

AX50

SPECIFICATIONS



KOMATSU®

PNEUMATIC TIRE FORKLIFTS

3,000 – 3,500 LBS. CAPACITY | GAS AND LPG

GENERAL

1.2	Model	
1.3	Power Type	
1.4	Operation Type	
1.5	Capacity @ 24 in. (600 mm) load center *	lbs. (kg)
1.6	Load Center	in. (mm)
1.8	Load distance from center axle (2-stage)	in. (mm)
1.9	Wheelbase	in. (mm)

WEIGHT

2.1	Service weight (includes 2-stage std. mast & forks)	lbs. (kg)
2.2		Loaded Front lbs. (kg)
2.2.1	Axle Loading	Rear lbs. (kg)
2.3		Unloaded Front lbs. (kg)
2.3.1		Rear lbs. (kg)

TIRE

3.1	Tire type	
3.2	Tire size, front	
3.3	Tire size, rear	
3.5	Number of wheels, front / rear	x= driven
3.6	Tread (center of tires)	Front in. (mm)
3.7		Rear in. (mm)

DIMENSIONS

4.1	Tilting angle, 2-stage (FV) masts, forward / backward	deg.
4.1.1	Tilting angle, 3-stage (TFV) masts, forward / backward	deg.
4.2	Mast height, lowered (2-stage std. mast)	in. (mm)
4.3	Std. Free lift height (2-stage std. mast)	in. (mm)
4.5	Mast height, extended (2-stage std. mast) †	in. (mm)
4.6	Maximum fork height (2-stage std. mast) **	in. (mm)
4.7	Height overhead guard	in. (mm)
4.19	Length, with Standard Forks	in. (mm)
4.20	Length to fork face (2-stage mast)	in. (mm)
4.21	Overall width, at drive tires (single)	in. (mm)
4.22	Forks, thickness x width x length	in. (mm)
4.24	Carriage width / ITA Class	in. (mm)
4.31	Ground clearance, under mast	in. (mm)
4.32	Ground clearance, center of wheelbase	in. (mm)
4.33	Right angle stacking aisle (2-stage mast without load length & clearance) ††	in. (mm)
4.35	Turning radius, outside	in. (mm)

PERFORMANCE

5.1	Travel speed, forward, loaded / unloaded	mph (km/h)
5.2	Lifting speed, loaded / unloaded (2-stage mast)	fpm (mm/s)
5.3	Lowering speed, loaded / unloaded (2-stage mast)	fpm (mm/s)
5.6	Maximum drawbar pull, loaded	lbs. (kN)
5.8	Maximum gradeability	%
5.10	Service brake, operation/control	
5.11	Parking brake, operation/control	
5.12	Steering, type	

DRIVE

7.1	Engine Manufacturer / Engine model	
7.2	Rated output (SAE Net)	HP (kW) @ rpm
7.3.1	Maximum torque (SAE Net)	lb. – ft. (Nm) @ rpm
7.4	No. of cylinder / displacement	cu. in. (cm3)
7.6	Fuel tank capacity	U.S. gallons (liters)

OTHER

8.2	Relief pressure, maximum	psi (bar)
8.7	Transmission	

FG15HTU-20

LPG / Dual Fuel
Sit-Down
3,000 (1,360)
24 (600)
15.4 (390)
55.1 (1,400)

FG18HTU-20

LPG / Dual Fuel
Sit-Down
3,500 (1,580)
24 (600)
15.4 (390)
55.1 (1,400)

5,940 (2,695)

7,770 (3,525)
1,170 (530)
2,620 (1,190)
3,320 (1,505)

6,340 (2,875)

8,470 (3,840)
1,355 (615)
2,510 (1,140)
3,820 (1,735)

Pneumatic

6.50 - 10 - 10PR (I)
5.00 - 8 - 8PR (I)
2x / 2
35.0 (890)
35.2 (895)

Pneumatic

6.50 - 10 - 10PR (I)
5.00 - 8 - 8PR (I)
2x / 2
35.0 (890)
35.2 (895)

