

Major equipment

●: Standard ○: Option

	DX50 Series	
	Engine	Diesel
Wet disc brake		●
EPA Tier 3/EU Stage IIIA compliant Diesel engine		●
Electronic engine control system		●
Heavy duty High Pressure Common Rail system		●
New combustion system		●
Air to air charge air cooling system		●
Overheat prevention function		●
Auto engine warm-up function		●
Auto air pre-heat function		●
Large capacity radiator		●
Dual floating structure		●
New operator's seat with suspension		●
Tiltable steering column		●
Electric forward/reverse lever		●
Combination switch (turn signal light & light switch)		●
Indicator auto-return mechanism		●
Wide slip-resistant step		●
Paper binder at engine hood		●
Meter panel		●
Hourmeter (6-digit)		●
Engine cooling water temperature gauge		●
Torque converter oil temperature gauge		●
Fuel gauge		●
Lifting interlock lamp		●
Charge warning lamp		●
Neutral indicator		●
Failure indicator		●
Engine failure indicator		●
Air cleaner element warning lamp		●
Cooling water level warning lamp		●
Glow indicator		●
Large capacity alternator		●
Quick auto glow system		●
Neutral start function		●
Auto fuse		●
Low maintenance battery		●
Engine key stop function		●
Halogen headlight		●
Rear combination light		●
Back-up buzzer		●
Operator Presence Sensing system		●
Sedimenter with priming pump		●
Cyclone air cleaner (double element)		●
Parking brake with release button		●
Fully hydrostatic power steering		●
Steering knob synchronizer function		○
Non-asbestos parking brake linings		●
Key-off lift lock		●
Floor mat		●
Assist grip		●
Overhead guard with front/rear conduits		●
Rearview mirrors (pair)		●
Full shield solid-state engine hood		●
Easy-removable floor panel		●
Easy-removable radiator cover		●
Engine hood lock		●
Radiator reservoir tank		●
Jacking points		●

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KOMATSU®

Form No. BR-DX50emi-002

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Options

Engine & power train related

- Extra fuel filters
- Pre-cleaner
- Upward exhaust muffler
- Automatic transmission
- Steering knob synchronizer function

Exterior

- Canvas cabin
- Steel cabin
- Heater
- Air-conditioner
- Tilt cylinder boots
- Power steering cylinder boots
- Fuel cap with key
- Front glass with wiper
- Fire extinguisher
- Rear under mirror

Electrical equipment

- Headlights, 2-stage (High-Low)
- Mast mount type head lights
- Rear working light
- Yellow strobe light

Meters & gauges

- Speedmeter with alarm
- Mast tilt angle gauge

Tyre-related

- Elastic cushion tyre (6.0 & 7.0 ton)

Mast

● 2-stage free view mast

The mast enables a wide view with excellent forward visibility.

● 2-stage full free view mast

This is ideal for sites with height limitations, where the large free lift is required.

● 3-stage full free view mast

The mast extends in three stages and high level loading is easily performed.

Attachments

● Side shifter

The fork may be shifted sideways together with its backrest, both to the right and to the left.

● Fork positioner

The operator is able to adjust the fork spread width from the operator's seat.

● Fork positioner with side shifter

The combination of fork positioner and side shifter.

● Fork positioner with side shift function

This attachment is a fork positioner which has a simultaneous fork movement function to act as a side shifter.

● Hinged fork

The fork tilts up/down using its hinge as a fulcrum.

● Bale clamp

This attachment is recommended for handling packed pulp or raw cotton. The bale is efficiently held from both sides by the bale clamps.

