KOMATSU

AX50 Series 1.0-1.75ton
BX50 Series 2.0-3.5ton

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

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

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 Forklift Co., Ltd.
Head office 2-3-4, Akasaka, Minato-ku, Tokyo 107-8474, Japan
http://www.lift.co.jp
Fax 81-3-3224-7551(Tokyo,Japan)

Form No. BR-AXBX50-001-ENG
Printed in Japan 1104-1-10TP

KOMATSU FORKLIFT

Destined Evolution

For managers, operators and for the careful handling of cargo, what are the requirements of a forklift? The new AX50/BX50 Series was produced from Komatsu's careful research and development activities to address these concerns. Komatsu's exceptional hydraulic technology has been further developed to meet new performance goals and functional capabilities.
While maintaining its own superior durability and reliability, new functions have been integrated to optimize operational capabilities and increase safety and economical performances for various conditions. Everything from the unique lifting system, cockpit design, and the shape and design of the steering wheel, levers and body, are the fruit of a destined evolution.
Komatsu's concept of "having no equals" is integrated into each design to produce world class machine that is a comfortable for everyone on the operation site.

Models

AX50 Series

Gasoline Engine Lift trucks
Diesel Engine Lift trucks
1.0t / 1.5t / 1.75t

BX50 Series

Gasoline Engine Lift trucks
Diesel Engine Lift trucks
2.0t / 2.5t / 3.0t / 3.5t

109 Series

2.0t / 2.5t / 3.0t

Reduced operating costs

The AX50/BX50 Series pursues the concerns of most managers, regarding economical efficiency, durability and environmental safety. Komatsu's hydraulic system has been developed to decrease fuel consumption and maintain a superior heat balance, which improves operational comfort for heavy-duty conditions. Komatsu also provides a lineup of powerful and clean engines. Komatsu's traditional designs contribute to reducing operational costs. Based on these concepts, this newly developed machine is able to produce new profits.

Dramatic Improvements to Fuel Consumption

The Super Lift Hydraulic System* rapidly lifts cargo even when the forklift is idling. Since acceleration is not longer necessary, fuel consumption has been significantly improved. The lift height can also be finely adjusted without abrupt shocks to the cargo or pallets, eliminating the risk of damage.

*The Super Lift Hydraulic System is available on the BX50 Series.

Fuel consumption is improved by 10%

(FD25 compared with former model)

Specially Developed Engines

Each model employs a specially developed engine for the optimum balance of power and superior environmental performance. All engines are in compliance with the strict governmental exhaust gas restrictions of EPA Tier 2/ EU Stage II.

■ **Engine specifications**

		Class	Name	Rated Output	Displacement
				kw/rpm	cc
Gasoline engine	Standard Models	1.0t-1.75t	K15	27/2500	1486
		2.0 t /2.5t	K21	35/2450	2065
		3.0 t /3.5 t	K25	43/2400	2488
	High Performance Models	1.5 t /1.75 t	K21	35/2450	2065
		2.0 t /2.5 t	K25	43/2400	2488
Diesel engine	Standard Models	1.0 t -1.75 t	4D92E	35/2450	2659
		2.0 t -3.0 t	4D94LE	46/2450	3052
		3.5 t	4D98E	53/2400	3318
	High Performance Models	2.0 t -3.0 t	4D98E	53/2400	3318

Three-Way Catalytic System for Gasoline and LPG trucks

Option

The CPU-controlled closed system delivers optimum combustion and purifies the nitrogen oxide (NOx), hydrocarbons (HC), and carbon monoxide (CO) for cleaner exhaust emissions.

*This option is not available for some models. Please contact Komatsu Forklift dealers.

Reduced Maintenance Costs

The AX50/BX50 Series features optimum lubrication intervals and simple maintenance for greater efficiency. The steering mechanism employs a full hydraulic system. Since there are no mechanical components, such as the drag link, replacement costs are reduced.

Komatsu Reliability

Komatsu's unique designs have further extended the life span of the truck. Both the new frame structure and changes to the mast improve durability. Improvement of the heat balance also enhances reliability during heavy operations. The meantime between failures (MTBF) has been extended by 40% plus.
Maintenance and repair costs are minimized by extensive testing and quality inspections under different operating environments.

Maintenance Service Life 40% Up

(Compared with former model)

Exceptional Heat Balance

The bell-shaped shroud concentrates cooling air into the radiator. The unique shape of the counterweight opening and fan improves cooling performance by increasing the airflow of cooling air. Plus, the Super Lift Hydraulic System (BX50 Series) is designed to reduce oil pressure loss, which also prevents the oil temperature from overheating.

Environmental safety

Extra Low Noise Performance

Noise—even at high output levels—is kept to a minimum by the monolithic hood, cast iron hydraulic pump, and sealed dashboard and floor.

67dB(A)
FD25T-Noise Level within a 7 meter radius (under full acceleration)

84dB(A)
FD25T-Noise Level at the operator's ears (under full acceleration)

Environmentally Safe Counterweight

Putty dust pollutants are eliminated since the counterweight is applied with a texture type paint.
The BX50 Series provides slits in the counterweight for recycling purposes.

DPF (diesel particulate filter)

Option

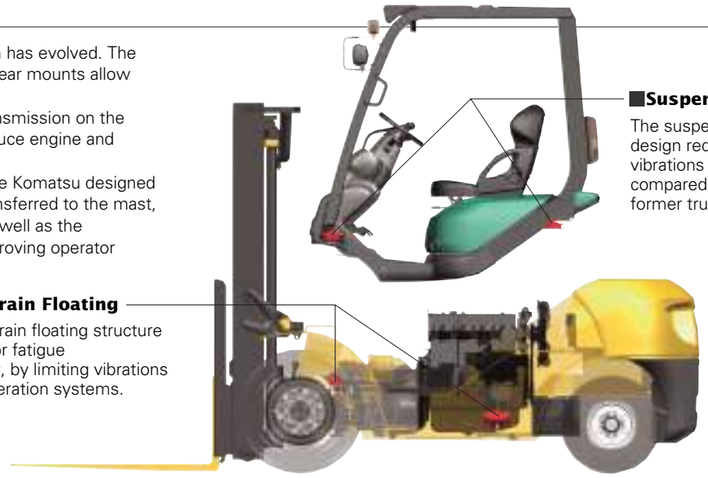
The DPF efficiently eliminates diesel particulate matter.

