The D31/37-22 is the next addition to an all new HST dozer line based on the D51-22 design concepts. Some of these concepts include Super-slant nose, large mid-mount cab, and durable construction.

All-around visibility
- Super-slant nose design
- Cab-forward design
- Integrated ROPS/FOPS (Level 2)

Increased productivity
- Electronically-controlled hydraulically-driven fan
- Rigid track frame with in-shoe final drive
- High capacity Power Angle Tilt dozer blade
- Adjustable blade pitch

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

Improved durability
- Heavy-plate steel used throughout
- Dozer frame with steel casting
- Strong modular design
- New heavy duty HST components

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

Photo may include optional equipment.
See what you have been missing!

Unrivaled blade visibility

The D31/D37EX/EX-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.
HST with electronic control
The D31/D37 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 D31/D37’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.

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.

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

Modular design
Just like the D51, one of the design goals behind the creation of the D31/D37 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.

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

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.

One-piece nose guard
Simplified high-rigidity structure with thicker plates reduces vibration and noise.

Strong and reliable drive train
The HST components have been newly designed to provide higher reliability. Also, the new system utilizes a new high efficiency filter and hydraulic cap with a separate breather to minimize contaminates.
**PRODUCTIVITY FEATURES**

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

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

---

**MAINTENANCE FEATURES**

*Hydraulically-driven swing-up fan*
The D31/D37-22 utilizes a swing-up fan with a gas strut-assisted lift locking system to provide easy access to the (side-by-side) 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.

*Daily checks*
All daily checks can be performed efficiently at ground level from the left side of the machine.

*Adjustment-free parking disc brake*
An adjustment-free spring-applied hydraulic release wet parking brake is located in each final drive. Dynamic HST braking is used until the machine stops moving, then the parking brake engages, minimizing wear.

*Easy engine oil drain*
Changing the engine oil is easy with a strategically mounted access cover. There is no need to crawl under the machine to drain the engine oil.

*Towing hitch*
The optional hitch extends past the track to allow maximum angle when towing.
### SPECIFICATIONS

#### ENGINE
- Model: Komatsu SAA4D95E-5
- Type: 4-cycle, water cooled, direct injection
- Bore x stroke: 85 mm x 115 mm (3.37" x 4.53")
- Piston displacement: 3.26 ltr 199 in³
- Governor: All-speed, electronic
- Torque: 2.2 m 76 ft-lb
- Horsepower: 79 HP @ 2200 rpm
- Fuel tank: 199 ltr 52 US gal
- Oil capacity: 9 ltr 2.4 US gal

#### 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 lift the joystick to the left or right to make a turn.
- 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.

#### TRAVEL CONTROL
- Minimum turning radius: D31PX-22: 2.2 m 72 ft
- Fan drive type: Hydraulic (reversible for cleaning)
- Filter: Full-flow
- Method: Gear pump, force lubrication

#### HYDRAULIC SYSTEM
- 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.
- Suspension: Rigid type
- Track frame: Monocoque, large section, durable construction
- Travel speed: Dual-path hydrostatic transmission system

#### UNDERCARRIAGE
- 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.
- Drawbar Pull: 11,000 kg 24,000 lb

#### GRAVITY-CALCULATED WEIGHT (APPROXIMATE)

### DIMENSIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>D31EX-22</th>
<th>D37EX-22</th>
<th>D31PX-22</th>
<th>D37PX-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground clearance</td>
<td>315 mm 12.4&quot;</td>
<td>315 mm 12.4&quot;</td>
<td>315 mm 12.4&quot;</td>
<td>315 mm 12.4&quot;</td>
</tr>
<tr>
<td>Length of track on ground</td>
<td>2185 mm 7' 2&quot;</td>
<td>2185 mm 7' 2&quot;</td>
<td>2185 mm 7' 2&quot;</td>
<td>2185 mm 7' 2&quot;</td>
</tr>
<tr>
<td>Number of track rollers (each side)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Ground pressure</td>
<td>43.1 kPa 30.4 kPa</td>
<td>43.1 kPa 30.4 kPa</td>
<td>43.1 kPa 30.4 kPa</td>
<td>43.1 kPa 30.4 kPa</td>
</tr>
<tr>
<td>Type of shoes (standard)</td>
<td>Single grouser</td>
<td>Single grouser</td>
<td>Single grouser</td>
<td>Single grouser</td>
</tr>
<tr>
<td>Number of shoes (each side)</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Grouser height</td>
<td>47 mm 1.9&quot;</td>
<td>47 mm 1.9&quot;</td>
<td>47 mm 1.9&quot;</td>
<td>47 mm 1.9&quot;</td>
</tr>
</tbody>
</table>

