

TCM

Heavy-Duty Forklift Trucks

6-10ton

**FD60Z8 FD70Z8
FD80Z8 FD100Z8**



DIESEL POWERED Pneumatic Tire Truck



POWERFUL

Biggest and Most Powerful Engine in This Class

High-power & Low-fuel consumption 6.5 liter diesel engine, 6BG1 provides:

Rated Power	
84.6kW (115PS) / 2100r.p.m.	FD80/100
82.4kW (112PS) / 2000r.p.m.	FD60/70

Rated Torque	
416.5 N·m (42.5 kg·m) / 1500 r.p.m.	

Fastest Acceleration

10 meter accelerating speed (loaded)

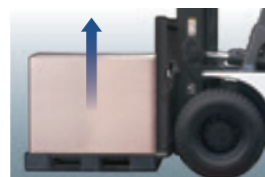
NEW	4.3 sec
PREVIOUS	5.1 sec

SPEEDY

Speedy Lifting

One of the highest lift speeds in its class.

500mm/s (loaded, FD60)



Electronic Controlled Automatic Transmission

Automatic transmission provides reliable travel control incorporated with a low effort single electronic control lever.



FRIENDLY

Environment Friendly Black Smoke Savings of 30% Noxious Substance Savings of 50%

Low Noise

85dB(A)
(at operators ear, according to ISO)

Greater Visibility / Super-wide Finger Bar

Excellent forward and upward visibility (top in class) 20% wider than previous model.



SAFETY

Boltless Floorboards

Both the front and rear floorboards can be removed or installed easily, without any tools.

The Parking Brake Lever is Equipped with a Safety Device

The Mast is as Rigid as Ever.

Durable mast with a thoughtful layout of rollers



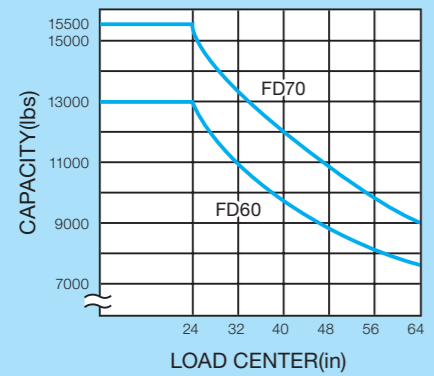
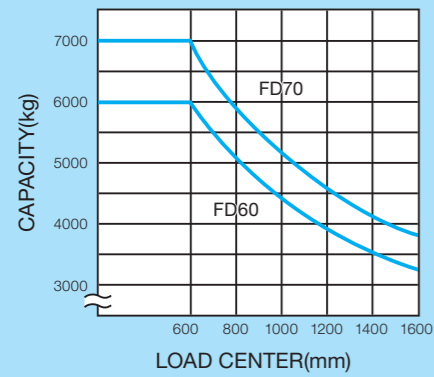
STANDARD SPECIFICATIONS

