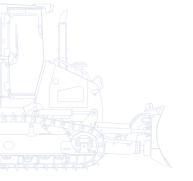
KOMATSU



Crawler Dozer

D61EXi/PXi-23



ENGINE POWER 126 kW / 169 HP @ 2.200 rpm

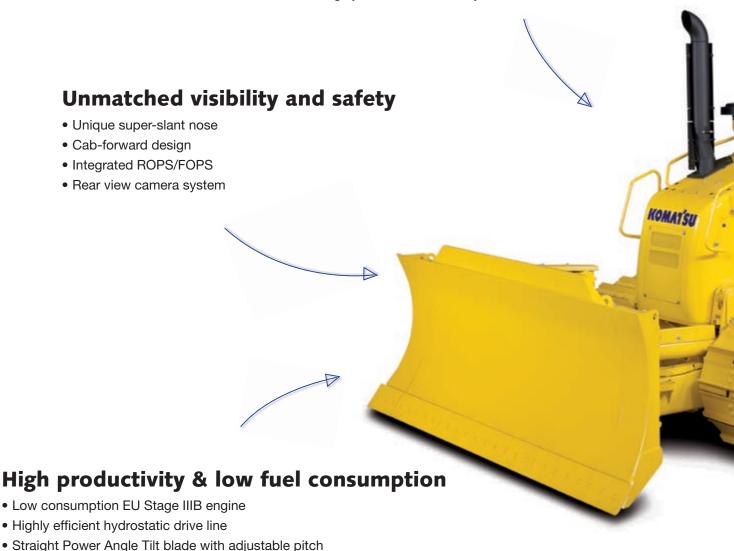
OPERATING WEIGHT D61EXi-23: 17.890 kg D61PXi-23: 18.770 kg

Walk-Around

The Komatsu D61EXi/PXi-23 Intelligent Machine Control dozer offers an outstanding improvement in productivity with its innovative and fully automatic blade control function that performs both rough dozing and finish grade in automatic mode. All machine control components are integrated into the dozer at the factory, and work together with other Komatsu machine parts to deliver optimal production levels. With a super-slant nose and rear mounted cooler, the D61EXi/PXi-23 dozer is reliable and versatile and offers the best value for your money. In fact, it is unique on the market today.

Intelligent Machine Control

- 3D GNSS system
- Integrated & standard factory installed
- · Automated operation from rough dozing to finish grade
- Highly increased efficiency



• Electronically-controlled, hydraulically-driven fan

First-class operator comfort

- Outstanding 360° visibility
- Large and quiet pressurized cab
- Easy control with Palm Command Control System joysticks (PCCS)
- Air-suspended driver seat positioned close to centre of gravity

ENGINE POWER 126 kW / 169 HP @ 2.200 rpm

> OPERATING WEIGHT D61EXi-23: 17.890 kg D61PXi-23: 18.770 kg



High reliability and durability

- Komatsu PLUS undercarriage standard
- Modular power train design
- Heavy-plate steel used throughout
- Main frame made with welded and cast parts

Intelligent Machine Control

Innovative Intelligent Machine Control

The D61EXi/PXi-23 comes with a fully factory installed 3D Global Navigation Satellite System (GNSS) Machine Control system. Add-on components for machine control typically mounted on the blade are now replaced with a factory installed cab top GNSS antenna, an enhanced inertial measuring unit (IMU+), and with stroke sensing hydraulic cylinders. This integrated sensor package is robust and accurate. It eliminates the daily hassles of installing and removing antennas and cables from the blade, and the wear associated with it.

Automatic dozing from start to finish

While high-precision finish grading can be achieved by dozers with a conventional control system, the D61EXi/PXi-23 can also perform rough dozing in automatic mode. When rough dozing, the fully automatic blade control monitors blade load and adjusts blade elevation, to minimize track slip and perform high-efficiency dozing. Blade control adjusts to provide finish grade performance with high-level precision.





Intelligent Machine Control



Factory integrated

All components for machine control are installed during assembly at the Komatsu manufacturing facility, ensuring a reliable and high quality installation. Komatsu customer support is extended to the machine control system itself.



Cab top GNSS antenna

No more worries about blade mounted antennas or cables. The cab top GNSS antenna on your D61EXi/PXi-23 reduces risk of damage and theft.



Enhanced inertial measuring unit (IMU+)

Chassis mounted enhanced inertial measuring unit (IMU+) and intelligent logic provides for finish grade accuracy without blade mounted sensors. Positional updates up to 100 times/second, for high speed automatic operations.



