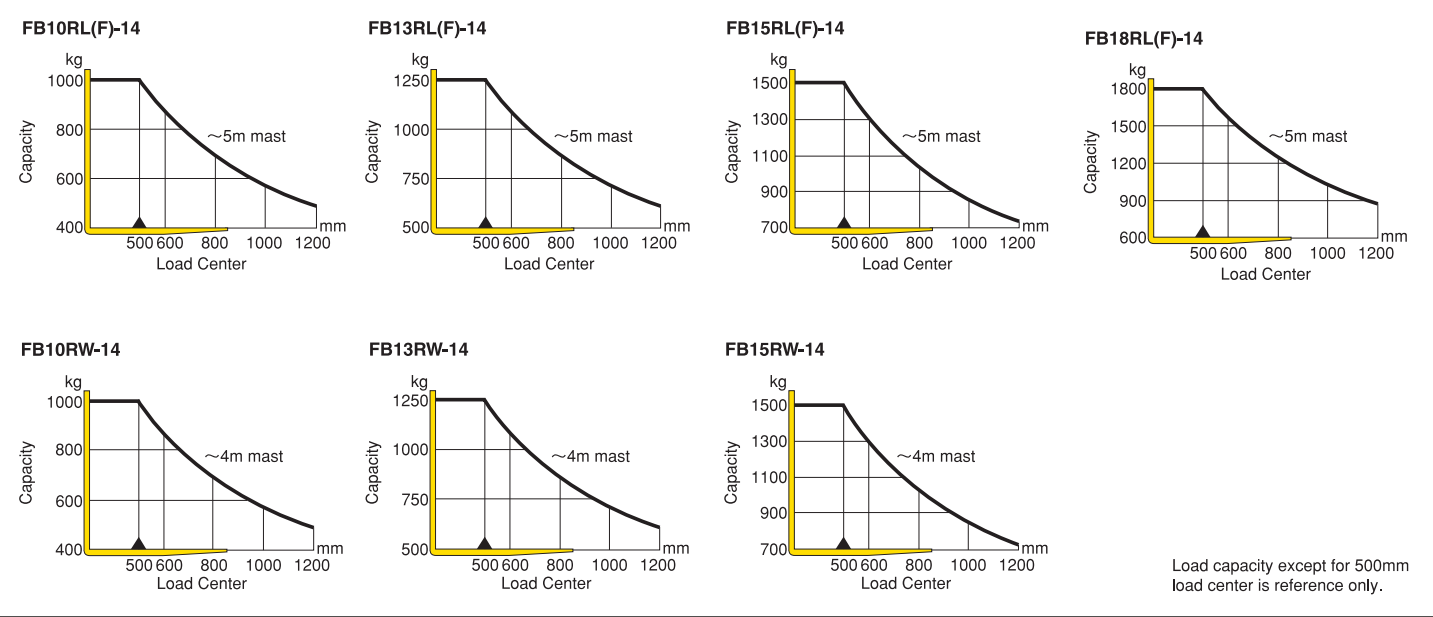


Capacity Chart (2-stage Free View Mast)



KOMATSU

AR50 Series

1.0-1.8ton REACH TRUCKS

FB10RL(F)-14 FB13RL(F)-14 FB15RL(F)-14 FB18RL(F)-14
FB10RW-14 FB13RW-14 FB15RW-14



ISO 9001 Quality Management System
(for Komatsu Utility Tochigi Plant)



001

ISO 14001 Environmental Management System
(for Komatsu Utility Tochigi Plant)



001

Certified by Lloyd's Register Quality Assurance Limited.

For other options and attachments, please consult with your Komatsu dealer.
Features and specifications may vary in different countries and regions.
Please contact your Komatsu dealer to confirm machine details in your region.
Forklift trucks in this catalog may be shown with optional equipment.
Komatsu products and specifications are subject to change without notice.
The performance values indicated herein represent nominal values obtained under typical operating conditions.

