NET HORSEPOWER
179 kW **240 HP** @ 1900 rpm

OPERATING WEIGHT
D85EX-15: 28100 kg **61,950 lb**
D85PX-15: 27650 kg **60,960 lb**

KOMATSU®

D85EX-15
D85PX-15
With Tier 3 Engine

D85

CRAWLER DOZER

Photos may include optional equipment.

WALK-AROUND

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.

Hydraulic Drive Radiator Cooling Fan controlled automatically, reduces fuel consumption and operating noise levels

SAA6D125E-5 turbocharged after-cooled diesel engine provides an output of 179 kW **240 HP** with excellent productivity, while meeting EPA Tier 3 and EU Stage 3A emission regulations

Large Blade Capacities:

D85EX:
8.5 m^3 **11.1 yd^3** (Full-U Tilt Dozer)
5.2 m^3 **6.8 yd^3** (Straight Tilt Dozer)
7.0 m^3 **9.2 yd^3** (Semi-U Tilt Dozer)
D85PX:
5.9 m^3 **7.7 yd^3** (Straight Tilt Dozer)

Preventative Maintenance

- Centralized Service Station
- Enclosed Hydraulic Piping
- Modular Power Train Design

The track link life is greatly improved through increased bushing diameter and link height in addition to lubricated track

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.

NET HORSEPOWER
179 kW **240 HP** @ 1900 rpm

OPERATING WEIGHT
D85EX-15: 28100 kg **61,950 lb**
D85PX-15: 27650 kg **60,960 lb**

BLADE CAPACITY

Full-U Tilt Dozer:
D85EX-15: 8.5 m³ **11.1 yd³**

Semi-U Tilt Dozer:
D85EX-15: 7.0 m³ **9.2 yd³**

Straight Tilt Dozer
D85EX-15: 5.2 m³ **6.8 yd³**
D85PX-15: 5.9 m³ **7.7 yd³**

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

Extra-low Machine Profile

provides excellent machine balance and low center of gravity

Simple Hull Frame

and monocoque track frame with pivot shaft for greater reliability

Hydrostatic Steering System (HSS)

provides smooth, quick and powerful control in various ground conditions

Photos may include optional equipment.

Low-drive, long-track, undercarriage

ensures outstanding grading ability and stability

Komatsu's highly productive, innovative technology, environmentally friendly machines built for the 21st century.

PCCS (PALM COMMAND CONTROL SYSTEM)

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 simplified with thumb push buttons.

Palm Command PPC Controlled Blade Control Joystick

Blade and Ripper 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.

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.

Fuel Control Dial

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

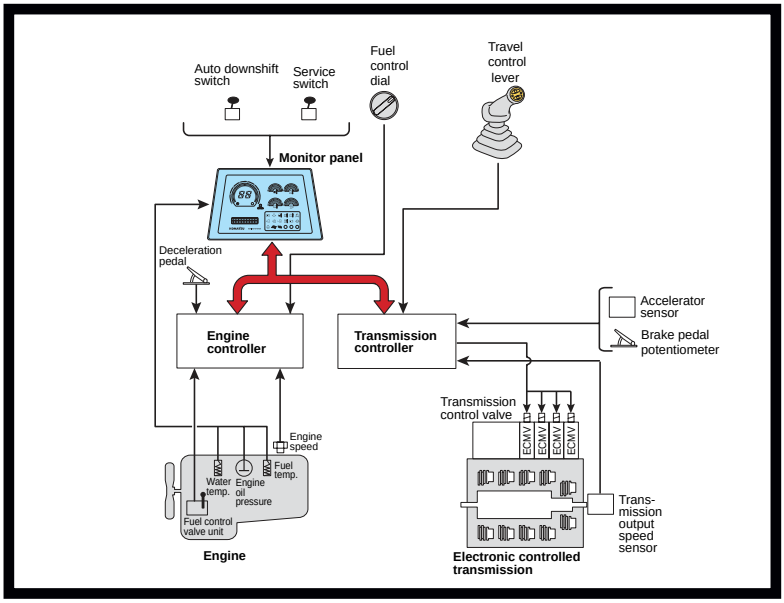
Height Adjustable Armrest

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

Facing Front

When Turned 15° (opt)