6 / 8

6 / 5
85.5 (2170)
5.5 (140)
176.0 (4470)
128.0 (3250)
81.5 (2,070)
129.7 (3,295)
87.6 (2,225)
42.1 (1,070)
1.6x3.9x42 (40x100x1070)
41.0 (1,040) / II
5.5 (140)
5.1 (130)
92.4 (2,345)
77.0 (1,955)

6 / 8

6 / 5
85.5 (2170)
5.5 (140)
176.0 (4470)
128.0 (3250)
81.5 (2,070)
131.3 (3,335)
89.2 (2,265)
42.1 (1,070)
1.6x3.9x42 (40x100x1070)
41.0 (1,040) / II
5.5 (140)
5.1 (130)
93.7 (2,380)
78.3 (1,990)

11.5 (18.5) / 11.8 (19.0)

116 (590) / 126 (640)
98.4 (500) / 108.3 (550)
3,700 (16.7)
39
Foot / Hydraulic
Hand / Mechanic
FHPS

11.5 (18.5) / 11.8 (19.0)

116 (590) / 126 (640)
98.4 (500) / 108.3 (550)
3,700 (16.7)
35
Foot / Hydraulic
Hand / Mechanic
FHPS

GCT / GK21

54 (40) @ 2700
117 (159) @ 1600
4 / 126 (2065)
10.6 (40)

GCT / GK21

54 (40) @ 2700
117 (159) @ 1600
4 / 126 (2065)
10.6 (40)

2,650 (181)

Powershift

2,650 (181)

Powershift

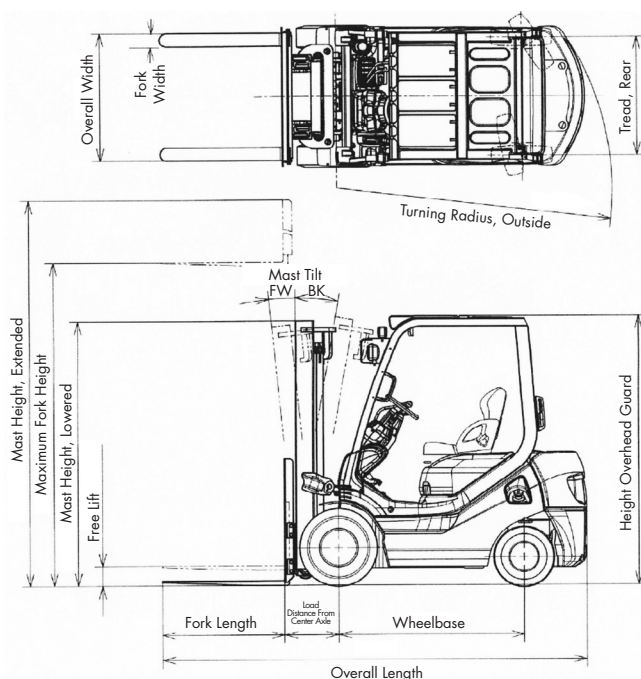
NOTE: Most values shown in this publication are rounded. Therefore, direct conversion between metric and English or Imperial may be slightly different from those shown. The performance of machines is affected by the condition of the truck and how it is equipped as well as the nature and condition of the operating area. If these specifications are critical or if your needs exceed the specifications shown here, discuss the proposed application with your authorized dealer.

*Optional masts, attachments, longer load dimensions, and higher lifting heights may result in derating of the capacity. Contact your authorized dealer.

**Other mast heights available. See MAST DATA chart for other standard mast heights. Contact your authorized dealer.

†Includes 48-inch (1,220 mm) high load backrest. Contact your authorized dealer.

††Add load distance and clearance. Contact your authorized dealer.



