D85EX-15
D85PX-15

FLYWHEEL HORSEPOWER
179 kW 240 HP @ 1900 rpm

OPERATING WEIGHT
D85EX-15: 28000 kg 61,735 lb
D85PX-15: 27550 kg 60,740 lb

Photos may include optional equipment.
D85EX/PX-15 Crawler Dozer

Komatsu-integrated design for the best value, reliability, and versatility. Hydraulics, power train, frame, and all other major components are engineered by Komatsu. You get a machine whose components are designed to work together for higher production, greater reliability, and more versatility.

Hydrostatic Driven Engine Cooling Fan controlled automatically, reduces fuel consumption and operating noise levels. See page 6.

Extra-low Machine Profile provides excellent machine balance and low center of gravity.

Preventative Maintenance
● Centralized Service Station
● Enclosed Hydraulic Piping
● Modular Power Train Design
See page 8.

Simple Hull Frame
and monocoque track frame with pivot shaft for greater reliability.

Large Blade Capacities:
D85EX:
5.2 m³ 6.8 yd³ (Straight-tilt dozer)
7.0 m³ 9.2 yd³ (Semi-U dozer)
D85PX:
5.9 m³ 7.7 yd³ (Straight-tilt dozer)

The track link life is greatly improved through increased bushing diameter and link height in addition to lubricated track.
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 for direction and blade
- Pressurized cab (optional)
- Adjustable armrests

Komatsu SA6D125E-3 179 kW 240 HP turbocharged, aftercooled engine provides ample power.
See page 6.

HSS (Hydrostatic Steering System) provides Smooth, Quick and Powerful Control in various ground conditions.
See page 5.

Low-drive, long-track, undercarriage ensures outstanding grading ability and stability.
Komatsu develops new ergonomically designed control system “PCCS” creating 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.

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

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

For improved rear visibility during reverse operations, the operator can adjust seat 15° to the right.

**Facing Front**

**Blade and Ripper Control Joystick**

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

**Fuel Control Dial**

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

**Height Adjustable Armrest**

Armrest is height 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
D85EX/PX 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 D85EX/PX is greatly improved through these new features.

ECMV (Electronic Controlled Modulation Valve) Controlled 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.

Preset Travel Speed Function
Preset travel speed selection function is provided as standard equipment. The preset switch enables the operator to select fore and aft travel speed among three preset patterns, F1-R2, F2-R2 and manual shift. When the F1-R2 or F2-R2 preset pattern is selected, and travel control PCCS moves from forward to reverse direction, the machine travels forward/reverse with F1/R2 or F2/R2 speed automatically. This function reduces gear shifting time during repeated round trip operations.

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.)
Engine

The Komatsu SA6D125E-3 engine delivers 179 kW **240 HP** at 1900 rpm. The fuel-efficient Komatsu engine, together with the heavy machine weight, make the D85EX/PX superior crawler dozers in both ripping and dozing operations. The engine is designed to surpass EPA/CARB Tier 2, EU and Japan regulations, 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 5.2 m³ **6.8 yd³** (Straight-tilt dozer for D85EX), 5.9 m³ **7.7 yd³** (D85PX), 7.0 m³ **9.2 yd³** (Semi-U dozer), 8.5 m³ **11.1 yd³** (Full-U dozer) yield outstanding production. High-tensile-strength steel has been incorporated into the front and sides of the blade for increased durability.

Rippers (EX)

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

Undercarriage

Low Drive and Long Track Undercarriage

Komatsu’s design is extraordinarily tough and offers excellent grading ability and stability. Large-diameter bushings, increased track link height, and improved oil seals help to increase undercarriage durability.

Serviceability has also been improved with the addition of remote greasing of the equalizer bar center pin.
Operator comfort is essential for safe and productive work. The D85EX/PX 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.

Comfortable Ride with New Cab Damper Mounting
D85EX/PX’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.

