KOMATSU

intelligent MACHINE CONTROL 2.0

# D71EX/EXi/PX/PXi-24

crawler dozer




**Net horsepower**
237 HP (177 kW) @ 2,100 rpm

**Operating weight**
**D71EX-24:** 49,824 lbs. (22,600 kg)
**D71PX-24:** 50,927 lbs. (23,100 kg)
**D71PX-24 Wide:** 52,690 lbs. (23,900 kg)
**D71EXi-24:** 50,045 lbs. (22,700 kg)
**D71PXi-24:** 51,147 lbs. (23,200 kg)
**D71PXi-24 Wide:** 52,911 lbs. (24,000 kg)

**Blade capacity (ISO 9246)**
**Power angle tilt (PAT) dozer**
**D71EX-24:** 5.8 $yd^3$ (4.43 $m^3$)
**D71PX-24:** 6.1 $yd^3$ (4.66 $m^3$)
**D71PX-24 Wide:** 6.6 $yd^3$ (5.05 $m^3$)
**D71EXi-24:** 5.8 $yd^3$ (4.43 $m^3$)
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**D71PXi-24 Wide:** 6.6 $yd^3$ (5.05 $m^3$)

# Next-generation intelligence

How do you make one of the industry's most capable, dependable dozers even better? Make it smart. The industry's newest slant-nosed, intelligent HST dozer features the latest IMC 2.0 capabilities.

### Lift layer control

Achieves consistent lift layers with automatic control to help you increase your productivity.

### Quick surface creation

Creates a temporary design surface with the press of a button.

### Proactive dozing control

Cut and carry work performed with the smoothness of an experienced operator. Has the ability to operate automatically 100% of the time.

### Tilt steering control

Reduces need for constant operator corrections toward target point.

### Two antennas to support multiple global navigation satellite system (GNSS)

Improved satellite signal stability and reception offer more reliability and accuracy.

### Factory-installed information and communication technology (ICT) system standard



Photos may include optional equipment

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intelligent MACHINE CONTROL 2.0

# Innovative. Integrated. Intelligent.

## Standard Intelligent Machine Control 2.0

Standard factory-installed integrated 3D GNSS intelligent machine control system.

**Factory-installed machine control components**
Machine control components are factory installed and designed as an integral part of the base machine for improved durability.

**Komatsu quality**
Machine control components and system validated to Komatsu's rigorous quality and durability standards.

**Industry standard compatibility**
Machine control system makes use of common industry design data file norms and supports typical base station communication.

**Simple operator interface**
Simple touch-screen control box with multicolor customizable display.

**3D GNSS machine control standard**
All on-machine components standard, including control box, GNSS receiver/radio, GNSS antenna and enhanced inertial measuring unit sensor.

**Finish grade performance**
Upgraded sensor package and intelligent logic provides for finish grade accuracy in an integrated system without traditional blade-mounted sensors.

**Enhanced inertial measuring unit (IMU+)**
Chassis-mounted enhanced inertial measuring unit (IMU+) and intelligent logic provides for finish grade accuracy without blade-mounted sensors.

**Two antennas supporting multiple GNSS**
Work accuracy is improved by two antennas supporting the multiple GNSS.

**Intelligent dozing mode settings**
Operators are able to select between four distinct machine control operating modes to help optimize performance to the application whether cutting, spreading or other.

**Operator selectable load settings**
Machine control load settings can be adjusted between presets to tailor response to material conditions.

**New Komatsu SAA6D114E-6, variable geometry, turbocharged and aftercooled, 8.85 liter diesel engine** is EPA Tier 4 Final emissions certified.

**Fluid neutral or better**
Fuel and DEF total consumption is less than the fuel consumed by the prior model.

**New Komatsu Diesel Particulate Filter (KDPF) and selective catalytic reduction (SCR) systems** reduce particulate matter and NOx, while providing automatic regeneration that does not hinder daily operation.

**New higher performance variable geometry turbocharger (VGT)** uses a hydraulic actuator to provide optimal air flow under all speed and load conditions.

**Komatsu auto idle shutdown** helps reduce excessive idle time.

**Auto engine idle** reduces machine to low idle during times of inactivity.

**Rear hydraulics (standard)**

**Rearview monitoring system (standard)**

**New large color monitor features:**

- Easy-to-read large 7" high-resolution multicolor monitor
- Easy-to-use multiple tabular menus
- Easy-to-use onboard diagnostics that don't require a laptop
- Ecology guidance

**Integrated rollover protection structure (ROPS) cab features:**

- Large, quiet, pressurized cab
- Excellent visibility with integrated ROPS structure
- Air suspension high-capacity heated seat

**New high-engine-RPM (H) mode** helps maintain ground speed during heavy blade load applications.

**Parallel Link Undercarriage System (PLUS)** provides up to double the wear life compared to the conventional undercarriage and helps lower repair and maintenance costs.

**Triple labyrinth final drive** provides additional protection for the final drive floating seals.

# Intelligent Machine Control (IMC)



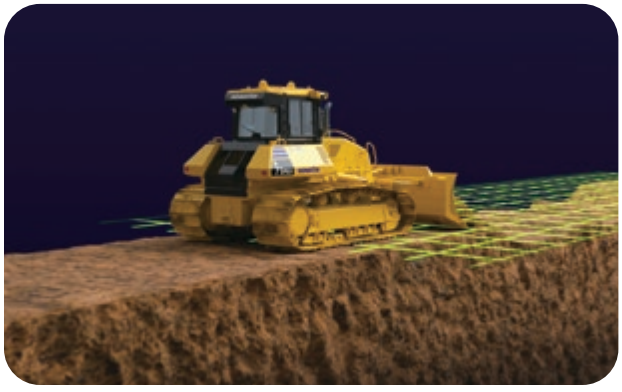
## Intelligent Machine Control (IMC) 2.0

D71EXi/PXi-24 utilizes Intelligent Machine Control 2.0 (IMC 2.0), a GNSS* system that automatically controls the blade to three-dimensional design data. IMC 2.0 utilizes the industry's first proactive dozing control logic, lift layer control, quick surface creation and tilt steering control. A two-antenna system supports multiple GNSS, which provides less downtime and more work time. These added features make for improved production and efficiency.

*GNSS (global navigation satellite system): General term for satellite positioning systems such as GPS, GLONASS, etc.

### Quick surface creation

Operators can create a temporary design surface with the press of a button. Designed to simplify infield surface creation within the control box, it allows for more utilization of IMC 2.0.



### Tilt steering control

The blade automatically tilts under a heavy load to maintain a straight line of travel, to help optimize productivity throughout each pass and reduce operator fatigue.



### Auto/manual switch

A conveniently located on/off switch gives the operator control when IMC 2.0 is active.



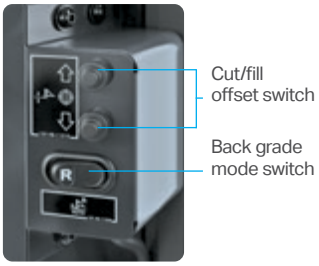
### Function switches

### Cut/fill offset switch

The target surface height can be quickly adjusted by pressing the offset switch (button).

