

KOMATSU®

D475A-5 SUPER DOZER

NET HORSEPOWER
641 kW **860 HP** @ 2000 rpm

OPERATING WEIGHT
108080 kg **238,270 lb**

D
475A

CRAWLER DOZER



Photos may include optional equipment.

GALEO

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.

641 kW **860 HP** turbocharged, aftercooled engine provides plenty of power

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

Preventative Maintenance

- Centralized Service Station
- Enclosed Hydraulic Piping
- Modular Power Train Design
- Oil Pressure Checking Ports

Large Blade Capacity:
45 m³ 58.9 yd³ (Super Dozer)

Automatic lockup **torque converter** saves fuel and increases speed and power transmission efficiency on long pushes

Unique and unrivaled noise-suppression

Low Noise

- Operator noise: 70dB(A)
(Engine at Hi, cooling fan at 70%, and air conditioner OFF.)
- Dynamic noise (outside): 110dB(A)
As per ISO 6395

Hydrostatic Driven Engine Cooling Fan controlled automatically, reduces fuel consumption and operating noise levels

The Super Dozer

The D475A-5 Super Dozer greatly contributes to reducing operating costs (\$/tons) by high dozing productivity.

- Large capacity Super Dozer blade with low dozing resistance



New Track Link Design

reduces maintenance cost by making turning pins easier, with improved pin reuse

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
- PCCS (Palm Command Control System) lever controls
- Pressurized cab
- Adjustable armrest
- Travel control console integrated with operator seat

***VHMS (Vehicle Health Monitoring System)
with ORBCOMM******ECMV (Electronic Controlled
Modulation Valve)
Controlled Steering Clutch
/Brake System***

facilitates smooth and shockless steering operation

***Rear Attachments
(optional)***

- Variable giant ripper
- Counterweight

**FLYWHEEL HORSEPOWER**

641 kW **860 HP** @ 2000 rpm

OPERATING WEIGHT

108080 kg **238,270 lb**

BLADE CAPACITY

45.0 m³ **58.9 yd³**

K-Bogie Undercarriage System improves traction, component durability, and operator comfort

GALEO

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

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

Photos may include optional equipment.

PCCS (PALM COMMAND CONTROL SYSTEM)

Komatsu's new ergonomically designed control system "PCCS" creates an operating environment with "complete operator control."

Human-Machine Interface

Palm Command Electronic Controlled Travel Control Joystick

Ergonomically designed palm command travel joystick provides the operator with a relaxed posture and superb fine control without operator fatigue. Transmission gear shifting is simply carried out with thumb push buttons.

Fully Adjustable Suspension Seat and Travel Control Console

For improved rear visibility during return of cycle, the operator can adjust the seat 15° to the right. The transmission and steering controls move with the seat for best operator comfort. The operator seat is also tiltable for facilitating down hill dozing. The travel control console has adjustments fore and aft, and for height. With an independently adjustable armrest, each D475A-5 Super Dozer operator can adjust control positions to their individual preference, providing optimum operational posture for all operators.

Facing Front



When Turned 15°



Left-hand Joystick



Blade and Ripper (option) Control Joystick



Fuel Control Dial

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

Palm Command PPC Controlled Blade Control Joystick

Blade control joystick uses the PPC (Proportional Pressure Control) valve and the same palm command type joystick as travel control joystick. PPC control, combined with the highly reliable Komatsu hydraulic system, enables superb fine control.