### COOLANT AND LUBRICANT CAPACITY (REFILL)
- Coolant: 18 ltr 4.8 U.S. gal
- Fuel tank: 199 ltr 52 US gal
- Engine oil: 2.9 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)

<table>
<thead>
<tr>
<th>Model</th>
<th>D31EX-22</th>
<th>D37EX-22</th>
<th>D31PX-22</th>
<th>D37PX-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor weight:</td>
<td>Including ROPS canopy or cab</td>
<td>8780 kg 19,610 lb</td>
<td>8780 kg 19,610 lb</td>
<td>8780 kg 19,610 lb</td>
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<tr>
<td></td>
<td>Including ROPS canopy or cab</td>
<td>8920 kg 19,650 lb</td>
<td>8920 kg 19,650 lb</td>
<td>8920 kg 19,650 lb</td>
</tr>
<tr>
<td></td>
<td>Fuel tank, operator, and standerd equipment</td>
<td>8190 kg 18,060 lb</td>
<td>8190 kg 18,060 lb</td>
<td>8190 kg 18,060 lb</td>
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<td></td>
<td>8540 kg 18,800 lb</td>
<td>8540 kg 18,800 lb</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>7890 kg 17,400 lb</td>
<td>7890 kg 17,400 lb</td>
<td>7890 kg 17,400 lb</td>
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<tr>
<td></td>
<td></td>
<td>8300 kg 18,300 lb</td>
<td>8300 kg 18,300 lb</td>
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<td></td>
<td>8650 kg 19,070 lb</td>
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</table>

### TRACTOR WEIGHTS

<table>
<thead>
<tr>
<th>Model</th>
<th>D31EX-22</th>
<th>D37EX-22</th>
<th>D31PX-22</th>
<th>D37PX-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground clearance</td>
<td>315 mm 12.4&quot;</td>
<td>315 mm 12.4&quot;</td>
<td>315 mm 12.4&quot;</td>
<td>315 mm 12.4&quot;</td>
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<tr>
<td>Length of track on ground</td>
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<td>2185 mm 7' 2&quot;</td>
<td>2185 mm 7' 2&quot;</td>
</tr>
<tr>
<td>Number of track rollers (each side)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Ground pressure</td>
<td>43.1 kPa 30.4 kPa</td>
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<td>43.1 kPa 30.4 kPa</td>
</tr>
<tr>
<td>Type of shoes (standard)</td>
<td>Single grouser</td>
<td>Single grouser</td>
<td>Single grouser</td>
<td>Single grouser</td>
</tr>
<tr>
<td>Number of shoes (each side)</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Grouser height</td>
<td>47 mm 1.9&quot;</td>
<td>47 mm 1.9&quot;</td>
<td>47 mm 1.9&quot;</td>
<td>47 mm 1.9&quot;</td>
</tr>
</tbody>
</table>

### 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.
CRAWLER DOZER

D31/D37-22

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 l/min 26.2 U.S. gal/min at rated engine rpm.
- Relief valve setting . . . . . . . . . . . . . 27.4 MPa, 3,983 psi

Fuel pre-filter (10 micron) and fuel filter
- 26.2 U.S. gal/min at rated engine rpm.
- Fan hydraulic driven, electronic control
- Fuel pre-filter (10 micron) and fuel filter (2 micron)
- Grid heater
- Intake pipe with precleaner
- Radiator mask grid
- Radiator reserve tank
- Accumulator for PPC
- Decelerator pedal
- Horn
- Brake pedal
- Counter rotation
- Electronically controlled Hydraulic Transmission (HST) with Quick-shift and variable speed settings
- Palm Command Control System (PCCS) with electronic control for travel control
- Reverse speed presets
- Track shoe assembly w/sealed and lubricated link assembly:
  - D31EX-22: 400 mm 16.0" single grouser shoe
  - D31PX-22: 400 mm 16.0" single grouser shoe
  - D37EX-22: 400 mm 16.0" single grouser shoe
  - D37PX-22: 600 mm 24.0" single grouser shoe
- Guards and covers
  - Cab guard and canopy FOPS Level 2.
- Lighting package - (3 front, 1 rear light)
- Operator environment
  - Electronic monitor panel with on-board diagnostics
  - Foot rest, high mounted
  - Horn
  - Seat belt, 76 mm 3" retractable
  - Seat, suspension type