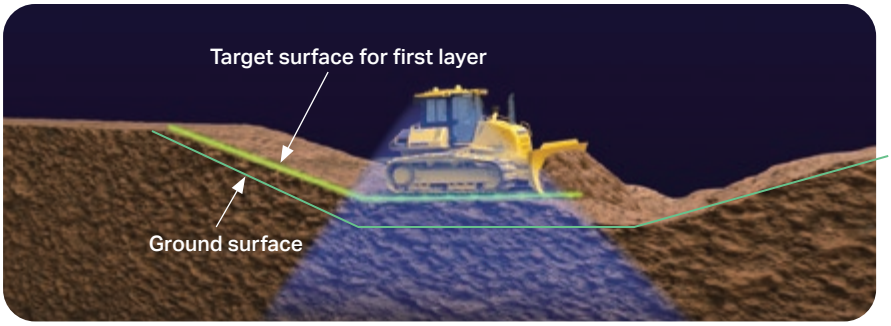
### Back grade mode switch

Allows for automatic control during back grading.



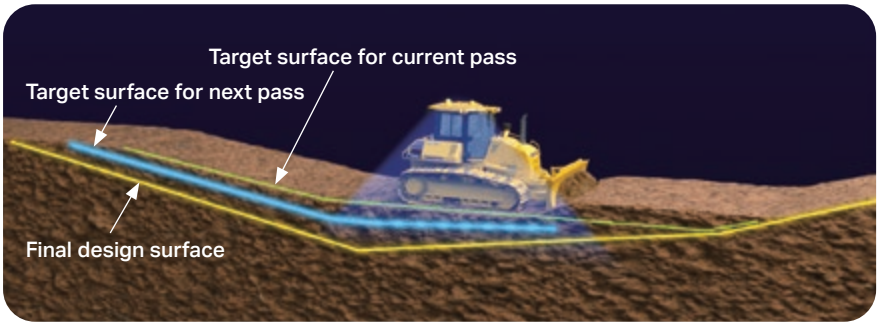
### Lift layer control

Advance earthwork productivity and maintain compaction quality by automatically controlling lifts to the desired heights with respect to the mapped terrain. Excess fill is eliminated as automatic blade control will follow finish surface once lifts have reached finish grade.




### Proactive dozing control

Operators can utilize automatic blade control from rough grading to finish grading work. Proactive dozing control understands the terrain in the path of each cut, maximizes the blade load throughout the pass regardless of the terrain ahead and achieves productivity similar to that of an experienced operator.




## Two antennas support multiple GNSS

Work accuracy is improved by two antennas supporting the multiple GNSS.

### Improvement of blade accuracy on slope

Blade accuracy is maintained during slope work.

### Reliability of blade accuracy

Galileo, QZSS and BeiDou can be used in addition to GPS and GLONASS. Since the satellite capture rate is improved, the machine can be used in any time zone.








## Control box

1 L.H. LED indicator 2 Upper LED indicator
3 R.H. LED indicator
4 Power ON/OFF and menu switch (Press: Display the main menu / Hold down: Turn ON/OFF the power supply)
5 Zoom in switch 6 Zoom out switch
7 Toggle main view switch (Press: Switch the display of main window / Hold down: Adjust the brightness and sound volume)
1 Left window 2 Main window 3 Lower window
4 Right window 5 Speed control ON/OFF
6 Take a topo shot 7 Simple grading ON/OFF
8 Cut depth selection 9 Smooth start ON/OFF
10 Tilt steering ON/OFF 11 Toggle As-built mode change view to [none], [cut fill], [pass counts]
12 Quick surface creation (Create slope plane surface)
13 Lift layer control (Create as-built design surface)
1 Elevation control key 2 Slope control key
3 GNSS status 4 Radio status 5 Cut/Fill offset
6 Cut/Fill reading 7 Tilt of blade
8 Design cross-slope 9 Type of control
10 AUTO indicator 11 Back Grade mode indicator
12 Lift indicator

*This is a typical main screen of control box.

# Automatic dozing from grass to grade

## *Benefits of IMC 2.0*

### *Improved finish grading*

Up to 50% reduction in gouging*

***Applications:*** Finish grading

- Analyzes terrain and 3D model to proactively position blade in hard-to-grade areas
- Helps prevent overcutting at finish grade

### *Lift layer control*

Up to 50% reduction in lift time**

***Applications:*** Lifting, compaction quality control

- Maintain precise lift thickness
- Automatically spreads lift from existing terrain and helps prevent overfill
- Up to double the production of prior model

### *Proactive dozing control*

Up to 60% more productive*

***Applications:*** Stripping topsoil, high-production dozing

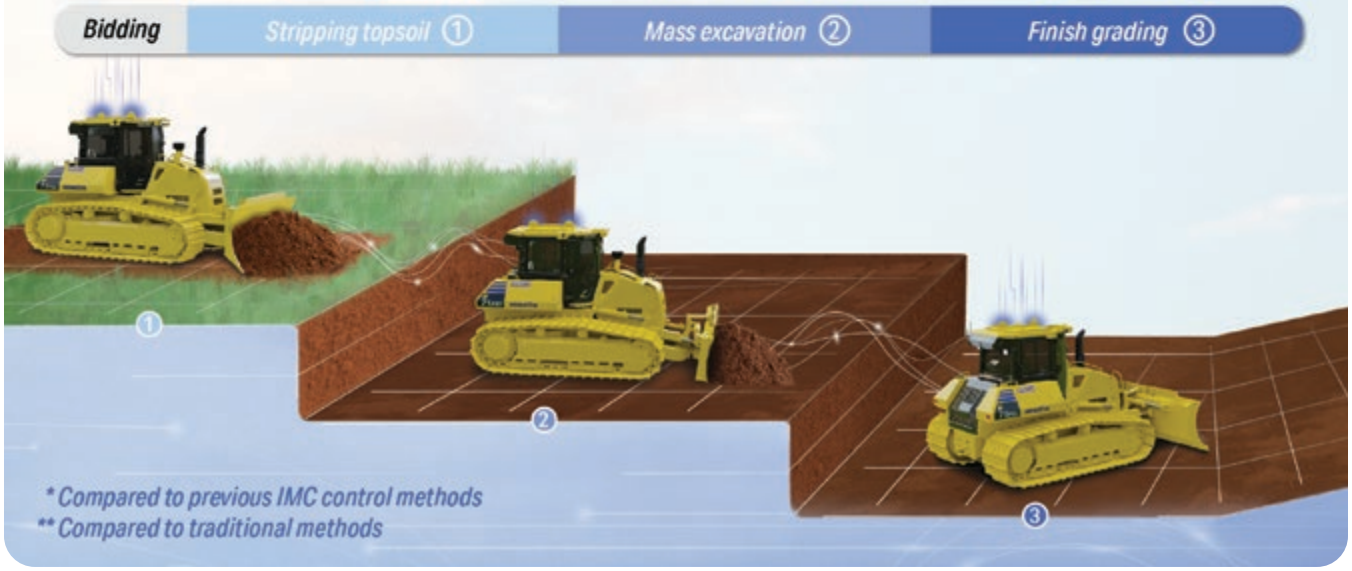
- Uses data from previous pass to plan the next pass
- Automatically cut/strip from existing terrain
- Helps new operators perform like experienced ones

### *Tilt steering control*

Up to 80% reduction in input**

- Automatically tilts blade to maintain straight travel while rough dozing
- Maintains consistent power to the ground and track

