

# KOMATSU®

## D39EX-22 D39PX-22

**NET HORSEPOWER**  
79 kW 105 HP @ 2200 rpm

**OPERATING WEIGHT**  
D39EX-22: **9040 kg** 19,930 lb  
D39PX-22: **9480 kg** 20,900 lb

**D**  
**39**

CRAWLER DOZER



Photo may include optional equipment.

# WALK-AROUND

## ***All-around visibility***

- Super-slant nose design
- Cab-forward design
- Integrated ROPS/FOPS

## ***Increased productivity***

- Highest HP in its class
- Electronically-controlled hydraulically-driven fan
- In-shoe final drive
- High capacity Pitch- Adjustable Power-Angle-Tilt dozer blade

## ***Easy operation/Increased operator comfort***

- Hydrostatic Transmission (HST) with electronic control
- Palm Command Control System (PCCS)
- Large and quiet pressurized cab (optional)
- New cab damper mounting system (for cab)

## ***Improved durability***

- Heavy-plate steel used throughout
- Modular design

## ***Easy maintenance***

- Electronic monitor panel with on-board diagnostics
- Rear-mount radiator with swing-up hydraulically-driven fan
- Ground-level daily service checks



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# See what you have

***Unrivalled blade visibility***

The D39EX/PX-22 incorporates Komatsu's **super-slant nose** design. Komatsu's innovative design provides excellent blade visibility for improved machine control and increased efficiency and productivity.

ve been missing!



Photo may include optional equipment.

# OPERATOR COMFORT



Photo may include optional equipment.

## HST with electronic control

The D39 is equipped with Komatsu-designed Hydrostatic Transmission (HST) that allows for Quick-Shift or variable speed selection. The HST consists of dual-path closed-circuits with two variable displacement piston pumps and two variable displacement travel motors. Hydrostatic steering eliminates steering clutches and brakes, providing smooth powerful turns. Fully electronic control provides full automatic shifting and enables smooth control. Engine speed is controlled using an electronic fuel control dial.

## Comfortable ride with cab damper mounting

The D39's cab mount uses a cab damper system that provides excellent shock and vibration absorption which conventional mounting systems are unable to match. The silicon oil filled cab damper mount helps to isolate the cab from the machine body, suppressing vibration and providing a quiet, comfortable operating environment.

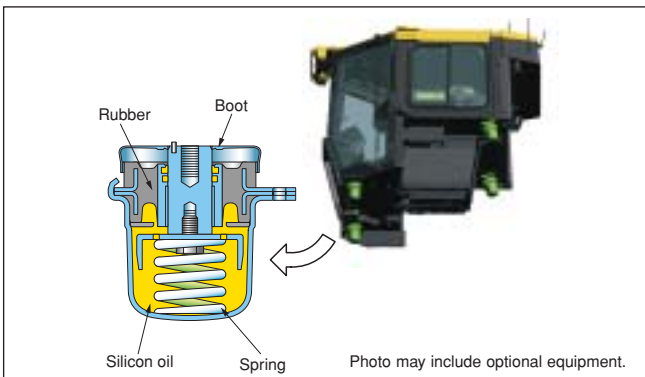


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## Palm command Proportional Pressure Control (PPC)

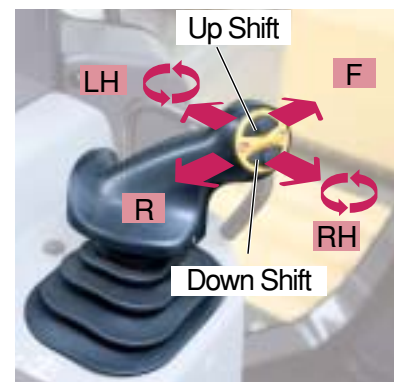
PPC-controlled palm command joystick provides blade control. Combined with the highly reliable Komatsu hydraulic system, precise control is the result.

## Closed-center Load Sensing System (CLSS) hydraulic system

With CLSS hydraulics, blade lever stroke is directly proportional to blade speed, regardless of the load and travel speed. This results in superb fine controllability.