Vibration-reduction design

In developing this new machine, Komatsu has carefully considered operators performing heavy-duty work. For example, to increase comfort the AX50/BX50 Series has integrated a power train floating structure in addition to the conventional suspension cab. As a result, traveling vibrations and vibrations from the driving system are significantly reduced.
Since the AX50/BX50 Series improve operating environments for staff to perform their work more comfortably, this may also contribute to increased work site productivity.

Dual 'Floating' Structure

Komatsu's original suspension cab design has evolved. The wide-set front mounts and high position rear mounts allow the entire cabin to float on the chassis.
The power train floats the engine and transmission on the frame, and a universal joint is used to reduce engine and motion vibrations on the front axle.
The combined technology of both of these Komatsu designed systems further reduce the vibrations transferred to the mast, fork, steering wheel and control lever, as well as the operator's seat. Therefore, ultimately improving operator comfort and cargo safety.



■Suspension Cab

The suspension cab design reduces travel vibrations by 30%, compared with the former truck.

■Power Train Floating

The power train floating structure cuts operator fatigue substantially, by limiting vibrations from the operation systems.

New Operator's Suspension Seat

The operator's seat is equipped with an all new suspension system and remodeled cushion and damper.
The improved seat design holds the operator's body firmly in place for greater comfort and less fatigue during extended operations.

- **Six-step reclining backrest**
- **170 mm slide distance backward and forward**
- **Seat cushion adjustment dial**
- **The retractable seat belt**

Wide Floor and Open, Non-Slip Step

The wide, flat floor accommodates the tilt cylinder under the floor. Suspended (type) pedals are used to provide extra foot space, which significantly reduces operator fatigue. The new wide-open, non-slip step and spoon-curved fender makes getting in and out easy and safe.

Control levers designed for fingertip control.

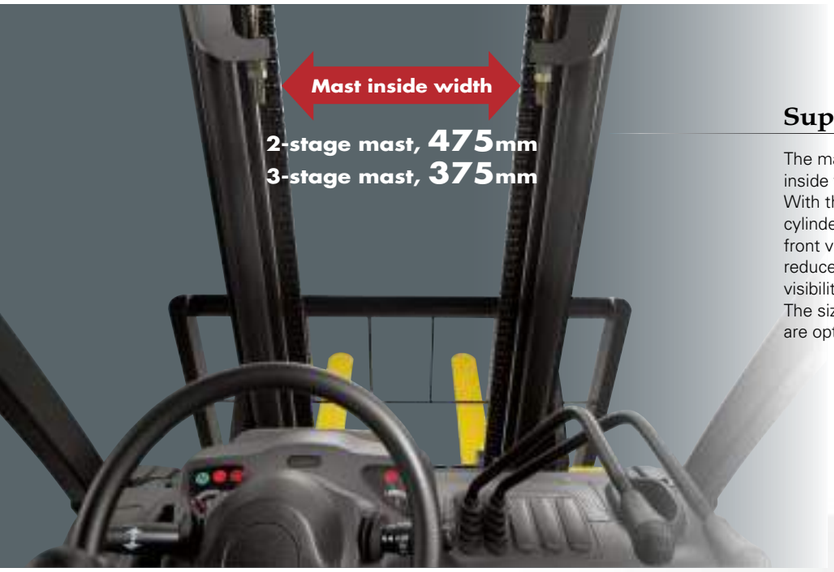
Consideration for Comfortable Operation

Komatsu's Research and Development team considers operators. Every aspect concerning an operator's comfort and ease of use have been thoroughly studied and implemented in each design.
For instance, the control indicators and levers have been ergonomically designed and arranged in accessible and visible locations.
Komatsu prides itself on developing products, which are designed to optimize both comfort and productivity.

Excellent lifting and travel performance

The lifting performance of Komatsu's machines also show their principle commitment to quality and innovation. The Super Lift Hydraulic System*, which uses the tandem type pump, is based on Komatsu's principle. The small-sized steering wheel and fully hydrostatic power steering mechanism provide flexible switchbacks. Consequently, operators are able to continuously perform lifting and traveling operations over longer periods without increased fatigue or stress.

*The Super Lift Hydraulic System is available on the BX50 Series.



Superior Visibility

The mast rail section has been flattened and the inside width expanded for superior front visibility. With the lowered position of 3-stage mast center cylinder and the tilt stay, plus the inclined backrest, front visibility is improved, and blind spots are reduced. The BX50 Series also provides clear fork tip visibility.
The size and layout of the dashboard and meter panel are optimized.

Safe Travel in Reverse

The upper corners of the counterweight are inclined to improve visibility. The edge of the counterweight, which is visible from the operator's seat, is designed to provide better visibility when confirming distances while reversing.
The wide-angle center mirror provides a greater sight area for safer traveling.

Ingenious Shape

The new counterweight outlets are flow-directional, which are designed to prevent hot air from blowing onto the operator while reversing. The tail pipe has also been repositioned and is now located at the lowest point of the counterweight. This improves driver comfort and prevents stains that are caused by exhaust gas.

Operator Presence Sensoring System
(Lifting/Traveling Interlocking Mechanism)

Option

The Operator Presence Sensoring System is a safety option that only allows lifting operations while traveling, when the operator is seated. The alarm is activated once the operator leaves the seat. The interlock is a double safety measure and remains activated even when the operator returns to the seat. The interlock can only be released by returning the respective levers to a safe position.

The interlock state is also indicated on the meter panel.

Small diameter steering wheel and fully hydrostatic power steering mechanism.

The small diameter steering wheel provides 100% stationary steering and switch backs. The superior responsiveness of the steering wheel optimizes maneuverability even in narrow spaces.
Fluctuations during traveling have also been reduced by more than 30% to improve travel performance.

Steering wheel diameter 300mm

Super Lift Hydraulic System*

The tandem pump operates the power steering and the lifting equipment independently. Komatsu's hydraulic technology lifts the cargo at about double the lift speed of the previous model when idling. The truck also features fine adjustments for the fork position and superior operability of attachments when idling.

*The Super Lift Hydraulic System is available on the BX50 Series.

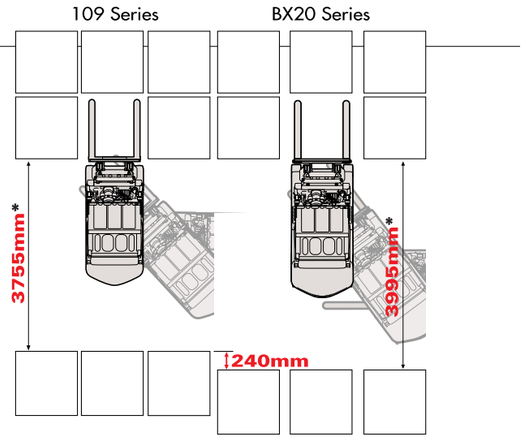
Lifting Speed 100% up
Low idle lifting speed (loaded)
(FD25 compared with former model)

Compact, superior lift capacity

The 109 Series (2.0t, 2.5t, 3.0t) has been born as the new BX Series with a body width of 1090 mm. This is a full-scale 1-ton model body with 2-ton class truck capabilities. With newly developed tyres, a superior lifting capacity is provided within its compact body. The mobility of the smaller sized truck significantly improves efficiency.

