KOMATSU®

D61EX-23M0

D61EX-23M0

NET HORSEPOWER
168 HP @ 2200rpm
125 kW @ 2200rpm

OPERATING WEIGHT
D61EX-23M0 19610 kg

BLADE CAPACITY
3,4 m^3

PHOTOS MAY INCLUDE OPTIONAL EQUIPMENT

WALK-AROUND

Genuine Answer for Land and Environment Optimization

SAA6D107E-1 turbocharged after-cooled diesel engine provides an output of 125 kW 168 HP with excellent productivity, and is PROCONVE/MAR-I emission certified.

Engine side door and covers for **Easy Servicing**.

High capacity **Power angle tilt dozer** combines the highest power in its class with outstanding productivity.

Blade tilt lines completely protected.

Photos may include optional equipment

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BLADE CAPACITY
Power Angle Tilt Dozer
3,4 m³

OUTSTANDING PRODUCTIVITY & FUEL ECONOMY

New Power and Economy modes: Full power when you need it and Economy mode to save fuel when you don't.

New engine and hydrostatic pump control technology improves operational efficiency and lowers fuel consumption.

Photos may include optional equipment.

Komatsu-integrated design, for the best value, reliability, and versatility. Hydraulics, power train, frame, and all other major components are engineered by Komatsu. You get a machine whose components are designed to work together for higher production, greater reliability, and more versatility.

Hydraulic driven radiator cooling fan controlled automatically, reduces fuel consumption and operating noise levels.

Rear hydraulics (optional)

Rear view monitoring system (optional)

Advanced diagnostic system continuously monitors machine operation and vital systems to identify machine issues and assist with troubleshooting.

Integrated ROPS cab features:
- Large, quiet, and pressurized cab
- Excellent visibility with integrated ROPS structure

Improved durability
- Heavy-plate steel used throughout
- Dozer frame with full steel castings
- New HD final drives with triple labrynth seals
- Komatsu designed and manufactured components

Self-adjusting idler support provides constant and even idler tension, reducing vibration and increasing undercarriage life.

Power Angle Tilt (PAT) dozer with manually adjustable blade pitch increases productivity in a variety of applications.

Complete operator blade control
- Palm Command Control System (PCCS)
- Electronic Proportional Control (EPC)
- Adjustable Quick shift and Variable shift modes
- New blade angle switch

New more efficient HST with electronic control
- Customizable Quick shift (3 speed) settings for the operator
- Variable speed selection (20 speeds)
- Low speed matching technology (larger displacement pumps/ efficient engine speed)

Large color monitor
- Easy-to-read and use large 7" high-resolution multi-color monitor
- ECO guidance
- On-board diagnostics

Enhanced provision for Topcon® machine control (optional). Bolt-on finishing kit (optional) makes machine Topcon® plug-and-play.

KOMTRAX™

Komtrax equipped machines can send location, SMR and operation maps to a secure website utilizing wireless technology. Machines also relay error codes, cautions, maintenance items, fuel levels, and much more.

See what you ha

Unrivaled Blade Visibility

The D61EX-23M0 incorporates Komatsu's super-slant nose design. Komatsu's innovative design provides excellent blade visibility for improved machine control and increased efficiency and productivity.


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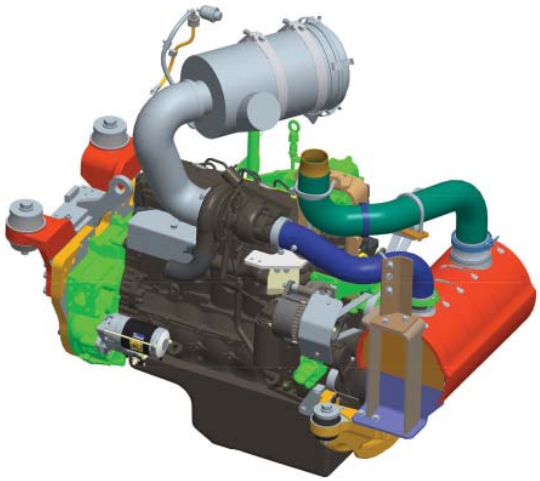
PRODUCTIVITY FEATURES

Engine

The Komatsu SAA6D107E-1 engine delivers 168 HP (125kW) at 2200 rpm. The fuel-efficient Komatsu engine, together with the heavy machine weight, make the D61EX-23M0 superior crawler dozers in both ripping and dozing operations.
The engine is PROCONVE MAR-I emission certified, and features direct fuel injection, turbocharger, air-to-air and aftercooler to maximize fuel efficiency.
To minimize noise and vibration, the engine is mounted to the main frame with rubber cushions.