Maximum Fork Height in. (mm)	Mast Height Lowered in. (mm)	Mast Height Extended in. (mm)	Free Lift in. (mm)
EZview® FG15HTU / FG18HTU			
2-STAGE FREE VIEW (FV)			
82.0 (2,690)	60.5 (1,890)	130.0 (3,300)	5.5 (140)
106.0 (2,690)	74.5 (1,890)	154.0 (3,910)	5.5 (140)
116.0 (2,945)	79.5 (2,020)	162.0 (4,115)	5.5 (140)
128.0 (3,250)	85.5 (2,170)	176.0 (4,470)	5.5 (140)
146.0 (3,705)	94.5 (2,400)	194.0 (4,925)	5.5 (140)
158.0 (4,010)	100.5 (2,550)	206.0 (5,230)	5.5 (140)
170.0 (4,320)	106.5 (2,705)	218.0 (5,535)	5.5 (140)
3-STAGE FULL FREE VIEW (TFV)			
158.5 (4,025)	75.5 (1,920)	206.5 (5,245)	27.5 (700)
170.5 (4,330)	79.5 (2,020)	218.5 (5,550)	31.5 (800)
188.5 (4,785)	85.5 (2,170)	236.5 (6,010)	37.5 (950)
198.5 (5,040)	89.5 (2,275)	246.5 (6,260)	41.5 (1,055)
216.5 (5,500)	97.5 (2,475)	264.5 (6,720)	49.5 (1,255)
235.5 (5,980)	106.5 (2,705)	283.5 (7,200)	58.5 (1,485)

NOTE: Specifications for 4-Stage Full Free View (QFV) Masts are not indicated.
Please consult your authorized dealer for information.

SPECIAL FEATURES

- » EPA compliant GK21 industrial engine with high torque at low RPMs for power and fuel efficiency
- » Komfort Zone™ dual floating structure uses drive-train cushion mounts and suspension compartment mounts to isolate the operator from engine and floor vibration
- » New full floating transmission with high-capacity oil cooler for the torque converter, aluminum alloy transmission case for better heat dissipation, and highly reliable, dust-resistant, double-sealed universal joint design
- » Self-adjusting brakes with thicker drums improves heat resistance in severe duty applications
- » Improved steer axle with integral double-acting, double-ended cylinder, high-capacity king-pin needle bearings, and heavy-duty seals
- » EZview mast with improved visibility window, combined with low profile dash display, offers the operator an unrestricted view to the fork tips and surrounding area
- » Komatsu Operator Presence System (KOPS) Plus locks out lift, lower, tilt and travel functions when the operator leaves the seat for longer than three seconds

STANDARD EQUIPMENT

- » New low profile dash display – Fuel Gauge, Water Temperature Gauge and Hour Meter
- » Indicator lights – Neutral/Return to Neutral, Low Oil Pressure, Low Battery/Alternator, Hydraulic Lock (Operator Presence), Check Engine Warning, Maintenance Error Code
- » Drawbar Pin in Counterweight
- » Electronic Ignition, Anti-Restart Ignition Switch
- » Fully Hydrostatic Power Steering
- » Long-Life Headlights (OHG Mounted)
- » LED Tail/Stop/Rear Turn Lights
- » High-Mount Air Intake
- » Horn with Actuator on Center of Steering Wheel
- » Three-Piece Overhead Guard
- » Full Suspension Seat with Operator Restraint System and Orange Seat Belt
- » Three-Function Hydraulic Control Valve
- » Parking Brake with Double-Action Release
- » Tilting Steering Column
- » Large, Open Floor Space with Operator Compartment Suspended-Mount Pedals
- » Transmission Torque Converter Oil Cooler
- » Load Backrest

- » Spacious Step Area, Large Entry Handgrip and Wide-Open Floor Space allows easy entry/exit to the Komfort Zone
- » Engine Protection System
- » ITA Class II Fork Carriage
- » ITA Class II Forks
- » Critical Wiring Harness Connectors are Waterproof
- » Contoured, Easy-to-Grip, Hydraulic Control Lever Knobs

OPTIONAL EQUIPMENT

- » Warning Lights & Audible Travel Alarms
- » Tilt Cylinder Boots
- » Cotton-Core Radiator
- » Spinner Knob Steering Wheel
- » Dual-Fuel System
- » Optional Fork Lengths
- » Sideshifter – Hang-On or Integral
- » 4-Way Valve and Internal Hosing
- » Solid Pneumatic Tires
- » Fire Extinguisher
- » Non-Marking Solid Pneumatic Tires
- » Travel Speed Control
- » LPG Low Fuel Warning Alarm
- » Rear LED Worklights
- » Mirrors-Overhead Guard Mounted
- » Anti-Static Ground Strap

