

KOMATSU®

D275A-5R

HORSEPOWER

Gross: 337 kW 452 HP @ 2000 rpm

Net: 335 kW 449 HP @ 2000 rpm

OPERATING WEIGHT

50850 kg 112,100 lb

D
275A

GAULT



Photo may include optional equipment.

CRAWLER DOZER

WALK-AROUND

GALEO

Building on the technology and expertise Komatsu has accumulated since establishment in 1921, GALEO presents customers worldwide with strong, distinctive image of technological innovation and exceptional value.

The GALEO brand will be employed for Komatsu's full lineup of advanced construction and mining equipment. Designed with high productivity, and environmental considerations in mind, the machines in this line reflect Komatsu's commitment to contributing to the creation of a better world.

Genuine Answers for Land and Environment Optimization

SAA6D140E-5 turbocharged after-cooled diesel engine provides an output of **335 kW 449 HP** with excellent productivity. See page 6.

Preventative maintenance

- Centralized service station
- Enclosed hydraulic piping
- Modular power train design
- Oil pressure checking ports
- Electric priming pump

See page 9.

Simple hull frame

and monocoque track frame with pivot shaft for greater reliability.

Large blade capacities:

13.7 m³ 17.9 yd³ (Semi-U dozer)
and

16.6 m³ 21.7 yd³ (U dozer)

See page 7.

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 driven radiator cooling fan

controlled automatically, reduces fuel consumption and operating noise levels.

See page 6



New track link design

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

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BLADE CAPACITYSemi-U: 13.7 m³ 17.9 yd³Full-U: 16.6 m³ 21.7 yd³***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)
- Palm Command Control System (PCCS) lever controls
- Optional pressurized cab
- Adjustable armrest
- Travel control console integrated with operator seat

See page 8.

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

Filtration

Further enhanced reliability of the machine against fuel contamination thanks to the improvement in fuel filtration.

See page 10.

Electronic Controlled Modulation Valve (ECMV)

controlled steering clutches/brakes facilitating steering operation.

See page 5.



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

Track shoe slip control system (option)

See page 7.

K-Bogie undercarriage system

improves traction, component durability, and operator comfort.

See page 6.

Photo may include optional equipment.

PALM COMMAND CONTROL SYSTEM (PCCS)

Komatsu's 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. Transmission gear shifting is simplified with thumb push buttons.

Left-hand joystick



Palm command PPC controlled blade control joystick

Blade control joystick uses the Proportional Pressure Control (PPC) valve and palm command joystick similar to the travel control joystick.

Blade and ripper control joystick



PPC control combined with the highly reliable Komatsu hydraulic system enables superb fine control. (Dual tilt and pitch operation are enabled by depressing switch with a thumb. This is available when optional dual tilt dozer is installed.)

Full-adjustable suspension seat and travel control console

For improved rear visibility during reverse operations, the operator can adjust seat 15° to the right. The transmission and steering controls move with the seat for optimum operator comfort. The travel control console also has adjustment fore and aft, and height. The armrest is independently adjustable up and down, providing optimum operation posture for all operators.