Effective Use of Space

The compact overall width of 1090 mm means efficient use of limited space. The minimum turning radius of 2050 mm. (2.5t truck) means the truck can turn and move quickly, even in narrow spaces, and optimizes storage operations.



*2.5t truck include 200mm clearance.

The Newly Developed SSCT (Soft and Stable Cushion Tyre)

The newly developed compact tyre is indispensable for reducing the size of the body. Pneumatic tyres have difficulty with stability and solid tyres transmit travel vibration to the operator. So, we developed a new tyre with air holes on each side. The compact body delivers operator comfort and durability at the same time.

Optimum Height Lift Operations

The lifting residual capacity has been increased. The high rigidity mast is the same as that of the standard BX50 2-ton Series truck and includes newly developed tyres to improve truck stability during operations.

Optional Specification Truck

■LPG Specification truck

Komatsu offers both single fuel (LPG) and dual fuel (LPG and Gasoline) systems for the LPG Specification truck.
The truck has superior fuel consumption, the service life of the engine oil, filters, and plugs are extended, and the engine delivers clean combustion exhaust gases. Cold starts are possible even in temperatures as low as -5˚C.

●The sunken counterweight specification truck with an expanded rear view area.

By lowering the position of the LPG cylinder, installation and removal is easier, and permits a wider rear view area for greater reversing safety.

●Swing-down Bracket
(optional for the LPG truck)

The LPG cylinder is easily installed and removed in a lower position with minimal effort. In addition to the normal counterweight, this is also applicable for both the 2.5t and 3t trucks with sunken counterweights.

■Dust Proof Specification

This truck is reliable for the handling of powdered products such as concrete, secondary products, ceramics and flour millings, or for operations in similar dusty conditions.

■Fishery Specification

Waterproofing, sealing, and anticorrosion coatings significantly improve the durability of the exterior, parts, and the brake system under salt-water conditions.

Options

●Steel Cabin *

The steel cabin provides superior comfort and protection from severe cold or very noisy environments. Heaters and air conditioners are also available.

●Protective Resin Head Guard Cover

The resin cover resists stains and provides protection from the rain.

●Digital Load Checker

Loads are measured and displayed in 10 kg units.

●Operator Presence Sensoring System

●Easy-Replacement Oil Filter

This simple design enables easier and timely maintenance.

●Mast Tilt Angle Meter

The pointer on the meter indicates the mast tilt angle. Once the mast reaches a preset angle, the lamp will light. When there is no load on the lift, the Auto Stop Function stops the tilt operation once the mast reaches the preset position. This is especially convenient for loading operations on inclined surfaces.

Engine and Operation Equipment
- ●Three-Way Catalytic System for Gasoline and LPG Trucks
- ●DPF (diesel particulate filter)
- ●Spark arrester
- ●Upward muffler
- ●Radiator screen
- ●Large capacity alternator (for the diesel truck only)
- ●Pre-cleaner

Exterior parts
- ●Tilt cylinder boots
- ●Power steering cylinder boots
- ●Fuelcap with key
- ●Fire extinguisher

Electrical Equipment
- ●Yellow strobe light
- ●Red strobe light
- ●Rear working light
- ●Front working light
- ●Back-up chime

Meters and Gauges
- ●Torque converter oil temperature gauge
- ●Ammeter
- ●Speedometer (with alarm)
- ●Mast tilt angle meter
- ●Traveling speed limiter
- ●Fork positioning sensor

Tyres
- ●Color tyres

*except for the 109 Series

Attachments

■Roll clamp ■Side shifter ■Bale clamp ■Rotating fork ■Fork clamp

■Drum clamp*

●Although specifications are provided for attachments, some attachments cannot be installed on specific masts depending on their types.
●For details, please contact Komatsu Forklift's dealers.●Attachments with the * mark cannot be installed on the 109 Series.