KOMATSU

DX50

6.0 / 7.0 / 8.0 ton Series

DIESEL FORKLIFT TRUCKS

EPA Tier 3 / EU Stage IIIA Emission Compliant



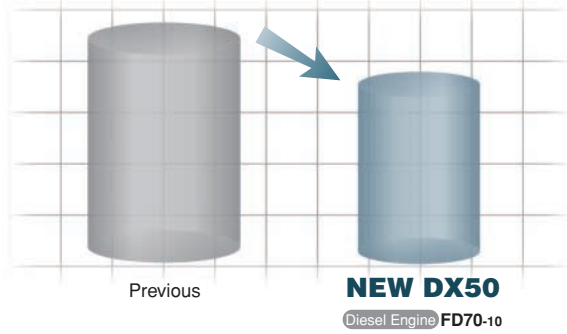
"Reducing Total Operating Costs" with Komatsu Innovative Technologies

The fusion of advanced engines and Komatsu's unique hydraulic system enables the new DX50 Series to achieve a significant reduction in the total operation costs and facilitates superior work performance. Our innovative machines challenge the conventional concept of the forklift.

Komatsu's Hydraulic System and the NEW Diesel Engine Reduce the Fuel Consumption KOMATSU ONLY

In order to minimize the engine load, the new DX50 Series adopts the Komatsu's latest hydraulic system. The compact 3.3-liter engine features superior performance and achieves up to 20% less fuel consumption.

Fuel Consumption
Max. 20% saving

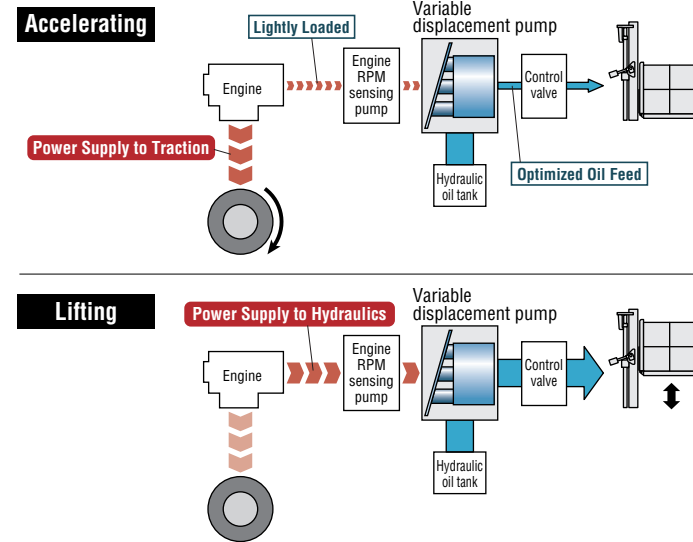


Komatsu tested data, comparison with FD70-8 model. The results may vary depending on conditions.

Komatsu's Latest Hydraulic System Contributes Low Fuel Consumption

As the engine speed changes, the engine RPMs control pump detects the engine revs. and controls the oil feed to reduce the load on the engine. This hydraulic system offers optimized balancing of traveling and loading work, making it ideal for forklift operations that often put complex demands on the engine such as starting/acceleration while performing lift operations.

- Optimally controlled hydraulic oil results in;
- Optimized balancing of traveling and loading work
 - Achieved compact 3.3 liter engine equip



Greatly Reduced Total Operating Costs

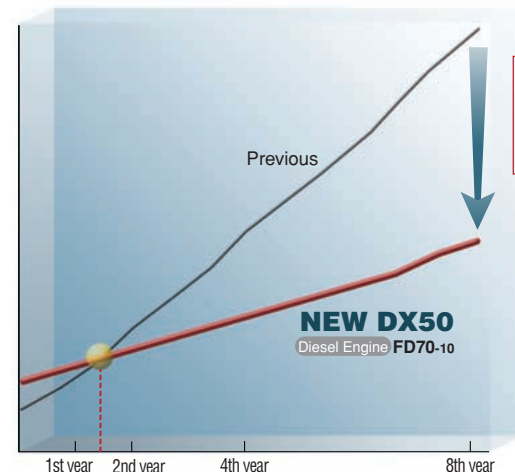
The sealed wet disc brakes can withstand about 10,000* hours operation without maintenance and eliminating frequent brake shoes replacements. The engine oil replacement interval has been extended for 300 hours, which reduces oil costs. The reduced maintenance costs and significant fuel saving provide a total operating cost reduction of about 14% over eight years of usage. *A periodical check and oil replacement are necessary. Komatsu genuine engine oil is recommended.

