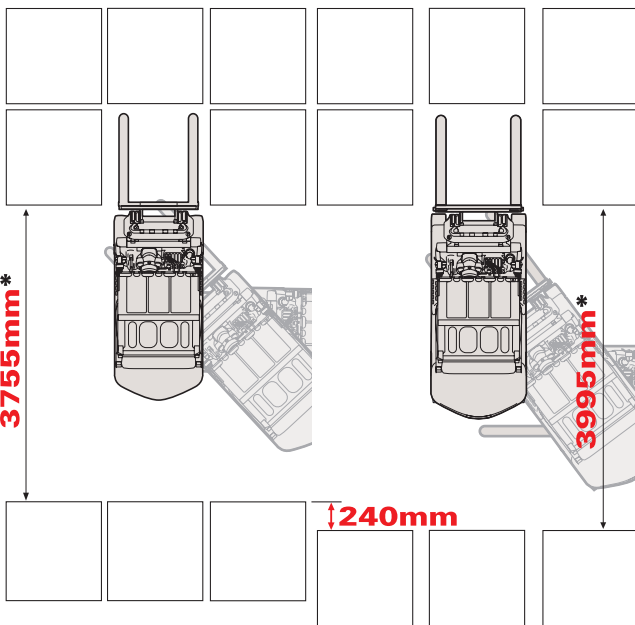


**109 Compact 2.5 ton**

**Standard 2.5 ton**



\*2.5t truck include 200mm clearance.

# BX50 109 COMPACT SERIES

2.0 TO 3.0 TON



Width of 109 cm



Swing Down LPG Bracket



Agility, Comfort and Productivity

Komatsu Forklift completes its range of 2.0 to 3.0 tonne-capacity LPG Diesel trucks with the compact BX50 Series, defined "109" due to the width b1 of 109 centimetres.

The characteristic counterbalance equipped with Solid Cushion tyres guarantees a lifting capacity equal to the traditional BX50 range but with turning radius comparable with those of the AX50 range: the warehouse footprint surface is increased by reducing the aisle size and the distance between pallets.

The BX50 109 provides high comfort levels due to vibration being absorbed by the dual-floating structure with silent block and OSS dampened seat. This comfort is noticeable even on uneven surfaces - an application that solid cushion tyre models historically resulted in poor operator comfort.

The operating compartment is extremely characterised by a wide entrance and ample adjustment available for the seat and steering column. The SLHS hydraulic system with double hydraulic pump has a flow dedicated to the hydraulics and another to the completely hydraulic KAPSIII steering system. The KAPS III steering system is extremely light, equipped with a synchronisation system between the steering wheel position and the angle of the wheels. This prevents the phenomena of hydraulic drift and oscillating speed typical of standard trucks on the market without the SLHS system. The result is precise and secure steering over long distances as well as within the confined areas in the warehouse warehouses.

The renowned quality and reliability of Komatsu are represented in the revolutionary new 1500kg to 3500kg IC engine range Komatsu has developed:

- a revolutionary transmission with cardan joint in aluminium alloy. The

result is improved heat dissipation supported by a modernised cooling system with heavy duty radiator for transmission oil circuit;

- the latest generation electrical system with water-proof connectors and centralised fuse boxes coupled with bonnet design prevents water stagnation;
- solid and powerful engines (4D94LE and K21/K25) protected by a cyclonic filter;
- a reinforced OSS operator's seat.

In advance of the European legislation, the 109 series satisfies the ISO3691 safety requirements. The 109 series is equipped with a man-on-board sensor which blocks all hydraulic actuations and disconnects the transmission when the operator dismounts from the truck. Also an alarm signal is activated if the parking brake is not applied.

The new transmission with torque converter and independent front axle guarantees smooth couplings and rapid changes of direction with substantial yet progressive accelerations. Approaching loads occurs without jerks. The direction levers and (standard) halogen light system control levers is now nearer the steering wheel, ensuring rapid access.

LPG models have available the "Swing Down Bracket" cylinder support which ensures the replacement of the LPG container effortlessly and in maximum safety.

A wide range of options responding to European markets needs are available on request. Contact your nearest Komatsu Forklift distributor. You will receive expert advice recommending the best solution for you.

Please visit the web site [www.komatsuforklift.net](http://www.komatsuforklift.net). Here you will find the entire Komatsu Forklift range. If you register, you can be informed of new developments as well as have access to privileged information.

## KOMATSU

Part Number: PKS1022EN  
Form. No: BX50(109)-S-E-P-2/06

This brochure may contain equipment that are not available in your area. Please consult your Komatsu Forklift distributor for those items you may require. Materials and specifications are subject to change without notice.

Printed in Italy

## BX50 109 COMPACT SERIES

2.0 TO 3.0 TON



**Gasoline and Diesel Engine Lift Trucks**

- Total truck width of 1090mm with a capacity of 2 to 3 tonnes in order to maximise warehouse space by working between compact rows of pallets
- Reduced aisles width and record turning radius for agile movement
- Operator's comfort guaranteed even on rough surfaces and loading yards thanks to the standard OSS damped comfort seat and dual floating structure that filters vibrations transmitted from the solid cushion tyres
- Safety system ahead of its time thanks to the ISO: 3691 system with "operator-on-board sensor" and hydraulic block against accidental use
- Spacious and ergonomic operator compartment
- LPG cylinder replacement facilitated thanks to the "Swing Down Bracket" system