■Major equipment

● : Standard ○ : Option ◎ : Standard for BX50

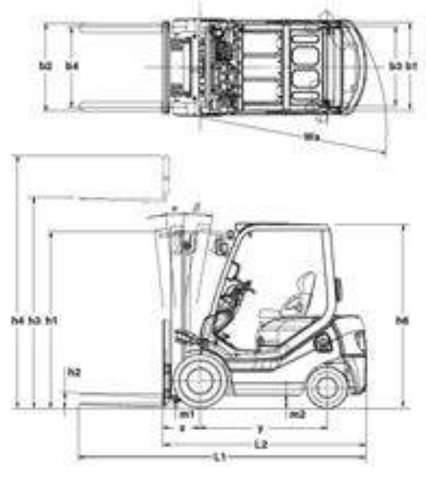
	Vehicle type	AX/BX50 series						High performance model (H type)			
		Standard model				109 series					
	Engine	Gasoline		Diesel		Gasoline	Diesel	Gasoline		Diesel	
	Equipment / Transmission	Clutch	TORQFLOW	Clutch	TORQFLOW	TORQFLOW	TORQFLOW	Clutch	TORQFLOW	Clutch	TORQFLOW
Driving/operation	Dual floating structure	●	●	●	●	●	●	●	●	●	●
	New operator's seat with suspension	●	●	●	●	●	●	●	●	●	●
	Small-sized steering wheel	●	●	●	●	●	●	●	●	●	●
	Tiltable steering column	●	●	●	●	●	●	●	●	●	●
	Electric forward/reverse lever (TORQFLOW model)		●		●	●	●		●		●
	Double-cone synchronized clutch (clutch model)	●		●				●		●	
	Combination switch (turn signal light and light switch)	●	●	●	●	●	●	●	●	●	●
	Indicator auto-return mechanism	●	●	●	●	●	●	●	●	●	●
	Full-open step	●	●	●	●	●	●	●	●	●	●
	Under-floor tilt cylinder	●	●	●	●	●	●	●	●	●	●
	Paper binder	●	●	●	●	●	●	●	●	●	●
	Glove box	●	●	●	●	●	●	●	●	●	●
Meters	Meter panel	●	●	●	●	●	●	●	●	●	●
	Hourmeter	●	●	●	●	●	●	●	●	●	●
	Engine water temperature gauge	●	●	●	●	●	●	●	●	●	●
	Torque converter oil temperature gauge		○		○	○	○		○		○
	Fuel gauge	●	●	●	●	●	●	●	●	●	●
Safety indicators	Engine oil pressure warning lamp	●	●	●	●	●	●	●	●	●	●
	Charge warning lamp	●	●	●	●	●	●	●	●	●	●
	Air cleaner element warning lamp	○	○	○	○	○	○	○	○	○	○
	Fuel level warning lamp	○	○	○	○	○	○	○	○	○	○
	Radiator cooling water level warning lamp	○	○	○	○	○	○	○	○	○	○
	Battery electrolyte level warning lamp	○	○	○	○	○	○	○	○	○	○
	Neutral indicator	●	●	●	●	●	●	●	●	●	●
	Sedimenter warning lamp			●	●		●			●	●
	Glow indicator			●	●		●			●	●
Electric components	Full-transistor-type IC distributor	●	●			●		●	●		
	Alternator with built-in IC regulator	●	●	●	●	●	●	●	●	●	●
	Quick auto glow system			●	●		●			●	●
	Neutral safety mechanism	●	●	●	●	●	●	●	●	●	●
	Auto fuse	●	●	●	●	●	●	●	●	●	●
	Low maintenance battery	●	●	●	●	●	●	●	●	●	●
	Engine key stop mechanism			●	●		●			●	●
	Halogen headlight	●	●	●	●	●	●	●	●	●	●
	Rear combination light	●	●	●	●	●	●	●	●	●	●
	Back-up buzzer	●	●	●	●	●	●	●	●	●	●
Mechanism	Operator Presence Sensoring System	○	○	○	○	○	○	○	○	○	○
	Auto choke	●	●			●		●	●		
	Super lift hydraulic system	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	Self-adjustment clutch	●		●				●		●	
	Sedimentary with priming pump			●	●		●			●	●
	Cyclone air cleaner	●	●	●	●	●	●	●	●	●	●
	Parking brake with release button	●	●	●	●	●	●	●	●	●	●
	Fully hydrostatic power steering	●	●	●	●	●	●	●	●	●	●
	Soft landing mast system	●	●	●	●	●	●	●	●	●	●
	Non-asbestos brake linings	●	●	●	●	●	●	●	●	●	●
	Non-asbestos clutch disk	●		●				●		●	
	Easy replacement hydraulic oil filter	○	○	○	○	○	○	○	○	○	○
Exterior	Floor mat	●	●	●	●	●	●	●	●	●	●
	Assist grips	●	●	●	●	●	●	●	●	●	●
	Head guard with front/rear conduits	●	●	●	●	●	●	●	●	●	●
	Wide angle center mirror	●	●	●	●	●	●	●	●	●	●
	Full shield solid-state engine hood	●	●	●	●	●	●	●	●	●	●
	One-touch open floor panel	●	●	●	●	●	●	●	●	●	●
	One-touch removable radiator cover	●	●	●	●	●	●	●	●	●	●
	Engine hood stopper	●	●	●	●	●	●	●	●	●	●
	Engine hood lock	●	●	●	●	●	●	●	●	●	●
	Radiator reservoir tank	●	●	●	●	●	●	●	●	●	●
	Wide fork carriage	●	●	●	●	●	●	●	●	●	●
	Resin dashboard cover	●	●	●	●	●	●	●	●	●	●
	Jacking points	●	●	●	●	●	●	●	●	●	●

