

KOMATSU®

D375A-5

With Tier 3 Engine

HORSEPOWER

Gross: 451 kW **605 HP** @ 1800 rpm

Net: 391 kW **525 HP** @ 1800 rpm

OPERATING WEIGHT

69560 kg **153,350 lb**

D
375

CRAWLER DOZER



Photos may include optional equipment

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.

Hydraulic driven radiator cooling fan controlled automatically, reduces fuel consumption and operating noise levels.

SAA6D170E-5 turbocharged after-cooled diesel engine provides an output of 391 kW **525 HP** with excellent productivity. This machine is EPA Tier 3 and EU stage 3A emissions certified.

Preventative maintenance

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

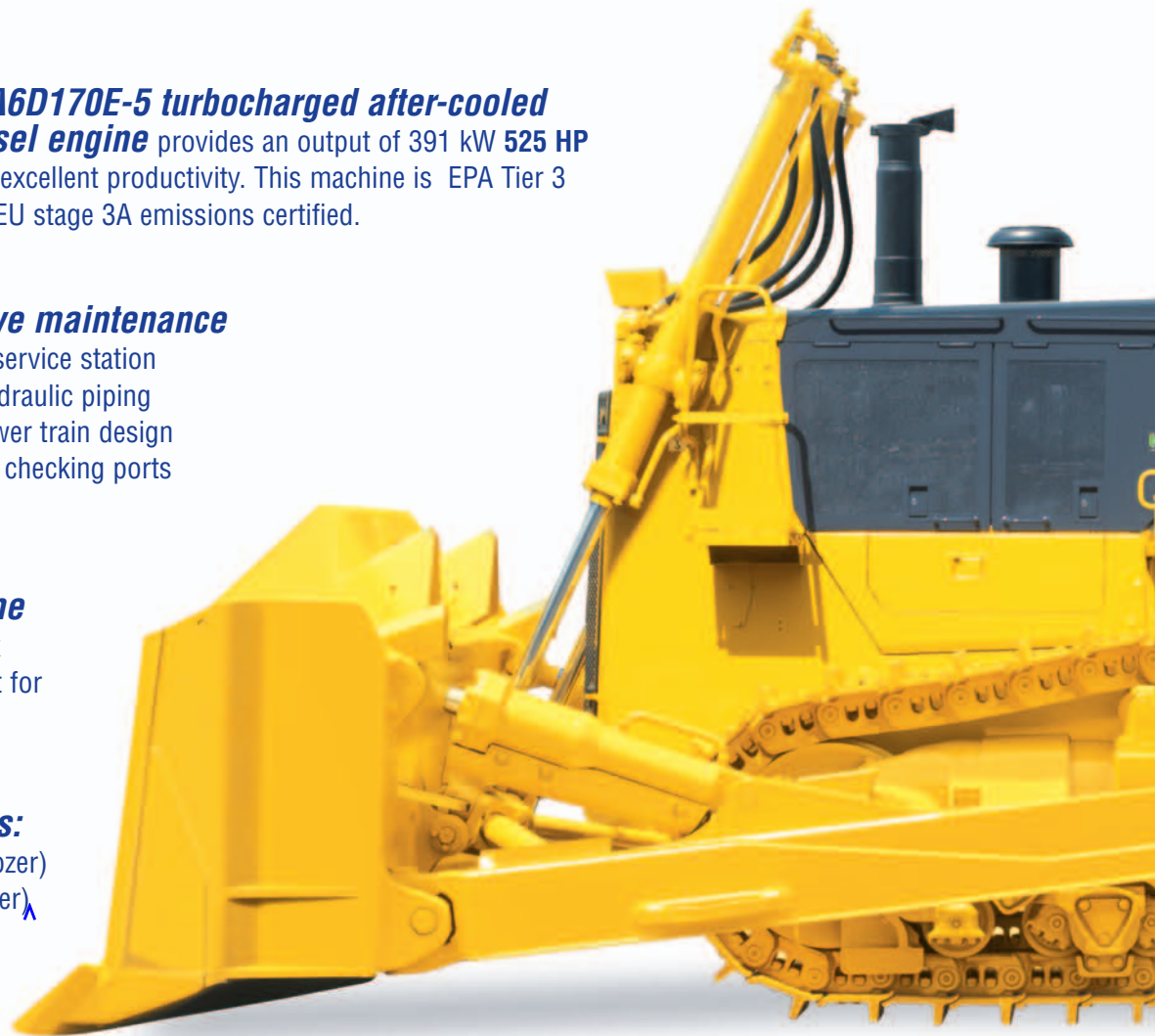
Simple hull frame

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*** increases productivity while reducing operator effort.