ENGINE

- GK21 (2.1 liter) LPG, 4-cylinder, in-line engines with Engine Concentrated Control Systems (ECCS) exceed EPA emissions standards. These low-RPM, high-torque industrial engines offer reduced maintenance requirements, exceptional emissions controls, fast acceleration, high performance, reliable durability and enhanced serviceability through engineering excellence.
- There are two engine fuel choices: LPG single-port (throttle body) fuel injection or a dual-fuel system with easy switching at the flip of a switch. All engines are equipped with 3-way catalytic converters and closed-loop exhaust systems.
 - All engines utilize an ECCS that continuously monitors data from the fuel pressure, accelerator throttle position, mass air-flow sensor, and heated oxygen sensor – for improved fuel economy, smooth operation, reliable starting in cold weather, and high performance throughout the operating range. An electronic throttle governor protects the engine against over-rev damage.
 - Crankshaft and camshaft position sensors provide information to the ECCS for optimum ignition and fuel injection timing. Each cylinder has an individual ignition coil for precise control and reliability.
 - An engine coolant temperature sensor and controller protects the engine against damage due to high engine temperature by automatically limiting engine speed during high-temperature operation. If the engine coolant temperature exceeds safe operation temperature, the engine will be shut down. An illuminated indicator on the instrument console indicates high-temperature operation, and gives the operator warning of engine shutdown.
 - The aluminum alloy cylinder head has large intake and exhaust valves and a semi-hemispherical combustion chamber for efficient fuel consumption.
 - The engine block is designed with five main bearings. All main and rod bearings are micro-grooved to improve lubrication and reduce wear.

FUEL SYSTEM

LPG or Dual-Fuel systems are available. The gasoline fuel tank is integral to the truck frame.

- In-tank mounted gasoline fuel delivery pump, fuel-level sensing unit, pressure regulator and filter are standard.
- LPG fuel system uses single-point, throttle body fuel injection. A removable 33 lb. fuel tank is available with a fold back tank-mounting bracket.

COOLING SYSTEM

The high-capacity aluminum radiator is designed with an efficient thermal transfer fin and integral oil cooler for the transmission torque converter.

- System design allows easy access to the reservoir for checking the coolant level.
- High-volume cooling fan uses flexible plastic blades and shroud for maximum air volume and noise abatement.

ELECTRICAL SYSTEM

Standard instrument package and operator conveniences:

- 12-volt electrical system
- 50A alternator with built-in IC regulator
- Key-lock, anti-restart ignition switch
- High-torque, low-amp starter motor with planetary gear reduction
- Waterproof electrical connectors
- Electric fuel gauge, water temperature gauge, LCD hour meter
- Indicator lights for Neutral/Return to Neutral, Low Oil Pressure, Low Battery/Alternator Output, Check Engine Warning, Hydraulic Lock (Operator Presence), and ECCS Status Code
- ECCS Service Support Tool connector for rapid system diagnostics

HYDRAULIC SYSTEM

The Hydraulic System features an integral reservoir, direct drive gear pump and fully filtered system.

- Large hydraulic fluid reservoir integral to the truck frame reduces heat buildup in the system.
- Load sensing valve in the hydraulic circuit reduces the flow of oil to the power steering system when steering wheel is idle.

FRAME

An all-welded assembly with heavy-gauge steel and integral hydraulic and fuel tanks provide exceptional durability.

- Welded front cross-member and bolted drive axle increase frame rigidity.
- Loads are transferred directly from the mast to the drive axle and onto the floor without being transmitted through the frame, reducing frame stress.
- Wide, open step area, with non-slip surface facilitates easy operator entry and exit.

DRIVE AXLE

A heavy-duty, cast steel drive axle housing supports the load and chassis without placing a load on the free-floating axle shafts. A flange is mounted to the truck frame to improve load distribution and reduce frame flexing.

TRANSMISSION

Komatsu Torqflow single-speed, powershift transmission is specifically designed for industrial applications.

