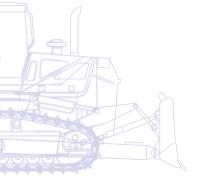
KOMATSU



Crawler Dozer

D65EX/WX/PX-16



ENGINE POWER 164 kW / 219 HP @ 1.950 rpm

> OPERATING WEIGHT D65EX-16: 22.890 kg D65WX-16: 23.660 kg D65PX-16: 21.860 kg

Walk-Around

Remarkably efficient both for ripping and for dozing, the D65-16 is a productive, reliable and durable Komatsu bulldozer. Among many outstanding features, it boasts a powerful and fuel efficient power train, a redesigned Sigmadozer® blade, a new INPAT blade and a field proven automatic transmission with lockup torque converter electronically controlled with Komatsu's latest technology. The D65-16 is designed and built by Komatsu to give you a drastically enhanced competitive edge and a lower cost of ownership. Rain or shine, this Komatsu dozer will quickly become a trusted working partner.

High productivity & low fuel consumption

- Torque converter with auto lockup
- Automatic transmission
- Clean, powerful engine
- Selectable working modes
- New and improved blades

Optimized work equipment

- Sigmadozer® blade
- INPAT blade
- Multishank parallelogram ripper



D65-16

ENGINE POWER 164 kW / 219 HP @ 1.950 rpm

OPERATING WEIGHT

D65EX-16: 22.890 kg D65WX-16: 23.660 kg D65PX-16: 21.860 kg

First-Class Operator Comfort

- Quiet and comfortable cab
- Fully adjustable suspension seat
- Superior visibility on blade and ripper
- Less noise and vibrations





State of the art controls

- Hydrostatic steering system
- Gearshift preset function
- Easy and precise
- Remote safety lock levers
- Large LCD colour multi monitor







- Low-drive "PLUS" undercarriage
- Self-adjusting idler support
- Sturdy, rugged design
- Stable in any configuration (EX/WX/PX)



KOMTRAX Komatsu Satellite

Monitoring System

High Productivity & Low Fuel Consumption

Torque converter with auto lockup

Combined with the automatic transmission, the exclusive automatic lock up torque converter on the D65-16 is the key to low cycle times and to improved overall performance. The power train control system either engages the torque converter when torque multiplication is needed, or automatically locks it up and sends full engine power directly to the transmission during less torque demanding applications. This eliminates unnecessary power loss and lets the machine constantly operate at maximum efficiency. Necessary drawbar pull is always maintained and overall fuel consumption is reduced by up to 10%.

Automatic transmission

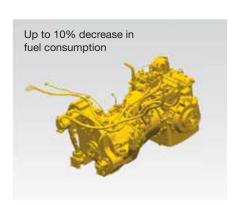
Set by default, the D65-16's highly efficient transmission automatically matches the best gear mode for all dozing and ripping operations and includes a travel speed preset function to reduce work time and operator's efforts. Thanks to Komatsu's ECMV (Electronic Controlled Modulation Valves), gear changes are smoothly timed to always keep the power transfer at maximum efficiency.

A clean, powerful engine

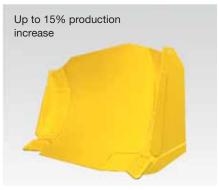
A powerful and fuel-efficient engine certified for EU Stage IIIA and EPA Tier III emission regulations makes the D65-16 an outstanding performer both for dozing and ripping. This 164 kW / 219 HP ecot3 engine combines top productivity and preservation of the environment.

Hydraulic drive radiator cooling fan

The rotation speed of the cooling fan is electronically controlled and is correctly determined by the temperature of the engine coolant and hydraulic oil: the higher the temperature, the faster the fan will turn. This system increases fuel efficiency, reduces the operating noise levels and requires less horsepower than belt driven fans.



Torque converter with auto lockup



Improved Sigmadozer® blade design

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.



New and improved blades

Komatsu has further improved the unique, patented shape of their Sigmadozer® blade. It is now up to 15% more productive than a standard Semi-U blade. The new highly versatile INPAT blade meets Komatsu's unique standards for reliability and durability, and its size and variable pitch adjustment maximizes productivity in different soil conditions.