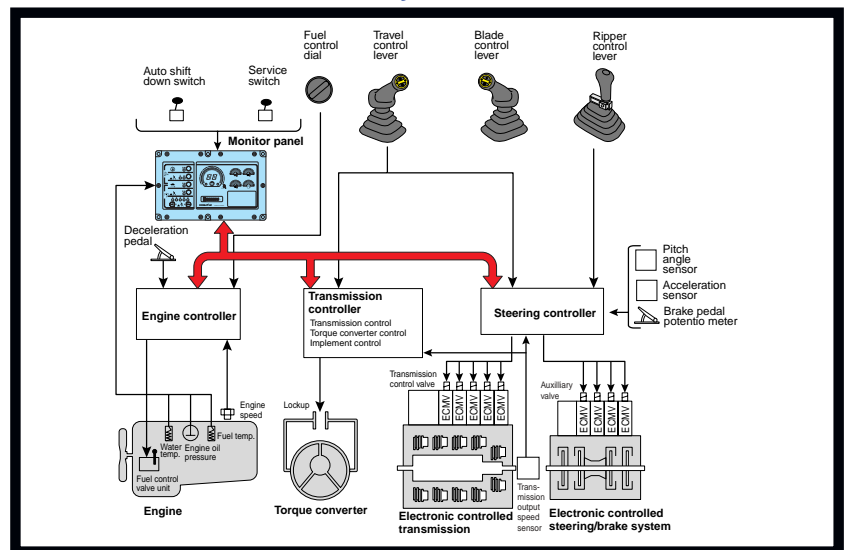
Height Adjustable Blade Control Armrest

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

Position Adjustable Ripper Control Lever

Ripper control lever is position adjustable, providing optimum operation posture for all operators during ripping operations facing front or watching ripper point.

Outline of Electronic Control System



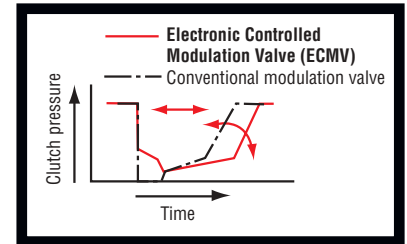
Power Train Electronic Control System

Smooth and Soft Operation

The D475A-5 Super Dozer 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 accurately calculate the control of the torque converter, transmission, steering clutches and brakes for optimized machine operation. The ease of operation and productivity of the new D475A-5 Super Dozer 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 shockless smooth clutch engagement, improved component reliability, improved component life and operator ride comfort.

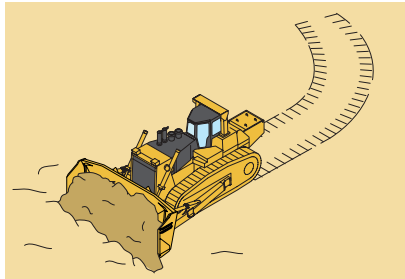


ECMV (Electronic Controlled Modulation Valve) Controlled Steering Clutches/Brakes

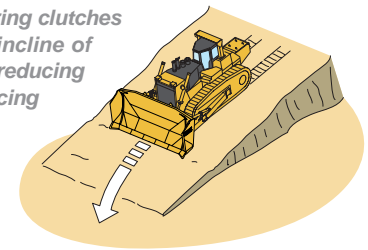
Sensors monitor machine operating conditions, and electronically control steering clutches and brakes depending on type of job, such as size of load during dozing, incline angle of slope or load, providing smooth and ease of operation by reducing counter-steering on downhill travel, etc.

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.

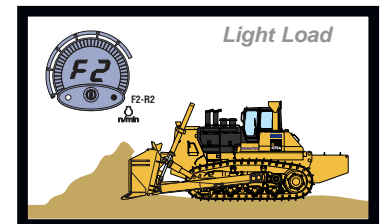
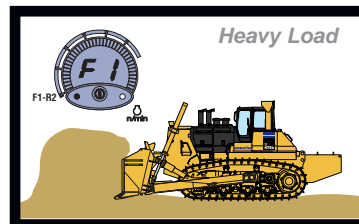
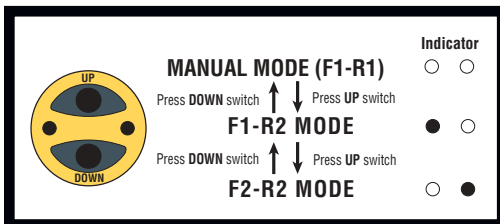


When dozing downhill, ECMV automatically controls steering clutches and brakes depending on incline of machine or degree of load, reducing counter-steering and producing smooth dozing operation.



Preset Travel Speed Selection Function

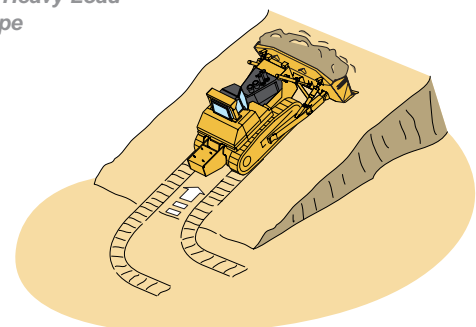
Preset travel speed selection function is standard equipment, enabling the operator to select fore and aft travel speed among three preset patterns such as F1-R2, F2-R2 and manual shift. When F1-R2 or F2-R2 preset pattern is selected, and travel control joystick moves to forward/rearward direction, the machine travels forward/reverse with F1-R2 or F2-R2 speed automatically. This function reduces gear shifting time during repeated round-trip operations.



