



Heavy Duty Forklift

Compact 16.0~32ton



Heavy duty forklift 16.0~32ton



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maximal

Maximal introduces heavy capacity forklifts

Maximal heavy duty forklift trucks, available in 16.0 capacity ratings, are designed to handle heavy loads in the toughest environments. From the robust wide view mast to the world class components including CUMMINS engines, KESSLER drive axle, ZF transmission and related accessories these trucks are designed to meet and exceed your application requirements.

These trucks are designed with modern ergonomics that allow the operator to be more productive in demanding conditions. Operator comfort was a key issue in the design of the all weather spacious cab including fully adjustable safety seat, tilt steering column and the 360 degree view through the panoramic windows. Maximal engineers have developed a proven design to tackle the most demanding customer applications.

Intelligent by Design

The incorporation of a CAN-Bus system allows for a seamless connection of the vehicle Control Module (VMC) and Engine Control Module (ECM). This allows immediate exchange and accessibility to all data. Additional benefits include a significant reduction in wiring as well as increased functionality over conventional systems. The CAN-Bus system also delivers excellent reliability and full diagnosis capabilities, simplifying the servicing of the truck.

Improved Fuel Economy

Minimize Tier 3 requirements
Program to Lower Rated Speeds to offset fuel consumption
Alternate Governor and Torque settings
Maintain fuel economy with HPCR ECM system compared to mechanical system



Heavy duty forklift 13.5~32ton



World Class Efficient ZF Transmission

ZF transmission from Germany in Maximal compact 16.0-32t / 35,200- 70,000 LB capacity heavy duty forklift trucks ZF transmissions offer these features:

- Fully reversible power shift control
- 3 forward and 3 reverse speeds
- Positive speed engagement
- Reduction of operating costs
- Lower operating noise
- Customer orientated serviceability
- Applicable for electronic driveline management and inching

Lower Maintenance Drive Axle & Brakes

German KESSLER drive Axle provides excellent lateral stability and long-term durability. Full floating axle shafts and hub planetary final drives reduce axle windup to deliver higher torque to the drive wheels allowing greater tractive effort and performance. Multi-plate wet disc braking system supplied by American MICO Corp. offers more effective and reliable braking.



Superior visibility

The Cab also contributes to providing the driver with panoramic 360 Degree visibility, featuring:

- Large curved front window, fitted with tinted safety glass provides better visibility.
- Curved rear window with one-piece glass.
- Minimum use of steel parts, providing the maximum possible glazed area.
- Wide-view rear view mirrors are mounted inside the cab stay cleaner and are protected from damage.
- The dash and display panel is mounted to the right hand side of the driver, so visibility through the windshield is unobstructed.
- Excellent rearwards visibility is enhanced with the sloping design of the hood and counterweight.
- A clear view to the front load and surrounding area is optimized through the Maximal wide view mast.

Maintenance Intervals Doubled and Efficient Diagnostic program

- Cummins Tier 3 Scheduled Maintenance 500 hours/6 month intervals for charge air cooled; same schedule for coolant changes; Dual Stage fuel filtration to improve particle separation, filter life and protect vital fuel system components.
- Equipped as standard with either a manual or power hydraulic tilting cab, to ensure easy access to major components for inspection and service.
- Low side steps and large grab handles, providing operators safe and easy access to the operators cab. Technicians can use side steps for daily inspections and maintenance.
- Uniform placement of electrical and hydraulic tubing and hoses.
- Centralized diagnostics in the operator cab
- "CAN bus" receptacle in the operator cab, for engine, transmission, hydraulics and instruments monitor panel.
- LCD display with diagnostics for engine, transmission and electrical systems to quickly identify service needs.
- Standard oil-immersed (wet) multi-plate disk brakes are virtually maintenance free.

Power & Performance

Maximal compact 16.0-32t / 35,200-70,000 LB capacity fork-lift range is available with Cummins Diesel engine meeting a world standard Tier 3 emissions legislation: compact 16t / 35,200 LB capacity forklift Cummins QSB6.7 diesel engine features: 6-cylinder in-line, 6.7 liter displacement.

Charger air cooling w/waste gate controlled turbocharger. Max. 129kw(173Hp) output at 2200rpm, offering extra durability for long periods of peak performance. Smooth torque of 800 Nm at 1400rpm provides excellent acceleration for maximum power.

16-20t / 35,200-44,000 LB capacity forklift Cummins QSB 6.7 diesel engine features: 6-cylinder in-line, 6.7 liter displacement Charge-air cooling w/waste gate controlled turbocharger. Max 142 kW(192 Hp) output at 2300 rpm, offering extra durability for long periods of peak performance. Smooth torque of 930 Nm at 1500 rpm provides excellent acceleration for maximum power.

