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CE Certificate ISO9001 / ISO14001

# 2-3.5T FD4P20 35N

Internal Combustion Counterbalanced Forklift Truck

ROBUST I RELIABLE I REMARKABLE



## FD4P20 35N Series

Internal Combustion Counterbalanced Forklift Truck

#### PRODUCTION INTRODUCTION

Under the request of our dealers, Noblelift combines the experience of the forklifts industry in China and the latest forklifts technologies globally to present to our partners the Noblelift environmental-friendly IC forklifts range with excellent safety, reliability, ergonomics and comfort and easy maintenance. Noblelift IC forklifts adopt the mast system of Q series electric forklifts range for easy exchange, easier service and less parts inventory

Select top brand components in the industry make sure the best reliability and performance of the trucks.



#### SAFETY & RELIABILITY

Safety and reliability are always the focus of Noblelift R&D when we are dedicated to supply products to our customers, Noblelift pays great attention to the details and main points to ensure the best productivity from our trucks.

- The structure & key components such as chasis, mast and overhead guard are optimized to improve the whole truck's safety and reliability.
- The chasis is reinforced with extra thick structure to ensure the best durability ans stability even while steering at the maximum speed.
- Plate fin type radiator with optimized heat dissipation channels enhances the heat dissipation capability to keep engine's reliability in most demanding applications.
- Intelligent buffering when descending to the ground, effictively protects the ground and cargo from damages.
- Operator's safety belt restraint warning system is standard to ensure the safety of the operator.











### Optional Operating Presence System (OPS)

Optional operating presence system (OPS) incorporates lifting/tilting and traveling locking function. When the operator leaves the seat, the system automatically locks lifting/tilting and disables traveling to ensure safety.

- The key rotation parts are protected from water and dust to extend their maintenance period. With the using of cast axel, the bearing and load carrying ability is improved and the truck's structure is simple and reliable, the service life is prolonged.
- The controller integrates all electrical components, features excellent durability for temperature, water and vibration for most demanding operations.





#### **▶ ERGONOMICS & COMFORT**

Ergonomic design such as optimized operating device structure and layout, with the clear displaying and ergonomic location of the instrument, the operator can know the truck information in time, which reduces driving fatigue and makes long hours of operation effortless.

- With 100% pivot steering and returning, systems the truck has good maneuverability in narrow areas. The truck has small turning radius, easy steering goo gradeability and perfact maneuverability.
- Tilting cylinder is located below the floor panel of the driving cab, widening low anti-slip step and enlarging operation space at foot provide comfort entry and exit operation.
- Wide view through the optimized mast and hydraulic system, the forks with intelligent buffer, protect the ground and goods from damage.
- The ratchet parking break is specially develop. The operational force is reduced by 30%.



#### QUITE AND LOW- VIBRATION DESIGN

The hydraulic system uses a low-noise gear pump and full hydraulic power steering. Quiet and comfortable operation. Shock absorbing steer axel to protect the vehicle system and prolong the service life of the forklift.

Operation to have compound engine damper and full floating power train to reduce the vibration of comfortable operation with excellent ergonomic and productivity.



The rear assist grip with a horn enhances comfort by offering easy horn operation while trevelling in reserve.



The forklift is equipped with standard LED lamps
Headlamps, front turn lamps, rear combination lamps,
warning lamps. Bright light with low power consumption allows you
to operate freely at night.

#### **► ENVOIRENMENTAL-FRIENDLY AND EASY MAINTENANCE**

Easy maintenence is always one of the top priorities to consider as it not only ensures safety and work efficiency of the forklift but also vital for the dealers to do the maiintenance and service in an efficient way to minimize the down time and save the service cost for users.

- Moduler design based on the same chasis, a veriety of fuel (diesel/liquified gas) configuration choices, the main components are the same, spare parts inventory is minimized to reduce service and maintenance costs.
- The whole Noblelift IC range adopts the engines no matter Diesel, LPG or Fuel gas conforming to the local market emission standard including EU Stage V and the American EPA Tier 4 standard to ensure environmental protection.

\*Euro V diesel model is equipped with DPF automatic regeneration function, and the instrument is equipped with DPF blocking quantity display function which is convenient for maintenance.

- The environment friendly materials, such as non-asbestos break shoe and new type sealing gasket, are adopted entirely to persue environmental safety.
- Large engine hood opening angle with air spring and integrated hood lock is convenient for opening and close during maintenance with excellent acceptability.
- The two-piece design makes the floorboard easy to lift and remove for access to the power train.
- The automobile type break flude adding cap structure makes it simple to check the break fluid.
- The fasteners of the radiator cover can be turned easily by hand to enable quick inspections or servicing.
- The new stampted air cleaner featuring tangential intake, double seal with safety filter is durable, corrosion-free and vibration-resistant, provides better filtering efficiency and lower intake resistance than traditionally used.