Running cost (Accumulated costs for 8 years)

Assuming FD70-8 as 100%;



Total operating cost (*Image)



Total operating cost
Approx. 14% saving
(8 years)

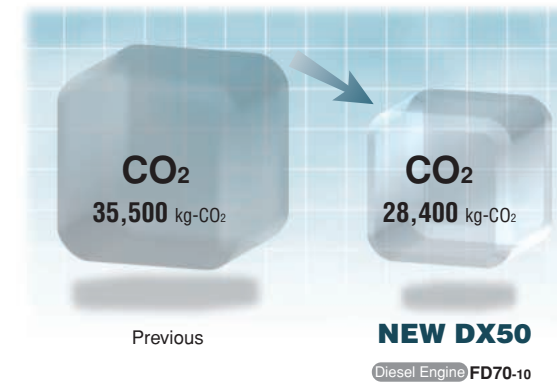
Komatsu tested data, comparison with FD70-8 model. Operation hours: 5 h/day, 25 days/month (Total: Approx. 1500 h/year). Maintenance intervals to manufacturer's recommendation. Cost calculation is based on Japanese market price. The results may vary depending on conditions.

The Advanced Technology Offers Reduced CO₂ Emissions



The new DX50 Series feature the SAA4D95LE-5-A engine in combination with Komatsu's efficient hydraulic system. This arrangement enables a reduction in annual CO₂ emissions by about 7.1 tons.

Annual CO₂ emissions
About 7.1 tons reduction



Komatsu tested data, comparison with FD70-8 model. The CO₂ emission coefficient is given in the Common Guidelines of the Japanese METI and MLIT (April 2006). The results may vary depending on conditions.

An Advanced Diesel Engine Conforms to the Latest Emission Regulations

Low fuel consumption and low environmental impact are enabled by elimination of excess combustion and the use of the combined technologies of the high pressure common rail system, electronic control system, new combustion system and air to air charge air cooling system.

EPA Tier 3 / EU Stage IIIA Emission Compliant



SAA4D95LE-5-A
Displacement:
3,260 cm³
Rated Output:
69.0 kW @ 2,250 min⁻¹
Maximum Torque:
343 Nm @ 1,600 min⁻¹



Superior "Productivity" and "Reliability" Satisfy Demanding Operations

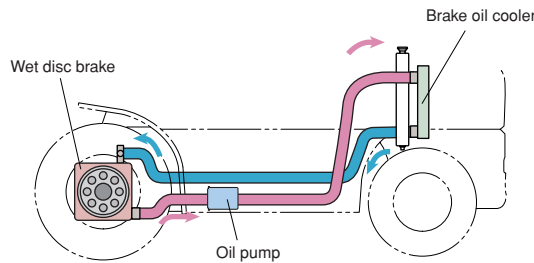
Durable Wet Disc Brakes to Withstand Severe Conditions

The wet disc brake is sealed with oil to block dust penetration, providing durable, water resistant and fade resistant characteristics. Smooth, stable braking provides "Productivity" and "Reliability" in demanding operation.



A Cooling System to Achieve Increased Braking Stability

The oil in the wet disc brake system is circulated through the brake oil cooler. This mechanism ensures stable braking under a heavy work load and prevents deterioration of the braking force due to raised oil temperatures.



- Steady breaking is always achieved.
- Overheating of the brakes is prevented.
- Downtime and maintenance costs are reduced.