■AX50 Series Specifications

Characteristics	1.2	Model	Manufacturer's Designation				FG10-20	FD10-20	FG15-20	FD15-20	FG15H-20
							TORQFLOW(Clutch)	TORQFLOW(Clutch)	TORQFLOW(Clutch)	TORQFLOW(Clutch)	TORQFLOW(Clutch)
	1.3	Power Type	Electric, Diesel, Gasoline, LPG, Cable				Gasoline	Diesel	Gasoline	Diesel	Gasoline
	1.4	Operation Type					Sitting	Sitting	Sitting	Sitting	Sitting
	1.5	Rated Capacity	Q			kg	1000	1000	1500	1500	1500
	1.6	Load Center	c			mm	500	500	500	500	500
	1.6.1	Alternative Capacity	Q2	Capacity@600mm Load Center		kg	910	910	1360	1360	1360
	1.8	Load Distance	x	Front Axle Center to Fork Face		mm	400	400	405	405	405
	1.9	Wheelbase	y			mm	1400	1400	1400	1400	1400
Weight	2.1	Service Weight				kg	2080[2095]	2180[2195]	2450[2465]	2550[2565]	2450[2465]
	2.2	Axle Loading	Loaded		Front	kg	2725[2735]	2760[2765]	3500[3510]	3530[3540]	3500[3510]
	2.2.1				Rear	kg	355[360]	420[430]	450[455]	520[525]	450[455]
	2.3		Unloaded		Front	kg	1065[1075]	1095[1105]	1005[1015]	1035[1045]	1005[1015]
	2.3.1				Rear	kg	1015[1020]	1085[1090]	1445[1450]	1515[1520]	1445[1450]
Tyres	3.1	Tyre Type					Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic
	3.2	Tyre Size	Front				6.50-10-10PR(I)	6.50-10-10PR(I)	6.50-10-10PR(I)	6.50-10-10PR(I)	6.50-10-10PR(I)
	3.3		Rear				5.00- 8- 8PR(I)	5.00-8-8PR(I)	5.00- 8- 8PR(I)	5.00-8-8PR(I)	5.00- 8- 8PR(I)
	3.5	Number of Wheels	Front/Rear (x=driven)				2*/2	2*/2	2*/2	2*/2	2*/2
	3.6	Tread, Front	b4			mm	890	890	890	890	890
	3.7	Tread, Rear	b3			mm	895	895	895	895	895
Dimensions	4.1	Tilting Angle	α / β	Forward/Backward		degree	6/10	6/10	6/10	6/10	6/10
	4.2	Mast Height, Lowered	h1	2-stage Mast		mm	1995	1995	1995	1995	1995
	4.3	Std. Free Lift	h2	2-stage Std. Mast, from Ground		mm	135	135	140	140	140
	4.4	Std. Lift Height	h3	2-stage Std. Mast, from Ground		mm	3000	3000	3000	3000	3000
	4.5	Mast Height, Extended	h4	2-stage Std. Mast		mm	3955	3955	3955	3955	3955
	4.7	Height, Overhead Guard	h6			mm	2030	2030	2030	2030	2030
	4.19	Length, with Std. Forks	L1			mm	2965	2965	3160	3160	3160
	4.20	Length, to Fork Face	L2			mm	2195	2195	2240	2240	2240
	4.21	Width, at Tyre	b1	Single		mm	1070	1070	1070	1070	1070
	4.22	Forks	s/e/l	Thickness x Width x Length		mm	31x100x770	31x100x770	35x100x920	35x100x920	35x100x920
	4.23	Fork Carriage Class	ISO 2328, Type A/B/no				Class 2	Class 2	Class 2	Class 2	Class 2
	4.24	Width, Fork Carriage	b2			mm	970	970	970	970	970
	4.31	Ground Clearance	m1	Under Mast		mm	120	120	120	120	120
	4.32		m2	at Center of Wheelbase		mm	130	130	130	130	130
	4.33	Right Angle Stacking Aisle	Ast	with L1000 x W1200 pallet		mm	3315	3315	3360	3360	3360
	4.34		Ast	with L1200 x W800 pallet		mm	3515	3515	3560	3560	3560
	4.35	Turning Radius	Wa			mm	1915	1915	1955	1955	1955
Performance	5.1	Travel Speed (FWD)	Loaded, 1st/2nd			km/h	19.0[9.0/19.0]	19.0[8.5/19.0]	18.5[8.5/18.5]	18.5[8.5/19.0]	18.5[8.5/18.5]
			Unloaded, 1st/2nd			km/h	19.0[9.0/19.0]	19.5[8.5/19.5]	19.0[9.0/19.0]	19.0[8.5/19.5]	19.0[9.0/19.0]
	5.2	Lifting Speed	Loaded			mm/s	580	620	570	620	590
			Unloaded			mm/s	640	670	640	670	640
	5.3	Lowering Speed	Loaded			mm/s	500	500	500	500	500
			Unloaded			mm/s	550	550	550	550	550
	5.6	Max. Drawbar Pull	Loaded			KN	10[11]	13[14]	10[11]	13[14]	15[14]
	5.8	Max. Gradeability	Loaded			%	34[38]	49[41]	26[27]	33[31]	37[35]
	5.10	Service Brake	Operation/Control				Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic
	5.11	Parking Brake	Operation/Control				Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical
	5.12	Steering	Type				FHPS	FHPS	FHPS	FHPS	FHPS
	6.4	Battery	Voltage/ Capacity at 5-hour rating			V/ah	12/33	12/64	12/33	12/64	12/33
I.C Engine	7.1	Maker Model					NISSAN K15	Komatsu 4D92E	NISSAN K15	Komatsu 4D92E	NISSAN K21
	7.2	Rated Output, SAE gross				KW	27@2500	35@2450	27@2500	35@2450	35@2450
	7.3	Rated RPM				min-1	2500	2450	2500	2450	2450
	7.3.1	Max. Torque, SAE gross				N•m•min-1	113@1600	142@1800	113@1600	142@1800	152@1600
	7.4	No. of Cylinders/Displacement				cm^3	4-1486	4-2659	4-1486	4-2659	4-2065
Others	7.6	Fuel Tank Capacity				Ltr	40	40	40	40	40
	8.2	Relief Pressure for Attachment				bar	172	172	172	172	172
	8.7	Transmission					TORQFLOW[Manual]	TORQFLOW[Manual]	TORQFLOW[Manual]	TORQFLOW[Manual]	TORQFLOW[Manual]

