

KOMATSU®

D375A-5

NET HORSEPOWER

391 kW 525 HP

OPERATING WEIGHT

66985 kg 147,680 lb



D
375A



Photo may include optional equipment.

CRAWLER DOZER

D375A-5 Crawler Dozer

WALK-AROUND

GALEO

Based upon the expertise, technology and success which Komatsu has accumulated over 80 years, the new brand was born to provide customers all over the world a fresh image of the innovative technology and great value of Komatsu equipment. **The new brand name is GALEO.** High productivity, environment-friendly, safety and benefiting from cutting-edge technology, **GALEO** will contribute to our environment in the 21st century.

Genuine Answers for Land and Environment Optimization

Extra-low Machine Profile

provides excellent machine balance and low center of gravity.

Preventative Maintenance

- Centralized Service Station
 - Enclosed Hydraulic Piping
 - Modular Power Train Design
 - Oil Pressure Checking Ports
- See page 9.

Simple hull frame

and monocoque track frame with pivot shaft for greater reliability.

Large Blade Capacities:

18.5 m³ 24.2 yd³ (Semi-U dozer)
and **22.0 m³ 28.8 yd³** (U dozer)

The **Dual Tilt Dozer**

(option) increases productivity while reducing operator effort. See page 8.

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.



Automatic lockup **torque converter** saves fuel and increases speed and power transmission efficiency on long pushes. See page 7.

New Track Link Design

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

D375A-5

CRAWLER DOZER

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
- Pressurized cab (optional)
- Adjustable left armrest
- Travel control console integrated with operator seat

391 kW 525 HP turbocharged, aftercooled engine provides plenty of power.

NET HORSEPOWER
391 kW 525 HP @ 1800 rpm

OPERATING WEIGHT
66985 kg 147,680 lb

BLADE CAPACITY
Semi-U: 18.5 m³ 24.2 yd³
Full-U: 22.0 m³ 28.8 yd³



ECMV (Electronic Controlled Modulation Valve) Controlled Steering Clutch/Brake System

facilitates steering operation.
See page 5.

Rippers (option):

- Variable giant
 - Multi-shank
- See page 8.

K-Bogie Undercarriage System

improves traction, component durability, and operator comfort.
See page 7.

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

Track shoe slip control system (option)
reduces operator fatigue. See page 8.

Photo may include optional equipment.

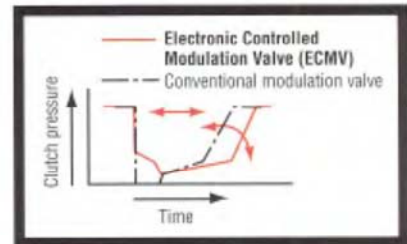
Power Train Electronic Control System

Smooth and Soft Operation

D375A-5 uses a newly designed power train electronic control system. The controller registers the amount of operator control (movements of lever and operation of switches) and machine condition signals from each sensor, and calculates to accurately control torque converter, transmission, steering clutches and brakes for optimized machine operation. The ease of operation and productivity of the new D375A-5 is greatly improved by numerous new functions.

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, expansion of component life and operator riding comfort.

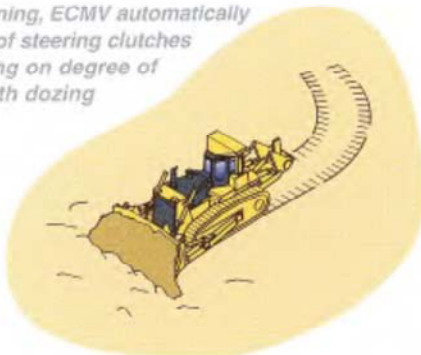


ECMV (Electronic Controlled Modulation Valve) Controlled Steering Clutches/Brakes

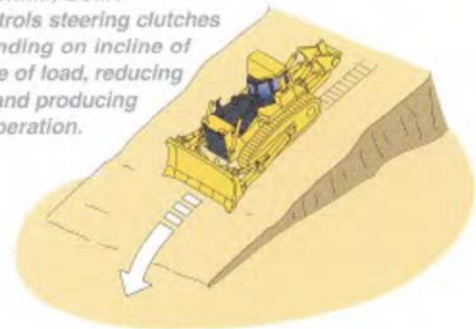
Sensors monitor machine operating conditions, and electronically control steering clutches and brakes depending on type of job, such as size of load during dozing, incline angle of slope or load, providing smooth and ease of operation by reducing counter-steering on downhill travel, etc.