Hydraulic drive radiator cooling fan

Fan rotation is automatically controlled depending on coolant and hydraulic oil temperature, saving fuel consumption and providing great productivity with a quiet operating environment.

Work equipment

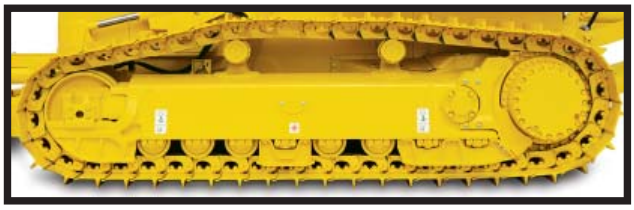
Large blade

Capacities of **3.4 m³** 4.4 yd³ (standard) and **3.8 m³** 5.0 yd³ (optional) for PAT dozer, yield outstanding production.
High-tensile-strength steel has been incorporated into the front and sides of the blade for increased durability.

Undercarriage

Low drive and long track undercarriage

Komatsu's design is extraordinarily tough and offers excellent grading ability and stability.
The track seal life is increased by using large-size bulldozer type seals.



High efficiency fuel filter

A new high efficiency fuel filter improves fuel system reliability.
The dual-type filter offers twice the filtration capacity.

Photos may include optional equipment

New HST Technology

The D61EX-23M0 incorporates new proprietary engine and hydrostatic transmission pump control technology to improve operational efficiency and reduce fuel consumption to levels lower than a conventional HST control system can obtain. This Komatsu exclusive feature reduces fuel consumption by up to 10% in P mode in demanding working conditions and up to 20% in E mode under lighter load conditions as compared to the prior model.
Powerful turns under various work conditions are achieved with the new HST transmission, even under load. Counter-rotation is available for minimum turning radius, providing excellent maneuverability in tight spots.

Variable and New Customizable Quickshift Modes

The D61EX-23M0 offers two gearshift modes: Variable and the new Customizable Quick shift. Variable shift mode provides 20 incremental speed settings for the operator, while the new Customizable Quick shift provides 3 speed settings; all can be adjusted in the monitor to obtain the right speed for different operator preferences.

Single Pedal (Decelerator/Brake Pedal) to be operated for Speed Control, during Operation

Machine operation becomes simple because brake function has been integrated into decelerator pedal. Machine moving speed including/excluding engine speed can be controllable by using only one pedal of decelerator/brake pedal. Operation of pedal function can be changed by the mode selector switch.

Decelerator mode

The pedal can decelerate engine RPMS and vehicle travel speed. Normally can be used for all applications.

Brake mode

The pedal can decelerate vehicle travel speed, keeping high engine revolution. This mode can be helpful to keep work equipment controllability and/or force, even during braking.

WORKING ENVIRONMENT

Selectable Working Mode

Working mode E is for general dozing applications with adequate speed and power while reducing fuel consumption and CO2. Working mode P is aimed at powerful operation and maximum production.
The working mode is easily switched on the monitor panel, depending on the work at hand.

- **E mode (Economy mode)**
  With E mode, the engine outputs enough power for most general dozing applications without delivering unnecessary power. This mode allows for energysaving operation and is suitable for work on ground where the machine may experience shoe slip or applications not requiring large power such as downhill dozing, leveling and light-load work.

- **P mode (Power mode)**
  With P mode, the engine outputs its full power, allowing the machine to perform large production, heavy-load, or uphill work.

Photos may include optional equipment

Other Features

Power Angle Tilt (PAT) Dozer With Adjustable Pitch

A Power Angle Tilt dozer blade with highly durable box-structure frame is available for the EX machines.
The hydraulic blade tilt and angling functions and manually adjustable blade pitch expand versatility and productivity in a variety of applications. This PAT dozer assembly is tested to stringent test standards.