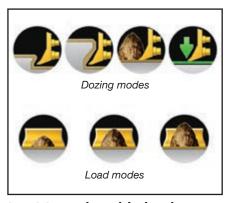
Stroke sensing hydraulic cylinders

Robust stroke sensing hydraulic cylinders employ proven Komatsu sensor technologies for accurate finish grade performance. Stroke sensing angle cylinder allows machine control system to know the angle of the blade.



Standard touch screen control box

Factory installed and features simple, easy to use operator interface. Mounted high for excellent visibility, viewing angle is adjustable per operator preference.



Intuitive selectable load settings

Machine control load settings can be adjusted between presets to tailor response to material conditions. From dry loose sandy soils to wet heavy clay materials, system performance can be targeted accordingly.

Improved efficiency

The fully automatic modes drastically improve efficiency of dozer operations. Intelligent machine control technology helps even less experienced operators perform top quality work.



As-built surface track mapping

Cab top GNSS antenna provides for accurate as-built surface data collection by measuring actual elevations as machine continuously tracks in operation. Progress can be measured in real time with operator selectable settings.



Unmatched Visibility and Safety

The best view

A super slant nose gives the D61EXi/PXi-23 the best visibility of any dozers on the market. This unique feature dramatically increases efficiency and jobsite safety, with operators now always having full view of both the blade and the ripper and of objects close to them. The new cab-forward design, with integrated ROPS/FOPS and large glass windows, provides more room and places the operator closer to the blade, further improving visibility and comfort.

Safe and easy access

For a safer entry and exit – and maximum operator protection, the D61EXi/PXi-23 includes numerous hand-rails and access steps both inside and outside the cabin. It is also easier to refuel or clean windows, or to reach most service points.



Rear view camera system





High Productivity & Low Fuel Consumption

New Komatsu engine technology

The powerful and fuel-efficient Komatsu SAA6D107E-2 engine in the D61EXi/PXi-23 delivers 126 kW/169 HP and is EU Stage IIIB certified. To maximise power, fuel efficiency and emission compliance, it is turbo charged and features direct fuel injection, air-to-air after cooling and cooled EGR.

Highly efficient hydrostatic drive line

The hydrostatic drive line is a key factor in the performance of the D61EXi/PXi-23 dozer. It supplies high drawbar pull when needed and a highly fuel efficient drive line for grading and precision work. With a choice between two operating modes, the operator can select either "quick-shift" or "variable speed" to match a complete range of applications in the most economic and easy way.



Komatsu Diesel Particulate Filter (KDPF)

Komatsu's high efficiency DPF captures more than 90% of particulate matter. It includes a special oxidation catalyst with fuel injection system that can incinerate trapped particulates by either active or passive regeneration with no need to interrupt machine operations.

Exhaust Gas Recirculation (EGR)

Cooled EGR is a technology well-proven in current Komatsu engines. The increased capacity of the EGR cooler now ensures very low NOx emissions and a better engine performance.

Variable Geometry Turbo (VGT)

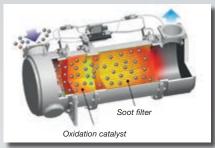
The VGT provides optimal air flow to the engine combustion chamber under all speed and load conditions. Exhaust gas is cleaner, fuel economy is improved while machine power and performance are maintained.

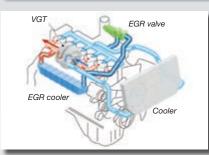
Komatsu Closed Crankcase Ventilation (KCCV)

Crankcase emissions (blow-by gas) are passed through a CCV filter. The oil mist trapped in the filter is returned back to the crankcase while the filtered gas is returned to the air intake.

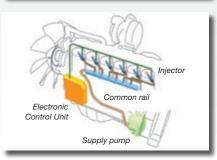
High-Pressure Common Rail (HPCR)

To achieve complete fuel burn and lower exhaust emissions, the heavy duty High-Pressure Common Rail fuel injection system is computer controlled to deliver a precise quantity of pressurised fuel into the redesigned engine combustion chamber by multiple injections.