Auto-shift Down Function

The 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 the cancel switch.)

Actuated on Heavy Load or Steep Slope



PRODUCTIVITY FEATURES

Engine

The Komatsu SDA12V140E engine delivers 641 kW **860 HP** at 2000 rpm. These features, together with the heavy machine weight, make the D475A-5 Super Dozer a superior crawler dozer in both dozing and ripping production. The engine is Tier 2 EPA, EU, and Japan emissions certified, and features direct fuel injection, turbocharger, and aftercooler to maximize fuel efficiency.

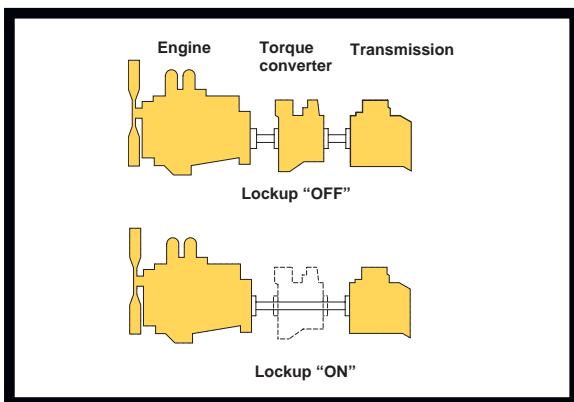
To minimize noise and vibration, the engine is mounted to the main frame with rubber cushions. For further convenience, fuel adjustment is unnecessary up to an altitude of 3000 m **9,840 ft**.

Hydrostatic Driven Engine 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

For greater efficiency during long pushes, the lockup mode allows the system to automatically engage the torque converter lockup clutch. Locking up the torque converter transmits all the engine power directly to the transmission, increasing ground speed thus achieving efficiencies equal to a direct drive. The result is efficient use of engine power, less fuel consumption, and faster cycle times.



K-Bogie Undercarriage System

New K-Bogie Undercarriage System combines 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 loading to undercarriage components is 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.

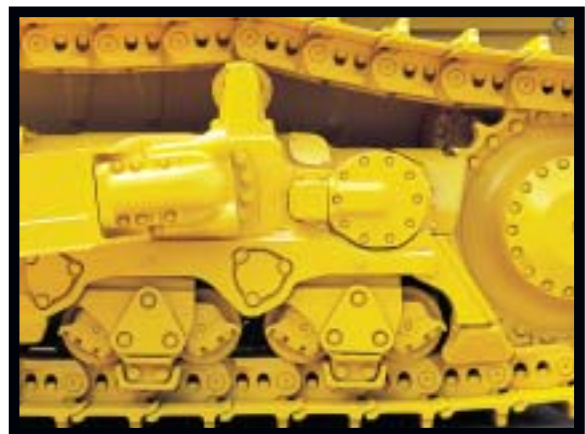
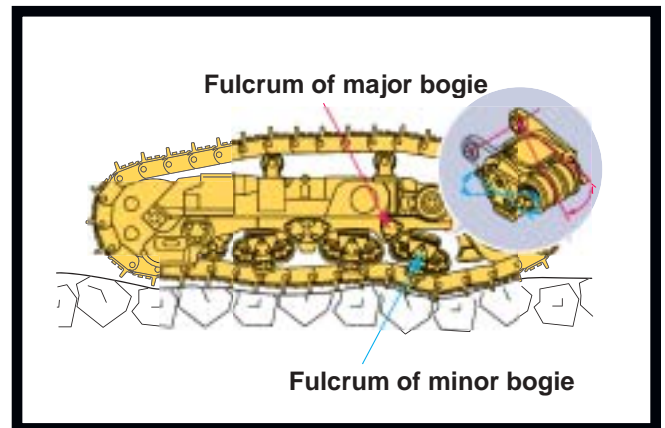