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.

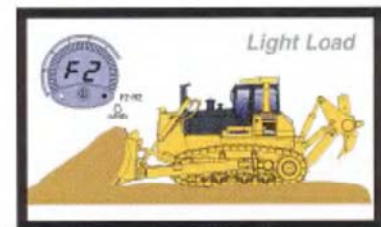


When dozing downhill, ECMV automatically controls steering clutches and brakes depending on incline of machine or degree of load, reducing counter-steering and producing smooth dozing operation.



Preset Travel Speed Selection Function

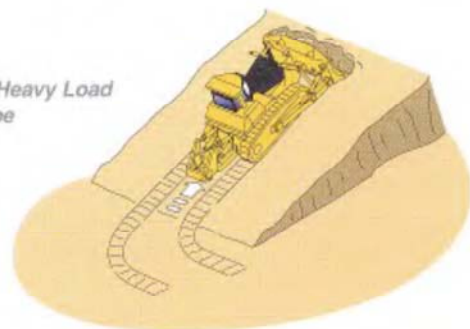
Preset travel speed selection function is standard equipment, enabling the operator to select fore and aft travel speed among three preset patterns such as F1-R2, F2-R2 and manual shift. When F1-R2 or F2-R2 preset pattern is selected, and travel control joystick moves to forward/rearward direction, the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



Auto-shift Down Function

Controller monitors engine speed, travel gear, and travel speed. When load is applied and machine travel speed is reduced, the controller automatically shifts down to optimum gear speed to provide high fuel efficiency. This function provides comfortable operation without manual downshift and high productivity. (This function can be cancelled with cancel switch.)

Actuated on Heavy Load or Steep Slope



PRODUCTIVITY FEATURES

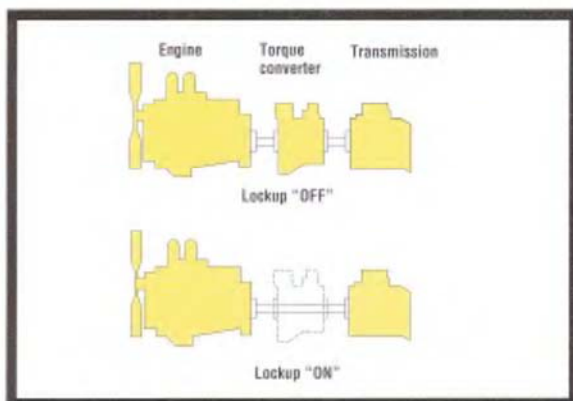
Engine

The Komatsu SA6D170E-3 engine delivers **391 kW** 525 HP at 1800 rpm. The fuel-efficient Komatsu engine, together with the heavy machine weight, make the D375A-5 a superior crawler dozer in both ripping and dozing production. The engine is designed to surpass EPA/CARB Tier II, EU and Japan regulations, and features direct fuel injection, a turbocharger, and an aftercooler to maximize fuel efficiency.

To minimize noise and vibration, the engine is mounted to the main frame with rubber cushions. For further convenience, no derating is required up to **2300 m** 7,550 ft altitude. Beyond **2300 m** 7,550 ft auto derating occurs.

