

KOMATSU

D65EX-18
D65WX-18
D65PX-18



Crawler dozer

Engine power
164 kW / 220 HP @ 1950 rpm

Operating weight
D65EX-18: 21600 kg
D65WX-18: 22300 kg
D65PX-18: 23000 kg

Blade capacity
3.69 - 5.90 m³

D65EX/WX/PX-18



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3.69 - 5.90 m³

Increased productivity & outstanding fuel economy

Powerful and environmentally friendly

- Low consumption EU Stage V engine
- Unique torque converter with auto lock-up
- Adjustable auto idle shutdown
- Auto-decelerator

Optimised work equipment

- Sigmadozer® blade with hydraulic pitch
- Multishank parallelogram ripper

First-class operator comfort

- Quiet and comfortable cab
- Fully adjustable air-suspended seat
- Integrated rear-view camera

State-of-the-art controls

- Hydrostatic steering system with increased steering power
- Optimized automatic gear shifting with preset function
- Palm Command Control System (PCCS)
- Large multifunctional monitor with troubleshooting function

Tough and reliable

- Low-drive "PLUS" undercarriage
- Self-adjusting idler support
- Sturdy, rugged design
- LED lighting standard

Komtrax

- Komatsu Wireless Monitoring System
- 4G mobile communications
- Integrated communication antenna
- Increased operational data and reports



A maintenance program for Komatsu customers



Automatic transmission

Set by default, the D65EX/WX/PX-18 has a highly efficient transmission that automatically matches the best gear mode in all dozing operations and includes a travel speed preset function to reduce work time and fatigue for the operator. With Komatsu's ECMV (Electronic Controlled Modulation Valves) gear changes are smoothly timed to always keep the power transfer at maximum efficiency.

Torque converter with auto lock-up

Combined with the automatic transmission, the exclusive Komatsu automatic lock-up torque converter reduces fuel consumption by up to 10% by eliminating unnecessary power loss. When required, the powertrain control system engages the torque converter, or locks it up to send full engine power directly to the transmission during less torque demanding applications.

Adjustable idle shutdown

To reduce unnecessary fuel consumption and exhaust emissions, and for lower operating costs, the Komatsu auto idle shutdown automatically turns off the engine after it idles for a set period of time, which can be easily programmed from 5 to 60 minutes. An Eco-gauge and Eco guidance tips on the cab monitor further encourage efficient operations.

Powerful and environmentally friendly

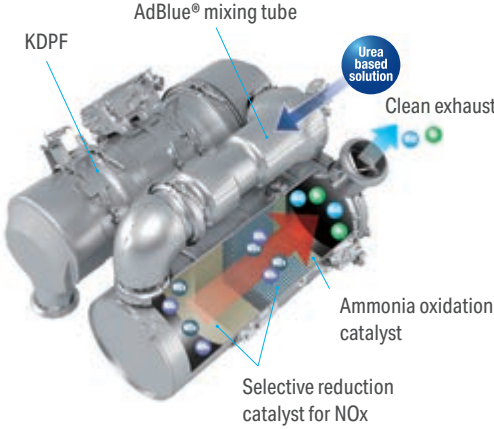


Komatsu EU Stage V

The Komatsu EU Stage V engine is productive, dependable and efficient. With ultra-low emissions, it provides a lesser environmental impact and a superior performance to help reduce operating costs and lets the operator work in complete peace of mind.

Heavy-duty aftertreatment

The aftertreatment system combines a Komatsu Diesel Particulate Filter (KDPF) and Selective Catalytic Reduction (SCR). The SCR system injects the correct amount of AdBlue® at the proper rate to break down NOx into water (H2O) and nontoxic nitrogen gas (N2). NOx emissions are reduced by 80% vs. EU Stage IIIB engines.



- 1 KDPF
- 2 SCR
- 3 HPCR
- 4 Cooled EGR
- 5 KCCV
- 6 VGT

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.

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.

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.

Variable Geometry Turbo (VGT)

The VGT provides optimal airflow 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.