Outline of Electronic Control System



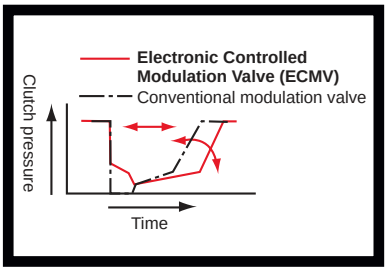
Power Train Electronic Control System

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.

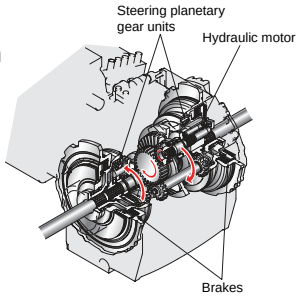
ECMV (Electronic Controlled Modulation Valve) Controlled Transmission

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.



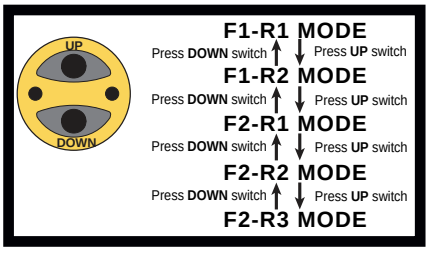
Hydrostatic Steering System—Smooth, Powerful Turning

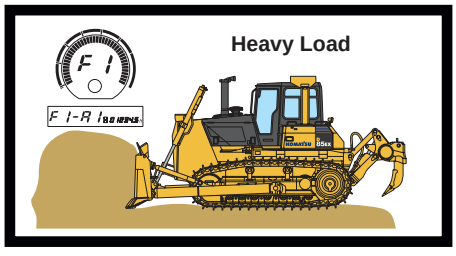
The Hydrostatic Steering System (HSS) is powered by an independent hydraulic pump with engine power transmitted to both tracks without power interruption on the inside track. When the machine turns, the outside track moves faster and the inside slower, for smooth, powerful turns. Counter-rotation is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

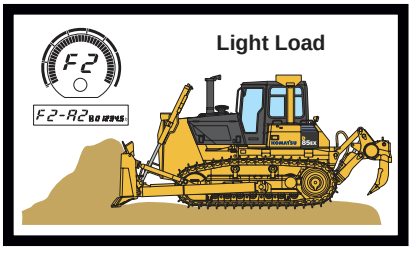


Preset Travel Speed Function

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.

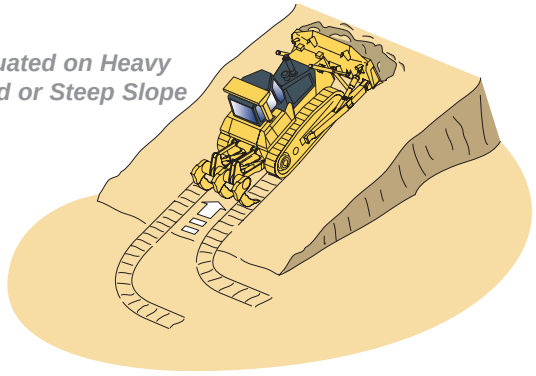






Auto-Downshift Function

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.



PRODUCTIVITY FEATURES

ecot3
ecology & economy - technology 3

Komatsu's new "ecot3" engines are designed to deliver optimum performance under the toughest of conditions, while meeting the latest environmental regulations. This engine is Tier 3 EPA, EU Stage 3A and Japan emissions certified; "ecot3" - ecology and economy combine with Komatsu technology to create a high performance engine without sacrificing power or productivity.