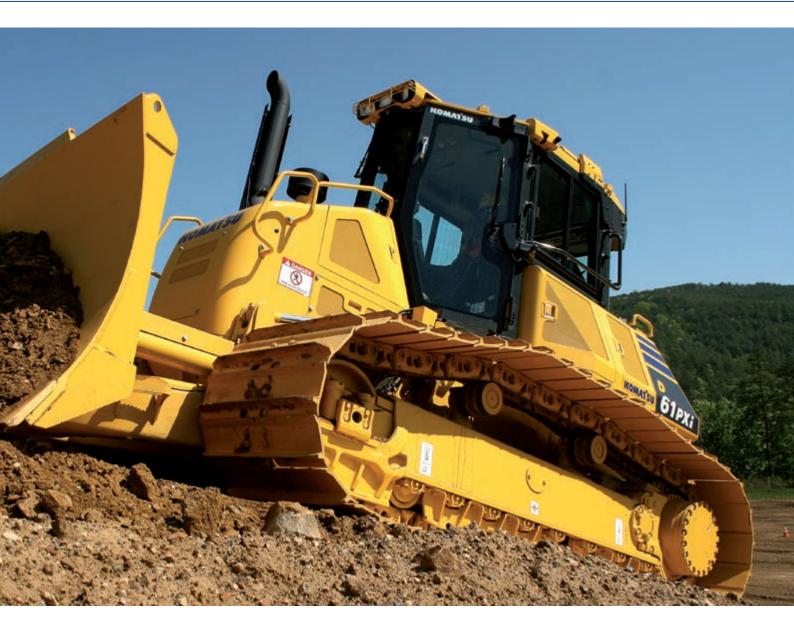






Hydrostatic transmission (HST) control system

The unique, Komatsu-designed hydrostatic transmission controller monitors the engine output and working equipment or travel load. It controls the HST pumps and motors displacement to deliver optimum speed and drawbar pull. In addition, the controller provides ample power to both tracks when turning, enabling counter rotation at very low speeds and making the D61EXi/PXi-23 extremely manoeuvrable.



Automatic speed change

Komatsu HST controller always changes the travel speed automatically, depending on load or ground conditions, and efficient operations are facilitated – with no shift shocks. The dozer can work at the optimal speed and drawbar pull point, increasing productivity and fuel efficiency.

Efficient hydrostatic engine cooling fan

The cooling fan always runs at the lowest convenient speed. Rotation and velocity are electronically adjusted based on the temperature of the engine coolant and hydraulic oil. This reduces fuel consumption and operating noise levels, and requires less horsepower than a belt-driven fan.

For extra efficiency, the fan also has a large air outlet surface, and the complete inlet area is protected by a fine grid, to prevent small particles from entering the fan area.

First-Class Operator Comfort

A smooth ride and lower noise levels

The cab on the D61EXi/PXi-23 was moved forward, and operators now sit closer to the centre of gravity of the machine. With the ripper still easily within eyeshot, they enjoy the best view of the blade, the lowest vibration levels and the highest stability of any dozer on the market. Silicon oil filled cab damper mounts isolate the operator compartment from the machine body and suppress vibrations, providing a quiet, comfortable operating environment. A new unique location for the radiator - at the rear of the machine - and the low speed of the hydraulically driven cooling fan further reduce noise levels.

Large TFT colour multi monitor

A large user-friendly colour monitor enables safe, accurate and smooth work. It provides on-hand data to continuously improve productivity and fuel consumption. Multilingual and with all essential information available at a glance, it features simple and easy to operate switches and multifunction keys that provide the operator with fingertip access to a wide range of functions and operating information.

Easy operation control

The ergonomic Palm Command Control System (PCCS) provides efficient and comfortable steering of the machine, and the blade control joystick utilizes Proportional Pressure Control (PPC) for precise operations, excellent and easy grading jobs – and improved productivity.

Fully-adjustable, heated air suspension seat

The driver's seat and console are amongst the most important components of the driver's equipment. The comfortable, heavy-duty, air suspension seat, complete with headrest, gives the operator a secure and comfortable work environment.

Pressurised cab

The integrated ROPS/FOPS cab's new design and large, tinted windows ensure excellent visibility in all directions. Superior cab sealing, air filters and raised internal air pressure prevent dust from getting into the cab. In addition, the high-quality interior is lined with soundabsorbent material.



Large TFT colour multi monitor



Palm Command Control System (PCCS) with automatic/manual blade control button



Combined decelerator/brake pedal



Auxiliary input (MP3 jack)



High Reliability and Durability

Low-drive "PLUS" undercarriage

Komatsu's new low-drive Parallel Link Undercarriage System (PLUS) is extraordinarily tough, with an excellent grading performance and stability. It features PLUS link assemblies, a new highly reliable floating bushing concept, substantial track link height, superior oil seals and newly designed track guards to maximise undercarriage durability. For easier servicing, the equalizer bar's centre pin can be remotely greased. The segmented sprockets can be changed individually and by hand, so a single mechanic can carry out replacements at the jobsite.