Optimised work equipment

Komatsu blades

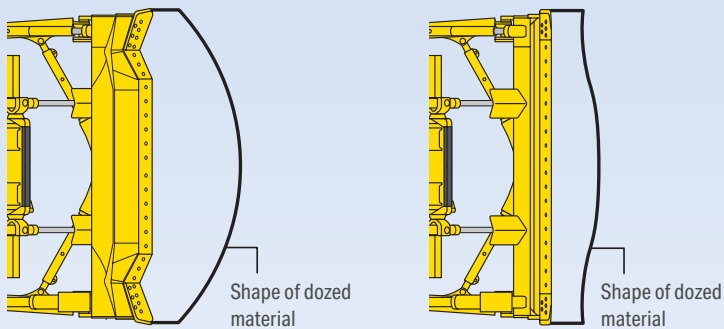
For increased blade performance and better machine balance, Komatsu uses a box blade design, with the highest resistance for a light weight blade. Special Komatsu highly wear resistant steel is used for the front and sides of the blade to increase durability. The deep curved design of the blade makes it easy to handle a wide range of materials, with good penetration and a large capacity, optimising high dozing performance with excellent fuel efficiency.

Multishank parallelogram ripper (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 tough applications.

Sigmodozer® blade (EX/WX)

The middle section of Komatsu's Sigmodozer® blade acts like a V-shaped bucket with aggressive ground penetration. Its lateral blade edges help to push the rolling material continuously towards the centre. Combined with the blade's deep curve, this largely increases effective capacity and reduces spillage and fuel consumption. The blade's flat cutting edge and the standard pitch function also offer top grading performance. Overall, the Sigmodozer® blade increases dozing productivity by more than 15% compared to a conventional Semi-U blade.



Up to 15% higher production with the improved Sigmodozer® blade (left), compared to conventional Semi-U blade (right)



The Sigmodozer® blade offers highest material holding capacity



Semi-U blade





First-class comfort

Quiet and comfortable cab

Operator comfort is essential for safe and productive work. The cab on the D65EX/WX/PX-18 is quiet and comfortable, an ideal environment to concentrate on the job. Its hexagonal design and large tinted glass windows offer excellent panoramic visibility. The high capacity and fully automatic climate control system pressurises the cab to keep dust out. A high quality sound-absorbent lining covers the interior to minimise noise levels for the operator. The operator can connect his mobile device to the machine's Bluetooth® radio.

Fully adjustable suspension seat and travel-control console

A comfortable, heavy-duty and fully adjustable heated air-suspended seat is at the centre of the operator's safe and cosy work space. For dozing operations, the seat faces straight forward, with a perfect view of both sides of the blade. For ripping, it can be turned 15° to the right to significantly improve rear visibility and reduce neck strain. The position of the travel control console can also be independently adjusted forwards, backwards and in height to fit each operator's preference.

Superior visibility on blade and ripper

The redesigned ROPS/FOPS integrated cab and the well-located operator seat give optimal blade visibility to the left and right and make both dozing and grading easy, safe and fast. To further improve safety and ripping efficiency, the special shape of the fuel tank gives the operator a clear view of the ripper point and of the dozer's back side.



State-of-the-art controls



Hydrostatic steering system

The hydrostatic steering system (HSS) offers fast response and more precise turning. Both tracks are powered without interruption allowing smooth, continuous turns and powerful and productive dozing even on soft ground or on slopes.

Gearshift preset function

To reduce the frequency of gear shifting and for comfortable machine operation, a shift preset mode is provided as standard equipment. The preset switch lets the operator select a combination of forward/reverse gear shifts by using the UP/DOWN shift switch on the steering lever. Once the shift pattern is selected, only forward/reverse direction control selection is required for a correct gear shift.

Easy and precise

The ergonomic Palm Command Control System (PCCS) provides efficient and comfortable steering. The new control levers are fingertip controlled for precise and fatigue-free operating. When backing up over shot rock or other rough surfaces, travel speed can be reduced with the "slow reverse" function to improve ride quality and decrease vibrations and fuel consumption.

Selectable working modes

Working mode can be set to either "Power" for maximum power or to "Economy" for energy saving operations. Combined with a choice between automatic or manual working mode, this lets the operator select the optimum machine power configuration for the work at hand.



