

SM181
BED07E1-01

FORKLIFT TRUCK (DX20 SERIES)

FG50/60/70-7

FD50E/60E/70E-7

FD50/60/70/80-7

KOMATSU FORKLIFT USA

SHOP MANUAL

(DX20 SERIES)

FG50/60/70-7

FD50E/60E/70E-7

FD50/60/70/80-7

MACHINE MODEL	SERIAL NO.
FG50/60/70-7	40001 and up
FD50E/60E/70E-7	40001 and up
FD50/60/70/80-7	40001 and up

PRECAUTIONS WHEN PERFORMING THE SERVICE WORK

Always pay attention to "Safety" before starting any work — this is important.

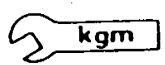
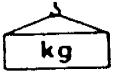
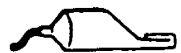
Never attempt any work where danger to yourself or to other persons.

Whenever work requiring safety precautions are described in this manual, a flag mark  inserted, always make double sure that safety measures are taken.

Other unmarked work, should always be performed after studying and using your common sense to prevent accidents.

DESCRIPTION OF THE SYMBOLS

The symbols described below are used in this manual for convenience and better understanding.

Symbol	Item	Description
	Safety	Special safety precautions are needed to perform the work.
	Note	Special technical precautions are needed to perform the work.
	Tightening torque	Fastening parts that require specified tightening force when assembling.
	Weight	Weight of parts or systems
	Coat	Places to be coated with adhesives, etc. when assembling

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10. GENERAL AND SPECIFICATIONS

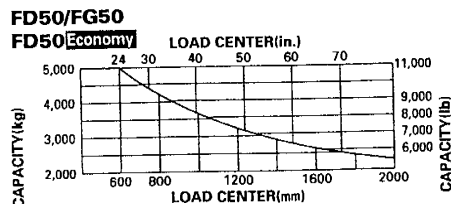
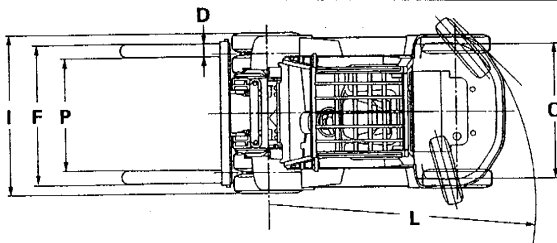


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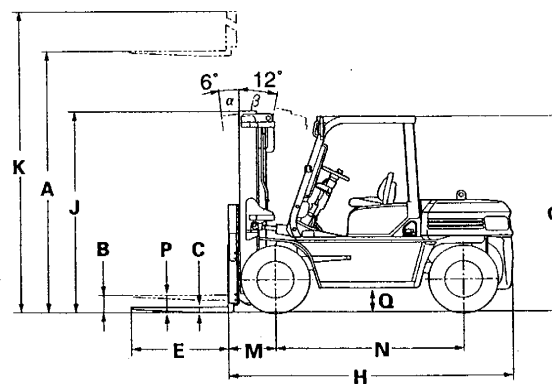
SPECIFICATIONS