EX undercarriage

The EX undercarriage has been specially designed for working on hard ground. The small to mediumwidth shoes and PLUS link assembly ensure a large contact area between the machine and the ground for maximum stability, grading performance and undercarriage lifetime.

PX undercarriage

The PX undercarriage is ideal for working on soft surfaces. The wide shoes and PLUS link assembly ensure a large contact area between the machine and the ground for maximum stability, grading performance and undercarriage lifetime.

Modular design

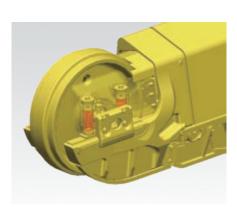
D61EXi/PXi-23 was designed and manufactured to have low maintenance costs and a long lifetime. This was achieved mainly by reducing component complexity and with a strong modular design.

Improved rigidity and durability

Komatsu's monocoque track frame uses thicker box section material, and the machine's main frame is a highly-rigid simple hull with thick plates and steel casting. Both frames have fewer welded components and combine to provide increased strength, rigidity and durability to the D61EXi/PXi-23.

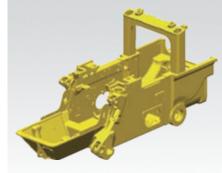
Self-adjusting idler support

The self-adjusting idler support provides constant and even tension on idler guide plates. It reduces noise levels and vibrations and increases undercarriage life.

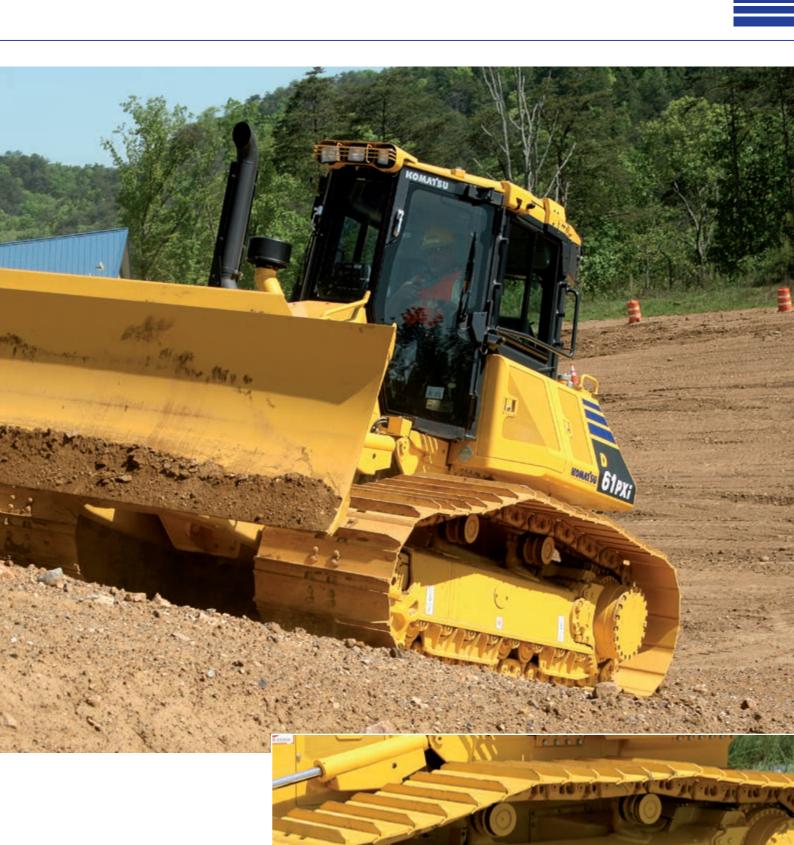


Self-adjusting idler support





High-rigidity simple hull frame structure



The new Komatsu PLUS undercarriage: When conventional undercarriages are long gone, the PLUS undercarriage keeps going strong.

Easy Maintenance

Simple and convenient service

Well located service doors allow convenient and safer ground access to daily service points. With the radiator located at the rear of the machine, engine fuel and oil filters can be easily accessed from the front of the engine compartment. Remote grease points facilitate lubrication of the C-frame pivots and angle cylinder bearing.

