3,000–4,000 lb Capacity

3–Wheel Electric Cushion Tire Forklifts

MITSUBISHI
FORKLIFT TRUCKS

A Reputation For Reliability

Achieving the perfect balance of innovation and value is a near obsession at Mitsubishi Forklift Trucks. Our company-wide commitment is to build forklifts that deliver reliability, power, and comfort in equal measure.

Electric cushion tire forklifts deliver comfort and versatile performance.

3–Wheel Electric Cushion Tire Forklifts

3,000–4,000 lb Capacity

Comfort And Maneuverability

When you demand long-term reliability and versatility for a wide range of applications, you can count on 3-Wheel Electric Mitsubishi forklift trucks.

Model Number	Rated Capacity 24 in Load Center	500 mm Load Center
FB16KT	3000 lb	1600 kg
FB18KT	3500 lb	1800 kg
FB20KT	4000 lb	2000 kg

Available in 36-volt or 48-volt systems.

MITSUBISHI FORKLIFT TRUCKS

Transistor Hydraulic Control

A powerful pump motor helps produce fast lift and tilt speeds. The Insulated Gate Bipolar Transistor control offers smooth, quiet hydraulic performance, in addition to increased control and reduced energy consumption. Basic and auxiliary hydraulic functions are also fully programmable to the operator's preference or application demands.

Low–Effort Braking

Heat and wear in the truck's brake system are reduced because extra-thick rotors and oversized pads create a larger-than-normal contact area. Very low operator braking effort is required, helping to lessen leg fatigue. The brake is mounted on the outside of the drive motors to quickly dissipate heat and simplify inspections. Standard regenerative braking also helps reduce usage and wear of brake components, takes the heat off drive motors, and extends brush life.

High–Torque, High–Speed Drivetrain

The drivetrain is geared for reliable, high performance. Dual-drive motors produce a powerful 4.5 kw each and run at low sound levels. Specially designed three-stage helical gears are used for main reduction and deliver high torque and travel speeds up to 9.9 mph.

Cushion Tires Are Standard

Cushion tires are standard and commonly recommended for indoor environments. They help provide low rolling resistance and excellent capacity retention in high lift applications. Solid pneumatic-shaped tires are available to serve both indoor/outdoor applications. They help provide greater traction on wet surfaces, a smooth ride on uneven surfaces, and improved shock absorption of loads.

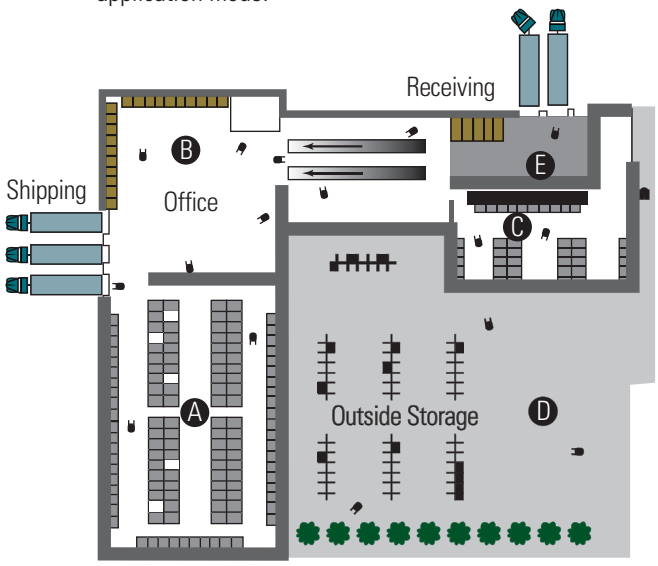
Standard, dual–steer tires help distribute stress and wear over a wider area than single tires, reducing bearing and spindle loads. They also provide a larger and more balanced tread imprint to help protect floor surfaces and increase traction.

Advanced Dual–Drive Controller

The innovative Mitsubishi TR4000 SX transistor controller is efficient and is designed to deliver high performance, reliability, and serviceability. The system operates with half the components of conventional controllers, and includes no directional contactors—resulting in smooth operation when changing directions and reducing the number of replacement parts. The controller is mounted to the counterweight, which helps dissipate heat and keep the system running cool. No separate heat sink is required. Components are quickly accessible for routine inspection.

Performance Modes

Customers can select from five preset performance modes to help serve almost any work environment. Using preset modes helps protect components and helps manage energy to extend the truck's service life. In addition, authorized personnel can adjust any of seven performance settings to further customize each application mode.

