D155AX-6
Tier 3 SIGMA DOZER®

NET HORSEPOWER
264 kW 354 HP @ 1900 rpm

OPERATING WEIGHT
39500 kg 87,100 lb

Photos may include optional equipment.
OUTSTANDING PRODUCTIVITY & FUEL ECONOMY

Innovative SIGMADOZER® reduces digging resistance and demonstrates smooth material roll up to increase blade load. Blade capacity 9.4 m³ 12.3 yd³.

Automatic transmission with lockup torque converter increases speed and power to improve fuel consumption and productivity. See page 5.

SAA6D140E-5 turbocharged after-cooled diesel engine provides an output of 264 kW 354 HP with excellent productivity, and is EPA Tier 3, EU stage 3A and Japan emissions certified.

Hydraulic drive radiator cooling fan controlled automatically, reduces fuel consumption and operating noise levels

Gull-wing engine side covers for easy and efficient engine servicing

Blade tilt lines completely protected

Increased-track length, seven roller undercarriage ensures outstanding grading ability and stability

K-Bogie undercarriage system improves traction, component durability, and operator comfort

Extra-low machine profile provides excellent machine balance and low center of gravity

PCCS (Palm Command Control System)
- Electronic controlled PCCS travel control
- Electronic controlled PCCS blade/ripper control
- Fuel control dial
- Automatic/manual gearshift selectable mode
- Gearshift pattern preset function
- Electronic Controlled Modulation Valve (ECMV) controlled transmission

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.
New integrated ROPS cab includes:
- Large quiet operator environment
- Comfortable ride with new cab damper
- Excellent visibility without ROPS post
- High capacity air conditioning system
- Pressurized cab
- Adjustable armrests and suspension seat

Hydrostatic Steering System (HSS) provides smooth, quick, and powerful control in various ground condition

Large TFT LCD monitor
- Easy-to-see and use 7” large multi-color monitor.
- Can be displayed in 10 languages for global support.

TFT : Thin Film Transistor
LCD : Liquid Crystal Display

Newly designed ripper offers excellent ripper visibility

High-rigidity, simple hull frame and monocoque track frame with pivot shaft for greater reliability

Modular power train for increased serviceability and durability. Forward mounted pivot shafts isolate final drives from blade loads

Wet disc brakes require less maintenance
**New fuel efficient bulldozer**

New D155AX-6 has achieved both high levels of productivity and fuel economy through usage of SIGMADOZER® and automatic transmission with lockup torque converter. SIGMADOZER® developed based on a completely new excavation theory-dramatically increasing production. The highly efficient transmission greatly reduces fuel consumption. The D155AX-6 significantly improves fuel efficiency and production compared with our conventional model.

**Outstanding productivity**

**SIGMADOZER®**

Based on a completely new excavating theory, SIGMADOZER® dramatically improves dozing performance and increases productivity. A new frontal design concept adopted for digging and rolling up material at the center of the blade, increases material holding capacity and also eliminates sideway spillage.

Reduced digging resistance produces smoother flow of material, enabling the dozing of larger quantities of material with less power. In addition, adoption of a new blade linkage system holds the blade closer to the tractor for improved visibility. This also enhances digging force and reduced lateral sway of the blade.
Outstanding fuel economy

Automatic transmission with lockup torque converter

A sharp reduction in fuel consumption and greater power train efficiency is achieved by the new automatic gearshift transmission and lock up torque converter. The automatic gearshift transmission selects the optimal gear range depending on the working conditions and load placed on the machine. This means the machine is always operating at maximum efficiency. Manual gearshift mode is selectable by the operator with a switch.

Automatic/manual gearshift selectable mode

Automatic or manual gearshift modes can be selected with ease to suit the application by simply pressing the switch on the multi-monitor (selection at neutral).