Self-diagnostic monitor

The multi-function monitor panel displays the running time, engine revs, fuel level and water coolant temperature in real time. It also provides the operator with maintenance and service information, if oil filters need replacing or any abnormality occurs. In addition, it supplies Komatsu mechanics with detailed information, with no need for external service tools.

Engine protection

A large, double air filter ensures maximum engine protection. Fuel passes through a pre-filter with a water separator and a special final filter, maximising the engine's lifetime and minimising maintenance costs. The engine cooling fan position at the back of the machine significantly reduces dust levels at the engine air intake. This intake has a rain cap as standard and a turbo type pre cleaner in option for very dusty environments and to lengthen the intervals between the cleaning of the air filters.



Komatsu CARE is a complimentary maintenance program for Komatsu customers that comes as standard with every new Komatsu EU Stage IIIB construction machine. For the first 3 years or 2.000 hours it covers factory-scheduled maintenance, performed by Komatsu-trained technicians with Komatsu Genuine parts. It also offers up to a maximum of 2 complimentary Komatsu Diesel Particulate Filter (KDPF) exchange units and a KDPF warranty for the first 5 years or 9.000 hours.

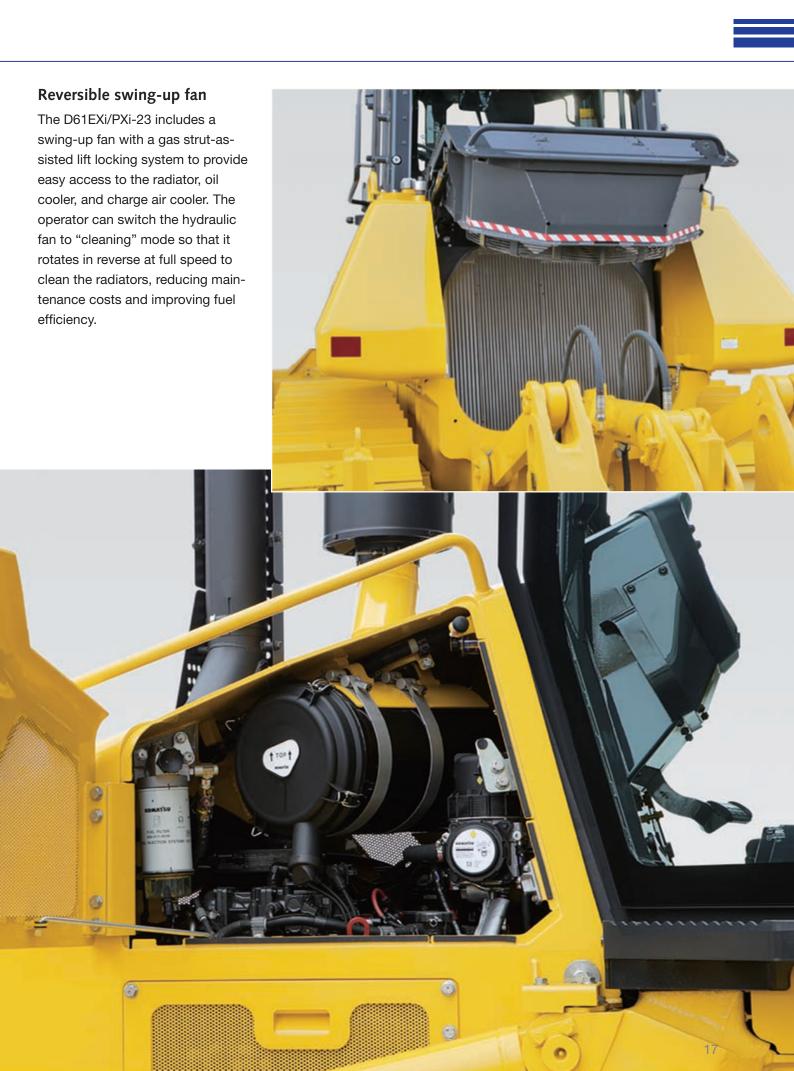


Unique front-side access



Segmented sprocket





Komatsu Wireless Monitoring System

The easy way to higher productivity

KOMTRAX™ is the latest in wireless monitoring technology. It delivers insightful and cost saving information about your fleet and equipment and offers you a wealth of information to facilitate peak machine performance. By creating a tightly integrated web of support it allows pro active and preventive maintenance and helps you to efficiently run a business.