25-32t / 55,000-70,000 LB capacity forklift Cummins QSC 8.3 diesel engine features: 6-cylinder in-line, 8.3 liter displacement Charge-air cooling w/ waste gate controlled turbocharger. Max 176 kW (238 Hp) output at 2300 rpm, offering extra durability for long periods of peak performance. Smooth torque of 1085 Nm at 1500 rpm provides excellent acceleration for maximum power.

Green & Clean

Euro III / EPA: Diesel engines that incorporate Japanese and American advanced engine technologies feature excellent environmental performance and conform to the world latest EPA Tier3 and EU Stage IIIA emission regulations.

Optional Equipment

- Specific masts 3M/118" MFH to 6M/240" MFH Simplex mast >Side shift/Fork position carriages with shaft type forks
- Solid / Pneumatic size tires
- Air conditioning
- Rear camera surveillance system
- Special RAL colors
- Various attachments >Contact your MAXIMAL dealer in your area for additional details.

Engine protection system, sensing low oil pressure and high coolant temperature monitors the engine performance and shuts down the engine prior to a possible failure. An override function for emergency situations is a standard feature.

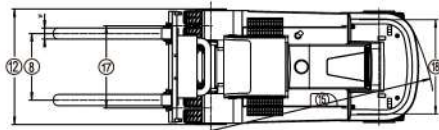
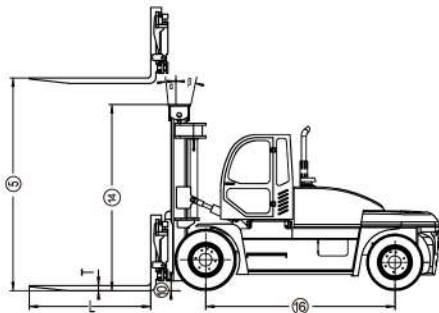
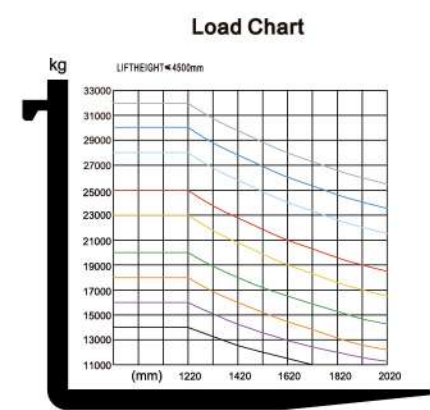