First-Class Operator Comfort

Quiet and comfortable cab

Operator comfort is essential for safe and productive work. The D65-16 provides a quiet and comfortable cab, the ideal environment to concentrate on the job at hand. The cab's hexagonal design and large tinted glass windows offer excellent panoramic visibility. The high capacity and fully automatic climate control system pressurizes the cab to keep dust out. A high quality sound absorbent lining covers the interior to minimize operator ear noise levels.

Fully adjustable suspension seat and travel control console

A comfortable, heavy-duty and fully adjustable suspension 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, significantly improving rear visibility and reducing neck strain. The position of the travel control console can also be independently adjusted fore, aft 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.

Less noise and vibrations

The D65-16 cab mounts use a cab damper that provides excellent shock and vibration absorption with its long stroke and exclusive design. Cab damper mounts significantly soften shocks and vibrations that conventional mounting systems are unable to absorb.



Excellent visibility on both blade corner shoes





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 blade control joystick uses Proportional Pressure Control (PPC) for precise operations, excellent and easy grading jobs - and better productivity. 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.

Remote safety lock levers

For extra operator comfort and convenience, remote safety lock levers were added to engage or release the work equipment and travel shut-off bars.









Large LCD colour multi monitor

A large user-friendly colour monitor with simple and easy to operate switches enables safe, accurate and smooth work. The TFT (Thin Film Transistor) liquid crystal display can easily be read at various angles and lighting conditions, and the industry-first function keys facilitate multi-function activity.





Tough and Reliable

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 equalizer 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.

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 utilizes 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 D65-16 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.

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 while improving grading performance.

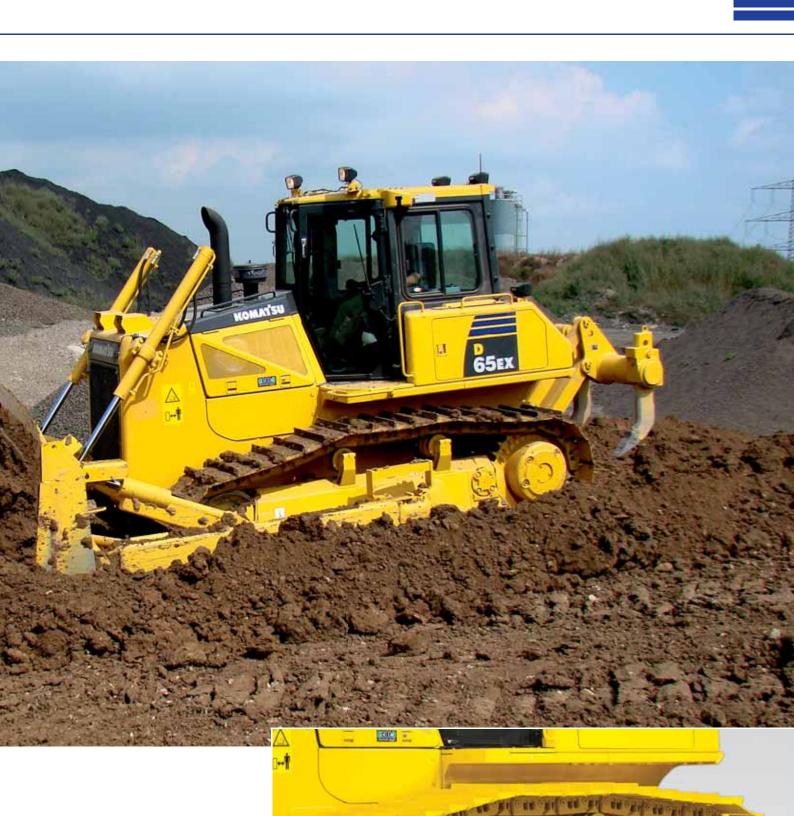




Self-adjusting idler support



Hydraulic lines are embedded into the structures whenever possible



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

Optimized Work Equipment

Sigmadozer® blade (EX/WX)

The middle section of Komatsu's Sigmadozer® 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 Sigmadozer® blade increases dozing productivity by more than 15% compared to a conventional Semi-U blade.

INPAT blade

Perfectly sized to maximize blade versatility, a new straight INPAT dozer blade with a highly durable box structure is available for all models (EX/WX/PX) and makes the D65-16 a perfect tool for a wide range of applications. A fold-up version of the INPAT blade for the WX and PX machines guarantees a transport width of 3 metres and easy transportation between jobsites.