Knowledge

You get quick answers to basic and critical questions about your machines – what they're doing, when they did it, where they're located, how they can be used more efficiently, and when they need to be serviced. Performance data is relayed by satellite from your machine to your computer and to your local Komatsu distributor – who's readily available for expert analysis and feedback.

Convenience

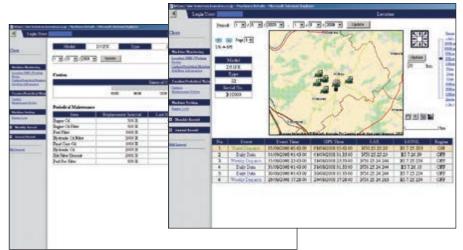
KOMTRAX™ helps to conveniently manage your fleet on the web, wherever you are. Data is analysed and packaged specifically for easy and intuitive viewing in maps, lists, graphs and charts. You can anticipate the type of service and parts your machines could require, or troubleshoot problems before Komatsu technicians arrive on site.



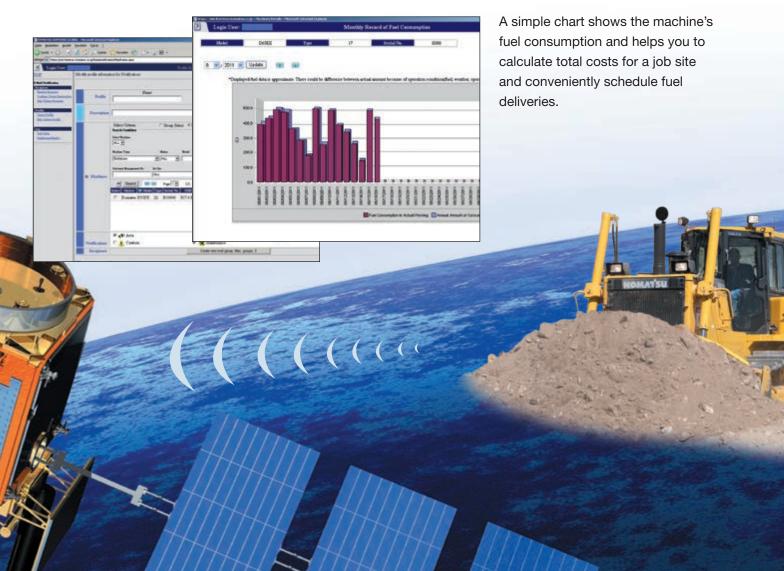
KOMTRAXTM

Power

The detailed information that KOMTRAX™ puts at your fingertips 24 hours a day, 7 days a week gives you the power to make better daily and long-term strategic decisions. You can anticipate problems, customize maintenance schedules, minimize downtime and keep your machines where they belong – working on the job site.



Through the web application, a variety of search parameters are available to quickly find information about specific machines based on key factors such as utilization rates, age, various notification messages, and more.



Work Equipment

Komatsu blades

Komatsu uses a box blade design, offering the highest resistance for a low weight blade. This increases total blade manoeuvrability and machine balance. High-tensilestrength steel was incorporated into the front and sides of the blade for increased durability. The blade shape design makes it easy to handle a wide range of materials, offering good blade penetration combined with a low blade rolling resistance. Komatsu blades help to deliver excellent fuel efficiency.

Straight Power Angle Tilt blade with adjustable pitch

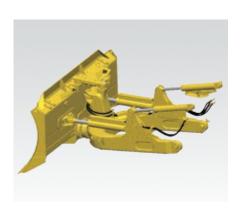
The straight Power Angle Tilt blade (PAT), offers a wide range of working modes. The new centreball design, with a large ball diameter, offers a strong and durable solution for the blade attachment to the Inpat frame reducing maintenance costs. A fold-up version of the blade for the PX machines guarantees a transport width of 3 metres and easy transportation between job-sites.

Komatsu rippers

Komatsu rippers were designed to combine the highest productivity with a long lifetime. The shank is fitted with special wear parts that increase longevity, and offer the best penetration in various types of materials.

Multishank parallelogram ripper (EX) (option)

The multishank parallelogram ripper has 3 ripper shanks as standard, but can be easily converted to a giant or two-shank ripper, depending on job conditions. The strong parallelogram design offers straight shank movement, adapted for different jobsite applications.