STANDARD MODEL

	Model	Manufacturer's Designation				FD50-7	FG50-7	
Characteristics	1 Capacity	Capacity at 600mm (24") Load Center				kg (lb) 5000 (11,000)		
	2 Power Type	Diesel, Gasoline, LPG				Diesel	Gasoline	
	3 Tyre Type	Solid, Pneumatic				Pneumatic		
	4 Operator Type	Driver Standing, Sitting				Sitting		
	5 Wheel (*=driven)	Number Front/Rear				2*/2		
Dimensions	6 Lift	Std. Fork Height / Free Lift		mm (in)	A/B	3000(118) / 210(8.3)		
	7 Forks	Thickness x Width x Length		mm (in)	C x D x E	55 x 150 x 1220 (2.2 x 5.9 x 48.0)		
	8 Forks Opening Range	Max. / Min.		mm (in)	F	1700/300 (66.9/11.8)		
	9 Tilting Angle	Forward / Backward		degree	α/β	6/12		
	Overall Dimensions	10 Height, Overhead Guard			mm (in)	G	2440 (96.1)	
		11 Length to Face of Forks			mm (in)	H	3470 (136.6)	
		12 Width			mm (in)	I	1880 (74.0)	
		13 Height, Mast Lowered			mm (in)	J	2500 (98.4)	
		14 Height, Mast Extended			mm (in)	K	4350 (171.2)	
	15 Turning Radius	Outside		mm (in)	L	3250 (127.9)		
	16 Load Distance	From Center of Front Axle		mm (in)	M	570 (22.4)		
	17 Right Angle Stacking Aisle	Plus Load Length		mm (in)		5240 (206.3)		
Performance	Speeds	Travel	Forward & Reverse	Loaded	1st km/h (mph)	11.0 (6.8)		
				2st km/h (mph)	30.0 (18.6)	28.0 (17.4)		
			Unloaded	1st km/h (mph)	12.0 (7.5)			
			1nd km/h (mph)	32.0 (19.9)	31.0 (19.3)			
		Lifting	Loaded / Unloaded	mm/s (fpm)	530/560 (104/110)	420/430 (83/85)		
	Lowering	Loaded / Unloaded	mm/s (fpm)	550/580 (108/114)				
	24 Max. Drawbar Pull					kN (lb)	61 (13,820)	55 (12,360)
25 Grade ability					%	60	52	
Weights	26 Service Weight					kg (lb)	7540 (16,620)	7340 (16,180)
	27 Axle Loading	Loaded	Front / Rear		kg (lb)	11200/1340(24,690/2,950)	11110/1240(24,500/2,730)	
	28	Unloaded	Front / Rear		kg (lb)	3660/3880(8,070/8,550)	3560/3780(7,850/8,330)	
Chassis & Wheels	29 Tyre Size	Front / Rear				300-15-18PR(I)/8.25-15-12PR(I)		
	30 Wheelbase			mm (in)	M	2300 (90.5)		
	31 Tread	Front / Rear		mm (in)	O	1580/1640 (62.2/64.6)		
	Ground clearance	Lowest Point		mm (in)	P	225 (8.8)		
		Center of Frame		mm (in)	Q	280 (11.0)		
	34 Brakes	Service / Parking				Hydraulic, Powered / Mechanical		
	35 Steering	Type				Power Steering		
Drive	36 Battery	Voltage / Capacity 5-Hour Rating		V/Ah	24/56	12/48		
	37 Make / Model					KOMATSU 6D102E	NISSAN TB42	
	38 Rated Horsepower / RPM (SAE Gross)	kW (HP) @rpm			73 (100) @2250	66 (88) @2300		
	39 Internal Max. Torque / RPM (SAE Gross)	N.m (lb.ft) @rpm			353 (260) @1600	275 (203) @1900		
	40 Combustion Number of Cylinders / Displacement	cm³ (cu.in)			6/5880 (359)	6/4169 (254)		
	41 Engine Cylinder Bore x Stroke	mm (in)			102x120 (4.0x4.7)	96x96 (3.8x3.8)		
	42 Fuel Tank Capacity	Ltr (U.S.gal)			140 (37)			
	43 Air Cleaner					Cyclone		
	44 Clutch	Type				Torque Converter		
	45 Transmission	Type				TOROFLOW		
46 Hydraulic	Max. Pressure / Tank Capacity		bar(ksi) / Ltr(U.S.gal)		181 (2,630) / 70 (18)			



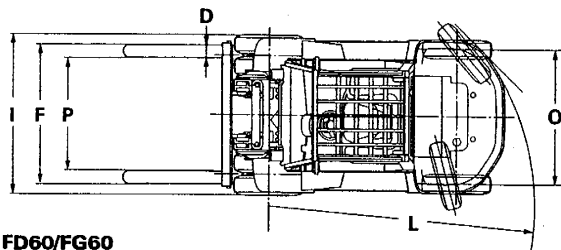
Capacities shown are for trucks equipped with 2-stage view mast up through 5000mm (197in.) maximum fork height, 1700mm(66.9in.) carriage, 1220mm(48in.) forks. Contact your distributor or dealer for capacity information with other equipment.



