

KOMATSU

D475A-8

EU Stage V Engine

CRAWLER DOZER

D
4
7
5



ENGINE POWER

Forward:
697 kW / 934 HP @ 2.000 rpm
Reverse:
777 kW / 1.040 HP @ 2.000 rpm

OPERATING WEIGHT

112.620 kg

BLADE CAPACITY

Semi-U blade: 27,2 m³
U blade: 34,4 m³

Walk-Around

D475A-8



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OUTSTANDING PRODUCTIVITY, RELIABILITY & DURABILITY

Powerful and Environmentally Friendly

- Fuel efficient high performance Komatsu SAA12V140E-7 engine
- EU Stage V compliant
- Torque converter with auto lockup
- Selectable working modes
- Adjustable idle shutdown

First-Class Operator Comfort

- Fully adjustable air-suspended seat
- Wide, spacious cab with excellent visibility
- Superior visibility on blade and ripper

State-of-the-Art Controls

- High resolution LCD colour monitor
- Gearshift preset function
- Automatic blade pitch and ripper return

Reliability & Maintenance Features

- Sturdy, rugged design
- Modular power train
- Central service points
- Reversible radiator fan

Safety Features

- Rear-view camera system
- Secondary engine shutdown switch
- Emergency stop buttons
- Operator sensing system
- Seat belt caution indicator
- Power ladder (option)

KOMTRAX PLUS

- Increased operational data and fuel savings



A maintenance program
for Komatsu customers

Powerful and Environmentally Friendly



12% more power in reverse

A powerful and fuel-efficient engine, compliant to EU Stage V emissions regulations, makes the D475A-8 an outstanding performer, both for dozing and ripping. Engine output is increased by 1,12 times when in reverse, with a faster climbing speed in downhill dozing. Cycle times are reduced and production is improved drastically.

Gearshift preset function

To reduce the frequency of gear shifting and for comfortable machine operation, a shift preset mode is provided as standard equipment. The preset switch lets the operator select a combination of forward/reverse gear shifts by using the UP/DOWN shift switch on the steering lever. Once the shift pattern is selected, only forward/reverse direction control selection is required for a correct gear shift.

Automatic transmission

Set by default, the D475A-8 has a highly efficient transmission that automatically matches the best gear mode in all dozing operations and includes a travel speed preset function to reduce work time and fatigue for the operator. With Komatsu's ECMV (Electronic Controlled Modulation Valves) gear changes are smoothly timed to always keep the power transfer at maximum efficiency.

Auto-downshift

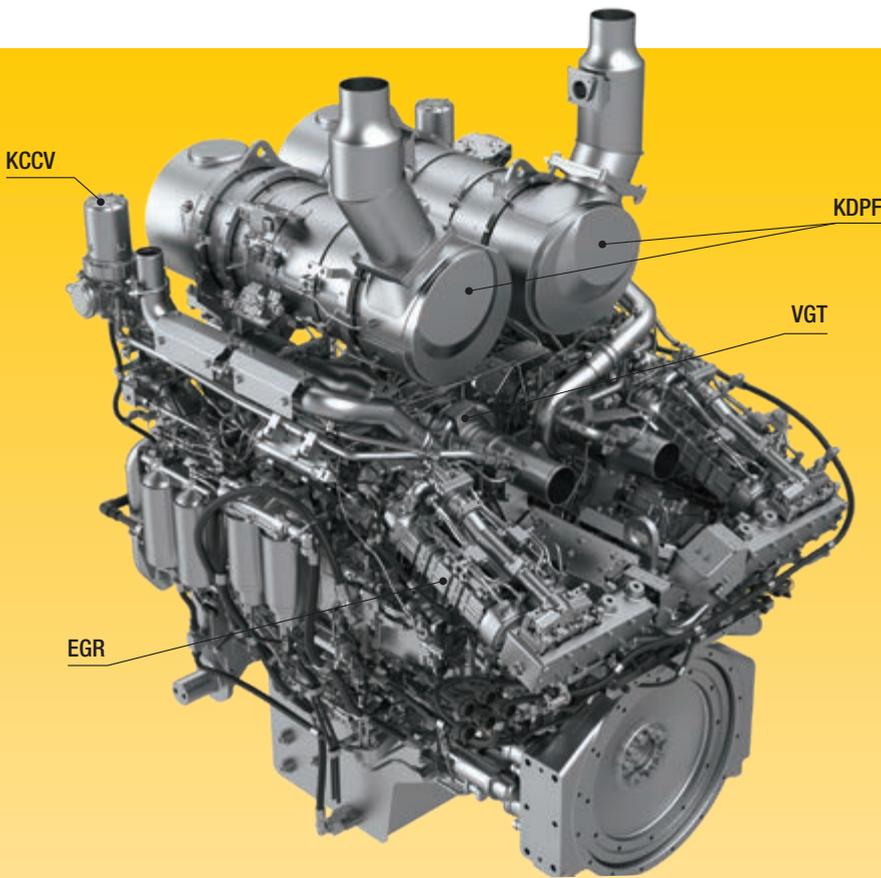
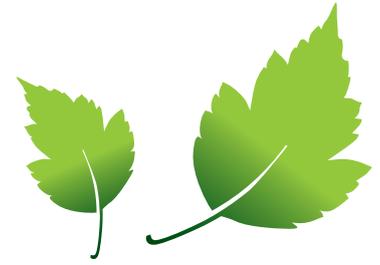
The engine controller continuously monitors the engine speed, travel gear and travel speed. When a load is applied and the machine slows, the controller automatically downshifts, optimising the gear speed for the best dozing performance. This function enables comfortable operation and high productivity without manual downshifting. It can be deactivated by a cancel switch on the monitor panel.