		UNICARRIERS							
		FD60Z8	FD70Z8	FD80Z8	FD100Z8				
Characteristics	1 Manufacturer								
	2 Model								
	3 Load Capacity	kg(lbs)	6000(13000)	7000(15500)	8000(17500)	10000(22000)			
	4 Load Center	mm(in)	600(24)						
	5 Power Type	Diesel							
	6 Operator Position	Seated							
	7 Tire Type	Front/Rear	Pneumatic						
	8 Wheels(X=driven)	Front/Rear	4 × /2						
Dimensions	9 Maximum Fork Height	mm(in)	3000(118)						
	10 Free Lift	mm(in)	205(8.1)	215(8.5)	205(8.1)				
	13 Fork Size	L × W × T mm (in)	1220 × 150 × 60 (48.0 × 5.9 × 2.4)	1220 × 150 × 70 (48.0 × 5.9 × 2.8)	1220 × 170 × 75 (48.0 × 6.7 × 3.0)	1220 × 180 × 75 (48.0 × 7.1 × 3.0)			
	14 Tilt Range	Fwd/Bwd	deg 6/12						
	15 Length to Fork Face	mm(in)	3535(139.2)	3600(141.7)	3940(155.1)	4255(167.5)			
	16 Overall Width	mm(in)	1995(78.5)		2165(85.2)	2245(88.4)			
	17 Mast Height Fork Lowered	mm(in)	2500(98.4)		2700(106.3)	2850(112.2)			
	18 Mast Height, Fork Raised	mm(in)	4420(174.0)						
	19 Overhead Guard Height ***	mm(in)	2450(96.5)		2560(100.8)				
	21 Turning Radius(Outside)	mm(in)	3300(130.0)	3360(132.3)	3650(143.7)	3900(153.5)			
	22 Load Distance (Centerline of Front Axle to Front Face of Forks)	mm(in)	615(24.2)	625(24.6)	720(28.3)	710(28.0)			
	23 Basic Right Angle Stacking Aisle Width	mm(in)	5550(218.5)	5620(221.3)	6015(236.8)	6250(246.1)			
	Performance	24	Travel Max.	Full Load	km/h(mph)	26(16.1)		25(15.5)	24(14.9)
				No Load	km/h(mph)	30(18.6)			
		25	Lifting	Full Load	mm/s(fpm)	500(98.4)	460(90.6)	450(88.6)	390(76.8)
No Load				mm/s(fpm)	550(108.3)		470(92.5)	410(80.7)	
26		Lowering	Full Load	mm/s(fpm)	450(88.6)		470(92.5)		
			No Load	mm/s(fpm)	500(98.4)	450(88.6)	340(66.9)		
28		Max.Drawbar Pull	Full Load / No Load	kN (lbs)	53.9/22.1 (12100/4960)	52.9/21.6 (11900/4850)	57.3/27.4 (12900/6150)	57.3/31.4 (12900/7050)	
29		Gradeability at (1.6km/h or 1mph)	Full Load	%(tan θ)	33	29	27	22	
30	Max.Gradeability **	Full Load / No Load	%(tan θ)	38/19	33/19	29/19	24/20		
Weight	32	Total Weight	kg(lbs)	8630(19030)	9360(20640)	10980(24210)	12300(27120)		
	33	Weight Distribution	Full Load	Front	kg(lbs)	13040(28750)	14530(32040)	17040(37570)	20100(44320)
				Rear	kg(lbs)	1590(3510)	1830(4040)	1940(4280)	2200(4850)
			No Load	Front	kg(lbs)	3810(8400)	3750(8270)	4820(10630)	5420(11950)
Rear				kg(lbs)	4820(10630)	5610(12370)	6160(13580)	6880(15170)	
Chassis & Wheels	35	Number	Front/Rear	4/2					
	36	Tires	Front	8.25 × 15-14PR		9.00 × 20-14PR			
			Rear	8.25 × 15-14PR		9.00 × 20-14PR			
	37	Size	Front	8.25 × 15-14PR		9.00 × 20-14PR			
	38	Wheelbase	mm(in)	2250(88.6)		2500(98.4)	2800(110.2)		
			Front	mm(in)	1470(57.9)		1600(63.0)		
	39	Tread	Rear	mm(in)	1700(66.9)				
			at lowest point	mm(in)	190(7.5)		245(9.6)		
41	Underclearance	Center of Frame	mm(in)	230(9.1)		335(13.2)			
42	Brake	Service	Hydraulic-Foot pedal						
43	Brake	Parking	Mechanical-Hand lever						
Engine & Transmission	45	Battery	Voltage / Capacity	2 × 12V-70AH/20h					
	49	Make-Model	ISUZU 6BG1						
	50	Internal Combustion Engine	Rated Horsepower / r.p.m.	82.4kW/2000r.p.m. : 112PS/2000r.p.m. (SAE GROSS 114HP/2000r.p.m.)		84.6kW/2100r.p.m. : 115PS/2100r.p.m. (SAE GROSS 117HP/2100r.p.m.)			
			Rate Torque / r.p.m	416.5N·m/1500r.p.m. : 42.5kg·m/1500r.p.m. (SAE 307.4ft·lbs/1500r.p.m.)					
	52	Engine	Number of Cylinder	6					
			Displacement	lit(cu-in)	6.494(396.3)				
			Fuel Tank Capacity Type	lit(US gal)	140(37.0)				
55	Transmission	Number of Speed Fwd / Rvs-Type	2/2-Automatic Power shift						
57	Operating Pressure	For Attachment	kgf / cm ² (psi)	200(2844)					

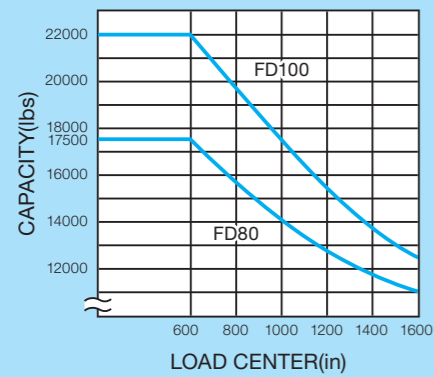
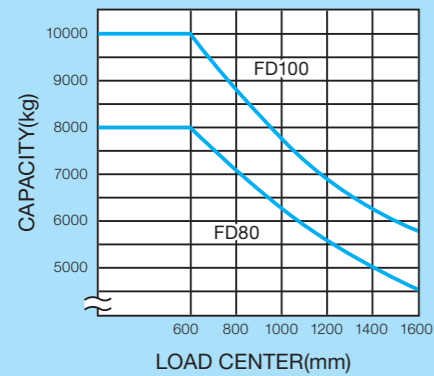
*** Computed values(Travel speed 0km/h) *** In European Export Units +15mm(0.5in)

