

D61EX-23 D61PX-23

Tier 4 Interim Engine



NET HORSEPOWER OPERATING WEIGHT 168 HP @ 2200rpm D61EX-23 17735 kg (3)

125 kW @ 2200rpm

D61EX-23 17735 kg **39,099 lb** D61PX-23 18660 kg **41,138 lb**

BLADE CAPACITY

4.5–5.1 yd³ 3.4–3.9 m³



D61-23

WALK-AROUND



125 kW @ 2200 rpm 168 HP @ 2200 rpm

D61EX-23 17735 kg **39,099 lb** 18660 kg **41,138 lb**

Power Angle Tilt Dozer 3.4 m³ 4.5 yd³

3.9 m3 5.1 yd3



OUTSTANDING PRODUCTIVITY & FUEL ECONOMY

New Power and Economy modes:

Full power when you need it and Economy mode to save fuel when you New engine and hydrostatic pump control technology improves operational efficiency and lowers fuel consumption.



SAA6D107E-2 variable geometry turbocharged and aftercooled 6.7 liter diesel engine provides excellent fuel economy. This engine is EPA Tier 4 Interim and EU Stage 3B emissions certified.

Komatsu Variable Geometry Turbocharger (KVGT) uses a hydraulic actuator to provide optimum air flow under all speed and load conditions.

Komatsu Diesel Particulate Filter (KDPF)

captures 90% of particulate matter and provides automatic regeneration that does not interfere with daily operation.

Rear hydraulics (standard)

system (standard)

Advanced diagnostic with troubleshooting.

Rear view monitoring

system continuously monitors machine operation and vital systems to identify machine issues and assist

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.

Integrated ROPS cab features:

- Large, quiet, and pressurized cab
- Excellent visibility with integrated ROPS structure
- New heated air-ride seat with 15% higher capacity

Improved durability

- Heavy-plate steel used throughout
- Dozer frame with full steel castings
- New HD final drives with triple labrynth seals
- Komatsu designed and manufactured components

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

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

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

Complete operator blade control

- Palm Command Control System (PCCS)
- Electronic Proportional Control (EPC)
- Adjustable Quick shift and Variable shift modes
- New blade angle switch

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)

Large color monitor

- Easy-to-read and use large 7" high-resolution multi-color monitor
- ECO guidance
- On-board diagnostics

Enhanced provision for Topcon®

machine control (standard). Bolt-on finishing kit (optional) makes machine Topcon® plug-and-play.





PRODUCTIVITY & ECOLOGY FEATURES

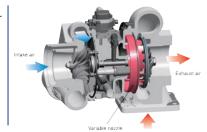
Environment-Friendly Engine

The Komatsu SAA6D107E-2 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.

Komatsu Variable Geometry Turbocharger (KVGT)

Using Komatsu proprietary technology, a newly designed variable geometry turbocharger with a hydraulic actuator is used to manage and deliver optimum air flow to the combustion chamber under all speed and load conditions. The robust hydraulic actuator provides power

and precision, resulting in cleaner exhaust gas and improved fuel economy while maintaining performance.





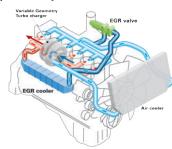
Advanced Electronic Control System

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 hydraulically-actuated 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.



High efficiency fuel filter

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



New HST Technology

The D61-23 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 D61-23 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.

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.

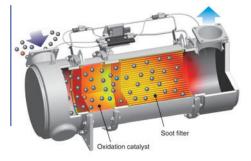


WORKING ENVIRONMENT

Komatsu Diesel Particulate Filter (KDPF)

Komatsu has developed a high efficiency diesel particulate filter that captures more than 90% of particulate matter. Both passive and active regeneration are automatically initiated by the engine controller depending on the soot level of the KDPF. A special oxidation catalyst with a fuel injection system is used to oxidize and remove particulate matter while the machine is running so the regeneration process will

not interfere with daily operation. The operator can also initiate regeneration manually or disable regeneration depending on the work environment.





KDPF Regeneration Notification

The LCD color monitor panel provides the operator with the status of the KDPF regeneration without

interfering with daily operation. When the machine initiates active regeneration, an icon will notify the operator.



Manual Stationary Regeneration

Under most conditions, active regeneration will occur automatically with no effect on machine operation.

In case the operator needs to disable active regeneration or initiate a manual stationary regeneration, such as in high-combustible applications, this can be easily accomplished



through the monitor panel. The soot level indicator identifies how much soot is trapped in the KDPF.

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.

⊠ 00000.2

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 to 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

Consumption logs.





Fig Time



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 standards.