Komatsu Utility Co., Ltd. FORKLIFT COMPANY

Head office 2-4-1, Shiba-koen, Minato-ku, Tokyo 105-0011, Japan
URL : <http://www.komatsu-utility.com>
Fax: +81-3-3433-3120

KOMATSU FORKLIFT

Low Total Operating Costs

Advanced Komatsu technology reduces total operating costs

Operation time has been increase by 13% through a major improvement in motor efficiency and cutting edge engineering.

Easy maintenance is achieved by simpler battery handling and servicing and the use of a diagnostic system linked by a CAN-Bus system.

AC motors are employed for travel and lifting work and this eliminates brush replacement work and lowers maintenance costs.

The original Komatsu Center Drive System achieves longer tyre life, and a broad range of innovative features ensures reduced operation costs.

The Center Drive System greatly reduces tyre wear

Komatsu's original Center Drive System gives a very positive grip on the ground and greatly reduces drive tyre slip when plugging and starting. Longer tyre life is further increased when Tyre Low Wear Mode is selected, and this greatly reduces tyre replacement costs.



The simple design reduces the frequency of parts replacement

Thanks to the use of an AC motor, it is not necessary to replace motor brushes and contactors. In order to improve turning ability, a viscous damper has been adopted, which is also used in Komatsu construction machinery. It features high reliability and minimum maintenance. The controller, the brain of the forklift, is subjected to thorough electric tests, and this ensures a high level of reliability.

RL type

Center drive configuration

The RL type employs Komatsu's original Center Drive System and ensures excellent gripping force, even on slippery surfaces. The design keeps residual capacity high and realizes stable drive performance and powerful work.



RW type

Drive wheel suspension mechanism

The RW type employs a suspension system, which greatly reduces vibration and shocks when traveling on uneven floors or over gaps. It gives greater stability during unloaded turns and ensures excellent maneuverability on any worksite.



Improved motor efficiency and greatly extended operation time

The very comprehensive energy saving design achieves greatly improved efficiency thanks to higher efficiency of the motors and their control system and lower speed reducer loss. This has resulted in a massive 13% increase in operation time per charge.

Big increase in operation time per charge
(Compared to previous forklifts)

13%UP

Easy maintenance

In addition to easy forklift maintenance, an easy-to-use battery removal mechanism has been adopted. The simplified design makes it very easy to pull out the battery and facilitates easier daily battery checks and occasional electrolyte filling. The CAN-Bus data transmission system links up the travel, lifting and EPS controllers, and forklift malfunctions are detected by the vehicle diagnostic system.



High Productivity

The original Komatsu system ensures reliable operational performance

The turn stabilizing system on the RL type has been fitted with a viscous damper system, which has earned a high reputation for reliability in Komatsu construction machinery. In addition, a higher rigidity outer mast gives greatly improved stability when handling loads. The simple brake structure and high gripping force ensure effective braking, even on slippery surfaces. The higher turning speed, enhanced mast rigidity and excellent tyre grip give improved productivity.



The viscous damper ensures high turn stability

Forklifts must have good turning performance. The AR50 series is installed with an innovative new viscous damper and this greatly reduces sway when turning. This contributes to very smooth and stable work performance.



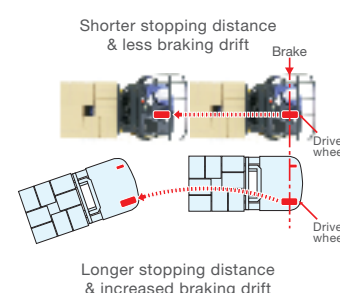
A higher level of mast rigidity

A higher grade outer mast is employed, and this gives a higher level of stability during load handling. This robust mast greatly reduces load sway, and so it is no longer necessary to wait for loads to stabilize thus shortening cycle time.



High gripping performance ensures positive traction

In the Center Drive System, by moving the drive tyre closer to the center of the chassis, the stopping mechanism reduces off-center drift when braking. When starting and braking, drive torque force is transmitted effectively from the tyres to the floor surface ensuring positive traction. This positive drive force results in faster work performance in all floor conditions.