• Automatic gearshift mode
  The mode for general dozing. When a load is applied, the transmission automatically shifts down, and when the load is off, it automatically shifts up to a set maximum gear speed. This mode economizes both fuel and production in conjunction with the torque converter lockup mechanism.

• Manual gearshift mode
  The mode for dozing and ripping rough ground. When loaded, the transmission automatically shifts down, but does not shift up when the load is off.

Fuel consumption decreased by 10%
(compared to the D155AX-5B)

Lockup mechanism of torque converter is automatically actuated to transfer engine power directly to the transmission in usual dozing speed range. Locking up the torque converter eliminates loss of horsepower by 10%. Because the electronically controlled engine is extremely efficient, a decrease in fuel consumption is realized while also maintaining machine power.
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 EPA Tier 3, 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**

**Fuel efficient electronic controlled engine**

The Komatsu SAA6D140E-5 engine delivers 264 kW (354 HP) at 1900 rpm. The fuel-efficient, powerful Komatsu engine makes the D155AX-6 superior in both ripping and dozing operations. The engine is EPA Tier 3, EU stage 3A and Japan emissions certified. The engine is turbocharged and features direct fuel injection and air-to-air aftercooling to maximize power, fuel efficiency and emission compliance. To minimize noise and vibration, the engine is mounted to the main frame with rubber cushions.

**Hydraulic drive radiator cooling fan**

The engine cooling fan rotation speed is electronically controlled. The fan rotation speed depends on engine coolant and hydraulic oil temperatures, the higher the temperature the higher the fan speed. This system increases fuel efficiency, reduces the operating noise levels and requires less horsepower than belt driven fan.
Human-Machine Interface Palm Command Control System (PCCS)

Komatsu’s ergonomically designed control system “PCCS” creates an operating environment with "complete operator control."

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.

Gearshift pattern preset function

When the gearshift pattern is set to either <F1-R2>, <F2-R2> or <F2-R3L> in automatic gearshift mode, the transmission is automatically shifted, reducing operator repetition and fatigue.

<table>
<thead>
<tr>
<th>Automatic gearshift mode</th>
<th>Manual gearshift mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1-R1 MODE</td>
<td>F1-R1 MODE</td>
</tr>
<tr>
<td>Press DOWN switch</td>
<td>Press DOWN switch</td>
</tr>
<tr>
<td>F1-R2 MODE</td>
<td>F1-R2 MODE</td>
</tr>
<tr>
<td>Press UP switch</td>
<td>Press UP switch</td>
</tr>
<tr>
<td>F2-R2 MODE</td>
<td>F2-R2 MODE</td>
</tr>
<tr>
<td>Press DOWN switch</td>
<td>Press UP switch</td>
</tr>
<tr>
<td>F2-R3L MODE</td>
<td></td>
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</tbody>
</table>

Electronic Controlled Modulation Valve (ECMV) controlled transmission and brakes

The electronic controller automatically adjusts each clutch engagement depending on travel conditions, providing smooth shockless clutch engagement, improved component life and operator ride comfort.

Hydrostatic Steering System—smooth, powerful turning

The engine power is transmitted to both tracks without power interruption on the inside track for smooth, powerful turns. The HSS system allows minimum turning radius and provides excellent maneuverability.

Palm command electronic controlled blade/ripper control joystick

Electronically-controlled palm command joystick is equipped for blade/ripper control. Combined with the highly reliable Komatsu hydraulic system, excellent machine control is the result.

Outline of electronic control system
New integrated ROPS cab
A newly designed cab is integrated with ROPS. High rigidity and superb sealing performance sharply reduces noise and vibration for the operator and prevents dust from entering the cab. The result is relaxed operation in a comfortable environment for the operator. Side visibility of the D155AX-6 is unsurpassed because external ROPS structure and posts are not required.

Large multi-lingual LCD color monitor
A large user-friendly color monitor enables accurate and precise work. Improved screen visibility is achieved by use of TFT liquid crystal display that can easily be read at various angles and lighting conditions. The monitoring system also features simple and easy to operate switches, and the function keys facilitate multi-function operations. The monitor system has the ability to display data in 10 languages to globally support operators around the world.