New Suspension Seat
D85EX/PX 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.
Preventative Maintenance

Preventative maintenance is the only way to ensure long service life from your equipment. That’s why Komatsu designed the D85EX/PX 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 gauges and hydraulic tank are arranged in the right side of the machine.

**Monitor With Self-Diagnostic Function**
With the starting switch turned ON, the monitor displays on the panel, check-before-starting and caution items appear on the right lower part of the panel. If the monitor finds abnormalities, corresponding warning lamp blinks and 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.

**Enclosed Hydraulic Piping**
Hydraulic piping for the blade tilt cylinder is completely housed in the push arm, ensuring damage protection from materials.

**Easy Cleaning With Hydraulic Driven Radiator Fan**
The radiator core and the core on the front side of the oil cooler 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 dismounted 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. Side covers have been changed to a thick one-piece structure with a bolt-on catch to improve durability.

**Heavy-duty Track Link**
The track link life is greatly improved through increased bushing diameter and link height in addition to a lubricated track.
Clean and Quiet Design

Clean Engine
The SA6D125E-3 engine meets USA EPA Tier 2, EU and Japan emissions regulations, 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, reducing the effects on the environment.

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

**ENGINE**

- **Model**: Komatsu SA6D125E-3
- **Type**: 4-stroke, water-cooled, direct injection
- **Aspiration**: Turbocharged, aftercooled
- **No. of cylinders**: 6
- **Bore x stroke**: 125 mm x 150 mm (4.9” x 5.9”)
- **Piston displacement**: 11.04 ltr (674 in³)
- **Flywheel horsepower**
  - **SAE J1349**: 179 kW (240 HP) at 1900 rpm
  - **DIN 6270**: 179 kW (243 PS) at 1900 rpm
- **Governor**: All-speed, electronic
- **Lubrication system**
  - **Method**: Gear pump, force lubrication
  - **Filter**: Full-flow

**STEERING SYSTEM**

PCCS lever controls 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 or right to make a left or right 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, multiple-disc, pedal-controlled service brakes are spring-actuated and hydraulically released. Gear shift lock lever also applies parking brake.

- **Minimum turning radius**
  - **D85EX-15**: 1.99 m (6’6”)
  - **D85PX-15**: 2.24 m (7’4”)

**UNDERCARRIAGE**

- **Suspension**: Oscillating equalizer bar and pivot shaft
- **Track roller frame**: Monocoque, large section, durable construction
- **Rollers and idlers**: Lubricated track rollers
- **Track shoes**: Lubricated tracks. Unique seals prevent entry of foreign abrasive material into pin to bushing clearances to provide extended service life. Track tension is easily adjusted with grease gun.

<table>
<thead>
<tr>
<th>Travel speed</th>
<th>Forward</th>
<th>Reverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>3.6 km/h</td>
<td>4.7 km/h</td>
</tr>
<tr>
<td></td>
<td>2.2 mph</td>
<td>2.9 mph</td>
</tr>
<tr>
<td>2nd</td>
<td>6.1 km/h</td>
<td>8.0 km/h</td>
</tr>
<tr>
<td></td>
<td>3.8 mph</td>
<td>5.0 mph</td>
</tr>
<tr>
<td>3rd</td>
<td>10.1 km/h</td>
<td>13.0 km/h</td>
</tr>
<tr>
<td></td>
<td>6.3 mph</td>
<td>8.1 mph</td>
</tr>
</tbody>
</table>

**TORQFLOW TRANSMISSION**

Komatsu 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. Gearshift lock lever and neutral safety switch prevent accidental starts.

**FINAL DRIVES**

Double-reduction final drive of spur and planetary gear sets to increase tractive effort and reduce gear tooth stresses for long final drive life. Segmented sprocket rims are bolt-on for easy replacement.