Engine

The Komatsu SAA6D125E-5 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 features direct fuel injection, turbocharger, air-to-air aftercooler and cooled EGR system to maximize fuel efficiency.

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

Hydraulic Drive Radiator 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.

Photo may include optional equipment

Work Equipment

Large Blade

Capacities of 5.2 m^3 **6.8 yd^3** (Straight-Tilt Dozer for D85EX), 5.9 m^3 **7.7 yd^3** (Straight-Tilt Dozer for D85PX), 7.0 m^3 **9.2 yd^3** (Semi-U Tilt Dozer for D85EX), and 8.5 m^3 **11.1 yd^3** (Full-U Tilt Dozer for D85EX) 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 operations 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 heights and improved oil-seals help to increase undercarriage durability.

Improvements

Numerous improvements to increase undercarriage reliability and durability have been incorporated. Serviceability has also been improved with the addition of remote greasing of the equalizer bar center pin.

WORKING ENVIRONMENT

Operator Comfort

Operator comfort is essential for safe and productive work. The D85 provides a quiet, comfortable environment where the operator can concentrate on the work at hand.

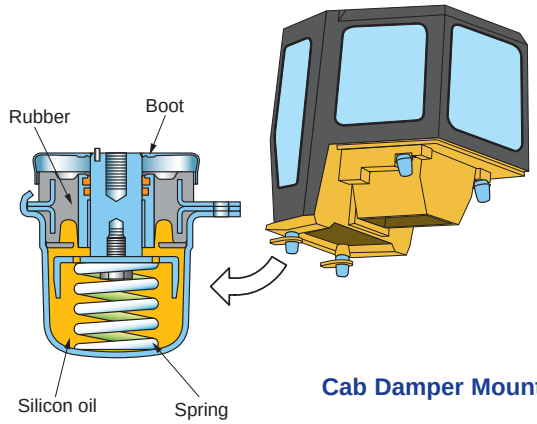
Hexagonal Pressurized Cab

- 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

D85'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

D85 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 D85 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.

Enclosed Hydraulic Piping

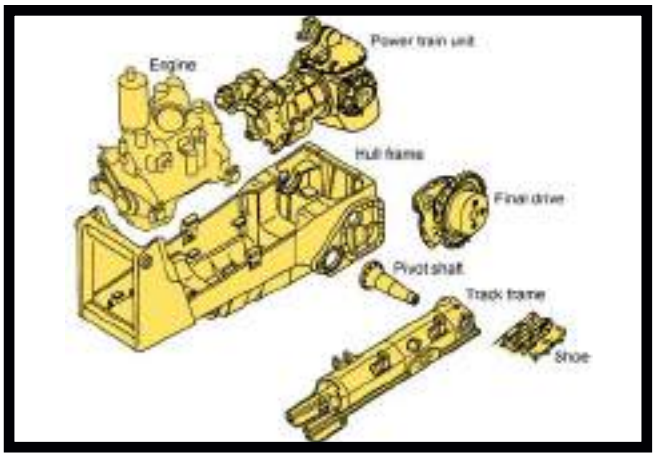
Hydraulic piping for the blade tilt cylinder is completely housed in the push arm, ensuring damage protection from materials.

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 lubricated track.

CLEAN AND SILENT DESIGN

Low Emission

The SAA6D125E-5 engine is USA EPA Tier 3, EU Stage 3A 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.

Photo may include optional equipment.