## Palm Command Control System (PCCS)

The low-effort PCCS joystick controls all directional movements including machine travel speed as well as counter-rotation.



# DURABILITY FEATURES



## Heavy-duty undercarriage

Large link, large bushing diameter, and wider sprocket teeth extend undercarriage life.

## Protected travel motors and final drives

Travel motors and final drives are mounted within the track shoe width for protection from rocks and stumps, and for improving durability.



Motor cover

## Monocoque track frame

Komatsu's monocoque track frame design using thicker box section material and fewer welded components provides increased rigidity and strength.

## One-piece nose guard

Simplified high-rigidity structure with thicker plates reduces vibration and noise.

## Main frame

High-rigidity simple main frame structure combined with thick plates and steel castings provide increased reliability and durability.



## Modular design

One of the design goals behind the creation of the D39 was to manufacture a more durable machine. This was achieved by reducing component complexity and using a strong modular design for increased serviceability and durability.



# PRODUCTIVITY FEATURES



This engine is EPA Tier 3 and EU Stage 3A emissions certified; "ecot3" - ecology and economy combine with Komatsu

technology to create a high performance engine without sacrificing power or productivity.

### Fuel efficient electronic controlled engine

The Komatsu SAA4D107E-1 engine delivers a net output of **79 kW** 105 HP at 2200 rpm. The powerful Komatsu engine incorporated into the D39-22 makes this dozer fuel efficient and the logical choice in both grading and dozing operations. The engine is turbocharged and features direct fuel injection and air-to-air aftercooling to maximize power, fuel efficiency, and emission compliance. To minimize noise and vibration, the engine is iso-mounted to the main frame.

### Hydraulically-driven cooling fan

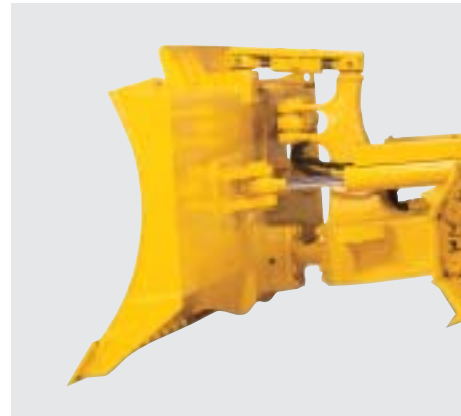
The engine cooling fan rotation speed and direction is electronically controlled. The fan rotation speed depends on engine coolant and hydraulic oil temperatures; the higher the temperature, the higher the fan speed. This system increases fuel efficiency, reduces operating noise levels, and requires less horsepower than a belt-driven fan.

### Long track-on-ground

Long track-on-ground improves machine stability and grading/dozing performance.

### Pitch-Adjustable PAT dozer blade

Blade pitch angle can be easily adjusted by changing the length of the pitch rod on the top of the blade. This enables to provide maximum job efficiency in various material and ground conditions.



### Hydrostatic Transmission (HST) control system

The HST controller monitors engine output and work equipment/travel load. It controls HST pump and motor displacement to provide the optimum speed and drawbar pull. Power to both tracks during turns and counter-rotation makes the D39 extremely maneuverable.



Photo may include optional equipment.



# MAINTENANCE FEATURES

## Hydraulically-driven swing-up fan

The D39-22 utilizes a swing-up fan with a gas strut-assisted lift locking system to provide easy access to the radiator, oil cooler, and charge air cooler. The swing-up feature makes it easier to access cooling cores. The hydraulic fan has a “cleaning” mode. The fan rotates in the reverse direction and helps to clear off objects in front of the cooling areas.



Photo may include optional equipment.

## Remote grease points

Remote grease points facilitate lubrication of the C-frame pivots and angle cylinder bearing.

## Adjustment-free parking disc brake

An adjustment-free spring-applied hydraulic release wet parking brake is located in each final drive.

