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BE-3R Series

2.2 TO 3.0 TON

Proportional controls

Ergonomic controls

Wide range of adjustments

Easy battery changes

Quick and professional maintenance

The BE-3R series of trucks from Komatsu Forklift has been designed to meet four specific requirements:

- Expand warehouse surface areas by reducing manoeuvering spaces
- Improve productivity with exceptional lifting and shifting speeds
- Enhance the passive and active safety of operations
- Increase operator productivity with improved comfort and ergonomic controls

The front axle features two independent asynchronous 8kW motors with logic control which, together with the sophisticated rear axle that permits each wheel to rotate 103°, provides for powerful accelerations up to the maximum speed of 20 km/h and an exceptional curving radius comparable to a three-wheeled truck but still maintaining the stability of a 4-wheeled truck. Customers can also choose traction direction control by means of two pedals or a lever located next to the steering wheel.

The operator is protected from vibrations by both the rubber support system of the cab that insulates it from the ground but mainly by the Komatsu suspension seat or the superb Grammer MSG65 seat, which is available as an option. The seat and steering column adjustments, the ample access to the pedal unit, plus the wide cab step all contribute to significantly improve working conditions.

The powerful 22kW lifting motor can lift a 2.5 ton load to 4.5 meters in less than 8 seconds, for example. The hydraulic levers are arranged in a semi-circle fashion to follow the natural movements of the operator's arm, and are very light and sensitive to operate.

We offer a wide range of FV, FFV and TFV mast sections up to 6.8 meters high that ensure optimal visibility of the forks and a high degree of rigidity for quick positioning.

The operator can also choose one of three basic programs (Economical, Custom, Power) plus the slow speed function from the back-lit display even while the truck is moving, thus adapting the performance, consumption and response levels of the truck to the actual needs of the moment. The standard wheel position indicator also provides a very useful support to the operator during the more critical situations.

The control logic, which is protected by the counterweight and is easily accessible for diagnostics operations, manages the dynamics of the truck and automatically slows it down if the steering angle exceeds 20°. The safety of the truck is essentially based on the operator-on-board sensor that blocks all hydraulic functions, including lowering the forks, if the operator is not on board and sounds a buzzer if the hand brake has not been applied.

The AC technology and CAN-BUS connections reduce the number of maintenance operations, while the clever location of the main components and the hydraulic pump, which is accessed from the battery compartment, means that they can be performed much more quickly. Changing the battery is extremely easy and is aided by the innovative "gull wing" opening of the side panel that speeds up operations.

A wide range of options is available from the catalogue, including the following:

- Cold stores and container version
- Built-in accessories
- Pneumatic tires
- Work lights
- Standard, heated cab

Please contact your nearest Komatsu Forklift dealer to arrange a visit by one of our experts who will analyze your needs and advise you on the best solution in terms of investment and application.

Please also visit our website, **www.komatsuforklift.net**, to evaluate the entire Komatsu Forklift range of trucks and register with us to access the reserved areas and receive new information.

KOMATSU

Part Number. PKSE010EN
March 2006

Printed in Italy

BE-3R Series

2.2 TO 3.0 TON

Forklift Trucks 80 Volt

- Top-of-the-line turning radius due to the two front axle motors and innovative steering axle that allows it to steer like a 3-wheeler!
- The fastest lifting and shifting speeds in its class due to the 22kW pump and the two 8kW motors
- Exceptional driving comfort due to the suspended cab, ergonomic controls and the Komatsu seat or optional MSG65 seat
- AC technology and 4 different traction programs that can be selected from the display to optimize productivity and energy savings
- Active safety feature that automatically slows down the truck when curving and passive safety feature that blocks the hydraulics when the operator is not on board, in compliance with standard ISO3691 requirements
- Starting and braking on slippery surfaces assisted by the two front axle motors and sophisticated logic with CAN-BUS technology

