

# KOMATSU®

## D61EX-15 D61PX-15

### NET HORSEPOWER

116 kW **155 HP** @ 1800 rpm

### OPERATING WEIGHT

D61EX-15: 16520 kg **36,420 lb**

D61PX-15: 18140 kg **39,990 lb**

**D**  
**61**

CRAWLER DOZER



Photos may include optional equipment.

# WALK-AROUND

**The Komatsu SA6D114E-2 turbocharged diesel engine** provides an output of 116 kW **155 HP**, and is Tier 2 EPA, EU, and Japan emissions certified.

Left-hand **joystick** controls all tractor motion. Right-hand joystick controls all blade movements

**Hydrostatic Driven Engine Cooling Fan** controlled automatically reduces fuel consumption and operating noise levels

**Gull-wing** engine side doors for easy servicing

High capacity **Power Angle Tilt dozer** combines the highest power in its class with outstanding productivity

**Blade tilt lines** completely protected

**Komatsu TORQFLOW transmission** offers single lever control of speed (3 forward and 3 reverse) and directional changes

Forward mounted **pivot shafts** isolate final drives from blade loads



***New Hexagonal Designed Cab includes:***

- Spacious interior
- Comfortable ride with new cab damper
- Excellent visibility
- High capacity air conditioning system (optional)
- PCCS (Palm Command Control System) lever
- Pressurized cab (optional)
- Adjustable armrests

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116 kW **155 HP** @ 1800 rpm

**OPERATING WEIGHT**  
D61EX-15: 16520 kg **36,420 lb**  
D61PX-15: 18140 kg **39,990 lb**

**BLADE CAPACITY**  
Semi-U Tilt Dozer:  
D61EX-15: 4.3 m<sup>3</sup> **5.6 yd<sup>3</sup>**

PAT Dozer:  
D61EX-15: 3.4 m<sup>3</sup> **4.4 yd<sup>3</sup>**  
D61PX-15: 3.8 m<sup>3</sup> **5.0 yd<sup>3</sup>**

Straight Tilt Dozer:  
D61PX-15: 3.2 m<sup>3</sup> **4.2 yd<sup>3</sup>**

***Electronic Monitoring System***

prevents minor problems from developing into major ones

***Hydrostatic Steering System (HSS)***

provides smooth, quick, and powerful control in varying ground conditions

***Wet, multiple-disc brakes***

eliminates brake-band adjustments for maintenance-free operation

***Bolt-on sprocket***

for ease of maintenance

Photos may include optional equipment.

***Modular power train*** for increased serviceability and durability

# PCCS (PALM COMMAND CONTROL SYSTEM)

Komatsu's new ergonomically designed control system "PCCS" creates an operating environment with "complete operator control."

## Human-Machine Interface

### Palm Command Electronic Controlled Travel Control Joystick

Palm command travel joystick provides the operator with a relaxed posture and superb fine control without operator fatigue. Transmission gear shifting is simply carried out with thumb push buttons.



### Palm Command PPC Controlled Blade Control Joystick

Blade control joystick uses the PPC (Proportional Pressure Control) valve and joystick is similar to the travel control joystick. PPC control combined with the highly reliable Komatsu hydraulic system enables superb fine control.

### Blade Control Joystick



### Full-adjustable Suspension Seat and Travel Control Console

The travel control console has adjustment fore and aft, and height.

