

Heavy-Duty Forklift Trucks

7/10 ton

**FD70Z8
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)

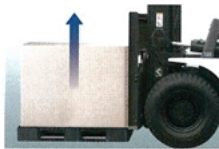
NEW		4.3 sec
PREVIOUS		5.1 sec

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

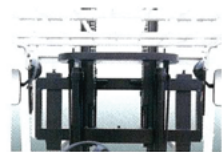
Environment Friendly Black Smoke Savings of 30%
Noxious Substance Savings of 50%

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			
				FD70Z8	FD100Z8		
Characteristics	1	Manufacturer					
	2	Model					
	3	Load Capacity	kg(lbs)	70009(15500)	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		3000(118)			
	10	Free Lift		215(8.5)	205(8.1)		
	13	Fork Size	L × W × T	1220 X 150 X 70 (48.0 X 5.9 X 2.8)	1220 X 180 X 75 (48.0 X 7.1 X 3.0)		
	14	Tilt Range	Fwd/Bwd	6/12			
	15	Length to Fork Face		3600(141.7)	4255(167.5)		
	16	Overall Width		1995(78.5)	2245(88.4)		
	17	Mast Height Fork Lowered		2500(98.4)	2850(112.2)		
	18	Mast Height, Fork Raised		4420(174.0)	4330(170.5)		
	19	Overhead Guard Height ***		2450(96.5)	2560(100.8)		
	21	Turning Radius(Outside)		3360(132.3)	3900(153.5)		
	22	Load Distance (Centerline of Front Axle to Front Face of Forks)		625(24.6)	710(28.0)		
23	Basic Right Angle Stacking Aisle Width		5620(221.3)	6250(246.1)			
Performance	24	Travel Max.	Full Load	km/h(mph)	26(16.1)	24(14.9)	
			No Load	km/h(mph)	30(18.6)		
		Lifting	Full Load	mm/s(fpm)	460(90.6)	390(76.8)	
			No Load	mm/s(fpm)	550(108.3)	410(80.7)	
	26	Lowering	Full Load	mm/s(fpm)	450(88.6)	470(92.5)	
			No Load	mm/s(fpm)	500(98.4)	340(66.9)	
	28	Max. Drawbar Pull		Full Load / No Load	kN (lbs)	52.9/21.6 (11900/4850)	57.3/31.4 (12900/7050)
	29	Gradeability at (1.6km/h or 1mph)		Full Load	%(tan θ)	29	22
30	Max. Gradeability **		Full Load / No Load	%(tan θ)	33/19	24/20	
Weight	32	Total Weight		kg(lbs)	9360(20640)	12300(27120)	
	33	Full Load	Front	kg(lbs)	14530(32040)	20100(44320)	
			Rear	kg(lbs)	1830(4040)	2200(4850)	
	34	No Load	Front	kg(lbs)	3750(8270)	5420(11950)	
Rear			kg(lbs)	5610(12370)	6880(15170)		
Chassis & Wheels	35	Number	Front/Rear	4/2			
		36	Size	Front	8.25 × 15-14PR	9.00 × 20-14PR	
	Rear			8.25 × 15-14PR	9.00 × 20-14PR		
	38	Wheelbase		mm(in)	2250(88.6)	2800(110.2)	
	39	Tread	Front	mm(in)	1470(57.9)	1600(63.0)	
			Rear	mm(in)	1700(66.9)		
	40	Underclearance	at lowest point	mm(in)	190(7.5)	245(9.6)	
			Center of Frame	mm(in)	230(9.1)	335(13.2)	
42	Brake	Service	Hydraulic-Foot pedal				
		Parking	Mechanical-Hand lever				
45	Battery		Voltage / Capacity	2 × 12V-70AH/20h			
49	Make-Model		ISUZU 6BG1				
50	Internal Combustion Engine	Rated Horspower / 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 118HP/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	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)

Wide View Mast

Wide View Mast VM

Mast Model	Rated Capacity/ 600mm(24 in) Load Center		Max. Fork Height		Overall Mast Height				Tilting Angle Fwd-Bkd	Service Weight	
					Lowered		Raised with Backrest			FD70Z8	
	kg	lbs	mm	in	mm	in	mm	in	deg	kg	lbs
VM300	7000	15500	3000	118.0	2500	98.4	4420	174.0	6-12	9360	20640
VM330	7000	15500	3300	130.0	2650	104.4	4720	185.8	6-12	9410	20750
VM350	7000	15500	3500	137.8	2750	108.3	4920	193.7	6-12	9440	20820
VM400	7000	15500	4000	157.5	3050	120.1	5420	213.4	6-12	9630	21230
VM450	7000	15500	4500	177.2	3300	130.0	5920	233.1	6-12	9720	21430
VM500	7000	15500	5000	196.9	3550	139.8	6420	252.8	6-6	9830	21680
VM550	6600	14500	5500	216.5	3850	151.6	6920	272.4	3-6	10030	22120
VM600	6400	14100	6000	236.2	4100	161.4	7420	292.1	3-6	10110	22290