Multishank parallelogram ripper (EX/WX) (option)

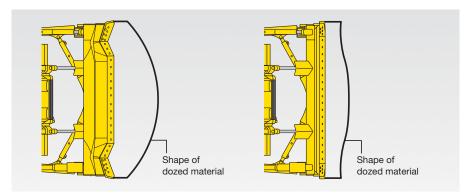
The multishank parallelogram ripper has 3 ripper shanks as standard, but can be easily converted to a giant or two-shank ripper, depending on job conditions. The strong parallelogram design offers straight shank movement, adapted for tough applications.

Komatsu-Topcon machine control systems (option)

Automatic blade movements on a dozer greatly improve dozing productivity and grading accuracy. They also allow operators to work faster and more safely with a reduced workload. Komatsu-Topcon machine control systems are the best way to automate blade movements. Depending on the control system used, blade movement can be monitored or fully automated. As a result, even inexperienced operators work much faster and deliver a high-quality final graded area. All the information from the laser or GPS systems is constantly available on an in-cab display, clearly showing the slope and elevation.



The Sigmadozer® blade offers highest material holding capacity



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



Hydraulically adjustable tilt: 870 mm



Komatsu Satellite Monitoring System



KOMTRAX™ is a revolutionary machine tracking system designed to save you time and money. You can now monitor your equipment anytime and anywhere. Use valuable machine data received via the KOMTRAX™ web site to optimise your maintenance planning and machine performances.

KOMTRAX™ can assist you with:

Full machine monitoring

Get detailed operation data to know when your machines are used and how productive they are.

Total Fleet Management

Keep track of the location of your machines at all times and discourage unapproved usage or theft.

Complete machine status

Receive warnings, alerts and cautions, via a web site or by e-mail, to help with maintenance planning and for longer machine life.

For further details on KOMTRAX™, please ask your Komatsu dealer for the latest KOMTRAX™ brochure.



KOMTRAXTM



Machine working time - With the "daily working record" chart, get precise engine running time data: when your machine was started and when it was shut down, as well as total engine running time.



Maintenance planning - To increase productivity and improve maintenance planning, alerts indicate when items such as filters or oil must be replaced.



Fleet location - The machine list instantly locates all your machines, even those in other countries.



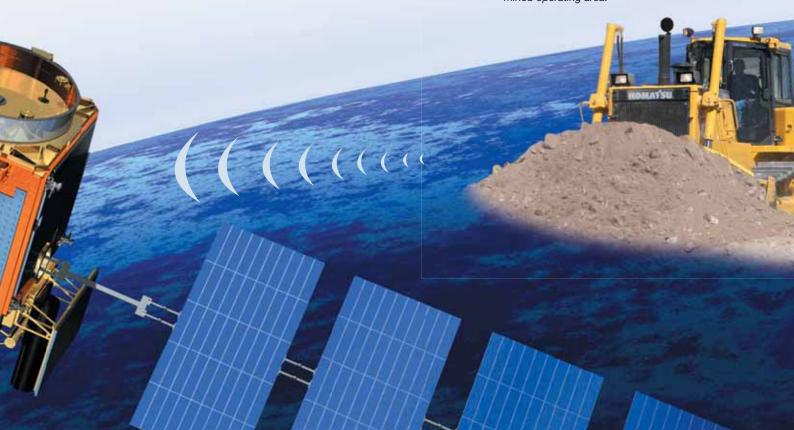
Machine tracking during transport - When your machine is transported, KOMTRAX™ sends travel messages to the web site or by e-mail to inform you of its progress, and confirms when it reaches its destination.



Alarm notifications - You can receive notification of alarms both via the KOMTRAXTM website and by e-mail.



Added security - The "engine lock" feature allows to program when a machine's engine can be started. And with "geo-fence", KOMTRAX™ sends notification every time your machine moves in or out of a predetermined operating area.



Easy Maintenance

Centralised service station

Preventative maintenance is essential to ensure the long life of your equipment. Komatsu designed the D65-16 with centralised and conveniently located service points to make necessary inspections and maintenance quick and easy.

Reversible radiator fan

The radiator can be cleaned by utilization of the reversible, hydraulically driven cooling fan. The fan can be reversed from inside the cab by simply activating a switch.

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.

Self-diagnostic monitor

Simple warning functions, service interval announcements and key operational functions are displayed on the new centralised monitor panel. At a glance, any operator can select the best options to get the best out of the D65-16. In addition, when required, countermeasures are clearly indicated on the screen to enable the operator or service people to quickly take correct and safe action, and keep the machine free of costly major problems and downtime.