Facing Front



When Turned 15°



Fuel control dial

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

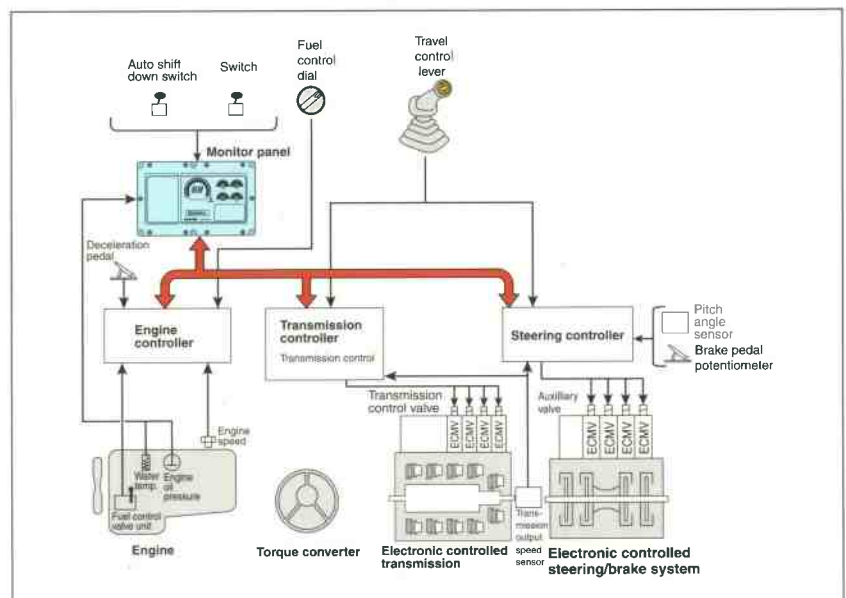
Height adjustable blade control armrest

Blade control armrest is height adjustable without any tools in three stages, providing the operator with firm arm support in an ideal armrest.

Position adjustable ripper control lever

Ripper control lever position is adjustable, providing optimum operator posture during all types of ripping operations.

Outline of electronic control system



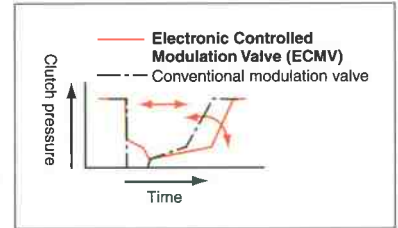
Power train electronic control system

Smooth and soft operation

D275A-5R 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, steering clutches and brakes for optimal machine operation. The ease of operation and productivity of new D275A-5R is greatly improved through these new features.

Electronic Controlled Modulation Valve (ECMV) 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.

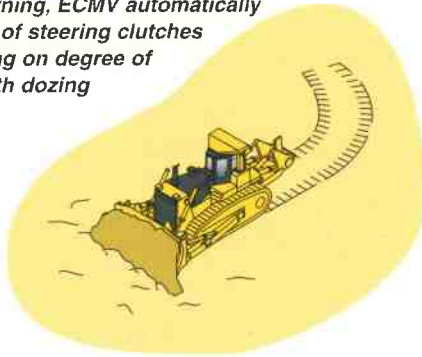


Electronic Controlled Modulation Valve (ECMV) Controlled Steering Clutches/Brakes

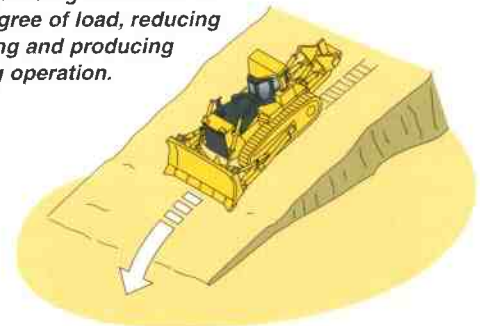
Sensors monitor machine operating conditions, and electronically control steering clutches and brakes depending on type of job, such as size of load during dozing, incline angle of slope or load, providing smooth and ease of operation by reducing counter-steering on downhill travel, etc.

Effect of ECMV Steering Clutches/Brake Control

When dozing and turning, ECMV automatically controls stroke ratio of steering clutches and brakes depending on degree of load, enabling smooth dozing and turning.

