STANDARD EQUIPMENT

- Alternator 75 ampere/24V
- Backup alarm
- Batteries 170 Ah/2 x 12V
- Blower fan
- Decelerator pedal
- Dry-type air cleaner with dust evacuator and dust indicator
- Final drive case wear guard
- Hinged front mask
- Hinged underguard with front pull hook

- Hydraulic track adjusters
- Hydrostatic Steering System (HSS)
- Lighting system (including four front and two rear lights)
- Lockup torque converter
- Muffler with rain cap
- Palm lever steering control
- Radiator reserve tank
- ROPS brackets
- Segmented sprockets
- Seven-roller track frames
- Shoes: 810 mm 24˝ extreme service, single-grouser
- Starting motors 11 kW/24 V
- Suspension seat
- TORQFLOW transmission
- Track roller guards
- Warning horn

- Steel cab:
  - Weight 455 kg 1,000 lb
  - Dimensions:
    - Length 1750 mm 5'10" 
    - Width 1455 mm 4'9"
  - Height from compartment floor to ceiling 1530 mm 5'0"
  - Meets ISO 3449 FOPS standard.

- ROPS:
  - Weight 605 kg 1,330 lb
  - Dimensions:
    - Length 1980 mm 6'6"
    - Width 1835 mm 6'0"

OPTIONAL EQUIPMENT

- Air conditioner with heater and defroster
- Alternator 90 ampere/24 V
- Batteries 200 Ah/2 x 12V
- Counterweight
- Cushion dozer
- Cushion push block
- Fire extinguisher
- Hitch
- Hydraulics for ripper
- Light for ripper point
- Mirror, rearview
- Panel cover
- Perforated engine side covers
- Perforated single door radiator mask
- Pusher plate
- Radio, stereo
- Seat
- Air suspension seat
- Suspension seat
  - Fabric seat
  - Fabric seat, high backrest
- Seat belt
- Shoes:
  - 710 mm 28˝
  - 760 mm 30˝
- Split guard for Semi-U dozer
- Split guard for Full-U dozer
- Sun visor
- Track shoe slip control system
- Vandalism protection kit
- Air conditioner with heater and defroster
- Alternator 90 ampere/24 V
- Batteries 200 Ah/2 x 12V
- Counterweight
- Cushion dozer
- Cushion push block
- Fire extinguisher
- Hitch
- Hydraulics for ripper
- Light for ripper point
- Mirror, rearview
- Panel cover
- Perforated engine side covers
- Perforated single door radiator mask
- Pusher plate
- Radio, stereo
- Seat
- Air suspension seat
- Suspension seat
  - Fabric seat
  - Fabric seat, high backrest
- Seat belt
- Shoes:
  - 710 mm 28˝
  - 760 mm 30˝
- Split guard for Semi-U dozer
- Split guard for Full-U dozer
- Sun visor
- Track shoe slip control system
- Vandalism protection kit
- Multi-shank ripper:
  - Hydraulically controlled parallelogram ripper with three shanks. Ripping angle infinitely adjustable.
  - Weight (including hydraulic control unit) 4652 kg 9,840 lb
  - Beam length 2495 mm 8'2" 
  - Maximum lift above ground 955 mm 32" 
  - Maximum digging depth 900 mm 2'11"

- Variable giant ripper:
  - Variable, parallelogram single-shank ripper ideal for ripping up tough material. Ripping angle is infinitely adjustable. Ripping depth is adjustable in three stages by a hydraulically controlled pin puller.
  - Weight (including hydraulic control unit) 3600 kg 7,940 lb
  - Beam length 1252 mm 4'1" 
  - Maximum lift above ground 870 mm 2'10" 
  - Maximum digging depth 1300 mm 4'3"
Simple hull frame and monocoque track frame with pivot shaft for greater reliability.

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. See page 6

New hexagonal designed cab includes:
- Spacious interior
- Comfortable ride with new cab damper mounting and K-Bogie undercarriage
- Excellent visibility
- High capacity air conditioning system (optional)
- PCCS (Palm Command Control System) lever controls
- Pressurized cab (optional)
- Adjustable armrest
- Travel control console integrated with operator seat

Preventative maintenance
- Centralized service station
- Enclosed hydraulic piping
- Modular power train design
- Oil pressure checking ports
See page 9.

Automatic lockup torque converter saves fuel and increases speed and power transmission efficiency on long pushes. See page 6.

New track link design reduces maintenance cost by making turning pins easier, with improved pin reuse. See page 9.

Automatic lockup torque converter saves fuel and increases speed and power transmission efficiency on long pushes. See page 6.

Low-drive, long-track, seven roller undercarriage ensures outstanding grading ability and stability.

Track shoe slip control system (option) reduces operator fatigue. See page 7.

HSS (Hydrostatic Steering System) provides smooth, quick and powerful control in varying ground conditions. See page 5.

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

SAA6D140E-5 turbocharged after-cooled diesel engine provides an output of 335 kW 449 HP with excellent productivity. This machine is EPA Tier 3 and EU stage 3A emission certified. See page 6.