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

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

HORSEPOWER

Gross: 451 kW 605 HP @ 1800 rpm
 Net: 391 kW 525 HP @ 1800 rpm

OPERATING WEIGHT

69560 kg **153,350 lb**

BLADE CAPACITY

Semi-U: 18.5 m³ **24.2 yd³**
 Full-U: 22.0 m³ **28.8 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
- PCCS (Palm Command Control System) lever
- Pressurized cab
- Adjustable left armrest
- Travel control console integrated with operator seat

VHMS (Vehicle Health Monitoring System) with ORBCOMM provides efficient monitoring of machine conditions for maximum productivity.

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

ECMV (Electronic Controlled Modulation Valve) controlled steering clutch/brake system facilitates smooth and shockless steering operation.

Rippers (optional)

- Variable giant
- Multi-shank



Photo may include optional equipment.

Low-drive, long-track, eight roller undercarriage provides outstanding grading ability and stability.

Track shoe slip control system reduces operator fatigue.

K-Bogie undercarriage system improves traction, component durability, and operator comfort.



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

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.

Left-hand Joystick



Blade and Ripper Control Joystick



Fully Adjustable Air Suspension Seat and Travel Control Console

For improved rear visibility during the return 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 downhill dozing. The travel control console has adjustments fore and aft, and for height. With an independently adjustable armrest, every operator can adjust control positions to their individual preference, providing optimum operational posture for all operators.

Air Suspension Seat



Fuel Control Dial

Engine RPM is controlled by electric signals, providing ease of operation and 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 the travel 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 thumb).

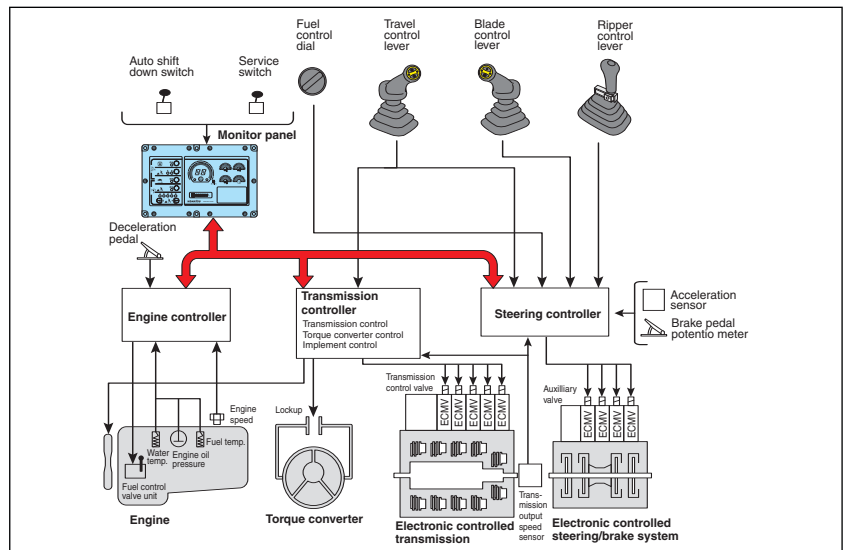
Height Adjustable Blade Control Armrest

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

Position Adjustable Ripper Control Lever

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

Outline of Electronic Control System



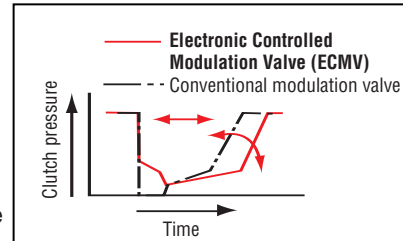
Power Train Electronic Control System

Smooth and Soft Operation

The D375A-5 utilizes a new 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, and steering clutches and brakes for optimized machine operation. The ease of operation and productivity of the new D375A-5 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, RPM and shifting pattern. This provides shockless, smooth clutch engagement, improved component reliability, improved component life and operator ride comfort.