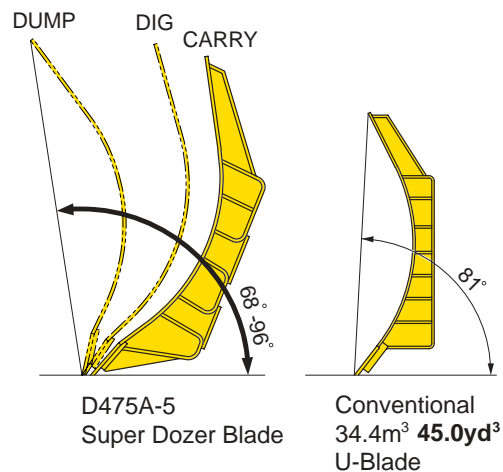


Photo may include optional equipment.

Super Dozer Blade

When it comes to crawler dozers, bigger really is better. Bigger dozers are more efficient—they push more material per miner, per hour, and per shift, for a lower overall cost per yard. Presenting the most efficient of them all—the Komatsu D475A-5 Super Dozer.

Thanks to an exclusive, proprietary blade design, the Super Dozer answers a fundamental challenge of dozer design—how to push more load without a proportionate increase in operating weight and horsepower. The D475's massive 45.0 m³ **58.9 yd³**. Super Dozer Blade gives you 15% more production than conventional U-blade in level dozing.



Unlike ordinary dozer blades, the Super Blade has a full range of movement. Three basic positions—dig, carry and dump—create previously unheard-of levels of efficiency. It also includes auto-dump and auto-reposition features.

WORKING ENVIRONMENT

Operator Comfort

Operator comfort is essential for safe and productive work. The D475A-5 Super Dozer provides the operator with 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.
- Improved cab sealing, air filters and increased internal air pressure combine to prevent dust from entering the cab.
- The floor mat and door sill are the same height to facilitate easy cleaning.
- The high quality cab interior is fully lined with sound absorbing material.



Comfortable Ride with New Cab Damper Mounting and K-Bogie Undercarriage

D475A-5's cab mount uses a newly designed cab damper mounting which further improves viscous damper and provides excellent shock and vibration absorption capacity with its long stroke. The cab damper mounting, combined with new K-bogie undercarriage, softens shocks and vibrations while traveling over adverse conditions that are impossible to absorb with conventional cab mounting methods. The soft spring cab damper isolates the cab from machine body, suppressing vibrations and providing a quiet, comfortable operating environment.



Low Sound Levels

The D475A-5 Super Dozer features a unique and unrivaled low noise design. This is accomplished by improvements not only in the cab but throughout the machine. The cab features an insulated double floor to reduce power train noise, thicker glass in the door and increased pressurization from improved window seals. Engineered baffles on the machine absorb and reduce the fan noise. Cool air inlet ducts are lined with sound absorbing material that direct the air to the hydraulic fan and a double insulated engine hood with additional sound absorbing material further reduce engine noise. These improvements help the D475A-5 Super Dozer achieve remarkably low sound levels.

- Operator noise: 70dB(A) (Engine at high idle, fan speed at 70%, and air conditioner OFF)
- Dynamic noise (outside): 110dB(A) (As per ISO 6395)

New Suspension Seat

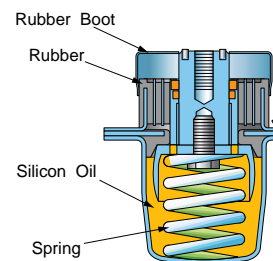
D475A-5 Super Dozer uses a newly designed suspension seat. Fore and aft sliding rails and suspension spring are newly designed, increasing strength and rigidity and reducing joint play. In addition to turning function for ripper operation, the seat is also tiltable to facilitate down hill dozing. Air suspension seat is also available.

Relocated Air Intake Ports of Air Conditioner

The air conditioner fresh air inlet is located above the fender to prevent dust from the undercarriage from entering the cab. The inside air recirculation inlet is located behind the operator's seat, away from the dirt and dust of the floor mat, to provide an increased cleaning/replacement interval.

Photos may include optional equipment.