Comfortable ride with cab damper mounting
The D155AX-6’s cab mount uses a cab damper that provides excellent shock and vibration absorption capacity. The cab damper mounts also soften shocks and vibration while traveling over adverse conditions that 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.

Ripper visibility
Ripper cylinders were reduced from four to two, greatly improving rear visibility during ripping. Also, expanded ripper movement offers a wider range of operation.
Preventative maintenance

Preventative maintenance is the only way to ensure long service life from your equipment. That’s why Komatsu designed the D155AX-6 with conveniently located maintenance points to make necessary inspections and maintenance quick and easy.

Multi-monitor with troubleshooting function to prevent critical machine trouble

Meters, gauges, and warning functions are centrally arranged on the multi-monitor. These offer ease of start-up inspection and promptly warns the operator with a lamp and buzzer if any abnormalities occur. In addition, error codes are indicated in 4 stage codes to prevent the machine from major problems. Replacement times for oil and filters are also indicated.

Easy radiator cleaning with hydraulic drive fan

The radiator can be cleaned by utilization of the reversible, hydraulically driven cooling fan. The fan can be reversed from inside the cab by simply turning the switch to reverse, or the fan can be programed to automatically reverse at set intervals.

Oil pressure checking ports

Pressure check ports for power train components are centralized to promote quick and simple diagnosis.

Gull-wing engine side covers

The engine area is easily accessed with gull-wing engine side covers. The gull-wing doors ease engine maintenance and filter replacement. Side covers have been changed to a thick one-piece structure with a bolt-on catch to improve durability.

Low maintenance costs

Increased undercarriage component life

K-Bogie track rollers having a large oscillation travel always follow the track link even on uneven ground. This feature keeps the correct alignment between the rollers and links to contribute to long undercarriage component life.

Reliable simple hull frame

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.

Sealed DT connectors

Main harnesses and controller connectors are equipped with sealed DT connectors provide high resistance to water and dust entry and excellent reliability.

Flat face O-ring seals

Flat face O-ring seals are used to securely seal all hydraulic hose connections and to prevent oil leakage.

Enclosed hydraulic piping

Hydraulic piping for the blade tilt cylinder is completely housed in the push arm, protecting it from damage.

Modular power train design

Power train components are sealed in a modular design that allows the components to be removed and installed without oil spillage, making servicing work clean, smooth and easy.

Maintenance free disc brakes

Wet disc brakes require less maintenance.
KOMATSU SAA6D140E-5

Model: Komatsu SAA6D140E-5
Type: 4-cycle, water-cooled, direct injection
Aspiration: Turbocharged, air-to-air aftercooled, cooled EGR
Number of cylinders: 6
Piston displacement: 140 mm x 165 mm 5.51" x 6.50"
Piston cooling: Liquid
Governor: All-speed and mid-range, electronic

Horsepower:

- SAE J1995: Gross 268 kW 360 HP
- ISO 9249 / SAE J1349: Net 264 kW
- SAE J1995: Gross 279 kW

Rated rpm: 1900 rpm

Transmission:

- Type: 6-speed, stepless, electronically controlled
- Method: Gear pump, force lubrication
- Filter: Full-flow

Fuel Consumption:

- 100 US gal
- 930 in³

Coolant:

- 82 ltr 9.8 U.S. gal
- 21.7 U.S. gal

Engine oil:

- 37 ltr 9.8 U.S. gal
- 1.5 U.S. gal

Transmission, bevel gear:

- 1.5 U.S. gal
- 4.7 U.S. gal

Final drive:

- 1.5 U.S. gal
- 4.7 U.S. gal

Operating weight:

- 39500 kg 87,100 lb
- 106 kPa 1.08 kg/cm² 15.4 psi

Double-reduction, spur and planetary final drives increase tractive effort. Segmented sprockets are bolt-on for easy in-the-field replacement.
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. Variable piston pump with capacity (discharge flow) of 325 ltr/min 85.9 U.S. gal/min for steering and 180 ltr/min 47.6 U.S. gal/min for implemented at rated engine rpm.