Outstanding productivity
Innovative SIGMA DOZER reduces digging resistance and demonstrates smooth material roll up to increase blade load. Blade capacity 14.6 m³ 19.1 yd³. See page 6.

SAA6D140E-5 turbocharged after-cooled diesel engine provides an output of 335 kW 449 HP with excellent productivity. This machine is EPA Tier 3 and EU stage 3A emission certified. See page 6.

WALK-AROUND
Power Train Electronic Control System

Smooth and soft operation

D275AX-5EO 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 torque converter, transmission, HSS (Hydrostatic Steering System) and brakes for optimal machine operation. The ease of operation and productivity of the new D275AX-5EO 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.

D275AX-5EO HSS system is equipped with a pivot turn mode switch on the dashboard. When the pivot turn mode is selected or the machine reaches the limit of HSS during a turn, the turning side brake is engaged. This results in a pivot turn with a short turning radius.

- Turning while dozing—the machine turns by driving the left and right tracks under power at different speeds allowing the machine to travel at the same speed as in straight dozing.
- Side cutting—when side-loading the blade, straight travel can be maintained utilizing HSS.
- On downhill slopes—the machine doesn’t require counter-steering. The joystick provides the same steering response on downhill slopes as on flat ground.
- Grading—can be done efficiently without damaging the ground, because the inside track is not locked during turning.

Preset travel speed function

Preset travel speed function is standard equipment, allowing the operator to select fore and aft travel speed from three preset patterns; F1-R1, F1-R2 and F2-R2 by using the UP/DOWN switch. When the F1-R2 or F2-R2 preset pattern is selected and the travel control is moved into forward or reverse, the machine travels in the preset gear range automatically. This function reduces manual gear shifting frequency during machine operation, enabling the operator to focus on directional and hydraulic control. Preset travel speed selection is especially helpful when used in combination with the auto-downshift function and reduces cycle times 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 optimum gear speed to provide high fuel efficiency. This function provides comfortable operation and high productivity without manual downshifting. This function can be cancelled with cancel switch.
PRODUCTIVITY FEATURES

Engine

The Komatsu SAA6D140E-5 engine delivers 335 kW (449 HP) at 2000 rpm. The fuel-efficient Komatsu engine, together with the heavy machine weight, make the D275AX-5EO a superior crawler dozer in both ripping and dozing production. The engine is EPA Tier 3 and EU stage 3A emission regulations certified, and 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.

Automatic torque converter lockup system

In the lockup configuration, the system automatically engages the torque converter lockup clutch with all the engine power transmitted directly to the transmission, increasing ground speed and thus achieving efficiencies equal to a direct drive. The result is efficient use of engine power, less fuel consumption, and faster cycle times.

Outstanding Productivity

SIGMADOZER

Production increased by 15%
(compared with our conventional model)

Based on a completely new digging 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, simultaneously reducing 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, enhanced digging force and reduced lateral sway of the blade.

Undercarriage

K-Bogie system

New K-Bogie undercarriage system retains prior advantages, with new additional features.

Current features:

- Effective length of track on ground is consistent. Shoe slippage is minimized; therefore, high traction is obtained.
- The idler does not oscillate under load, providing excellent machine balance. Blade and ripper penetration force remains stable for increased productivity.

New features on K-Bogie undercarriage system:

- K-Bogies oscillate with two fulcrums, and track roller vertical travel is greatly increased. Impact load on all undercarriage components has been reduced and durability of components is improved since track rollers are always in contact with track link.
- Undercarriage life is improved due to better control of track chain alignment with track rollers.
- Riding comfort is improved by reducing vibration and shock when traveling over rough terrain.

Dual tilt dozer

The dual tilt dozer increases productivity while reducing operator effort.

- Optimum blade cutting angle for all types of materials and grades can be selected on-the-go for increased load and production.
- Digging, dozing (carry), and dumping (spreading) are easy and smooth with less operator fatigue.
- Dozer tilt angle and tilt speed are twice that of a conventional single tilt system.

Rippers

- The variable giant ripper features a long sprocket center-to-ripper point distance, making ripping operation easy and effective while maintaining high penetration force.
- The variable giant ripper is a parallelogram single shank ripper ideal for ripping in tough material. The ripping angle is variable, and the depth is adjustable in three stages by a hydraulically controlled pin puller.
- The multi-shank ripper is a hydraulically controlled parallelogram ripper with three shanks.

Track shoe slip control system (option)

- Eliminates the need for the operator to constantly control engine power output with the decelerator while ripping. Operator fatigue is substantially reduced.
- Maneuverability is improved because the operator is free to focus on the ripping application without having to monitor the track shoe slippage.
- Repair costs are significantly lowered and undercarriage life is prolonged with the reduction in track shoe slippage.
- The track shoe slip control system will contribute to lower fuel costs, because the engine output is automatically controlled to optimum levels for operation.
Operator Comfort

Operator comfort is essential for productive work. The D275AX-5E0 provides a quiet, comfortable environment where the operator can concentrate on the work at hand.