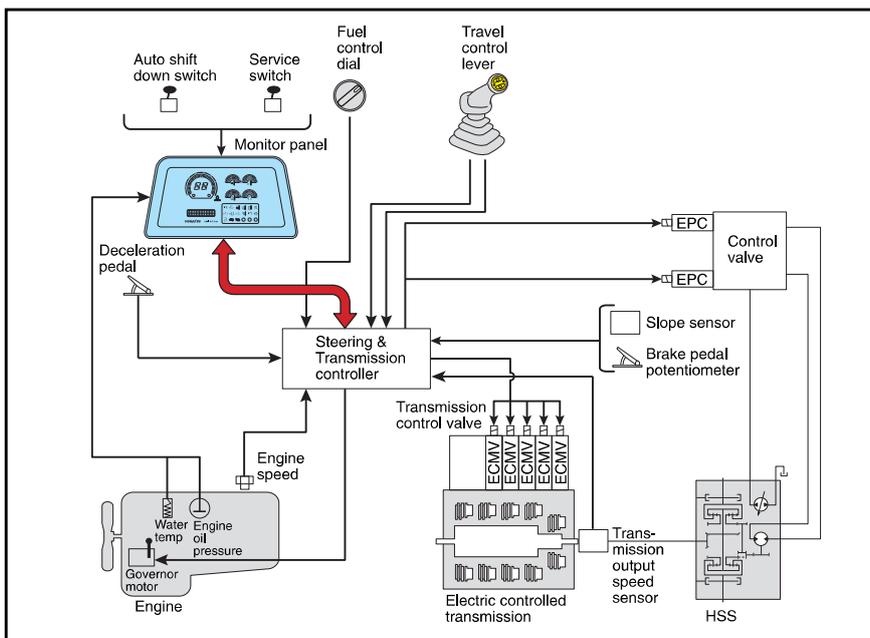
### Fuel Control Dial

Engine revolution is controlled by an electric signal, providing ease of operation, eliminating maintenance of linkage and joints.

### Height Adjustable Armrest

Armrest height is adjustable without any tools, providing the operator with firm arm support in an ideal armrest.

## Outline of Electronic Control System



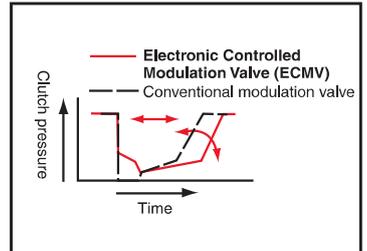
# Power Train Electronic Control System

## Smooth and Soft Operation

The D61 utilizes a newly designed power train electronic control system. The controller registers the amount of operator control (movements of lever and operation of switches) along with machine condition signals from each sensor, to calculate accurately the control of the transmission for optimal machine operation. The ease of operation and productivity of the new D61EX/PX is greatly improved through these new features.

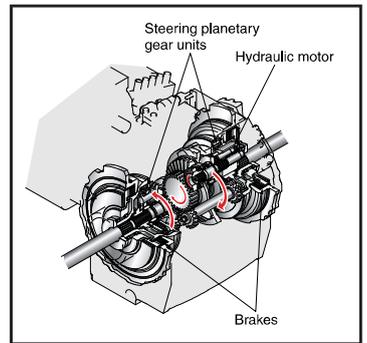
## Electronic Controlled Modulation Valve (ECMV) Transmission

Controller automatically adjusts each clutch engagement depending on travel conditions such as gear speed, revolution and shifting pattern. This provides smooth shockless clutch engagement, improved component reliability, improved component life and operator ride comfort.



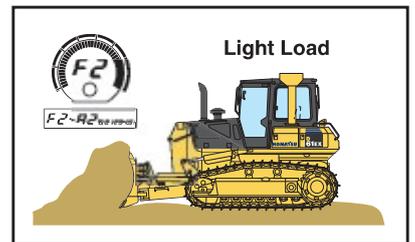
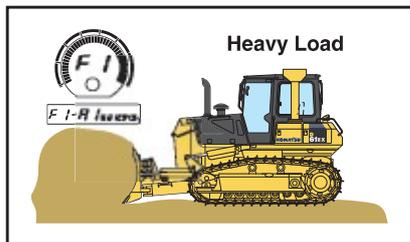
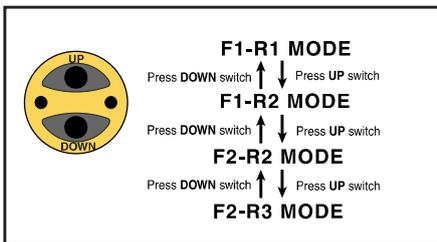
## Hydrostatic Steering System—Smooth, Powerful turning

The Hydrostatic Steering System (HSS) is powered by an independent hydraulic pump with engine power transmitted to both tracks without power interruption on the inside track. When the machine turns, the outside track moves faster and the inside slower, for smooth, powerful turns. Counter-rotation is available for minimum turning radius providing excellent maneuverability. Shock-free steering reduces machine vibration and minimizes operator fatigue.



