

D37EX-23 D37PX-23

Tier 4 Interim Engine



D37-23

WALK-AROUND



VET HORSEPOWER

66 kW @ 2200 rpm **89 HP @ 2200 rpm** PERATING WEIGH

D37EX-23 8480 kg **18,695 lb** D37PX-23 8780 kg **19,357 lb** RLADE CAPACITY

Power Angle Tilt Dozer D37EX-23 1.91 m³ **2.50 yd³** D37PX-23 1.95-2.13 m³ **2.55-2.78 yd³**



SAA4D95LE-6 variable flow turbocharged and aftercooled 3.26 liter diesel engine provides excellent fuel economy. This engine is EPA Tier 4 Interim and EU Stage 3B emissions certified.

Variable Flow Turbocharger uses a simple valve to provide optimum air flow under all speed and load conditions.

Komatsu Diesel Oxidation Catalyst reduces particulate matter using passive regeneration 100% of the time. No active or manual regeneration is required.

Rear view monitoring system (standard)

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

Single pedal can act as either brake or decelerator

Improved Cooling System

- Electronically controlled hydraulically driven fan is manually reversible
- Gas assisted lift cylinders on radiator cover opens for easy cleaning
- Side-by-side coolers with increased cooling capacity

KOMTRAX®

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

OUTSTANDING PRODUCTIVITY & FUEL ECONOMY

New Power and Economy modes:

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

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



Integrated ROPS cab features:

- Large, quiet, and pressurized cab
- Excellent visibility with integrated ROPS structure
- New heated air-ride seat with 15% higher capacity (standard)
- Standard aux jack and (2) 12V power convertors

Improved durability

- Heavy-plate steel used for nose and tanks
- Dozer frame with full steel castings
- Komatsu designed and manufactured components

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

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

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

 Three mounting locations for grade control masts

Complete operator blade control

- Palm Command Control System (PCCS)
- Electronic Proportional Control (EPC)
- Adjustable Quick shift and Variable shift modes
- New blade angle switch
- Normal and Fine blade controls
- Multiple Operator memory storage

New more efficient HST with electronic control

- Customizable Quick shift (3 speed) settings for the operator
- Variable speed selection (20 speeds)
- Low speed matching technology (larger displacement pumps/ efficient engine speed)
- Up to 20%* reduced fuel consumption in E mode and 10%* in P mode.

Large color monitor

- Easy-to-read and use large 7" high-resolution multi-color monitor
- ECO guidance
- On-board diagnostics
- * Compared to D37-22 model





D37-23

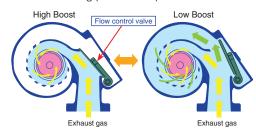
PRODUCTIVITY & ECOLOGY FEATURES

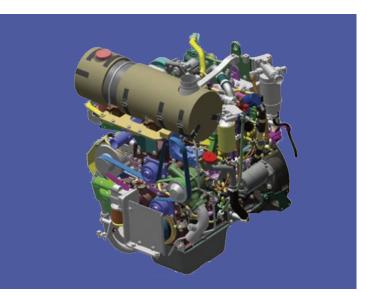
Environment-Friendly Engine

The Komatsu SAA4D95LE-6 engine is EPA Tier 4 Interim and EU Stage 3B emissions certified and provides exceptional performance while reducing fuel consumption. Based on Komatsu proprietary technologies developed over many years, this new diesel engine reduces exhaust gas particulate matter (PM) by more than 90% and nitrogen oxide (NOx) by more than 45%, compared to Tier 3 levels. Through the in-house development and production of engines, electronics, and hydraulic components, Komatsu has achieved great advancements in technology providing high levels of performance and efficiency in virtually all applications.

Newly designed Variable Flow Turbocharger (VFT)

A newly designed variable flow turbocharger features simple and reliable technology that varies the intake airflow. Exhaust turbine wheel speed is controlled by flow control valve and it enables to deliver optimum air quantity to the engine combustion chamber under all speed and load conditions. The result is cleaner exhaust gas while maintaining power and performance..



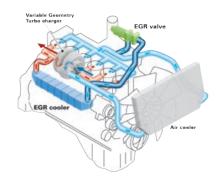


Advanced Electronic Control System

The engine control system has been upgraded to effectively manage a variety of parameters such as the air flow rate, EGR gas flow rate, fuel injection parameters, and aftertreatment functions. The new control system also provides enhanced diagnostic capabilities.