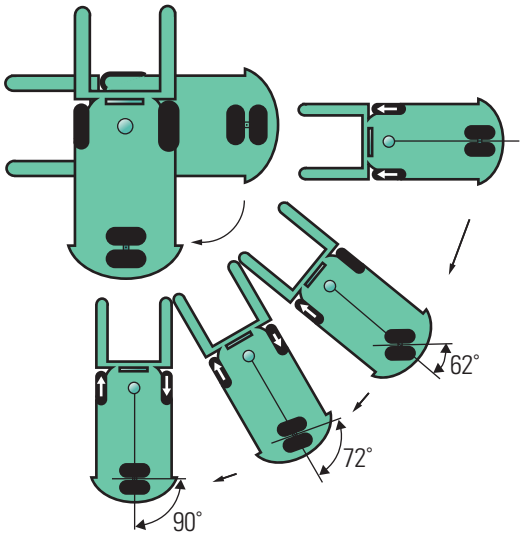


Full Range of Programmable Modes

- APPLICATION A: General warehouse utility: high travel speeds, moderate lift requirements
- APPLICATION B: High performance: fast acceleration, high lift/tilt speeds
- APPLICATION C: Economy: slow acceleration, low travel speeds, moderate lift/tilt speeds
- APPLICATION D: Long travel: high travel speeds, moderate lift/tilt speeds
- APPLICATION E: Short shuttle (dock work): low travel speeds, fast tilt speeds, moderate lift speeds

Wheel Angle Sensor

When the operator turns the wheel, the control system uses a wheel angle sensor to distribute constant proportional power to the independent motor driving each wheel. The inside wheel slows until it reaches a 62° angle, at which point its power is minimized. At 72°, the inside wheel begins reversing with increasing speed, until in a maximum turn, it moves in reverse at a speed equal to the forward moving outside wheel. This continuous, proportional control allows the truck to turn within its own length, while improving traction on wet and uneven surfaces.



Integrated Diagnostics

A comprehensive monitoring and diagnostic system is built into the controller which eliminates the need for an external handset. The console display is mounted on the tilt steering wheel, so operational information is visible to operators. In the event of a fault, a light immediately alerts the operator. LCD performance displays include battery discharge indicator, travel speed, truck operating hours, drive motor hours, hydraulic motor hours, and clock. Real-time LED diagnostic displays include need-for-service indicator, brush wear indicator, over-temperature gauge, brake fluid level, park brake indicator, and fault detection indicator.

Good–Visibility Mast

Narrow mast flanges, wide web channels, and concealed hose and chain routings permit good forward visibility. Square fork bars help ensure visibility through the carriage. Mast channels are deep for extra strength, allowing for large load rollers to increase load-carrying capacity. Cross members are configured in an hourglass shape with flanges that extend up and down critical areas of the channel for torsional rigidity.

Fast, Easy Troubleshooting

A service technician can easily troubleshoot the truck's operational history by viewing the last 32 fault codes. Data includes fault code, battery charge level, and truck operating hours at the moment an event occurred. This timely tracking and diagnostic information is important in helping to maintain the truck's daily performance.

Convenient Features

Operators find that entering and exiting the truck is not a stretch, thanks to the low-open-step frame and handy grab bar. There is an easy-access storage tray that holds job tickets, pens, markers, tools, and personal items. A non-tip beverage holder guards against spills when driving over dock plates. Hydraulic controls are cowl-mounted so operators can easily grip them.

Comfort–Stretch Seat Belt

The seat belt design features a resilient section that gives an extra measure of freedom for reverse travel, and an operator-presence switch is designed to automatically shut down all drive and hydraulic motors when operators dismount.

Comfortable Seat

The operator's seat, which can be adjusted over a full six inches, delivers lasting comfort. A molded seat-back lip gives extra leverage to operators when traveling in reverse. The bottom cushion is bolstered at the sides for thigh support, and a supple back cushion helps provide critical lumbar support. A heavy-duty cloth cover permits ventilation, and the seat's practical two-piece design saves money; you replace only one piece at a time, not the entire seat assembly.

Infinite Tilt–Wheel Positioning

Operators can choose a preferred comfortable wheel position over seven degrees of movement with the smooth tilt steering column. The tilt column also allows easy, unobstructed entry and exit from the truck.