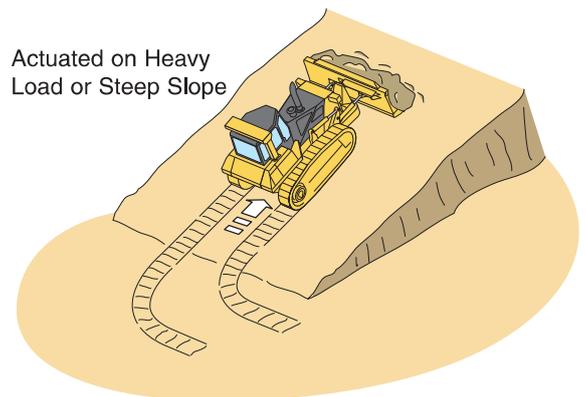
## Shift Preset Function

Shift Preset Mode is provided as standard equipment. The preset switch enables the operator to select a combination of forward/reverse gear shifts, from 4 patterns; F1-R1, F1-R2, F2-R2 and F2-R3, by using UP/DOWN shift switch, and once the shift pattern is selected, only forward/reverse direction control selection is required. Once F2-R2 pattern is selected, for example, 2nd gear is automatically selected when travel control joystick is moved into forward/reverse. This function reduces gear shifting frequency during machine operation, and is especially helpful, in case of using Auto-Downshift Function together.



## Auto-Downshift Function

Controller monitors engine speed, travel gear and travel speed. When load is applied and machine travel speed is reduced, the controller automatically downshifts to optimize gear speed to provide high fuel efficiency. This function provides comfortable operation and high productivity without manual downshifting (This function can be deactivated with cancel switch).



# PRODUCTIVITY FEATURES

## Engine

The Komatsu SA6D114E-2 engine delivers 116 kW **155 HP** at 1800 rpm. The fuel-efficient Komatsu engine, together with the heavy machine weight, make the D61 crawler dozers superior in both ripping and dozing operations. The engine is Tier 2 EPA, EU and Japan emissions certified, and features direct fuel injection, turbocharger, and aftercooler to maximize fuel efficiency.

To minimize noise and vibration, the engine is mounted to the main frame with rubber cushions.

### Hydrostatic Driven Engine Cooling Fan

Fan rotation is automatically controlled depending on coolant and hydraulic oil temperature, saving fuel consumption and providing great productivity with a quiet operating environment.

## Work Equipment

### Large Blade

Capacities of 3.4 m<sup>3</sup> **4.4 yd<sup>3</sup>** (for the D61EX-15 PAT Dozer), 3.8 m<sup>3</sup> **5.0 yd<sup>3</sup>** (for the D61PX-15 PAT dozer), 4.3 m<sup>3</sup> **5.6 yd<sup>3</sup>** (for the D61EX-15 Semi-U Dozer), and 3.2 m<sup>3</sup> **4.2 yd<sup>3</sup>** (for the D61PX-15 Straight Tilt Dozer) yield outstanding production. High-tensile-strength steel has been incorporated into the front and sides of the blade for increased durability.



# WORKING ENVIRONMENT

## Operator Comfort

Operator comfort is essential for productive work. The D61 provides a quiet, comfortable environment where the operator can concentrate on the work at hand.



### Hexagonal Pressurized Cab

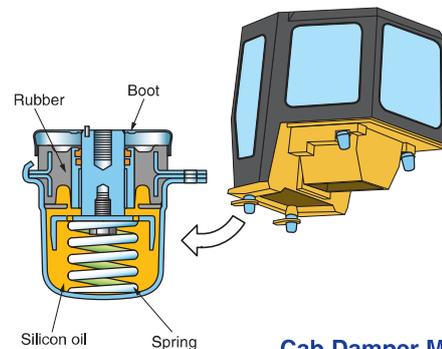
- The cab's new hexagonal design and large tinted glass windows provide excellent front, side, and rear visibility.
- Air filters and a higher internal air pressure combine to prevent dust from entering the cab.