Cooled Exhaust Gas Recirculation (EGR)

Cooled EGR, a technology that has been well proven in Komatsu Tier 3 engines, reduces NOx emission to meet Tier 4 levels. The EGR system has increased capacity and uses larger and more robust components to ensure reliability for demanding work conditions.



Redesigned combustion chamber

The combustion chamber has a new shape designed to improve combustion and further reduce NOx, PM, fuel consumption, and noise levels.

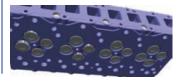
Closed Crankcase Ventilation (CCV)

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



New 16 valve cylinder head

4 valves per cylinder maximizes air intake quantity and optimizes fuel combustion.



High efficiency fuel filter

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

Fuel consumption decreased by up to 10% P mode

(Compared with the D37-22)

New HST Technology

The D37-23 incorporates new proprietary engine and hydrostatic transmission pump control technology to improve operational efficiency and reduce fuel consumption to levels lower than a conventional HST control system can obtain. This Komatsu exclusive feature reduces fuel consumption by up to 10% in P mode in demanding working conditions and up to 20% in E mode under lighter load conditions as compared to the prior model.

Powerful turns under various work conditions are achieved with the new HST transmission, even under load. Counter-rotation is available for minimum turning radius, providing excellent maneuverability in tight spots.

Variable and New Customizable Quickshift Modes

The D37-23 offers two gearshift modes: Variable and the new Customizable Quick shift. Variable shift mode provides 20 incremental speed settings for the operator, while the new Customizable Quick shift provides 3 speed settings; all can be adjusted in the monitor to obtain the right speed for different operator preferences.

Fuel consumption decreased by up to 20% E mode

(Compared with the D37-22)

Single Pedal (Decelerator/Brake Pedal) to be

operated for Speed Control, during Operation

Machine operation becomes simple because brake function has been integrated into decelerator pedal. Machine moving speed including/excluding engine speed can be controllable by using only



one pedal of decelerator/brake pedal. Operation of pedal function can be changed by the mode selector switch.

Decelerator mode

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

Brake mode

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

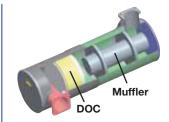


WORKING ENVIRONMENT

Komatsu Diesel Oxidation Catalyst (KDOC)

The new Komatsu Diesel Oxidation Catalyst (KDOC) has an integrated design that does not interfere with daily operation. This smart and simplified system removes soot using 100% "passive regeneration" without the need for a Diesel Particulate Filter. The KDOC is a simple design and does not have a scheduled service interval like a DPF and is designed for long life with no scheduled maintenance required. For owners, this

means lower Owning and Operating costs due to less complexity and truly seamless operation for the operator.





Selectable Working Mode

Working mode E is for general dozing applications with adequate speed and power while reducing fuel consumption and CO₂. Working mode P is aimed at powerful operation and maximum production. The

working mode is easily switched on the monitor panel, depending on the work at hand.



E mode (Economy mode)

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

P mode (Power mode)

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



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Other Features

Power Angle Tilt (PAT) Dozer With Adjustable Pitch

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



Secondary Engine Shutdown Switch

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

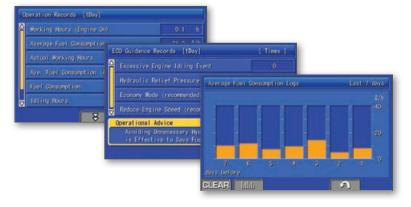


ECO Guidance

In order to support optimum operation, the following 4 recommendations are displayed to improve fuel saving operation:

- 1) Avoid Excessive Engine Idling
- 2) Use Economy Mode to Save Fuel
- 3) Avoid Hydraulic Relief Pressure
- 4) Avoid Overload

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



Rear View Monitoring System

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.





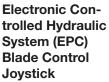
WORKING ENVIRONMENT

New Integrated ROPS Cab

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

Palm Command Control System (PCCS) **Travel Joystick**

Palm command travel joystick provides the operator with a relaxed posture and superb fine control. Transmission shifting is simplified with thumb push buttons.



uses the EPC valve and joystick, similar to the travel control

Komatsu hydraulic system enables superb fine control. A switch is now used to angle the PAT blade. A button to activate float is also provided.

Blade(Down) Blade(Up) Angle(RH) Angle SW Blade control joystick joystick. EPC control combined with the highly reliable

standards.

Up Shift Down Shift



Float button

New Air Suspension Seat

A new higher capacity lowback heated seat with headrest is now standard. The new seat has many adjustments to accomodate different operators comfortably.