CUMMINS QSB 6.7 / CUMMINS QSC 8.3



M series 16.0-32.0t diesel forklift

1	Model				FD160T-MWK3-2	FD180T-MWK3-2	FD250T-MWM3	FD280T-MWT3	FD300T-MWT3	FD320T-MWT3	
2	Power Type				Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	
3	Rated Capacity			kg	16000	18000	25000	28000	30000	32000	
4	Load Centre			mm	1220	1220	1220	1220	1220	1220	
5	Lift Height			mm	4000	4000	4000	4000	4000	4000	
6	Mast tilt angle		F/R	Deg	6°/12°	6°/12°	6°/12°	6°/12°	6°/12°	6°/12°	
7	Fork	L×W×T		mm	2440×250×105	2440×250×110	2440×300×110	2440×300×110	2440×320×110	2440×320×110	
8		Regulating range		mm	910-2240	910-2240	1040-2660	1500-3120	1500-3120	1500-3120	
9		Max.side shifter		mm	660(±330)	660(±330)	810(±405)	810(±405)	810(±405)	810(±405)	
10	Front overhang (Wheel center to fork face)			mm	1060	1060	1200	1260	1260	1260	
11	Rear Overhang			mm	1000	1000	1100	1260	1260	1260	
12	Ground clearance (Bottom of mast)			mm	220	220	300	300	300	300	
13	Overall dimensions	Overall length(include forks)		mm	8300	8300	9240	9740	9740	9740	
14		Overall width		mm	2535	2535	3020	3420	3420	3420	
15		Overall height	Driver's cab	mm	3280	3280	3580	3800	3800	3800	
16			Mast	mm	3915	3915	4255	4390	4390	4390	
17	Min.turning radius(outside)			mm	5300	5300	6100	6800	6800	6800	
18	Tyres	Front			12.00-24-20PR	12.00-24-20PR	14.00-24-28PR	16.00-25-32PR	16.00-25-32PR	16.00-25-36PR	
19		Rear			12.00-20-20PR	12.00-20-20PR	14.00-24-28PR	16.00-25-32PR	16.00-25-32PR	16.00-25-36PR	
20	Tread	Front		mm	1850	1850	2200	2490	2490	2490	
21		Rear		mm	2120	2120	2300	2470	2470	2470	
22	Wheelbase			mm	3800	3800	4500	4800	4800	4800	
23	Speed	Travel(Unladen)		km/h	30	30	28	26	26	26	
24		Lifting(Laden)		mm/s	320	320	300	270	270	260	
25		Lowering(Laden)		mm/s	380	380	330	310	310	310	
26	Max. Drawbar pull(Laden)			KN	125	125	160	250	250	250	
27	Max. Gradeability(Laden)			%	25	25	25	20	20	20	
28	Self weight			kg	25800	26300	36400	41500	42000	42800	
29	Weight Distribution	Laden	Front Axle	kg	38400	41600	56940	63700	66750	70300	
30			Rear Axle	kg	3400	2700	4460	5300	5750	5700	
31		Unladen	Front Axle	kg	12800	12800	18500	21000	21000	21500	
32			Rear Axle	kg	13000	13500	17900	20000	21500	22500	
33	Battery		Voltage/Capacity		V/Ah	2×12/120		2×12/120		2×12/120	
34	Engine	Model				QSB6.7-C190		QSC8.3-C240		QSC8.3-C260	
35		Manufacturer				Cummins		Cummins		Cummins	
36		Rated output/r.p.m.			kw	142/2300		176/2200		194/2200	
37		Rated torque/r.p.m.			N·m	930/1500		1085/1500		1180/1500	
38		No.of cylinder				6		6		6	
39		Bore x Stroke			mm	107×124		117×135		117×135	
40		Displacement			L	6.7		8.3		8.3	
41		Fuel tank capacity			L	150		250		250	
42	Transmission	Manufacturer				ZF		ZF		ZF	
43		Type				3WG171		3WG211		3WG211	
44		Stage	F/R			3/3		3/3		3/3	
45	Drive axle	manufacturer				Chinese Huachen		KESSLER		KESSLER	
46		service brake				Wet Multi-disc Brake		Wet Multi-disc Brake		Wet Multi-disc Brake	
47		parking brake				Caliper disc brake		Caliper disc brake		Caliper disc brake	
48	Operating pressure(For attachments)			Mpa		19	21	21			



M Series 16.0-32.0ton Heavy Duty Diesel Forklift



M series Compact 16t diesel forklift

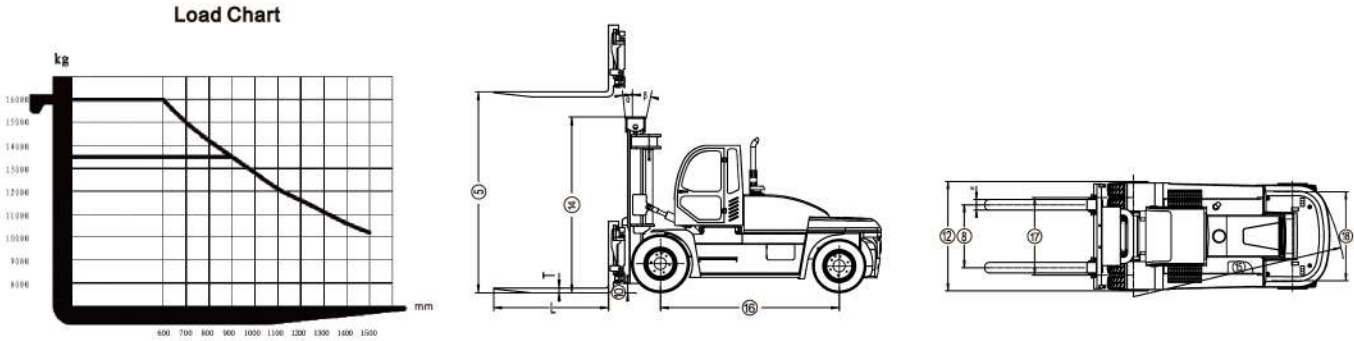
1	Model		FD160T-MXWS3-2	
2	Power Type		Diesel	
3	Rated Capacity		kg	16000
4	Load Centre		mm	600
5	Lift Height		mm	4000
6	Mast tilt angle	Front/rear	Deg	6°/12°
7	Fork Dimension (L×W×T)		1500×200×90	
8	Fork Regulating Range		840-2150	
9	Max.sideshifter Range		mm	630(±315)
	Min.Ground clearance (Bottom of mast)		mm	250
11	Overall length(include forks)		mm	6850
12	Overall width		mm	2430
13	Overall height	Driver's cabin	mm	3190
14		Mast	mm	3870
15	Min.turning radius		mm	5100
16	Wheelbase		mm	3500
17	Front Tread		mm	1743
18	Rear Tread		mm	2050
19	Front Tyre		12.00-20-20PR	
20	Rear Tyre		12.00-20-20PR	
21	Speed	Travel(Unladen)	km/h	26
22		Lifting(Laden)	mm/sec	350
23		Lowering(Laden)	mm/sec	380
24	Max. Drawbar pull(Laden)		KN	100
25	Max. Gradeability(Laden)		%	22
26	Self weight		kg	21500
27	Engine	Model	QSB6.7-C173	
28		Manufacturer	Cummins	
29		Rated output/r.p.m.	kw	129/2200
30		Rated torque/r.p.m.	N·m	799/1400
31		No.of cylinder	6	
32		Bore x Stroke	mm	107×124
33		Displacement	L	6.7
34	Transmission	Fuel tank capacity	L	140
35		Manufacturer	ZF	
36		Model	3WG171	
37			Stage	Front/rear
38	Battery Voltage/Capacity		V/Ah	2x12/120
39	Operating pressure(For attachments)		Mpa	19