Torque converter with auto lock-up

Combined with the automatic transmission, the Komatsu automatic lock-up torque converter reduces fuel consumption by up to 10% by eliminating unnecessary power loss. When required, the powertrain control system engages the torque converter, or locks it up to send full engine power directly to the transmission during less torque demanding applications.

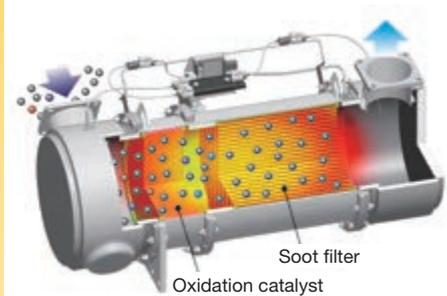
Selectable working modes

Working mode can be set to either "Power" for maximum power or to "Economy" for energy saving operations. Combined with a choice between automatic or manual working mode, this lets the operator select the optimum machine power configuration for the work at hand.



Heavy-duty aftertreatment

The Komatsu Diesel Particulate Filter (KDPF) captures more than 90% of Particulate Matter (PM). Special oxidation catalyst and extra fuel injection in the exhaust stream can decompose accumulated soot in the KDPF filter by either active or passive regeneration. This system doesn't require operator intervention, and won't interrupt normal operation.



Exhaust Gas Recirculation (EGR)

Cooled EGR is a technology well-proven in current Komatsu engines. The increased capacity of the EGR cooler now ensures very low NOx emissions and a better engine performance.

Komatsu Closed Crankcase Ventilation (KCCV)

Crankcase emissions (blow-by gas) are passed through a CCV filter. The oil mist trapped in the filter is returned back to the crankcase while the filtered gas is returned to the air intake.

High-Pressure Common Rail (HPCR)

To achieve complete fuel burn and lower exhaust emissions, the heavy-duty High-Pressure Common Rail fuel injection system is computer controlled to deliver a precise quantity of pressurised fuel into the redesigned engine combustion chamber by multiple injections.

Variable Geometry Turbo (VGT)

The VGT provides optimal airflow to the engine combustion chamber under all speed and load conditions. Exhaust gas is cleaner, fuel economy is improved while machine power and performance are maintained.

Adjustable idle shutdown

To reduce unnecessary fuel consumption and exhaust emissions, and for lower operating costs, the Komatsu auto idle shutdown automatically turns off the engine after it idles for a set period of time, which can be easily programmed from 5 to 60 minutes. An Eco-gauge and Eco guidance tips on the cab monitor further encourage efficient operations.



Eco-gauge, Eco guidance and fuel consumption gauge



Fuel consumption history



Adjustable idle shutdown automatically turns off the engine after it idles for a set period of time

Optimised Work Equipment

Komatsu blades

For increased blade performance and better machine balance, Komatsu uses a box blade design, with the highest resistance for a light weight blade. Special Komatsu highly wear resistant steel is used for the front and sides of the blade to increase durability. The deep curved design of the blade makes it easy to handle a wide range of materials, with good penetration and a large capacity, optimising high dozing performance with excellent fuel efficiency.

Semi-U blade

The Komatsu Semi-U blade will stand up to the toughest applications. The shape of the blade improves carrying capacity, minimizes shoe slippage and increases productivity. Its two side wings prevent material spillage and offer a class-leading performance when dozing.

U blade

The Komatsu U blade was specially designed to handle large quantities of material with a minimum of spillage. Along with a large capacity this outstanding blade also has a good rolling performance, and helps to get the best out of the machine.