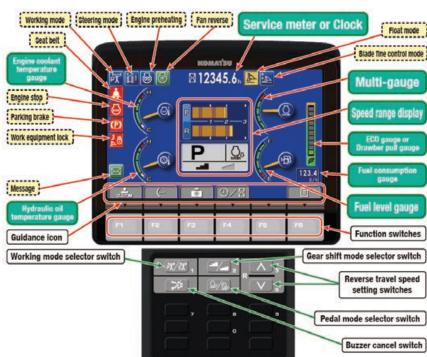
Auxiliary Input Jack

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



Large Multi-Lingual LCD **Color Monitor**

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



MAINTENANCE & DURABILITY FEATURES

Planned maintenance is the best way to ensure long service life from your equipment. That's why Komatsu designed the D37 with conveniently located maintenance points to make necessary inspections and maintenance quick and easy.

Hydraulically-Driven Swing-up Fan

The D37-23 utilizes a swing-up fan with a gas strutassisted lift locking system to provide easy access to the (side-by-side) radiator, oil cooler, and charge air cooler. The swing-up feature makes it easier to access cooling cores. The hydraulic fan can rotate in the reverse direction to help remove debris from cooler cores.



Photos may include optional equipment

Daily Checks

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



Photos may include optional equipment

Parallel Link Undercarriage System (PLUS)

Komatsu's new Parallel Link Undercarriage System (PLUS) provides less downtime plus longer wear life with up to 40% lower undercarriage maintenance costs. 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.



Self-Adjusting Idler Support

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



Modular Design

One of the design goals behind the creation of the D37 was to manufacture a more durable machine. This was achieved by reducing component complexity and using a strong modular design for increased serviceability and durability. Steel castings reduce the number of welds, improving C-frame rigidity and strength.



Robust Guarding And Attachments

Komatsu offers a full guarding package to help protect your machine and operator in severe applications.



037-23

KOMATSU PARTS & SERVICE SUPPORT



Komatsu CARE – Complimentary Scheduled Maintenance

- PM services for the earlier of 3 years / 2000 hours
- Performed by factory certified technicians
- Komatsu Genuine parts and fluids
- Significantly lowers your cost of ownership while maintaining high uptime and reliability
- Increases resale value and provides detailed maintenance records
- Extended PM services can be purchased beyond the complimentary period to provide additional peace of mind and maximize uptime



Komatsu CARE – Extended Coverage

- Extended Coverage can provide peace of mind by protecting customers from unplanned expenses that effect cash flow
- Purchasing extended coverage locks-in the cost of covered parts and labor for the coverage period and helps turn these into fixed costs





Komatsu Parts Support

- 24/7/365 to fulfill your parts needs
- 9 parts Distribution Centers strategically located across the U.S. and Canada
- Distributor network of more than 300 locations across U.S. and Canada to serve you
- Online part ordering through Komatsu eParts
- Remanufactured components with same-as-new warranties at a significant cost reduction



Komatsu Oil and Wear Analysis (KOWA)

- KOWA detects fuel dilution, coolant leaks, and measures wear metals
- Proactively maintain your equipment
- Maximize availability and performance
- Can identify potential problems before they lead to major repairs
- Reduce life cycle cost by extending component life

KOMTRAX EQUIPMENT MONITORING



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

KOMTRAX is standard

Komatsu construction

equipment on all

products

replacement decisions



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





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



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



KOMAT'SU







D37-23

SPECIFICATIONS



ENGINE

Model	Komatsu SAA4D95LE-6*
Туре	. 4-cycle, water-cooled, direct injection
Aspiration Variable flo	ow, turbocharged, air-to-air aftercooled
Number of cylinders	4
Bore x stroke	95 mm x 115 mm 3.75" x 4.52"
Piston displacement	3.26 ltr 199 in ³
Governor	All-speed, electronic
Horsepower	
SAE J1995	Gross 68 kW 91 HP
ISO 9249 / SAE J1349	Net 66 kW 89 HP
Rated rpm	2200 rpm
Fan drive type	Hydraulic
Lubrication system	
Method	Gear pump, forced lubrication
Filter	Full-flow



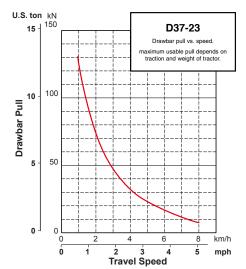
HYDROSTATIC TRANSMISSION

*EPA Tier 4 Interim and EU stage 3B emissions certified

Dual-path, hydrostatic transmission provides infinite speed changes up to 5.3 km/h **8.5 mph**. 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	0-3.4 km/h 0-2.1 mph	0-4.1 km/h 0-2.5 mph		
2nd	0-5.6 km/h 0-3.5 mph	0-6.5 km/h 0-4.0 mph		
3rd	0-8.5 km/h 0-5.3 mph	0-8.5 km/h 0-5.3 mph		
Travel speed (variable mode)	Forward	Reverse		
	0-8.5 km/h 0-5.3 mph	0-8.5 km/h 0-5.3 mph		

*Quick shift speeds are adjustable in the monitor.