Outstanding high lifting performance shortens cycle time

The original Komatsu Center Drive System ensures a high level of stability providing full capacity rating up to five meters (RL type). In addition, a major reduction in load sway has been achieved resulting in excellent high lifting performance. Cycle time has been greatly reduced, giving outstanding operational efficiency.

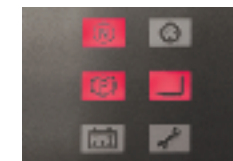
Safety & Comfort

Komatsu's outstanding design ensures greater safety and work comfort

The Operator Presence Sensing (OPS) system conforms to ISO 3691-1 safety standards, and this ensures that malfunctions do not occur when the operator is not on the floor. This gives maximum priority to operator safety. The operator floor has been lowered to reduce fatigue when the operator has to get on and off frequently. In this spacious design layout, ample head clearance and a round type overhead guard reduce psychological pressure on the operator. A stress-free work environment has been achieved by using a smaller diameter steering wheel, foot pedals requiring minimal actuation pressure and a backlit monitoring system. The new AR50 series ensures a safe and pleasant work environment.

The Operator Presence Sensing (OPS) system stops travel and lifting when operator is absent

The interlock mechanism conforming to ISO 3691-1 safety standards is a standard. If the operator leaves the forklift, the travel motion slows to forward momentum and then stops and lifting also stops. This protects the operator from malfunctions and unforeseen accidents.



The lifting work interlock is displayed on the monitoring system



Travel and lifting are stopped when the operator leaves the compartment



Lower forklift floor height reduces fatigue when getting on and off

The operator floor height has been lowered by 60 mm. So, when the operator has to get on and off frequently during work, fatigue is greatly reduced. Head clearance has been increased making the operator's work environment more spacious and pleasant.



Easy-operation design greatly reduces operator's work burden

The steering wheel is inclined to make operation easier, and the compact, small diameter steering wheel reduces operator fatigue. To reduce the burden of applying the footbrake, a frequently repeated action, brake pedal activation pressure has been reduced. Reducing the total burden on the operator has greatly enhanced work performance.



A round type overhead guard creates a more spacious work environment

A round type overhead guard is employed to give ample space in the operator compartment, and this lessens operator stress. It ensures a pleasant environment and gives an improved field of view.



The backlit Intelligent Monitoring System (IMS) greatly improves visibility

The backlit IMS allows the operator to check the status of the forklift, even in dark places. The improved visibility supports higher work precision.



■ Major Equipment

●:Standard ○:Option △:Available upon request –:N/A S:Adjustable by service mechanic