LOAD CHART

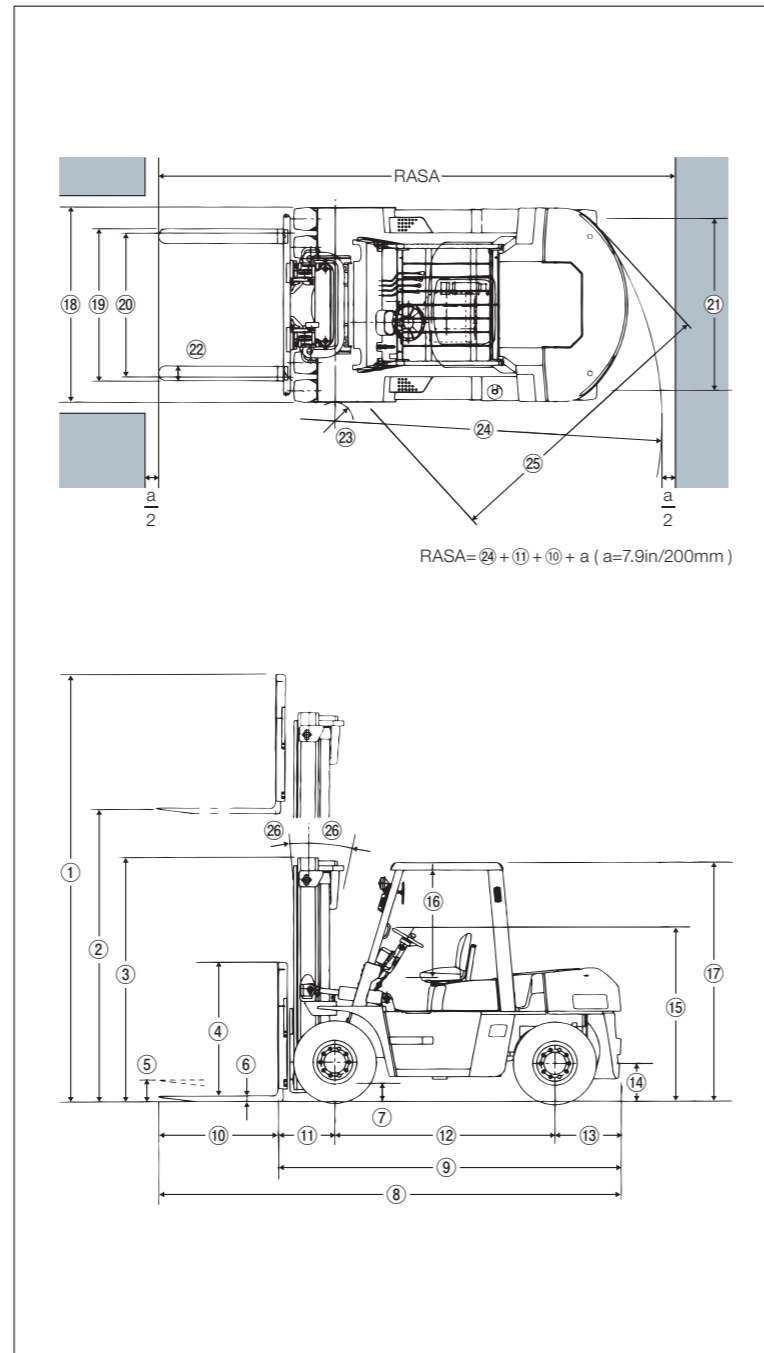
FD60Z8 • FD70Z8



FD80Z8 • FD100Z8



STANDARD DIMENSIONS



GROUND CLEARANCE	FD60Z8	FD70Z8	FD80Z8	FD100Z8
Mast	195(7.7)		245(9.6)	
Frame	230(9.1)		335(13.2)	
Front axle	190(7.5)		265(10.4)	
Rear axle	245(9.7)		325(12.8)	315(12.4)
Counter weight	225(8.9)		310(12.2)	

mm(in)

