
31			Rear	mm	265	265	280
Performance							
32	Speed	Travel (Unladen/Laden)		km/h	18/17	18/17	19/18
33		Lifting (Unladen/Laden)		mm/sec	520/490	520/490	460/430
34		Lowering (Unladen/Laden)		mm/sec	420/380	420/380	400/380
35	Max drawbar pull (Unladen/Laden)		KN	15/17	15/17	15/17	15/17
36	Max gradeability (Unladen/Laden)		%	20	20	20	18
37	Ramp parking brake		%	15	15	15	15
38	Braking distance		m	≤6	≤6	≤6	≤6
39	System pressure		MPa	18.5	18.5	18.5	20.5
Weight							
40	Self weight		kg	3400	3635	4340	4710
41	Weight distribution	Laden	Front	kg	4760	5385	6520
42			Rear	kg	640	650	820
43		Unladen	Front	kg	1540	1500	1750
44			Rear	kg	1860	2135	2590
45	Tyre	Front	/	7.00-12-12PR	7.00-12-12PR	28*9-15-14PR	
46		Rear	/	6.00-9-10PR	6.00-9-10PR	6.50-10-10PR	