Spacious Floor Area

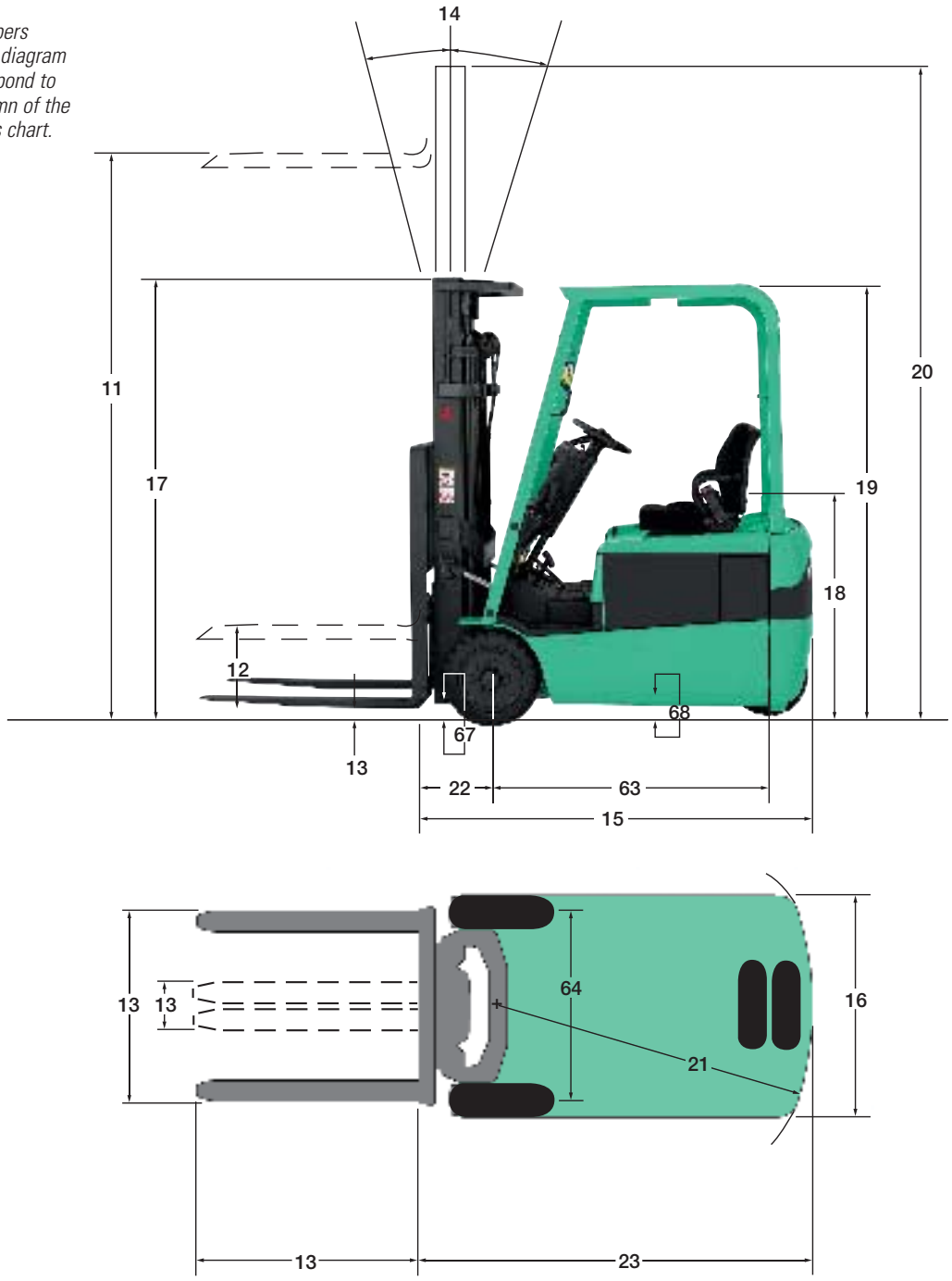
Some forklifts compromise the operator's compartment because of size limitations, but this Mitsubishi forklift features a flat, unobstructed foot area that accommodates work boots of all sizes. The floor mat is made of a heavy, slip-resistant rubber which helps to muffle operating sounds and reduce operator fatigue. In addition, the parking brake lever is up on the cowl.