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

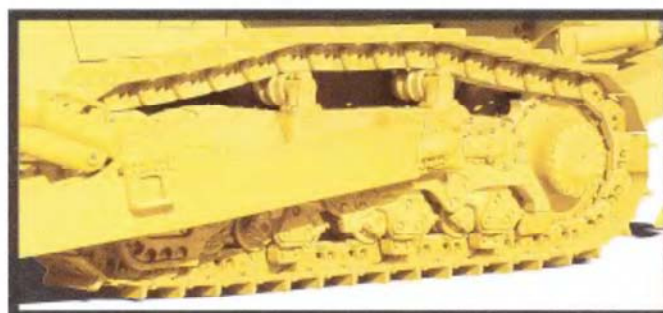
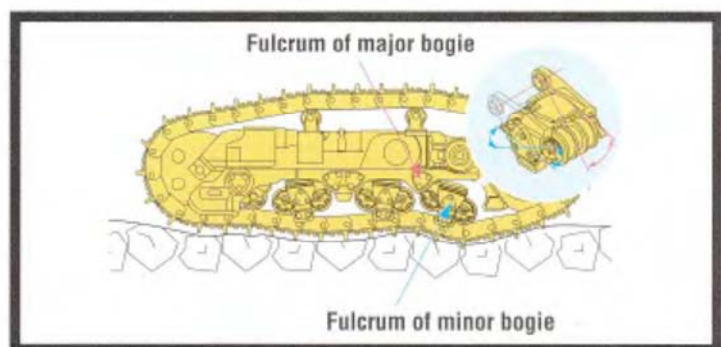
New K-Bogie Undercarriage System combines prior advantages with new additional features.

Current features:

- Effective length of track on ground is consistent. Shoe slippage is minimized, resulting in higher traction.
- 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 component durability 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 **18.5 m³** 24.2 yd³ (Semi-U dozer) and **22.0 m³** 28.8 yd³ (U dozer) yield outstanding production. High-tensile-strength steel comprising the front and sides of the blade increases 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, hauling, and dumping 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 up 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. 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.



WORKING ENVIRONMENT

Operator Comfort

Operator comfort is essential for safe and productive work. The D375A-5 provides the operator with a quiet, comfortable environment where he 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.
- 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

D375A-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 ripped ground 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.

New Suspension Seat

D375A-5 uses a newly designed suspension seat. Fore and aft sliding rails and suspension spring are newly designed, increasing strength and rigidity and reducing play of joints.

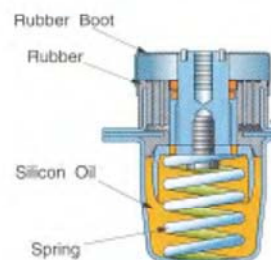
New seat provides excellent support and riding comfort. Fore and aft sliding amount is designed to fit all operators.

Fresh Air Intake from Rear of Engine Hood

The air conditioner air intake port is now located at the rear of the engine hood where there is minimal dust. As a result, the air inside the cab is always clean. Cleaning interval of the filter is greatly extended, and use of a new structure filter element facilitates cleaning and replacement.



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 D375A-5 with conveniently located maintenance points to make necessary inspections and maintenance quick and easy.

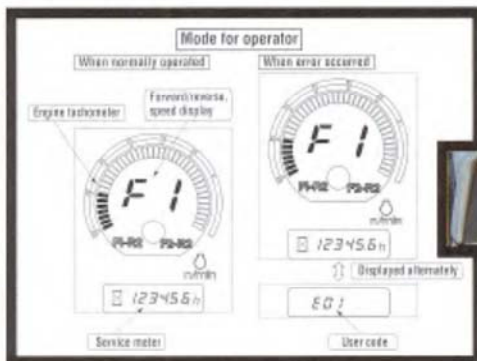
Centralized Service Station

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

Starting switch turned ON, the monitor displays P on the upper part of the display, service meter on the lower part of the display and Check-before-starting and caution items appear on the right part of the liquid crystal panel. 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 display during operation. When error occurs 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.



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

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. Solid engine hood prevents dust and rain from entering and keeps the engine clean.

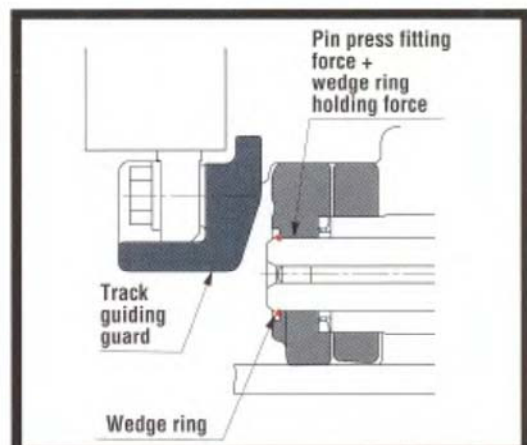
Gull-wing Engine Side Covers

Gull-wing engine side covers facilitate engine maintenance and replacement of each filter. Side covers are a thick one-piece structure with bolt-on latch to improve durability and reparability.