Photos may include optional equipment

### Comfortable Ride with New Cab Damper Mounting

D61's cab mounts use a newly designed cab damper which provides excellent shock and vibration absorption capacity with its long stroke. Cab damper mounts soften shocks and vibration while traveling over adverse conditions, which conventional mounting systems are unable to absorb. The cab damper spring isolates the cab from the machine body, suppressing vibration and providing a quiet, comfortable operating environment.



Cab Damper Mounting

### New Suspension Seat (optional)

The D61 uses a newly designed suspension seat. Fore and aft sliding rails and suspension spring have been newly designed to increase strength and rigidity. The new seat provides excellent support, improving riding comfort. Fore and aft seat travel has been designed for all operator sizes.



## EASY MAINTENANCE

### Preventative Maintenance

Preventative maintenance is the only 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.

#### Centralized Service Station

To assure convenient maintenance, the transmission and HSS oil filters, power train oil level gauge and hydraulic tank are arranged on the right side of the machine.



#### Monitor With Self-Diagnostic Function

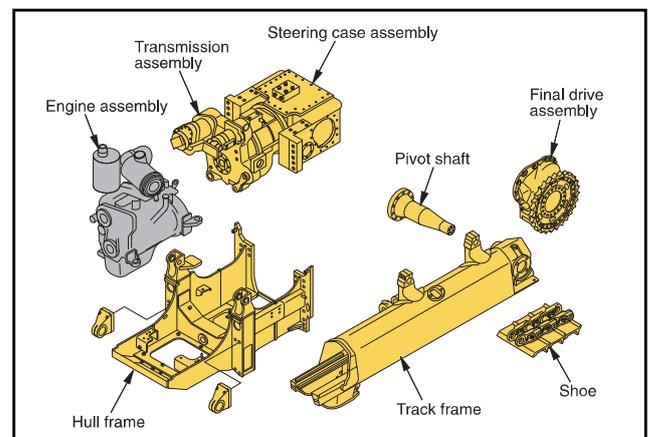
With the starting switch turned ON, the monitor displays check-before-starting and caution items appear on the lower right part of the panel. If the monitor finds abnormalities, corresponding warning lamp blinks and a warning buzzer sounds. The monitor displays engine rpm and forward/reverse gear speed on the upper part of the monitor during operation. When abnormalities occur during operation, user code and service meter are displayed alternately. When a critical user code is displayed, the caution lamp blinks and a warning buzzer sounds to prevent the development of serious problems.

#### Easy Cleaning With Hydraulic Driven Radiator Fan

The radiator core and oil cooler core can be easily cleaned by running the hydraulic engine fan in reverse. Accordingly, the cleaning intervals of those cores can be increased.

#### Modular Power Train Design

Power train components are sealed in a modular design that allows the components to be dismantled and mounted without oil spillage.



#### Reliable Simple Structure

Simple hull structure main frame design increases durability and reduces stress concentration at critical areas. The track frame has a large cross section and utilizes pivot shaft mounting for greater reliability.

#### Maintenance-Free Disc Brakes

Wet disc brakes require less maintenance.

#### Gull-wing Engine Side Covers

The opening area is further enlarged when gull-wing engine side covers are opened, facilitating engine maintenance and filter replacement.



# CLEAN AND SILENT DESIGN

## Low Emission

The SA6D114E-2 engine is Tier 2 EPA, EU and Japan emissions certified, without sacrificing power or machine productivity.

## Quiet Design

The low-noise engine hydraulically driven fan and rubber-mounted power train provide a quiet operation.

## Use of Recyclable Parts

Recyclable parts are used to minimize the effects on the environment.

## Extended Service Interval

Long-life consumable parts such as filters and elements are used to lengthen their replacement interval to lower the maintenance cost.

## Powerful Ripper

The multi-shank ripper features a long sprocket center-to-center point distance, making ripping operations easy and effective while maintaining high penetration force. The multi-shank ripper is a parallelogram design ideal for ripping in tough material.