Palm Command Control System (PCCS)



Remote safety lock levers



Superior visibility on blade and ripper



Lower operating costs

Komatsu ICT contributes to the reduction of operating costs by assisting to comfortably and efficiently manage operations. It raises the level of customer satisfaction and the competitive edge of our products.

Widescreen monitor

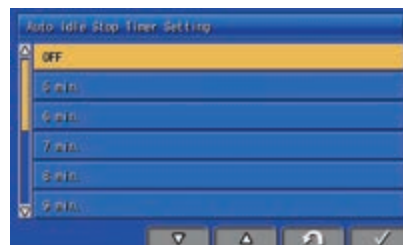
Conveniently customisable and with a choice of 26 languages, the widescreen monitor with simple switches and multifunction keys gives fingertip access to a large range of functions and operating info. An AdBlue® level gauge is now incorporated into the default main screen.

An evolutionary interface

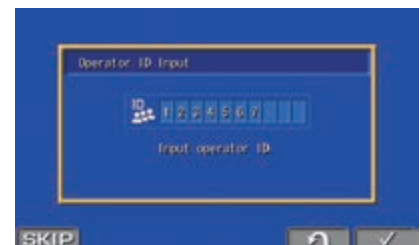
Helpful information is now easier than ever to find and understand with the upgraded monitor interface. The main screen can be simply optimised to the operator's preference by just pressing one button.



At a glance: operation logs



Adjustable idle shutdown automatically turns off the engine after it idles for a set period of time



Operator identification function



Automatic gearshift mode to further reduce fuel consumption



Eco-gauge, Eco guidance and fuel consumption gauge



Fuel consumption history

Information & communication technology



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 wireless communication technology (satellite, GPRS or 4G depending on model) from the machine to a computer and to the local Komatsu distributor – who's readily available for expert analysis and feedback.

Convenience

Komtrax enables convenient fleet management on the web, wherever you are. Data is analysed and packaged specifically for effortless and intuitive viewing in maps, lists, graphs and charts. You can foresee eventual maintenance issues and required spare parts, and troubleshoot a problem before Komatsu technicians arrive on site.



The way to higher productivity

Komtrax uses the latest wireless monitoring technology. Compatible on PC, smartphone or tablet, it delivers insightful and cost saving information about your fleet and equipment, and offers a wealth of information to facilitate peak machine performance. By creating a tightly integrated web of support it allows proactive and preventive maintenance and helps to efficiently run a business.

Power

The detailed information that Komtrax puts at your fingertips 24 hours a day, 7 days a week gives the power to make better daily and long-term strategic decisions – at no extra cost. Problems can be anticipated, maintenance schedules customised, downtime minimised and machines kept where they belong: working on the jobsite.



Tough and reliable

Sturdy, rugged design

A high-rigidity hull structure main frame improves durability and reduces stress concentration at critical areas. The track frame with a large cross section utilises pivot shaft mounting for greater reliability. All hydraulic piping is robustly protected by cover and inner route to ensure damage protection from materials.

Stable in any configuration (EX/WX/PX)

For complete stability in any working condition the D65EX/WX/PX-18 is available in 3 different PLUS undercarriage configurations. On rocky ground, the EX undercarriage, with small-width shoes, ensures maximum contact area between the machine and the ground. The PX version has the widest undercarriage shoes and is ideal for soft surfaces. Finally, the WX machine is perfectly suited for most jobs with medium width undercarriage shoes and the same length of track on ground as an EX model machine.

Low-drive "PLUS" undercarriage

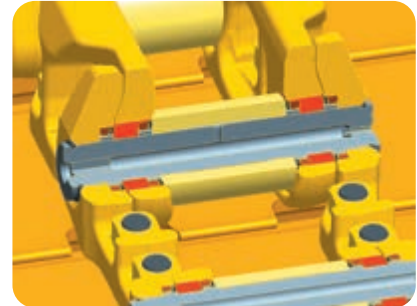
Komatsu's new low-drive Parallel Link Undercarriage System (PLUS) is extraordinarily tough, with excellent grading performance and stability. It features PLUS link assemblies, a highly reliable floating bushing concept, substantial track link height, superior oil seals and track guards that maximise undercarriage durability. For easier servicing, the equaliser bar's centre pin is remotely greased. The segmented sprockets are notched to considerably improve the evacuation of mud and further increase the PLUS undercarriage lifetime.