## New monitor with self-diagnostic function

The monitor system provides critical information about the machine. It provides operating condition status and notifies the operator with a lamp and buzzer when an abnormality occurs. In addition, fault codes are indicated to aid troubleshooting and help reduce machine downtime. Service reminders for fluids and filters are also indicated.



## Daily checks

All daily checks can be performed efficiently at ground level.



Photo may include optional equipment.



Photo may include optional equipment.

## SPECIFICATIONS



### ENGINE

Model . . . . . Komatsu SAA4D107E-1\*  
 Type . . . . . 4-cycle, water-cooled, direct injection  
 Aspiration . . . . . Turbocharged, air-to-air aftercooled  
 Number of cylinders . . . . . 4  
 Bore x stroke . . . . . **107 mm x 124 mm** 4.21" x 4.88"  
 Piston displacement . . . . . **4.46 ltr** 272 in<sup>3</sup>  
 Governor . . . . . All-speed, electronic  
 Horsepower  
   SAE J1995 . . . . . Gross **79.9 kW** 107 HP  
   ISO 9249 / SAE J1349 . . . . . Net **79 kW** 105 HP  
   Hydraulic fan at maximum speed . . . . . Net **71 kW** 95 HP  
   Rated rpm . . . . . 2200 rpm  
 Fan drive type . . . . . Hydraulic  
 Lubrication system  
   Method . . . . . Gear pump, force lubrication  
   Filter . . . . . Full-flow  
 \*EPA Tier 3 and EU Stage 3A emissions certified.



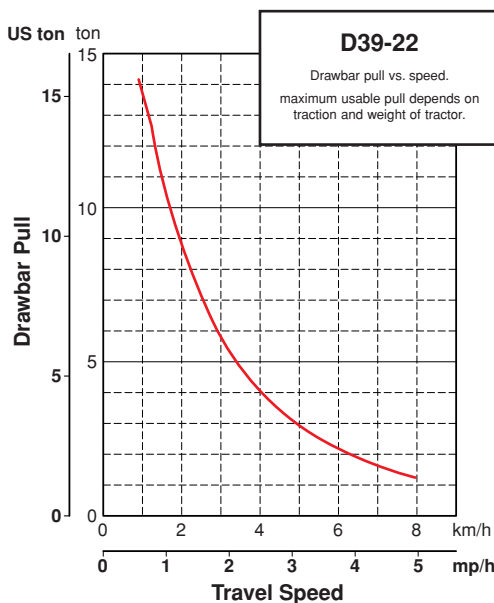
### HYDROSTATIC TRANSMISSION

Dual-path, hydrostatic transmission provides infinite speed changes up to **8.5 km/h** 5.3 mph. The variable capacity travel motors allow the operator to select the optimum speed to match specific jobs. Travel control lock lever and neutral switch.

Travel speed (quick shift mode)	Forward	Reverse
1st	<b>0-3.4 km/h</b> 0-2.1 mph	<b>0-4.1 km/h</b> 0-2.5 mph
2nd	<b>0-5.6 km/h</b> 0-3.5 mph	<b>0-6.5 km/h</b> 0-4.0 mph
3rd	<b>0-8.5 km/h</b> 0-5.3 mph	<b>0-8.5 km/h</b> 0-5.3 mph

Travel speed (variable mode)	Forward	Reverse
	<b>0-8.5 km/h</b> 0-5.3 mph	<b>0-8.5 km/h</b> 0-5.3 mph



### FINAL DRIVES

Two-stage planetary gear integrated into axial piston travel motors. Compact in-shoe mount reduces risk of damage by debris. Bolt-on sprocket for easy replacement.



### STEERING SYSTEM

Palm Command Control System (PCCS) joystick control for all directional movements. Pushing the joystick forward results in forward machine travel, while pulling it rearward reverses the machine. Simply tilt the joystick to the left or right to make a turn. Tilting the joystick fully to the left or right activates counter-rotation. Hydrostatic Transmission (HST) eliminates steering clutches and brakes, providing smooth powerful turns. Fully electronic control enables smooth control. The PCCS utilizes shift buttons to increase and decrease speed.