Photos may include optional equipment

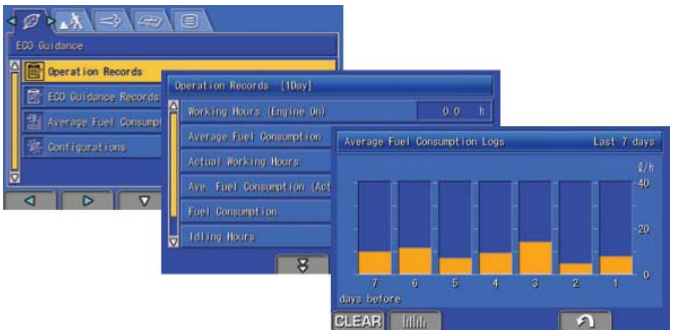
Secondary Engine Shutdown Switch

A new secondary switch has been added, at the side of the front console, to shut down the engine.

ECO Guidance

In order to support to optimum operation, the following 4 recommendations are displayed to improve fuel saving operation:
1) Avoid Excessive Engine Idling
2) Use Economy Mode to Save Fuel
3) Avoid Hydraulic Relief Pressure
4) Avoid Overload

The operator can access the ECO guidance menu to check the Operation Records, Eco Guidance Records, and Average Fuel Consumption logs



Rear View Monitoring System (optional)

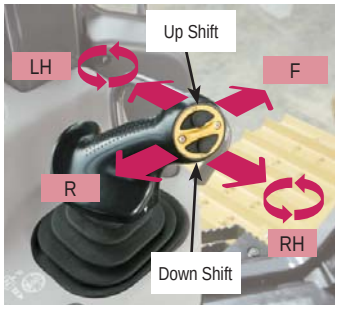
On the large LCD color monitor, the operator can view, through one camera, areas directly behind the machine. This camera can be synchronized with reverse operation.

Photos may include optional equipment

WORKING ENVIRONMENT

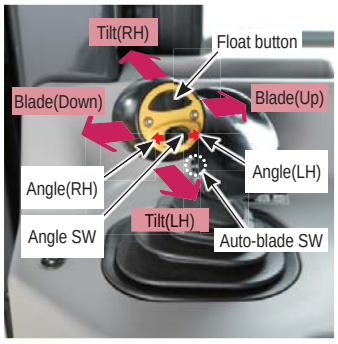
New Integrated ROPS Cab
A new design cab; wider, deeper and taller, is integrated with the ROPS. High rigidity and superb sealing performance greatly reduce noise and vibration for the operator and minimize dust entering the cab. Larger glass area improves visibility of the blade, sides, and rear of the machine. Cab meets ROPS and FOPS Level 2 standards.

Palm Command Control System (PCCS) Travel Joystick
Palm command travel joystick provides the operator with a relaxed posture and superb fine control. Transmission shifting is simplified withthumb push buttons.



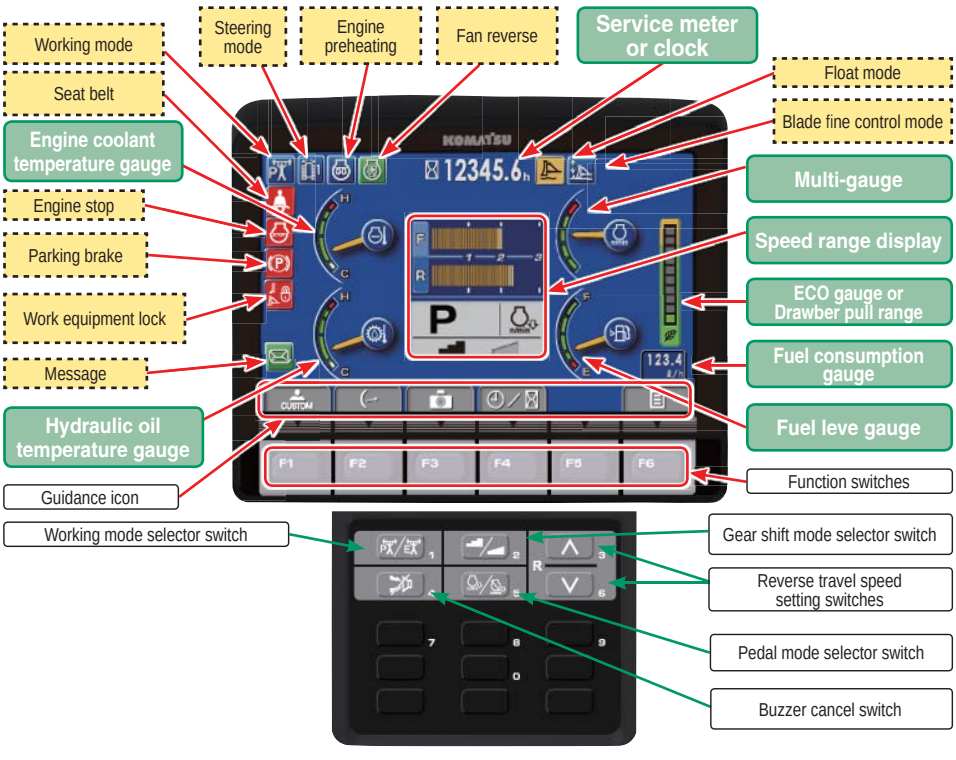
Suspension Seat
The seat has many adjustments to accomodate different operators comfortably.