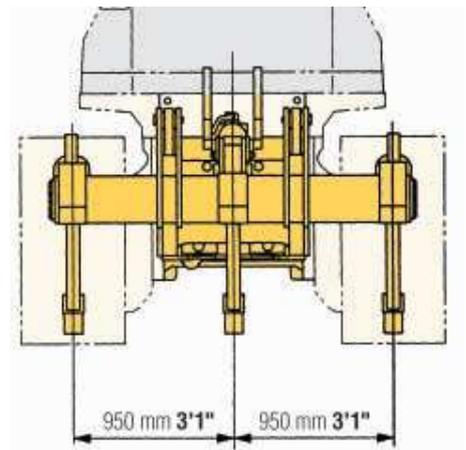
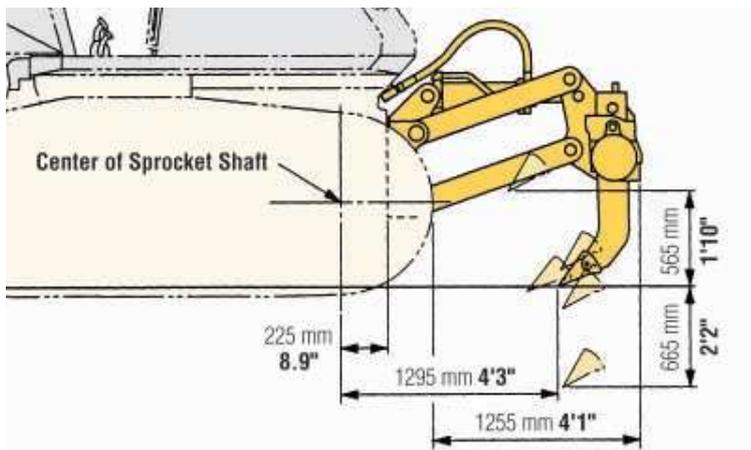


Photo may include optional equipment.

# D61-15 CRAWLER DOZER

## SPECIFICATIONS



### ENGINE

Model ..... Komatsu SA6D114E-2  
 Type ..... 4-stroke cycle, water-cooled, emissionized, direct injection, turbocharged engine  
 Number of cylinders ..... 6  
 Bore ..... 114 mm **4.49"**  
 Stroke ..... 135 mm **5.31"**  
 Piston displacement ..... 8.27 ltr **505 in<sup>3</sup>**  
 Gross horsepower\* ..... 127 kW **170 HP** @ 1800 rpm  
 Net horsepower\*\* ..... 116 kW **155 HP** @ 1800 rpm  
 Net maximum torque ..... 84 kg m **608 ft lb** @ 1300 rpm

Tier 2, EU and Japan emissions certified

Direct injection fuel system. All-speed mechanical governor. Forced lubrication driven by gear pump. Full-flow for lube purification. Dry-type air cleaner with automatic dust evacuator and dust indicator. 7.5 kW/24 V electrical starter motor. 60 Ah/24 V alternator. 200 Ah/2 x 12 V batteries.

\* Gross horsepower output for complete engine operating under SAE J1349 conditions.

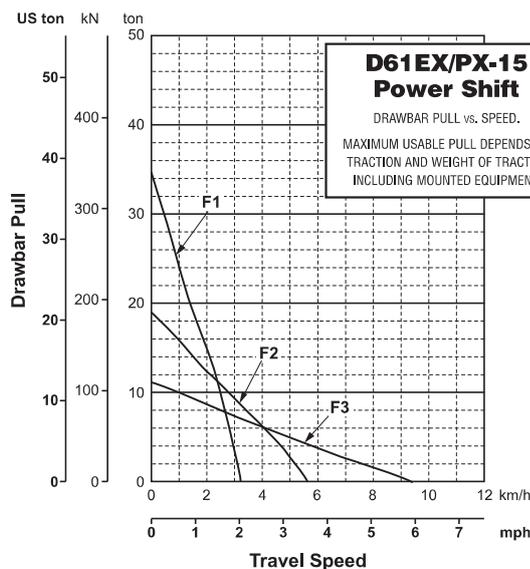
\*\* Net flywheel horsepower output for standard engine (SAE J1349) including air cleaner, alternator (not charging), water pump, lubricating oil pump, fuel pump, muffler, and fan.



### TORQFLOW TRANSMISSION

Komatsu's TORQFLOW transmission consists of a water-cooled, 3-element, 1-stage, 1-phase torque converter and a planetary gear, multiple-disc clutch transmission which is hydraulically actuated and force-lubricated for optimum heat dissipation. PCCS control of gears (3 forward and 3 reverse) and directional steering changes.