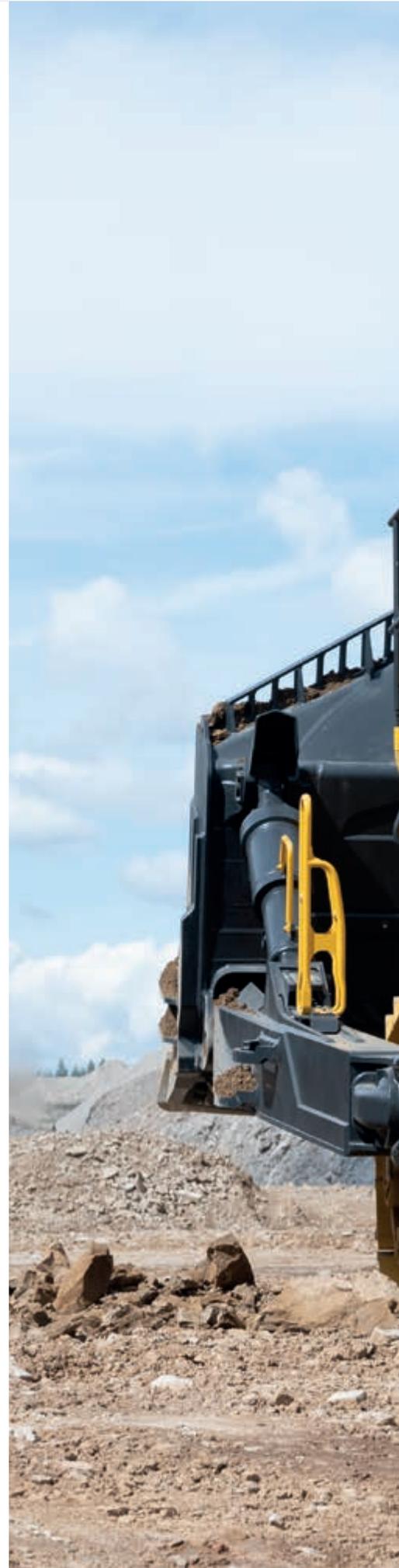
Komatsu rippers

Komatsu's patented ripper concept, with all cylinders connected to the ripper shank holder, allows maximum pry-out force. Its key feature is the ripper point movement that lifts the material during the ripper shank operation to greatly improve overall performance. The shank supplies great penetration into various types of materials and is fitted with special wear parts for increased longevity.

Automatic blade pitch and ripper return

To reduce operator effort and increase efficiency while dozing, a new "auto pitch" mode, triggered by a simple switch, sets the blade pitch between "digging" and "dump" positions. Additionally, a new ergonomic ripper control lever with an auto-return function automatically raises the ripper when moved into reverse.

To maximise your productivity, this new generation machine uses a high efficiency blade and end bit design.





First-Class Comfort

Quiet and comfortable cab

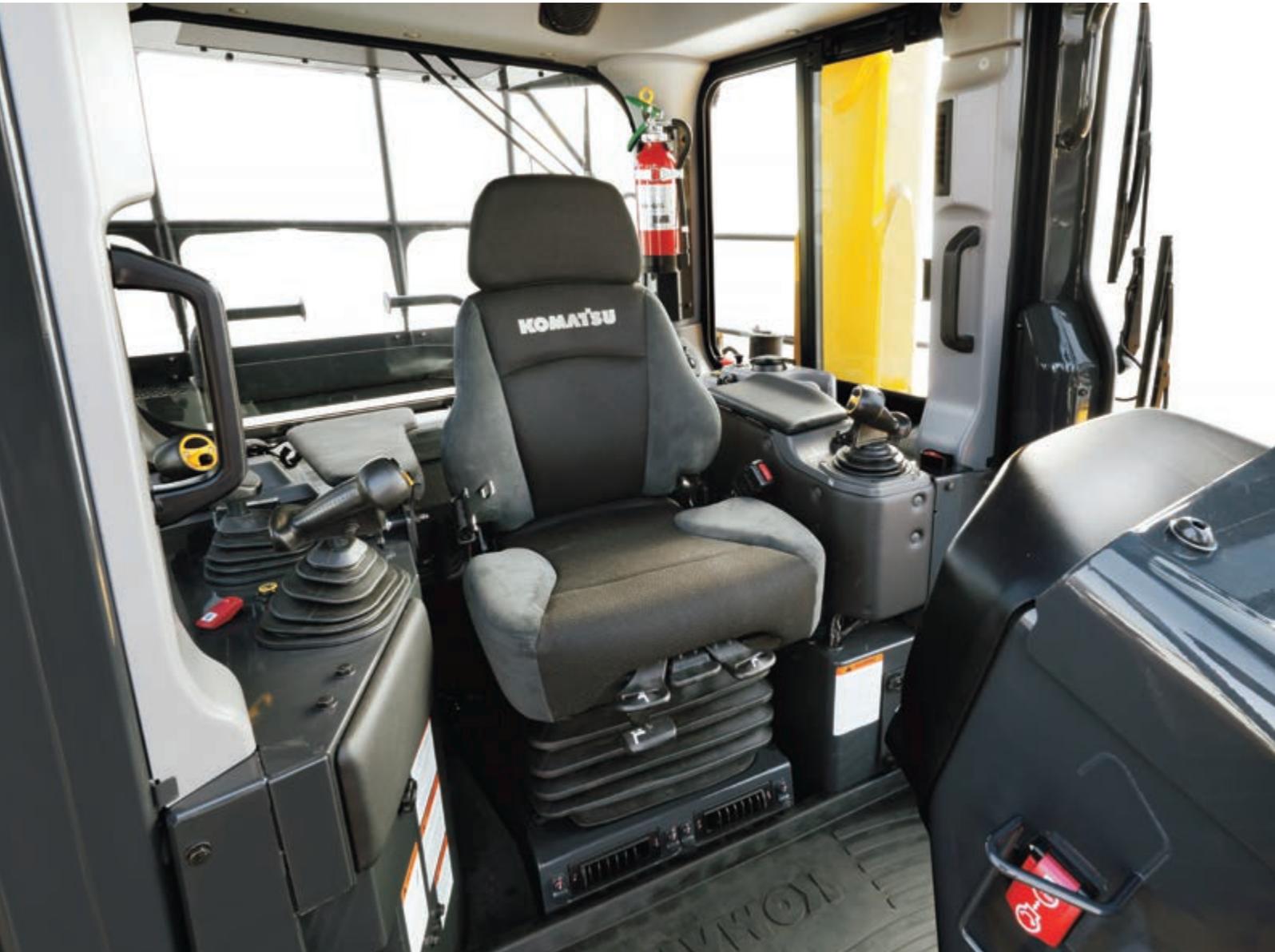
Operator comfort is essential for safe and productive work. The newly designed cab on the D475A-8 is quiet and comfortable, an ideal environment to concentrate on the job. Its hexagonal design and large tinted glass windows offer excellent panoramic visibility. The high capacity climate control system pressurises the cab to keep dust out. A high quality sound-absorbent lining covers the interior to minimise noise levels for the operator.