**COOLANT AND LUBRICANT**

- **Fuel tank**: 490 ltr (129 U.S. gal)
- **Coolant**: 93 ltr (24.6 U.S. gal)
- **Engine**: 40 ltr (10.6 U.S. gal)
- **Torque converter, transmission, bevel gear, and steering system**: 84 ltr (22.2 U.S. gal)
- **Final drive (each side)**: 26 ltr (6.9 U.S. gal)
**DIMENSIONS**

<table>
<thead>
<tr>
<th></th>
<th>D85EX-15</th>
<th>D85PX-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2000 mm</td>
<td>67&quot;</td>
</tr>
<tr>
<td>B</td>
<td>3635 mm</td>
<td>11'11&quot;</td>
</tr>
<tr>
<td>C</td>
<td>3330 mm</td>
<td>10'11&quot;</td>
</tr>
<tr>
<td>D</td>
<td>3050 mm</td>
<td>10&quot;</td>
</tr>
<tr>
<td>E</td>
<td>5795 mm</td>
<td>19&quot;</td>
</tr>
<tr>
<td>F</td>
<td>1460 mm</td>
<td>4'9&quot;</td>
</tr>
<tr>
<td>G</td>
<td>72 mm</td>
<td>3&quot;</td>
</tr>
<tr>
<td>H</td>
<td>3330 mm</td>
<td>10'11&quot;</td>
</tr>
</tbody>
</table>

Ground Clearance: 450 mm 18"

Dimensions with semi-U dozer and multi-shank ripper (D85EX)

**OPERATING WEIGHT**

Tractor weight:
Including rated capacity of lubricant, coolant, full fuel tank, operator, and standard equipment.

D85EX-15 ........................................... 21040 kg 46,380 lb
D85PX-15 ........................................... 23320 kg 51,410 lb

Operating weight
Including Semi-U tilt dozer (EX) or straight tilt dozer (PX), multi-shank ripper (EX), steel cab, ROPS, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank.

D85EX-15 ........................................... 28000 kg 61,735 lb
D85PX-15 ........................................... 27550 kg 60,740 lb

**HYDRAULIC SYSTEM**

Closed-center load sensing system (CLSS) designed for precise and responsive control, and for efficient simultaneous operation.

Hydraulic control units:
All spool 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 ............... 22.6 MPa 230 kg/cm² 3,270 psi

Control valves:
Spool control valves for tilt dozer
Positions: Blade lift ................. Raise, hold, lower, and float
Blade tilt. ............................ Right, hold, and left

Additional control valve required for multi-shank ripper (EX)
Positions: Ripper lift ........................ Raise, hold, and lower

**DOZER EQUIPMENT**

Blade capacities are based on the SAE recommended practice J1265.

<table>
<thead>
<tr>
<th></th>
<th>Overall length with dozer</th>
<th>Blade capacity</th>
<th>Blade length x height</th>
<th>Maximum lift above ground</th>
<th>Maximum drop below ground</th>
<th>Maximum tilt adjustment</th>
<th>Weight</th>
<th>Hydraulic oil</th>
<th>Ground pressure*</th>
</tr>
</thead>
<tbody>
<tr>
<td>D85EX-15</td>
<td>5640 mm 18'6&quot;</td>
<td>5.2 m³</td>
<td>3715 mm x 1436 mm 12'2&quot; x 4'9&quot;</td>
<td>1207 mm 4'</td>
<td>540 mm 1'9&quot;</td>
<td>750 mm 2'6&quot;</td>
<td>3305 kg 7.290 lb 24 kg 72.6 kPa 0.74 kg/cm² 10.5 psi</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D85PX-15</td>
<td>6065 mm 19'11&quot;</td>
<td>5.9 m³</td>
<td>4365 mm x 1370 mm 14'4&quot; x 4'6&quot;</td>
<td>1207 mm 4'</td>
<td>568 mm 1'10&quot;</td>
<td>520 mm 1'8&quot;</td>
<td>2474 kg 5.460 lb 23 kg 42.2 kPa 0.43 kg/cm² 6.1 psi</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Ground pressure shows tractor, cab, ROPS canopy operator, standard equipment and applicable blade.
STANDARD EQUIPMENT