Low Maintenance Costs

Track Link with Wedge Ring

New D375A-5 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.



SPECIFICATIONS



ENGINE

Model Komatsu SA6D170E-3
 Type 4-stroke, water-cooled, direct injection
 Aspiration Turbocharged, aftercooled
 Number of cylinders 6
 Bore x stroke 170 mm x 170 mm 6.69" x 6.69"
 Piston displacement 23.15 ltr 1,413 in³
 Flywheel horsepower
 SAE J1349 391 kW 525 HP @ 1800 rpm
 DIN 6270 391 kW 532 PS @ 1800 rpm
 Governor All-speed, electronic
 Lubrication system
 Method Gear pump, force lubrication
 Filter Full-flow

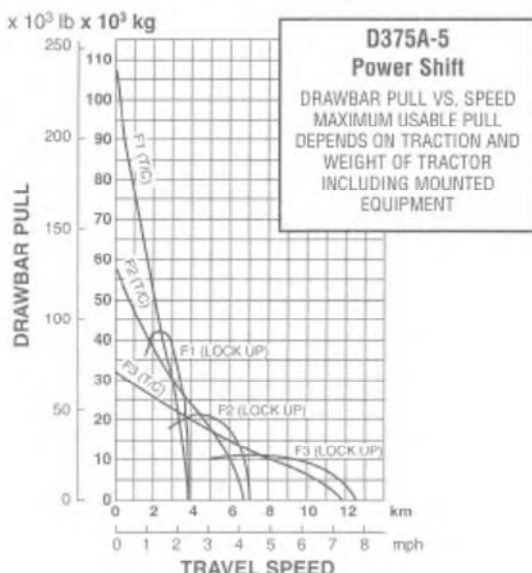
No derating required up to 2300 m 7,550 ft altitude. Beyond 2300 m 7,550 ft auto derating occurs at 1% per 100 m 330 ft depending on application.



TORQFLOW TRANSMISSION

Komatsu TORQFLOW transmission consists of a water-cooled, 3-element, 1-stage, 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	3.8 km/h	2.4 mph	5.1 km/h	3.2 mph
2nd	6.8 km/h	4.2 mph	9.2 km/h	5.7 mph
3rd	11.8 km/h	7.3 mph	15.8 km/h	9.8 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 rims 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, pedal/lever controlled steering brakes are spring-actuated hydraulically released and require no adjustment. Steering clutches and brakes are interconnected for easy, responsive steering.

Minimum turning radius 4.2 m 13'9"



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 93 mm 3.7"

Shoe width (standard) 610 mm 24"

Ground contact area 46850 cm² 7,262 in²

Ground pressure (bulldozer) 140 kPa 1.43 kg/cm² 20.3 psi

Number of track rollers 7

Number of carrier rollers 2

Extreme service shoes	Additional weight	Ground contact area	Ground pressure
710 mm 28"	660 kg 1,455 lb	54530 cm ² 8,452 in ²	123 kPa 1.25 kgf/cm ² 17.8 psi
810 mm 32"	1330 kg 2,932 lb	62210 cm ² 9,643 in ²	108 kPa 1.10 kgf/cm ² 15.6 psi



COOLANT AND LUBRICANT CAPACITY (REFILL)