Travel speed	Forward	Reverse
1st	0-3.3 km/h <b>0-2.1 mph</b>	0-4.3 km/h <b>0-2.7 mph</b>
2nd	0-5.8 km/h <b>0-3.6 mph</b>	0-7.3 km/h <b>0-4.5 mph</b>
3rd	0-9.4 km/h <b>0-5.8 mph</b>	0-11.2 km/h <b>0-7.0 mph</b>



### FINAL DRIVE

Spur gear double-reduction, final drives increase tractive effort. Segmented sprockets are bolt-on for easy in-the-field replacement.



### STEERING

PCCS lever controls for all directional movements. Pushing the PCCS lever forward results in forward machine travel, while pulling it rearward reverses the machine. Simply tilt the PCCS lever to the left to make a left turn. Hydrostatic Steering System (HSS) is powered by steering planetary units and an independent hydraulic pump and motor. Counter-rotation turns are also available. Wet, multi-disc, pedal-controlled service brakes are spring-actuated and hydraulically released. Gear shift lock lever also applies parking brake.

Minimum turning radius:

D61EX-15 ..... 1.8 m **5'11"**  
 D61PX-15 ..... 2.2 m **7'3"**

As measured by track marks on ground.



### UNDERCARRIAGE

Suspension ..... Oscillation with equalizer bar and forward mounted pivot shafts  
 Track roller frame ..... Monocoque, large section, durable construction  
 Number of carrier rollers (each side) ..... 2  
 Track shoes ..... Lubricated tracks. Unique dust seals for preventing entry of foreign abrasives into pin-to-bushing clearances for extended service. Track tension is easily adjusted with a grease gun.

	D61EX-15	D61PX-15
Number of track rollers (each side)	7	8
Number of shoes (each side)	40	46
Grouser height	57.5 mm <b>2.3"</b>	57.5 mm <b>2.3"</b>
Shoe width (standard)	600 mm <b>24"</b>	860 mm <b>34"</b>
Ground contact area	31200 cm <sup>2</sup> <b>4,836 in<sup>2</sup></b>	54520 cm <sup>2</sup> <b>8,451 in<sup>2</sup></b>
Ground pressure (with dozer, ROPS canopy)	52.0 kPa 0.53 kgf/cm <sup>2</sup> <b>7.54 psi</b>	32.4 kPa 0.33 kgf/cm <sup>2</sup> <b>4.69 psi</b>
Track gauge	1900 mm <b>6'3"</b>	2140 mm <b>7'0"</b>
Length of track on ground	2600 mm <b>8'6"</b>	3170 mm <b>10'5"</b>



### COOLANT AND LUBRICANT CAPACITY (REFILLING)

Coolant ..... 45 ltr **11.9 U.S. gal**  
 Fuel tank ..... 390 ltr **103.0 U.S. gal**  
 Engine oil ..... 19 ltr **5.0 U.S. gal**  
 Damper ..... 1.3 ltr **0.3 U.S. gal**  
 Transmission, bevel gear, and steering system ..... 69 ltr **18.2 U.S. gal**  
 Final drive (each side) ..... 28.5 ltr **7.5 U.S. gal**



### OPERATING WEIGHT (APPROXIMATE)

**Tractor weight:**

Including rated capacity of lubricant, coolant, ROPS, full fuel tank, operator, and standard equipment.