Electronic Controlled Hydraulic System (EPC) Blade Control Joystick
Blade control joystick uses the EPC valve and joystick, similar to the travel control joystick. EPC control combined with the highly reliable Komatsu hydraulic system enables superb fine control.
A switch is now used to angle the PAT blade. A button to activate float is also provided.



Auxiliary Input Jack
By connecting an auxiliary device to this plug input, the operator can hear sound through the speakers installed in the cab.

Large Multi-Lingual LCD Color Monitor
A large user-friendly color monitor enables accurate and smooth work. Excellent screen visibility is achieved by the use of a TFT liquid crystal display that can easily be read at various angles and lighting conditions. Simple and easy to operate switches. Function keys facilitate multi-function operations.
Data can be displayed in 25 languages for local customization.



MAINTENANCE & DURABILITY FEATURES

Planned maintenance is the best way to ensure long service life from your equipment. That's why Komatsu designed the D61EX-23M0 with conveniently located maintenance points to make necessary inspections and maintenance quick and easy.

Hydraulically-Driven Swing-up Fan

The D61EX-23M0 utilizes a swing-up fan with a gas strut-assisted lift locking system to provide easy access to the (side-by-side) radiator, oil cooler, and charge air cooler.
The swing-up feature makes it easier to access cooling cores.
The hydraulic fan has a "cleaning" mode. The fan rotates in the reverse direction and helps to clear off objects in front of the cooling areas.

Photos may include optional equipment

Daily Checks

All daily checks can be performed efficiently from the left side of the machine.

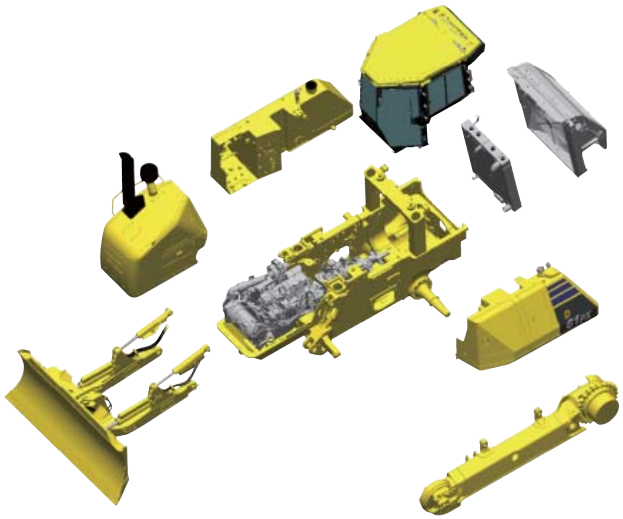
Photos may include optional equipment

Self-Adjusting Idler Support

The self-adjusting idler support provides constant and even tension on idler guide plates reducing noise and vibration and increasing undercarriage life.

Modular Design

One of the design goals behind the creation of the D61EX-23M0 was to manufacture a more durable machine. This was achieved by reducing component complexity and using a strong modular design for increased serviceability and durability. Steel castings reduce the number of welds, improving C-frame rigidity and strength.



KOMTRAX EQUIPMENT MONITORING

GET THE WHOLE STORY WITH KOMTRAX™

✓ WHAT

- KOMTRAX is Komatsu's remote equipment monitoring management system.
- KOMTRAX **continuously monitors and records** machine health and operational data.
- Information such as fuel consumption, utilization, and a detailed history **aids in making repair or replacement decisions.**

✓ WHO

- KOMTRAX is **standard** equipment on all Komatsu construction products.