## *Use automation throughout the entire process*

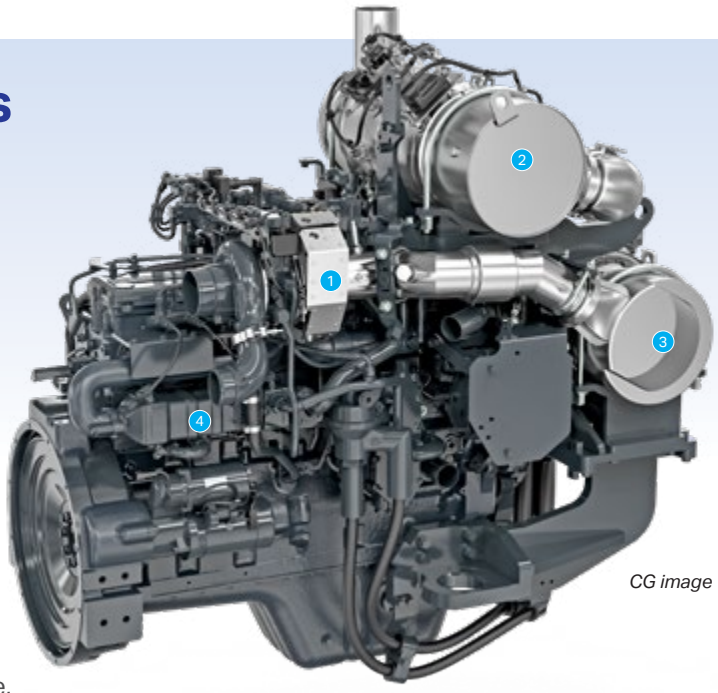



** Compared to previous IMC control methods*
*** Compared to traditional methods*

# Performance features

## Komatsu's emission regulations-compliant engine

New regulations effective in 2014 require the reduction of NOx emissions. In addition to refining the Tier 4 Interim technologies, Komatsu developed a new selective catalytic reduction (SCR) device in-house.



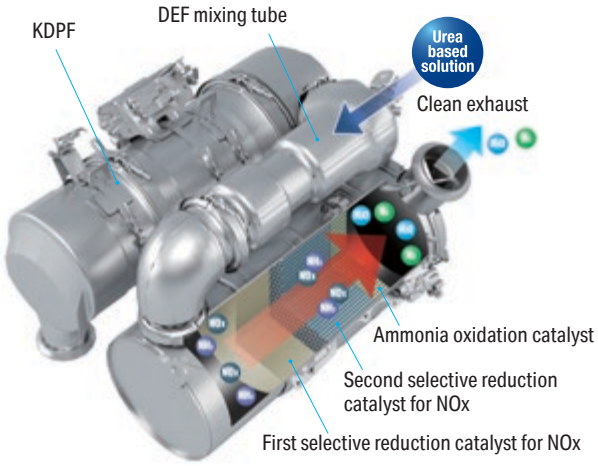

*CG image*

1. Variable geometry turbocharger (VGT)
2. SCR
3. Komatsu diesel particulate filter (KDPF)
4. Exhaust gas recirculation (EGR) cooler

## Technologies applied to the engine

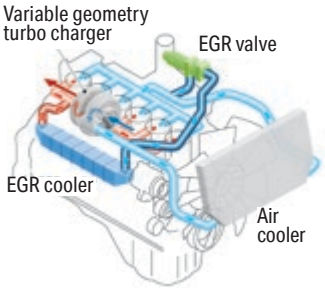
### Heavy-duty aftertreatment system

This system combines a Komatsu Diesel Particulate Filter (KDPF) and selective catalytic reduction (SCR). The SCR NOx reduction system injects the correct amount of DEF at the proper rate, transforming NOx into nontoxic water (H2O) and nitrogen gas (N2).




### Heavy-duty cooled exhaust gas recirculation (EGR) system

The system recirculates a portion of exhaust gas into the air intake and lowers combustion temperatures, thereby reducing NOx emissions. EGR gas flow has been decreased for Tier 4 final with the addition of SCR technology. The system achieves a dynamic reduction of NOx, while helping reduce fuel consumption below Tier 4 Interim levels.

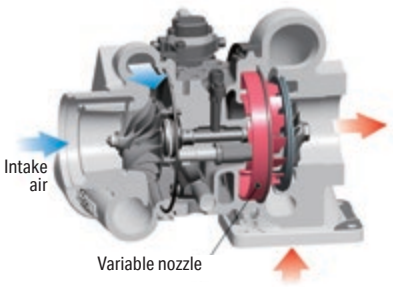



### Advanced electronic control system

The electronic control system performs high-speed processing of all signals from sensors installed in the vehicle, providing total control of equipment in all conditions. Engine condition information is displayed via an onboard network to the monitor inside the cab, providing necessary information to the operator. Additionally, managing the information via Komtrax helps customers keep up with required maintenance.

### Variable geometry turbocharger (VGT) system

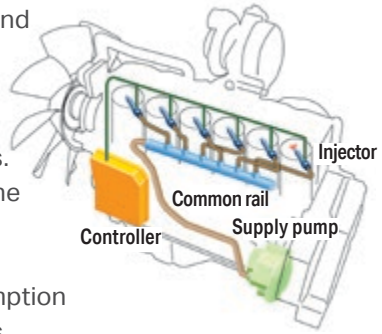
The VGT system features proven Komatsu-designed hydraulic technology for variable control of airflow and supplies optimal air according to load conditions. It provides better exhaust temperature management. The Tier 4 Final version has an improved propeller design for increased performance.



# Performance features

**Heavy-duty high-pressure common rail (HPCR) fuel injection system**

The system is designed to achieve an optimal injection of high-pressure fuel by means of computerized control, providing close-to-complete combustion to reduce PM emissions. The system uses high-pressure injection, thereby reducing both PM emissions and fuel consumption over the entire range of engine operating conditions. The Tier 4 Final engine has advanced fuel injection timing for reduced fuel consumption and lower soot levels.




**Redesigned combustion chamber at top of piston**

The combustion chamber at the top of the piston has an optimized shape designed to improve combustion and further reduce NOx, particulate matter, fuel consumption and noise.



**Komatsu closed crankcase ventilation (KCCV)**

The KCCV efficiency is significantly increased from previous models from approximately 50% to 95% efficiency.




## Selectable working mode

P mode is the mode designed for powerful operation and maximum production. E mode is designed for general dozing applications providing adequate speed and power while saving energy. For CO2 reduction and energy saving, the monitor panel allows the operator to easily switch the working mode, depending on the work at hand.

**P mode (power mode)**

With P mode, the engine outputs its full power, allowing the machine to perform tasks requiring large production, heavy-load and uphill work.

**E mode (economy mode)**

With E mode, the engine outputs enough power for the work without delivering unnecessary power. This mode allows for energy-saving operation and is suitable for the work on a ground where the machine may cause shoe slip and the work not requiring large power such as downhill dozing, leveling and light-load work.

**H mode (high engine idle speed mode)**

H mode is installed to only North American specification. Compared with the P mode, the engine high idle speed is higher in the H mode. This setting allows subtle changes in load to be detected, which is suitable for power-intensive work.

## Auto idle shutdown function

Komatsu auto idle shutdown helps reduce idle time and operating costs.