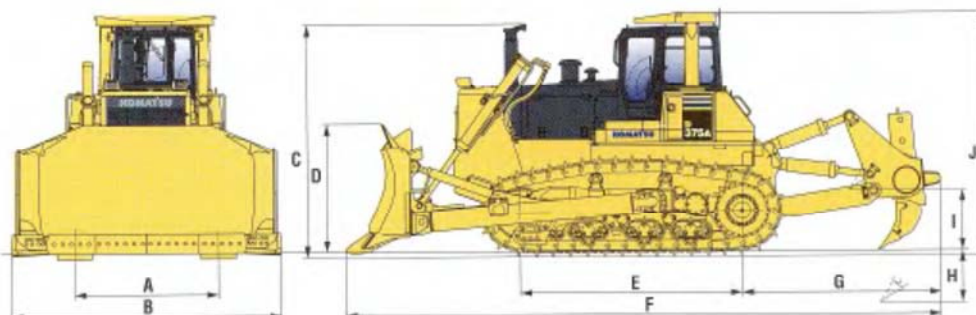
Fuel tank 1050 ltr 277 U.S. gal
 Coolant 165 ltr 43.6 U.S. gal
 Engine 55.5 ltr 14.7 U.S. gal
 Torque converter, transmission,
 bevel gear, and steering system 150 ltr 39.6 U.S. gal
 Final drive (each side) 65 ltr 17.1 U.S. gal



DIMENSIONS

SEMI-U DOZER WITH GIANT RIPPER

A	2500 mm	8'2"
B	4695 mm	15'5"
C	4035 mm	13'3"
D	2265 mm	7'5"
E	3840 mm	12'7"
F	10330 mm	33'11"
G	3450 mm	11'4"
H	1435 mm	4'8"
I	1060 mm	3'6"
J	4230 mm	13'11"



Ground Clearance: 610 mm 2'0"



OPERATING WEIGHT

Tractor weight **49800 kg** 109,790 lb
Including rated capacity of lubricant, coolant, full fuel tank,
operator, and standard equipment.

Operating weight **66985 kg** 147,680 lb
Including Semi-U tilt dozer, giant ripper, cab,
ROPS, operator, standard equipment, rated capacity of
lubricant, coolant, and full fuel tank.

Ground pressure **140 kPa 1.43 kg/cm²** 20.3 psi



HYDRAULIC SYSTEM

Hydraulic control unit:

- Maximum flow **405 ltr/min** 107 U.S. gal/min
- Relief valve setting **20.6 MPa 210 kg/cm²** 2,990 psi
- All-spool control valves are externally mounted on the hydraulic tank.
- Hydraulic gear pump.

Control valves:

- Two control valves for semi-U tilt dozer and U dozer
Positions: Blade lift Raise, hold, lower, and float
Blade tilt Right, hold, and left
- Additional control valve required for ripper
Positions: Ripper lift Raise, hold, and lower
Ripper tilt
(digging angle). Increase, hold, and decrease

Hydraulic cylinders Double-acting, piston

	Number of cylinders	Bore
Blade lift	2	150 mm 5.9"
Blade tilt	1	225 mm 8.9"
Ripper lift	2	225 mm 8.9"
Ripper tilt	2	200 mm 7.9"

Hydraulic oil capacity (refill):

Semi-U dozer or U dozer	120 ltr	31.7 U.S. gal
Ripper equipment (additional volume):		
Giant ripper	70 ltr	18.5 U.S. gal
Multi-shank ripper (variable)	70 ltr	18.5 U.S. gal
Multi-shank ripper (fixed)	44 ltr	11.6 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	Hydraulic oil	
Semi-U dozer	7635 mm 25'1"	18.5 m ³ 24.2 yd ³	4695 mm x 2265 mm 15'5" x 7'5"	1660 mm 5'5"	715 mm 2'4"	1065 mm 3'6"	10490 kg 23,130 lb	50 kg 110 lb	140 kPa 1.43 kg/cm ² 20.3 psi
U dozer	8000 mm 26'3"	22.0 m ³ 28.8 yd ³	5140 mm x 2265 mm 16'10" x 7'5"	1660 mm 5'5"	715 mm 2'4"	1165 mm 3'10"	11740 kg 25,880 lb	50 kg 110 lb	143 kPa 1.46 kg/cm ² 20.8 psi
Dual tilt Semi-U dozer	7635 mm 25'1"	18.5 m ³ 24.2 yd ³	4695 mm x 2265 mm 15'5" x 7'5"	1660 mm 5'5"	715 mm 2'4"	1150 mm 3'9"	10860 kg 23,940 lb	60 kg 130 lb	141 kPa 1.44 kg/cm ² 20.5 psi
Dual tilt U dozer	8000 mm 26'3"	22.0 m ³ 28.8 yd ³	5140 mm x 2265 mm 16'10" x 7'5"	1660 mm 5'5"	715 mm 2'4"	1260 mm 4'2"	12110 kg 26,700 lb	60 kg 130 lb	143 kPa 1.46 kg/cm ² 20.8 psi

*Ground pressure shows tractor with cab, ROPS, giant ripper, standard equipment and applicable blade.