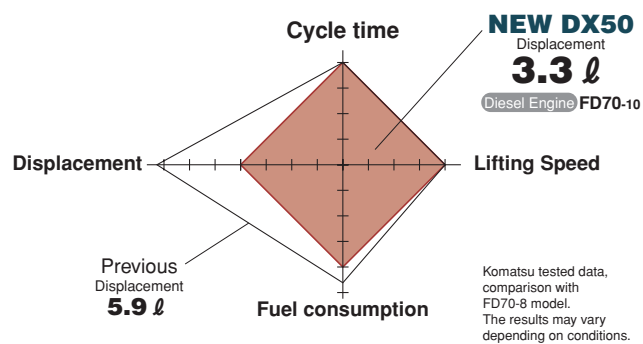


First-class Productivity is Achieved

First-class Cycle Time

The new DX50 Series adopts a compact 3.3-liter engine in conjunction with Komatsu's advanced hydraulic system. This arrangement features high productivity and achieves a first class cycle time.

- The NEW DX50 Series achieves high productivity equivalent to the previous DX20 Series.



- Lifting Speed (Loaded)
Diesel Engine FD70-10
450 mm/s

- Traveling Speed (Unloaded)
Diesel Engine FD70-10
31.0 km/h

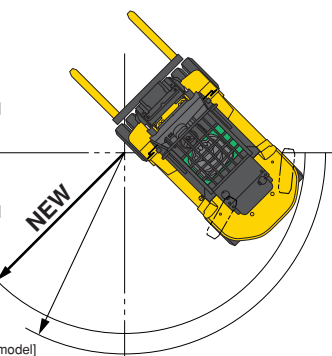
Fully Hydrostatic Power Steering for Superb Maneuver

The FHPS (Fully Hydrostatic Power Steering) mechanism facilitates fully stationary steering as well as switchback operations using the small diameter steering wheel. The system has a superior response capability so that the operator can pick up or place cargo flexibly even in a narrow space. In addition, steering knob synchronizer function is available as an option.

The 8.0 ton model offers a significant size reduction

The 8.0 model features a shorter wheelbase and swift mobility while maintaining the power and speed capable of achieving high productivity. The DX50 8.0 ton model is an ideal choice for confined spaces.

- Length **4890 mm**
5095 mm [Previous 8.0 ton model]
- Width **2050 mm**
2120 mm [Previous 8.0 ton model]
- Turning radius **3450 mm**
3600 mm [Previous 8.0 ton model]



Excellent Durability for Demanding Work

Rugged Design with High Rigidity

The high rigidity mast, frame, front and rear axles ensure outstanding reliability even when performing heavy-duty work.

[Mast]

A heavy mast rail profile for excellent rigidity.

[Frame]

The successful high rigidity structure of previous models is adopted.

[Front axle]

The proven reliable design of previous models is adopted.

[Rear axle]

The durability of the power steering cylinders is improved.

Improved Reliabilities for the Hydraulic and Electrical Systems

The main hydraulic pipe connectors are face-sealed using O-rings. Waterproof connectors are provided to the main harnesses and the system controller in order to provide higher resistance to water and dust. Hydraulic and electrical piping systems are in separate configurations to improve the reliability and servicing.

Engine Protection for Maintaining the Engine in Top Condition

The electronic engine controls upgrade the performance of the engine protection (fail-safe functions).

- Trouble diagnosis: Engine malfunctions are automatically detected and an alarm lamp blinks.
- Overheating prevention (Diesel): The engine output and RPMs are reduced when the coolant temperature is high.
- Automatic engine warm-up (Diesel): The RPMs are accelerated to warm up the engine at low temperatures.
- Automatic air pre-heating (Diesel): The engine is automatically pre-heated when starting it at low temperatures.