## Auto-decelerator

The auto-decelerator automatically decreases the engine speed after selected period since the work equipment or travel lever return neutral.

## Auto E mode

At light load work, changing to E mode automatically helps to reduce fuel consumption.

# Productivity and workability features

## Hydrostatic transmission (HST) with electronic control

The D71EX/PX-24 is equipped with Komatsu-designed HST, which provides smooth, powerful turns. Fully electronic control provides full automatic shifting and enables smooth control. The travel speed can be selected smoothly with the UP/ DOWN switch, and the engine power is maximized in all speed ranges. In addition, a powerful and smooth turn is achieved by controlling the outer track faster and the inner crawler track slower.



## Effective work for HST

**Grading:** Operator can select the optimum vehicle speed.

**Pushing:** Engine power can be transmitted to the tracks consistently no matter the blade load — operators don't have to select the right gear.

**Side cutting:** Machine can maintain consistent power to tracks when turning under a load.

**Work on soft ground:** HST provides smooth control of machine speed without reduction in torque.

**Ground speed control:** Equipped with four speed presets or 20 speed steps, power can be controlled without reducing engine speed.

## Production improvement

Equipped with a new SAA6D114E-6 engine whose horsepower is the largest in this class. Combined with the newly designed large-capacity blade, it works high production.

**Rated engine horsepower (net)**

237 HP (177kW)

## Hydraulically driven cooling fan

The engine cooling fan's speed is electronically controlled. The fan speed depends on engine coolant, oil temperatures and the fan will only rotate as fast as is necessary to adequately cool the machine's fluid. This system increases fuel efficiency, reduces the operating noise levels and requires less horsepower than a belt driven fan.

## Long track-on-ground and oscillating track frame

Long track-on-ground and oscillating track frames improve machine stability and grading/ dozing performance.

## Steering speed increase

Speeds up the outer crawler when turning, improving maneuverability and turnability.

## Enhanced steering mode

**FNR shift mode:** Allows operator to optimize forward and reverse shifting response speed.

**Steering mode:** Improved steering performance with operator adjustable turning speed. Fast mode enables the outside track to speed up, while maintaining machine travel speed to improve maneuverability and turning.

## Enhanced blade mode

**Blade drop speed mode:** New operator adjustable blade drop response, with added quick drop feature.

**Blade tilt mode:** Operator adjustable blade tilt response.

**Blade lift mode:** Operator adjustable blade lift response.

# Productivity and workability features

## PAT dozer with adjustable pitch

A power angle power tilt dozer blade with adjustable blade pitch system is available. This blade is available for the D71EX/EXi/PX/PXi-24 machines. The hydraulic blade tilt, angling function and manually adjustable blade pitch add versatility and productivity in a variety of applications.





**Blade capacity (ISO 9246)**

6.6 $yd^3$(PX-wide)/6.1 $yd^3$(PX)/5.8 $yd^3$(EX)

## Looking for a clear line of sight? Let us help you see what you're missing!

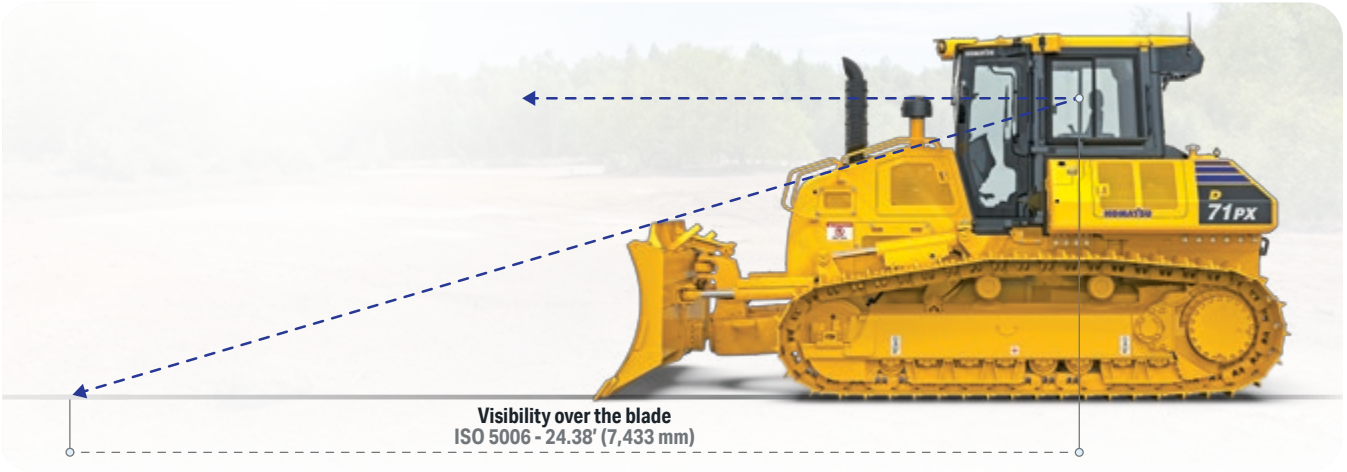
**Features:**

- Rear-mounted radiator
- Enhanced cab-forward design with integrated ROPS
- Super slant-nose engineering

**Benefits:**

- Improved visibility: Rear radiator placement allows for a lower front height
- Operator confidence: Enhanced field of view facilitates safe practices
- Comfortable: Superior cab-forward design for a balanced ride






Visibility over the blade
ISO 5006 - 24.38' (7,433 mm)

# Control features

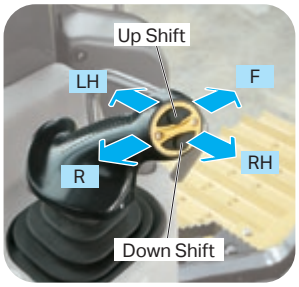


## Palm command control system (PCCS) levers

Komatsu's ergonomically designed PCCS handles create an operating environment with complete operator control.

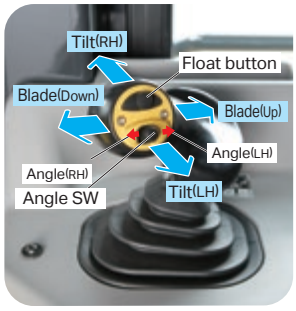
**PCCS**

The low-effort PCCS joystick controls all directional movements, including machine travel speed as well as counter-rotation.




**Electronic-controlled hydraulic system**

The electronic-controlled, palm commanded joystick provides precise blade control. New blade angling switch operation provides easier and predictable blade control.




## One-pedal design (decelerator/brake pedal) controls speed during operation

Machine operation is simple due to brake function integration into the decelerator pedal. Machine travel speed can be controlled using one pedal. The pedal function can be changed by a mode selector switch.

**Decelerator mode:** The pedal can decelerate engine rpms and vehicle travel speed. It can be used for all applications.

**Brake mode:** The pedal can decelerate vehicle travel speed while maintaining high-engine speed. This mode can be helpful to maintain work-equipment speed, while using the brake function.



# Working environment

## Integrated ROPS (ISO 3471) cab



The D71EX/EXi/PX/PXi-24 has an integrated ROPS (ISO 3471) cab. High rigidity and superb sealing performance sharply reduce noise and vibration for the operator and discourage dust from entering the cab. In addition, side visibility is increased because external ROPS (ISO 3471) structure and posts are not required.