D61EX-15 ..... 13730 kg **30,270 lb**  
 D61PX-15 ..... 15050 kg **33,180 lb**

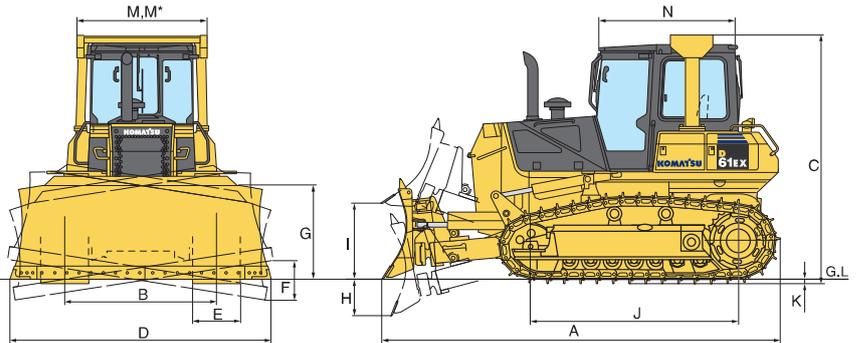
**Operating weight:**

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

D61EX-15 ..... 16520 kg **36,420 lb**  
 D61PX-15 ..... 18140 kg **39,990 lb**

**DIMENSIONS**

	D61EX-15 PAT	D61PX-15 PAT
A	5030 mm <b>16'6"</b>	5465 mm <b>17'11"</b>
B	1900 mm <b>6'3"</b>	2140 mm <b>7'0"</b>
C	3150 mm <b>10'4"</b>	3150 mm <b>10'4"</b>
D	3250 mm <b>10'8"</b>	3860 mm <b>12'8"</b>
E	600 mm <b>24"</b>	860 mm <b>34"</b>
F	510 mm <b>1'8"</b>	600 mm <b>2'0"</b>
G	1200 mm <b>3'11"</b>	1160 mm <b>3'10"</b>
H	465 mm <b>1'6"</b>	550 mm <b>1'10"</b>
I	980 mm <b>3'3"</b>	1045 mm <b>3'5"</b>
J	2600 mm <b>8'6"</b>	3170 mm <b>10'5"</b>
K	57.5 mm <b>2.3"</b>	57.5 mm <b>2.3"</b>
M	1650 mm <b>5'5"</b>	1650 mm <b>5'5"</b>
M*	1825 mm <b>6'0"</b>	1825 mm <b>6'0"</b>
N	1630 mm <b>5'4"</b>	1630 mm <b>5'4"</b>



Ground clearance . . . . . 395 mm **1'4"**

\*ROPS canopy

Transportation width, blade fully angled left	
D61EX-15 Power Angle Tilt	2980 mm <b>9'9"</b>
D61PX-15 Power Angle Tilt	3540 mm <b>11'7"</b>

**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 beside the hydraulic tank. Plunger-type hydraulic pump with capacity (discharge flow) of 195 ltr/min **51.5 U.S. gal/min** at rated engine rpm.

Relief valve setting. . . . . 210 kg/cm<sup>2</sup> **2,990 psi**

Hydraulic cylinders . . . . . Double-acting, piston

	Number of cylinders	Bore
Blade lift	2	110 mm <b>4.33"</b>
Blade tilt	1	130 mm <b>5.12"</b>
Blade angle	2	110 mm <b>4.33"</b>

**Hydraulic oil capacity (refilling):**

Power angle tilt dozer . . . . . 55.0 ltr **14.5 U.S. gal**

**Control valves:**

Spool control valve for power angle tilt dozer.

Positions:

- Blade lift . . . . . Raise, hold, lower, and float
- Blade tilt . . . . . Right, hold, and left
- Blade angle . . . . . Right, hold, and left

Spool control valve for semi-U and straight tilt dozer.

Positions:

- Blade lift . . . . . Raise, hold, lower, and float
- Blade tilt . . . . . Right, hold, and left