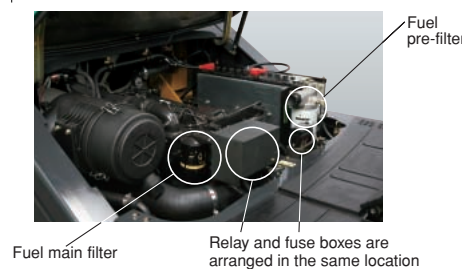
Engine failure indicator



Careful Design Facilitates Inspection and Servicing

Filter Layout Optimization for Improved Serviceability

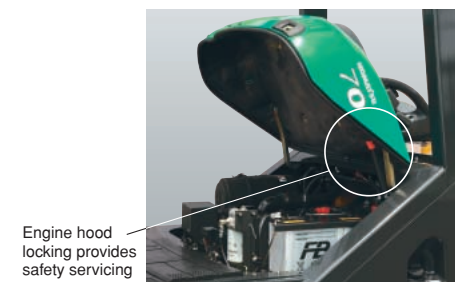
A fully-opening floor plate.



Easy Radiator Cleaning



Wide Opening Engine Hood with a Lock for Easy Servicing



Engine hood locking provides safety servicing

Advanced Design in Pursuit of "Safety and Comfort"

Effective Safety Mechanisms

"Operator Presence Sensing system"

The Operator Presence Sensing system incorporates a Lifting/Traveling interlocking function. This is a safety function for disabling traveling and lifting mechanisms when the operator is not correctly occupying the seat. An alarm buzzer sounds if the operator leaves the seat while traveling.



Lifting interlock lamp on the control panel



When the operator leaves the seat, Operator Presence Sensing system is activated

*The traveling interlocking function only disengages traction and does not automatically apply the brakes.
*Operator Presence Sensing system: ISO3691-1 compliant

A Neutral Start Function for Preventing a Sudden Start

The engine cannot be started unless the F-R switch is in the neutral position.



Neutral indicator for at-a-glance information

Parking Brake Alarm



A double action type brake lever prevents mishandling



ISO-Compliant Enhanced Overhead Guard for Operator's Protection

Comfortable & Fatigue-Free Operation Even Over Long-Hour Operation

Suspension Seat and Cab Floating Structure Absorb Vibrations

The deluxe suspension seat features improved vibration resistance and reduces the burden on the body. The cab floating structure enables the entire cab to be isolated from the frame and the rubber cushioning of the engine mounts reduces the vibrations transmitted from the engine and road surface. The overall design concept is operator and load friendly.



- Six-step reclining backrest
- 170 mm slide distance backward and forward
- Seat cushion adjustment dial
- The retractable seat belt

Comfortable Braking with the Organ-type Pedal

The organ-type pedal allows an operator to control braking comfortably without lifting the heel from the floor.



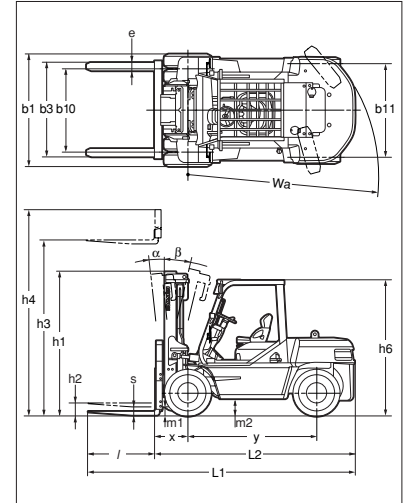
The Low Noise Design

The low-noise design of the compact engine reduces unpleasant noise levels during operation.