SPECIFICATIONS

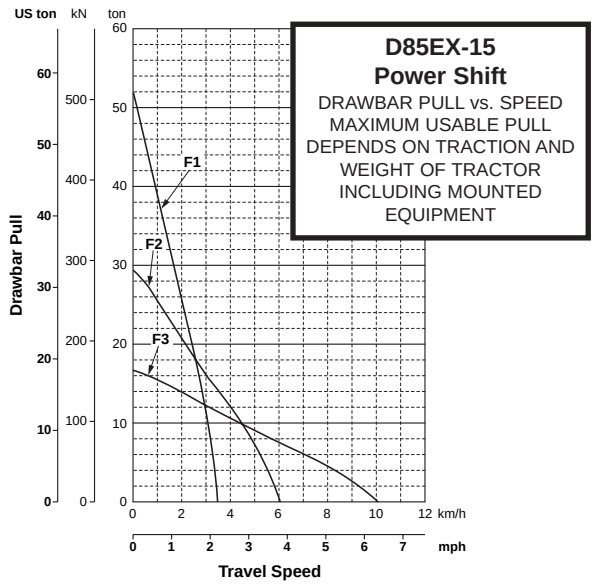
ENGINE

Model . . . . . Komatsu SAA6D125E-5
Type . . . . . 4-cycle, water-cooled, direct injection
Aspiration . . . . . Turbocharged, air-to-air aftercooled, cooled EGR
Number of cylinders 6
Bore x stroke . . . . . 125 mm x 150 mm **4.92" x 5.91"**
Piston displacement . . . . . 11.04 ltr **674 in³**
Governor . . . . . All-speed, electronic
Horsepower
SAE J1995 . . . . . Gross 199 kW **266 HP**
ISO 9249 / SAE J1349* . . . . . Net 179 kW **240 HP**
Rated rpm 1900rpm
Fan drive type . . . . . Hydraulic
Lubrication system
Method . . . . . Gear pump, force lubrication
Filter . . . . . Full-flow
*Net horsepower at the minimum speed of radiator cooling fan. . . . . 197 kW **264 HP**

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.

Travel speed	Forward		Reverse	
	D85EX-15	D85PX-15	D85EX-15	D85PX-15
1st	3.3 km/h **2.1 mph**	3.3 km/h **2.1 mph**	4.4 km/h **2.7 mph**	4.4 km/h **2.7 mph**
2nd	6.1 km/h **3.8 mph**	6.0 km/h **3.7 mph**	8.0 km/h **5.0 mph**	7.9 km/h **4.9 mph**
3rd	10.1 km/h **6.3 mph**	10.0 km/h **6.2 mph**	13.0 km/h **8.1 mph**	12.7 km/h **7.9 mph**



D85EX-15
Power Shift
DRAWBAR PULL vs. SPEED
MAXIMUM USABLE PULL
DEPENDS ON TRACTION AND
WEIGHT OF TRACTOR
INCLUDING MOUNTED
EQUIPMENT

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.

STEERING SYSTEM

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 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, 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.

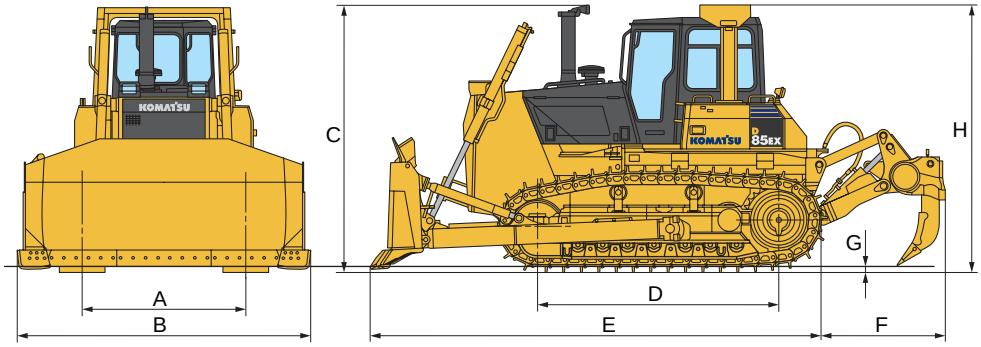
	D85EX-15	D85PX-15
Number of track rollers (each side)	7	8
Type of shoes (standard)	Single grouser	Single grouser
Number of shoes (each side)	41	45
Grouser height	72 mm **2.8"**	72 mm **2.8"**
Shoe width (standard)	560 mm **22"**	910 mm **36"**
Ground contact area	34160 cm² **5295 in²**	63340 cm² **9,820 in²**
Ground pressure (with dozer, cab and ROPS)	73.6 kPa 0.75 kg/cm² **10.7 psi**	43.1 kPa 0.44 kg/cm² **6.3 psi**
Track gauge	2000 mm **6'7"**	2250 mm **7'5"**
Length of track on ground	3050 mm **10'**	3480 mm **11'5"**