**Hexagonal pressurized cab (optional)**
- 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 and K-Bogie undercarriage**
D275AX-5E0's cab mount uses a new cab damper which provides excellent shock and vibration absorption capacity with its long stroke. Cab damper mounts combined with new K-Bogie undercarriage, softens shocks and vibration while traveling over adverse conditions, that are impossible to absorb with conventional cab mounting methods. The soft spring of cab damper isolates the cab from machine body, suppressing vibration and providing a quiet, comfortable operating environment.

**New suspension seat**
D275AX-5E0 uses a new suspension seat. Fore and aft sliding rails and suspension spring are reinforced and play of joints is reduced. In addition to turning function for ripper operation, the seat is also tiltable to facilitate down hill dozing. Air suspension seat is also available.

Preventative Maintenance

Preventative maintenance is the only way to ensure long service life from your equipment. That’s why Komatsu designed the D275AX-5E0 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 P on the display, 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 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, action code and service meter are displayed alternately. When a critical action 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.

**Low Maintenance Costs**

**Track link with wedge ring**
New D275AX-5E0 track links feature reduced press-fit force and a wedge ring. Conventional track pins are retained only with a large press-fit force. The new track link divides pin forces between the wedge ring and press-fit force. This results in easier service with reduced pin damage when turning pins and bushings. The result is improved undercarriage life and reduced maintenance cost through reduced wear, greater pin reusability, and reduced maintenance man-hours.
**ENGINE**

- **Model**: D275AX-5EO
- **Type**: Komatsu SAA6D14E-5
- **Air Intake**: Turbocharged, air-to-air aftercooled, cooled EGR
- **Number of Cylinders**: 6
- **Bore x stroke**: 140 mm x 165 mm
- **Piston displacement**: 15.24 liter
- **Rated RPM**: 2000 rpm
- **Fuel type**: All-speed, electronic

**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 lift the PCCS lever to left to make a left turn.

**HYDRAULIC SYSTEM**

- **Horsepower**: 119 kPa
- **Fuel Consumption**: 22.2 U.S. gal
- **Coolant**: 222 U.S. gal

**COOLANT AND LUBRICANT CAPACITY (REFILL)**

- **Fuel tank**: 840 ltr
- **Coolant**: 1000 ltr
- **Engine**: 520 ltr
- **Torque converter, transmission, bevel gear, and steering system**: 90 ltr
- **Final drive (each side)**: 40 ltr

**FUEL ECONOMY**

- **2.9 mph**: 13'1"
- **5.4 mph**: 180 mm

**OPERATING WEIGHT**

- **Tractor weight**: 3760 kg 83.07 lb
- **Including rated capacity of lubricant, coolant, full fuel tank, operator, and standard equipment**

- **Control valves**: Spool control valves for SIGMADOZER, Semi-U tilt dozer and Full-U tilt dozer
- **Blade lift 2**: Raise, hold, lower, and float
- **Blade tilt**: Right, hold, and left
- **Ripper lift**: Increase, hold, and decrease

**TORQFLOW TRANSMISSION**

- **Kamotus TORQFLOW transmission consists of a water-cooled, 3-element, 1-stage, 1-phase, torque converter with lockup clutch 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.

**UNDERCARRIAGE**

- **Suspension**: Oscillating equalizer bar and pivot shaft track roll frame
- **Cylindrical, high-tensile-strength steel construction

**FINISH DRIVES**

- **Double reduction final drive of spur and planetary gear sets to increase traction effort and reduce gear tooth stresses for long final drive life. Segmented sprocket rings are bolted on for easy replacement.

**DIMENSIONS**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>12'10&quot;</td>
<td>12'10&quot;</td>
<td>2.9 mph</td>
<td>13'1&quot;</td>
<td>180 mm</td>
<td>5.4 mph</td>
<td>452 HP</td>
<td>10.6 U.S. gal</td>
<td>4'3&quot;</td>
</tr>
<tr>
<td>2.9 mph</td>
<td>13'1&quot;</td>
<td>180 mm</td>
<td>5.4 mph</td>
<td>452 HP</td>
<td>10.6 U.S. gal</td>
<td>4'3&quot;</td>
<td>10.6 U.S. gal</td>
<td>4'3&quot;</td>
</tr>
</tbody>
</table>
| 12'10" | 12'10" | 2.9 mph | 13'1" | 180 mm | 5.4 mph | 452 HP | 10.6 U.S. gal | 4'3"

**HYDRAULIC EQUIPMENT**

- **Blade capacities are based on the SAE recommended practice J1265.**

- **Double-acting, piston**

**HYDRAULIC SYSTEM**

- **Ground pressure**: 119 kPa 1.21 kg/cm² 17.2 psi

- **Additional weight to obtain the weight of strengthened type dozer equipment.**

**OPERATING WEIGHT**

- **Operating weight**: 51,530 kg 113,600 lb
- **Including Strengthened Full tilt Sigmadozer, giant ripper, steel cab ROPS, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank.

- **Ground pressure**: 119 kPa 1.21 kg/cm² 17.2 psi

**Sigmadozer**

- **Maximun usable pull**: 27.5 MPa 2800 kg/m² 3,080 psi

**GROUND CLEARANCE**

- **G_choices**: 1097 mm 11.8"