Specifications

ENGINE

Engine power	ilibocharged, arter-cooled dieser
0 1	0.000
at rated engine speed	
ISO 14396	126 kW/169 HP
ISO 9249 (net engine power)	125 kW/168 HP
No. of cylinders	6
Bore × stroke	107 mm × 124 mm
Displacement	
Governor	All-speed, electronic
Fan drive type	Hydraulic
Lubrication system	
Method	Gear pump, force lubrication
Filter	Full flow

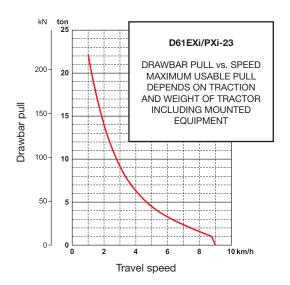
HYDROSTATIC TRANSMISSION

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.

MAX. TRAVEL SPEEDS

Quick shift mode	Forward	Reverse
1st	0 - 3,4 km/h	0 - 4,1 km/h
2nd	0 - 5,6 km/h	0 - 6,5 km/h
3rd	0 - 9,0 km/h	0 - 9,0 km/h

Variable speed mode	Forward	Reverse
	0 - 9,0 km/h	0 - 9,0 km/h



FINAL DRIVE

Type	Planetary gear, double-reduction
Sprocket	Segmented sprocket teeth
	are bolt-on for easy replacement

STEERING SYSTEM

Type	Hydrostatic Steering System (HST)
Steering control	PCCS-lever
Minimum turning radius (count	er-rotation)
D61EXi-23	2,1 m
D61PXi-23	2,3 m
As measured by track marks o	n the ground.

UNDERCARRIAGE

Suspension Oscillating equa	•
Track roller frameMo	onocoque, large section,
	durable construction
Tracks	PLUS link assembly
Track tensionCombined s	,
Number of shoes (each side)	,
, ,	
Grouser height (single grouser)	
Track rollers (each side)	8
Carrier rollers (each side)	2
Shoe width (standard)	
D61EXi-23	600 mm
D61PXi-23	860 mm
Ground contact area	
D61EXi-23	37.980 cm ²
D61PXi-23	54.440 cm ²
Ground pressure	
D61EXi-23	0,47 kg/cm ²
D61PXi-23	0,34 kg/cm ²
	, 3

OPERATING WEIGHT (APPR.)

including PAT blade, Steel Cab, oper	ator, rated capacity of
lubricant, coolant, and full fuel tank.	
D61EXi-23	17.890 kg
D61PXi-23	18.770 ka

SERVICE REFILL CAPACITIES

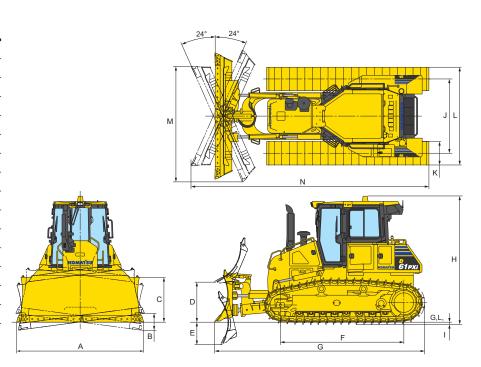
Fuel tank	372 ltr
Radiator	45 ltr
Engine oil	27 ltr
Final drive (each side)	
Hydraulic tank	

ENVIRONMENT

Engine emissionsFully complies with EU Stage IIIB
exhaust emission regulations
Noise levels
LwA external107 dB(A) (2000/14/EC Stage II)
LpA operator ear78 dB(A) (ISO 6396 dynamic test)
Vibration levels (EN 12096:1997)*
Hand/arm≤ 2,5 m/s² (uncertainty K = 0,8 m/s²)
Body≤ 0,5 m/s² (uncertainty K = 0,2 m/s²)
* for the purpose of risk assessment under directive 2002/44/FC.

DIMENSIONS

	D61EXi-23	D61PXi-23
Α	3.250 mm	3.860 mm
В	435 mm	515 mm
С	1.195 mm	1.155 mm
D	1.025 mm	1.025 mm
Е	580 mm	580 mm
F	3.165 mm	3.165 mm
G	5.480 mm	5.480 mm
Н	3.340 mm	3.340 mm
- 1	57,5 mm	57,5 mm
J	1.900 mm	2.130 mm
K	600 mm	860 mm
L	2.500 mm	2.990 mm
М	2.980 mm	3.530 mm
N	6.100 mm	6.220 mm



Ground clearance: 390 mm (+ 58 mm grouser height)