STANDARD EQUIPMENT

- Alternator, **60 ampere/24 V**
- Back-up alarm
- Batteries, **170 Ah/2 x 12 V**
- Blower fan
- Decelerator pedal
- Dry-type air cleaner with dust evacuator and dust indicator
- Fast fuel fill
- Final drive case wear guard
- Hinged front mask

- Hinged underguard with front pull hook
- Hydraulic track adjusters
- Lighting system (including four front and two rear lights)
- Lockup torque converter
- Muffler with rain cap
- Radiator reserve tank
- ROPS brackets
- Segmented sprockets

- Seven-roller track frames
- Shoes, **610 mm 24"** extreme service, single-grouser
- Suspension seat, chemical leather
- Palm lever steering control
- Starting motors, **2 x 7.5 kW/24 V**
- TORQFLOW transmissions
- Track roller guards
- Warning horn
- Wet steering clutches



OPTIONAL EQUIPMENT

- Air conditioner with heater and defroster
- Alternator, **75 ampere/24 V**
- Alternator, **90 ampere/24 V**
- Batteries, **200 Ah/2 x 12 V**
- Car stereo
- Counterweight
- Cushion dozer
- Cushion push block
- Dual tilt dozer
- Fan, reversible
- Fire extinguisher
- Hitch
- Hydraulics for ripper

- Light for ripper point
- Mirror, rearview
- Panel cover
- Perforated side covers
 - ø10 ø0.39"** perforated holes
 - ø4 ø0.16"** perforated holes
- Perforated single radiator mask
- Pusher plate
- Radiator core protection grid
- Seat belt
- Shoes:
 - 710 mm 28"**
 - 810 mm 32"**

- Spill guard for Semi-U dozer
- Spill guard for U dozer
- Strengthened Semi-U blade
- Strengthened U blade
- Sun visor
- Suspension seat
 - Fabric seat
 - Fabric seat, high backrest
- Track shoe slip control system
- Vandalism protection kit

ROPS canopy*:

Weight **760 kg** 1,680 lb

Roof dimensions:

Length **1405 mm** 4'7"

Width **2035 mm** 6'8"

Height from

compartment floor **1867 mm** 6'2"

Additional ground

pressure ... 1 kPa **0.01 kgf/cm²** 0.14 psi

*Meets ISO 3471 and SAE J1040 APR88, ROPS standards, as well as ISO 3449 FOPS standard.

Steel cab:

Weight **415 kg** 910 lb

Dimensions:

Length **1790 mm** 5'10"

Width **1455 mm** 4'9"

Height from compartment,

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

Additional ground

pressure ... 1 kPa **0.01 kgf/cm²** 0.14 psi

Multi-shank ripper (optional):

Hydraulically controlled parallelogram ripper with three shanks. Ripping angle available, stepless adjustable.

Weight (including hydraulic

control unit) **6720 kg** 14,810 lb

Beam length **2854 mm** 9'4"

Maximum lift above ground ... **1050 mm** 3'5"

Maximum digging depth ... **1075 mm** 3'6"

Additional ground

pressure ... 14 kPa **0.14 kgf/cm²** 1.99 psi

Variable giant ripper (optional):

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

Weight (including hydraulic

control unit) **5470 kg** 12,060 lb

Beam length **1367 mm** 4'6"

Maximum lift above ground **1060 mm** 3'6"

Maximum digging depth **1435 mm** 4'8"

Additional ground

pressure 12 kPa **0.12 kgf/cm²** 1.71 psi

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