- Alternator, 75 ampere/24V
- Batteries 140Ah/2 x 12V
- Blower fan, hydrostatic
- Decelerator pedal
- Dry-type air cleaner with dust evacuator and dust indicator
- Final drive case wear guard
- Hinged front mask, perforated
- Front pull hook
- Hydraulic track adjusters
- Back up alarm
- Lunch box holder
- Hydrostatic Steering System (HSS)
- Lighting system (includes 2 front, 2 rear)
- Muffler with rain cap
- Palm lever steering control
- Radiator reserve tank
- Segmented sprockets
- Shoes: 560 mm 22” single grouser (EX) 910 mm 36” single grouser (PX)
- Seatbelt, 76 mm 3”
- Gull wing engine side covers
- Blade cylinder guards
- Track frames
- Starting motor 7.5kW/24V
- Suspension seat (reclining, turn, fabric material, high back)
- TORQFLOW transmission
- Track guarders, full length (PX) center and end section (EX)
- Warning horn
- Engine hood
- Rear cover
- PM service connectors

OPTIONAL EQUIPMENT

- Air conditioner
- Heater and defroster
- Batteries 200 Ah/2 x 12V
- Drawbar hitch (PX model only)
- Light for ripper point
- Starting motor 11kW/24V
- Vandalism protection kit
- Suspension seat, (reclining, turn, vinyl material, high back)
- Rear counterweight
- Radio, AM/FM

ROPS canopy:*

<table>
<thead>
<tr>
<th>Weight (kg)</th>
<th>437 kg 970 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>1368 mm 4'6&quot;</td>
</tr>
<tr>
<td>Width</td>
<td>1850 mm 6'1&quot;</td>
</tr>
<tr>
<td>Height from compartment floor</td>
<td>1768 mm 5'10&quot;</td>
</tr>
<tr>
<td>Additional ground pressure</td>
<td>1.0 kPa (0.01 kg/cm²) 0.14 psi</td>
</tr>
</tbody>
</table>

ROPS for cab:* ROPS cab or ROPS canopy must be ordered for all machines.

<table>
<thead>
<tr>
<th>Weight (kg)</th>
<th>371 kg 820 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>650 mm 2'2&quot;</td>
</tr>
<tr>
<td>Width</td>
<td>1774 mm 5'10&quot;</td>
</tr>
<tr>
<td>Height from compartment floor</td>
<td>1768 mm 5'10&quot;</td>
</tr>
</tbody>
</table>

Steel Cab:

<table>
<thead>
<tr>
<th>Weight (kg)</th>
<th>410 kg 910 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>1754 mm 5'9&quot;</td>
</tr>
<tr>
<td>Width</td>
<td>1323 mm 4'4&quot;</td>
</tr>
<tr>
<td>Height from compartment floor to ceiling</td>
<td>1592 mm 5'3&quot;</td>
</tr>
<tr>
<td>Additional ground pressure</td>
<td>1.0 kPa (0.01 kg/cm²) 0.14 psi</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight (kg)</th>
<th>2500 kg 5,520 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td></td>
</tr>
<tr>
<td>Beam length</td>
<td>2246 mm 7'4&quot;</td>
</tr>
<tr>
<td>Maximum lift above ground</td>
<td>564 mm 1'10&quot;</td>
</tr>
<tr>
<td>Maximum digging depth</td>
<td>653 mm 2'2&quot;</td>
</tr>
<tr>
<td>Additional ground pressure</td>
<td>6.9 kPa (0.07 kg/cm²) 1.0 psi</td>
</tr>
</tbody>
</table>

KOMTRAX Utilizing global positioning, Komatsu’s Komtrax Asset Monitoring System allows you to view the precise location and real time service meter readings of your equipment via the secured Komtrax website.

Multi-shank ripper: Hydraulically controlled parallelogram ripper with three shanks.

<table>
<thead>
<tr>
<th>Weight (kg)</th>
<th>2500 kg 5,520 lb</th>
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</tr>
</tbody>
</table>

* Meets ISO 3471 and SAE J1040 APR88 ROPS standards, as well as ISO 3449 FOPS standards.