Wide View Full Free 2-Stage Mast VFM

Mast Model	Rated Capacity/ 600mm(24 in) Load Center		Max. Fork Height		Overall Mast Height				(2)Free Lift with Backrest		Tilting Angle Fwd- Bkd	(3)Service Weight	
					Lowered		(1)Raised with Backrest		FD70Z8			FD70Z8	
	kg	lbs	mm	in	mm	in	mm	in	mm	in	deg	kg	lbs
VFM300	7000	15500	3000	118.0	2625	103.4	4420	174.0	1265	49.8	6-12	9465	20880
VFM330	7000	15500	3300	130.0	2775	109.3	4720	185.8	1415	55.7	6-12	9515	20990
VFM350	7000	15500	3500	137.8	2875	113.2	4920	193.7	1515	59.6	6-12	9545	21050
VFM400	7000	15500	4000	157.5	3175	125.0	5420	213.4	1815	71.5	6-12	9745	21490
VFM450	7000	15500	4500	177.2	3425	134.9	5920	233.1	2065	81.3	6-12	9825	21670

NOTE: (1)For height without backrest: -325mm(-12.8in)
 (2)For free lift without backrest: + 325mm(+ 12.8in)
 (3)Weight for without backrest: [FD60] -54kg(-120lbs), [FD70] -59kg(-130lbs)

Wide View Full Free 3-Stage Mast VFHM

Mast Model	Rated Capacity/ 600mm(24 in) Load Center		Max. Fork Height		Overall Mast Height				(2)Free Lift with Backrest		Tilting Angle Fwd- Bkd	(3)Service Weight	
					Lowered		(1)Raised with Backrest		FD70Z8			FD70Z8	
	kg	lbs	mm	in	mm	in	mm	in	mm	in	deg	kg	lbs
VFHM400	6200	13650	4000	157.5	2500	98.4	5400	212.6	1140	44.9	6-10	9965	21980
VFHM435	6200	13650	4350	171.3	2625	103.3	5750	226.4	1265	49.8	6-10	10045	22160
VFHM480	6200	13650	4800	189.0	2775	109.3	6200	244.1	1415	55.7	6-10	10125	22330
VFHM500	6200	13650	5000	196.9	2875	113.2	6400	252.0	1515	59.6	6-10	10180	22450
VFHM600	5500	12150	6000	236.2	3300	130.0	7400	291.3	1940	76.4	3-6	10540	23250
VFHM700	3700	8150	7000	275.6	3675	144.7	8400	330.7	2315	91.1	3-6	10725	23650
VFHM800	2300	5050	8000	315.0	4100	161.4	9400	370.1	2740	107.9	3-6	11050	24370

NOTE: (1)For height without backrest: -325mm(-12.8in)
 (2)For free lift without backrest: + 325mm(+ 12.8in)
 (3)Weight for without backrest: [FD60] -54kg(-120lbs), [FD70] -59kg(-130lbs)

NOTE: Lifting speed with VFM/VFHM mast: 350mm/s(69fpm) with load,
 380mm/s(75fpm) without load.
 Lowering speed with VFM/VFHM mast: 320mm/s(63fpm) with load,
 250mm/s(49fpm) without load.

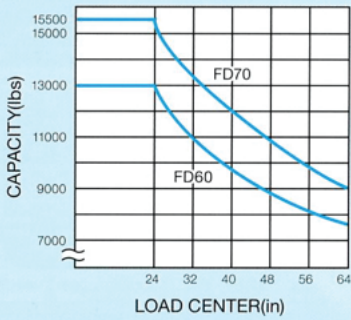
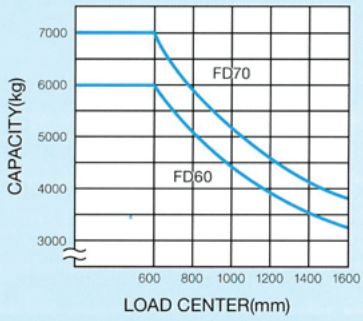
■ Wide View Mast VM