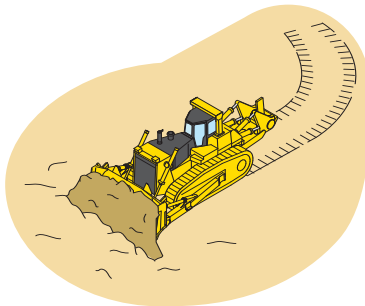


ECMV Controlled Steering Clutches/Brakes

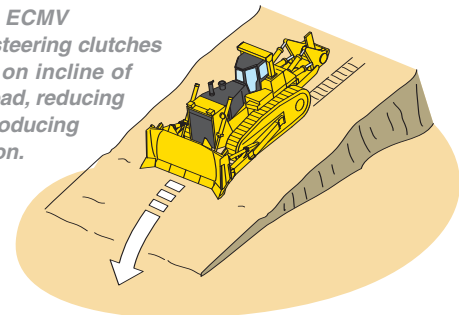
Sensors monitor machine operating conditions and electronically control steering clutches and brakes. Monitoring application parameters such as size of load during dozing, incline angle of slope, and load provides smooth and easy operation by reducing counter-steering on downhill travel, etc.

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.

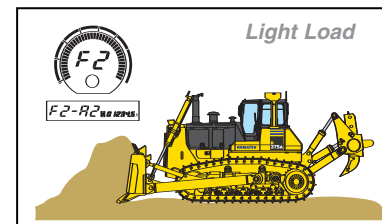
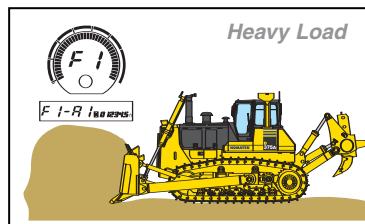
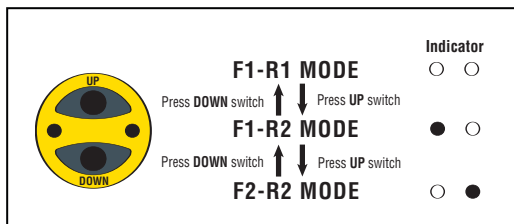


When dozing downhill, ECMV automatically controls steering clutches and brakes depending on incline of machine or degree of load, reducing counter-steering and producing smooth dozing operation.



Preset Travel Speed Selection Function

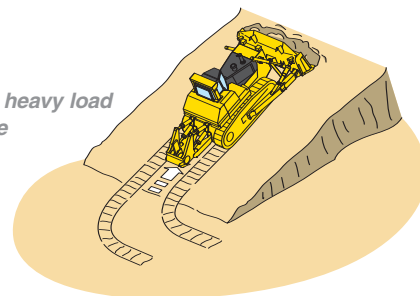
Preset travel speed selection function is standard equipment, enabling the operator to select fore and aft travel speed among three preset patterns such as F1-R2, F2-R2, and manual shift. When F1-R2 or F2-R2 preset pattern is selected, and travel control joystick moves to forward/rearward direction, 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-Downshift 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 with heavy load on steep slope



PRODUCTIVITY FEATURES



Komatsu's new "ecot3" engines are designed to deliver optimum performance under the toughest of conditions, while

meeting the latest environmental regulations. This engine is Tier 3 EPA, EU Stage 3A and Japan emissions certified; "ecot3" - ecology and economy combine with Komatsu technology to create a high performance engine without sacrificing power or productivity.

Engine

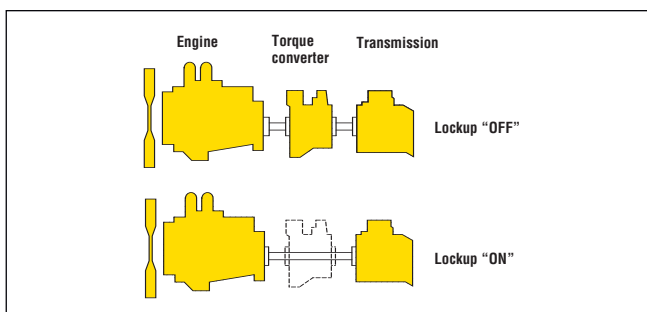
The Komatsu SAA6D170E-5 engine delivers 391 kW **525 HP** at 1800 rpm. The fuel-efficient Komatsu engine, together with the heavy machine weight, make the D375A-5 a superior crawler dozer in both ripping and dozing production. The engine is EPA Tier 3 and EU stage 3A emissions certified, and features direct fuel injection, turbocharger, air-to-air aftercooler and cooled EGR system to maximize fuel efficiency. To minimize noise and vibration, the engine is mounted to the main frame with rubber cushions.