COOLANT AND LUBRICANT CAPACITY (REFILL)

Fuel tank . . . . . 490 ltr **129 U.S. gal**
Coolant . . . . . 58 ltr **15.3 U.S. gal**
Engine . . . . . 38 ltr **10.0 U.S. gal**
Torque converter, transmission, bevel gear, and steering system . . . . . 60 ltr **15.9 U.S. gal**
Final drive (each side) . . . . . 26 ltr **6.9 U.S. gal**

DIMENSIONS

	D85EX-15	D85PX-15
A	2000 mm **6'7"**	2250 mm **7'5"**
B	3635 mm **11'11"**	4365 mm **14'4"**
C	3330 mm **10'11"**	3330 mm **10'11"**
D	3050 mm **10'**	3480 mm **11'5"**
E	5795 mm **19'**	6065 mm **19'11"**
F	1460 mm **4'9"**	—
G	72 mm **2.8"**	72 mm **2.8"**
H	3324 mm **10'11"**	3324 mm **10'11"**



Ground Clearance: 450 mm **1'6"**

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 . . . . . 21220 kg **46,780 lb**
D85PX-15 . . . . . 23500 kg **51,810 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 . . . . . 28100 kg **61,950 lb**
D85PX-15 . . . . . 27650 kg **60,960 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

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

	Number of cylinders	Bore
Blade lift	2	100 mm **3.9"**
Blade tilt	1	150 mm **5.9"**
Ripper lift	2	130 mm **5.1"**

Hydraulic oil capacity (refill):
Straight tilt dozer . . . . . 67 ltr **17.7 U.S. gal**
Semi-U tilt dozer . . . . . 67 ltr **17.7 U.S. gal**
Ripper equipment (additional volume):
Multi-shank ripper . . . . . 11 ltr **2.9 U.S. gal**

DOZER EQUIPMENT

Blade capacities are based on the SAE recommended practice J1265.

	Overall length with dozer	Blade capacity	Blade length x height	Maximum lift above ground	Maximum drop below ground	Maximum tilt adjustment	Weight		Ground pressure*
							Dozer equipment	Hydraulic oil	
D85EX-15 Straight tilt dozer	5640 mm **18'6"**	5.2 m³ **6.8 yd³**	3715 mm x 1436 mm **12'2" x 4'9"**	1210 mm **4'**	540 mm **1'9"**	750 mm **2'6"**	3305 kg **7,290 lb**	24 kg **53 lb**	72.6 kPa 0.74 kg/cm² **10.5 psi**
D85EX-15 Semi-U tilt dozer	5795 mm **19'**	7.0 m³ **9.2 yd³**	3635 mm x 1580 mm **11'11" x 5'2"**	1210 mm **4'**	540 mm **1'9"**	735 mm **2'5"**	3575 kg **7,890 lb**	24 kg **53 lb**	73.6 kPa 0.75 kg/cm² **10.7 psi**
D85PX-15 Straight tilt dozer	6065 mm **19'11"**	5.9 m³ **7.7 yd³**	4365 mm x 1370 mm **14'4" x 4'6"**	1230 mm **4'**	570 mm **1'10"**	500 mm **1'8"**	3343 kg **7,370 lb**	23 kg **51 lb**	43.1 kPa 0.44 kg/cm² **6.3 psi**
D85EX-15 Full-U Tilt dozer	5800 mm **19'0"**	8.5 m³ **11.1 yd³**	3820 mm x 1640 mm **12'6" x 5'5"**	1210 mm **4'**	540 mm **1'9"**	770 mm **2'6"**	3950 kg **8,708 lb**	24 kg **53 lb**	74.6 kPa