Cab Damper Mounting



EASY MAINTENANCE

Preventative Maintenance

Preventative maintenance is the only way to ensure long service life from your equipment. That's why Komatsu designed the D475A-5 Super Dozer with conveniently located maintenance points to make necessary inspections and maintenance quick and easy.

Centralized Service Station

To ensure convenient maintenance, the transmission and torque converter oil filters are both arranged next to the power train oil level gauge.

Monitor with Self-Diagnostic Function

If the monitor finds abnormalities, corresponding warning lamp blinks and warning buzzer sounds. When abnormalities occur during operation, user



code and service meter are displayed alternately. When a high importance user code is displayed, a caution lamp blinks and warning buzzer sounds to prevent the development of serious problems.

Gull-wing Engine Side Covers

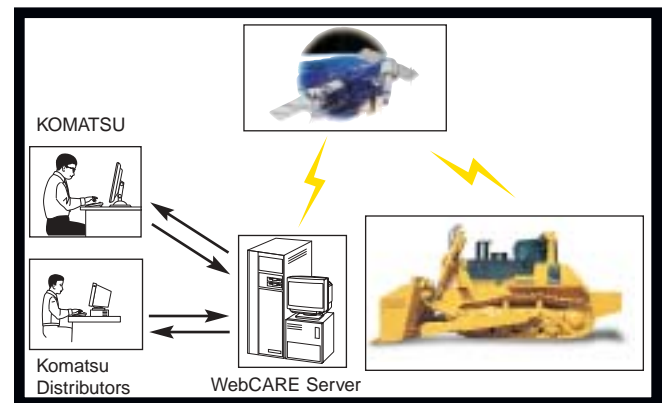
Dual insulated gull-wing engine side covers facilitate engine maintenance and filter replacement. Side covers are a thick one-piece structure with bolt-on latch to improve durability, repairability and facilitate easy opening.

Oil Pressure Checking Ports

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

VHMS (Vehicle Health Monitoring System)

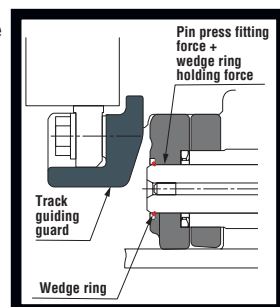
VHMS controller monitors the health conditions of major components and enables remote analysis of the machine and its operation. This process is supported by the Komatsu distributors, factory and design team. This contributes to reduced repair costs and to maintaining maximum availability through proactive service.



Low Maintenance Costs

Track Link with Wedge Ring

New D475A-5 Super Dozer track links feature reduced press-fit force and a wedge ring. Conventional track pins are retained only with a large 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.



Highly reliable electric circuit

The electrical circuit reliability is increased by utilizing dust, vibration and corrosion resistant "DT connectors". The reinforced electrical wiring harnesses include a circuit breaker and are covered with a heat-resistant material to increase mechanical strength, provide longer life, and protect the system from damage.

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 dismantled and mounted without oil spillage, making servicing work clean, smooth, and easy.

Maintenance-Free Disc Brakes

Wet disc brakes require less maintenance and provide excellent service life.

D475A-5SD SUPER DOZER

SPECIFICATIONS



ENGINE

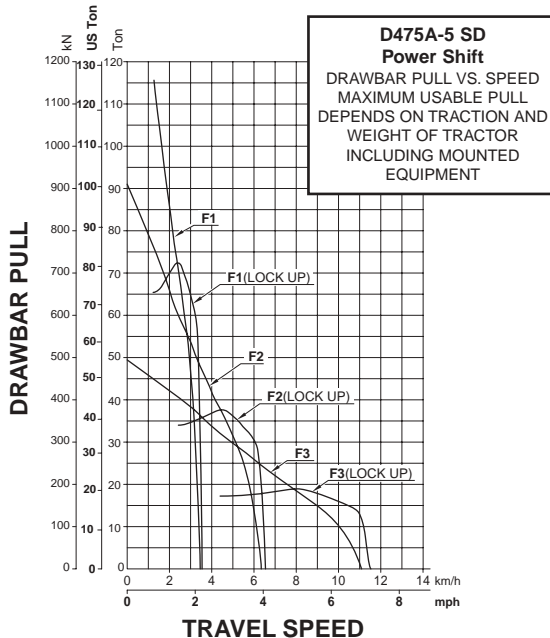
Model Komatsu SDA12V140E
 Type 4-stroke, water-cooled, direct injection
 Aspiration Turbocharged, aftercooled
 Number of cylinders 12
 Bore x stroke 140 mm x 165 mm **5.51" x 6.50"**
 Piston displacement 30.48 ltr **1,860 in³**
 Flywheel horsepower
 J1349 671 kW **860 HP** @ 2000rpm
 DIN 6270 641 kW **872 PS** @ 2000rpm
 Governor All-speed, electronic
 Lubrication system
 Method Gear pump, force lubrication
 Filter Full-flow and bypass combined