Gull-wing engine side cover

Engine maintenance and filter replacement is further facilitated by gull-wing engine side covers that can be easily and safely opened. The opening angle of the covers has been increased to further facilitate access.





Specifications ==

ENGINE

Model		
Engine power		
at rated engine speed	1.950 rpm	
ISO 14396		
ISO 9249 (net engine power)	153 kW / 205 HP	
No. of cylinders	6	
Bore × stroke		
Displacement	8,27 ltr	
GovernorAll	-speed, electronic	
Lubrication system		
MethodGear pump	o, force lubrication	
Filter	Full flow	

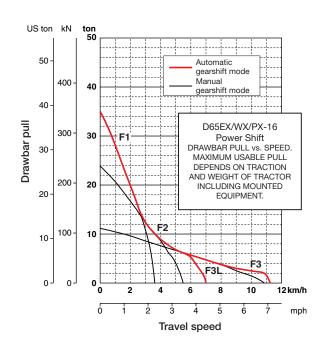
TORQFLOW TRANSMISSION

Type	Komatsu TORQFLOW
Torque converter	3-element, 1-stage, 2-phase, water-cooled
Transmission	Planetary gear, multiple-disc clutch,
	hydraulically actuated, force-lubricated

Gearshift lock lever and neutral safety switch prevent accidental starts.

MAX. TRAVEL SPEEDS

	Forward	Reverse
1st	3,6 km/h	4,4 km/h
2nd	5,5 km/h	6,6 km/h
3rdL	7,2 km/h	8,6 km/h
3rd	11,2 km/h	13,4 km/h



STEERING SYSTEM

Type
spring-actuated and hydraulically released
opining actuation and hydraumoun, resource
Minimum turning radius (counter-rotation)
D65EX-16 with Sigmadozer® blade1,9 m
D65EX-16 with INPAT blade2,0 m
D65WX-16 with Sigmadozer® blade2,1 m
D65WX-16 with INPAT blade2,0 m

D65PX-16 with straight tilt blade2,2 m D65PX-16 with INPAT blade2,2 m

FINAL DRIVE

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

SERVICE REFILL CAPACITIES

Fuel tank	415 ltr
Radiator	36 ltr
Engine oil	28 ltr
Torque converter, transmission, bevel gear,	
and steering system	48 ltr
Final drive (each side)	
D65EX-16	24 ltr
D65EX-16 with INPAT blade	27 ltr
D65WX-16	27 ltr
D65PX-16	27 ltr
Work equipment hydraulics	55 ltr

ENVIRONMENT

Engine emissions	Fully complies with EU Stage IIIA and
	EPA Tier III exhaust emission regulations
Noise levels	
LwA external	108 dB(A) (2000/14/EC)
LpA operator ear	78 dB(A) (ISO 6396 dynamic test)
Vibration levels (EN 12096	6:1997)*
Hand/arm	$\leq 2.5 \text{ m/s}^2 \text{ (uncertainty K = 1.4 m/s}^2\text{)}$
Body	\leq 0,5 m/s ² (uncertainty K = 0,3 m/s ²)
* for the purpose of risk a	ssessment under directive 2002/44/EC,
please refer to ISO/TR 25	398:2006.

Specifications

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

D65EX-16

Type of blade	Sigmadozer®	INPAT
Number of track rollers (each side)	7	7
Number of shoes (each side)	42	42
Shoe width (standard)	610 mm	560 mm
Ground contact area*	36.234 cm ²	33.265 cm ²
Ground pressure	0,59 kg/cm ²	0,69 kg/cm ²
Track gauge	1.880 mm	2.050 mm
Length of track on ground	2.970 mm	2.970 mm

D65WX-16

Type of blade	Sigmadozer®	INPAT
Number of track rollers (each side)	7	7
Number of shoes (each side)	42	42
Shoe width (standard)	760 mm	760 mm
Ground contact area*	45.145 cm ²	45.145 cm ²
Ground pressure	0,49 kg/cm ²	0,52 kg/cm ²
Track gauge	2.050 mm	2.230 mm
Length of track on ground	2.970 mm	2.970 mm

D65PX-16

Type of blade	Straight tilt	INPAT
Number of track rollers (each side)	8	8
Number of shoes (each side)	45	45
Shoe width (standard)	915 mm	760 mm
Ground contact area*	59.935 cm ²	49.780 cm ²
Ground pressure	0,35 kg/cm ²	0,44 kg/cm ²
Track gauge	2.050 mm	2.230 mm
Length of track on ground	3.275 mm	3.275 mm

^{*} Including blade and ripper (EX/WX), steel cab, ROPS, hydraulic control unit, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank.