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

Standard Equipment for Base Machine

- Operator environment
  - ROPS/FOPS meets all OSHA/MSHA standards and regulations criteria.
- Cab and canopy FOPS Level 2.
- DOZER EQUIPMENT

OPTIONAL EQUIPMENT

- Rear equipment and hydraulics
  - Rear, hydraulics
- Ripper, multi-shank (D31/D37EX-22 only)
- ROPS canopy
- Low pressure or reduced pressure
- Seat, suspension type, vinyl
- Seat, suspension type, fabric
- Seat, air suspension type, fabric
- Operator environment
- Forestry guards for cab and canopy

Hydraulic capacity (refilling):
- 60 ltr 15.9 U.S. gal

Control valves:
- 3-spool control valve for power angle lift dozer.
- Blade lift . . . . . . . . . . . . . Raise, hold, lower, and float
- Blade angle . . . . . . . . . . . . . . . . . . . . . . . . . Right, hold, and left
- Additional control valve required for ripper.
- Ripper lift . . . . . . . . . . . . . Raise, hold and lower

---

**Standard Equipment for Base Machine**

- Operator environment:
  - ROPS/FOPS meets all OSHA/MSHA standards and regulations criteria.
- Cab and canopy FOPS Level 2.
- DOZER EQUIPMENT

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

- Standard Blade 13’8” 2.32 yd³ 3 10’8” x 2’9” 2’10” 1’3” 1’5”
- Narrow Blade 13’8” 2.09 yd³ 3 9’5” x 2’7” 2’10” 1’3” 1’3”
- Standard Blade 13’9” 2.55 yd³ 3 10’8” x 2’9” 2’10” 1’3” 1’5”

- Engine related items:
  - Air cleaner, dry, double element type with caution lamp on monitor
  - Decelerator pedal
  - Engine, Komatsu SAA4D95S-5, 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)
  - Grid heater
  - Intake pipe with precleaner
  - Radiator mask grid
  - Radiator reserve tank
  - Water separator
  - Electronic system
  - Alternator, 35 amp (24 V)
  - Back-up alarm
  - Batteries, large capacity 92 Ah
  - Starting motor, 4.5 kW
  - Power train and controls
  - Brake pedal
  - Counter rotation
  - Electronically controlled Hydraulic Transmission (HST) with Quick-shift and variable speed settings
  - Palm Command Control System (PCCS) with electronic control for travel control
  - Reverse speed presets

**D31/D37-22 CRAWLER DOZER**

- Overall length
- Blade length: Blade blade
- Maximum lift: Maximum drop: Maximum tilt: Blade blade
- Position:
- Additional control valve required for ripper.
- Ripper lift . . . . . . . . . . . . . Raise, hold and lower

---

**D31EX-22 PAT**

<table>
<thead>
<tr>
<th>Number of cylinders</th>
<th>Bore</th>
<th>Blade Lift 1</th>
<th>Blade Lift 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>75 mm</td>
<td>2.95&quot;</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>95 mm</td>
<td>3.34&quot;</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>85 mm</td>
<td>3.15&quot;</td>
<td></td>
</tr>
</tbody>
</table>