Hydraulic Drive Radiator Cooling Fan

Fan rotation is automatically controlled depending on coolant and hydraulic oil temperature, saving fuel 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 and thus achieving efficiencies equal to a direct drive. The results of this efficient use of engine power are less fuel consumption and faster cycle times.



K-Bogie Undercarriage System

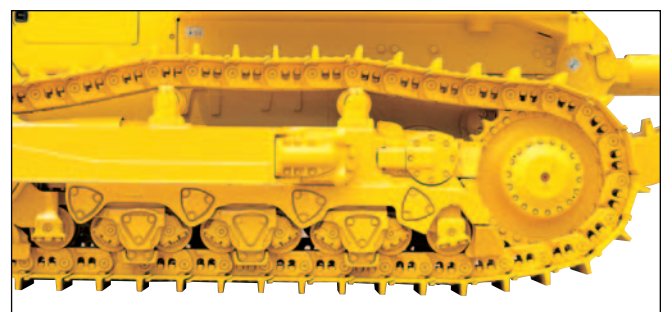
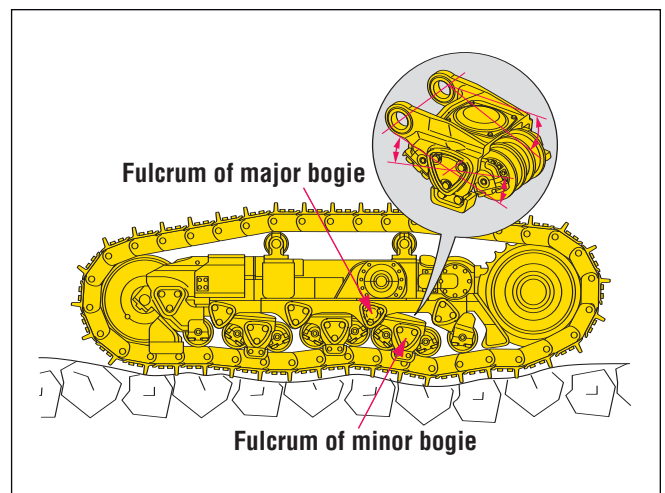
New K-Bogie Undercarriage System combines prior advantages with new additional features.

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



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 increase durability.

Dual Tilt Dozer

The dual tilt dozer increases productivity while reducing operator effort.

- Optimum blade cutting angle for all types of materials and grades can be selected on-the-go for increased load and production.
- Digging, 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.

Track Shoe Slip Control System



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.

Rippers (optional)

- 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 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.



WORKING ENVIRONMENT

Operator Comfort

Operator comfort is essential for safe and productive work. The D375A-5 provides 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.
- Air filters and a higher internal air pressure combine to prevent dust from entering the cab.



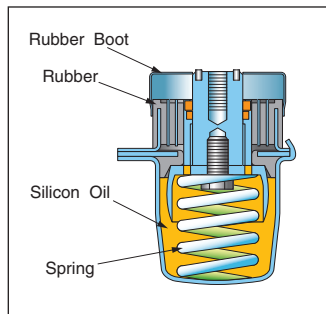
Fresh Air Intake from Rear of Engine Hood

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.



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

D375A-5's cab mount uses a new 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 the machine body, suppressing vibrations and providing a quiet, comfortable operating environment.



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 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, the corresponding warning lamp blinks and a 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 serious problems from developing.



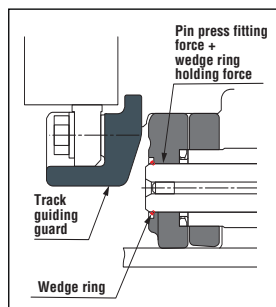
Gull-wing Engine Side Covers

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

Low Maintenance Costs

Track Link with Wedge Ring

New D375A-5 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. This leads to improved undercarriage life and reduced maintenance cost through reduced wear, greater pin reusability, and fewer maintenance man-hours.



Highly reliable electric circuit

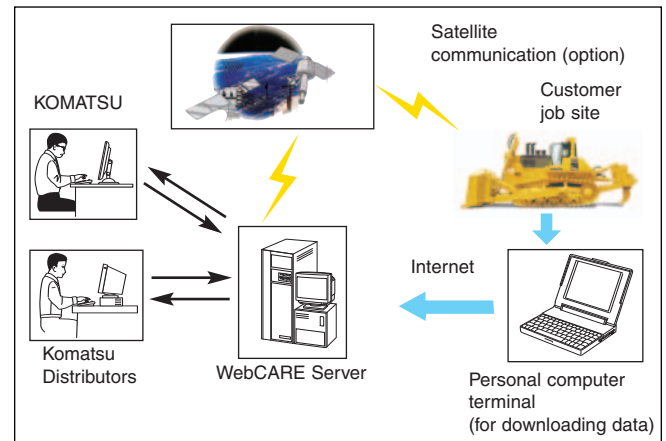
The electrical circuit reliability is increased by utilizing dust, vibration, and corrosion resistant "DT connectors". The reinforced electrical wiring harnesses include a circuit breaker and are covered with a heat-resistant material to increase mechanical strength, provide longer life, and protect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