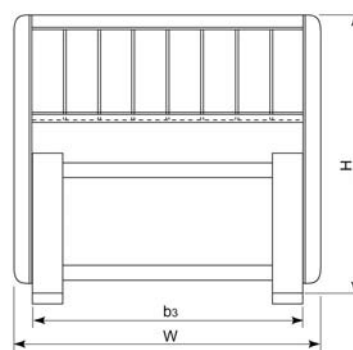
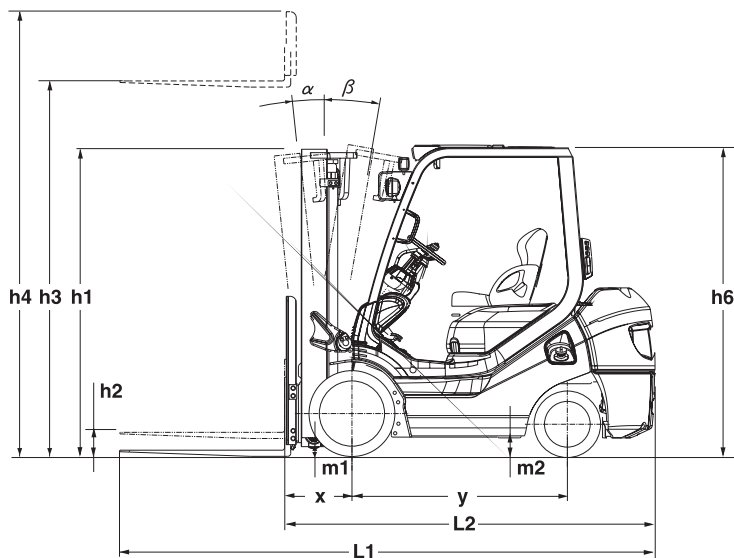
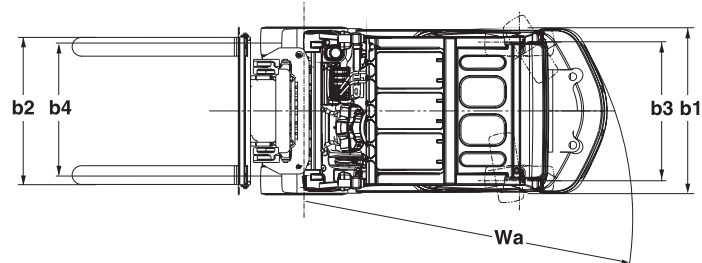
# BX50 109 COMPACT SERIES

## 2.0 TO 3.0 TON

CHARACTERISTICS	1.2	Model Designation				
	1.3	Power Type: Electric, Diesel, Gasoline, LPG, Cable				
	1.4	Operation Type: Pedestrian, Driver Standing, Sitting, Order Picking				
	1.5	Rated Capacity		Q	mm	
	1.6	Load Center		c	mm	
	1.8	Load Distance (Front axle center to fork face)		x	mm	
	1.9	Wheelbase		y	mm	
	WEIGHTS	2.1	Service Weight			kg
		2.2	Axle Loading	Loaded	Front	kg
2.2.1		Rear			kg	
2.3		Unloaded		Front	kg	
2.3.1				Rear	kg	
TYRES	3.1	Tyre Type: Cushion, Elastic Cushion, Pneumatic, Polyurethane				
	3.2	Tyre Size		Front		
	3.3			Rear		
	3.5	Number of Wheel: Front/Rear(x-driven)				
	3.6	Tread, Front		b10	mm	
	3.7	Tread, Rear		b11	mm	
	DIMENSIONS	4.1	Tilting Angle		a/b	°
4.2		Mast Height, Lowered		h1	mm	
4.3		Std. Free Lift		h2	mm	
4.4		Std. Lift Height		h3	mm	
4.5		Mast Height, extended		h4	mm	
4.7		Height, Overhead Guard		h6	mm	
4.19		Length, with Std. Forks		l1	mm	
4.20		Length, to Fork Face		l2	mm	
4.21		Width, at Tyre		b1		
4.22		Forks: Thickness/Width/Length		s/e/l	mm	
4.23		Fork Carriage Class: ISO 2328, Type A/B				
4.24		Width, Fork Carriage		b3	mm	
4.31		Ground Clearance	Under Mast	m1	mm	
4.32			at Center of Wheelbase	m2		
4.33		Right Angle Stacking Aisle	1000x1200 pallet mm	Ast	mm	
4.34	1200x800 pallet mm		Ast	mm		
4.35	Turning Radius		Wa	mm		
PERFORMANCES	5.1	Travel speed (FWD)	Loaded	1st/2nd/3rd	km/h	
	5.1.1		Unloaded	1st/2nd/3rd	km/h	
	5.2	Lifting Speed	Loaded/Unloaded		mm/s	
	5.3	Lowering Speed	Loaded/Unloaded		mm/s	
	5.6	Drawbar Pull	Loaded 1.5km/h		kN	
	5.8	Gradeability	Loaded 1.5km/h		%	
	5.10	Service Brake	Operation/Control			
	5.11	Parking Brake	Operation/Control			
	5.12	Steering				
	IC ENGINE	6.4	Battery	Voltage/Capacity at 5-hour rating		V/Ah
		7.1	Maker/Model			
		7.2	Output SAE gross			kW @ min -1
7.3						
7.3.1		Max. Torque, SAE gross				Nm @ min -1
7.4		Num. of Cylinder, Displacement			# / cm3	
7.6		Fuel Tank Capacity			Ltr	
OTHERS	8.2	Relief Pressure for Attachment			bar	
	8.2.1	Tank Capacity			Ltr	
	8.6	Clutch				
	8.7	Transmission				

(1) data for truck with FV3.3mt mast WITHOUT load backrest

FD20NT-16	FD25NT-16	FD30NT-16	FG20NT-16	FG25NT-16	FG30NT-16
Diesel			Gasoline		
Sitting					
2000	2500	3000	2000	2500	3000
500					
430	435	440	430	435	440
1400		1450		1450	
3330	3730	4170	3230	3630	4070
4630	5380	6240	4600	5350	6250
700	850	930	630	780	820
1280	1170	1250	1250	1140	1260
2050	2560	2920	1980	2490	2810
Solid Cushion					
21x7x15		21x8x15		21x7x15	
16 1/4x6x11 1/4					
2*/2					
900					
885					
6/10					
1995		2070		1995	
150	155	160	150	155	160
3000					
4050		4275		4050	
2025					
3260	3475	3535	3260	3475	3535
2340	2405	2465	2340	2405	2465
1090					
36x122x920	40x122x1070	44x122x1070	36x122x920	40x122x1070	44x122x1070
Class 2, Type A		Class 3, Type		A Class 2, Type A	
960		940		960	
105					
115					
3410	3555	3620	3410	3555	3620
3610	3685	3750	3610	3685	3750
1980	2050	2110	1980	2050	2110
17.0	16.5	16.0	17.0	16.5	16.0
16.5	16.5	16.0	16.5	16.5	16.0
630/685		520/555		545/600	
450/500		420/500		450/500	
17		16		14	
34	29	24	27	23	24
Foot/Hydraulic					
Hand/Mechanical					
KAPS III - Hydrostatic					
12/64			12/33		
Komatsu 4D94LE		NISSAN K21		NISSAN K25	
46.3@2450		34.6@2450		42.6@2400	
2450		2450		2400	
186@1800		152@1600		186@1600	
4-3052		4-2065		4-2488	
40					
181					
55					
Torque Converter					
TORQFLOW					