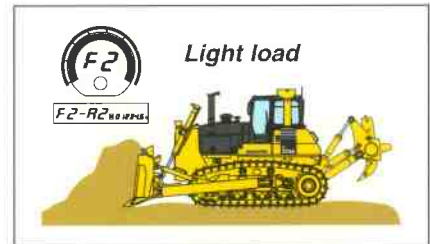
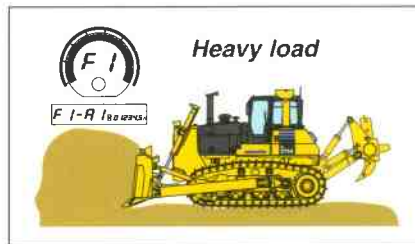
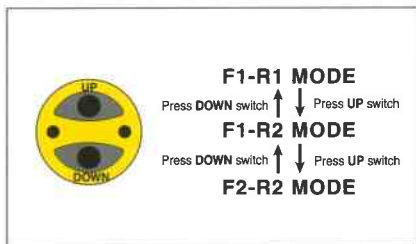


When dozing downhill, ECMV automatically controls steering clutches and brakes depending on incline of machine or degree of load, reducing counter-steering and producing smooth dozing operation.



Preset travel speed function

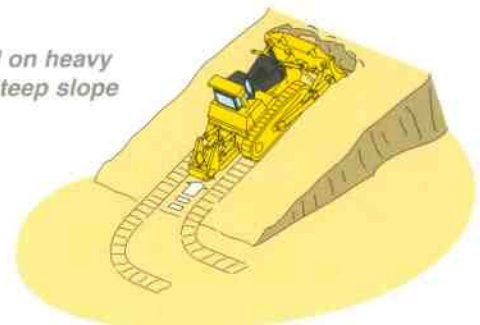
Preset travel speed selection function is standard equipment, enabling the operator to select fore and aft travel speed from three preset patterns; F1-R1, F1-R2 and F2-R2 by using the UP/DOWN switch. When the F1-R2 or F2-R2 preset pattern is selected and the travel control is moved into forward or reverse, 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.



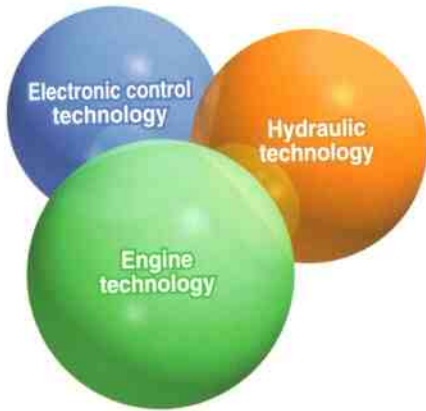
Auto downshift function

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.)

Actuated on heavy load or steep slope



PRODUCTIVITY FEATURES

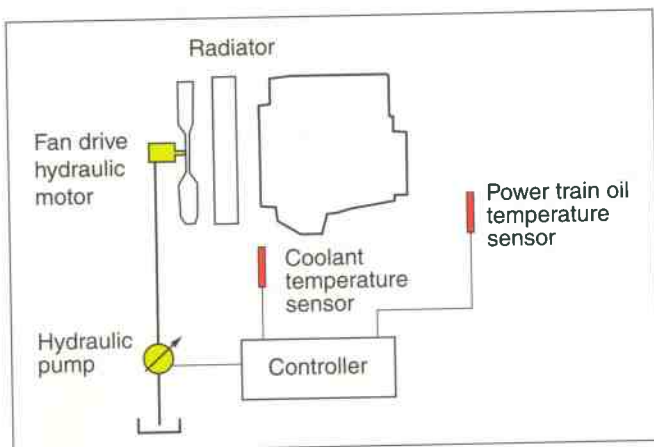


Engine

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 D275A-5R a superior crawler dozer in both ripping and dozing production. The engine features direct fuel injection, turbocharger and air-to-air aftercooler 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.