OPERATING WEIGHT (APPR.)

Including blade and ripper (EX/WX), steel cab, ROPS, hydraulic control unit, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank.

D65EX-16 with Sigmadozer®	21.580 kg
D65EX-16 with INPAT	22.890 kg
D65WX-16 with Sigmadozer®	22.180 kg
D65WX-16 with INPAT	23.660 kg
D65PX-16 with straight tilt	20.990 kg
D65PX-16 with INPAT	21.860 kg

HYDRAULIC SYSTEM

TypeCLSS	(closed-centre load sensing system)
All spool valves externally mou	nted beside the hydraulic tank.
Main pump	Variable displacement piston pump
Maximum pump flow	248 ltr/min
Relief valve setting	285 kg/cm²

NUMBER OF CYLINDERS × BORE

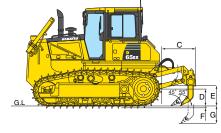
Type of blade	Sigmadozer®	Straight tilt	INPAT
Blade lift	2 × 85 mm	2 × 85 mm	2 × 90 mm
Blade tilt	_	1 × 125 mm	1 × 130 mm
Blade tilt/pitch	2 × 125 mm	-	-
Blade angle	_	-	2 × 110 mm

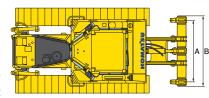
RIPPER EQUIPMENT

Multishank ripper	
Type Hydraulically con-	trolled parallelogram ripper
No. of shanks	3
Weight (including hydraulic control unit) .	1.770 kg
Beam length	2.170 mm
Maximum lift above ground	640 mm
Maximum digging depth	595 mm
Ripper cylinder	1 × 125 mm

MULTISHANK RIPPER DIMENSIONS

Α	1.900 mm
В	2.170 mm
С	1.230 mm
D	528 mm
E	640 mm
F	65 mm
G	590 mm



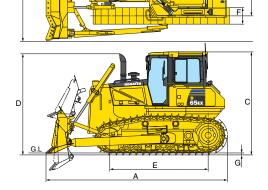


DIMENSIONS

	D65EX-16 Sigmadozer®	D65WX-16 Sigmadozer®	D65PX-16 Straight tilt
Α	5.490 mm	5.500 mm	5.680 mm
В	1.880 mm	2.050 mm	2.050 mm
С	3.160 mm	3.160 mm	3.160 mm
D	3.085 mm	3.085 mm	3.085 mm
Е	2.970 mm	2.970 mm	3.275 mm
F	610 mm	760 mm	915 mm
G	65 mm	65 mm	65 mm
Н	3.410 mm	3.580 mm	3.970 mm

Ground clearance 415 mm (+ 65 mm grouser height)

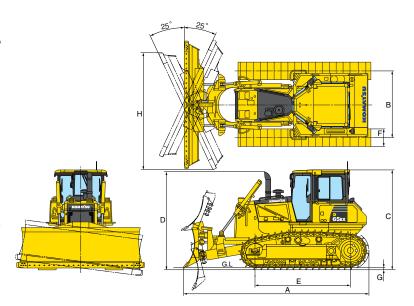




DIMENSIONS

	D65EX-16 INPAT	D65WX-16 INPAT	D65PX-16 INPAT
Α	5.790 mm	5.790 mm	5.790 mm
В	2.050 mm	2.230 mm	2.230 mm
С	3.160 mm	3.160 mm	3.160 mm
D	3.085 mm	3.085 mm	3.085 mm
Е	2.970 mm	2.970 mm	3.275 mm
F	560 mm	760 mm	760 mm
G	65 mm	65 mm	65 mm
Н	3.545 mm	3.670 mm	3.670 mm
H*	_	3.000 mm	3.000 mm

Ground clearance 415 mm (+ 65 mm grouser height)