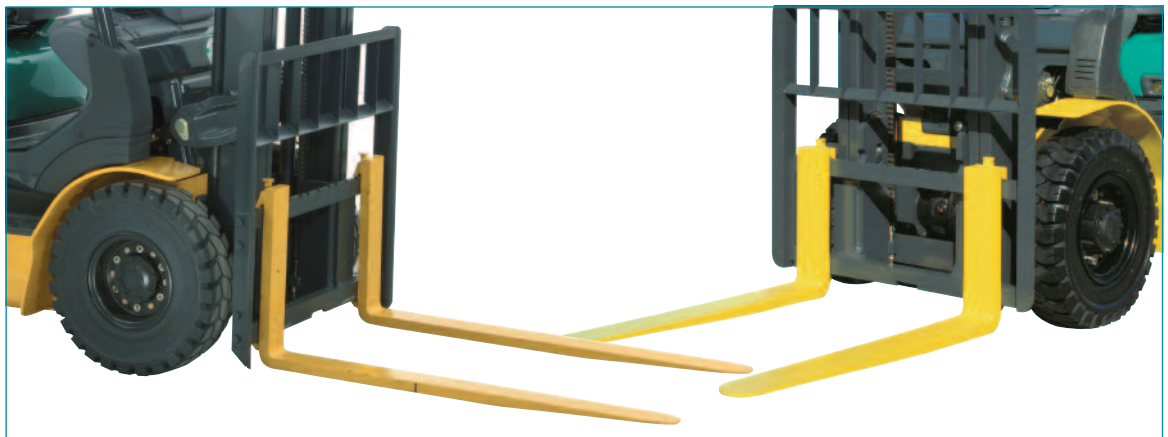
Load backrest					
	H mm	b <sub>3</sub> mm	W mm	h <sub>4</sub> mm	h <sub>5</sub> mm
20825	1000	960	1090	+370	-370
	1220			+590	-590
	1370			+740	-740
30	1220	940	1090	+570	-570
	1370			+720	-720
	1520			+870	-870

**KOMATSU**

WWW.KOMATSUFORKLIFT.NET

x= FOH + s		(!) Data without load backrest						Capacity kg@ 500mm		Mast weight Kg				
		Integral Sideshift		Standard carriage										
Model	h <sub>3</sub> mm	h <sub>1</sub> mm	h <sub>4</sub> (!) mm	h <sub>2</sub> /h <sub>5</sub> (!) mm	α °	β °	Solid Cushion							
							Single	Single						
FD20NT-16 / FG20NT-16		FV FOH Std=394 FOH SS=424		3000	1995	3680	150	6	10	2000	2000	545		
				3300	2145	3980	150	6	10	2000	2000	569		
				3500	2245	4180	150	6	10	2000	2000	591		
				3700	2345	4380	150	6	10	2000	2000	607		
				4000	2545	4680	150	6	10	2000	2000	675		
				4300	2695	4980	150	6	10	1950	2000	700		
				4500	2795	5180	150	6	10	1900	2000	715		
				4700	2945	5380	150	6	6	1900	1950	740		
				5000	3095	5680	150	6	6	1850	1850	764		
		FFV FOH=420		3000	1995	3710	1330	6	10	2000	2000	680		
				3300	2145	4010	1480	6	10	2000	2000	705		
				3500	2245	4210	1580	6	10	2000	2000	720		
				4000	2545	4710	1880	6	10	1950	1950	800		
				4500	2795	5210	2130	6	10	1850	1850	840		
		TFV FOH Std=419 FOH SS=449		3700	1795	4440	1130	6	6	1900	2000	845		
				4000	1895	4740	1230	6	6	1900	1950	860		
				4300	1995	5040	1330	6	6	1850	1900	880		
				4500	2070	5240	1405	6	6	1800	1850	895		
				4700	2145	5440	1480	6	6	1800	1800	910		
				5000	2245	5740	1580	6	6	1750	1750	925		
				5500	2445	6240	1780	6	6	1500	1500	960		
				6000	2645	6740	1980	6	6	950	1000	1.030		
		FD25NT-16 / FG25NT-16		FV FOH Std=395 FOH SS=420		3000	1995	3680	150	6	10	2500	2500	545
						3300	2145	3980	150	6	10	2500	2500	569
						3500	2245	4180	150	6	10	2500	2500	591
						3700	2345	4380	150	6	10	2500	2500	607
						4000	2545	4680	150	6	10	2500	2500	675
						4300	2695	4980	150	6	10	2400	2450	700
4500	2795					5180	150	6	10	2350	2350	715		
4700	2945					5380	150	6	6	2200	2250	740		
5000	3095					5680	150	6	6	1900	1900	764		
FFV FOH=421				3000	1995	3710	1330	6	10	2500	2500	680		
				3300	2145	4010	1480	6	10	2500	2500	705		
				3500	2245	4210	1580	6	10	2500	2500	720		
				4000	2545	4710	1880	6	10	2450	2500	800		
				4500	2795	5210	2130	6	10	2200	2300	840		
TFV FOH Std=420 FOH SS=450				3700	1795	4440	1130	6	6	2450	2500	845		
				4000	1895	4740	1230	6	6	2450	2500	860		
				4300	1995	5040	1330	6	6	2350	2400	880		
				4500	2070	5240	1405	6	6	2300	2350	895		
				4700	2145	5440	1480	6	6	2250	2250	910		
				5000	2245	5740	1580	6	6	1900	1900	925		
				5500	2445	6240	1780	6	6	1600	1600	960		
				6000	2645	6740	1980	6	6	1000	1000	1.030		
FD30NT-16 / FG30NT-16				FV FOH Std=396 FOH SS=441		3000	2070	3710	155	6	10	3000	3000	615
						3300	2220	4010	155	6	10	3000	3000	641
						3500	2320	4210	155	6	10	3000	3000	658
						3700	2420	4410	155	6	10	3000	3000	675
						4000	2620	4710	155	6	10	2900	3000	742
						4300	2770	5010	155	6	10	2850	3000	768
		4500	2870			5210	155	6	10	2800	6000	785		
		4700	3020			5410	155	6	6	2750	2950	810		
		5000	3170			5710	155	6	6	2700	2750	835		
		FFV FOH=430				3000	2070	3780	1350	6	10	2900	3000	780
						3300	2220	4080	1500	6	10	2900	3000	810
						3500	2320	4280	1600	6	10	2900	3000	825
						4000	2620	4780	1900	6	10	2900	2900	905
				4500	2870	5280	2150	6	6	2600	2750	950		
				3700	1870	4510	1150	6	6	2800	2950	950		
				4000	1970	4810	1250	6	6	2800	2850	970		
				4300	2070	5110	1350	6	6	2700	2800	990		
				4500	2145	5310	1425	6	6	2650	2750	1.005		
				4700	2220	5510	1500	6	6	2600	2700	1.020		
				5000	2320	5810	1600	6	6	2500	2500	1.040		
				5500	2520	6310	1800	6	6	1600	1600	1.080		
				6000	2720	6810	2000	6	6	1000	1000	1.155		