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.



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

joystick. EPC control combined with the highly reliable 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.

Float button Blade(Down) Blade(Up) Angle(RH) Angle SW

Up Shift

Down Shift



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.



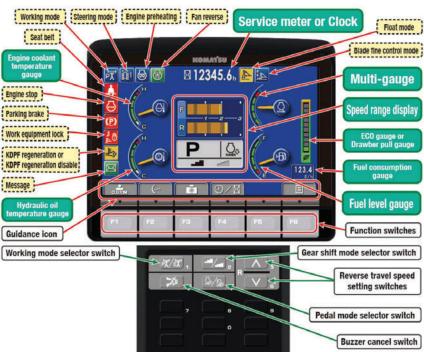
Auxiliary Input Jack

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 D61 with conveniently located maintenance points to make necessary inspections and maintenance quick and easy.

Hydraulically-Driven Swing-up Fan

The D61-23 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 has a "cleaning" mode. The fan rotates in the reverse direction and helps to clear off objects in front of the cooling areas.



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

Robust Guarding And Attachments

Komatsu offers a full guarding package to help protect your investment in severe applications.

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

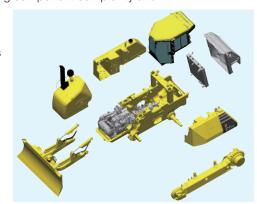
The self-adjusting idler support provides constant and even tension on idler guide plates reducing noise and vibration and increasing undercarriage life.



Modular Design

One of the design goals behind the creation of the D61 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.





061-23

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

KOMTRAX is standard

Komatsu construction

equipment on all

products

aids in making repair or 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













SPECIFICATIONS



ENGINE

ENGINE
Model
Type 4-cycle, water-cooled, direct injection
AspirationKomatsu variable geometry Turbocharged, air-to-air aftercooled
Number of cylinders6
Bore x stroke 107 mm x 124 mm 4.21" x 4.88"
Piston displacement
GovernorAll-speed and mid-range, electronic
Horsepower
SAE J1995Gross 127 kW 170 HP
(ISO 14396 126 kW 169 HP)
ISO 9249 / SAE J1349Net 125 kW 168 HP
Rated rpm2200 rpm
Fan drive typeHydraulic
Lubrication system
MethodGear pump, force lubrication
FilterFull-flow

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

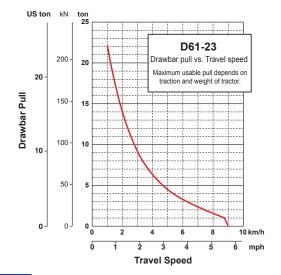


HYDROSTATIC TRANSMISSION

Dual-path, hydrostatic transmission provides infinite speed changes up to 9.0 km/h **5.6 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	0-9.0 km/h 0-5.6 mph	0-9.0 km/h 0-5.6 mph
Travel speed (variable mode)	Forward	Reverse
	0-9.0 km/h 0-5.6 mph	0-9.0 km/h 0-5.6 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 reduces risk of damaged by debris. Bolt-on sprocket teeth for easy displacement.



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*
D 0 1 E 1 1 0 0		

D61EX-23	.2.1	m	83'
D61PX-23	2.3	m	91'

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



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 easily adjusted with grease gun.

		D61EX-23	D61PX-23
Number of track rollers (each side	e)	8	8
Type of shoes (standard)		Single grouser	Single grouser
Number of shoes (each side)		46	46
Grouser height	mm in	57.5 2.3"	57.5 2.3"
Shoe width (standard)	mm in	600 24"	860 34"
Ground contact area	cm ²	31200	54520
	in²	4,836	8,451
Ground pressure	kPa	55.7	33.6
(with dozer, ROPS cab)	kgf/cm ²	0.57	0.34
	psi	8.08	4.87
Track gauge	mm ft.in	1900 6'3"	2130 7'0"
Length of track on ground	mm ft in	3161 10'5"	3161 10'5"



SERVICE REFILL CAPACITIES

Coolant 45 ltr	11.9 U.S. gal
Fuel tank 372 ltr	98.3 U.S. gal
Engine oil	7.2 U.S. gal
Hydraulic tank101 ltr	26.7 U.S. gal
Final drive (each side)	2.2 U.S. gal



OPERATING WEIGHT

Tractor weight:

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

D61EX-23	16780 kg 36,999 lb
D61PX-23	17500 kg 38,581 lb
porating waight:	

Operating weight:

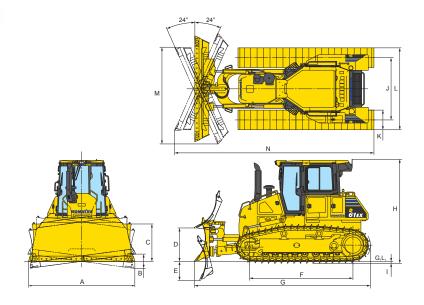
Including Power Angle Tilt dozer, ROPS cab, operator, standard equipment, rated capacity of lubricant, hydraulic control unit, coolant, and full fuel tank.

