

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.

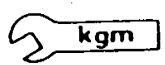
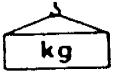
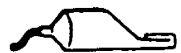
Never attempt any work where danger to yourself or to other persons.

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

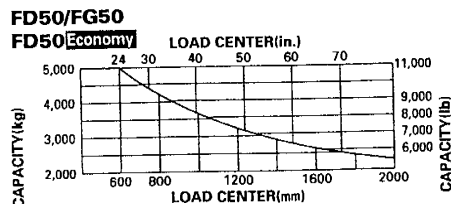
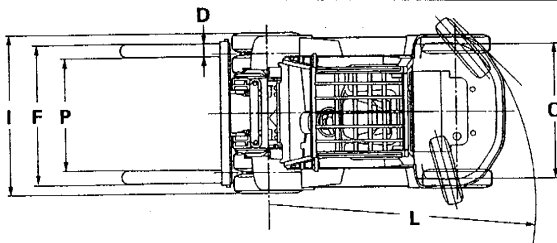


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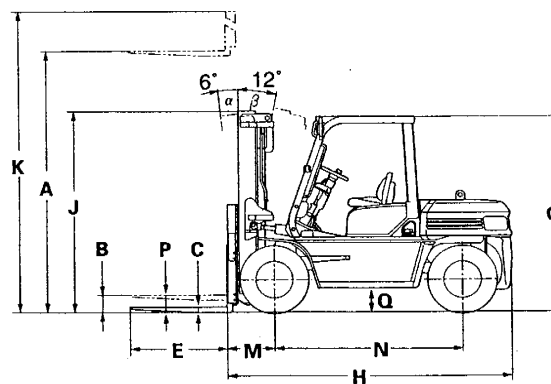
SPECIFICATIONS

STANDARD MODEL

	Model	Manufacturer's Designation			FD50-7	FG50-7
Characteristics	1 Capacity	Capacity at 600mm (24") Load Center			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			3000(118) / 210(8.3)	
	7 Forks	Thickness × Width × Length	mm (in)	C × D × E	55 × 150 × 1220 (2.2 × 5.9 × 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	Height, Overhead Guard	mm (in)	G	2440 (96.1)	
		Length to Face of Forks	mm (in)	H	3470 (136.6)	
		Width	mm (in)	I	1880 (74.0)	
		Height, Mast Lowered	mm (in)	J	2500 (98.4)	
		Height, Mast Extended	mm (in)	K	4350 (171.2)	
	15 Turning Radius	Outside	mm (in)	L	3250 (127.9)	
Performance	16 Load Distance	From Center of Front Axle			570 (22.4)	
	17 Right Angle Stacking Aisle	Plus Load Length			5240 (206.3)	
	Speeds	Travel	Forward	Loaded	1st km/h (mph)	
			Reverse	Loaded	30.0 (18.6)	
		Unloaded	Forward	Unloaded	1st km/h (mph)	
			Reverse	Unloaded	12.0 (7.5)	
	Lifting	Loaded / Unloaded			mm/s (fpm)	
		Lowering			530/560 (104/110)	
Weights	24 Max. Drawbar Pull				kN (lb)	
	25 Grade ability				%	
	26 Service Weight				kg (lb)	
	27 Axle Loading	Loaded	Front / Rear		kg (lb)	
Chassis & Wheels	28	Unloaded	Front / Rear		kg (lb)	
	29 Tyre Size	Front / Rear			300-15-18PR(I)/8.25-15-12PR(I)	
	30 Wheelbase				mm (in)	
	31 Tread	Front / Rear			mm (in)	
	32 Ground clearance	Lowest Point			mm (in)	
	33	Center of Frame			mm (in)	
	34 Brakes	Service / Parking			Hydraulic, Powered / Mechanical	
	35 Steering	Type			Power Steering	
	36 Battery	Voltage / Capacity 5-Hour Rating			V/Ah	
	37	Make / Model			KOMATSU 6D102E	
Drive	38	Rated Horsepower / RPM (SAE Gross)			kW (HP) @rpm	
	39 Internal	Max. Torque / RPM (SAE Gross)			N.m (lb.ft) @rpm	
	40 Combustion	Number of Cylinders / Displacement			cm³ (cu.in)	
	41 Engine	Cylinder Bore × Stroke			mm (in)	
	42	Fuel Tank Capacity			Ltr (U.S. gal)	
	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)	



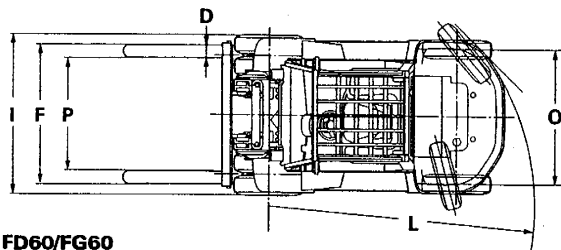
Capacities shown are for trucks equipped with 2-stage view mast up through 5000mm (197in.) maximum fork height, 1700mm(66.9in.) carriage, 1220mm(48in.) forks. Contact your distributor or dealer for capacity information with other equipment.