Model		x = FOH + s					Capacity kg@ 500mm										Mast weight		
		h <sub>3</sub> mm	h <sub>1</sub> mm	h <sub>4</sub> (!) mm	h <sub>2</sub> /h <sub>5</sub> (!) mm	α °	β °		Integral Sideshift x = x+40mm				Standard carriage						
							Single	Double	Superelastic		Pneumatic		Superelastic		Pneumatic				
									Single	Double	Single	Double	Single	Double	Single	Double			
<b>FD20T-16R / FG20HT-16R</b>	<b>FV</b> FOH Std = 425 FOH SS = 445	3.000	1.995	3.680	150	6	12	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	560	
		3.300	2.145	3.980	150	6	12	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	584	
		3.500	2.245	4.180	150	6	12	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	606	
		3.700	2.345	4.380	150	6	12	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	622	
		4.000	2.545	4.680	150	6	12	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	690	
		4.300	2.695	4.980	150	6	6 12	1.900	1.900	1.900	1.900	1.950	1.950	1.950	1.950	1.950	1.950	715	
		4.500	2.795	5.180	150	6	6 12	1.900	1.900	1.900	1.900	1.950	1.950	1.950	1.950	1.950	1.950	730	
		4.700	2.945	5.380	150	6	6 12	1.650	1.800	1.650	1.800	1.650	1.900	1.650	1.900	1.650	1.900	755	
		5.000	3.095	5.680	150	6	6	1.650	1.800	1.650	1.800	1.650	1.900	1.650	1.900	1.650	1.900	779	
	<b>FFV</b> FOH=425	3.000	1.995	3.710	1.330	6	12	1.900	1.900	1.900	1.900	2.000	2.000	2.000	2.000	2.000	2.000	700	
		3.300	2.145	4.010	1.480	6	12	1.900	1.900	1.900	1.900	2.000	2.000	2.000	2.000	2.000	2.000	725	
		3.500	2.245	4.210	1.580	6	12	1.900	1.900	1.900	1.900	2.000	2.000	2.000	2.000	2.000	2.000	740	
		4.000	2.545	4.710	1.880	6	12	1.850	1.850	1.850	1.850	2.000	2.000	2.000	2.000	2.000	2.000	820	
	<b>TFV</b> FOH Std = 435 FOH SS = 450	4.300	1.995	5.040	1.330	6	6	1.900	1.900	1.900	1.900	1.900	1.950	1.900	1.950	1.900	1.950	895	
		4.500	2.070	5.240	1.405	6	6	1.850	1.850	1.850	1.850	1.850	1.900	1.850	1.900	1.850	1.900	910	
		4.700	2.145	5.440	1.480	6	6	1.750	1.800	1.750	1.800	1.800	1.900	1.750	1.900	1.750	1.900	925	
		5.000	2.245	5.740	1.580	6	6	1.600	1.750	1.550	1.750	1.700	1.850	1.550	1.850	1.700	1.850	940	
		5.500	2.445	6.240	1.780	6	6	1.350	1.700	1.200	1.700	1.400	1.750	1.200	1.750	1.400	1.750	975	
		6.000	2.645	6.740	1.980	6	6	950	1.600	800	1.600	1.000	1.650	800	1.650	1.000	1.650	1.045	
		6.500	2.845	7.580	2.180	6	6	500	1.100	250	1.100	650	1.550	350	1.550	650	1.550	1.085	
	<b>FD25T-16R / FG25HT-16R</b>	<b>FV</b> FOH Std = 425 FOH SS = 445	3.000	1.995	3.680	155	6	12	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	560
			3.300	2.145	3.980	155	6	12	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	584
			3.500	2.245	4.180	155	6	12	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	606
			3.700	2.345	4.380	155	6	12	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	622
4.000			2.545	4.680	155	6	12	2.450	2.500	2.450	2.500	2.500	2.500	2.500	2.500	2.500	2.500	690	
4.300			2.695	4.980	155	6	6 12	2.250	2.400	2.150	2.400	2.250	2.450	2.150	2.450	2.250	2.450	715	
4.500			2.795	5.180	155	6	6 12	2.250	2.400	2.150	2.400	2.250	2.450	2.150	2.450	2.250	2.450	730	
4.700			2.945	5.380	155	6	6 12	1.900	2.300	1.700	2.300	1.900	2.400	1.700	2.400	1.900	2.400	755	
5.000			3.095	5.680	155	6	6	1.900	2.300	1.700	2.300	1.900	2.400	1.700	2.400	1.900	2.400	779	
<b>FFV</b> FOH=425		3.000	1.995	3.710	1.335	6	12	2.450	2.450	2.450	2.450	2.500	2.500	2.500	2.500	2.500	2.500	700	
		3.300	2.145	4.010	1.485	6	12	2.400	2.400	2.400	2.400	2.500	2.500	2.500	2.500	2.500	2.500	725	
		3.500	2.245	4.210	1.585	6	12	2.400	2.400	2.400	2.400	2.500	2.500	2.500	2.500	2.500	2.500	740	
		4.000	2.545	4.710	1.885	6	12	2.350	2.350	2.350	2.350	2.500	2.500	2.500	2.500	2.500	2.500	820	
<b>TFV</b> FOH Std = 445 FOH SS = 460		4.300	1.995	5.040	1.335	6	6	2.350	2.400	2.300	2.400	2.350	2.450	2.300	2.450	2.300	2.450	895	
		4.500	2.070	5.240	1.410	6	6	2.250	2.350	2.150	2.350	2.250	2.450	2.150	2.450	2.250	2.450	910	
		4.700	2.145	5.440	1.485	6	6	2.100	2.300	2.000	2.300	2.150	2.400	2.000	2.400	2.150	2.400	925	
		5.000	2.245	5.740	1.585	6	6	1.850	2.250	1.650	2.250	1.850	2.350	1.650	2.350	1.850	2.350	940	
		5.500	2.445	6.240	1.785	6	6	1.450	2.100	1.250	2.100	1.450	2.200	1.250	2.200	1.450	2.200	975	
		6.000	2.645	6.740	1.985	6	6	1.100	1.900	900	1.900	1.100	2.000	900	2.000	1.100	2.000	1.045	
		6.500	2.845	7.580	2.180	6	6	500	1.100	250	1.100	700	1.650	350	1.650	700	1.650	1.085	