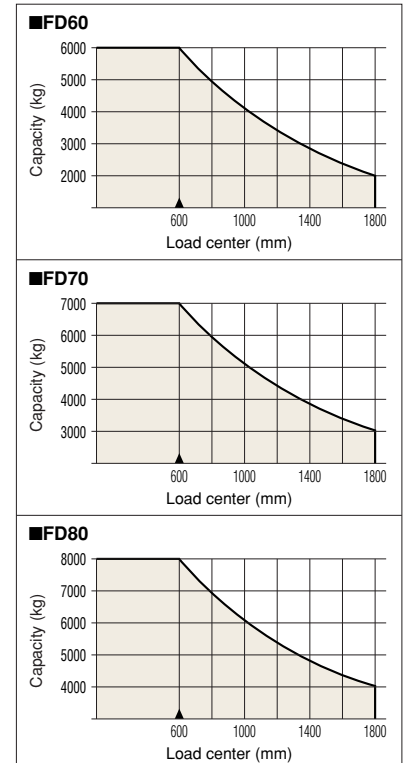
DX50 Series Specifications

				FD60-10	FD70-10	FD80-10	
Characteristics	1.2 Model	Manufacturer's Designation					
	1.3 Power Type	Electric, Diesel, Gasoline, LPG, Cable		Diesel	Diesel	Diesel	
	1.4 Operation Type			Sitting	Sitting	Sitting	
Weight	1.5 Rated Capacity	Q	Rated Capacity	kg	6000	7000	8000
	1.6 Load Center	c	Rated Load Center	mm	600	600	600
	1.8 Load Distance	x	Front Axle Center to Fork Face	mm	580	585	635
Tyres	1.9 Wheelbase	y		mm	2300	2300	2300
	2.1 Service Weight			kg	8555	9245	10910
	2.2 Axle Loading	Loaded	Front	kg	12950	14330	16565
	2.3		Rear	kg	1605	1915	2345
2.3.1	Unloaded	Front	kg	3890	3725	4270	
2.3.1		Rear	kg	4665	5520	6640	
Dimensions	3.1 Tyre Type			Pneumatic	Pneumatic	Pneumatic	
	3.2 Tyre Size	Front		8.25-15-12PR(I)	8.25-15-14PR(I)	8.25-15-18PR(I)	
	3.3	Rear		8.25-15-12PR(I)	8.25-15-14PR(I)	8.25-15-18PR(I)	
	3.5 Number of Wheel	Front/Rear (x=driven)		4x/2	4x/2	4x/2	
	3.6 Tread, Front	b10		mm	1470	1470	1540
	3.7 Tread, Rear	b11		mm	1640	1640	1640
	4.1 Tilting Angle	α / β	Forward/Backward	degree	6/12	6/12	6/12
	4.2 Mast Height, Lowered	h1	2-stage Mast	mm	2500	2585	2710
	4.3 Std. Free Lift	h2	2-stage Std. Mast, from Ground	mm	215	220	220
	4.4 Std. Lift Height	h3	2-stage Std. Mast, from Ground	mm	3000	3000	3000
	4.5 Mast Height, Extended	h4	2-stage Std. Mast	mm	4350	4350	4350
	4.7 Height, Overhead Guard	h6		mm	2440	2440	2440
4.19 Length, with Std. Forks	L1		mm	4700	4785	4890	
4.20 Length, to Fork Face	L2		mm	3480	3565	3670	
4.21 Width, at Tyre	b1	Double	mm	1980	1980	2050	
4.22 Forks	s/e/l	Thickness x Width x Length	mm	65 x 150 x 1220	65 x 150 x 1220	65 x 170 x 1220	
4.23 Fork Carriage Class	ISO 2328, Type A/B/no			Class4, A	Class4, A	Class4, A	
4.24 Width, Fork Carriage	b3		mm	1690	1690	1800	
4.31 Ground Clearance	m1	Under Mast	mm	220	220	235	
4.32	m2	at Center of Wheelbase	mm	295	295	295	
4.33 Right Angle Stacking Aisle	Ast	Plus load length	mm	3830	3935	4085	
4.35 Turning Radius	Wa		mm	3250	3350	3450	
Performance	5.1 Travel Speed (FWD)	Loaded, 1st/2nd	Unloaded, 1st/2nd	km/h	11.0/29.0	11.0/29.0	11.0/26.0
	5.2 Lifting Speed		Unloaded	km/h	12.0/31.0	12.0/31.0	12.0/31.0
	5.3 Lowering Speed	Loaded	Unloaded	mm/s	500	450	400
			Unloaded	mm/s	560	500	450
	5.6 Max. Drawbar Pull	Loaded 1.5 km/h, 3 min rating	Unloaded	mm/s	550	480	460
			Unloaded	mm/s	580	500	500
5.8 Max. Gradeability	Loaded 1.5 km/h, 3 min rating		%	44	44	44	
5.10 Service Brake	Operation/Type			Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	
5.11 Parking Brake	Operation/Control			Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	
5.12 Steering Type	Type			FHPS	FHPS	FHPS	
6.4 Battery	Voltage/Capacity at 5-hour rating		V/Ah	24/52	24/52	24/52	
I.C Engine	7.1 Make			Komatsu	Komatsu	Komatsu	
	7.2 Model			SAA4D95LE-5-A	SAA4D95LE-5-A	SAA4D95LE-5-A	
	7.3 Rated Output, SAE net			kW	69	69	69
	7.2 Rated RPM			min ⁻¹	2250	2250	2250
	7.3.1 Max. Torque, SAE net			Nm@min ⁻¹	343@1600	343@1600	343@1600
	7.4 No. of Cylinder/Displacement			cm ³	4-3260	4-3260	4-3260
7.6 Fuel Tank Capacity			L	140	140	140	
8.2 Relief Pressure for Attachment			MPa	18.1	18.1	18.1	
8.2.1 Hydraulic tank Capacity			L	115	115	115	
8.7 Transmission				TORQFLOW	TORQFLOW	TORQFLOW	

