KOMATSU®

SHOP MANUAL

FG10/15/18-20
FG15H/18H-20
FD10/15/18-20
FG20/25/30-16
FG20H/25H-16
FG20N/25N/30N-16
FG35A-16
FD20/25/30-16
FD20H/25H/30H-16
FD20N/25N/30N-16
FD35A-16

KOMATSU FORKLIFT

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10. GENERAL AND SPECIFICATIONS

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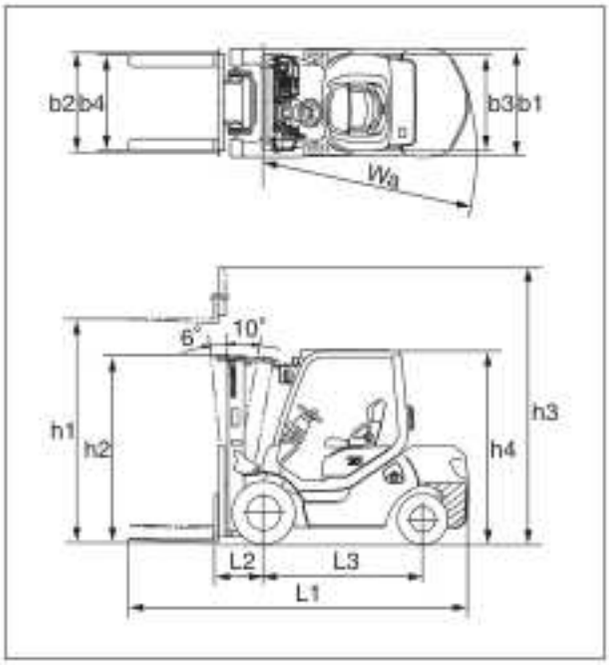
SPECIFICATIONS