# BX50 SERIES

## 2.0 TO 3.5 TON



New 3.5ton Compact



Agility, Comfort and Productivity



Outstanding Cooling System



Reliable Components



Low-Cost Maintenance

The introduction of the new BX50 Komatsu series represents a new standard of IC engines in the forklift truck market. The product line now consists of 8 Diesel and LPG models ranging from 2.0 tons to the unique of 3.5-ton super compact. Our main objective was to satisfy customers needs by increasing their hourly productivity with a new "SLHS" hydraulic system, reduced energy consumption, low maintenance costs and operators who can continue to perform due to the comfortable driving conditions ensured by the revolutionary "Dual-Floating" design in which the engine, cab and transmission are independent of the frame.

Komatsu realizes that a satisfied and well-rested operator works efficiently and productively due to the:

- Drastic reduction in vibrations from the transmission and surface due to the Dual-Floating structure
- Roomy, shock absorbing OSS seat
- New, highly legible display with redesigned multifunctional levers
- Excellent living conditions and accessibility in the operator compartment, which can accommodate the tallest of European drivers
- Exceptional visibility provided by the new masts, counterweight and centrally positioned wide angle rear view mirror, a standard feature on all trucks
- Lightness of the smaller steering wheel (300mm) and redesigned hydraulic levers

All of which ensure that the comfort of the individual who is responsible for the actual productivity of the truck is maintained throughout the shift.

Customer satisfaction also derives from the knowledge of always being able to count on the renowned reliability of KOMATSU trucks for any application and in the most difficult situations, and now reflected in the BX50 product line with the following features:

- A redesigned transmission with a universal joint made of aluminium alloy for improved heat dissipation, supported by a new cooling system with dedicated radiator for the transmission oil system which is seven times more powerful than the previous one
- The latest generation electrical system with waterproof connectors and centralized fuse boxes, together with covers that have been designed to be watertight
- Robust, powerful engines (4D92E and K21) protected by a cyclone filter

- Reinforced OSS driver's seat

In anticipation of the new safety regulations that will come into force, the BX50 series meets the ISO3691 standards with its man-on-board sensor which, in the event of his/her absence, blocks all hydraulic functions and disconnects the transmission by means of an alarm signal if the parking brake has not been applied.

The new transmission with torque converter and independent front axle guarantees gentle clutch control and rapid changes of direction with powerful but gradual acceleration. Loads are approached smoothly and the redesigned electronic control directional levers and halogen lights (Standard features) are now closer to the driving wheel for quicker and safer control.

The KAPS III steering system is extremely light, quick and completely hydraulic with a system that synchronizes the position of the steering wheel and angle of the wheels to prevent the drifting phenomenon from the steering wheel and swaying movement typical of trucks that are not equipped with this feature, resulting in more precise and safer driving over long distances and in and outside the warehouse.

The combination of the hydraulic pump for heavy duty work, the high torque (147-157Nm) at low rpm of engine, the high visibility of the forks and the integral side shifter (optional) allow for high lifting speeds and rapid, safe stacking operations.

Simplified maintenance was one of the basic concepts that Komatsu specifically aimed for when developing the product and achieved by the exceptionally easy access to the engine/transmission compartment without the necessity to change the position of the steering column.

A wide range of options to meet the needs of the European market is available from the catalogue; please do not hesitate to contact your nearest Komatsu Forklift dealer who will send an expert to analyze your requirements and recommend the best investment and application solution for you.

Please visit our website, [www.komatsuforklift.net](http://www.komatsuforklift.net), where you can evaluate the entire range of Komatsu Forklift products and register with us to receive news and information and access the reserved areas.

# KOMATSU

Part Number: PKS1021EN  
Form.No: BX50R-S-E-P-07/05

This brochure may contain equipment that are not available in your area. Please consult your Komatsu Forklift distributor for those items you may require. Materials and specifications are subject to change without notice.