Protected hydraulic piping

Komatsu has designed the hydraulics of the working equipment so it minimises maintenance costs. All the hydraulic lines are well protected with special linings and embedded into the steel structures whenever possible.

Modular power train

All the power train components are enclosed in a sealed module. This eliminates oil spills during mounting and dismounting, and prevents dust and dirt polluting individual components. Servicing is much cleaner, smoother and easier.



Rotating bushings



Self-adjusting idler support



Hydraulic lines are embedded into the structures whenever possible



Modular power train

Easy maintenance

Reversible radiator fan

The radiator can be easily cleaned by utilisation of the reversible, hydraulically driven cooling fan from a touch on the monitor panel. This cleaning reduces fuel consumption and increases overall machine performance.

Komatsu Care

Komatsu Care is a maintenance program that comes as standard with your new Komatsu machine. It covers factory-scheduled maintenance, performed with Komatsu Genuine parts by Komatsu-trained technicians. Depending on your machine's engine, it also offers extended coverage of the Komatsu Diesel Particulate Filter (KDPF) or the Komatsu Diesel Oxidation Catalyst (KDOC), and of the Selective Catalytic Reduction (SCR). Please contact your local Komatsu distributor for terms and conditions.

Central service points

Komatsu designed the D65EX/WX/PX-18 with centralised and conveniently located service points to make necessary inspections and maintenance quick and easy. Newly integrated oil and coolant sampling ports simplify the sampling process.

Self-diagnostic monitor

The multifunction 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.



Self-diagnostic monitor



Safety first

Optimal jobsite safety

Safety features on the Komatsu D65EX/WX/PX-18 comply with the latest industry standards and work in synergy to minimise risks to people in and around the machine. Seat belt caution indicator, secondary engine shutdown switch and audible travel alarm as well as handrails and tie-off points further increase safety.



LED lighting system

Long life, high lumen LED lights are standard on the machine. They are ideally positioned to give an optimal illumination of the work area.



Tie-off points

Tie-off points have been installed on the cab roof and engine hood for connecting workers' safety belts during maintenance and cleaning tasks, ensuring secure operations.



Rear-view camera system

The rear-view monitor gives the operator a clear view of the rear area of the machine or the ripper. This allows to focus on the work at hand, even in low light conditions.

Specifications

Engine

Model	Komatsu SAA6D114E-6
Type	Common rail direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel
Engine power	
at rated engine speed	1950 rpm
ISO 14396	164 kW / 220 HP
ISO 9249 (net engine power)	162 kW / 217 HP
No. of cylinders	6
Bore × stroke	114 × 144.5 mm
Displacement	8.85 l
Fan drive type	Hydraulic, reversible
Lubrication system	
Method	Gear pump, force lubrication
Filter	Full flow
Fuel	Diesel fuel, conforming to EN590 Class 2/ Grade D. Paraffinic fuel capability (HVO, GTL, BTL), conforming to EN 15940:2016

Max. travel speeds

	Forward	Reverse
1st	3.6 km/h	4.4 km/h
2nd	5.5 km/h	6.6 km/h
3rd L	7.2 km/h	8.6 km/h
3rd	11.2 km/h	13.4 km/h

Steering system

Type	Hydrostatic Steering System (HSS)
Steering control	PCCS-lever
Service brakes	Wet, multiple-disc, pedal-controlled, spring-actuated and hydraulically released
Minimum turning radius (counter-rotation) (as measured by track marks on ground)	
D65EX-18	1.9 m
D65WX/PX-18	2.2 m