FINAL DRIVES

In-shoe mounted axial piston type travel motors with integrated twostage planetary gear reduction. Compact in-shoe mount reduces risk of damaged by debris. Bolt-on sprocket ring.



STEERING SYSTEM

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

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

Minimum turning radius*

D37EX-23	2.1	m	83'
D37PX-23	2.3	m	91'

*As measured by track marks on the ground at pivot turn.



UNDERCARRIAGE

Suspension	Rigid type
Track roller frame	Monocoque, large section,
	durable construction
Rollers and idlers	Lubricated track rollers

Sealed and lubricated track

Track tension is easily adjusted with grease gun.

Tractor for inside mounted blade (PAT)

		D37EX-23	D37PX-23
Number of track rollers (each sid	e)	6	6
Number of carrier rollers (each s	ide)	1	1
Type of shoes (standard)		Single grouser	Single grouser
Number of shoes (each side)		41	41
Grouser height	mm in	47 1.9"	47 1.9"
Shoe width (standard)	mm in	460 18"	600 24"
Ground contact area	cm ²	20516	26760
	in²	3,180	4,148
Ground pressure	kPa	40.2	32.2
(with standard shoe)	kgf/cm ²	0.41	0.33
	psi	5.88	4.67
Track gauge	mm ft.in	1570 5'2"	1710 5'7"
Length of track on ground	mm ft.in	2230 7'4"	2230 7'4"
Link pitch	mm ft.in	154 6.1"	154 6.1"



SERVICE REFILL CAPACITIES

Coolant 34 ltr	9.0 U.S. gal
Fuel tank 190 ltr	50.2 U.S. gal
Engine oil 11 Itr	2.9 U.S. gal
Hydraulic tank 64 ltr	16.9 U.S. gal
Final drive (each side)	0.9 U.S. gal



OPERATING WEIGHT (APPROXIMATE)

Tractor weight:

Including ROPS cab, U frame for power angle tilt dozer, rated capacity of lubricant, coolant, full fuel tank, operator, and standard equipment.

D37EX-23	7400 kg	16,314	lb
D37PX-23	7660 kg	16,887	lb

Operating weight:

Including power angle tilt dozer, ROPS cab, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank.



DIMENSIONS

	D37EX-23		D37PX-23	
Α	2710 mm	8'11'	3200 mm	10'6'
В	370 mm	15"	435 mm	17"
B*			390 mm	15"
С	865 mm	34"	835 mm	33"
C'	1075 mm	42"	1075 mm	42"
D	880 mm	35"	880 mm	35"
Е	390 mm	15"	390 mm	15"
F	2230 mm	7'4'	2230 mm	7'4'
G	4275 mm	14'0"	4275 mm	14'0"
Н	2775 mm	9'1"	2775 mm	9'1"
1	47 mm	2"	47 mm 2"	
J	1570 mm	62"	1710 mm	67"
Κ	400 mm	16"	600 mm	24"
L	1970 mm	78"	2310 mm	91"
M	2510 mm	99"	2960 mm	117"
M*			2640 mm	104"
N	4780 mm	15'8"	4880 mm 16'0	
0	2480 mm	8'2"	2905 mm	9'6"

*Narrow blade for D37PX-23



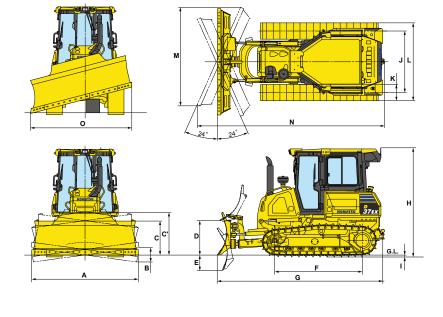
HYDRAULIC SYSTEM

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 99 ltr/min **26 U.S. gal/min** at rated engine rpm.