Printed in Italy



## BX50 SERIES

2.0 TO 3.5 TON



### Gasoline and Diesel Engine Lift Trucks

- "Super Lift Hydraulic System" tandem pump that doubles lift speed at low rpm and continuous power KAPSIII steering system with synchronizer enabling an ergonomic smaller steering wheel
- Revolutionary "Dual-Floating" structure with shock absorbing transmission and engine to drastically reduce vibrations and obtain maximum comfort and optimum daily operator productivity
- Exceptional strength in the toughest activities thanks to the redesigned, "Heavy-Duty" cooling system, the high performance engines with low energy consumption and new wiring system
- Passive safety system in anticipation of the ISO3691 requirements with "man-on-board sensor" and blocking of hydraulic functions to prevent accidental use
- Exceptionally roomy and ergonomic operator compartment equipped with a standard shock-absorbing OSS seat for maximum comfort and rapid operations
- Immediate access to the major mechanical components for rapid ordinary maintenance at low cost

# BX50 SERIES

## 2.0 TO 3.5 TON

CHARACTERISTICS				FD20T-16R	FD25T-16R	FD30T-16R	FD35AT-16R	
1.2	Model Designation							
1.3	Power Type <sup>A</sup>			Diesel				
1.4	Operation Type <sup>B</sup>			Sitting				
1.5	Rated Capacity	Q	mm	2000	2500	3000	3500	
1.6	Load Center	c	mm	500				
1.8	Load Distance <sup>C</sup>	x	mm	470		490	505	
1.9	Wheelbase	y	mm	1650		1700		
WEIGHTS								
2.1	Service Weight			kg	3380	3720	4340	5060
2.2	Axle Loading	Loaded	Front	kg	4790	5510	6470	7540
2.2.1			Rear	kg	590	710	870	1020
2.3		Unloaded	Front	kg	1600	1510	1680	1930
2.3.1			Rear	kg	1780	2210	2660	3130
TYRES								
3.1	Tyre Type <sup>P</sup>			Pneumatic				
3.2	Tyre Size	Front		7.00-12-12PR(I)		28*9-15-12PR(I)	250-15-16PR(I)	
3.3		Rear		6.00-9-10PR(I)		6.50-10-10PR(I)	6.50-10-12PR(I)	
3.5	Number of Wheel: Front/Rear(x-driven)			2*/2				
3.6	Tread, Front	b10	mm	965		1.005	1.060	
3.7	Tread, Rear	b11	mm	960		965	965	
DIMENSIONS								
4.1	Tilting Angle	$\alpha/\beta$	°	6/12				
4.2	Mast Height, Lowered	h1	mm	2.145		2.220	2.265	
4.3	Std. Free Lift	h2	mm	155	155	160	145	
4.4	Std. Lift Height	h3	mm	3300				
4.5	Mast Height, extended	h4	mm	4.350		4.575	4.580	
4.7	Height, Overhead Guard	h6	mm	2.110		2.130	2.140	
4.19	Length, with Std. Forks	l1	mm	3.605	3.655	3.775	3.865	
4.20	Length, to Fork Face	l2	mm	2.535	2.585	2.705	2.795	
4.21	Width, at Tyre	b1		1.150		1.235	1.290	
4.22	Forks: Thickness/Width/Length	s/e/l	mm	45x100x1100		45x100x1100	50x100x1100	
4.23	Fork Carriage Class <sup>E</sup>			2A		3A		
4.24	Width, Fork Carriage	b3	mm	1.020		1.060		
4.31	Ground Clearance	Under Mast	m1	mm	115		135	
4.32		at Center of Wheelbase	m2		160		180	
4.33	Right Angle Stacking Aisle	1000x1200 pallet mm	Ast	mm	3.655	3.710	3.860	3.990
4.34		1200x800 pallet mm	Ast	mm	3.855	3.910	4.060	4.190
4.35	Turning Radius	Wa	mm	2.190	2.240	2.370	2.480	
PERFORMANCES								
5.1	Travel speed (FWD)	Loaded	1st/2nd/3rd	km/h	18,5		19	18
5.1.1		Unloaded	1st/2nd/3rd	km/h	19,0		19,5	19
5.2	Lifting Speed	Loaded/Unloaded		mm/s	630/685		520/555	450/490
5.3	Lowering Speed	Loaded/Unloaded		mm/s	450/500		420/500	420/400
5.6	Drawbar Pull	Loaded at 1.5km/h		kN	18,1	18,1	17,5	20,3
5.8	Gradeability	Loaded at 1.5km/h		%	36	31	25	26
5.10	Service Brake	Operation/Control		Foot/Hydraulic			Powerbrake	
5.11	Parking Brake	Operation/Control		Hand/Mechanical				
5.12	Steering			KAPS III				
IC ENGINE								
6.4	Battery	Voltage/Capacity <sup>F</sup>		V/Ah	12/64			
7.1	Maker/Model			Komatsu / 4D94LE			4D98E	
7.2	Output SAE gross			kW @ min -1	46@2450		53@2400	
7.3				Nm @ min -1	186@1800		216@1700	
7.4	Num. of Cylinder, Displacement			# / cm <sup>3</sup>	4 / 3052		4 / 3318	
7.6	Fuel Tank Capacity			Ltr	58			
OTHERS								
8.2	Relief Pressure for Attachment			bar	181			
8.2.1	Tank Capacity			Ltr	60			
8.6	Clutch			Torque Converter				
8.7	Transmission			TORQFLOW				

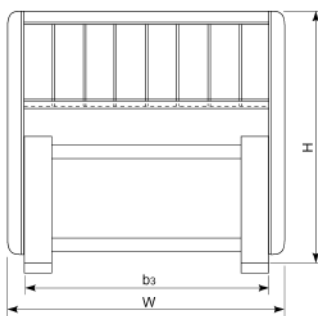
(1) Data for truck with FV3.3mt mast WITHOUT load backrest  
 VDI Fuel Consumption 45 cycle/hour: K25 LPG -> 3.0 kg/hour 4D94LE -> 2.8 litres/hour  
 VDI Fuel Consumption 60 cycle/hour: K25 LPG -> 4.0 kg/hour 4D94LE -> 3.7 litres/hour

A= Electric, Diesel, Gasoline, LPG, Cable  
 B= Pedestrian, Driver Standing, Sitting, Order Picking  
 C= Front axle center to fork face