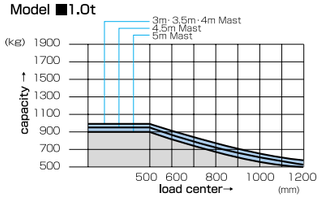
Characteristics	1.2	Model	Manufacturer's Designation				FG15H-20	FG18-20	FD18-20	FG18H-20	
							TORQFLOW(Clutch)	TORQFLOW(Clutch)	TORQFLOW(Clutch)	TORQFLOW(Clutch)	
	1.3	Power Type	Electric, Diesel, Gasoline, LPG, Cable				Diesel	Gasoline	Diesel	Gasoline	
	1.4	Operation Type					Sitting	Sitting	Sitting	Sitting	
	1.5	Rated Capacity	Q			kg	1500	1750	1750	1750	
	1.6	Load Center	c			mm	500	500	500	500	
	1.6.1	Alternative Capacity	Q2	Capacity@600mm Load Center		kg	1360	1590	1590	1590	
	1.8	Load Distance	x	Front Axle Center to Fork Face		mm	405	405	405	405	
	1.9	Wheelbase	y			mm	1400	1400	1400	1400	
Weight	2.1	Service Weight				kg	2550[2565]	2450[2465]	2645[2660]	2745[2760]	2645[2660]
	2.2	Axle Loading	Loaded		Front	kg	3530[3540]	3500[3510]	3870[3880]	3900[3910]	3870[3880]
	2.2.1				Rear	kg	520[525]	450[455]	525[530]	595[600]	525[530]
	2.3		Unloaded		Front	kg	1035[1045]	1005[1015]	960[970]	990[1000]	960[970]
	2.3.1				Rear	kg	1515[1520]	1445[1450]	1685[1690]	1755[1760]	1685[1690]
Tyres	3.1	Tyre Type					Pneumatic	Pneumatic	Pneumatic	Pneumatic	
	3.2	Tyre Size	Front				6.50-10-10PR(I)	6.50-10-10PR(I)	6.50-10-10PR(I)	6.50-10-10PR(I)	
	3.3		Rear				5.00-8-8PR(I)	5.00- 8- 8PR(I)	5.00- 8- 8PR(I)	5.00- 8- 8PR(I)	
	3.5	Number of Wheels	Front/Rear (x=driven)				2*/2	2*/2	2*/2	2*/2	
	3.6	Tread, Front	b4			mm	890	890	890	890	
	3.7	Tread, Rear	b3			mm	895	895	895	895	
Dimensions	4.1	Tilting Angle	α / β	Forward/Backward		degree	6/10	6/10	6/10	6/10	
	4.2	Mast Height, Lowered	h1	2-stage Mast		mm	1995	1995	1995	1995	
	4.3	Std. Free Lift	h2	2-stage Std. Mast, from Ground		mm	140	140	140	140	
	4.4	Std. Lift Height	h3	2-stage Std. Mast, from Ground		mm	3000	3000	3000	3000	
	4.5	Mast Height, Extended	h4	2-stage Std. Mast		mm	3955	3955	3955	3955	
	4.7	Height, Overhead Guard	h6			mm	2030	2030	2030	2030	
	4.19	Length, with Std. Forks	L1			mm	3160	3200	3200	3200	
	4.20	Length, to Fork Face	L2			mm	2240	2280	2280	2280	
	4.21	Width, at Tyre	b1	Single		mm	1070	1070	1070	1070	
	4.22	Forks	s/e/l	Thickness x Width x Length		mm	35x100x920	35x100x920	35x100x920	35x100x920	
	4.23	Fork Carriage Class	ISO 2328, Type A/B/no				Class 2	Class 2	Class 2	Class 2	
	4.24	Width, Fork Carriage	b2			mm	970	970	970	970	
	4.31	Ground Clearance	m1	Under Mast		mm	120	120	120	120	
	4.32		m2	at Center of Wheelbase		mm	130	130	130	130	
	4.33	Right Angle Stacking Aisle	Ast	with L1000 x W1200 pallet		mm	3360	3395	3395	3395	
	4.34		Ast	with L1200 x W800 pallet		mm	3560	3595	3595	3595	
	4.35	Turning Radius	Wa			mm	1955	1990	1990	1990	
Performance	5.1	Travel Speed (FWD)	Loaded, 1st/2nd			km/h	18.5[8.5/18.5]	18.5[8.5/18.5]	18.5[8.5/18.5]	18.5[8.5/18.5]	
			Unloaded, 1st/2nd			km/h	19.0[9.0/19.0]	19.0[9.0/19.0]	19.0[8.5/19.0]	19.0[9.0/19.0]	
	5.2	Lifting Speed	Loaded			mm/s	570	620	590	570	
			Unloaded			mm/s	640	640	670	640	
	5.3	Lowering Speed	Loaded			mm/s	500	500	500	500	
			Unloaded			mm/s	550	550	550	550	
	5.6	Max. Drawbar Pull	Loaded			KN	10[11]	13[14]	10[11]	13[14]	
	5.8	Max. Gradeability	Loaded			%	26[27]	33[31]	25[24]	29[28]	33[32]
	5.10	Service Brake	Operation/Control				Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	
	5.11	Parking Brake	Operation/Control				Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	
	5.12	Steering	Type				FHPS	FHPS	FHPS	FHPS	
	6.4	Battery	Voltage/ Capacity at 5-hour rating			V/ah	12/64	12/33	12/64	12/33	
I.C Engine	7.1	Maker Model					Komatsu 4D92E	NISSAN K15	Komatsu 4D92E	NISSAN K21	
	7.2	Rated Output, SAE gross				KW	35@2450	27@2500	35@2450	35@2450	
	7.3	Rated RPM				min-1	2450	2500	2450	2450	
	7.3.1	Max. Torque, SAE gross				N•m•min-1	142@1800	113@1600	142@1800	152@1600	
	7.4	No. of Cylinders/Displacement				cm^3	4-2659	4-1486	4-2659	4-2065	
Others	7.6	Fuel Tank Capacity				Ltr	40	40	40	40	
	8.2	Relief Pressure for Attachment				bar	172	172	172	172	
	8.7	Transmission					TORQFLOW[Manual]	TORQFLOW[Manual]	TORQFLOW[Manual]	TORQFLOW[Manual]	

■Dimensions

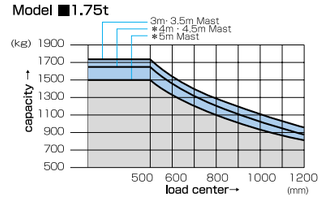


■Load capacity curve

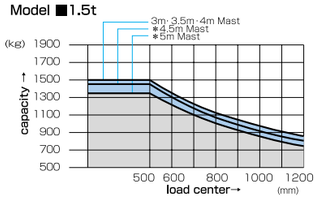
Model ■1.0t



Model ■1.75t



Model ■1.5t

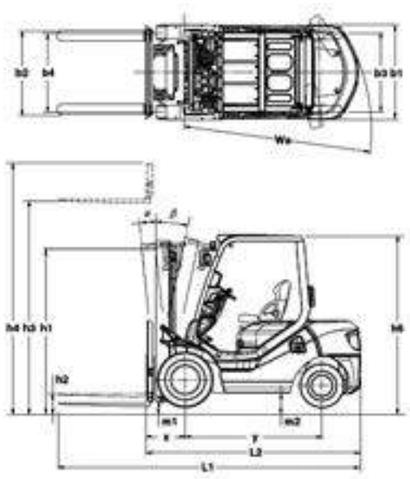


*Values when double tyres are installed.