TORQFLOW TRANSMISSION

Komatsu 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.

Gear	Forward		Reverse	
1st	3.5 km/h	2.2 mph	4.7 km/h	2.9 mph
2nd	6.3 km/h	3.9 mph	8.4 km/h	5.2 mph
3rd	10.9 km/h	6.8 mph	14.3 km/h	8.9 mph



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 teeth are bolt-on for easy replacement.



STEERING SYSTEM

PCCS lever, joystick-controlled, wet multiple-disc steering clutches are spring-loaded and hydraulically released. Wet multiple-disc steering brakes are spring-actuated, hydraulically released, and require no adjustment. Steering clutches and brakes are interconnected for easy, responsive steering.

Minimum turning radius 4.6 m **15'1"**



UNDERCARRIAGE

Suspension Oscillating equalizer bar and pivot shaft
 Track roller frame Cylindrical, high-tensile-strength steel construction
 Rollers and idlers Lubricated track rollers

K-Bogie Undercarriage

Lubricated track rollers are resiliently mounted to the track frame with a bogie suspension system whose oscillating motion is cushioned by rubber pads.

Extreme Service Track Shoes

Lubricated tracks. Unique seals prevent entry of foreign abrasives into pin to bushing clearances to provide extended service life. Track tension is easily adjusted with grease gun.

Number of shoes (each side) 40

Grouser height:

 Single grouser 105 mm **4.1"**

Shoe width (standard) 810 mm **32"**

Ground contact area 70713 cm² **10,960 in²**

Ground pressure (Tractor) 111 kPa 1.13 kg/cm² **16.1 psi**

Number of track rollers 7

Number of carrier rollers 2

Extreme service shoes	Additional weight	Ground contact area	Tractor ground pressure
910 mm 36"	1800 kg 3,970 lb	79443 cm ² 12,314 in²	101 kPa 1.03 kg/cm ² 14.7 psi



COOLANT AND LUBRICANT CAPACITY (REFILL)

Fuel tank 1670 ltr **441 U.S. gal**

Coolant 275 ltr **72.6 U.S. gal**

Engine 121 ltr **32.0 U.S. gal**

Torque converter, transmission,

 bevel gear, and steering system 210 ltr **55.5 U.S. gal**

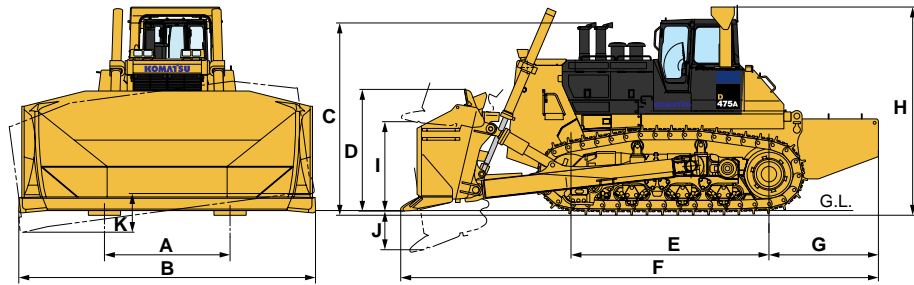
Final drive (each side) 75 ltr **19.8 U.S. gal**



DIMENSIONS

SUPER DOZER WITH COUNTERWEIGHT

A	2770 mm	9'1"
B	6465 mm	21'3"
C	4240 mm	13'11"
D	3220 mm	10'7"
E	4365 mm	14'4"
F	10525 mm	34'6"
G	2405 mm	7'11"
H	4590 mm	15'1"
I	1960 mm	6'5"
J	860 mm	2'10"
K	900 mm	2'11"



Ground Clearance: 655 mm 2'2"



OPERATING WEIGHT

Tractor weight 79980 kg **176,320 lb**
Including rated capacity of lubricant, coolant, full fuel tank, steel cab, ROPS, operator, and standard equipment.