Relief valve setting . . . for implement 27.5 MPa 280 kg/cm² 3,980 psi . . . . for steering 38.2 MPa 390 kg/cm² 5,550 psi

Control valves:
Spool control valve for SIGMADOZER®, Semi-U tilt dozer and Full-U tilt dozer.
Positions: Blade lift . . . . . . . . . . . . . . . . . Raise, hold, lower, and float Blade tilt . . . . . . . . . . . . . . . . . . . . . . . Right, hold, and left

Additional control valve required for variable digging angle multi-shank ripper and giant ripper.
Positions: Ripper lift . . . . . . . . . . . . . . . . . . . Raise, hold, and lower Ripper tilt . . . . . . . . . . . . . . . . . . . . . . . . Increase, hold, and decrease

Use of high-tensile-strength steel in moldboard for strengthened blade construction. Blade tilt hose piping is mounted inside the dozer push arm to protect from damage.
Variable multi-shank ripper
- Additional weight (including hydraulic control unit): **3760 kg** (8,290 lb)
- Beam length: **2320 mm** (7'7”)
- Hydraulically-controlled parallelogram-type ripper with three shanks.
  - Digging angle infinitely adjustable.
  - Standard digging angle*: 49°
- Maximum digging depth: **900 mm** (2'11”)
- Maximum lift above ground: **950 mm** (3'1”)

Variable giant ripper
- Additional weight (including hydraulic control unit): **2440 kg** (5,380 lb)
- Beam length: **1400 mm** (4'7”)
- Hydraulically-controlled parallelogram-type ripper with one shank.
  - Digging angle infinitely adjustable.
  - Standard digging angle*: 49°
- Maximum digging depth: **1240 mm** (4'1”)
- Maximum lift above ground: **950 mm** (3'1”)

  * Measured with ripper point on ground and shank vertical.

Other
- Additional cab lights, 2 front and 2 rear
- Additional rear light for ripper point
- Alternator, 90 ampere
- Counterweight with rigid drawbar

Shoes

<table>
<thead>
<tr>
<th>Shoes (optional)</th>
<th>Additional weight</th>
<th>Ground contact area</th>
</tr>
</thead>
<tbody>
<tr>
<td>560 mm 22” single-grouser shoes</td>
<td>0 kg (0 lb)</td>
<td>36680 cm² (5,685 in²)</td>
</tr>
<tr>
<td>610 mm 24” single-grouser shoes</td>
<td>+200 kg (+440 lb)</td>
<td>39955 cm² (6,193 in²)</td>
</tr>
<tr>
<td>660 mm 26” single-grouser shoes</td>
<td>+410 kg (+905 lb)</td>
<td>43230 cm² (6,700 in²)</td>
</tr>
<tr>
<td>710 mm 28” single-grouser shoes</td>
<td>+620 kg (+1,370 lb)</td>
<td>46505 cm² (7,208 in²)</td>
</tr>
<tr>
<td>560 mm 22” extreme service shoes</td>
<td>+460 kg (1,015 lb)</td>
<td>36680 cm² (5,685 in²)</td>
</tr>
<tr>
<td>610 mm 24” extreme service shoes</td>
<td>+700 kg (+1,545 lb)</td>
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<tr>
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<td>+940 kg (+2,070 lb)</td>
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</tr>
</tbody>
</table>

*Single tilt only

Other equipment
- Drawbar, long type
- Landfill package
- Radio, AM/FM with cassette
- Seat, air suspension type, high back, fabric
- Seat, suspension type, fabric, turn
- Single tilt blade hydraulics
- Woodchip package
- Working light for ripper