SPECIFICATIONS

	CHARACTERISTICS				FB16KT	FB18KT	FB20KT
1	Capacity	at rated load center		lb *kg*	3000 *1600*	3500 *1800*	4000 *2000*
2		at load center – distance		in *mm*	24 *500*	24 *500*	24 *500*
3	Power	diesel, gasoline, LP gas, electric			electric	electric	electric
4	Tire type	cushion, pneumatic			cushion	cushion	cushion
5	Wheels (x = driven)	number front / rear			2x/2	2x/2	2x/2
	DIMENSIONS						
10	Lift	maximum fork height with rated load		in *mm*	177 *3730*	177 *4120*	178 *3580*
11	Lift with standard two-stage mast	maximum fork height		in *mm*	130 *3330*	130 *3330*	130 *3330*
12		free fork height		in *mm*	4.5 *115*	4.5 *115*	4.5 *115*
13	Forks	thickness x length x width		in *mm*	1.4x42x4 *35x1067x100*	1.4x42x4 *35x1067x100*	1.4x42x4 *35x1067x100*
	Fork spacing	out-to-out minimum / maximum		in *mm*	9.4/36 *240/920*	9.4/36 *240/920*	9.4/36 *240/920*
14	Tilt	forward / backward			6/7	6/7	6/7
15	Overall dimensions	length to fork face		in *mm*	74.5 *1900*	79 *2000*	80 *2035*
16		width	with standard cushion tires	in *mm*	42 *1070*	42 *1070*	42 *1070*
			w/optional solid pneumatic tires	in *mm*	42 *1070*	42 *1070*	44.5 *1130*
17		height	with lowered mast	in *mm*	83 *2105*	83 *2105*	83 *2105*
18			seat height	in *mm*	40 *1016*	40 *1016*	40 *1016*
19			to top of overhead guard	in *mm*	80.5 *2040*	80.5 *2040*	80.5 *2040*
20			with extended mast	in *mm*	179 *4550*	179 *4550*	179 *4550*
21	Minimum outside turning radius			in *mm*	60 *1520*	64 *1620*	65 *1645*
22	Load moment constant			in *mm*	15 *381*	15 *381*	15.4 *392*
23	Minimum aisle – 90° stack – zero clearance + load length			in *mm*	75 *1900*	79 *2000*	80 *2035*
	PERFORMANCE						
40	Speeds	travel loaded / empty	36V	mph *km/h*	8.1/9.3 *13/15*	8.1/9.3 *13/15*	8.1/9.3 *13/15*
			48V	mph *km/h*	8.7/9.9 *14/16*	8.7/9.9 *14/16*	8.7/9.9 *14/16*
41		lift speed loaded / empty	36V	fpm *m/s*	59/89 *.3/.45*	57/89 *.29/.45*	55.1/89 *.28/.45*
			48V	fpm *m/s*	79/120 *.4/.6*	77/120 *.39/.6*	75/120 *.38/.6*
42		lowering speed loaded / empty	36V	fpm *m/s*	100/98 *.52/.5*	100/98 *.52/.5*	100/98 *.52/.5*
			48V	fpm *m/s*	100/98 *.52/.5*	100/98 *.52/.5*	100/98 *.52/.5*
43	Drawbar pull	loaded (60 min. rating)	36V	lb *N*	600 *2660*	580 *2570*	560 *2470*
			48V	lb *N*	600 *2660*	580 *2570*	560 *2470*
		loaded maximum (5 min. rating)	36V	lb *N*	1360 *6070*	1340 *5980*	1320 *5890*
			48V	lb *N*	1360 *6070*	1340 *5980*	1320 *5890*
44	Gradeability	loaded at 1 mph *(1.6 km)*	36V	%	13	12	11
			48V	%	13	12	11
		maximum loaded / empty	36V	%	19/30	17/28	15/26
			48V	%	19/30	17/28	15/26
	WEIGHT						
50	Empty	w/minimum weight battery		lb *kg*	6800 *3100*	7300 *3300*	7700 *3525*
51	Axle load	with rated load	front	lb *kg*	8660 *4180*	9500 *4510*	10270 *4875*
			rear	lb *kg*	1140 *520*	1300 *590*	1430 *650*
		without load	front	lb *kg*	3300 *1510*	3550 *1600*	3500 *1615*
			rear	lb *kg*	3500 *1590*	3750 *1700*	4200 *1910*
	CHASSIS						
60	Tire size	front, standard cushion tires		in *mm*	18x7x12 *457x178x305*	18x7x12 *457x178x305*	18x7x12 *457x178x305*
61		front, optional solid pneumatic tires		in *mm*	18x7-8 *457x178x203*	18x7-8 *457x178x203*	200/50-10
62		rear cushion tires		in *mm*	15x5x11.25 *381x127x286*	15x5x11.25 *381x127x286*	15x5x11.25 *381x127x286*
63	Wheelbase			in *mm*	51.5 *1305*	55.5 *1410*	55.5 *1410*
64	Tread width	front, standard cushion tires		in *mm*	35 *894*	35 *894*	35 *894*
65		front, optional solid pneumatic tires		in *mm*	36 *913*	36 *913*	37 *935*
66		rear cushion tires		in *mm*	6.5 *170*	6.5 *170*	6.5 *170*
67	Ground clearance	at lowest point @ mast		in *mm*	2.9 *75*	2.9 *75*	2.9 *75*
68		at center of wheelbase		in *mm*	3.9 *100*	3.9 *100*	3.9 *100*
69	Brakes	service			mech / hyd	mech / hyd	mech / hyd
70		parking			mechanical	mechanical	mechanical
	POWERTRAIN						
80	Battery	type			lead-acid	lead-acid	lead-acid
81		voltage / capacity @ 5 hr. discharge		volts / AH	36/675	36/825	36/825
82		voltage / capacity @ 5 hr. discharge		volts / AH	48/600	48/720	48/720
83		weight, minimum		lb *kg*	1910 *865*	2200 *1000*	2200 *1000*
84	Motors	traction output 36V (60 min. rating)		HP *kW*	6 *4.5*	6 *4.5*	6 *4.5*
85		traction output 48V (60 min. rating)		HP *kW*	6 *4.5*	6 *4.5*	6 *4.5*
86		lift output 36V (15% rating)		HP *kW*	11.6 *8.7*	11.6 *8.7*	11.6 *8.7*
87		lift output 48V (15% rating)		HP *kW*	15.4 *11.5*	15.4 *11.5*	15.4 *11.5*
88	Controls	drive		type / speed	IGBT transistor	IGBT transistor	IGBT transistor
89		hydraulic		type / speed	IGBT transistor	IGBT transistor	IGBT transistor
90	Relief pressure	for attachments		psi *bar*	2625 *180*	2625 *180*	2625 *180*
91	Noise level	mean value at operator's ear		dB(A)	68.4	68.4	68.4