Model	FD60Z8		FD70Z8		FD80Z8		FD100Z8	
	mm	in	mm	in	mm	in	mm	in
① Overall height, Fork Raised(with backrest)	4420	174.0	4420	174.0	4420	174.0	4330	170.5
② Maximum Fork Height	3000	118.0	3000	118.0	3000	118.0	3000	118.0
③ Mast height, Fork lowered(upright)	2500	98.4	2500	98.4	2700	106.3	2850	112.2
④ Backrest height	1370	53.9	1365	53.7	1360	53.5	-	-
⑤ Free lift	205	8.1	215	8.5	205	8.1	205	8.1
⑥ Fork thickness	60	2.4	70	2.8	75	3.0	75	3.0
⑦ Ground clearance(front axle)	190	7.5	190	7.5	265	10.4	265	10.4
⑧ Overall length(with forks)	4760	187.4	4835	190.4	5180	203.9	5470	215.4
⑨ Length to fork face	3535	139.2	3600	141.7	3940	155.1	4255	167.5
⑩ Fork length	1220	48.0	1220	48.0	1220	48.0	1220	48.0
⑪ Load distance (centerline of front axle to front face of forks)	615	24.2	625	24.6	720	28.3	710	28.0
⑫ Wheelbase	2250	88.6	2250	88.6	2500	98.4	2800	110.2
⑬ Rear overhang	675	26.6	740	29.1	740	29.1	740	29.1
⑭ Drawbar Pin Center Height	430	16.9	430	16.9	515	20.3	515	20.3
⑮ Machine height (without overhead guard and mast)	1780	70.1	1780	70.1	1890	74.4	1890	74.4
⑯ Overhead guard clearance (from face of seat)	1100	43.3	1100	43.3	1100	43.3	1100	43.3
⑰ Overall height(overhead guard)	2450	96.5	2450	96.5	2560	100.8	2560	100.8
⑱ Overall width	1995	78.5	1995	78.5	2165	85.2	2245	88.4
⑲ Fork Spread(outside)	300 ~ 1835	11.8 ~ 72.2	300 ~ 1835	11.8 ~ 72.2	340 ~ 2000	13.4 ~ 78.7	405 ~ 2145	15.9 ~ 84.4
⑳ Tread(front)	1470	57.9	1470	57.9	1600	63.0	1600	63.0
㉑ Tread(rear)	1700	66.9	1700	66.9	1700	66.9	1700	66.9
㉒ Fork width	150	5.9	150	5.9	170	6.7	180	7.1
㉓ Inside turning radius	200	7.9	200	7.9	200	7.9	200	7.9
㉔ Outside turning radius	3300	130.0	3360	132.3	3650	143.7	3900	153.5
㉕ Min.intersecting aisle	2980	117.3	3020	118.9	3290	129.5	3540	139.4
㉖ Tilt range(forward-backward)	6° - 12°		6° - 12°		6° - 12°		6° - 12°	

STANDARD EQUIPMENTS

- Automatic shifting T/M
- Back-up buzzer
- Back-up light
- Charging light
- Column shift direction change
- Convertor oil cooler
- Cyclopak air cleaner with dust indicator
- Documents clip
- Drawbar-pin
- Engine oil pressure warning light
- Fuel gauge
- Full wide carriage
- Glow plug indicator
- Head & turn signal lights
- Horn
- Hour meter
- Key switch engine stop
- Load backrest
- Load check valve
- Long life tires
- Neutral safety switch
- Overhead Guard
- Power brake
- Power steering
- Radiator reserve tank
- Rear view mirrors
- Retaining Rollers
- Starter switch
- Suspension seat
- Tilt adjustable handle
- Tool set
- Water temperature gauge
- Wide View Mast

OPTIONAL EQUIPMENTS & ACCESSORIES

- Catalytic muffler
- Central greasing
- Cold weather spec.
- Fire extinguisher
- Heater
- Overhead exhaust
- Plate fin radiator
- Port relief valves
- Rear working light
- Right hand direction change
- Solid tires
- Spark arrest muffler
- Speedometer
- Steel Cabin
- Steel net on head guard
- Strober light
- Tilt cylinder boots
- Water separator

ATTACHMENTS

- Fork extension sleeves
- Fork positioner
- Hinged Forks
- Load grab
- Long forks
- Ram
- Side shift
- etc.

NOTES

- Meets following major standards and code:
 - ISO22915-2 Counter Balanced Lift Trucks, Stability & Safety Test(Int'l)
 - JIS D6001 Industrial Lift Trucks (Japan)
 - ISO D6011 Stability & Safety Test (Japan)
- Overhead guard meets ISO 6055, JIS D6021

And others on request.



TCM yellow color available as an option.

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- Photos and illustrations may or may not include optional equipment and accessories.
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- Performance data and dimensions are nominal and subject to tolerances.
- Produced in ISO certified factory.