GENERAL AND SPECIFICATIONS

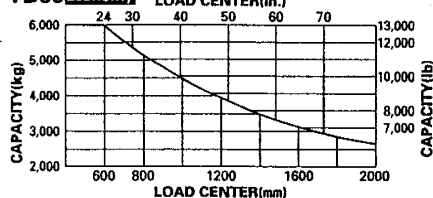
SPECIFICATIONS

Characteristics	Model		Manufacturer's Designation		FD60-7	FG60-7
	1	Capacity	Capacity at 600mm (24") Load Center	kg (lb)	6000 (13,200)	
Dimensions	2	Power Type	Diesel, Gasoline, LPG		Diesel	Gasoline
	3	Tyre Type	Solid, Pneumatic		Pneumatic	
	4	Operator Type	Driver Standing, Sitting		Sitting	
	5	Wheel (*=driven)	Number Front/Rear		4*/2	
	6	Lift	Std. Fork Height / Free Lift	mm (in)	A/B	3000(118) / 215(8.5)
	7	Forks	Thickness x Width x Length	mm (in)	C x D x E	60 x 150 x 1220 (2.4 x 5.9 x 48.0)
	8	Forks Opening Range	Max. / Min.	mm (in)	F	1700/300 (66.9/11.8)
	9	Tilting Angle	Forward / Backward	degree	α/β	6/12
	10	Overall Dimensions	Height, Overhead Guard	mm (in)	G	2440 (96.1)
	11		Length to Face of Forks	mm (in)	H	3475 (136.8)
Performance	12		Width	mm (in)	I	1960 (77.2)
	13		Height, Mast Lowered	mm (in)	J	2500 (98.4)
	14		Height, Mast Extended	mm (in)	K	4350 (171.2)
	15	Turning Radius	Outside	mm (in)	L	3250 (127.9)
	16	Load Distance	From Center of Front Axle	mm (in)	M	575 (22.6)
	17	Right Angle Stacking Aisle	Plus Load Length	mm (in)		5245 (206.5)
	18	Speeds	Travel	1st km/h (mph)		11.0 (6.8)
	19		Forward & Reverse	2st km/h (mph)	30.0 (18.6)	28.0 (17.4)
	20		Loaded	1st km/h (mph)		12.0 (7.5)
	21		Unloaded	1nd km/h (mph)	32.0 (19.9)	31.0 (19.3)
Weights	22	Lifting	Loaded / Unloaded	mm/s (fpm)	500/560 (98/110)	420/430 (83/85)
	23		Lowering	Loaded / Unloaded	mm/s (fpm)	550/580 (108/114)
	24	Max. Drawbar Pull		kN (lb)	59 (13,270)	54 (12,130)
	25	Grade ability		%	47	44
	26	Service Weight		kg (lb)	8360 (18,430)	8200 (18,080)
	27	Axle Loading	Loaded	Front / Rear	12790/1507 (28,200/3,460)	12710/1500 (28,020/3,310)
	28		Unloaded	Front / Rear	3730/4630 (8,220/10,210)	3640/4560 (8,020/10,050)
	29	Tyre Size	Front / Rear		8.25-15-12PR(I)/8.25-15-12PR(I)	
	30	Wheelbase		mm (in)	M	2300 (90.5)
	31	Tread	Front / Rear	mm (in)	O	1450/1640 (57.1/64.6)
Chassis & Wheels	32	Ground clearance	Lowest Point	mm (in)	P	225 (8.8)
	33		Center of Frame	mm (in)	Q	285 (11.2)
	34	Brakes	Service / Parking			Hydraulic, Powered / Mechanical
	35	Steering	Type			Power Steering
	36	Battery	Voltage / Capacity 5-Hour Rating	V/Ah	24/56	12/48
	37	Internal Combustion Engine	Make / Model		KOMATSU 6D102E	NISSAN TB42
	38		Rated Horsepower / RPM (SAE Gross)	kW (HP) @rpm	73 (100) @2250	66 (88) @2300
	39		Max. Torque / RPM (SAE Gross)	N.m (lb.ft) @rpm	353 (260) @1600	275 (203) @1900
	40		Number of Cylinders / Displacement	cm³ (cu.in)	6/5880 (359)	6/4169 (254)
	41	Fuel Tank Capacity	Cylinder Bore x Stroke	mm (in)	102x120 (4.0x4.7)	96x96 (3.8x3.8)
	42		Fuel Tank Capacity	Ltr (U.S. gal)	140 (37)	
Drive	43	Clutch	Air Cleaner			Cyclone
	44	Transmission	Type			Torque Converter
	45	Hydraulic	Max. Pressure / Tank Capacity	bar(psi) / Ltr(U.S. gal)	181 (2,630) / 70 (18)	TORQFLOW
	46					

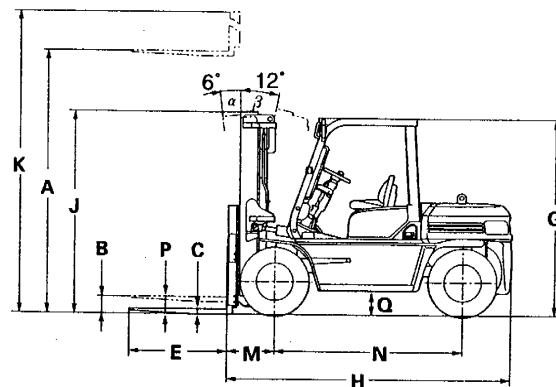


FD60/FG60

FD60 Economy



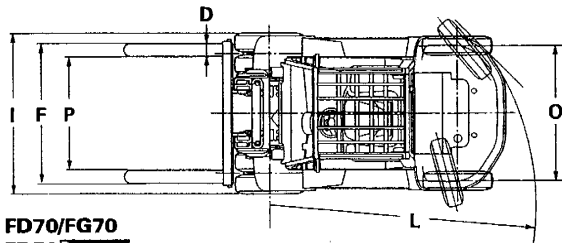
Capacities shown are for trucks equipped with 2-stage mast up through 5500mm (217in.) maximum fork height, 1700mm (68in.) carriage, 1220mm (48in.) forks. Contact your distributor or dealer for capacity information with other equipment.