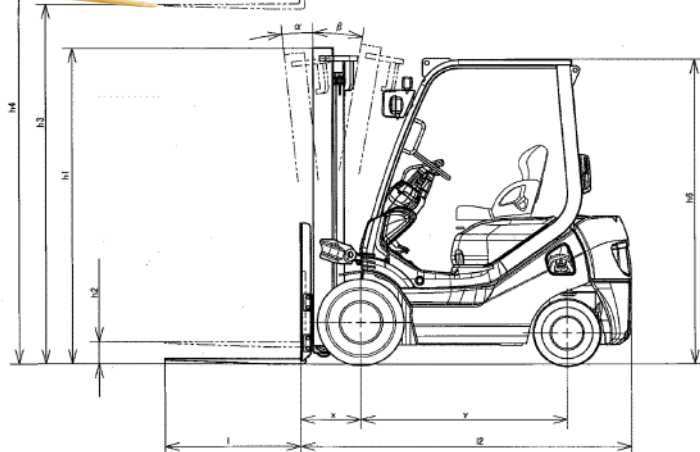
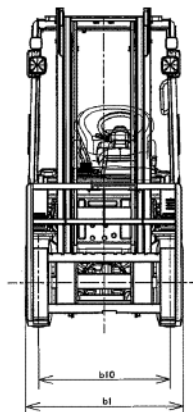
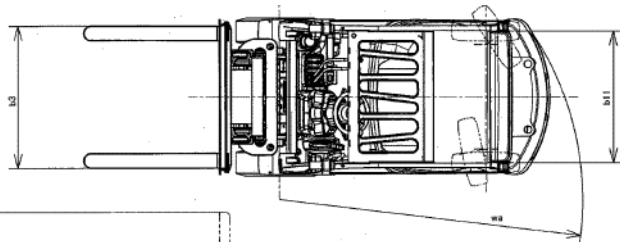
FG20HT-16R	FG25HT-16R	FG30T-16R	FG35AT-16R
LPG			
Sitting			
2000	2500	3000	3500
500			
470		490	505
1650		1700	
3370	3710	4330	5050
4750	5480	6440	7510
620	730	890	1040
1560	1480	1640	1890
1810	2230	2690	3160
Pneumatic			
7.00-12-12PR(I)	28*9-15-12PR(I)	250-15-16PR(I)	
6.00-9-10PR(I)	6.50-10-10PR(I)	6.50-10-12PR(I)	
2*/2			
965	1.005	1.060	
960	965	965	
6/12			
2.145	2.220	2.265	
155	155	160	145
3300			
4.350	4.575	4.580	
2.110	2.130	2.140	
3.605	3.655	3.775	3.865
2.535	2.585	2.705	2.795
1.150	1.235	1.290	
45x100x1100	45x100x1100	50x100x1100	
2A		3A	
1.020		1.060	
115		135	
160		180	
3.655	3.710	3.860	3.990
3.855	3.910	4.060	4.190
2.190	2.240	2.370	2.480
19	19,5	19	
19,5	18,5	18	
630/685	520/555	450/490	
450/500	420/500	420/400	
18,5	18,5	17,5	16,1
38	32	26	20
Foot/Hydraulic		Powerbrake	
Hand/Mechanical			
KAPS III			
12/33			
Nissan K25			
43@2400			
186@1600			
4 / 2488			
-			
181			
60			
Torque Converter			
TORQFLOW			

Tyres			Tyre Size		Rim Size	Tread mm	Overall Width mm	Additional Weight Kg	
20&25	Front	PN	Single	7.00-12-12PR	5.00Sx12	965	1150	0	
			Double <sup>(1)</sup>		5.00Sx12DT	1185	1595	+140	
		SE	Single	7.00-12	5.00Sx12DT	965	1070	+60	
			Double <sup>(1)</sup>		1185	1520	+250		
	Rear	PN		6.00-9-10PR	4.00Sx9DT	975	-	0	
				6.00-9				+32	
	30	Front	PN	Single	28x9-15-12PR	7.00Tx15	1005	1235	0
				Double <sup>(1)</sup>		1260	1745	+205	
			SE	Single	28x9-15	7.00Sx15	1005	1070	+70
				Double <sup>(1)</sup>		1260	1520	+340	
		Rear	PN		6.50-10-10PR	5.00Fx10DT	980	-	0
					6.50-10				+45
35A		Front	PN	Single	250-15-16PR	7.00Fx15	1060	1290	0
				Double <sup>(1)</sup>	6.00-15-10PR	4.50Ex15SDC	1110	1520	+17
	SE		Single	250-15	7.00Fx15	890	1070	+62	
		Double <sup>(1)</sup>	6.00-15	4.50Ex15SDC	1110	1520	+124		
	Rear	PN		6.50-10-12PR	5.00Fx10TB	965	-	0	
				6.50-10				+43	
SE			6.50-10						

(1) standard width fork carriage is installed in any case



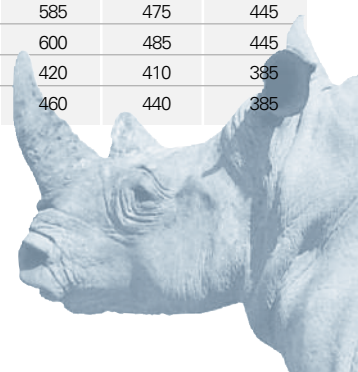
Load backrest					
	H mm	b <sub>3</sub> mm	W mm	h <sub>4</sub> mm	h <sub>5</sub> mm
20&25	1000			+340	-340
	1220	1020	1150	+560	-560
	1370			+710	-710
30	1220			+500	-500
	1370	1060	1210	+650	-650
	1520			+800	-800
35A	1220			+450	-450
	1370	1060	1210	+600	-600
	1520			+750	-750



D= Cushion, Elastic Cushion, Pneumatic, Polyurethane  
E= ISO 2328, Type A/B  
F= at 5-hour rating