BE-3R Series

2.2 TO 3.0 TON

SPECIFICATIONS	1.2	**Model Designation**		**FB22H-3R**	**FB25H-3R**	**FB25HG-3R**	**FB30H-3R**
	1.3	**Motive Power Type**		Electric			
	1.4	**Operator Position**		Seated			
	1.5	**Rated Capacity**	Q (t)	2,2[6]	2,5[6]	2,5[6]	3,0[6]
	1.6	**Load Centre**	c (mm)	500			
	1.8	**Lost Load Centre, Distance axle centre to fork face**	x (mm)	435			440
	1.9	**Wheelbase**	y (mm)	1546		1690	
WEIGHT	2.1	**Service Weight (Incl. Battery Weight, Line 6.5)**	kg	4385	4660	4725	5030
	2.2	**Axle loading (laden) : front/rear**	kg	5885 / 700	6360 / 800	6605 / 620	7220 / 810
	2.3	**Axle loading (unladen) : front/rear**	kg	2360 / 2025	2335 / 2325	2545 /2180	2550 / 2480
WHEELS	3.1	**Tyre Type (P=pneum; S=solid; C=elast. cushion)**		SE / SE[1]			
	3.2	**Tyre Size, front (dia. x width)**		23x9-10			
	3.3	**Tyre Size, rear (dia. x width)**		18x7-8			
	3.5	**Number of Wheels (x=driven), front/rear**		2x / 2			
	3.6	**Tread, front**	b10 (mm)	933			
	3.7	**Tread, rear**	b11 (mm)	944			
BASIC	4.1	**Mast / Carriage Tilt Angle, forward/backward**	°	5° / 7°[4]			
DIMENSIONS	4.2	**Mast Height, lowered**	h1 (mm)	2555			
	4.3	**Free Lift**	h2 (mm)	150			
	4.4	**Lift Height**	h3 (mm)	3350			
	4.5	**Mast Raised Height**	h4 (mm)	4155			
	4.7	**Overall Height, Overhead Guard**	h6 (mm)	2250[2]			
	4.8	**Seat Height**	h7 (mm)	1154			
	4.12	**Drawbar Height**	h10 (mm)	485			
	4.19	**Length to Front Face of Forks**	l1 (mm)	3330		3474	
	4.20	**Overall Length**	l2 (mm)	2330		2474	
	4.21	**Overall Width**	b1/b2 (mm)	1200			
	4.22	**Fork Dimensions : thickness/width/length**	s/e/l (mm)	45/100/1000			
	4.23	**Carriage Class Din 15173 Class A, B**		2A			
	4.24	**Carriage Width**	b3 (mm)	1150			
	4.31	**Ground Clearance, Chassis, with Load**	m1 (mm)	155			
	4.32	**Ground Clearance at Centre of Wheelbase, with Load**	m2 (mm)	110			
	4.33	**Aisle Width with Pallet (1000x1200mm)[A]**	Ast (mm)	3640		3785	3790
	4.34	**Aisle Width with Pallet (800x1200mm)[B]**	Ast (mm)	3770		3915	3920
	4.35	**Outer Turning Radius (min.)**	Wa (mm)	1886		2030	
	4.36	**Turning Point to Centre Line of Truck**	b13 (mm)	-			
PERFORMANCE	5.1	**Travel Speed (loaded/unloaded)**	km/h	20 / 20			
DATA	5.2	**Lifting Speed (loaded/unloaded)**	m/s	0.56 / 0.58			0.50 / 0.58
	5.3	**Lowering Speed (loaded/unloaded)**	m/s	0.56 / 0.52			
	5.5	**Drawbar Pull (loaded/unloaded) S2 60 min.**	N	4200 / 4500	4150 / 4500	4100 / 4500	3900 / 4400
	5.6	**Drawbar Pull (loaded/unloaded) S2 5 min.**	N	13500 / 13500			
	5.7	**Gradeability (loaded/unloaded) S2 30 min.**	%	11 / 16	10 / 16	9 / 15	8 / 14
	5.8	**Max. Gradeability (loaded/unloaded) S2 5 min.**	%	20 / 29	19 / 28	18 / 27	17 / 26
	5.9	**Acceleration Time over 10 m (loaded/unloaded)**	s	4.3 / 3.9	4.4 / 4.0	4.4 / 4.0	4.5 / 4.0
	5.10	**Brake Type (parking/service)**		Regenerative - Mechanic			
E-MOTOR	6.1	**Drive Motor, rating S2 60 min. duty cycle**	kW	2x8			
	6.2	**Hydraulic Motor, output S3 15 % duty factor**	kW	22			
	6.3	**Battery to DIN 43531/35/36/A,B,C,no**		DIN 43536 A			
	6.4	**Battery Voltage / Amp. hours**	V / Ah	80 / 560[3]		80 / 625[3]	
	6.5	**Battery Weight (min.) +/- 5%**	kg	1540[10]		1863	
	6.6	**Energy Consumption as per VDI Cycle**	kWh/h	-			
OTHERS	8.1	**Type of Control, drive/hydraulic**		Inverter			
	8.2	**Auxiliary Hydraulic Pressure for Attachment**	bar	150	160		175
	8.3	**Auxiliary Hydraulic Flow**	l/min	50			55
	8.4	**Noise Level at Driver's Ear**	dB (A)	< 70			