Minimum turning radius:  
 D39EX-22 . . . . . **2.2 m** 7'3"  
 D39PX-22 . . . . . **2.4 m** 7'10"

As measured by track marks on the ground at pivot turn.



### UNDERCARRIAGE

Suspension . . . . . Rigid type  
 Track roller frame . . . . . Monocoque, large section, durable construction  
 Rollers and idlers . . . . . Lubricated track rollers

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

	D39EX-22	D39PX-22
Number of track rollers (each side)	6	6
Type of shoes (standard)	Single grouser	Single grouser
Number of shoes (each side)	39	39
Grouser height	<b>53 mm</b> 2.1"	<b>53 mm</b> 2.1"
Shoe width (standard)	<b>460 mm</b> 18.1"	<b>635 mm</b> 25.0"
Ground contact area	<b>21710 cm<sup>2</sup></b> 3,365 in <sup>2</sup>	<b>29970 cm<sup>2</sup></b> 4,645 in <sup>2</sup>
Ground pressure (with dozer, ROPS cab)	40.8 kPa <b>0.42 kgf/cm<sup>2</sup></b> 5.92 psi	31.0 kPa <b>0.32 kgf/cm<sup>2</sup></b> 4.50 psi
Track gauge	<b>1650 mm</b> 5'5"	<b>1790 mm</b> 5'10"
Length of track on ground	<b>2360 mm</b> 7'9"	<b>2360 mm</b> 7'9"



### COOLANT AND LUBRICANT CAPACITY (REFILL)

Coolant . . . . . **23 ltr** 6.1 U.S. gal  
 Fuel tank . . . . . **195 ltr** 51.5 U.S. gal  
 Engine oil . . . . . **15 ltr** 4.0 U.S. gal  
 Hydraulic tank . . . . . **60 ltr** 15.9 U.S. gal  
 Final drive (each side) . . . . . **3.5 ltr** 0.9 U.S. gal



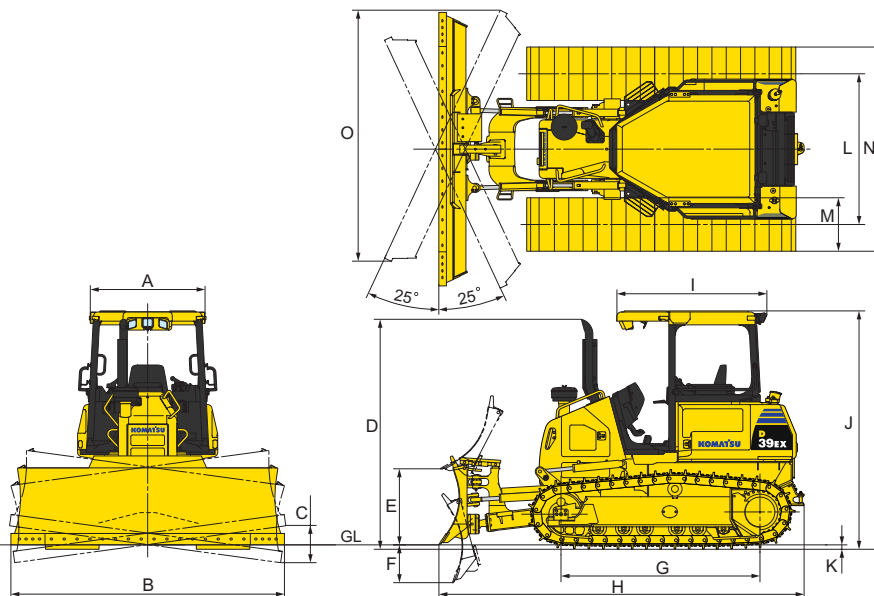
### OPERATING WEIGHT (APPROXIMATE)

**Tractor weight:**  
 Including ROPS canopy, rated capacity of lubricant, coolant, full fuel tank, operator, and standard equipment.  
 D39EX-22 . . . . . **7800 kg** 17,196 lb  
 D39PX-22 . . . . . **8160 kg** 17,990 lb