TORQFLOW transmission

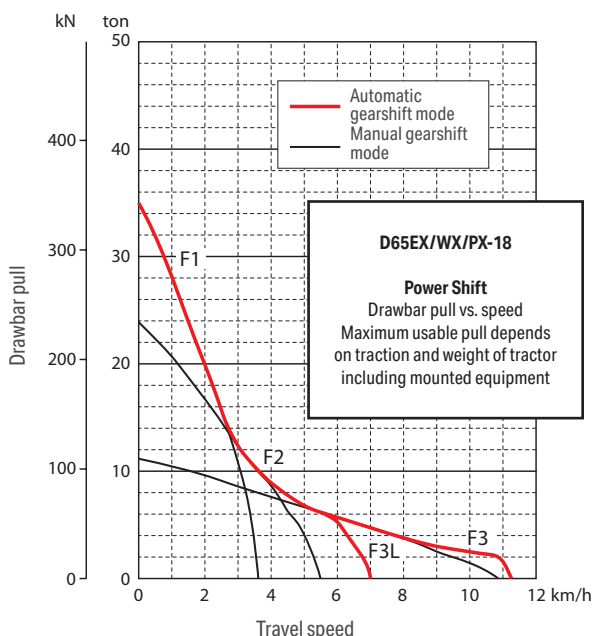
Type	Komatsu TORQFLOW
Torque converter	3-element, 1-stage, 2-phase, water-cooled, automatic lock-up
Transmission	Planetary gear, multiple-disc clutch hydraulically actuated, force-lubricated
Gearshift lock lever and neutral safety switch prevent accidental starts	

Environment

Engine emissions	Fully complies with EU Stage V exhaust emission regulations
Noise levels	
LwA external	108 dB(A) (2000/14/EC Stage II)
LpA operator ear	78 dB(A) (ISO 6396 dynamic test)
Vibration levels (EN 12096:1997)	
Hand/arm	≤ 2.5 m/s ² (uncertainty K = 0.94 m/s ²)
Body	≤ 0.5 m/s ² (uncertainty K = 0.29 m/s ²)
Contains fluorinated greenhouse gas HFC-134a (GWP 1430). Quantity of gas 0.9 kg, CO ₂ equivalent 1.29 t	

Service refill capacities

Fuel tank	415 l
Radiator	58 l
Engine oil	30.5 l
Torque converter, transmission, bevel gear and steering system	48 l
Final drive (each side)	
D65EX-18	24 l
D65WX-18	27 l
D65PX-18	27 l
Work equipment hydraulics	62 l
Multishank ripper	7 l
AdBlue® tank	23.5 l



Specifications

Final drive

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

Operating weight (appr.)

Including blade, ROPS cab, hydraulic control unit, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank	
D65EX-18 with Sigmadozer®	21600 kg
D65EX-18 with Semi-U	21500 kg
D65WX-18 with Sigmadozer®	22300 kg
D65PX-18 with Straight tilt	23000 kg

Undercarriage

Suspension	Oscillating equaliser bar and pivot shaft
Track roller frame	Monocoque, large section, durable construction
Rollers and idlers	Lubricated track rollers
Tracks	PLUS link assembly
Track tension	Combined spring and hydraulic unit

Hydraulic system

Type	CLSS (closed-centre load sensing system)
All spool valves externally mounted beside the hydraulic tank	
Main pump	Variable displacement piston pump
Maximum pump flow	255 l/min
Relief valve setting	285 kg/cm ²
Control valve positions for Sigmadozer® or straight tilt dozer	
Blade lift	Raise, hold, lower and float
Blade tilt	Right, hold and left
Additional control valve positions for multishank ripper	
Ripper lift	Raise, hold and lower
Ripper tilt	Increase, hold and decrease

Number of cylinders × bore

Type of blade	Sigmadozer®	Straight tilt Semi-U
Blade lift	2 × 90 mm	2 × 90 mm
Blade tilt	-	1 × 125 mm
Blade tilt/pitch	2 × 125 mm	-
Blade angle	-	-

D65EX/WX/PX-18

	D65EX-18	D65WX-18	D65PX-18
Type of blade	Sigmadozer® Semi-U	Sigmadozer®	Straight tilt
Number of track rollers (each side)	7	7	8
Number of shoes (each side)	42	42	45
Shoe width (standard)	610 mm	760 mm	915 mm
Ground contact area (ISO 16754)	36355 cm ²	45295 cm ²	60115 cm ²
Ground pressure* (ISO 16754)	0.52 kg/cm ²	0.42 kg/cm ²	0.33 kg/cm ²
Track gauge	1880 mm	2050 mm	2050 mm
Length of track on ground	2980 mm	2980 mm	3285 mm

* Including blade, ROPS cab, hydraulic control unit, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank.