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 contributes to reduced repair costs and to maintaining maximum availability as the result of proactive service. This process is fully supported by the Komatsu distributors, factory and design teams.



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 are adjustment-free and provide excellent service life.

D375A-5 CRAWLER DOZER

SPECIFICATIONS



ENGINE

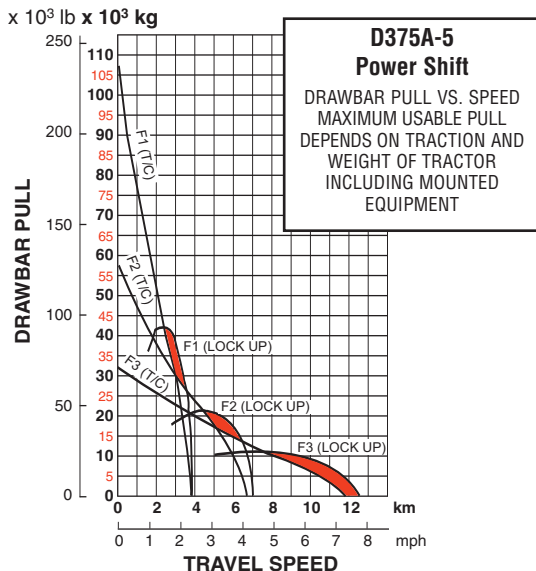
Model Komatsu SAA6D170E-5
 Type 4-cycle, water-cooled, direct injection
 Aspiration Turbocharged, air-to-air aftercooled, cooled EGR
 Number of cylinders 6
 Bore x stroke 170 mm x 170 mm **6.69" x 6.69"**
 Piston displacement 23.15 ltr **1,413 in³**
 Governor All-speed, electronic
 Horsepower
 SAE J1995 Gross 451 kW **605 HP**
 ISO 9249 / SAE J1349* Net 391 kW **525 HP**
 Rated rpm 1800 rpm
 Fan drive type Hydraulic
 Lubrication system
 Method Gear pump, force lubrication
 Filter Full-flow
 *Net horsepower at the maximum speed of
 radiator cooling fan 391 kW **525 HP**
 *Net horsepower of this machine is controlled to be constant regardless
 of the fan speed.



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 | |
|------|---------|-----|---------|-----|
| | km/h | mph | km/h | mph |
| 1st | 3.5 | 2.2 | 4.6 | 2.9 |
| 2nd | 6.8 | 4.2 | 9.2 | 5.7 |
| 3rd | 11.8 | 7.3 | 15.8 | 9.8 |



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) 41
 Grouser height:
 Single grouser 93 mm **3.7"**
 Shoe width (standard) 610 mm **24"**
 Ground contact area 48560 cm² **7,527 in²**
 Ground pressure 140 kPa 1.43 kg/cm² **20.3 psi**
 Number of track rollers 8
 Number of carrier rollers 2

| Extreme service shoes | Additional weight | Ground contact area | Ground pressure |
|-----------------------|---------------------|--|---|
| 710 mm 28" | 680 kg 1,500 lb | 56520 cm ² 8,760 in ² | 122 kPa 1.24 kgf/cm ² 17.6 psi |
| 810 mm 32" | 1360 kg 3,000 lb | 64480 cm ² 9,990 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 120 ltr **31.7 U.S. gal**
 Engine86 ltr **22.7 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**