Model		Capacity kg@ 500mm										Mast weight						
		Integral Sideshift x = x+40mm								Standard carriage								
		Superelastic		Pneumatic		Superelastic		Pneumatic										
x = FOH + s		h <sub>3</sub>	h <sub>1</sub>	h <sub>4</sub> (!)	h <sub>2</sub> /h <sub>5</sub> (!)	α °	β °		Single	Double	Single	Double	Single	Double	Single	Double		
		mm	mm	mm	mm		Single	Double	Single	Double	Single	Double	Single	Double	Single	Double		
FD30T-16R / FG30HT-16R	FV FOH Std = 445 FOH SS = 460	3.000	2.070	3.710	155	6	12	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	645	
		3.300	2.220	4.010	155	6	12	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	669	
		3.500	2.320	4.210	155	6	12	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	691	
		3.700	2.420	4.410	155	6	12	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	707	
		4.000	2.620	4.710	155	6	12	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	775	
		4.300	2.770	5.010	155	6	6	12	2.900	2.950	2.850	2.950	2.900	3.000	2.850	3.000	800	
		4.500	2.870	5.210	155	6	6	12	2.900	2.950	2.850	2.950	2.900	3.000	2.850	3.000	815	
		4.700	3.020	5.410	155	6	6	12	2.600	2.800	2.400	2.800	2.600	2.900	2.400	2.900	840	
		5.000	3.170	5.710	155	6	6		2.600	2.800	2.400	2.800	2.600	2.900	2.400	2.900	864	
	FFV FOH=445	3.000	2.070	3.780	1.350	6	12	2.900	2.900	2.900	2.900	3.000	3.000	3.000	3.000	3.000	805	
		3.300	2.220	4.080	1.500	6	12	2.900	2.900	2.900	2.900	3.000	3.000	3.000	3.000	3.000	835	
		3.500	2.320	4.280	1.600	6	12	2.900	2.900	2.900	2.900	3.000	3.000	3.000	3.000	3.000	850	
		4.000	2.620	4.780	1.900	6	12	2.800	2.850	2.800	2.850	3.000	3.000	3.000	3.000	3.000	930	
	TFV FOH Std = 445 FOH SS = 470	4.300	2.070	5.110	1.350	6	6	2.900	2.900	2.900	2.900	2.950	3.000	2.950	3.000	1.015		
		4.500	2.145	5.310	1.425	6	6	2.850	2.850	2.850	2.850	2.900	3.000	2.850	3.000	1.030		
		4.700	2.220	5.510	1.500	6	6	2.500	2.800	2.400	2.800	2.550	2.900	2.400	2.900	1.045		
		5.000	2.320	5.810	1.600	6	6	2.150	2.750	2.000	2.750	2.150	2.850	2.000	2.850	1.065		
		5.500	2.520	6.310	1.800	6	6	1.750	2.600	1.600	2.600	1.800	2.600	1.600	2.600	1.105		
		6.000	2.720	6.810	2.000	6	6	1.300	2.300	1.100	2.300	1.300	2.300	1.100	2.300	1.180		
		6.500	2.920	7.310	2.200	6	6	500	1.100	350	1.100	800	1.650	650	1.650	1.225		
	FD35AT-16R / FG35AT-16R (Hook-ON SS Data - Integral SS Available)	FV FOH Std = 455 FOH SS = 495	3.000	2.100	3.835	140	6	12	3.400	3.400	3.400	3.400	3.500	3.500	3.500	3.500	790	
			3.300	2.265	4.135	140	6	12	3.400	3.400	3.400	3.400	3.500	3.500	3.500	3.500	820	
			3.500	2.365	4.335	140	6	12	3.400	3.400	3.400	3.400	3.500	3.500	3.500	3.500	839	
			3.700	2.465	4.535	140	6	12	3.400	3.400	3.400	3.400	3.500	3.500	3.500	3.500	858	
			4.000	2.665	4.835	140	6	12	3.300	3.300	3.300	3.300	3.500	3.500	3.500	3.500	943	
			4.300	2.815	5.135	140	6	6	12	3.000	3.000	3.000	3.000	3.500	3.500	3.500	3.500	971
			4.500	2.915	5.335	140	6	6	12	3.000	3.000	3.000	3.000	3.500	3.500	3.500	3.500	990
			4.700	3.065	5.535	140	6	6	12	2.900	2.900	2.900	2.900	3.300	3.350	3.300	3.350	1.019
5.000			3.215	5.835	140	6	6		2.900	2.900	2.900	2.900	3.300	3.350	3.300	3.350	1.047	
TFV FOH Std = 475 FOH SS = 485		4.300	2.100	5.160	1.330	6	6	3.000	3.000	3.000	3.000	3.500	3.500	3.500	3.500	1.210		
		4.500	2.190	5.360	1.420	6	6	3.000	3.000	3.000	3.000	3.400	3.400	3.400	3.400	1.235		
		4.700	2.265	5.560	1.495	6	6	2.900	2.900	2.900	2.900	3.350	3.400	3.350	3.400	1.255		
		5.000	2.365	5.860	1.595	6	6	2.800	2.800	2.800	2.800	3.300	3.300	3.300	3.300	1.300		
		5.500	2.565	6.360	1.795	6	6	2.100	2.700	1.900	2.700	2.800	3.250	2.600	3.250	1.355		
		6.000	2.765	6.860	1.995	6	6	1.500	2.300	1.300	2.300	2.200	2.400	2.000	2.400	1.460		
		6.500	2.965	7.360	2.195	6	6	550	1.100	150	1.100	1.400	1.650	750	1.650	1.525		

Forks Speed		mm/s	FD20T-16R	FD25T-16R	FD30T-16R	FD35AT-16R	FG20HT-16R	FG25HT-16R	FG30T-16R	FG35AT-16R
			Loaded	Unloaded	Loaded	Unloaded	Loaded	Unloaded	Loaded	Unloaded
FV	Lifting	Loaded	620	620	515	410	630	630	520	450
	Unloaded	670	670	550	450	685	685	555	490	
Lowering	Loaded	450	450	420	400	450	450	420	420	
	Unloaded	500	500	500	400	500	500	500	400	
FFV	Lifting	Loaded	590	585	470	—	585	585	450	—
	Unloaded	625	625	500	—	595	595	460	—	
Lowering	Loaded	435	430	390	—	435	430	390	—	
	Unloaded	420	420	400	—	420	420	400	—	
TFV	Lifting	Loaded	595	585	495	410	585	585	475	445
		Unloaded	630	630	530	440	600	600	485	445
	Lowering	Loaded	440	420	410	385	440	420	410	385
		Unloaded	460	460	440	385	460	460	440	385



**KOMATSU**