**DOZER EQUIPMENT**

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

	Overall Length With Dozer	Blade Capacity	Blade Width x Height	Maximum Lift Above Ground	Maximum Drop Below Ground	Maximum Tilt Adjustment	Additional Weight
D61EX-15 Power Angle Tilt Dozer	5030 mm <b>16'6"</b>	3.4 m <sup>3</sup> <b>4.4 yd<sup>3</sup></b>	3250 mm x 1200 mm <b>10'8" x 3'11"</b>	980 mm <b>3'3"</b>	465 mm <b>1'6"</b>	510 mm <b>1'8"</b>	2400 kg <b>5,290 lb</b>
D61EX-15 Semi-U Tilt Dozer	5050 mm <b>16'7"</b>	4.3 m <sup>3</sup> <b>5.6 yd<sup>3</sup></b>	3175 mm x 1300 mm <b>10'5" x 4'3"</b>	970 mm <b>3'2"</b>	545 mm <b>1'9"</b>	690 mm <b>2'3"</b>	2430 kg <b>5,360 lb</b>
D61PX-15 Power Angle Tilt Dozer	5465 mm <b>17'11"</b>	3.8 m <sup>3</sup> <b>5.0 yd<sup>3</sup></b>	3860 mm x 1160 mm <b>12'8" x 3'10"</b>	1045 mm <b>3'5"</b>	550 mm <b>1'10"</b>	600 mm <b>2'0"</b>	2700 kg <b>5,950 lb</b>
D61PX-15 Straight Tilt Dozer	5300 mm <b>17'5"</b>	3.2 m <sup>3</sup> <b>4.2 yd<sup>3</sup></b>	3600 mm x 1070 mm <b>11'10" x 3'6"</b>	1125 mm <b>3'8"</b>	515 mm <b>1'8"</b>	600 mm <b>2'0"</b>	2230 kg <b>4,920 lb</b>



## STANDARD EQUIPMENT FOR BASE MACHINE

### ENGINE AND ITS RELATED ITEMS:

- Air cleaner, double element type
- Automatic deaeration for fuel line
- Engine, Komatsu SA6D114E-2, 116 kW **155 HP**, direct injection turbocharged, emission certified diesel
- Engine key stop
- Engine pre-cleaner
- Exhaust pipe, curved
- Fan, reversible, electronic control, hydraulic driven

### ELECTRIC SYSTEM:

- Alternator, 35 ampere, 24 V
- Back-up alarm
- Batteries, large capacity
- Lights (2 front, 1 rear)
- Sealed electrical connectors
- Starting motor 7.5 kW, 24 V

### POWER TRAIN AND CONTROLS:

- TORQFLOW transmission, torque converter
- Hydrostatic Steering System (HSS)
- PCCS steering with electronic control
  - Auto shift
  - Auto downshift
- Sprockets, segmented, bolt-on style

### UNDERCARRIAGE:

- Idler with recoil spring
- Track frames:
  - 7 roller, 2 carrier roller (D61EX-15)
  - 8 roller, 2 carrier roller (D61PX-15)

- Track roller guards, center and end section guiding guards
- Track shoe assembly, single grouser shoes with sealed and lubricated link assembly
  - D61EX-15: 600 mm **24"**
  - D61PX-15: 860 mm **34"**

### GUARDS AND COVERS:

- Engine hood and side panels
- Fenders, standard type
- Radiator guard door, hinged, deflection style
- Rear cover, strengthened type
- ROPS mounting brackets
- Underguards, crankcase, and transmission

### OPERATOR ENVIRONMENT:

- Cup holder
- High mounted footrest
- Instrument monitor panel, electronic
- Lunch box holder
- Rearview mirror
- Seat belt, 76 mm **3"** retractable
- Seat, suspension type, fully adjustable

### HYDRAULICS AND CONTROLS:

- Accumulator for PPC
- Blade cylinder hoses, standard type
- Hydraulics for PAT dozer
- PCCS blade control with PPC

### SPECIAL ARRANGEMENTS:

- Hard water area arrangement (corrosion resistant)
- High altitude arrangement (no fuel adjustment up to 3000 m **9,840 ft**)
- Hot area arrangement:  $-20^{\circ}\text{C}$   **$-4^{\circ}\text{F}$**  through  $+50^{\circ}\text{C}$   **$+122^{\circ}\text{F}$**

### VANDALISM PROTECTION:

- Filler cap locks and cover locks

### OTHER STANDARD EQUIPMENT:

- Marks and plates, English
- Pullhook

ROPS canopy must be ordered

Dozer assembly and rear-mounted equipment are not included



## OPTIONAL EQUIPMENT

- Air conditioner with heater, defroster, pressurizer
- AR track assembly (abrasion resistant links and bushings)
- Cab attachments
- Cab, steel

- Drawbar, rigid
- Heater and defroster
- Rear light, additional
- Ripper, multi-shank (fixed)
- Rear hydraulics control unit
- ROPS canopy

- Sun visor
- Sweeps, front, side, rear, screens
- Tank guard group
- Vandalism protection cover for instrument panel
- Water separator

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