## Comfortable ride with cab damper mounting

The D71EX/EXi/PX/PXi-24's cab mount uses a cab damper system that provides shock and vibration absorption conventional mounting systems cannot match. The silicon-oil-filled cab damper mount helps to isolate the cab from the machine body, suppressing vibration and providing a quiet, comfortable operating environment.

## Auxiliary input jack and two electrical outlets

By connecting an auxiliary device to this plug input, the operator can play audio from a mobile device through the machine's sound system. Two DC 12-volt electrical outlets provide a power source for a radio or other equipment.




## Multifunction audio

Features an AM/FM radio, and AUX, USB and Bluetooth wireless-enabled products can be connected.



## Comfortable ride with heated operator seat

The operator seat has adjustable lumbar support, tilt and an electric heater. It is easy to adjust to the operator's shape. Also, standard seat heat makes it possible to work comfortably in the winter.



## LED lights

LED lights are equipped on the machine. The visibility under low-light environment is improved, and work at night with ease.





## Additional operator convenience equipment

**Rearview monitor system**

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.





**Secondary engine shutdown switch**

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



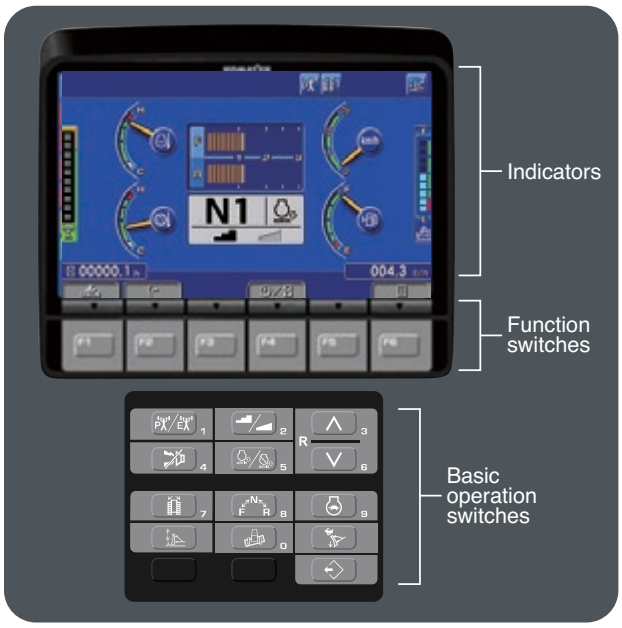
**Operator presence sensing system**

This feature locks out hydraulics under certain conditions to prevent unintentional movement when the operator is not in the seat.

# Technology features

## Large multilingual high-resolution LCD monitor

A large, user-friendly color monitor provides easy-to-understand information for the operator. Excellent screen visibility is achieved with a high-resolution LCD monitor that is easy to read at various angles and lighting conditions. Easy-to-operate switches and function keys simplify multifunction operations. The monitor displays data in 26 languages.




## Multimonitor with troubleshooting function to minimize downtime



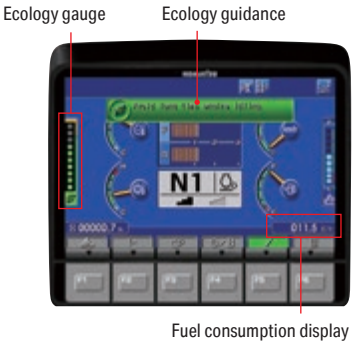

Various meters, gauges and warning functions are centrally arranged on the multimonitor. The monitor simplifies start-up inspection and promptly warns the operator with a lamp and buzzer if any abnormalities occur. In addition, countermeasures are indicated in four levels to help prevent major machine issues. Replacement times for required planned maintenance services are also indicated.

## Energy-saving operation

### Ecology guidance

In order to support efficient operation, the following four messages are displayed for fuel-saving operation. These can be disabled by the operator, if desired.

1) Avoid excessive engine idling
2) Use economy mode to save fuel
3) Avoid hydraulic relief pressure
4) Avoid overload




### Ecology gauge

To help the operator perform more efficiently and minimize energy consumption, an easy-to-read ecology gauge is displayed on the left of the multimonitor screen.

### Fuel consumption display

Average fuel consumption during the day is displayed and updated every 10 seconds.

## Ecological operation report for assistance

Komtrax is Komatsu's remote equipment and fleet monitoring system. Wireless technology and a secure web-based application offers the information needed to make the best possible operation and management decisions. From location, actual hours worked and fuel consumption to maintenance monitoring, abnormality codes and load frequency, Komtrax creates reports that are easy to read and understand. The new D71EX/EXi/PX/PXi-24 adds the following new information for fuel consumption reduction:

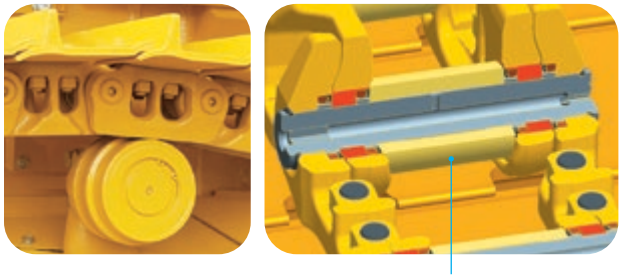
- Guidance to improve fuel consumption
- Ecological operation report
- Report operation hours by operation mode E, P or H mode

# Reliability and maintenance features

## Excellent reliability and durability

### Parallel Link Undercarriage System (PLUS)

Komatsu's new PLUS provides less downtime plus longer wear with up to 40% lower undercarriage maintenance costs compared to conventional undercarriage. Rotating bushings eliminate the cost and downtime for bushing turns, and strengthened rollers and links increase wear life up to two times. With PLUS, individual links can be replaced with common track tools.




### Modular design

Designed with durability in mind, the machine takes a modular approach, utilizing castings for strength and reduction in parts.



### 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.



### Dozer frame

Steel castings reduce the number of welds, improving frame rigidity and strength.

### Mainframe

High-rigidity simple hull frame structure combined with thick plates and steel castings provide increased reliability and durability.





## Easy maintenance

Planned maintenance is the only way to ensure long service life from your equipment. That's why Komatsu designed the D71EX/PX-24 with conveniently located maintenance points to make necessary inspections and maintenance quick and easy.

### Hydraulically driven swing-up fan

The D71EX/PX-24 utilizes a swing-up fan with a gas strut-assisted lift 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 where the fan rotates in the reverse direction and helps to clear off objects in front of the cooling areas.






### Daily checks

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

### Easy sampling

Added sampling port for oil and coolant on machine, so you can sample very easily.







### Equalizer bar side pins

Remote grease nipple on track-frame, so you can grease equalizer bar side pins easily.



### Tie-offs

Anchor points of tie-off are installed. They are used to connect the safety belts of workers for maintenance and cleaning work.



# Komatsu helps you bring it all together

## Get the most out of your fleet on My Komatsu

We've designed a portal that makes it easy to collect, visualize and monitor data for both Komatsu machines and other OEM machines. My Komatsu also gives you one easy source for accessing manuals and purchasing parts for your machines.