D61EX-23	17735 kg 39,099 lb
D61PX-23	18660 kg 41,138 lb



DIMENSIONS

	D61EX-	23	D61PX	-23
Α	3250 mm	10'8'	3860 mm	12'8'
В	435 mm	1'5"	515 mm	1'8"
С	1195 mm	3'11"	1155 mm	3'9"
D	1025 mm	3'4"	1025 mm	3'4"
Е	580 mm	1'11"	580 mm	1'11"
F	3165 mm	10'5"	3165 mm	10'5"
G	5480 mm	17'12'	5480 mm	17'12'
Н	3180 mm	10'5"	3180 mm	10'5"
1	57.5 mm	2"	57.5 mm	2"
J	1900 mm	6'3"	2130 mm	7'0"
K	600 mm	2'0"	860 mm	2'10"
L	2500 mm	8'2"	2990 mm	9'10"
M	2980 mm	9'9"	3530 mm	11'7"
N	6100 mm	20'0"	6220 mm	20'5"





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 171 ltr/min **45 U.S. gal/min** at rated engine rpm.

	Number of cylinders	Bore
Blade lift	2	100 mm 4"
Blade tilt	1	120 mm 5"
Blade angle	2	110 mm 4"

Hydraulic oil capacity (refill):

Power angle tilt dozer 101 ltr 26.7 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
D61EX-23	5480	3.4	3250 x 1195	1025	580	435
Power Angle Tilt Dozer	18'0"	4.5	10'8" x 3'11"	3'4"	1'11"	17"
D61PX-23	5480	3.8	3860 x 1155	1025	580	515
Power Angle Tilt Dozer	18'0"	5.0	12'8" x 3'9"	3'4"	1'11"	20"



STANDARD EQUIPMENT FOR BASE MACHINE*

- Air cleaner, double element with dust indicator
- Alternator, 90 ampere/24V
- Backup alarm
- Batteries, 200 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
- Enhanced provision for Topcon
- Front pull hook
- High mount foot rests
- Horn, warning
- Hydraulic driven radiator cooling fan with reverse clean mode
- Hydraulics for rear equipment
- KOMTRAX® Level 4
- Komatsu Diesel Particulate Filter (KDPF)
- Komatsu Variable Geometry Turbocharger
- Locks, filler caps and covers
- Muffler with curved exhaust pipe
- Radiator mask, heavy-duty, swing up

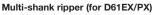
- Radiator reserve tank
- ROPS cab**
- Air conditioner
- ■Cab accessories
- 12V power supply (2 ports)Cup holder
- Rearview mirror
- Rear view monitoring (1 camera)
- AM/FM Radio w/remote AUX plug (3.5 mm)
- 76 dBA
- ■Work lights
- 3 front, cab mounted
- 2 rear, cab mounted
- Seat, air suspension, fabric, heated low back, headrest
- Seat belt, 76 mm 3", retractable
- Seat belt indicator
- Sealed electrical connectors
- Side by side rear mounted cooling package
- Starting motor, 5.5 kW/24V
- Steering system, hydrostatic
- Track roller guards, center and end sections
- ■Track shoe assembly
- Heavy-Duty lubricated rotary bushing (PLUS) track
- ■600 mm **24"** single grouser shoe (EX)
- ■860 mm **34"** single grouser shoe (PX)

- Transmission with Variable and Customizable
- Transmission, hydrostatic
- Underguards, heavy duty
- Engine
- Transmission
- 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
- Drawbar, long type
- Topcon® Plug-N-Play bolt-on finishing kit
- Track roller guard, full length



Weight...... 1757 kg **3,874 lb** Beam length...... 2170 mm 7'1" Maximum lift above ground...... 560 mm 1'10" Maximum digging depth...... 665 mm 2'2"









ALLIED MANUFACTURER'S ATTACHMENTS (SHIPPED LOOSE)

- Guarding Komatsu (Ken Garner)
- Front sweeps 298 kg 657 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**
- Rear fan guard (HD) 12 kg 27 lb
- Polycarbonate front door inserts 41 kg 90 lb

Hydraulic winch - Allied H6H 1325 kg **2,900 lb**



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