✓ WHEN

- Know when your machines are **running or idling** and make decisions that will improve your fleet utilization.
- Detailed movement records ensure you know when and where your equipment is moved.
- Up to date records allow you to **know when maintenance was done** and help you plan for future maintenance needs.

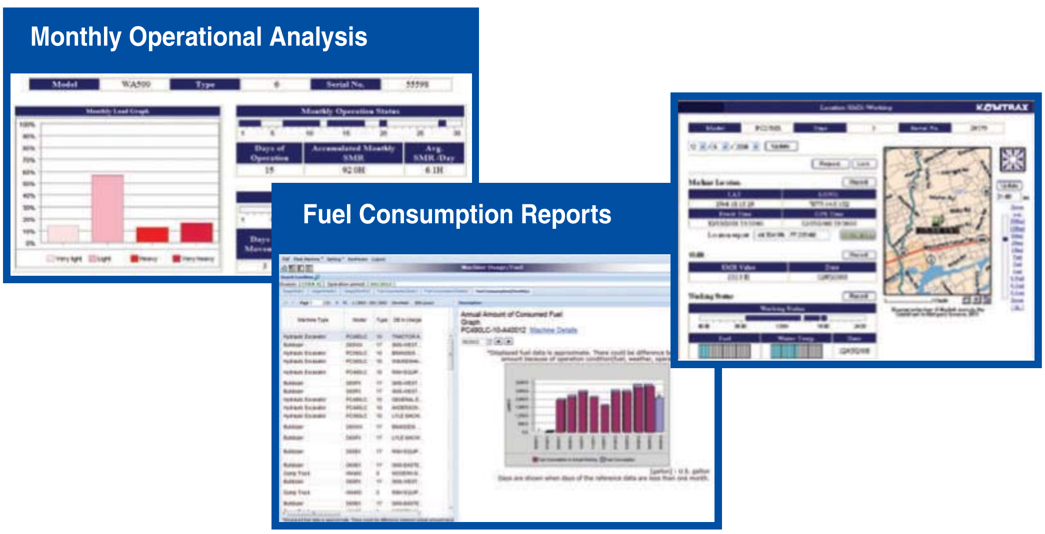
✓ WHERE

- KOMTRAX data **can be accessed virtually** anywhere through your computer, the web or your smart phone.
- Automatic alerts keep fleet managers up to date on the latest machine notifications.

✓ WHY

- Knowledge is power - **make informed decisions** to manage your fleet better.
- Knowing your idle time and fuel consumption will help maximize your machine efficiency.
- **Take control of your equipment** - any time, anywhere

Photos may include optional equipment



KOMTRAX™

For construction and compact equipment.

KOMTRAX Plus

For production and mining class machines.

SPECIFICATIONS

MOTOR

Model..... Komatsu SAA6D107E-1
Type..... 4-cycle, water-cooled, direct injection
Number of cylinders..... 6
Aspiration.....Turbocharged, air-to-air aftercooled
Bore x stroke..... 107 mm x 124 mm
Piston displacement .....6,69 ℓ
Governor.....All-speed and mid-range, electronic
Horsepower
SAE J1995.....Gross 127 kW (170 HP)
(ISO 14396..... 126 kW (169 HP)
ISO 9249 / SAE J1349.....Net 125 kW (168 HP)
Rated rpm.....2200 rpm
Fan drive type.....Hydraulic
Lubrication system
Method..... Gear pump, force lubrication
Filter..... Full-flow

*PROCONVE MAR-I emission certified.

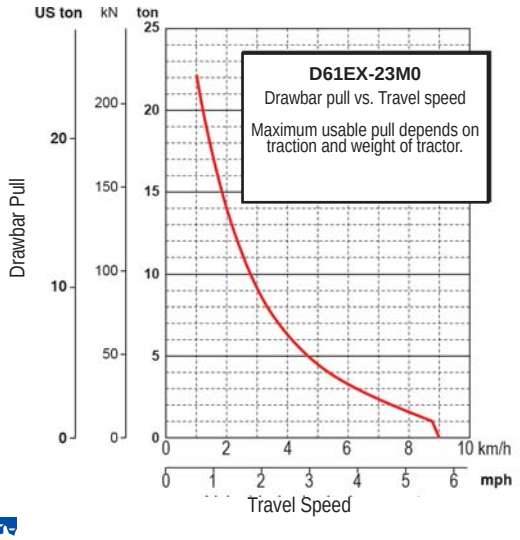
HYDROSTATIC TRANSMISSION

Dual-path, hydrostatic transmission provides infinite speed changes up to 9.0 km/h. The variable capacity travel motors allow the operator to select the optimum speed to match specific jobs.
Travel control lock lever and neutral switch.