FINAL DRIVES

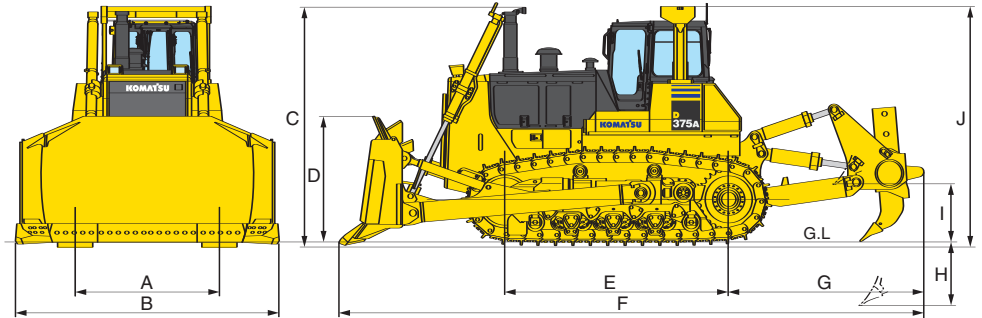
Double-reduction final drive of spur and planetary gear sets to increase tractive effort and reduce gear tooth stresses for long final drive life. Segmented sprocket teeth are bolt-on for easy replacement.



DIMENSIONS

SEMI-U DOZER WITH GIANT RIPPER

| | | |
|---|----------|-------|
| A | 2500 mm | 8'2" |
| B | 4695 mm | 15'5" |
| C | 4265 mm | 14' |
| D | 2265 mm | 7'5" |
| E | 3980 mm | 13'1" |
| F | 10410 mm | 34'2" |
| G | 3450 mm | 11'4" |
| H | 1370 mm | 4'6" |
| I | 1470 mm | 4'10" |
| J | 4285 mm | 14'1" |



Ground Clearance: 610 mm 2'0"



OPERATING WEIGHT

Tractor weight 51910 kg **114,440 lb**
Including rated capacity of lubricant, coolant, full fuel tank, operator, and standard equipment.

Operating weight. 69560 kg **153,350 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. 138 ltr **36.5 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 | |
| Strengthened Dual-tilt Semi-U dozer | 7635 mm 25'1" | 18.5 m ³ 24.2 yd³ | 4695 mm x 2265 mm 15'5" x 7'5" | 1660 mm 5'5" | 715 mm 2'4" | 1150 mm 3'9" | 11230 kg 24,760 lb | 60 kg 130 lb | 141 kPa 1.44 kgf/cm² 20.5 psi |
| Strengthened Dual-tilt U dozer | 8000 mm 26'3" | 22.0 m ³ 28.8 yd³ | 5140 mm x 2265 mm 16'10" x 7'5" | 1660 mm 5'5" | 715 mm 2'4" | 1260 mm 4'2" | 12740 kg 28,090 lb | 60 kg 130 lb | 144 kPa 1.47 kgf/cm² 20.9 psi |

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



STANDARD EQUIPMENT

- Air conditioner with heater and defroster
- Alternator, 90 ampere/24 V
- Back-up alarm
- Batteries, 2 x 12 V, 200 Ah
- Blower fan
- Car stereo
- Decelerator pedal
- Dry-type air cleaner with dust evacuator and dust indicator
- Dual tilt dozer
- Eight-roller track frames
- Final drive case wear guard
- Hydraulics for ripper
- Hinged front mask
- Hinged underguard with front pull hook
- Hydraulic track adjusters
- Light for ripper point
- Lockup torque converter
- Mirror, rear view
- Muffler with rain cap
- Palm lever steering control
- Perforated side covers
- Radiator reserve tank
- ROPS
- Segmented sprockets
- Seat, air suspension, fabric
- Seat belt, 78mm 3"
- Shoes, 610 mm 24" extreme service, single-grouser
- Starting motors, 2 x 7.5 kW/24 V
- Sun visor
- Suspension seat
- TORQFLOW transmission
- Track roller guards
- Track shoe slip control system
- VHMS or VHMS with ORBCOMM
- Vandalism protection kit
- Warning horn
- Wet steering clutches



OPTIONAL EQUIPMENT

- Counterweight
- Cushion push block
- Hitch
- Lighting system (including four front and two rear lights)
- Panel cover
- Pusher plate
- 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

ROPS*:

Weight 700 kg **1,540 lb**

Roof dimensions:

Width 1980 mm **6'6"**

Height from

compartment floor 1872 mm **6'2"**

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

Steel cab*:

Weight 570 kg **1,260 lb**

Dimensions:

Length 1875 mm **6'2"**

Width 1740 mm **5'9"**

Height from compartment,

floor to ceiling 1630 mm **5'4"**

*Meets ISO 3449 FOPS standard.

Multi-shank ripper:

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 . . 1140 mm **3'9"**

Maximum digging depth . . . 1020 mm **3'4"**

Variable giant ripper:

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 . . 1470 mm **4'10"**

Maximum digging depth 1370 mm **4'6"**