**Operating weight:**  
 Including power angle tilt dozer, ROPS canopy, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank.  
 D39EX-22 . . . . . **9040 kg** 19,930 lb  
 D39PX-22 . . . . . **9480 kg** 20,900 lb

**DIMENSIONS**

	D39EX-22		D39PX-22	
A*	1280 mm	4'2"	1280 mm	4'2"
B	2710 mm	8'11"	3250 mm	10'8"
B*	—		2980 mm	9'9"
C	370 mm	1'3"	440 mm	1'5"
C*	—		405 mm	1'4"
D	2730 mm	8'11"	2730 mm	8'11"
E	900 mm	2'11"	900 mm	2'11"
F	450 mm	1'6"	450 mm	1'6"
G	2360 mm	7'9"	2360 mm	7'9"
H	4335 mm	14'3"	4335 mm	14'3"
I	2245 mm	7'4"	2245 mm	7'4"
J	2835 mm	9'4"	2835 mm	9'4"
K	53 mm	2.1"	53 mm	2.1"
L	1650 mm	5'5"	1790 mm	5'10"
M	460 mm	18.1"	635 mm	25.0"
N	2110 mm	6'11"	2425 mm	7'11"
O	2490 mm	8'2"	2980 mm	9'9"
O*	—		2750 mm	9'0"



\*Narrow blade for D39PX-22

Ground clearance . . . . . **385 mm 15.2"**

**HYDRAULIC SYSTEM**

Closed-center Load Sensing System (CLSS) designed for precise and responsive control and for efficient simultaneous operation.

**Hydraulic control unit:**

All spool control valves externally mounted remote to the hydraulic tank. Piston-type hydraulic pump with capacity (discharge flow) of **99 ltr/min** 26.2 U.S. gal/min at rated engine rpm.

Relief valve setting . . . . . **27.4 MPa, 280 kg/cm<sup>2</sup>** 3,983 psi  
 Hydraulic cylinders . . . . . Double-acting, piston type

	Number of cylinders	Bore
Blade lift	2	<b>75 mm</b> 2.95"
Blade tilt	1	<b>90 mm</b> 3.54"
Blade angle	2	<b>80 mm</b> 3.15"

**Hydraulic oil capacity (refilling):**

Power angle tilt dozer . . . . . **60 ltr** 15.9 U.S. gal

**Control valves:**

3-spool control valve for power angle tilt dozer.

Positions:

- Blade lift . . . . . Raise, hold, lower, and float
- Blade tilt . . . . . Right, hold, and left
- Blade angle . . . . . Right, hold, and left

Additional control valve required for ripper.

Positions:

- Ripper lift . . . . . Raise, hold and lower

**DOZER EQUIPMENT**

Use of high tensile strength steel in moldboard for strengthened blade construction.

	Overall length with dozer*	Blade capacity (SAE)	Blade width x height	Maximum lift above ground	Maximum drop below ground	Maximum tilt adjustment	Blade angle
D39EX-22 PAT Standard Blade	<b>4325 mm</b> 14'2"	<b>2.21 m<sup>3</sup></b> 2.89 yd <sup>3</sup>	<b>2710 mm x 980 mm</b> 8'11" x 3'3"	<b>900 mm</b> 2'11"	<b>450 mm</b> 1'6"	<b>370 mm</b> 1'3"	25
D39PX-22 PAT Standard Blade	<b>4325 mm</b> 14'2"	<b>2.30 m<sup>3</sup></b> 3.00 yd <sup>3</sup>	<b>3250 mm x 910 mm</b> 10'8" x 3'0"	<b>900 mm</b> 2'11"	<b>450 mm</b> 1'6"	<b>440 mm</b> 1'5"	25
D39PX-22 PAT Narrow Blade	<b>4325 mm</b> 14'2"	<b>2.08 m<sup>3</sup></b> 2.72 yd <sup>3</sup>	<b>2980 mm x 910 mm</b> 9'9" x 3'0"	<b>900 mm</b> 2'11"	<b>450 mm</b> 1'6"	<b>405 mm</b> 1'4"	25