Equipment and Function		Model	RL Type				RW Type		
			FB10RL(F)-14	FB13RL(F)-14	FB15RL(F)-14	FB18RL(F)-14	FB10RW-14	FB13RW-14	FB15RW-14
ICS (Intelligent Computer Control System)			●	●	●	●	●	●	●
Motors	Traveling Motor		AC	AC	AC	AC	AC	AC	AC
	Hydraulic and Steering Motor		AC	AC	AC	AC	AC	AC	AC
	Electric Power Steering (EPS)		●	●	●	●	●	●	●
Viscous Damper			●	●	●	●	-	-	-
CAN-Bus network			●	●	●	●	●	●	●
Round type Overhead Guard			●	●	●	●	●	●	●
Setup	Traveling Property Adjustment	Traveling Speed Property	●	●	●	●	●	●	●
		Plugging Regeneration Property	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)
		Brake Regeneration Property	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)
		Soft-start Property	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)
		Accelerator Property	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)
		Accelerator Neutral Regeneration Property	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)
		Slope Regeneration	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)
		Traveling Speed Control	●	●	●	●	●	●	●
	Hydraulic Operation Property Adjustment	Lifting Speed Adjustment	●	●	●	●	●	●	●
		Tilting Speed Adjustment	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)
		Attachment Speed	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)	● (S)
IMS (Intelligent Monitoring System)	Speedometer	●	●	●	●	●	●	●	
	Forward/Reverse Indicator	●	●	●	●	●	●	●	
	Speed Limit Indicator	●	●	●	●	●	●	●	
	Calender/ Service meter	●	●	●	●	●	●	●	
	Traveling Power Indicator	●	●	●	●	●	●	●	
	Battery Discharge Indicator	●	●	●	●	●	●	●	
	Neutral Safety Indicator	●	●	●	●	●	●	●	
	Traveling OPS Warning Lamp	●	●	●	●	●	●	●	
	Lifting OPS Warning Lamp	●	●	●	●	●	●	●	
	Failure Indicator	●	●	●	●	●	●	●	
Operation Equipment Related	Anti-slip control	●	●	●	●	●	●	●	
	Soft-landing Device	●	●	●	●	●	●	●	
Safety Support Equipment	Operator Presence Sensing System (Lifting/Traveling Interlocking Mechanism)	●	●	●	●	●	●	●	
	Emergency Switch	●	●	●	●	●	●	●	
	Automatic Power Off	●	●	●	●	●	●	●	
	Anti Roll-back	●	●	●	●	●	●	●	
	Key-off Lift Lock	●	●	●	●	●	●	●	
	Back-up Buzzer	●	●	●	●	●	●	●	
	Load Checker	○	○	○	○	○	○	○	
	Wide-angle Center Mirror	○	○	○	○	○	○	○	
	Assist Grip	●	●	●	●	●	●	●	
	Head lights	●	●	●	●	●	●	●	
	Turn Signal Lamps	○	○	○	○	○	○	○	
	Rear Lamp	○	○	○	○	○	○	○	
Supportive Equipment for Hydraulic Operation	Laser Lift Height Sensor	○	○	○	○	○	○	○	
	Automatic Lifting Stop Function (with Fork Leveling Device)	△	△	△	△	△	△	△	
	Softcarry (Hydraulic Accumulator)	○	○	○	○	○	○	○	
Check Device	Hydraulic Oil Gauge	●	●	●	●	●	●	●	
	Self-diagnostic system	●	●	●	●	●	●	●	
Exterior	Floor Mat	●	●	●	●	●	●	●	
	Headguard Cover	○	○	○	○	○	○	○	
Others	Paper Binder	●	●	●	●	●	●	●	
Battery Charger-related	Stationary Battery Charger	○	○	○	○	○	○	○	
	Battery Front Removal structure	●	●	●	●	●	●	●	
	Battery 201AH/5H	○	○	-	-	○	○	-	
	Battery 225AH/5h	○	○	-	-	○	○	-	
	Battery 240AH/5h	○	○	-	-	○	○	-	
	Battery 280AH/5h	-	-	○	○	-	-	○	
	Battery 312AH/5h	-	-	○	○	-	-	○	
	Battery 370AH/5h	-	-	○	○	-	-	○	
Battery 390AH/5h	-	-	○	○	-	-	○		

■ Optional Equipment

- Load Checker



- Laser Lift Height Sensor



■ Attachment

- Integral Side Shifter



- Fork positioner
- Rotating Fork
- Roll clamp

Cold-storage Models Cold-storage models are designed to operate at temperatures down to -35°C. These models are also suited for operation at room temperature.

Major features for Cold-storage Models

- **Controller cover**
- **Special hydraulic oil and grease**
- **Anticorrosive coating** : Transfer, Suspension, Road wheel(Stainless bolts), Drive wheel, Caster wheel, Steering system, Frame, Overhead guard, Service door, Cylinders, Mast assembly, Hydraulic oil tank, Load backrest & fork carriage, Forks