Mast Model	Rated Capacity/ 600mm(24 in) Load Center		Max. Fork Height		Overall Mast Height				Tilting Angle Fwd-Bkd	(3)Service Weight	
	FD100Z8				Lowered		Raised with Backrest			FD100Z8	
	kg	lbs	mm	in	mm	in	mm	in	deg	kg	lbs
VM300	10000	22000	3000	118.0	2850	112.2	4330	170.5	6-12	12300	27060
VM330	10000	22000	3300	129.9	3000	118.0	4630	182.3	6-12	12365	27200
VM350	10000	22000	3500	137.8	3100	122.0	4830	190.2	6-12	12410	27300
VM400	10000	22000	4000	157.5	3400	133.9	5330	209.8	6-12	12660	27850
VM450	10000	22000	4500	177.2	3650	143.7	5830	229.5	6-12	12770	28090
VM500	10000	22000	5000	196.9	3900	153.5	6330	249.2	6-6	12870	28310
VM550	9000	19800	5500	216.5	4200	165.4	6830	268.9	3-6	13120	28860
VM600	8000	17600	6000	236.2	4450	175.2	7330	288.6	3-6	13230	29110

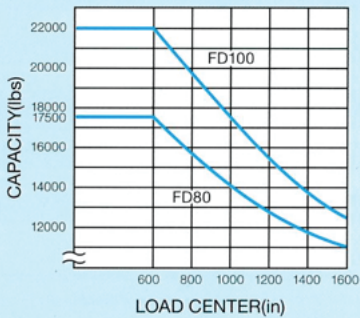
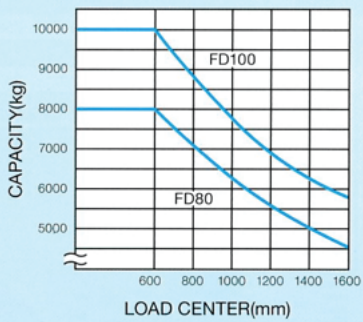
NOTE : Lifting speed with VFM/VFHM mast: [FD80]400mm/s(79fpm) with load,
420mm/s(83fpm) without load.
Lowering speed with VFM/VFHM mast: [FD80]350mm/s(69fpm) with load,
290mm/s(57fpm) without load.

LOAD CHART

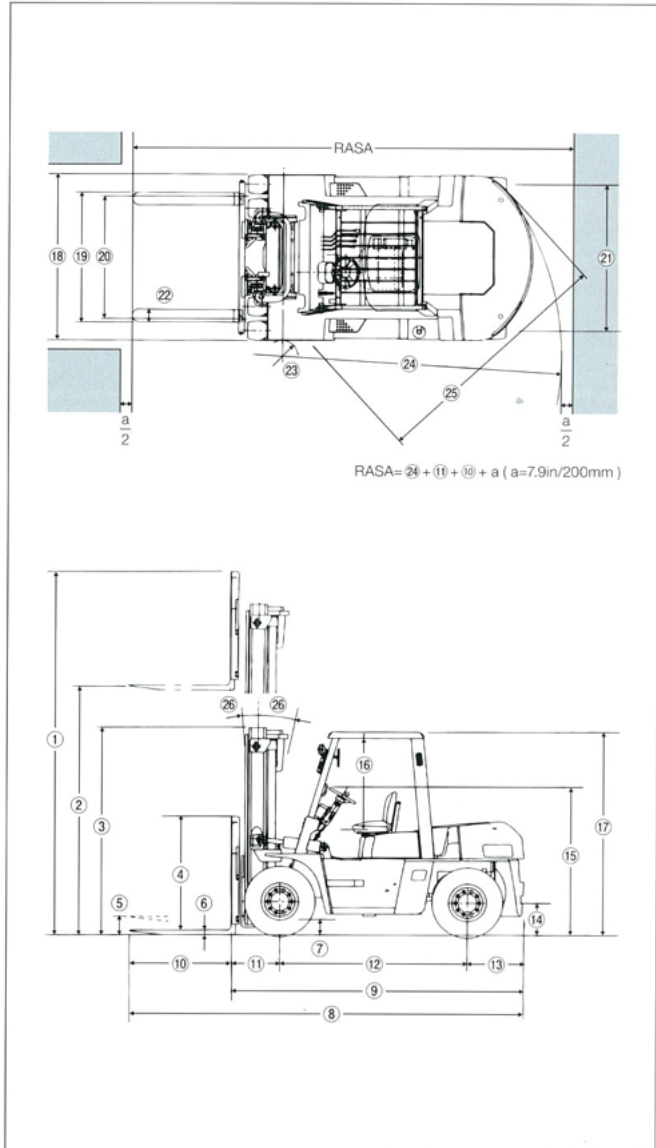
FD60Z8 • FD70Z8



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

** In European Export Unit + 50mm(2.0in)

*** In European Export Unit + 15mm(0.5in)

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

And others on request.

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



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- These products and specifications are subject to change without notice.
- Photos and illustrations may or may not include optional equipment and accessories.
- Features and specifications may vary depending on markets.
- Performance data and dimensions are nominal and subject to tolerances.
- Produced in ISO certified factory.

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