Undercarriage

K-Bogie system

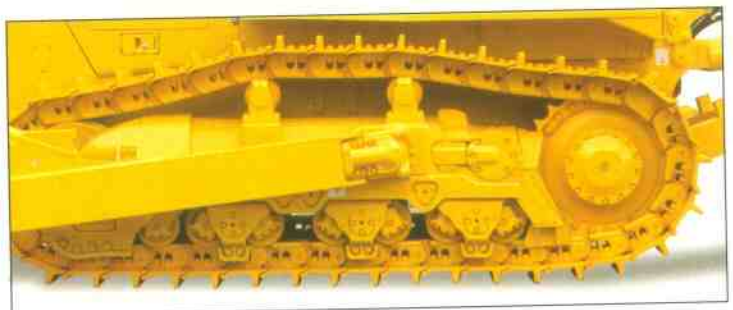
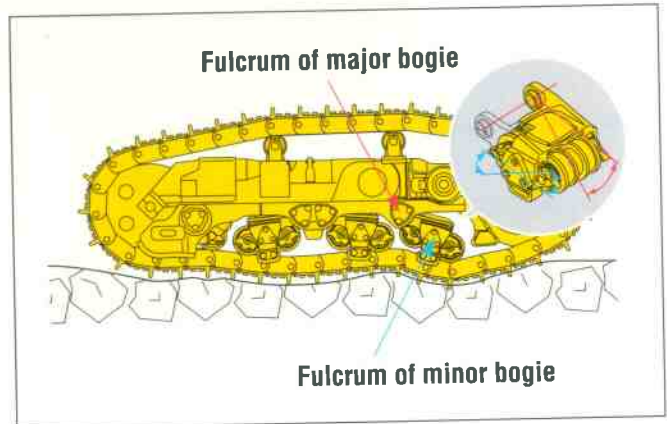
New K-Bogie undercarriage system retains prior advantages, with new additional features.

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.



Large blade

Capacities of **13.7 m³ 17.9 yd³** (Semi-U dozer) and **16.6 m³ 21.7 yd³** (U dozer) yield outstanding production. High-tensile-strength steel has been incorporated into the front and sides of the blade for increased durability.

Dual tilt dozer (option)

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.
- 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)



Track shoe slip control panel

- Eliminates the need for the operator to constantly control engine power output with the decelerator while ripping.
- 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.



Photo may include optional equipment.

WORKING ENVIRONMENT

Operator comfort

Operator comfort is essential for productive work. The D275A-5R provides a quiet, comfortable environment where the operator can concentrate on the work at hand.



Hexagonal pressurized cab (optional)

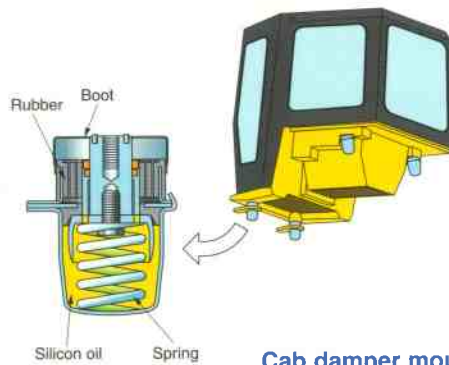
- The cab's new hexagonal design and large tinted glass windows provide excellent front, side, and rear visibility.
- Air filters and a higher internal air pressure combine to prevent dust from entering the cab.



Photo may include optional equipment.

Comfortable ride with new cab damper mounting and K-Bogie undercarriage

D275A-5R'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.



Cab damper mounting

New suspension seat

D275A-5R 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.



MAINTENANCE

Preventative maintenance

Preventative maintenance is the only way to ensure long service life from your equipment. That's why Komatsu designed the D275A-5R 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.



All warning and monitor lamps are lit for photo shooting.

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. If 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.

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.

Low maintenance costs

New Track Link Design

New D275A-5R track links feature increased link tread and link height and track guiding guard shape is improved. The result is improved undercarriage life and reduced cost through maintenance man-hours when turning pins and bushings.

Oil pressure checking ports

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



Maintenance free disc brakes

Wet disc brakes require less maintenance.

Enlarged engine room

Engine room space is enlarged by increasing engine hood height, facilitating maintenance of the engine and related equipment. Perforated holes on the engine hood are discontinued, preventing dust and rain entering and to keep engine area clean.

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.

Electric priming pump

Simply pressing the button enables bleeding air from the fuel circuit at the time of filter replacement, etc.