Dozer equipment

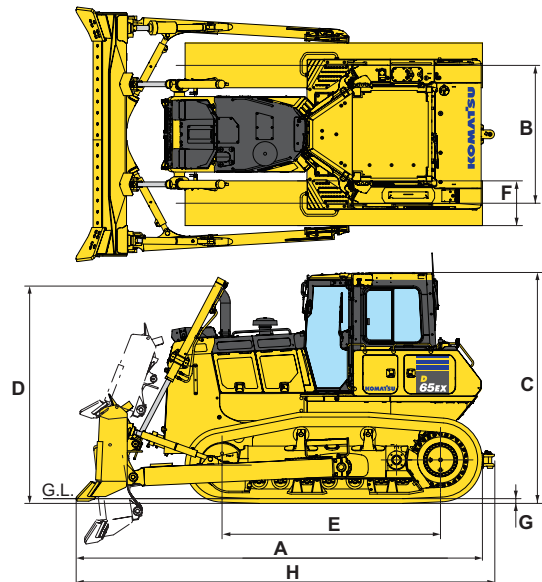
	Overall length with blade	Blade capacity	Blade width × height	Max. lift above ground	Max. drop below ground	Max. tilt adjustment	Assembly weight
D65EX-18 Sigmadozer®	5680 mm	5.61 m ³	3410 × 1425 mm	1135 mm	620 mm	870 mm	2460 kg
D65EX-18 Semi-U	5725 mm	5.61 m ³	3470 × 1425 mm	1105 mm	550 mm	870 mm	2080 kg
D65WX-18 Sigmadozer®	5685 mm	5.90 m ³	3580 × 1425 mm	1135 mm	620 mm	770 mm	2540 kg
D65PX-18 Straight tilt	5870 mm	3.69 m ³	3980 × 1100 mm	1130 mm	570 mm	890 mm	2150 kg

Blade capacities are based on the SAE recommended practice J1265.

Machine dimensions

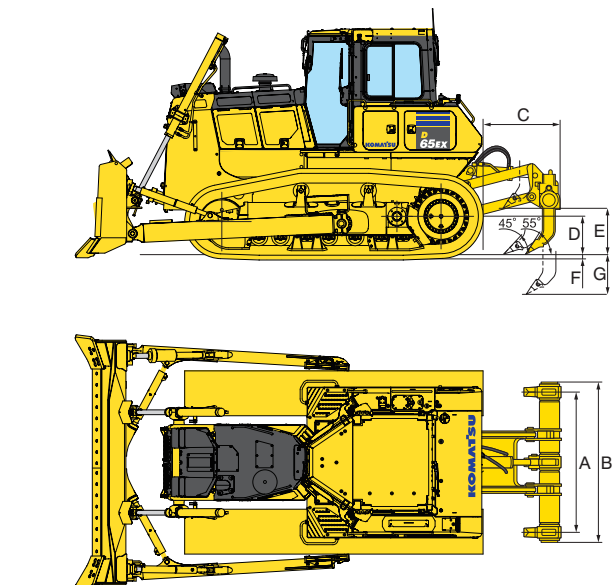
	D65EX-18 Sigmadozer®	D65EX-18 Semi-U	D65WX-18 Sigmadozer®	D65PX-18 Straight Tilt
A	5490 mm	5540 mm	5500 mm	5680 mm
B	1880 mm	1880 mm	2050 mm	2050 mm
C	3160 mm	3160 mm	3160 mm	3160 mm
D	2970 mm	2970 mm	2970 mm	2970 mm
E	2970 mm	2970 mm	2970 mm	3275 mm
F	610 mm	610 mm	760 mm	915 mm
G	65 mm	65 mm	65 mm	65 mm
H	5660 mm	5705 mm	5665 mm	5850 mm

Ground clearance: 415 mm (+ grouser height)



Multishank ripper

Type	Hydraulically controlled parallelogram ripper
No. of shanks	3
Weight (including hydraulic control unit)	1920 kg
Ripper cylinder	1 × 125 mm
A	1900 mm
B	2170 mm
C	1340 mm
D	533 mm
E	640 mm
F	65 mm
G	590 mm