NOTE: These specifications assume the use of drive axles, tires and tilt angles specified. Any modification to specifications, or any other combination of specifications made after the shipment of the truck, requires prior written approval from Mitsubishi Caterpillar Forklift America Inc. ("MCFA"). (See ASME B56.1 Part II 4.2.) Also be advised that overall operating visibility may be affected by the mast configuration and mast options of your truck. Therefore, you may need to add ancillary [auxiliary] devices or modify your operating practices. Consult your dealer for further information.

Call-out numbers shown in the diagram below correspond to the first column of the specifications chart.



SAFETY STANDARDS

These trucks meet American Society of Mechanical Engineers (ASME) B56.1, part III Safety Standards for powered industrial trucks. UL-Classified by Underwriters Laboratories, Inc., as to fire and electric shock hazard only. Types E, EE (optional), Industrial Trucks. Users should be aware of, and adhere to, applicable codes and regulations regarding operator training, use, operation and maintenance of powered industrial trucks, including:

- ASME B56.1, part II.
- NFPA 505, fire safety standard for powered industrial trucks - type designations, areas of use, maintenance and operation.
- Occupational Safety and Health Administration (OSHA) regulations that may apply.

Specifications, equipment, technical data, photos and illustrations based on information at time of printing and subject to change without notice. Some products may be shown with optional equipment.

BATTERY INFORMATION

Model		FB16KT		FB18KT		FB20KT	
Battery Compartment Size							
Width	in *mm*	40	*1016*	40	*1016*	40	*1016*
Length	in *mm*	20.9	*531*	24.9	*634*	24.9	*634*
Height	in *mm*	24.8	*630*	24.8	*630*	24.8	*630*

Ask For A Demonstration

Discover how innovative Mitsubishi forklift trucks can handle your applications and complement the way your operators work. Ask your Mitsubishi forklift truck dealer for a demonstration.

For more information, call 1–888–MIT–LIFT or your local Mitsubishi forklift truck dealer.

Quality And Support For The Long Haul

Our services are as innovative as our forklifts. One example is our exclusive MASTERSOURCE® program, designed to be your single source for quality replacement parts—no matter what forklift brand you own. Another is our MASTER PROTECTION™ program which offers extended power train warranties for your Mitsubishi forklifts. Your Mitsubishi forklift truck dealer offers an extensive line of products and services including MASTER MAINTENANCE® programs, which tailor service and maintenance to your specific applications. Your Mitsubishi forklift truck dealer can provide options and additional visual and audible warning devices aimed at your specific applications and requirements. Operator training programs are also available to help reduce the potential for product damage and personal injury.

3–Wheel Electric Cushion Tire Forklifts

3,000–4,000 lb Capacity

MECM0006-01 05/02

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www.mit-lift.com

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