#### LS MTRON (DIESEL)

TYPE:L3

Rated output: 42/2300kw/rpm
Rated torque: 208/1700N.m/rpm

Model: L4CRTV4(EUV)

No. of cylinder: 4

Bore x stroke: 88x103mm

Displacement: 2.505L



#### Mast Table FD20-25N

Designation	Lift height h3 (mm)	Free lift h2 (mm)	Closed mast height h1 (mm)	Extended mast height h4 (mm)	Tilt forward/ backward α/β(°)	Capacity table (kg)C=600mm without sideshift, single pneumatic tyres	
						FD20	FD25
	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
Two-Stage	3500	135	2320	4474	6/10	2000	2500
ZT	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
	2000	631	1570	2968	6/10	2000	2500
	2500	881	1820	3468	6/10	2000	2500
	3000	1131	2070	3968	6/10	2000	2500
Two-Stage	3300	1281	2220	4268	6/10	2000	2500
ZZ	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
	4000	1056	1980	4978	6/6	1900	2350
	4350	1181	2105	5328	6/6	1800	2200
	4500	1231	2155	5476	6/6	1750	2000
Three-Stage	4800	1331	2255	5776	6/6	1700	1900
DZ	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

Free lift height with no load backrest, backrest height is 425mm



#### Mast Table FD30N-35N

Designation	Lift height h3 (mm)		Free lift h2 (mm)		Closed mast height h1 (mm)		Extended mast height h4 (mm)		Tilt forward/ backward α/β(°)		Capacity table (kg)C=600mm without sideshift, single pneumatic tyres	
	FD30N	FD35N	FD30N	FD35N	FD30N	FD35N	FD30N	FD35N	FD30N	FD35N	FD30N	FD35N
	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	4076	6/10	6/10	3000	3500
	3300	3300	140	145	2225	2335	4379	4379	6/10	6/10	3000	3500
Two-Stage	3500	3500	140	145	2325	2435	4579	4579	6/10	6/10	3000	3500
ZT	3600	3600	140	145	2375	2485	4679	4679	6/10	6/10	3000	3500
21	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
	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
Two-Stage	3300	3300	1213	1141	2225	2225	4379	4379	6/10	6/10	3000	3500
ZZ	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
	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
Three-Stage	4800	4800	1263	1191	2275	2275	5879	5879	6/6	6/6	2400	2800
ZZ	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	1640	1873	1801	2885	7079	7079	3/3	3/3	1400	1500
	6500	6500	2107	2034	3118	3118	7579	7579	3/3	3/3	800	900

FD30N free lift height with no load backrest, backrest height is 425mm

FD35N free lift height with no load backrest, backrest height is 460mm



### 23.5T IC truck main spec

General										
1	Model					FD20	FD25	FD30	FD35	
2	Rated Capacity				kg	2000	2500	3000	3500	
3	Load Center					600	600	600	600	
4	Lift height					3000	3000	3000	3000	
5	Mast tilt ang	Mast tilt angle F/R				6/10	6/10	6/10	6/10	
6	Fork		LxWxT		mm	1070x100x45	1070x122x40	1070x125x45	1070x130x50	
7	TOIR		Regulating range		mm	200-1040	200-1040	250-1100	260-1100	
8	Front overha	Front overhang			mm	478	478	478	478	
9	Rear overhar	ng			mm	496	543	530	607	
10	Mast width Outer			f steel channel	mm	700	700	700	700	
11	Min ground o		Unladen		mm	131	131	156	156	
12	(Bottom of fr	rame)	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 length (without forks)		2560	2620	2700	2770	
16	Overall dimensions		Overall width		mm	1150	1150	1210	1210	
17			Overall height	Overhead guard height	mm	2180	2180	2205	2205	
18				Mast	mm	2010	2010	2075	2150	
19				Mast extended height	mm	4090	4090	4182	4177	
20	Min turning radius				mm	2180	2230	2450	2520	
21	Wheel base				mm	1600	1600	1700	1700	
22	Traction pin I	height from the g	round		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		Unladen	Front		mm	320	320	345	345	
29			Rear		mm	250	250	260	260	
30	height from the ground		Front		mm	310	310	330	330	
31		Unladen	Rear	Rear		265	265	280	280	





23.5T IC truck main spec										
32			Travel (Unladen/Laden)	km/h	3000	18/17	19/18	19/18		
33	Speed		Lifting (Unladen/Laden)	mm/sec	520/490	520/490	460/430	460/430		
34			Lowering (Unladen/Laden)	mm/sec	420/380	420/380	400/380	400/380		
35	Max drawbar pull (Unladen/Laden)				15/17	15/17	15/17	15/17		
36	Max gradeability (Unladen/Laden)				20	20	20	18		
37	Ramp parking break				15	15	15	15		
38	Braking distance				≤6	≤6	≤6	≤6		
39	System pressure				18.5	18.5	18.5	20.5		
40	Self weight				3400	3635	4340	4710		
41		Laden	Front	kg	4760	5385	6520	7250		
42	Weight	Lauen	Rear	kg	640	650	820	960		
43	Distribution	Unladen	Front	kg	1540	1500	1750	1690		
44	Unladen		Rear	kg	1860	2135	2590	3020		
45	Tyre	Unladen	Front	/	7.00-12-12PR	7.00-12-12PR	28*9-15-14PR	28*9-15-14PR		
46	1310	Unlagen	Rear	/	6.00-9-10PR	6.00-9-10PR	6.50-10-10PR	6.50-10-10PR		





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