---

**D31PX-22 PAT**

<table>
<thead>
<tr>
<th>Overall Length with dozer</th>
<th>Blade Capacity (SAE)</th>
<th>Blade Length x Height</th>
<th>Maximum Lift above ground</th>
<th>Maximum Drop below ground</th>
<th>Maximum Tilt adjustment</th>
<th>Blade Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>4175 mm</td>
<td>1.61 m³</td>
<td>2550 mm x 840 mm 2’* 2’</td>
<td>250 mm 1’* 2’</td>
<td>350 mm 1’* 2’</td>
<td>350 mm 1’* 2’</td>
<td>600 mm</td>
</tr>
<tr>
<td>4155 mm</td>
<td>1.61 m³</td>
<td>2550 mm x 750 mm 10’* 2’</td>
<td>100 mm 1’* 2’</td>
<td>100 mm 1’* 2’</td>
<td>100 mm 1’* 2’</td>
<td>400 mm</td>
</tr>
<tr>
<td>4155 mm</td>
<td>1.61 m³</td>
<td>2875 mm x 790 mm 10’* 2’</td>
<td>100 mm 1’* 2’</td>
<td>100 mm 1’* 2’</td>
<td>100 mm 1’* 2’</td>
<td>400 mm</td>
</tr>
<tr>
<td>4155 mm</td>
<td>1.61 m³</td>
<td>2710 mm x 860 mm 8’11’* 2’10’</td>
<td>80 mm 1’* 2’10’ 1’* 2’10’ 1’* 2’10’ 1’* 2’10’</td>
<td>80 mm 1’* 2’10’ 1’* 2’10’ 1’* 2’10’ 1’* 2’10’</td>
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<td>80 mm 1’* 2’10’ 1’* 2’10’ 1’* 2’10’ 1’* 2’10’</td>
<td>400 mm</td>
</tr>
<tr>
<td>4175 mm</td>
<td>1.61 m³</td>
<td>2550 mm x 830 mm 10’* 2’10’</td>
<td>100 mm 1’* 2’10’ 1’* 2’10’ 1’* 2’10’ 1’* 2’10’</td>
<td>100 mm 1’* 2’10’ 1’* 2’10’ 1’* 2’10’ 1’* 2’10’</td>
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<td>80 mm 1’* 2’10’ 1’* 2’10’ 1’* 2’10’ 1’* 2’10’</td>
<td>400 mm</td>
</tr>
</tbody>
</table>
CRAWLER DOZER

D31/D37-22

Hydraulic System

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.gpm at rated engine rpm.
- Relief valve setting 27.4 MPa, 3.983 psi

Relief valve setting 27.4 MPa, 3.983 psi

Hydraulic cylinders: Double-acting, piston type

<table>
<thead>
<tr>
<th>Number of cylinders</th>
<th>Bore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blade lift</td>
<td>2</td>
</tr>
<tr>
<td>Blade lift</td>
<td>1</td>
</tr>
<tr>
<td>Blade angle</td>
<td>2</td>
</tr>
</tbody>
</table>

Hydraulic oil capacity (retting):
- Power angle lift dozer: 60 ltr 15.9 U.S. gal
- Control valves:
  - 3-spool control valve for power angle lift dozer.

POSITIONS:
- Blade lift: Raise, hold, lower, and float
- Blade angle: Right, hold, and left

Additional control valve required for ripper.
- Ripper lift: Raise, hold, and lower

Dozer Equipment

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

Standard Blade
- Overall length: 4715 mm / 15’5”
- Blade capacity: 1.61 m³ / 0.73 cu ft
- Maximum lift: 2550 mm / 100”
- Maximum drop: 870 mm / 34”
- Maximum tilt: 350 mm / 14”
- Blade angle: 90°
- Blade lift: 30°
- Blade angle: 90°

Exhaust System
- Type: Turbocharged, air-to-air aftercooler
- Emissions: Tier 4 certified
- Electrically controlled transmission

Air Cleaner
- Type: Dry, double element

Cooling System
- Type: Radiator with grid

Hydraulic and Controls
- Engine: KOMATSU SAA4D95LE-5, direct injection, turbocharged, air-to-air aftercooler
- Engine type: 6-cylinder, V-type
- Power: 275 hp @ 2,400 rpm
- Transmission: Electronic, Hydrostatic
- Final drive: Engine mounted 3-speed, Hydrostatic
- Control: Electronic

Operator Environment
- Cab: ROPS/FOPS Level 2
- Heating: Electrically controlled, with Proportional Pressure Control (PPC)
- Cooling: Air conditioner
- Lighting: Electronic
- Door: Power
- Mirror: Glass, adjustable

Rear equipment and hydraulics
- Rear: hydraulics
- Ripper: Multi-shank for blade control
- Operators: Cab and canopy FOPS Level 2
- Backup: Alarm

Optional Equipment
- Hitch: Standard type
- Electric system: Alternator 60 amp (24 V)

Undercarriage
- Idler: Sprocket, bolt-on, solid type
- Track: with Proportional Pressure Control (PPC)
- Brake: Pedal
- Wheel: 20” single grouser shoe
- Tires: 20” single grouser shoe
- Axle: 26” single grouser shoe
- Wheel: 26” single grouser shoe
- Tires: 26” single grouser shoe
- Axle: 26” single grouser shoe

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