DOZER EQUIPMENT

	Overall length with blade	Blade capacity	Blade width × height	Max. lift above ground	Max. drop below ground	Max. tilt adjustment	Additional weight
D65EX-16 Sigmadozer®	5.490 mm	5,61 m³	3.410 × 1.425 mm	1.135 mm	500 mm	870 mm	2.440 kg
D65EX-16 INPAT	5.790 mm	4,25 m³	3.870 × 1.235 mm	1.170 mm	695 mm	500 mm	2.960 kg
D65WX-16 Sigmadozer®	5.500 mm	5,90 m³	3.580 × 1.425 mm	1.135 mm	500 mm	770 mm	2.550 kg
D65WX-16 INPAT	5.790 mm	4,42 m³	4.010 × 1.235 mm	1.170 mm	695 mm	520 mm	* 2.990 kg
D65PX-16 Straight tilt	5.680 mm	3,69 m³	3.970 × 1.100 mm	1.130 mm	535 mm	890 mm	2.100 kg
D65PX-16 INPAT	5.790 mm	4,42 m³	4.010 × 1.235 mm	1.170 mm	695 mm	520 mm	* 2.990 kg

Blade capacities are based on the SAE recommended practice J1265.

^{*} Transport width with foldable INPAT blade

 $^{^{\}star}$ Foldable INPAT blade (WX/PX): additional weight + 330 kg $\,$

D65EX/WX/PX-16

Standard and Optional Equipment

0

0

CARIN

ENGINE AND RELATED PARTS Komatsu SAA6D114E-3 Common rail direct injection diesel engine EU Stage IIIA/EPA Tier III compliant Locks, filter caps and covers Intake pipe with precleaner Radiator reserve tank Heavy-duty radiator mask Fuel tank inlet strainer Hard water area arrangement incl. corrosion resistor Starter motor 24 V/7,5 kW Alternator 24 V/60 A Batteries 2 × 12 V/200 Ah Gull wing engine side covers •

HYDRAULIC SYSTEM Hydraulics for dozing blades Hydraulics for ripper (EX/WX) • •

Hydraulics for ripper (field installation kit)

Cooling fan, hydrostatic driven Starter motor 24 V/11 kW

Alternator 24 V/90 A

Mono lever blade control

TRANSMISSION AND BRAKES Palm lever steering control (PCCS) HSS hydrostatic steering system Decelerator pedal Automatic transmission Torque converter with automatic lock-up function Damper

LIGHTING SYSTEM	
Working lights: 4 front and 2 rear lights	•
Additional working light, rear	0
Additional cab lights, front and rear	0
Rinner working light	

	12	
YOUR	Komatsu	nartner

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CADIN	
Air suspension seat: fabric, reclining, high backrest, turnable	•
2 point seat belt	•
Headrest	•
High mount footrest	•
Air conditioner	•
Pre radio installation kit (12 V, antenna, loudspeakers)	•
Fenders	•
Sun visor, rear side	•
Cup holder	•
Lunch box holder	•
Wiper front and rear window	•
Wipers doors	•
Heated rear window (hot air)	•

SAFETY EQUIPMENT	
Back-up alarm	•
Warning horn	•
Steel cab, meets ISO 3449 FOPS and ISO 3471, SAE J1040, APR88 ROPS standards	•
Rear-view mirror (inside cab)	•
Fire extinguisher	0

ATTACHMENTS	
Shovel holder	•
Rear counterweight with hitch (EX/WX with INPAT blade) (not with ripper)	•
Hitch (EX/WX with Sigmadozer® blade)	•
Front pull hook	•
Rigid drawbar	0

SERVICE AND MAINTENANCE	
Dry type air cleaner, double element	
with dust indicator and evacuator	_
Large TFT colour monitor panel	•
Water separator	•
KOMTRAX™ - Komatsu satellite monitoring system	•
Tool kit	•

UNDERCARRIAGE	
PLUS link assembly	•
Single grouser heavy-duty shoes:	
Sigmadozer® blade (EX): 610 mm	
Sigmadozer® blade (WX): 760 mm	
Straight tilt blade (PX): 915 mm	•
INPAT blade (EX): 560 mm	
INPAT blade (WX): 760 mm	
INPAT blade (PX): 760 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® blade (EX): 510 mm, 560 mm,	_
660 mm	O
INPAT blade (EX): 510 mm	

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Full length track roller guard (EX/WX)

Further equipment on request

standard equipment optional equipment



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