AX50 (1.0 - 1.8ton) Series

Characteristics	1.2	Model	Manufacturer's Designation				FG10T-20	FG10C-20	FD10T-20	FD10C-20
	1.3	Power Type	Electric, Diesel, Gasoline, LPG				Gasoline		Diesel	
	1.4	Operation Type					Sitting		Sitting	
	1.5	Rated Capacity	Rated Capacity		kg		1000		1000	
	1.6	Load Center	Rated Load Center		mm		500		500	
	1.6.1	Alternative Capacity	Capacity@600mm Load Center		kg		910		910	
	1.8	Load Distance	Front Axle Center to Fork Face		mm	L2	400		400	
	1.9	Wheelbase			mm	L3	1400		1400	
Weight	2.1	Service Weight			kg		2080	2095	2180	2195
	2.2	Axle Loading	Loaded	Front	kg		2725	2735	2760	2765
	2.2.1			Rear	kg		355	360	420	430
	2.3		Unloaded	Front	kg		1065	1075	1085	1105
	2.3.1			Rear	kg		1015	1020	1085	1090
Tyres	3.1	Tyre Type					Pneumatic		Pneumatic	
	3.2	Tyre Size	Front				6.50-10-10PR(I)		6.50-10-10PR(I)	
	3.3		Rear				5.00- 8- 8PR(I)		5.00-8-8PR(I)	
	3.5	Number of Wheel	Front/Rear (x=driven)				2*/2		2*/2	
	3.6	Tread, Front			mm	b4	890		890	
	3.7	Tread, Rear			mm	b3	895		895	
Dimensions	4.1	Tilting Angle	Forward/Backward		degree		6/10		6/10	
	4.2	Mast Height, Lowered	2-stage Mast		mm	h2	1995		1995	
	4.3	Std. Free Lift	2-stage Std. Mast, from Ground		mm		135		135	
	4.4	Std. Lift Height	2-stage Std. Mast, from Ground		mm	h1	3000		3000	
	4.5	Mast Height, Extended	2-stage Std. Mast		mm	h3	3955		3955	
	4.7	Height, Overhead Guard			mm	h4	2030		2030	
	4.19	Length, with Std. Forks			mm	L1	2965		2965	
	4.20	Length, to Fork Face			mm		2195		2195	
	4.21	Width, at Tyre	Single		mm	b1	1070		1070	
	4.22	Forks	Thickness x Width x Length		mm		31x100x770		31x100x770	
	4.23	Fork Carriage Class	ISO 2328, Type A/B/no				Class 2		Class 2	
	4.24	Width, Fork Carriage			mm		970		970	
	4.31	Ground Clearance	Under Mast		mm		120		120	
	4.32		at Center of Wheelbase		mm		130		130	
	4.33	Right Angle Stacking Aisle	with L1000 x W1200 pallet		mm		3315		3315	
	4.34		with L1200 x W800 pallet		mm		3515		3515	
	4.35	Turning Radius			mm	Wa	1915		1915	
Performance	5.1	Travel Speed (FWD)	Loaded, 1st/2nd		km/h		19.0	9.0/19.0	19.0	8.5/19.0
			Unloaded, 1st/2nd		km/h		19.0	9.0/19.0	19.5	8.5/19.5
	5.2	Lifting Speed	Loaded		mm/s		580		620	
			Unloaded		mm/s		640		670	
	5.3	Lowering Speed	Loaded		mm/s		500		500	
			Unloaded		mm/s		550		550	
	5.6	Max. Drawbar Pull	Loaded		KN		10	11	13	14
	5.8	Max. Gradeability	Loaded		%		34	38	49	41
	5.10	Service Brake	Operation/Control				Foot/Hydraulic		Foot/Hydraulic	
	5.11	Parking Brake	Operation/Control				Hand/Mechanical		Hand/Mechanical	
	5.12	Steering	Type				FHPS		FHPS	
	6.4	Battery	Voltage/ Capacity at 5-hour rating		V/ah		12/33		12/64	
I.C Engine	7.1	Maker Model					NISSAN K15		Komatsu 4D92E	
	7.2	Rated Output, SAE gross			KW		27@2500		35@2450	
	7.3	Rated RPM			min-1		2500		2450	
	7.3.1	Max. Torque, SAE gross			Nm@min-1		113@1500		142@1800	
	7.4	No. of Cylinder/Displacement			cm3		4-1486		4-2659	
Others	7.6	Fuel Tank Capacity			Ltr		40		40	
	8.2	Relief Pressure for Attachment			bar		172		172	
	8.7	Transmission					TORQFLOW	Manual	TORQFLOW	Manual

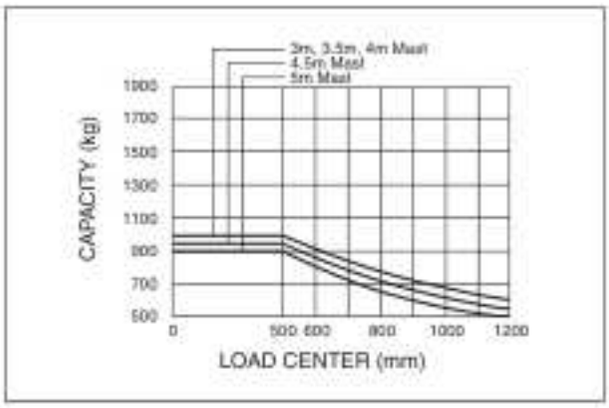
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Outside view