\* Including Hitch



## STANDARD EQUIPMENT FOR BASE MACHINE

### Engine and related items

- Air cleaner, dry, double element type with caution lamp on monitor
- Decelerator pedal
- Engine, KOMATSU SAA4D107E-1, net output of **79 kW** 105 HP direct injection, turbocharged, air-to-air aftercooler, EPA Tier 3 emissions certified
- Fan, hydraulic driven, electronic control
- Fuel pre-filter (10 micron) and fuel filter (2 micron)
- Intake pipe with precleaner
- Radiator mask grid
- Radiator reserve tank
- Ribbon heater
- Water separator

### Electric system

- Alternator, 35 amp (24 V)
- Back-up alarm
- Batteries, large capacity 92 Ah
- Starting motor, 5.5 kW

### Power train and controls

- Brake pedal
- Counter rotation
- Electronically controlled Hydrostatic Transmission (HST) with Quick-shift and variable speed settings
- Palm Command Control System (PCCS) with electronic control for travel control
- Reverse speed presets

### Undercarriage

- Idler cushions
- Sprockets, bolt-on
- Track roller guards, end section
- Track shoe assembly w/sealed and lubricated link assembly:
  - D39EX-22: **460 mm** 18.1" single grouser shoes
  - D39PX-22: **635 mm** 25.0" single grouser shoes

### Guards and covers

- Crankcase guard and underguard
- Engine hood and side panels
- ROPS/FOPS\*
- Sprocket inner guard

### Operator environment

- Cup holder
- Electronic monitor panel with on-board diagnostics
- Foot rest, high mounted
- Horn
- Seat belt, **76 mm** 3" retractable
- Seat, low back vinyl, suspension type

### Hydraulics and controls

- Accumulator for Proportional Pressure Control (PPC)
- Hydraulics for PAT dozer
- Palm Command Control System (PCCS) with Proportional Pressure Control (PPC) for blade control

### Vandalism protection

- Filler cap locks and cover locks
- Instrument panel lock and cover (canopy only)

### Other standard equipment

- Grease gun holder
- High altitude arrangement (no fuel adjustment up to **2300 m** 7,546 ft)
- Lighting package - (3 front, 1 rear cab/canopy)
- Marks and plates, English
- Pullhook, front

\*ROPS cab or ROPS canopy must be ordered for all machines. Cab and canopy FOPS Level 2. ROPS/FOPS meets all OSHA/MSHA standards and regulations criteria.

Dozer assembly and rear-mounted equipment are not included in base machine price.



## OPTIONAL EQUIPMENT

### Track shoe assembly with sealed and lubricated link assembly

- D39PX-22
  - **700 mm** 27.6" single grouser, link

### Track rail assembly with Abrasion

### Resistant (AR) bushings and sealed and lubricated link assembly

- D39EX-22
  - **460 mm** 18.1" single grouser, shoe with AR link
  - **510 mm** 20" single grouser, with AR link
- D39PX-22
  - **635 mm** 25.0" single grouser, with AR link
  - **700 mm** 27.6" single grouser, with AR link

### Dozer assembly

- D39PX-22 – **2980 mm** 9'9" blade

### Track roller guards

- Track roller guards, segmented, full length

### Operator environment

- 12 amp (12V) power port (cab only)
- Cab machine
  - Cigarette lighter (24 V, standard for cab)
  - Lunch box holder (standard for cab)
  - Provision for radio (cab only)
  - Seat, suspension type, fabric, high back
  - Seat, suspension type, fabric low back
  - Seat, air suspension type, fabric high back
- Lunch box holder (option for canopy)

### Rear equipment and hydraulics

- Rear, hydraulics (D39EX/PX-22)
- Ripper, multi-shank (D39EX-22 only)
- Hitch

### ROPS canopy and ROPS cab equipment

- ROPS cab (includes air conditioner with heater, defroster, pressurizer)
  - Optional radio, AM/FM, cassette
- ROPS canopy with lower heater

### Operator environment

- Forestry guards for cab and canopy