GENERAL AND SPECIFICATIONS

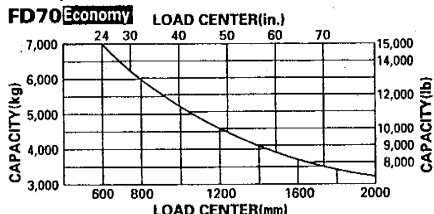
SPECIFICATIONS

	Model	Manufacturer's Designation			FD70-7	FG70-7
Characteristics	1 Capacity	Capacity at 600mm (24") Load Center			7000 (15,400)	
	2 Power Type	Diesel, Gasoline, LPG			Diesel	Gasoline
	3 Tyre Type	Solid, Pneumatic			Pneumatic	
	4 Operator Type	Driver Standing, Sitting			Sitting	
Dimensions	5 Wheel (*=driven)	Number Front/Rear			4*/2	
	6 Lift	Std. Fork Height / Free Lift			3000(118) / 220(8.7)	
	7 Forks	Thickness x Width x Length			65 x 150 x 1220 (2.5 x 5.9 x 48.0)	
	8 Forks Opening Range	Max. / Min.			1700/300 (66.9/11.8)	
	9 Tilting Angle	Forward / Backward			6/12	
	10	Height, Overhead Guard			2440 (96.1)	
	11	Length to Face of Forks			3565 (140.3)	
	12 Overall Dimensions	Width			1960 (77.2)	
	13	Height, Mast Lowered			2585 (101.8)	
	14	Height, Mast Extended			4350 (171.2)	
Performance	15 Turning Radius	Outside			3350 (131.9)	
	16 Load Distance	From Center of Front Axle			585 (23.0)	
	17 Right Angle Stacking Aisle	Plus Load Length			5355 (210.8)	
	18	Travel	Forward & Reverse	Loaded	1st km/h (mph)	11.0 (6.8)
	19			Unloaded	2st km/h (mph)	28.0 (17.4)
	20			Unloaded	1st km/h (mph)	12.0 (7.5)
	21			Unloaded	1nd km/h (mph)	31.0 (19.3)
	22	Lifting	Loaded / Unloaded	mm/s (fpm)	450/500 (89/98)	365/390 (72/77)
	23	Lowering	Loaded / Unloaded	mm/s (fpm)	500/550 (98/108)	
	24 Max. Drawbar Pull				kN (lb)	59 (13,270) 55 (12,340)
	25 Grade ability				%	39 38
	26 Service Weight				kg (lb)	9150 (20,170) 9000 (19,840)
Chassis & Wheels	27 Axle Loading	Loaded Front / Rear			kg (lb)	14310/1840 (31,550/4,060) 14230/1780 (31,370/3,920)
	28	Unloaded Front / Rear			kg (lb)	3710/5440 (8,180/11,990) 3620/5380 (7,980/11,860)
	29 Tyre Size	Front / Rear			8.25-15-14PR(I)/8.25-15-14PR(I)	
	30 Wheelbase				mm (in)	2500 (98.4)
	31 Tread	Front / Rear			mm (in)	1540/1700 (60.6/66.9)
	32 Ground clearance	Lowest Point			mm (in)	225 (8.8)
	33	Center of Frame			mm (in)	285 (11.2)
	34 Brakes	Service / Parking			Hydraulic, Powered / Mechanical	
	35 Steering	Type			Power Steering	
	36 Battery	Voltage / Capacity 5-Hour Rating			V/Ah	24/56 12/48
Drive	37 Make / Model				KOMATSU S6D102E NISSAN TB42	
	38 Rated Horsepower / RPM (SAE Gross)	kW (HP) @rpm			73 (100) @2250 66 (88) @2300	
	39 Internal	Max. Torque / RPM (SAE Gross)			353 (260) @1600 275 (203) @1900	
	40 Combustion	Number of Cylinders / Displacement			6/5880 (359) 6/4169 (254)	
	41 Engine	Cylinder Bore x Stroke			102x120 (4.0x4.7) 96x96 (3.8x3.8)	
	42	Fuel Tank Capacity			Ltr (U.S.gal)	140 (37)
	43	Air Cleaner			Cyclone	
	44 Clutch	Type			Torque Converter	
	45 Transmission	Type			TORQFLOW	
	46 Hydraulic	Max. Pressure / Tank Capacity			bar(psi) / Ltr(U.S.gal)	181 (2,630) / 70 (18)



FD70/FG70

FD70 Economy



Capacities shown are for trucks equipped with 2-stage view mast up through 5000mm (197in.) maximum fork height, 1700mm(66.9in.) carriage, 1220mm(48in.) forks. Contact your distributor or dealer for capacity information with other equipment.