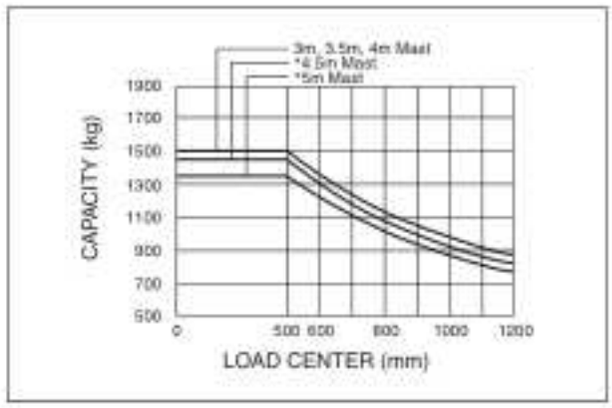


Load Capacity chart

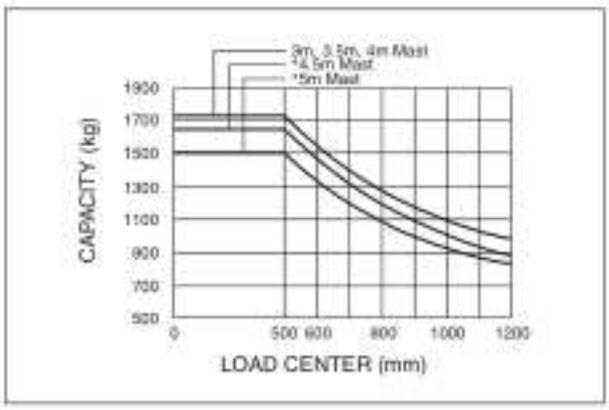
1.0 ton



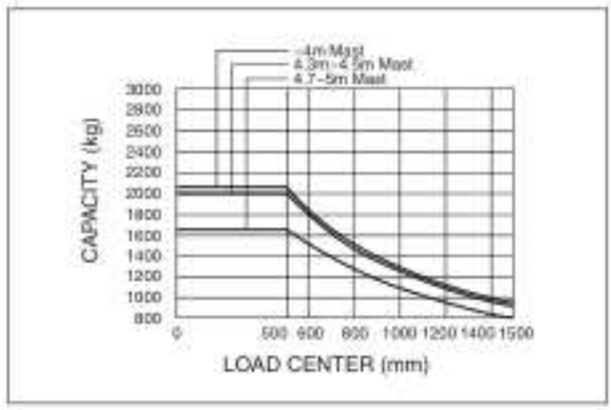
1.5 ton



1.8 ton



2.0 ton

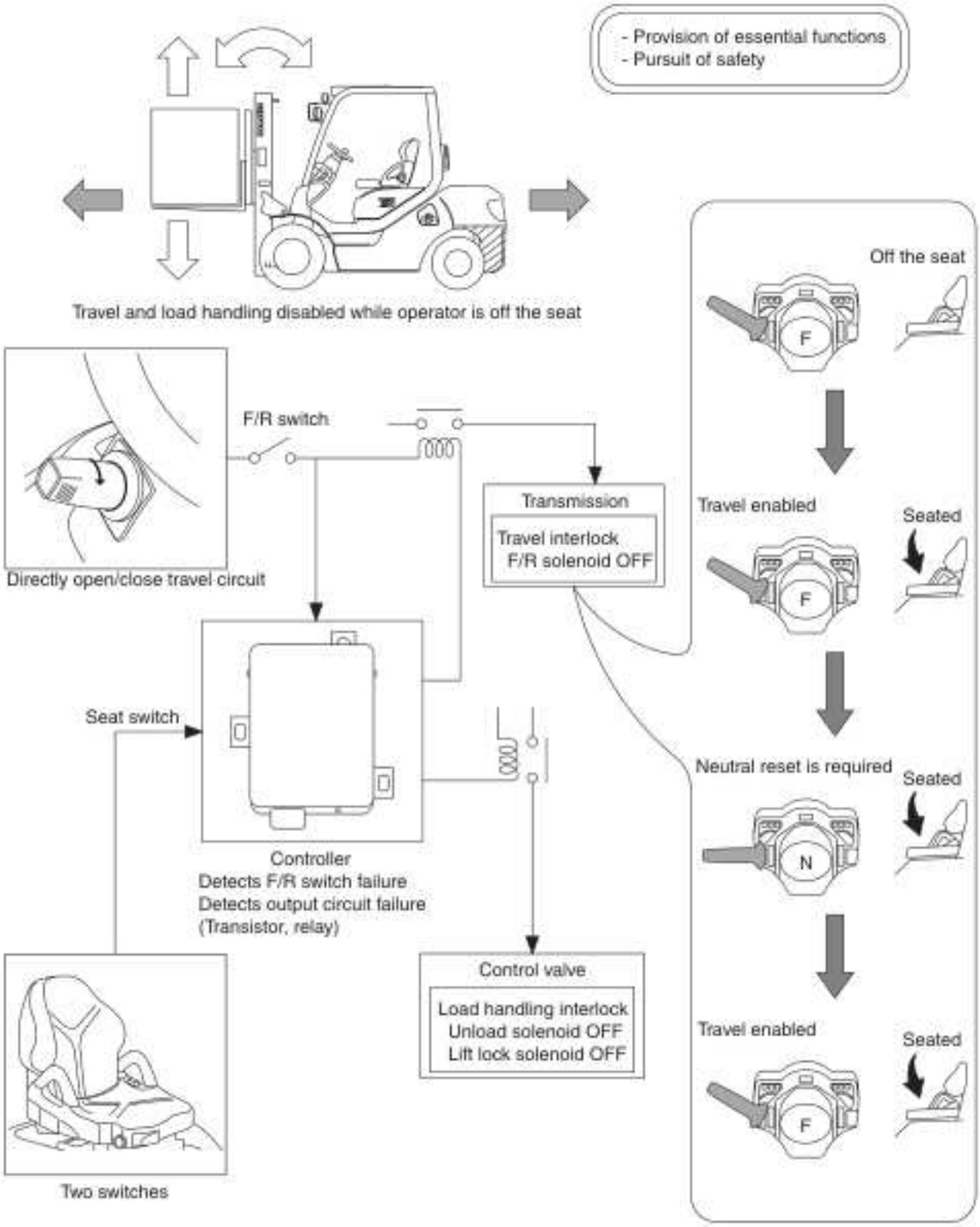


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Item	Symptom	Related parts	Possible causes	•Remedy
1	Oil contamination at the piston rod sliding portion	Shaft support material	The gap from the piston rod is out of the allowable range.	• Replace the shaft support material.
			Remarkable scratches/ damage are present on the sliding surface.	• Replace the shaft support material. • Check the piston rod when replacing.
		Cylinder head	Cylinder head with scratches/rust at its seal position is directly used as piston rod sliding part.	• Remove the scratches/rust with an oilstone. • If the scratches/rust still remain, replace the cylinder head.
2	Oil leakage from the cylinder head mating portion	O-ring	Foreign matter is clogged in the gap between piston and cylinder. O-ring is damaged.	• Remove the foreign matter. • Replace the O-ring if damaged. • Check the inner surface of tube. Smooth the surface with an oilstone if scratches/rust are present. • Check the cylinder head O-ring groove. Replace the O-ring if damaged.
		Cylinder head	Loose portion is present.	• Disassemble the cylinder head to check the O-ring. Replace the O-ring if damaged. • Then tighten the loose part to the specified tightening torque. Refer to the tightening torque specified in the assembly drawings.