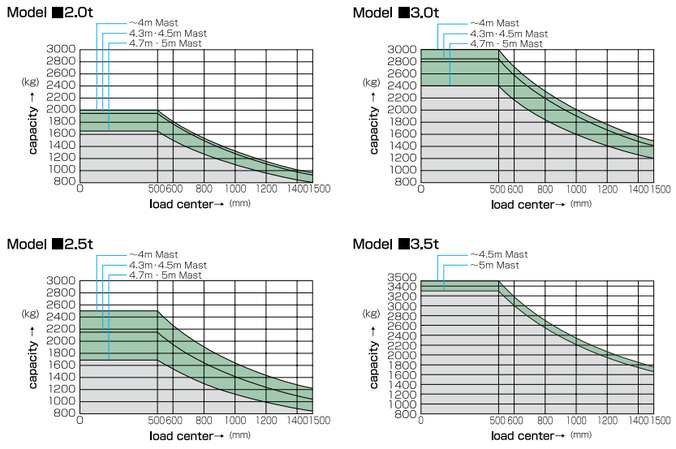
■BX50 Series Specifications

							FG20-16	FD20-16	FG20H-16	FD20H-16	FG25-16	FD25-16	FG25H-16	FD25H-16	FG30-16	FD30-16	FD30H-16	FG35AT-16	FD35AT-16	FG20NT-16	FD20NT-16	FG25NT-16	FD25NT-16	FG30NT-16	FD30NT-16
							TORQFLOW[Clutch]	TORQFLOW[Clutch]	TORQFLOW	TORQFLOW[Clutch]	TORQFLOW[Clutch]	TORQFLOW[Clutch]	TORQFLOW	TORQFLOW[Clutch]	TORQFLOW[Clutch]	TORQFLOW[Clutch]	TORQFLOW[Clutch]	TORQFLOW	TORQFLOW	TORQFLOW	TORQFLOW	TORQFLOW	TORQFLOW	TORQFLOW	TORQFLOW
Characteristics	1.3	Power Type	Electric, Diesel, Gasoline, LPG, Cable				Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel	Diesel	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
	1.4	Operation Type					Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting	Sitting
	1.5	Rated Capacity	Q	Rated Capacity		kg	2000	2000	2000	2000	2500	2500	2500	2500	3000	3000	3000	3500	3500	2000	2000	2500	2500	3000	3000
	1.6	Load Center	c	Rated Load Center		mm	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
	1.6.1	Alternative Capacity	Q2	Capacity@600mm Load Center		kg	1810	1810	1810	1810	2270	2270	2270	2270	2720	2720	2720	3180	3180	1810	1810	2270	2270	2720	2720
	1.8	Load Distance	x	Front Axle Center to Fork Face		mm	460	460	460	460	465	465	465	465	490	490	490	505	505	430	430	435	435	440	440
	1.9	Wheelbase	y			mm	1650	1650	1650	1650	1650	1650	1650	1650	1700	1700	1700	1700	1700	1400	1400	1400	1400	1450	1450
Weight	2.1	Service Weight				kg	3220[3230]	3310[3330]	3220	3310[3330]	3590[3600]	3680[3700]	3590	3680[3700]	4210[4230]	4310[4320]	4310[4320]	4910	5010	3230	3330	3630	3730	4070	4170
	2.2	Axle Loading	Loaded		Front	kg	4670[4680]	4700[4720]	4670	4700[4720]	5420[5430]	5460[5470]	5420	5460[5470]	6390[6400]	6430[6440]	6430[6440]	7440	7480	4600	4630	5350	5380	6250	6240
	2.2.1				Rear	kg	550[550]	610[610]	550	610[610]	670[670]	720[730]	670	720[730]	820[830]	880[880]	880[880]	970	1030	630	700	780	850	820	930
	2.3		Unloaded		Front	kg	1480[1480]	1510[1520]	1480	1510[1520]	1430[1430]	1460[1470]	1430	1460[1470]	1600[1610]	1640[1650]	1640[1650]	1820	1860	1250	1280	1140	1170	1260	1250
	2.3.1				Rear	kg	1740[1750]	1800[1810]	1740	1800[1810]	2160[2170]	2220[2230]	2160	2220[2230]	2610[2620]	2670[2670]	2670[2670]	3090	3150	1980	2050	2490	2560	2810	2920
Tyres	3.1	Tyre Type					Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic
	3.2	Tyre Size	Front				7.00-12-12PR(I)	7.00-12-12PR(I)	7.00-12-12PR(I)	7.00-12-12PR(I)	7.00-12-12PR(I)	7.00-12-12PR(I)	7.00-12-12PR(I)	7.00-12-12PR(I)	28x9-15-12PR(I)	28x9-15-12PR(I)	28x9-15-12PR(I)	250-15-16PR(I)	250-15-16PR(I)	22 1/4x7 1/2-15/5.50	22 1/4x7 1/2-15/5.50	22 1/4x7 1/2-15/5.50	22 1/4x7 1/2-15/5.50	22 1/4x7 1/2-15/5.50	22 1/4x7 1/2-15/5.50
	3.3		Rear				6.00-09-10PR(I)	6.00-09-10PR(I)	6.00-09-10PR(I)	6.00-09-10PR(I)	6.00-09-10PR(I)	6.00-09-10PR(I)	6.00-09-10PR(I)	6.00-09-10PR(I)	6.50-10-10PR(I)	6.50-10-10PR(I)	6.50-10-10PR(I)	6.50-10-12PR(I)	6.50-10-12PR(I)	17 3/4x6 1/2 -10/5.00	17 3/4x6 1/2 -10/5.00	17 3/4x6 1/2 -10/5.00	17 3/4x6 1/2 -10/5.00	17 3/4x6 1/2 -10/5.00	17 3/4x6 1/2 -10/5.00
	3.5	Number of Wheels	Front/Rear (x=driven)				2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2	2*/2
	3.6	Tread, Front	b4			mm	965	965	965	965	965	965	965	965	1005	1005	1005	1060	1060	900	900	900	900	900	900
	3.7	Tread, Rear	b3			mm	960	960	960	960	960	960	960	960	965	965	965	965	965	885	885	885	885	885	885
Dimensions	4.1	Tilting Angle	α / β	Forward/Backward		degree	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/10	6/10	6/10	6/10	6/10	6/10
	4.2	Mast Height, Lowered	h1	2-stage Mast		mm	1995	1995	1995	1995	1995	1995	1995	1995	2070	2070	2070	2100	2100	1995	1995	1995	1995	2070	2070
	4.3	Std. Free Lift	h2	2-stage Std. Mast, from Ground		mm	150	150	150	150	155	155	155	155	160	160	160	145	145	150	150	155	155	160	160
	4.4	Std. Lift Height	h3	2-stage Std. Mast, from Ground		mm	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	4.5	Mast Height, Extended	h4	2-stage Std. Mast		mm	4050	4050	4050	4050	4050	4050	4050	4050	4275	4275	4275	4280	4280	4050	4050	4050	4050	4275	4275
	4.7	Height, Overhead Guard	h6			mm	2070	2070	2070	2070	2070	2070	2070	2070	2090	2090	2090	2105	2105	2025	2025	2025	2025	2025	2025
	4.19	Length, with Std. Forks	L1			mm	3450	3450	3450	3450	3655	3655	3655	3655	3775	3775	3775	3865	3865	3260	3260	3475	3475	3535	3535
	4.20	Length, to Fork Face	L2			mm	2530	2530	2530	2530	2585	2585	2585	2585	2705	2705	2705	2795	2795	2340	2340	2405	2405	2465	2465