■ Standard Specifications

Characteristics	1.2	Model	Manufacture's Designation		FB10RL(F)-14	FB13RL(F)-14	FB15RL(F)-14	FB18RL(F)-14	FB10RW-14	FB13RW-14	FB15RW-14	
	1.3	Power Type	Electric, Diesel, Gasoline, LPG, Cable		Electric	Electric	Electric	Electric	Electric	Electric	Electric	
	1.4	Operation Type	Pedestrian, Driver Standing, Sitting, Order Picking		Standing	Standing	Standing	Standing	Standing	Standing	Standing	
	1.5	Rated Capacity	Q1	Rated Capacity	kg	1000	1250	1500	1800	1000	1250	1500
Weight	1.6	Load Center	c	Load Center	mm	500	500	500	500	500	500	
	1.6.1	Alternative Capacity	Q2	Capacity @ 600mm Load Center	kg	870	1080	1300	1560	870	1080	1300
	1.8	Load Distance	x	Front Axle Center to Fork Face	mm	175	175	175	175	175	175	175
	1.9	Wheelbase	y		mm	1110	1250	1350	1500	1110	1250	1350
	2.1	Service Weight	Including Min. Capacity Battery, see line 6.5		kg	2020	2035	2220	2300	2020	2035	2220
	2.4	Axle Loading Mast/Forks Extended	Loaded	Front	kg	2555	2855	3245	3620	2560	2860	3250
	Rear			kg	465	430	475	480	460	425	470	
	2.4.2		Unloaded	Front	kg	905	890	955	970	910	895	955
	2.4.3			Rear	kg	1115	1145	1265	1330	1110	1140	1265
	2.5	Axle Loading Mast/Forks Retracted	Loaded	Front	kg	1940	2020	2360	2465	1945	2025	2365
2.5.1	Rear			kg	1080	1265	1360	1635	1075	1260	1355	
2.5.2	Unloaded		Front	kg	690	635	715	690	695	640	720	
2.5.3			Rear	kg	1330	1400	1505	1610	1325	1395	1500	
Type	3.1	Tyre Type			Solid	Solid	Solid	Solid	Solid	Solid	Solid	
	3.2	Tyre Size	Front		φ 260x120	φ 260x120	φ 254x114	φ 254x120	φ 260x120	φ 260x120	φ 254x114	
	3.3		Rear		φ 360x180	φ 360x180	φ 360x180	φ 360x180	φ 330x145	φ 330x145	φ 330x145	
	3.4		Additional Wheels		φ 127x90	φ 127x90	φ 127x90	φ 127x90	φ 150x80	φ 150x80	φ 150x80	
	3.5	Number of Wheel	Front/Rear(=driven)		2/1'+2	2/1'+2	2/1'+2	2/1'+2	2/1'+2	2/1'+2	2/1'+2	
	3.6	Tread, Front	b10	mm	975	975	975	975	975	975	975	
	3.7	Tread, Rear	b11	mm	-	-	-	-	-	-	-	
Dimensions	4.1	Tilting Angle	α/β	Forward/Backward	degree	3/5	3/5	3/5	3/5	3/5	3/5	
	4.2	Mast Height, Lowered	h1	with Std. Mast	mm	1995	1995	1995	1995	1995	1995	1995
	4.3	Std, Free Lift	h2	with Std. Mast, from Ground	mm	105	105	105	105	105	105	105
	4.4	Std, Lift Height	h3	with Std. Mast, from Ground	mm	3000	3000	3000	3000	3000	3000	3000
	4.5	Mast Height, Extended	h4	with Std. Mast	mm	3935	3935	3935	3935	3935	3935	3935
	4.7	Height, Overhead Guard	h6		mm	2250	2250	2250	2250	2250	2250	2250
	4.19	Length, with Std. Forks	l1		mm	1905	1905	2005	2075	1905	1905	2005
	4.21	Width, at Tyre	b1		mm	1095	1095	1095	1095	1080	1080	1080
	4.22	Forks	s/e/l	Thickness/Width/Length	mm	35x100x850	35x100x850	35x100x850	38x100x920	35x100x850	35x100x850	35x100x850
	4.23	Fork Carriage Class	ISO 2328, Type A/B/no		Class2, Type A	Class2, Type A	Class2, Type A	Class2, Type A	Class2, Type A	Class2, Type A	Class2, Type A	