- Quickly collect, view and manage intuitive data displays in one location
- Help keep costs under control
- Benchmark machine performance and track fuel consumption
- Monitor for theft and unauthorized use
- Receive timely maintenance alerts



My Komatsu, our comprehensive portal, analyzes telematics data from your on-machine technology — Komtrax and Komtrax Plus, or from other OEMs — and displays it on easy-to-read dashboards. Now you can get the powerful analytics you need to manage your costs and enhance your fleet's efficiency without a complicated process or expensive third-party solutions.



**Data**
Telematics data is generated by on-machine technology.



**Storage**
Telematics data flows into data storage. ISO 15143-3 (AEMP 2.0) facilitates the extraction and raw data to your choice of databases.



**Connection**
Choose how you want to connect and view your data. Go to multiple systems, send to a third party, or easily connect it all through My Komatsu.



**Analytics**
My Komatsu connects telematics data from Komatsu and non-Komatsu equipment and creates powerful analytics dashboard views.

*mykomatsu.komatsu*

## Get more from an IMC machine with Smart Construction

You can have more control over your projects, efficiency and profitability when data is easily shared, replicated, updated and analyzed. That's what Smart Construction software, services and solutions are all about.



An IMC dozer is capable of dozing to plan with incredible precision and efficiency when working off a 3D design.

Have paper plans turned into digital 3D design files with our **Smart Construction Design** service.

Transfer files wirelessly to any cellular connected machine or data collector — from almost anywhere — with **Smart Construction Remote**, saving hours of time. You can also review near real-time machine data with a phone or computer.



As a dozer tracks, it tracks as-built data. **Smart Construction**, a productivity tracking, site visualization and site management tool can easily quantify production and easily report to and invoice clients.

We can help you implement these solutions and even train your staff to use them. Technology solution experts and trainers are available by phone, online or at your job site to help you thrive on your digitalization journey.

*komatsu.com/smart-construction*

## Komatsu maintenance and repair programs

Simplify the complexities of machine owning and operating costs and enhance the value of your equipment with Komatsu's tiered maintenance and repair offerings. Manage your active coverage programs through the My Komatsu customer interface and take advantage of attractive financing options.

- Solutions that fit your needs and ease your mind
- Fixed maintenance and repair costs for the life of the contract
- National coverage




### Komatsu Care Complimentary

*Complimentary maintenance*

Our complimentary scheduled maintenance program for the first three years or 2,000 hours, whichever occurs first.

### Komatsu Care Plus

*Extended maintenance*

A continuation of the Komatsu Care program. Along with regularly scheduled maintenance and national distributor coverage, you get a variety of added benefits.

### Komatsu Care Plus II

*Extended maintenance and repair*

Everything in the Komatsu Care Plus program bundled with comprehensive repair coverage for qualifying repairs.

### Komatsu Care Plus III

*Extended maintenance, repair and consumables*

A comprehensive program that simplifies your equipment's total cost of ownership with a fixed cost per hour for qualifying repairs and replacements.

### Komatsu Care Advantage Warranty

*Extended warranty*

Protect your equipment in the event a covered component fails due to a defect in material or workmanship. Repairs are performed by Komatsu-trained experts using Komatsu genuine parts.

*komatsu.com/maintenance-repair*

## Komatsu Financial

Financial services built for your business success.

*komatsu.com/financing*

## Komatsu Genuine Parts

Engineered to help extend the life of your Komatsu machine. Now available on the My Komatsu parts store.

*komatsu.com/parts*

## Komatsu training

Comprehensive training support — virtually, at our facility or where most convenient.

*komatsu.com/training*



# D71EX/EXi/PX/PXi-24

## Engine*

| | | |
|---|---|---|
| Model | | Komatsu SAA6D114E-6* |
| Type | | Water-cooled, 4-cycle, direct injection |
| Aspiration | | Komatsu variable geometry turbocharged, aftercooled, cooled EGR |
| Number of cylinders | | 6 |
| Bore x stroke | | 114 mm x 144.5 mm 4.5" x 5.7" |
| Piston displacement | | 8.85 L 540 $in^3$ |
| Horsepower | | |
| SAE J1995 | Gross | 179 kW 240 HP |
| ISO 9249 / SAE J1349 | Net | 177 kW 237 HP |
| Hydraulic fan at maximum speed | Net | 159 kW 213 HP |
| | Rated rpm | 2,100 |
| Fan drive type | | Hydraulic |
| Governor | | All-speed and mid-range, electronic |
| Lubrication system | | |
| Method | | Gear pump, forced lubrication |
| Filter | | Full-flow |

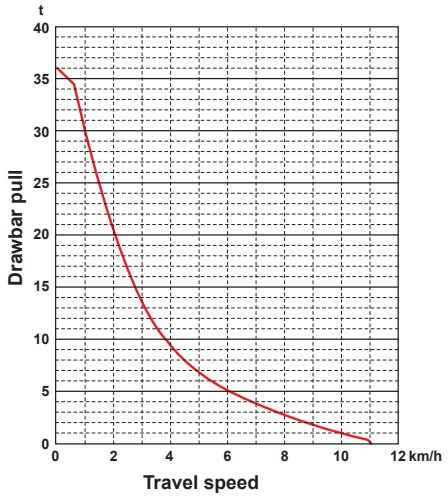
*EPA Tier 4 Final emissions certified.

## Hydraulic transmission

Dual-path, hydrostatic transmission provides extensive speed changes up to 6.8 mph (11 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 |
|---|---|---|
| 1st | 0-3.8 km/h 0-2.4 mph | 0-4.5 km/h 0-2.8 mph |
| 2nd | 0-6.5 km/h 0-4 mph | 0-7.5 km/h 0-4.7 mph |
| 2.5th | 0-8.4 km/h 0-5.2 mph | 0-9.3 km/h 0-5.8 mph |
| 3rd | 0-11 km/h 0-6.8 mph | 0-11 km/h 0-6.8 mph |
| **Travel speed (variable mode)** | **Forward** | **Reverse** |
| 1st | 0.8-11 km/h 0.5-6.8 mph | 0.8-11 km/h 0.5-6.8 mph |

*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 can reduce risk of damage by debris. Bolt-on sprocket for easy displacement.

## Steering system

PCCS joystick control for all directional movements. Pushing the joystick forward results in forward machine travel, while pulling it backward 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. HST eliminates steering clutches and brakes, providing smooth, powerful turns. Fully electronic control enables smooth operation. The PCCS utilizes shift buttons to increase and decrease speed.

| Minimum turning radius | |
|---|---|
| D71EX-24/ D71EXi-24 | 3.1 m 10'2" |
| D71PX-24/ D71PXi-24 | 3.1 m 10'2" |
| D71PX-24 Wide/ D71PXi-24 Wide | 3.3 m 10'10" |

## Undercarriage

| | |
|---|---|
| Suspension | Oscillating-type with equalizer bar and pivot shafts |
| Track roller frame | Monocoque, large section, durable construction |
| Rollers and idlers | Lubricated track rollers |
| Lubricated tracks | |

Parallel Link Undercarriage System (PLUS) with lubricated rotating bushings for extended system wear life and lower maintenance costs.
Track tension is adjusted easily with grease gun.