Travel speed (quick shift mode)*	Forward	Reverse
1ª	0 – 3,4 km/h	0 – 4,1 km/h
2ª	0 – 5,6 km/h	0 – 6,5 km/h
3ª	0 – 9,0 km/h	0 – 9,0 km/h

Travel speed (variable mode)	Forward	Reverse
	0 – 9,0 km/h	0 – 9,0 km/h

*Quick shift speeds are adjustable in the monitor.



FINAL DRIVES

In-shoe mounted axial piston type travel motors with integrated two-stage planetary gear reduction. Compact in-shoe mount reduces risk of damaged by debris. Bolt-on sprocket teeth for easy displacement.

STEERING SYSTEM

Palm Command Control System (PCCS) joystick control for all directional movements. Pushing the joystick forward results in forward machine travel, while pulling it rearward reverses the machine. Simply tilt the joystick to the left or right to make a turn.

Tilting the joystick fully to the left or right activates counter-rotation.

Hydrostatic Transmission (HST) provides smooth powerful turns.
Fully electronic control enables smooth control that can be adjusted in the monitor. The PCCS utilizes shift buttons to increase and decrease speed.

Minimum turning radius*
D61EX-23M0: .....2,1 m
*As measured by track marks on the ground at pivot turn.

UNDERCARRIAGE

Suspension..... Oscillating-type with equalizer bar and pivot shafts
Track roller frame.....Monocoque, large section, durable construction
Rollers and idlers.....Lubricated track rollers
Track shoes .....Lubricated tracks. Unique dust seals for preventing entry of foreign abrasives into pin-to-bushing clearances for extended service. Track tension is easily adjusted with a grease gun.

	D61EX-23M0
Number of track rollers (each side)	8
Type of shoes (standard)	Single grouser
Number of shoes (each side)	46
Grouser height	57,5 mm
Shoe width (standard)	600 mm
Ground contact area	37980 cm^2
Ground pressure (with dozer, ROPS cab, without Ripper)	46,1 kPa 0,47 kgf/cm^2
Track gauge	1900 mm
Length of track on ground	3165 mm

SERVICE REFILL CAPACITIES

Coolant ..... 45 ℓ
Fuel tank..... 372 ℓ
Engine oil..... 27 ℓ
Hydraulic tank..... 101 ℓ
Final drive (each side) ..... 8,1 ℓ

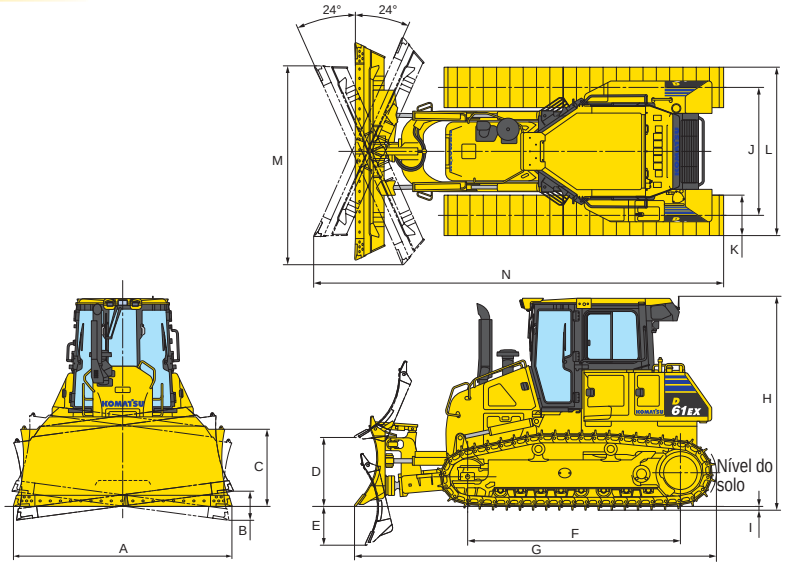
OPERATING WEIGHT

Operating weight:
Including Power Angle Tilt dozer, ROPS cab, operator, standard equipment, rated capacity of lubricant, hydraulic control unit, coolant, full fuel tank and Ripper.
D61EX-23M0 .....19.610 Kg

DIMENSIONS

	D61EX-23M0
A	3250 mm
B	435 mm
C	1195 mm
D	1025 mm
E	580 mm
F	3165 mm
G	5480 mm
H	3180 mm
I	57.5 mm
J	1900 mm
K	600 mm
L	2500 mm
M	2980 mm
N	6100 mm

Ground clearance.....390 mm



HYDRAULIC SYSTEM

Closed-center Load Sensing System (CLSS) designed for precise and responsive control, and for efficient simultaneous operation.