GENERAL AND SPECIFICATIONS

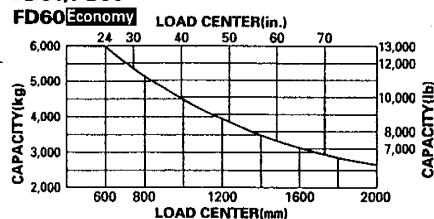
SPECIFICATIONS

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	Forward & Reverse	Loaded	1st km/h (mph)
	19					11.0 (6.8)
	20					30.0 (18.6)
	21					28.0 (17.4)
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)
Drive	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)	

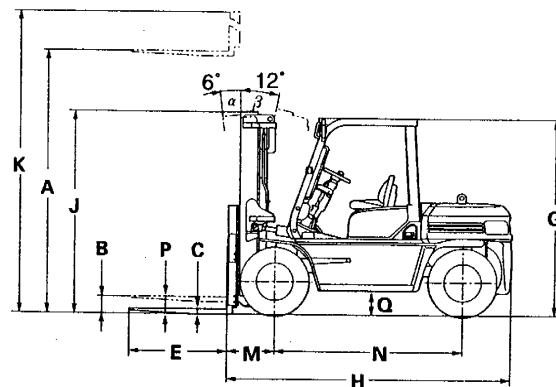


FD60/FG60

FD60 Economy



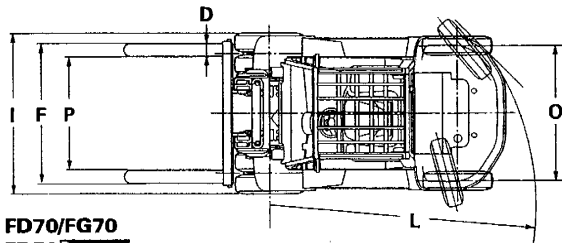
Capacities shown are for trucks equipped with 2-stage mast up through 5500mm (217in.) maximum fork height, 1700mm(66.9in.) carriage, 1220mm(48in.) forks. Contact your distributor or dealer for capacity information with other equipment.



GENERAL AND SPECIFICATIONS

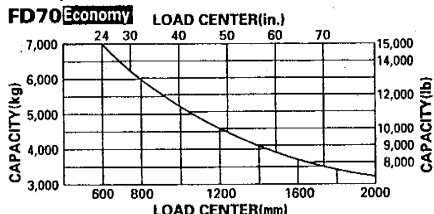
SPECIFICATIONS

Model		Manufacturer's Designation				FD70-7	FG70-7	
Characteristics	1 Capacity	Capacity at 600mm (24") Load Center				kg (lb) 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*7/2			
	6 Lift	Std. Fork Height / Free Lift		mm (in)	A/B	3000(118) / 220(8.7)		
	7 Forks	Thickness x Width x Length		mm (in)	C x D x E	65 x 150 x 1220 (2.5 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	3565 (140.3)		
		12 Width	mm (in)		I	1960 (77.2)		
		13 Height, Mast Lowered	mm (in)		J	2585 (101.8)		
	14 Height, Mast Extended	mm (in)		K	4350 (171.2)			
	15 Turning Radius	Outside		mm (in)	L	3350 (131.9)		
	16 Load Distance	From Center of Front Axle		mm (in)	M	585 (23.0)		
	17 Right Angle Stacking Aisle	Plus Load Length		mm (in)		5355 (210.8)		
Performance	Speeds	Travel	Forward & Reverse	Loaded	1st km/h (mph)		11.0 (6.8)	
					2st km/h (mph)		28.0 (17.4)	
		Unloaded	1st km/h (mph)		12.0 (7.5)			
			1nd km/h (mph)		31.0 (19.3)			
	Lifting	Loaded / Unloaded		mm/s (fpm)	450/500 (89/98)		365/390 (72/77)	
		Lowering		Loaded / Unloaded	mm/s (fpm)	500/550 (98/108)		
Weights	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)	
	Axle Loading	Loaded	Front / Rear		kg (lb)	14310/1840(31,550/4,060)	14230/1780(31,370/3,920)	
Unloaded		Front / Rear		kg (lb)	3710/5440(8,180/11,990)	3620/5380(7,980/11,860)		
Chassis & Wheels	29 Tyre Size	Front / Rear				8.25-15-14PR(I)/8.25-15-14PR(I)		
	30 Wheelbase			mm (in)	M	2500 (98.4)		
	31 Tread	Front / Rear		mm (in)	O	1540/1700 (60.6/66.9)		
	Ground clearance	Lowest Point		mm (in)	P	225 (8.8)		
		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	
	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)		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				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.