Operating weight 108080 kg **238,270 lb**
Including strengthened Super dozer, counterweight, steel cab, ROPS, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank.

Ground pressure 150 kPa 1.53 kg/cm² **21.8 psi**



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 542 ltr/min **143 U.S. gal/min** at rated engine rpm.

Relief valve setting 27.5 MPa 280 kg/cm² **3,980 psi**

Control valves:
Spool control valves for Super dozer
Positions: Blade lift Raise, hold, lower, and float
Blade tilt Right, hold, and left
Blade pitch
(digging angle) Increase, hold, and decrease

Hydraulic cylinders Double-acting, piston

	Number of cylinders	Bore
Blade lift	2	180 mm 7.09"
Blade tilt and pitch	2	250 mm 9.84"

Hydraulic oil capacity (additional volume):
Super dozer 180 ltr **48 U.S. gal**
Ripper equipment (additional volume):
Giant ripper 130 ltr **34 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	
Super dozer	8980 mm 29'6"	45.0 m ³ 58.9 yd³	6465 mm x 3220 mm 21'3" x 10'7"	1960 mm 6'5"	860 mm 2'10"	900 mm 2'11"	21700 kg 47,840 lb	150 kPa 1.53 kg/cm ² 21.8 psi

*Ground pressure shows tractor with Super Dozer blade, cab, ROPS, counterweight, operator, and standard equipment.



STANDARD EQUIPMENT

- Air conditioner with heater and defroster
- Alternator, 100 A/24 V
- Auto-priming system
- Back-up alarm
- Batteries, 200 Ah/4 x 12 V
- Blower fan
- Decelerator pedal
- Dry-type air cleaner with dust evacuator and dust indicator
- Engine prelubrication system
- Final drive case wear guard
- Heavy duty wiring harness
- Hinged underguard with front pull hook
- Hydraulic track adjusters

- Lighting system (including four front and two rear lights)
- Lockup torque converter
- Mirror
- Mirror, rearview
- Muffler with rain cap
- Oil-suspension seat
- Perforated front mask
- Radiator reserve tank
- Radio, AM/FM, cassette
- ROPS brackets
- Seat belt, 76 mm 3" retractable
- Segmented sprockets
- Seven-roller track frames

- Shoes, 810 mm 32" extreme service, single-grouser
- Starting motors, 2 x 7.5 kW/24 V
- Steel cab
- Steering control
- Sun visor
- TORQFLOW transmission
- Track roller guards
- VHMS (with orbcomm)
- Warning horn
- Water separator
- Wet steering clutches



ROPS*:

Weight 940 kg **2,070 lb**

Dimension:

Width 1940 mm **6'4"**

*Meets ISO 3471, SAE J1040 APR88, ROPS standards.

Steel cab**:

Weight 455 kg **1,000 lb**

Dimension:

Length 1790 mm **5'10"**

Width 1455 mm **4'9"**

Height from compartment

floor to ceiling 1530 mm **5'0"**

**Meets ISO 3449 FOPS standards.



OPTIONAL EQUIPMENT

- Additional cab heater
- Air-suspension seat
- Alternator, 150 A/24V
- Battery isolator
- Coal dozer

- Counterweight
- Double wiper
- Fast fuel fill
- Head rest
- Light for ripper

- Push plate
- Safety glass (MSHA)
- Shoes: —**910 mm 36"**
- Spill guards



Counterweight:

Weight **6400 kg 14,110 lb**



Variable giant ripper:

Variable, parallelogram single-shank ripper ideal for ripping up tough material. Ripping angle is variable. Ripping depth is adjustable in four stages by a hydraulically controlled pin puller.

Weight (including hydraulic control unit) **7300 kg 16,090 lb**

Beam length **1477 mm 4'10"**

Maximum lift above ground . . . **1140 mm 3'9"**

Maximum digging depth . . . **1800 mm 5'11"**

Note: Available only for machine with **810 mm 32"** shoes.



440 N. Fairway Dr.
P.O. Box 8112
Vernon Hills, IL 60061