Standard and optional equipment

Engine and related parts

Komatsu SAA6D114E-6 turbocharged common rail direct injection diesel engine	●
EU Stage V compliant	●
Starter motor 24 V / 7.5 kW	●
Alternator 24 V / 90 A	●
Batteries 2 × 12 V / 200 Ah	●
Intake pipe with precleaner	●
Cooling fan, hydrostatic driven with reversing function	●
Auto-deceleration function	●
Adjustable auto idle shutdown	●
Radiator reserve tank	●
Heavy-duty radiator mask	●
Fuel tank inlet strainer	●
Fuel pre-filter (10 micron) and fuel filter (2 micron)	●
Locks, filter caps and covers	●
Gull wing engine side covers	●
Starter motor 24 V / 11 kW	○

Transmission and brakes

Automatic hydroshift transmission	●
Torque converter with automatic lock-up	●
Damper	●
Quick shift selection system	●
HSS hydrostatic steering system	●
Palm lever steering control (PCCS)	●
Decelerator pedal	●
Brake pedal	●

Undercarriage

PLUS link assembly	●
Single grouser heavy-duty shoes: Sigmadozer®/Semi-U blade (EX): 610 mm Sigmadozer® blade (WX): 760 mm Straight tilt blade (PX): 915 mm	●
Track roller guard, centre and end sections	●
Segmented sprockets	●
Fixed track rollers	●
Hydraulic track adjusters	●
Underguards, oil pan and transmission	●
Single grouser heavy-duty shoes: Sigmadozer®/Semi-U blade (EX): 510 mm, 560 mm, 660 mm	○
Full length track roller guard	○

Cabin

Heated air-suspended seat: fabric, reclining, high backrest, turnable	●
High mount footrest	●
Automatic air conditioner	●
Radio with Bluetooth®	●
Auxiliary input (MP3 jack)	●
USB port for charging	●
2 × 12 Volt power supply (120 W)	●
1 × 24 Volt power supply	●
Viscous cab mounts	●
Front window sun roller blind	●
Wiper front and rear window	●
Wipers doors	●
Rear-view mirror (inside cab)	●
Cup holder	●

Service and maintenance

Dry type air cleaner, double element with dust indicator and evacuator	●
Multifunction video compatible colour monitor with Equipment Management and Monitoring System (EMMS) and efficiency guidance	●
Water separator	●
Komtrax – Komatsu wireless monitoring system (4G)	●
Komatsu Care – a maintenance program for Komatsu customers	●
Tool kit	●
Grease gun holder	●
Shovel holder	●
Sampling ports for oils and coolant	●

Hydraulic system

Hydraulics for dozing blades	●
Hydraulics for ripper (EX/WX)	●
Mono lever blade control	●
Hydraulics for ripper (field installation kit)	○

LED lighting system

Working lights: 4 front and 2 rear lights	●
Additional working light, rear	●

Safety equipment

Steel cab, meets ISO 3471 and SAE J1040, APR88 ROPS standards, as well as ISO 3449 FOPS standards	●
Back-up alarm	●
Warning horn	●
Rear-view camera system	●
Locks, filter caps and covers	●
Battery main switch (lockable)	●
Secondary engine shutdown switch	●
Seat belt caution indicator	●
Tie-off points	●
Handrails	●

Dozer equipment

Straight tilt blade 3,69 m ³ (PX)	●
Sigmadozer [®] blade, with hydraulic pitch function, single tilt 5,61 m ³ (EX)	●
Sigmadozer [®] blade, with hydraulic pitch function, single tilt 5,9 m ³ (WX)	●
Semi-U blade, single tilt, 5,61 m ³ (EX)	○

Attachments

Front pull hook	●
Hitch	●
Rear counterweight with hitch	○
Rigid drawbar	○
Multishank parallelogram ripper	○

Further equipment on request

- standard equipment
- optional equipment



A wide range of blades and attachments is available. Your Komatsu distributor is ready to assist you with the selection of suitable options.

This specification sheet may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.

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KOMATSU

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