	Number of cylinders	Bore
Blade lift	2	75 mm 3.0"
Blade tilt	1	90 mm 3.5"
Blade angle	2	80 mm 3.1"
Blade pitch	1 adjustable linkage	



Hydraulic oil capacity (refill):

Power angle tilt dozer60 ltr 15.9 U.S. gal

Control valves:

3-spool control valve for Power Angle Tilt dozer

Positions:

Additional control valve required for ripper

Positions:

Ripper lift......Raise, hold, and lower



DOZER EQUIPMENT

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

	Overall Length With Dozer* mm ft.in	Blade Capacity m³yd³	Blade Width x Height mm ft.in	Max. Lift Above Ground mm ft.in	Max. Drop Below Ground mm ft.in	Max. Tilt Adjustment mm ft.in	Blade Angle
D37EX-23	4275	1.91	2710 x 865	880	380	370	24°
Power Angle Tilt Dozer	14'0"	2.50	8'11" x 2'10"	2'11"	1'3"	1'3"	
D37PX-23	4275	1.95	2875 x 835	880	380	435	24°
Power Angle Tilt Dozer	14'0"	2.55	9'5" x 2'9"	2'11"	1'3"	1'5"	
D37PX-23	4275	2.13	3200 x 835	880	380	390	24°
Power Angle Tilt Dozer	14'0"	2.78	10'6" x 2'9"	2'11"	1'3"	1'4"	

^{*}Including hitch



STANDARD EQUIPMENT FOR BASE MACHINE*

- Air cleaner, double element with caution lamp on monitor
- Alternator, 60 ampere/24V
- Backup alarm
- Batteries, 92 Ah/2 x 12V
- Battery disconnect switch
- Blade lift cylinders
- Color monitor, LCD
- Decelerator pedal (single pedal)
- Engine hood
- Engine intake centrifugal precleaner
- Engine, swing open side cover
- Engine shutdown secondary switch
- Front pull hook
- Fuel prefilter (10 micron) and fuel filter (2 micron)
- Grease gun holder
- High mount foot rests
- Horn, warning
- Hydraulic driven radiator cooling fan with reverse clean mode

- KOMTRAX® Level 4
- Komatsu Diesel Oxidation Catalyst (KDOC)
- Locks, filler caps and covers
- Muffler with curved exhaust pipe
- Radiator mask, heavy-duty, swing up
- Radiator reserve tank
- ROPS cab**
- Air conditioner
- Cab accessories
- 12V power supply (2 ports) Cup holder
- Rearview mirror
- Rear view monitoring (1 camera)
- AM/FM Radio w/remote AUX plug (3.5 mm)
- 70 dBA
- ■Work lights
- 3 front, cab mounted
- 2 rear, cab mounted
- Seat, air suspension, fabric, heated low back.
- Seat belt, 76 mm 3", retractable
- Seat belt indicator

- Sealed electrical connectors
- Side by side rear mounted cooling package
- Starting motor, 4.5 kW/24V
- Steering system, hydrostatic
- Track roller guards, center and end sections
- Track shoe assembly (PLUS)
- Sealed and lubricated
- ■460 mm **18"** single grouser shoe (EX)
- ■600 mm **24"** single grouser shoe (PX)
- Transmission with Variable and Customizable Quickshift
- Transmission, hydrostatic
- Underguards, heavy duty
- Engine
- Transmission
- Variable flow turbocharger
- Water separator
- * Dozer assembly and rear mounted equipment are not included in base machine standard equipment
- ** Cab meets ROPS and FOPS Level 2 standards



OPTIONAL EQUIPMENT

- Dozer assembly
- Hitch
- Hydraulics for rear equipment
- Track roller guard, full length

Multi-shank ripper (for D37EX)

Weight 470 kg	1,036 lb
Beam length	mm 62"
Maximum lift above ground 389	mm 15"
Maximum digging depth 336	mm 13"
Number of shanks	.3

- 400 mm 16" single grouser shoe (EX)(PLUS)
- 400 mm 16" single grouser shoe (EX) (Conventional)
- 600 mm 24" single grouser shoe (PX) (Conventional)









ALLIED MANUFACTURER'S ATTACHMENTS (SHIPPED LOOSE)

- Guarding Komatsu (Ken Garner)
- Front sweeps 265 kg 584 lb
- Hinged cab side screens 44 kg 97 lb
- Hinged cab rear screen 43 kg 95 lb
- Rear A/C guard (requires front sweep) 61 kg **134 lb**
- Poly panel door inserts 41 kg 91 lb

Hydraulic winch - Allied H4AT 685 kg 1,510 lb

AESS828-01

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