HYDRAULIC SYSTEM

Type
Relief valve setting280 kg/cm ²
Spool control valve positions
Blade liftRaise, hold, lower, and float
Blade tilt Right, hold, and left
Additional control valve positions for ripper
Ripper liftRaise, hold, and lower
Hydraulic cylinders
No. of cylinders × bore
Blade lift2 × 100 mm
Blade tilt1 × 120 mm
Blade angle2 × 110 mm

RIPPER EQUIPMENT

Multishank ripper	
Type Hydraulically controlled pa	arallelogram ripper
No. of shanks	3
Weight (including hydraulic control unit)	1.780 kg
Beam length	2.170 mm
Maximum lift above ground	565 mm
Maximum digging depth	665 mm

DOZER EQUIPMENT

	Overall length with dozer	Blade width × height	Maximum lift above ground	Maximum drop below ground	Maximum tilt adjustment	Additional weight
3,4 m³ PAT blade (EXi)	5.480 mm	3.250 mm × 1.195 mm	1.025 mm	580 mm	435 mm	0 kg
3,8 m³ PAT blade (PXi)	5.480 mm	3.860 mm × 1.155 mm	1.025 mm	580 mm	515 mm	0 kg
3,8 m³ foldable PAT blade (PXi)*	5.480 mm	3.860 mm × 1.155 mm Folding width: 2.960 mm	1.025 mm	580 mm	515 mm	+ 240 kg

Blade capacities are based on the SAE recommended practice J1265.

* Applicable only to light duty jobs.

D61EXi/PXi-23

Standard and Optional Equipment

ENGINE AND RELATED PARTS Komatsu SAA6D107E-2 turbocharged common rail direct injection diesel engine EU Stage IIIB compliant

Swing-out hydrostat-driven radiator fan with reversing function	•
Dry type air cleaner, double element with dust indicator and evacuator	•
Water separator	•
Multi-function video compatible colour monitor with Equipment Management and Monitoring System (EMMS) and efficiency guidance	•
KOMTRAX™ – Komatsu wireless monitoring system	•
Komatsu CARE	•
Tool kit	•

SERVICE AND MAINTENANCE

SAFETY EQUIPMENT	
Steel cab, meets ISO 3471 and SAE J1040, APR88 ROPS standards, as well as ISO 3449 FOPS standards	•
Horn	•
Locks, filter caps and covers	•
Back-up alarm	•
Rear view camera system	•
Fire extinguisher	С

Fuel pre-filter (10 micron) and fuel filter (2 micron)	•
Exhaust pipe with elbow	•
Intake pipe with rain cap	•
Alternator 24 V/60 A	•
Starter motor 5,5 kW/24 V	•
Batteries 170 Ah/2 × 12 V	•
Cooling fan, hydrostatic driven	•
Fuel tank inlet strainer	•
Intake pipe with air pre-cleaner	0
TRANSMISSION AND BRAKES	

CABIN	

ATTACHMENTS	
Front pull hook	•
Hitch (not with ripper)	•
Rigid drawbar	0

•
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•
•
•

Combined decelerator/brake pedal

Air suspension seat: fabric, reclining, heated, high backrest	•
Seat belt with visible alert	•
High mount footrest	•
Air conditioner	•
Radio	•
Auxiliary input (MP3 jack)	•
2 × 12 Volt power supply (120 W)	•
1 × 24 Volt power supply	•
Viscous cab mounts	•
Rear-view mirror (inside cab)	•
Wiper front window	•

DOZER EQUIPMENT	
3,4 m³ PAT blade (EXi)	0
3,8 m³ PAT blade (PXi)	0
3,8 m³ PAT blade foldable (PXi)	0

0

Multishank parallelogram ripper (EXi)

UNDERCARRIAGE	
Komatsu PLUS link assembly	•
Single grouser heavy-duty shoes (EXi: 600 mm; PXi: 860 mm)	•
Segmented sprockets	•
Idler cushions	•
Track roller guard, centre and end section	•
Full length track roller guard	0

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INTELLIGENT MACHINE CONTROL	
Standard factory installed integrated 3D GNSS intelligent machine control system	•
Automatic blade load control	•
Topcon Sitelink ready	•

HYDRAULIC SYSTEM	
Hydraulics for dozing blades	
Mono lever blade control	

LIGHTING	SYSTEM	١	

standard equipment optional equipment

Further equipment on request

Working lights, 3 cab roof front, 2 cab roof rear

Your Komatsu partner:

Hydraulics for ripper



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