Superior visibility on blade and ripper

The redesigned ROPS/FOPS integrated cab and the well-located operator seat give optimal blade visibility to the left and right and make both dozing and grading easy, safe and fast. Thanks to the new ripper arm structure, the visible area of the ripper shank is drastically enlarged. The operator can accurately position the front edge of the shank and hard rock is ripped easily.



D475A-8



The seat is now fixed at a 12° angle to allow highest comfort for dozing and ripping.

Fully adjustable suspension seat and travel-control console

A comfortable, heavy-duty and fully adjustable heated and ventilated air-suspended seat is at the centre of the operator's safe and cosy work space. The position of the travel control console can be independently adjusted forwards, backwards and in height to fit each operator's preference. An electronic height adjuster for the steering console is standard.



Heated & ventilated area

State-of-the-Art Controls



Large TFT colour multi monitor

A large user-friendly colour monitor enables safe, accurate and smooth work. It provides on-hand data to continuously improve productivity and fuel consumption. Multilingual and with all essential information available at a glance, it features simple and easy to operate switches and multifunction keys that provide the operator with fingertip access to a wide range of functions and operating information.

Easy operation control

The ergonomic Palm Command Control System (PCCS) provides efficient and comfortable steering of the machine. The blade's electronic control joystick provides precise control. Its reactivity can be customized to the operator's preference, for maximum productivity in any type of application.

Track shoe slip control system

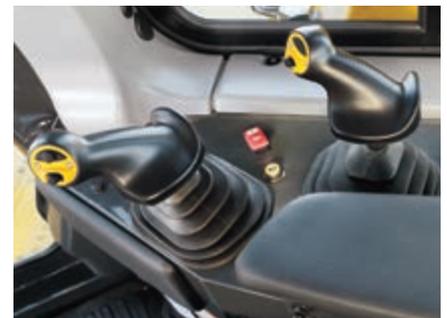
This system removes the need to continuously control the engine power output with the decelerator pedal while ripping: the output automatically adjusts to the optimum level. This substantially reduces fatigue, letting the operator concentrate on the ripping without having to monitor track shoe slippage. Less track shoe slippage also means lower undercarriage operating cost and lower fuel consumption.



Palm Command Control System (PCCS)



Finger Command Control System (FCCS) (Option)



Blade control lever with auto-pitch and new ripper control lever with auto-return function



Fully integrated rear-view camera system

D475A-8

Information & Communication Technology



Lower operating costs

Komatsu ICT contributes to the reduction of operating costs by assisting to comfortably and efficiently manage operations. It raises the level of customer satisfaction and the competitive edge of our products.

Widescreen monitor

Conveniently customisable and with a choice of 26 languages, the wide-screen monitor with simple switches and multifunction keys gives fingertip access to a large range of functions and operating info.

An evolutionary interface

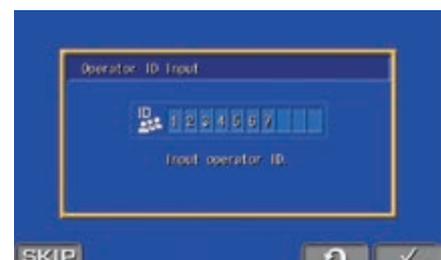
Helpful information is now easier than ever to find and understand with the upgraded monitor interface. The main screen can be simply optimised to the operator's preference by just pressing one button.



Quick view on the operation logs



All information at a glance



Operator identification function

KOMTRAX Plus

What

- KOMTRAX is Komatsu's remote equipment monitoring and management system
- KOMTRAX is standard equipment on all Komatsu construction products
- KOMTRAX continuously monitors and records machine health and operational data
- Information such as fuel consumption, utilisation, and a detailed history aids in making repair or replacement decisions

When

- Know when your machines are running or idling and make decisions that will improve your fleet utilisation
- Detailed movement records ensure you know when and where your equipment is moved
- Up to date records allow you to know when maintenance was done and help you plan for future maintenance needs

Where

- KOMTRAX data can be accessed virtually anywhere through your computer, the web or your smart phone
- Automatic alerts keep fleet managers up to date on the latest machine notifications

Why

- Knowledge is power - make informed decisions to manage your fleet better
- Knowing your idle time and fuel consumption will help maximise your machine efficiency
- Take control of your equipment - any time, anywhere



KOMTRAX Plus

Equipment management support

KOMTRAX Plus enables expanded monitoring of the fleet via satellite and wireless LAN. Users can analyze "machine health" and performance from a remote location, on a near-real time basis. This includes component condition and trend data. By making this critical information readily accessible, KOMTRAX Plus is an effective tool in maximizing productivity and lowering operating cost.