M series Compact 16t mast

Model	Max.Fork Height (mm)	Overall Height (mm)		Tilt angle (F/R)	Capacity (Kg)			Self Weight (Kg)		
		FD160TX	FD160T/ FD180T		load center at 600mm	load center at 1220mm				
					FD160TX	FD160T	FD180T	FD160TX	FD160T	FD180T
M350	3500	3620	3665	6°/12°	16000	16000	18000	21365	25680	26180
M400	4000	3870	3915	6°/12°	16000	16000	18000	21500	25800	26300
M450	4500	4120	4165	6°/12°	16000	16000	18000	21635	26210	26710
M500	5000	4420	4465	6°/6°	15000	15000	16500	21955	26330	26830
M550	5500	4670	4715	3°/6°	14000	14000	15000	22050	26450	26950
M600	6000	4970	5015	3°/6°	13000	13000	14000	22175	26570	27070

FD250-320T Mast

Model	Max.Fork Height (mm)	Overall Height (mm)		Tilt angle (F/R)	Capacity (Kg) load capacity at 1220mm				Self Weight (Kg)			
					FD250T	FD280T	FD300T	FD320T				
M350	3500	4005	4140	6°/12°	25000	28000	30000	32000	36215	40800	42300	43800
M400	4000	4255	4390	6°/12°	25000	28000	30000	32000	36400	41000	42500	44000
M450	4500	4505	4640	6°/12°	25000	28000	30000	32000	36900	41600	43100	44600
M500	5000	4805	4940	6°/6°	23000	26500	28500	30500	37090	41850	43350	44850
M550	5500	5055	5190	6°/6°	21500	25500	27500	29500	37280	42065	43565	45065
M600	6000	5355	5490	3°/6°	20000	24000	26000	28000	37470	42300	43800	45300



M Series Compact 16ton Heavy Duty Forklift



COMPANY MEMORABILIA

2005	Dec	Zhejiang Maximal Forklift Co., Ltd was officially established.
2006	Oct	M series forklifts displayed at the 100th Canton fair.
2007	Nov	Maximal phase I project of the new factory finished.
2008	Jan	Structure of electric forklift was further optimized.
	Nov	Maximal was appointed by the General Logistics Department of the People's Liberation Army(PLA) to be supplier for Military Equipment.
2009	Mar	4.0T&5.0T and 8.0-10.0T diesel forklift were launched to enrich M Series.
	May	Maximal started to prepare the R&D of 16.0-18.0T diesel forklift.
2010	Nov	The first 4.5T electric forklift and 25.0T heavy duty forklift were displayed on Shanghai CeMAT.
	Dec	Maximal and Military Transportation University reached
2012		Maximal was honored as "state-level high-tech enterprise".
2013	May	Maximal 2WD 2.5/3.5T Rough Terrain forklift was launched to the market.
	July	Maximal Empty Container Handler was officially developed.
2014	Jun	Maximal electric stackers & pallet trucks were put into market.
	Aug	Maximal 2WD Rough Terrain forklift were extended to 4.0/5.0T.
	Dec	Maximal phase II project was finished.
2015	May	Maximal 3.5T 4WD Rough Terrain forklift was successfully developed. First Reach Stacker successfully was sold in domestic market.
2016	July	Maximal won the Chinese well-known trademark.
	Oct	1.8-3.5T C. 4WD Hydraulic rough terrain forklift was successfully launched.
2018	July	3.5-4.5T Sider-loader forklift was lanuched; Electric forklift with lithium battery started to be developed; 1.6-2.5T A series Reach truck was lanuched.
	June	Hyster-Yale and Maximal officially completed its acquisition, Maximal began a new start.