Hydraulic control unit:

All spool control valves externally mounted remote to the hydraulic tank. Piston-type hydraulic pump with capacity (discharge flow) of 171 ltr/min at rated engine rpm.

Relief valve setting ..... 27,4 Mpa 280 kg/cm²
Hydraulic cylinders ..... Double-acting, piston type

	Number of cylinders	Bore
Blade lift	2	100 mm
Blade tilt	1	120 mm
Blade angle	2	110 mm

Capacidade de óleo hidráulico (reabastecimento):
Lâmina de inclinação e angulação hidráulicas.....101 ℓ

Control valves:
3-spool control valve for Power Angle Tilt dozer.
Positions:
Blade lift .....Raise, hold, lower, and float
Blade tilt ..... Right, hold, and left
Blade angle ..... Right, hold, and left

Additional control valve required for ripper
Positions:
Ripper lift..... Raise, hold, and lower

DOZER EQUIPMENT

Blade capacities are based on the SAE recommended practice J1265.
Use of high tensile strength steel in moldboard for strengthened blade construction.

D61EX-23M0	Overal Lenght With Dozer (mm)	Blade Capacity (m^3)	Blade Width x Height (mm)	Max. Lift Above Ground (mm)	Max. Drop Below Ground (mm)	Max. Tilt Adjustment (mm)
Narrow Blade (standard)	5480	3,4	3250 x 1195	1025	580	435
Wide Blade (optional)	5480	3,8	3860 x 1155	1025	580	515

NOTES

D61EX-23M0

STANDARD EQUIPMENT FOR BASE MACHINE

- Air cleaner, double element with dust indicator
- Alternator, 60 ampere/24V
- Backup alarm
- Two Batteries, 170 Ah 12V x 2
- Battery disconnect switch
- Blade lift cylinders
- Color monitor, LCD
- Decelerator pedal (single pedal)
- Engine hood
- Engine intake centrifugal precleaner
- Engine, swing open side cover
- Engine shutdown secondary switch
- Front pull hook
- High mount foot rests
- Horn, warning
- Hydraulic driven radiator cooling fan with reverse clean mode
- Locks, filler caps and covers
- Muffler with curved exhaust pipe
- Radiator mask, heavy-duty, swing up
- Radiator reserve tank
- ROPS cab *
- Air conditioner
- Cab accessories
  - 12V power supply (2 ports)
  - Cup holder
  - Rearview mirror
  - Rear view monitoring (1 camera)
  - AM/FM Radio w/remote AUX plug (3.5 mm)
  - 76 dBA
- Work lights
  - 3 front, cab mounted
  - 2 rear, cab mounted
- Suspension seat, fabric and heater
- Seat belt, 78 mm, retractable
- Seat belt indicator
- Sealed electrical connectors
- Side by side rear mounted cooling package
- Starting motor, 5.5 kW/24V
- Steering system, hydrostatic
- Track roller guards, center and end sections
- 600 mm 24” single grouser shoe
- Transmission with Variable and Customizable Quickshift
- Sapata de garra simples de 600 mm
- Transmission with Variable and Customizable Quickshif
- Transmission, hydrostatic
- Underguards, heavy duty
  - Engine
  - Transmission
- Water separator

* Cab meets ROPS and FOPS Level 2 standards

OPTIONAL EQUIPMENT

- Topcon® Plug-N-Play bolt-on finishing kit
- Drawbar, long type
- Rear Hydraulic Piping, Provision for rear 1-attachment
- Rear view monitoring (1 camera)
- Track roller guard, full length

Multi-shank ripper

Weight .....1757 kg
Beam length ..... 2170 mm
Maximum lift above ground ..... 560 mm
Maximum digging depth ..... 665 mm

KOMATSU®

KESS083700