Safety Features

Optimal jobsite safety

Safety features on the Komatsu D475A-8 comply with the latest industry standards and work in synergy to minimise risks to people in and around the machine. Highly durable anti-slip plates – with additional high friction covering – maintain long term traction performance. A seat belt caution indicator and an audible travel alarm further increase jobsite safety.



Battery and starter isolator box with jump start receptacle.

Power ladder (optional)

Provides safer access and egress to and from the cabin.



Heavy duty steps and large hand rails

Strategically placed grab handles with non-slip steps help to get on and off the machine.



Emergency engine stop switches

These switches instantly stop the engine. One is installed in the cab, the other at the right rear of the machine.



One side platform

Allows safe access to rear maintenance points. Check and refilling of fuel and washer fluid, cleaning of cab window glass and air conditioner condenser, cab lights, etc., can be safely performed.

Easy Maintenance



Komatsu CARE™

Komatsu CARE™ is a maintenance program that comes as standard with your new Komatsu machine. It covers factory-scheduled maintenance, performed with Komatsu Genuine parts by Komatsu-trained technicians. Depending on your machine's engine, it also offers extended coverage of the Komatsu Diesel Particulate Filter (KDPF). Please contact your local Komatsu distributor for terms and conditions.

Swing-out radiator grill and reversible fan

The radiator can be easily cleaned by utilisation of the reversible, hydraulically driven cooling fan from a touch on the monitor panel.

Modular power train

All the power train components are enclosed in a sealed module. This eliminates oil spills during mounting and dismounting, and prevents dust and dirt polluting individual components. Servicing is much cleaner, smoother and easier.

Self-diagnostic monitor

The multifunction monitor panel displays the running time, engine revs, fuel level and water coolant temperature in real time. It also provides the operator with maintenance and service information, if oil filters need replacing or any abnormality occurs. In addition, it supplies Komatsu mechanics with detailed information, with no need for external service tools.



*Service center (optional with mining spec)
Remote drain ports with couplings and a fast fuel fill connector eliminates the need to get on/off the machine and to remove/install covers to perform fluid maintenance.*



Canister-type breathers facilitate checking and cleaning



Komatsu designed the D475A-8 with centralised and conveniently located service points to make necessary inspections and maintenance quick and easy.

Tough and Reliable

Sturdy, rugged design

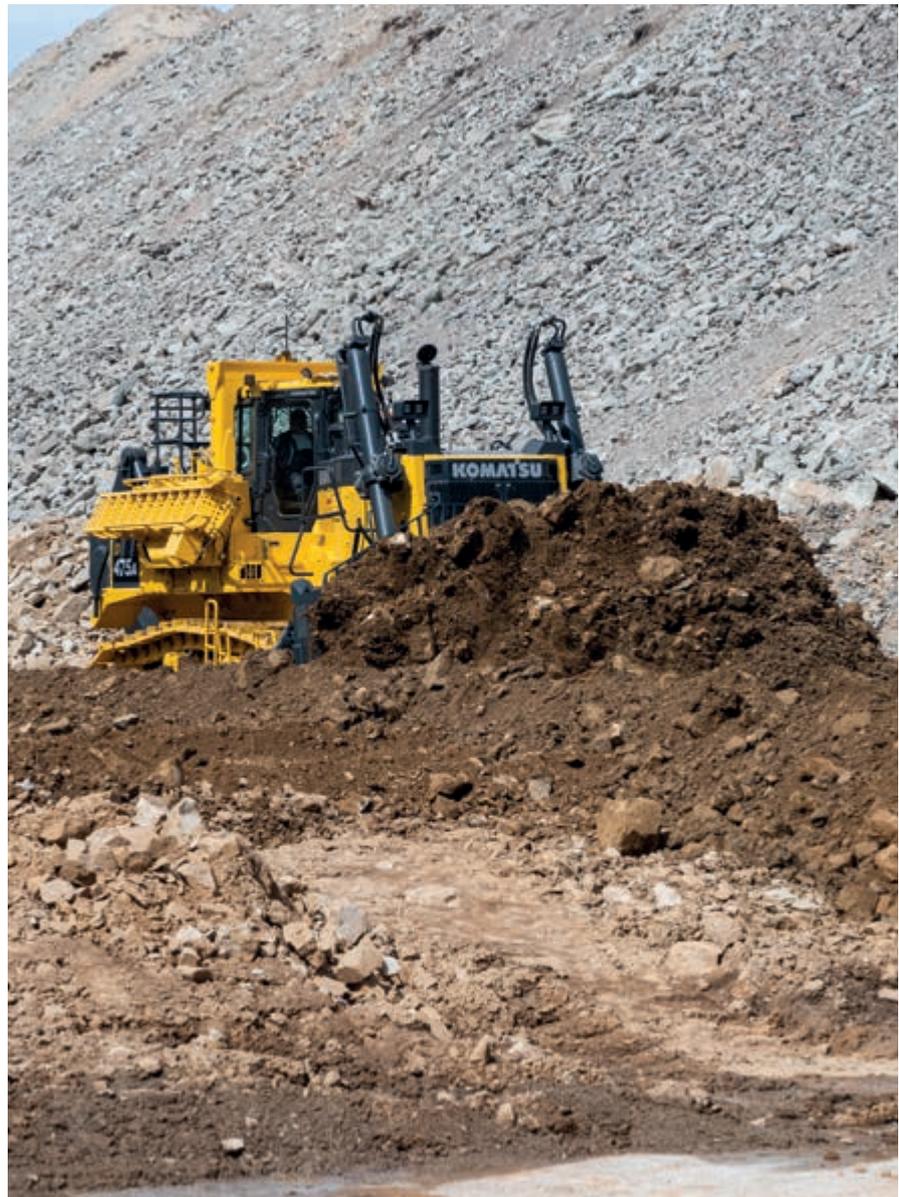
A high-rigidity hull structure main frame improves durability and reduces stress concentration at critical areas. The track frame with a large cross section utilises pivot shaft mounting for greater reliability. All hydraulic piping is robustly protected by cover and inner route to ensure damage protection from materials.