- Column-mounted electrical shift lever gives the operator easy directional control without removing a hand from the steering wheel.
- Optimized stall ratio for torque converter provides high torque without sacrificing travel speed.
- A modulating control valve absorbs initial pressure spikes during initial engagement and directional change. This improves shifting capabilities and prolongs the life of the entire drive train.
- Transmission oil is double-filtered by a 125-micron mesh on pickup, and a 35-micron cartridge on the return line.
- Transmission oil cooler is integral with the radiator.
- Inching control and auxiliary brake pedal combination allows the operator precise truck positioning with positive control.

BRAKES

Hydraulic brakes are self-energizing and self-adjusting.

- Brake fluid reservoir is located under the console cover for fast, easy inspection and maintenance.
- High-friction brake shoes are free of asbestos.
- Heavy-duty brake backing plate and thick brake drum provide reliable braking action and reduced heat.
- Mechanical parking brake has two-stage latching mechanism for positive engagement.

STEER AXLE

Fully Hydrostatic Power Steering is standard.

- Heavy-duty fabricated steer axle has double-acting, double-ended power steering cylinder and no drag links or tie rods.
- Steering stops are machined into the steering cylinder to reduce stress impact on steering linkages.
- Grease fittings on all linkages are accessible without lifting the truck.

MAST, CARRIAGE, LBR AND FORKS

High-visibility EZview mast assembly has a 4-roller carriage that is available in two-, three-, and four-stage Free Lift, Free View designs.

- Sealed bearings require no maintenance.
- Angle-mounted bearings and a shaped rail flange prevent excessive wear and friction, while maintaining correct side thrust clearance.

- ITA Class II carriages accept a variety of fork sizes and common load-handling attachments.
- 48-inch-high load backrest is standard for increased load control and operator protection.
- Single or double auxiliary hydraulic-function internal hose routing is available.

OPERATOR COMPARTMENT

A unique Komfort Zone suspension compartment isolates the operator from the floor surface and from engine vibrations, for greater operator comfort and productivity.

- Full suspension Komfort "S" vinyl seat with orange retractable seat belt, operator restraint system, backrest, operator weight and front to back adjustability.
- Hydraulic control levers are positioned for optimum access and ease of use. International symbols on the contoured grips indicate the function.
- Tilting steering console has small-diameter steering wheel and electronic instrumentation. Tilt is infinitely adjustable, with extended room between the engine cover and console.
- Wide-open floorboard has suspended brake and inching pedals with ribbed rubber pads for comfort and safety. Integral accelerator mechanism has a transfer roller for smooth operation.
- Full-width rubber floor mat provides a large, non-slip surface and reduces noise, vibration and heat in the Komfort Zone.
- Large, open steps with a traction surface and a large handgrip provide easy entry and exit for the operator.
- Standard headlight/turn indicator control lever is mounted on the steering column for easy use.
- Full-width overhead guard provides excellent visibility for high stacking and meets or exceeds ITSDF requirements.

SERVICEABILITY

The engine and transmission can be easily accessed for daily inspection without the use of any tools.

- Single-piece, all-steel engine cover and seat support is fully insulated to reduce noise and heat transfer to the Komfort Zone.
- Engine cover has gas-filled cylinder with an automatic locking device to assist in opening and to prevent the cover from unexpectedly closing.
- Easy-access, easy-operation engine cover latch is recessed to prevent interference when entering and exiting the operator compartment.
- Engine cover is shaped for easy access into the engine area for maintenance and service.

COMPLIANCE, APPROVALS AND ENVIRONMENTAL CONCERNS

Designed for maximum recycling at end of life, with special attention to materials and construction. Counterweight designed for breakup during recycling process. Transmission case is recyclable aluminum.

Komatsu forklifts meet or exceed American National Standard Institute, ITSDF B56.1-Part III Safety Standards for Powered Industrial Trucks.

Classified by Underwriters Laboratories, Inc. for fire hazard only. Contact your dealer for application-specific requirements. Meets or exceeds EPA emissions standards 40 CFR.

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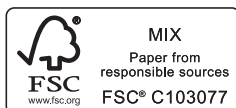
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