	4.24	Width, Fork Carriage	b3		mm	750	750	750	730	750	750	750
	4.26	Width, between Reach Legs	b4		mm	752	752	752	752	752	752	752
	4.28	Reach Travel	l4		mm	440	580	580	730	440	580	580
	4.31	Ground Clearance	m1	under the Mast	mm	75	75	75	75	75	75	75
	4.32		m2	at the center of Wheelbase	mm	80	80	80	75	80	80	80
	4.33	Right Angle Stacking Aisle	As1	with L1000 x W1200 pallet	mm	2275	2310	2405	2460	2355	2385	2460
	4.34		As2	with L1200 x W800 pallet	mm	2340	2355	2450	2475	2435	2445	2520
Performance	4.35.1	Turning Radius	Wa		mm	1325	1465	1560	1715	1325	1465	1560
	4.35.2		Wb		mm	670	555	555	555	670	555	555
	4.37	Length, without Forks	l7		mm	1470	1610	1710	1860	1470	1610	1710
	5.1	Travel Speed (FWD)	Loaded/Unloaded		km/h	9.5/10.5	9.5/10.5	9.5/10.5	9.5/10.5	9.5/10.5	9.5/10.5	9.5/10.5
	5.2	Lifting Speed	Loaded/Unloaded		mm/s	350/540	320/540	320/540	300/540	350/540	320/540	320/540
	5.3	Lowering Speed	Loaded/Unloaded		mm/s	500/550	460/550	460/550	460/550	500/550	460/550	460/550
	5.4	Reach Speed	Loaded/Unloaded		mm/s	300/300	300/300	300/300	300/300	300/300	300/300	300/300
	5.6	Max. Drawbar Pull	3min rating		N	5880	5880	5880	5880	6080	6080	6080
Drive	5.8	Max. Gradeability	Unloaded 1.5K/m/h, 3min rating		%	32	31	28	27	32	32	29
	5.10	Service Brake	Operation/Control			Mechanical, Disc	Mechanical, Disc	Mechanical, Disc	Mechanical, Disc	Mechanical, Disc	Mechanical, Disc	Mechanical, Disc
	5.11	Parking Brake	Operation/Control			Mechanical, Disc	Mechanical, Disc	Mechanical, Disc	Mechanical, Disc	Mechanical, Disc	Mechanical, Disc	Mechanical, Disc
	5.12	Steering	Operation/Control			Electric Power Steering	Electric Power Steering	Electric Power Steering	Electric Power Steering	Electric Power Steering	Electric Power Steering	Electric Power Steering
	6.1	Drive Motor (AC)	60min rating		kW	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	6.2	Pump Motor (DC)	5min rating		kW	9.0	9.0	9.0	9.0	9.0	9.0	9.0
	6.2.1	PS Motor (DC)	60min rating		kW	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	6.4	Battery Voltage			V	48	48	48	48	48	48	48
Others	6.4.1	Battery Capacity, Min.			Ah/5-hour	201	201	280	280	201	201	280
	6.4.2	Battery Capacity, Max.			Ah/5-hour	240	240	390	390	240	240	390
	6.5	Battery Weight, Min. Capacity			kg	365	365	495	495	365	365	495
	8.1	Drive Motor Control				MOS-FET inverter	MOS-FET inverter	MOS-FET inverter	MOS-FET inverter	MOS-FET inverter	MOS-FET inverter	MOS-FET inverter
	8.1.1	Pump Motor Control				MOS-FET inverter	MOS-FET inverter	MOS-FET inverter	MOS-FET inverter	MOS-FET inverter	MOS-FET inverter	MOS-FET inverter
8.1.2	PS Motor Control				MOS-FET chopper	MOS-FET chopper	MOS-FET chopper	MOS-FET chopper	MOS-FET chopper	MOS-FET chopper	MOS-FET chopper	
8.2	Relief Pressure for Attachment			bar	167	167	167	167	167	167	167	
8.2.1	Hydraulic Tank Capacity			Ltr	16	16	16	16	16	16	16	

■ Dimensions