Low drive undercarriage

Komatsu's undercarriage is extraordinarily tough and offers excellent grading ability and stability. The centre of gravity of the whole machine remains low for safe and stable machine usage on slopes. The low drive undercarriage also greatly reduces the noise levels around the dozer. The heavy-duty link assemblies with large-diameter bushings, substantial track link height and superior oil seals are the basis for a high durable undercarriage – and a drastically lower cost of ownership.

K-Bogie undercarriage system

The K-bogie undercarriage is built with an oscillating idler and with flexible mounted bogie systems that allow a high vertical track roller movement. The oscillating idler combined with the 8 track roller/K-bogie design supports and guides the undercarriage on all ground conditions for a much smoother drive and a longer undercarriage life.



New mono blade linkage

This structure provides less blade sway movement and extends maintenance interval of blade joint.

Main frame strength

D475A-8's main frame enhances its durability drastically with 118% stiffness increase compared with previous machine.

Specifications

ENGINE

Model	Komatsu SAA12V140E-7
Type	4-cycle, water-cooled, direct injection, turbocharged, air-to-air charge air cooler, cooled EGR
Engine power	
at rated engine speed	2.000 rpm
SAE J1995	Forward: 697 kW/934 HP Reverse: 777 kW/1.040 HP
ISO 9249 / SAE J1349* (net engine power)	Forward: 664 kW/890 HP Reverse: 722 kW/968 HP
No. of cylinders	12
Bore x stroke	140 x 165 mm
Displacement	30,48 l
Governor	Mid-range, electronic
Fan drive type	Hydraulic
Lubrication system	
Method	Gear pump, force lubrication
Filter	Full flow
Engine emissions	EU Stage V compliant
*Net horsepower at the maximum speed of radiator cooling fan	Forward: 641 kW/860 HP Reverse: 722 kW/968 HP

STEERING SYSTEM

Steering control	PCCS-lever
Service brakes	Wet, multiple-disc, pedal-controlled, spring-actuated and hydraulically released
Minimum turning radius (counter-rotation) (as measured by track marks on ground)	4,6 m

MAX. TRAVEL SPEEDS

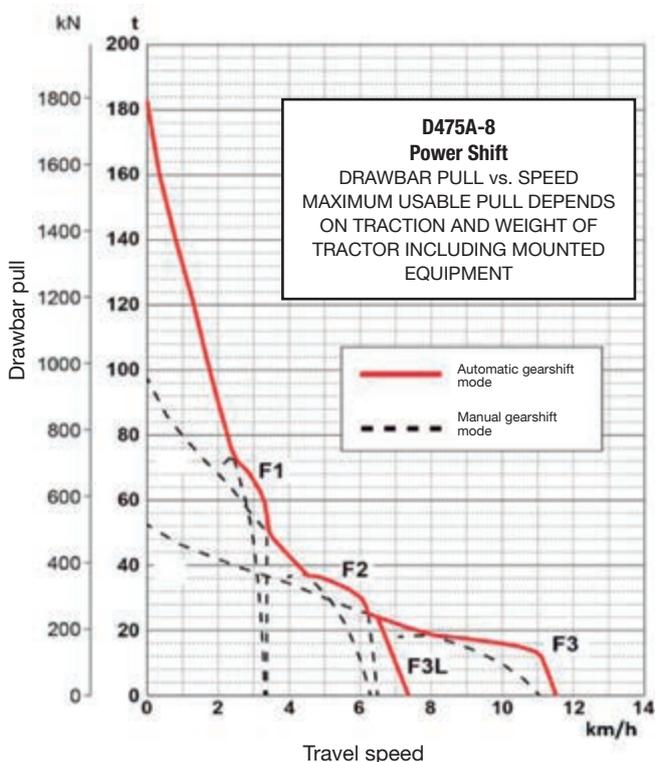
	Forward	Reverse
1st	3,4 km/h	4,4 km/h
2nd	6,3 km/h	8,4 km/h
3rd L	7,4 km/h	9,0 km/h
3rd	11,6 km/h	14,3 km/h