A= (l6 x b12); crosswise B= (l6 x b12); lengthwise

x= FOH + s

Model		h_3	h_1	h_4	h_2/h_5	α/β	Load Capacity							
							Sideshift 100mm FOH' = FOH+5mm				Standard			
							SE		Pneumatic		SE		Pneumatic	
mm		mm	mm	mm	mm	°	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm
FB22H-3R c = 500	FV FOH=390	3350	2555	4155	150	7/5	2200	2000	2200	2000	2200	2000	2200	2000
		3650	2705	4455	150	7/5	2200	2000	2200	2000	2200	2000	2200	2000
		4050	2905	4855	150	7/5	2200	2000	2200	2000	2200	2000	2200	2000
		4450	3105	5255	150	7/5	2200	2000	2200	2000	2200	2000	2200	2000
		5050	3405	5855	150	7/3	2200	2000	2200	2000	2200	2000	2200	2000
	FFV FOH=390	3350	2410	3985	1775	7/5	2200	2000	2200	2000	2200	2000	2200	2000
		3650	2560	4285	1925	7/5	2200	2000	2200	2000	2200	2000	2200	2000
		4050	2760	4685	2125	7/5	2200	2000	2200	2000	2200	2000	2200	2000
	TFV FOH=415	3875	2060	4510	1425	4/5	2200	2000			2200	2000		
		4325	2210	4960	1575	4/5	2200	2000			2200	2000		
		4625	2310	5260	1675	7/3	2100	1900			2150	1950		
		5225	2510	5860	1875	7/3	2000	1800			2050	1850		
		5975	2760	6610	2125	7/3	1850	1650			1900	1700		
		6725	3010	7360	2375	7/3	1750	1700			1750	1550		
FB25H-3R / FB25HG-3R c = 500	FV FOH=390	3350	2555	4155	150	7/5	2500	2250	2500	2250	2500	2250	2500	2250
		3650	2705	4455	150	7/5	2500	2250	2500	2250	2500	2250	2500	2250
		4050	2905	4855	150	7/5	2500	2250	2500	2250	2500	2250	2500	2250
		4450	3105	5255	150	7/5	2500	2250	2500	2250	2500	2250	2500	2250
		5050	3405	5855	150	7/3	2500	2250	2450	2200	2500	2250	2500	2250
	FFV FOH=390	3350	2410	3985	1775	7/5	2500	2250	2500	2250	2500	2250	2500	2250
		3650	2560	4285	1925	7/5	2500	2250	2500	2250	2500	2250	2500	2250
		4050	2760	4685	2125	7/5	2500	2250	2500	2250	2500	2250	2500	2250
	TFV FOH=415	3875	2060	4510	1425	4/5	2500	2250			2500	2250		
		4325	2210	4960	1575	4/5	2500	2250			2500	2250		
		4625	2310	5260	1675	7/3	2450	2200			2500	2250		
		5225	2510	5860	1875	7/3	2350	2150			2450	2250		
		5975	2760	6610	2125	7/3	2100	1900			2200	2000		
		6725	3010	7360	2375	7/3	1800	1600			1900	1700		
FB30H-3R c = 500	FV FOH=395	3350	2555	4155	150	7/5	3000	2700	2800	2700	3000	2700	2850	2700
		3650	2705	4455	150	7/5	3000	2700	2800	2700	3000	2700	2850	2700
		4050	2905	4855	150	7/5	3000	2700	2800	2700	3000	2700	2850	2700
		4450	3105	5255	150	7/5	3000	2700	2750	2650	3000	2700	2800	2700
		5050	3405	5855	150	7/3	2950	2700	2650	2600	3000	2700	2700	2650
	FFV FOH=395	3350	2410	4135	1625	7/5	3000	2700	2850	2700	3000	2700	2900	2700
		3650	2560	4435	1775	7/5	3000	2700	2850	2700	3000	2700	2900	2700
		4050	2760	4835	1975	7/5	3000	2700	2800	2700	3000	2700	2850	2700
	TFV FOH=420	3875	2060	4660	1275	4/5	2900	2700			3000	2700		
		4325	2210	5110	1425	4/5	2900	2650			2950	2700		
		4625	2310	5410	1525	7/3	2800	2600			2900	2650		
		5225	2510	6010	1725	7/3	2550	2300			2650	2400		
		5975*	2760	6760	1975	7/3	2300	2050			2400	2150		
		6725*	3010	7510	2225	7/3	1900	1700			2000	1800		

***SE Tyres 23x10-12**

Values for reference only referred to truck with FV3.3,
SE Tyres, No Sideshift, 1000mm forks

0) Residual capacity vary based on mast type, mast lift height, tyres, forks, attchments. Please refer to Komatsu in case
1) Same size for Pneumatic Tyres
2) h6=2120 mm for lowered cab versions
3) Optional 620Ah/1540kg (FB22H-3R & FB25H-3R) 700Ah/1863kg & 775Ah/1863kg (FB25HG-3R & FB30H-3R)
4) Check Mast Data Table

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