| | D71EX-24/ D71EXi-24 | D71PX-24/ D71PXi-24 | D71PX-24 Wide/ D71PXi-24 Wide |
|---|---|---|---|
| Number of track rollers (each side) | 8 | 8 | 8 |
| Type of shoes (standard) | Single grouser | Single grouser | Single grouser |
| Number of shoes (each side) | 45 | 45 | 45 |
| Grouser height | 65 mm 2.6" | 65 mm 2.6" | 65 mm 2.6" |
| Shoe width (standard) | 610 mm 24" | 760 mm 30" | 915 mm 36" |
| Ground contact area | 39,960 $cm^2$ 43 $ft^2$ | 49,780 $cm^2$ 53.6 $ft^2$ | 59,930 $cm^2$ 64.5 $ft^2$ |
| Ground pressure (with dozer, ROPS cab) (ISO 16754) | 43 kPa 6.3 psi | 40 kPa 5.8 psi | 35 kPa 5.0 psi |
| Track gauge | 2230 mm 7'3" | 2230 mm 7'3" | 2385 mm 7'10" |
| Length of track on ground | 3275 mm 10'8.9" | 3275 mm 10'8.9" | 3275 mm 10'8.9" |

## Service refill capacities

| | | |
|---|---|---|
| Coolant | 54.5 L | 14.4 U.S. gal |
| Fuel tank | 439 L | 116.0 U.S. gal |
| Engine oil | 30.5 L | 8.1 U.S. gal |
| Hydraulic tank | 154 L | 40.7 U.S. gal |
| Final drive, each side | 10 L | 2.6 U.S. gal |
| DEF tank | 20 L | 5.3 U.S. gal |

## Operating weight (approximate)

**Tractor weight:** Including ROPS (ISO 3471) cab, U frame for PAT dozer, rated capacity of lubricant, coolant, full fuel tank, operator and standard equipment.

| | |
|---|---|
| D71EXi-24 | 21,350 kg 47,069 lbs. |
| D71PXi-24 | 21,800 kg 48,061 lbs. |
| D71PXi-24 Wide | 22,500 kg 49,604 lbs. |

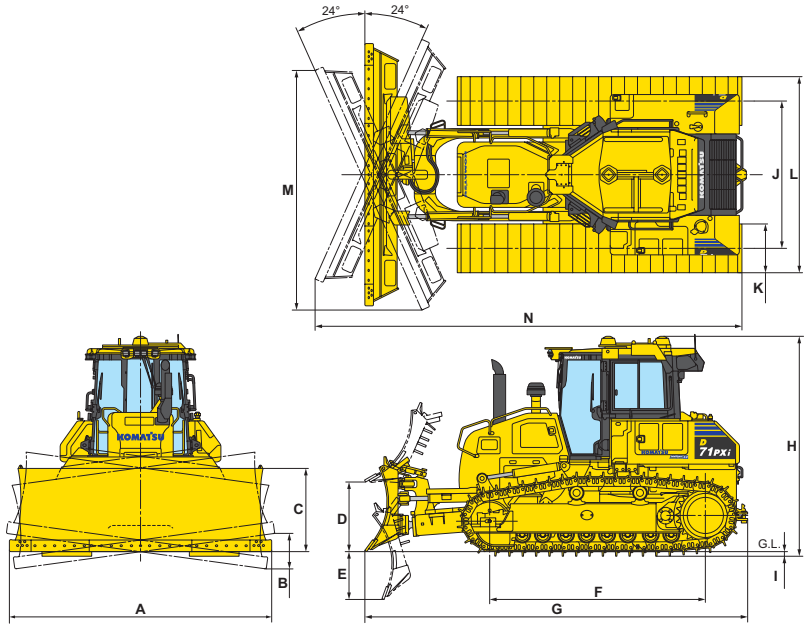
**Operator weight:** Including PAT dozer, ROPS (ISO 3471) cab, operator, standard equipment, rated capacity of lubricant, coolant and full fuel tank.

| | |
|---|---|
| D71EX-24 | 22,600 kg 49,824 lbs. |
| D71PX-24 | 23,100 kg 50,927 lbs. |
| D71PX-24 Wide | 23,900 kg 52,690 lbs. |
| D71EXi-24 | 22,700 kg 50,045 lbs. |
| D71PXi-24 | 23,200 kg 51,147 lbs. |
| D71PXi-24 Wide | 24,000 kg 52,911 lbs. |

## Dimensions

| | D71EX-24/ D71EXi-24 | | D71PX-24/ D71PXi-24 | | D71PX-24 Wide/ D71PXi-24 Wide | |
|---|---|---|---|---|---|---|
| **A** | 3870 mm | 152" | 4010 mm | 158" | 4295 mm | 169" |
| **B** | 500 mm | 20" | 515 mm | 20" | 555 mm | 22" |
| **C** | 1265 mm | 50" | 1265 mm | 50" | 1265 mm | 50" |
| **D** | 1090 mm | 43" | 1090 mm | 43" | 1090 mm | 43" |
| **E** | 705 mm | 28" | 705 mm | 28" | 705 mm | 28" |
| **F** | 3275 mm | 129" | 3275 mm | 129" | 3275 mm | 129" |
| **G** | 5810 mm | 229" | 5810 mm | 229" | 5810 mm | 229" |
| **H** | 3330 mm | 131" | 3330 mm | 131" | 3330 mm | 131" |
| **I** | 65 mm | 3" | 65 mm | 3" | 65 mm | 3" |
| **J** | 2230 mm | 88" | 2230 mm | 88" | 2385 mm | 94" |
| **K** | 610 mm | 24" | 760 mm | 30" | 915 mm | 36" |
| **L** | 2840 mm | 112" | 2990 mm | 118" | 3300 mm | 130" |
| **M** | 3575 mm | 141" | 3705 mm | 146" | 3970 mm | 156" |
| **N** | 6515 mm | 256" | 6540 mm | 257" | 6600 mm | 260" |

Ground clearance: 410 mm 1'4"




## 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 235 ltr/min 62.3 U.S. gal/min at rated engine rpm.

| | |
|---|---|
| Relief valve setting | 28.8 MPa 294 kg/cm² 4,177 psi |
| Hydraulic cylinders | Double-acting, piston type |

| | Number of cylinders | Bore |
|---|---|---|
| Blade lift | 2 | 120 mm 4.7" |
| Blade tilt | 1 | 130 mm 5.1" |
| Blade angle | 2 | 110 mm 4.3" |

| | |
|---|---|
| Hydraulic oil capacity (refill) | |
| Power angle tilt dozer | 154 L 40.7 U.S. gal |
| 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 scarifier | |
| Positions | |
| Scarifier lift | Raise, hold, and lower |

## Dozer equipment

| | Overall length with dozer | Blade capacity | Blade width x height | Max. lift above ground | Max. drop below ground | Max. tilt adjustment | Additional weight |
|---|---|---|---|---|---|---|---|
| **D71EX-24/D71EXi-24** | 5810 mm | 4.42 m³ | 3870 mm x 1265 mm | 1090 mm | 705 mm | 500 mm | 0 kg 0 lbs |
| **Power angle tilt dozer** | 19'1" | 5.8 yd | 12'8" x 4'2" | 42.9" | 27.76" | 19.7" | (included) |
| **D71PX-24/ D71PXi-24** | 5810 mm | 4.65 m³ | 4010 mm x 1265 mm | 1090 mm | 705 mm | 515 mm | 0 kg 0 lbs |
| **Power angle tilt dozer** | 19'1" | 6.1 yd | 13'2" x 4'2" | 42.9" | 27.76" | 20.3" | (included) |
| **D71PX-24 Wide/ D71PXi-24 wide** | 5810 mm | 5.02 m³ | 4295 mm x 1265 mm | 1090 mm | 705 mm | 555 mm | 0 kg 0 lbs |
| **Power angle tilt dozer** | 19'1" | 6.6 yd | 14'1" x 4'2" | 42.9" | 27.76" | 21.9" | (included) |

Blade capacities are based on the SAE recommended practice J1265.