TORQFLOW TRANSMISSION

Type	Komatsu TORQFLOW
Torque converter	3-element, 1-stage, 1-phase, water-cooled, automatic lock-up
Transmission	Planetary gear, multiple-disc clutch hydraulically actuated, force-lubricated
Gearshift lock lever and neutral safety switch prevent accidental starts.	

UNDERCARRIAGE

Suspension	Oscillating equaliser bar with shoulder pad and pivot shaft
Track roller frame	Cylindrical, high-tensile-strength steel construction
K-Bogie undercarriage	Lubricated track rollers are resiliently mounted on the track frame with a bogie suspension system
Tracks	Lubricated tracks, fully sealed
Number of shoes (each side)	41
Grouser height (single grouser)	105 mm
Shoe width (standard)	710 mm
Ground contact area	64.240 cm ²
Track rollers (each side)	8
Carrier rollers (each side)	2



FINAL DRIVE

Type	Planetary gear, double-reduction
Sprocket	Segmented sprocket teeth are bolt-on for easy replacement

RIPPER EQUIPMENT

Multishank ripper	
Type	Hydraulically controlled parallelogram ripper
No. of shanks	3
Weight (including hydraulic control unit)	9.720 kg
Beam length	3.085 mm
Maximum lift above ground	1.195 mm
Maximum digging depth	1.240 mm
Giant ripper	
Type	Hydraulically controlled variable parallelogram ripper
No. of shanks	1
Weight (including hydraulic control unit)	7.200 kg
Beam length	1.500 mm
Maximum lift above ground	1.210 mm
Maximum digging depth	1.845 mm

SERVICE REFILL CAPACITIES

Fuel tank	1.920 l
Radiator	265 l
Engine oil	120 l
Torque converter, transmission, bevel gear and steering system	210 l
Dozer blade hydraulics	190 l
Giant ripper (additional capacity)	190 l
Multishank ripper (additional capacity)	190 l
Final drive (each side)	75 l

HYDRAULIC SYSTEM

Type	CLSS (closed-centre load sensing system)
All spool valves externally mounted beside the hydraulic tank.	
Main pump	Variable displacement piston pump
Maximum pump flow	541 l/min
Relief valve setting	for implement 27,5 MPa 280 kg/cm ²
Spool control valve positions	
Blade lift	Raise, hold, lower, and float
Blade tilt	Right, hold, and left
Additional control valve positions for ripper	
Ripper lift	Raise, hold and lower
Ripper tilt	Increase, hold and decrease
Hydraulic cylinders	Double-acting, piston
No. of cylinders × bore	
Blade lift	2 × 180 mm
Blade tilt (single tilt)	1 × 250 mm
Blade tilt (dual tilt)	2 × 250 mm
Ripper lift	2 × 225 mm
Ripper tilt	2 × 225 mm

OPERATING WEIGHT (APPR.)

Including Semi-U tilt dozer, giant ripper, cab, ROPS (ISO 3471), operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank

Operating weight	112.620 kg
Ground pressure	1,75 kg/cm ²
Tractor weight	88.200 kg

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

Extreme service shoes	Additional weight	Ground contact area	Ground pressure*
810 mm	920 kg	73.290 cm ²	1,22 kg/cm ²
910 mm	1.830 kg	82.340 cm ²	1,09 kg/cm ²