	4.21	Width, at Tyre	b1	Single		mm	1150	1150	1150	1150	1150	1150	1150	1150	1235	1235	1235	1290	1290	1090	1090	1090	1090	1090	1090
	4.22	Forks	s/e/l	Thickness x Width x Length		mm	36x122x920	36x122x920	36x122x920	36x122x920	40x122x1070	40x122x1070	40x122x1070	40x122x1070	44x122x1070	44x122x1070	44x122x1070	50x150x1070	50x150x1070	36x122x920	36x122x920	40x122x1070	40x122x1070	44x122x1070	44x122x1070
	4.23	Fork Carriage Class	ISO 2328, Type A/B/no				Class 2	Class 2	Class 2	Class 2	Class 2	Class 2	Class 2	Class 2	Class 3	Class 3	Class 3	Class 3	Class 3	Class 2	Class 2	Class 2	Class 2	Class 3	Class 3
	4.24	Width, Fork Carriage	b2			mm	1020	1020	1020	1020	1020	1020	1020	1020	1060	1060	1060	1060	1060	960	960	960	960	940	940
	4.31	Ground Clearance	m1	Under Mast		mm	115	115	115	115	115	115	115	115	135	135	135	135	135	105	105	105	105	105	105
	4.32		m2	at Center of Wheelbase		mm	160	160	160	160	160	160	160	160	185	185	185	185	185	115	115	115	115	115	115
	4.33	Right Angle Stacking Aisle	Ast	with L1000 x W1200 pallet		mm	3650	3650	3650	3650	3775	3775	3775	3775	3930	3930	3930	4055	4055	3410	3410	3555	3555	3620	3620
	4.34		Ast	with L1200 x W800 pallet		mm	3850	3850	3850	3850	3905	3905	3905	3905	4060	4060	4060	4185	4185	3610	3610	3685	3685	3750	3750
	4.35	Turning Radius	Wa			mm	2190	2190	2190	2190	2240	2240	2240	2240	2370	2370	2370	2480	2480	1980	1980	2050	2050	2110	2110
Performance	5.1	Travel Speed (FWD)	Loaded, 1st/2nd			km/h	18.5[8.5/18.5]	18.5[8.5/18.5]	19.0	18.5[8.0/18.5]	18.5[8.5/18.5]	18.5[8.5/18.5]	19.0	18.5[8.0/18.5]	18.5[8.5/18.5]	19.0[8.5/18.5]	18.5[8.0/18.5]	18.0	18.0	17.0	17.0	16.5	16.5	16.0	16.0
			Unloaded, 1st/2nd			km/h	19.0[9.0/19.0]	19.0[8.5/19.0]	19.5	19.0[8.5/19.0]	19.0[9.0/19.0]	19.0[8.5/19.0]	19.5	19.0[8.5/19.0]	19.5[9.0/19.5]	19.5[9.0/19.0]	19.0[8.5/19.0]	19.0	19.0	16.5	16.5	16.5	16.5	16.0	16.0
	5.2	Lifting Speed	Loaded			mm/s	545	630	620	660	545	630	620	660	450	520	550	410	450	545	630	545	630	515	520
			Unloaded			mm/s	600	685	670	710	600	685	670	710	500	555	595	450	490	600	685	600	685	550	555
	5.3	Lowering Speed	Loaded			mm/s	450	450	450	450	450	450	450	450	400	420	420	400	420	450	450	450	450	420	420
			Unloaded			mm/s	500	500	500	500	500	500	500	500	500	500	500	400	400	500	500	500	500	500	500
	5.6	Max. Drawbar Pull	Loaded			KN	14[14]	18[17]	19	22[21]	14[14]	18[17]	19	22[21]	18[18]	18[17]	21[21]	16	20	14	17	14	17	16	16
	5.8	Max. Gradeability	Loaded			%	28[27]	36[34]	38	45[44]	23[22]	31[29]	32	37[37]	26[25]	25[23]	30[30]	20	26	27	34	23	29	24	24
	5.10	Service Brake	Operation/Control				Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic	Foot/Hydraulic
	5.11	Parking Brake	Operation/Control				Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical	Hand/Mechanical
	5.12	Steering	Type				FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS	FHPS
	6.4	Battery	Voltage/ Capacity at 5-hour rating			V/ah	12/33	12/64	12/33	12/64	12/33	12/64	12/33	12/64	12/33	12/64	12/64	12/33	12/64	12/33	12/64	12/33	12/64	12/33	12/64
I.C Engine	7.1	Maker Model					NISSAN K21	Komatsu 4D94LE	NISSAN K25	Komatsu 4D98E	NISSAN K21	Komatsu 4D94LE	NISSAN K25	Komatsu 4D98E	NISSAN K25	Komatsu 4D94LE	Komatsu 4D98E	NISSAN K25	Komatsu 4D98E	NISSAN K21	Komatsu 4D94LE	NISSAN K21	Komatsu 4D94LE	NISSAN K25	Komatsu 4D94LE
	7.2	Rated Output, SAE gross				KW	35@2450	46@2450	43@2400	53@2400	35@2450	46@2450	43@2400	53@2400	43@2400	46@2450	53@2400	43@2400	53@2400	35@2450	46@2450	35@2450	46@2450	43@2400	46@2450
	7.3	Rated RPM				min-1	2450	2450	2400	2400	2450	2450	2400	2400	2400	2450	2400	2400	2400	2450	2450	2450	2450	2400	2450
	7.3.1	Max. Torque, SAE gross				Nm-min-1	152@1600	186@1800	186@1600	216@1700	152@1600	186@1800	186@1600	216@1700	186@1600	186@1800	216@1700	186@1600	216@1700	152@1600	186@1800	152@1600	186@1800	186@1600	186@1800
	7.4	No. of Cylinders/Displacement				cm^3	4-2065	4-3052	4-2488	4-3318	4-2065	4-3052	4-2488	4-3318	4-2488	4-3052	4-3318	4-2488	4-3318	4-2065	4-3052	4-2065	4-3052	4-2488	4-3052
Others	7.6	Fuel Tank Capacity				Ltr	58	58	58	58	58	58	58	58	58	58	58	58	58	40	40	40	40	40	40
	8.2	Relief Pressure for Attachment				bar	181	181	181	181	181	181	181	181	181	181	181	181	181	181	181	181	181	181	181
	8.7	Transmission					TORQFLOW[Manual]	TORQFLOW[Manual]	TORQFLOW	TORQFLOW[Manual]	TORQFLOW[Manual]	TORQFLOW[Manual]	TORQFLOW	TORQFLOW[Manual]	TORQFLOW[Manual]	TORQFLOW[Manual]	TORQFLOW[Manual]	TORQFLOW	TORQFLOW	TORQFLOW	TORQFLOW	TORQFLOW	TORQFLOW	TORQFLOW	TORQFLOW

■Dimensions

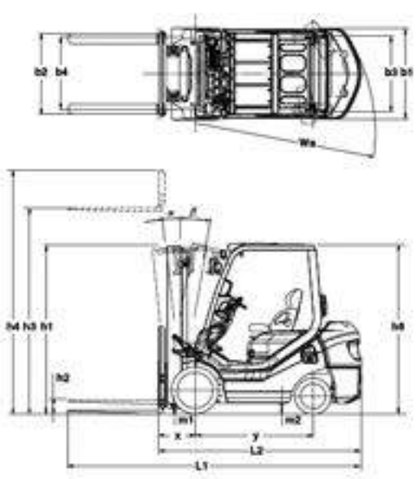


■Load capacity curve



109 Series

■Dimensions



■Load capacity curve