		Cylinder tube	Abnormal swelling	• Replace the cylinder tube with a new one. Oil leakage from the mating portion may be caused by excessive pressure. Check the cylinder tube for swelling, deformation, and for circuit pressure.
3	Abnormal operation Mechanical parts do not move smoothly.	Piston rod Cylinder tube	Remarkable bend exceeding specified bend distortion	• Replace the piston rod with a new one. Check the seals and sliding materials for damage. Replace them if damaged.
		Cylinder tube	A bend is present.	• Replace the cylinder tube with a new one. Check the seals and sliding materials for damage.
		Piston rod Cylinder tube Sliding materials	Remarkable wear/damage to sliding surfaces, foreign matter clogged in the piston, cylinder head sliding portion	• Replace the defective part with a new one. Check the seals and sliding materials for damage. • Remove the foreign matter. Check the seals and sliding materials for damage
	Internal oil leakage Expansion or contraction while piston rod is working Specified speed is not obtained during operation.	Piston seal	Damage such as scratch and wear is present.	• Replace the piston seal with a new one. Check the cylinder tube inner surface for damage.
		Cylinder tube	Scratches or rust on the inner surface.	• Remove scratched/rust with a horning or oilstone to smooth the surface. If scratched/rust cannot be removed, replace the cylinder tube with a new one. • Replace the piston seal with a new one.

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SYSTEM OVERVIEW



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