Dimensions



Load capacity curve



Right angle stacking aisle width

model	Length of pallet (mm)	Width of pallet (mm)						
		800	900	1000	1100	1200	1300	1400
6.0t	800	5050	5050	5050	5050	5050	5050	5050
	900	5050	5050	5050	5050	5050	5050	5050
	1000	5050	5050	5050	5050	5050	5050	5050
	1100	5050	5050	5050	5050	5050	5050	5050
	1200	5050	5050	5050	5050	5050	5050	5050
	1300	5125	5125	5125	5125	5125	5125	5125
7.0t	800	5155	5155	5155	5155	5155	5155	5155
	900	5155	5155	5155	5155	5155	5155	5155
	1000	5155	5155	5155	5155	5155	5155	5155
	1100	5155	5155	5155	5155	5155	5155	5155
	1200	5155	5155	5155	5155	5155	5155	5155
	1300	5235	5235	5235	5235	5235	5235	5235
8.0t	800	5305	5305	5305	5305	5305	5305	5305
	900	5305	5305	5305	5305	5305	5305	5305
	1000	5305	5305	5305	5305	5305	5305	5305
	1100	5305	5305	5305	5305	5305	5305	5305
	1200	5305	5305	5305	5305	5305	5305	5305
	1300	5385	5385	5385	5385	5385	5385	5385
1400	5485	5485	5485	5485	5485	5485	5485	

Maximum load and overall height of mast by lifting height

(2-stage free view mast, double tyre, load center 600 mm)

maximum fork height (mm)	model	Load capacity (kg)			Overall height [Lowered / Extended*] (mm)		
		FD60	FD70	FD80	FD60	FD70	FD80
3000		6000	7000	8000	2500/4350	2585/4350	2710/4350
3300		6000	7000	8000	2650/4650	2735/4650	2860/4650
3500		6000	7000	8000	2750/4850	2835/4850	2960/4850
3700		6000	7000	8000	2850/5050	2935/5050	3060/5050
4000		6000	7000	8000	3000/5350	3085/5350	3210/5350
4300		6000	7000	8000	3150/5650	3235/5650	3360/5650
4500		6000	7000	8000	3350/5850	3435/5850	3560/5850
5000		6000	7000	8000	3700/6350	3785/6350	3910/6350
5500		6000	6700	7700	4050/6850	4135/6850	4260/6850
6000		5700	6500	7500	4300/7350	4385/7350	4510/7350

* With standard load backrest

Aisle width shown in this table are not inclusive any operational clearance.