Use of high-tensile-strength steel in moldboard for strengthened blade construction.

## Equipment

| Cab | D71 | D71i |
|---|---|---|
| Air conditioner: non-freon type, with heater, defroster and pressurizer | ● | ● |
| Automatic climate control | ● | ● |
| Cup holder | ● | ● |
| Electronic fuel control dial | ● | ● |
| Foot rests, high mounted | ● | ● |
| Front, rear and door wipers | ● | ● |
| Horn, electric | ● | ● |
| Large LCD high-resolution color monitor | ● | ● |
| LED working lights, 4 front and 2 rear | ● | ● |
| Low-back air suspension seat, fabric material, with heat and cooling | ● | ● |
| Monitor: multi-function, 7-inch, high-resolution, color | ● | ● |
| Operator presence seat-sensor | ● | ● |
| Radio, AM/FM with auxiliary jack, USB, Bluetooth | ● | ● |
| Rearview mirrors | ● | ● |
| Rearview monitoring system (1 camera) | ● | ● |
| Retractable seat belt (3-in width) | ● | ● |
| ROPS cab (ISO 3471) and FOPS (ISO 3449) Level 2 | ● | ● |
| Tie-offs (ISO 14567) | ● | ● |
| Two 12 V accessory outlets | ● | ● |

| Electrical system | D71 | D71i |
|---|---|---|
| Alternator (90 Amp, 24 Volt) | ● | ● |
| Backup alarm | ● | ● |
| Batteries, large capacity (2 x 12 Volt), (930 CCA) | ● | ● |
| Battery master disconnect switch with lockout tagout provision | ● | ● |
| Engine shutdown secondary switch | ● | ● |
| Engine idle auto shutdown with adjustable timer | ● | ● |
| Starter motor (11 kW/24 V) | ● | ● |

| Engine | D71 | D71i |
|---|---|---|
| Above hood air intake pipe with centrifugal pre-cleaner | ● | ● |
| Air cleaner, double element with dust indicator | ● | ● |
| Auto-deceleration system | ● | ● |
| B20 compatible fuel lines | ● | ● |
| Fuel high efficiency filter | ● | ● |
| Fuel pre-filter with water separator | ● | ● |
| Grid heater - starting aid in cold weather | ● | ● |
| Komatsu Diesel Particulate Filter (KDPF) | ● | ● |
| Komatsu SAA6D114E-6, Tier 4 final, 8.9 L displacement | ● | ● |
| Komatsu Variable Geometry Turbocharger (KVGT) | ● | ● |
| Large-capacity cooling system | ● | ● |
| Programmable auto-idle shut down | ● | ● |
| Selective catalytic reduction (SCR) | ● | ● |
| Strainer, fuel tank fill | ● | ● |
| Swing-up radiator fan, reversible, electronic control, hydraulic driven | ● | ● |

| Technology | D71 | D71i |
|---|---|---|
| Automatic reverse grading | - | ● |
| Dual band UHF/915 radio and antenna kit | - | ● |
| Dual cab-mounted GNSS antennas, control box, stroke sensing cylinders | - | ● |
| EMMS (Equipment Management Monitoring System) including system monitoring with self diagnostics | ● | ● |
| Includes on-machine components such as IMU+ | - | ● |
| Integrated 3D GNSS machine control system | - | ● |
| Komatsu Intelligent Machine Control 2.0 | - | ● |
| Komtrax, level 5 (4G) | ● | ● |
| Vertical offset switch | - | ● |
| IMC 2.0 2D laser kit | - | □ |

| Guards and covers | D71 | D71i |
|---|---|---|
| Battery lockout/tagout provision | ● | ● |
| Closed engine hood | ● | ● |
| Crankcase guard | ● | ● |
| Engine hood and side panel with locks | ● | ● |
| Final drive with triple labyrinth seal | ● | ● |
| Front pull hook | ● | ● |
| Front sweeps | □ | □ |
| Hitch | ○ | ○ |
| Locks, filler caps and covers | ● | ● |
| Long drawbar | ○ | ○ |
| Provision mounts for optional bolt-on screens | ● | ● |
| Provision mounts for optional reinforced radiator mask | ● | ● |
| Rear A/C guard | □ | - |
| Rear screen | □ | □ |
| Side screens | □ | □ |
| Sprocket inner guard | ● | ● |
| Track roller guards, center and end section | ● | ● |
| Track roller guards, full length | ○ | ○ |
| Under guard | ● | ● |

| Hydraulics and controls | D71 | D71i |
|---|---|---|
| Accumulator for EPC | ● | ● |
| Blade cylinder hoses, standard type | ● | ● |
| Electronic float function | ● | ● |
| Electronic proportional control (EPC) blade hydraulics with three sensitivity adjustment modes | ● | ● |
| Electronic transmission and hydraulic lockout | ● | ● |
| Hydraulics for front attachment | ● | ● |
| Rear hydraulics for scarifier or level 1 winch | ● | ● |

| Powertrain and steering controls | D71 | D71i |
|---|---|---|
| Combination brake/decel pedal | ● | ● |
| Track counter rotation | ● | ● |
| Electronically controlled HST with Quickshift (4) or variable (20 speed) | ● | ● |
| E/P/H working mode selection | ● | ● |
| Palm command control (PCCS) with electronic control | ● | ● |
| Reverse speed presets | ● | ● |

| Undercarriage and work equipment | D71 | D71i |
|---|---|---|
| Parallel Link Undercarriage System (PLUS) | ● | ● |
| 610 mm (24") single grouser track shoes (EX) | ● | ● |
| 760 mm (30") single grouser track shoes (PX) | ● | ● |
| 915 mm (36") single grouser track shoes (PX)*2 | ○ | ○ |
| 8 track/2 carrier rollers (each side) | ● | ● |
| Self-adjusting Idler support with recoil spring | ● | ● |
| Sprockets, segmented with mud relief notches | ● | ● |
| Multi-shank scarifier | ○ | ○ |
| -Weight (including hydraulic control unit) | 1,780 kg 3,924 lbs. | |
| -Beam length | 2,170 mm 7'1" | |
| -Maximum lift above ground | 640 mm 2'1" | |
| -Maximum digging depth | 580 mm 1'11" | |

| Other standard equipment | D71 | D71i |
|---|---|---|
| Grease gun holder | ● | ● |
| Marks and plates, for USA and Puerto Rico | ● | ● |
| Paint, Komatsu standard | ● | ● |
| Parts book and O&M manual | ● | ● |
| Shovel holder | ● | ● |

*1 Dozer assembly and rear-mounted equipment are not included in base machine standard equipment. For a complete list of available attachments, please contact your local Komatsu distributor.
*2 Wide specification for use with 169" (915 mm) blade

| | |
|---|---|
| Standard equipment | ● |
| Optional equipment | ○ |
| Optional (field install) | □ |
| Not applicable | - |

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