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

STANDARD EQUIPMENT

- Air cleaner, double element with dust indicator
- Alternator, 75 ampere/24V
- Back up alarm
- Batteries 200Ah/2 x 12V
- Cup holder
- Decelerator pedal
- Engine Intake precleaner
- Final drive case wear guard
- Head rest
- Hinged front mask, perforated
- High mount foot rests
- Hydraulic-driven reversible cooling fan
- KOMTRAX II
- Front pull hook
- Lunch box holder
- Hydrostatic Steering System (HSS)
- Lighting system (includes 2 front, 2 rear)
- Locks, filler caps and covers
- Muffler with rain cap
- Palm lever steering control
- Pressure test ports for powertrain
- Radiator reserve tank
- Rear view mirror
- Segmented sprockets
- Shoes:
  560 mm **22"** single grouser (EX)
  910 mm **36"** single grouser (PX)
- Seatbelt, 76 mm **3"**
- Starting motor 11kW/24V
- Suspension seat (reclining, turn, fabric material, high back)
- Track roller guards, full length (PX) center and end section (EX)
- Engine hood
- Gull wing engine side covers
- Rear cover
- Water separator
- Electronic instrument monitor panel

OPTIONAL EQUIPMENT

- Air conditioner
- Heater and defroster
- Light for ripper point
- Lights for cab, additional
- Suspension seat, (reclining, turn, vinyl material, high back)
- Rear counterweight
- Radio, AM/FM
- Shoes: (Extreme Service)
  560 mm **22"** Single grouser (EX)
  610 mm **24"** Single grouser (EX)
  660 mm **26"** Single grouser (EX)

  (Moderate Service)
  560 mm **22"** Single grouser (EX)
  610 mm **24"** Single grouser (EX)
  660 mm **26"** Single grouser (EX)

  (Swamp Shoes)
  910 mm **36"** (PX)
- CAB:
  Sunvisor
  12V power supply
- Drawbar, long type
- Drawbar, swing type

ROPS canopy:*
Weight . . . . . 437 kg **970 lb**
Roof Dimensions
Length . . . . . .1368 mm **4'6"**
Width . . . . . .1850 mm **6'1"**
Height from
compartment floor . . . . . .1768 mm **5'10"**
Additional ground
pressure .1.0 kPa (0.01 kg/cm^2) **0.14 psi**

ROPS for cab:*
Weight . . . . . .371 kg **820 lb**
Roof dimensions
Length . . . . . .650 mm **2'2"**
Width . . . . . .1774 mm **5'10"**
Height from
compartment floor . . . . . .1768 mm **5'10"**

Steel Cab:
Weight . . . . . .410 kg **910 lb**
Dimensions:
Length . . . . . .1754 mm **5'9"**
Width . . . . . .1323 mm **4'4"**
Height from compartment
floor to ceiling . . . . . .1513 mm **5'0"**
Additional ground
pressure . .1.0 kPa (0.01kg/cm^2) **0.14 psi**

Multi-shank ripper, Variable:
Hydraulically controlled parallelogram ripper with three shanks.
Weight (including hydraulic
control unit) . . . . . .2500 kg **5,520 lb**
Beam length . . . . . .2246 mm **7'4"**
Maximum lift above ground . .564 mm **1'10"**
Maximum digging depth . . . . .653 mm **2'2"**
Additional ground
pressure . . .6.9 kPa (0.07kg/cm^2) **1.0 psi**

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

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

AESS718-01

DK01(5M)C 01/06 (EV-1)

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