* Tractor

Specifications

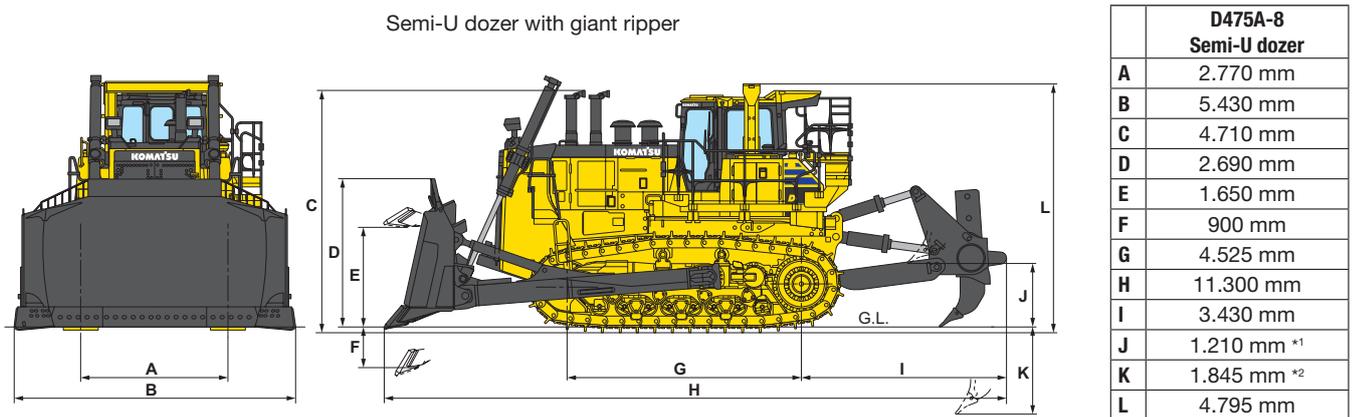
DOZER EQUIPMENT

	Overall length with blade	Blade capacity	Blade width x height	Max. lift above ground	Max. drop below ground	Max. tilt adjustment	Additional weight
Strengthened dual tilt Semi-U dozer	8.730 mm	27,2 m ³	5.265 x 2.690 mm	1.650 mm	900 mm	1.145 mm	18.300 kg
Strengthened dual tilt U dozer*	9.205 mm	34,4 m ³	6.205 x 2.610 mm	1.650 mm	900 mm	1.350 mm	19.900 kg

Blade capacities are based on the SAE recommended practice J1265.

* with spill guard

DIMENSIONS



Ground clearance: 610 mm

*¹ Maximum lift above ground
*² Maximum drop below ground



Standard and Optional Equipment

ENGINE AND RELATED PARTS

Komatsu SAA12V140E-7 turbocharged common rail direct injection diesel engine	●
EU Stage V compliant	●
Adjustable auto idle shutdown	●
Starter motor 2 × 24 V/7,5 kW	●
Alternator 24 V/90 A	●
Batteries 2 × 12 V/200 Ah	●
Radiator reserve tank	●
Cooling fan, hydrostatic driven with reversing function	●
Two mufflers with rain cap	●
Hinged front mask	●
Hinged fan support	●
Starter motor 2 × 24 V/11 kW	○

UNDERCARRIAGE

Single grouser heavy-duty shoes (710 mm)	●
Eight-roller track frames	●
Segmented sprockets	●
Hinged underguards with front pull hook	●
Hydraulic track adjusters	●
Track shoe slip control system	●
Track roller guard	●
Full length track roller guards	○
Single grouser heavy-duty shoes (810 mm, 910 mm)	○

SERVICE AND MAINTENANCE

Dry type air cleaner, double element with mechanical dust indicator and evacuator	●
Electrical dust indicator	●
Multifunction video compatible colour monitor with Equipment Management and Monitoring System (EMMS) and efficiency guidance	●
Provisions for fast fuelling system	●
KOMTRAX Plus with Iridium	●
Komatsu CARE™ – a maintenance program for Komatsu customers	●
Tool kit	●
Cold area arrangement	○

CABIN

Suspension seat: heated, ventilated, fabric, reclining, high backrest, with headrest	●
2 point seat belt with visible alert	●
Air conditioner	●
Radio (AM/FM/AUX/Bluetooth)	●
Uninterrupted power source for 3rd party system	●
Auxiliary input (MP3 jack)	●
2 × 12 Volt power supply (120 W)	●
1 × 24 Volt power supply	●
Wiper front and rear window	●
Wipers doors	●
Rear-view mirror (inside cab)	●
Lunch box holder	●
Heated rear window	●
Cup holder	●

SAFETY EQUIPMENT

Steel cab, meets ISO 3471 and SAE J1040, APR88 ROPS standards, as well as ISO 3449 FOPS standards	●
Rear view camera system	●
Back-up alarm	●
Warning horn	●
Battery main switch	●
Secondary engine shutdown switch	●
Perforated side covers	●
Platform with hand rails and toe boards	●
Lockable fuel cap and covers	●
2 × emergency engine stop switch	●
Power ladder	●
Fire extinguisher	○
First aid kit	○

TRANSMISSION AND BRAKES

Final drive case wear guard	●
Torque converter with automatic lock-up	●
TORQFLOW transmissions	●
Wet steering clutches	●
Decelerator pedal	●
Palm lever steering control (PCCS)	●

LIGHTING SYSTEM

LED lighting system	●
4 front and 2 rear lights	●
2 head lights	●
1 ripper working light	●
Inspection light (portable)	●
Step lights	●

ATTACHMENTS

Hitch	●
Counterweight	○

HYDRAULIC SYSTEM

Hydraulics for dozing blades	●
Hydraulics for ripper	●
Mono lever blade control	●

DOZER EQUIPMENT

Strengthened dual tilt Semi-U dozer 27,2 m ³	●
Strengthened dual tilt U dozer with spill guard 34,4 m ³	○
Multishank variable angle ripper	○
Giant variable angle ripper	○

MINING SPECIFICATION (STANDARD)

Canister-type breather	●
Concentrated sampling points	●
Service center with drain ports	●
Remote grease lines for ripper	●
Battery and starter isolator box	●
Engine room lamp	●

Further equipment on request

- standard equipment
- optional equipment

Your Komatsu partner:

KOMATSU

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