KOMATSU®

HD325-6

HORSEPOWER
GROSS 379 kW 508 HP
NET 364 kW 488 HP

MAX. GROSS VEHICLE WEIGHT
65200 kg 143,740 lb

Photo may include optional equipment.

Off-Highway Truck
**Clean, fuel-efficient engine**
Common-rail fuel injection system provides high injection pressure for low emission. Ductile cast-iron pistons and helical intake ports make this engine a great fuel saver.

**Mode-switching system**
Electronic engine control provides superior climbing ability and outstanding fuel economy.

High power mode with superior operating power suited to job sites where much time is spent working on inclines.

Economy mode with reduced fuel consumption and operating noise should be used when working on level sites or under conditions where machine load is lighter.

**Automatic idling setting system (AISS)**
This system facilitates quick engine warm-up and cab cooling/warming with air conditioner.

When setting the system ON, engine idle speed is kept at 1000 rpm when coolant temperature is 50˚C(122˚F) or lower. Speed automatically returns to 650 rpm when coolant temperature reaches 50˚C(122˚F).

**7-speed, fully automatic K-ATOMiCS transmission**
The K-ATOMiCS (Komatsu Advanced Transmission with Optimum Modulation Control System) automatically selects the optimum gear according to vehicle speed, engine speed and the shift position you’ve chosen. The result: the best gear for any driving situation.

**Oil-Cooled multiple-disc retarder and optional exhaust retarder**
The truck can be decelerated without frequent use of the brakes, allowing you to travel safer at higher speeds, even down long, steep slopes.

**Long wheelbase and wide tread**
With an extra-long wheelbase, a wide tread and an exceptionally low center of gravity, the HD325-6 hauls the load at higher speed for more production, and delivers supreme driving comfort over rough terrain.

**Big body**
A wide target area makes for easy loading with minimal soil spillage and more efficient hauling.

**Small turning radius**
The MacPherson strut type front suspension has a special A-frame between each wheel and the main frame. The wider space created between the front wheels and the main frame increases the turning angle of the wheels. The larger this turning angle, the smaller the turning radius of the truck.
OPERATOR ENVIRONMENT

K-ATOMiCS with “Skip-shift” Function
An electronically controlled valve is provided for each clutch pack in the transmission for independent clutch engagement/discharging. It enables an ideal change in clutch modulation pressure and torque cut-off timing in response to travel conditions. This system and newly added “skip-shift” function ensure smooth shifting and responsive acceleration.

“Skip-shift” function
Optimum travel speed automatically selected in response to angle of ascent.
Reduced frequency of shift downs and smoother operation are provided.

Hydropneumatic suspension
All four wheels have hydropneumatic suspension with a fixed throttle damper control valve that greatly reduces pitching, rolling and bouncing over rough terrain.

Hydropneumatic suspension

Ideal driving position settings
The 5-way adjustable operator seat and the tilt-telescopic steering column create an optimum driving posture, for increased driving comfort and more control over the machine’s operations.

See everything in quiet comfort
Wide windows in the front, side and back, plus plenty of space in the richly upholstered interior, give you a quiet, comfortable environment from which to see and control every aspect of your work.

EXCELLENT RELIABILITY AND DURABILITY

Sturdy, refined frame
Cast-steel components are employed in the main frame in critical areas where loads and shocks are most concentrated.

Rigorous dump body design
The standard dump body is made of 130 kg/mm² 184,900 ps high-tensile-strength steel for excellent rigidity and reduced maintenance cost. The V-shape design also increases structural strength. The side and bottom plates of the dump section are reinforced with ribs for added strength.

Protection functions supported by electronic control

<table>
<thead>
<tr>
<th>Item</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downshift inhibitor</td>
<td>Even if the driver downshifts accidentally,a speed appropriate to the current gear is automatically set, preventing over-runs.</td>
</tr>
<tr>
<td>Over-run inhibitor</td>
<td>When descending grades,if the vehicle’s speed surpasses the maximum for the current gear, the rear brakes automatically operate, preventing over-runs.</td>
</tr>
<tr>
<td>Reverse inhibitor</td>
<td>The vehicle is prevented from moving backward when operating the body.</td>
</tr>
<tr>
<td>Forward/Reverse shift inhibitor</td>
<td>This device makes it impossible to shift from forward to reverse when the vehicle’s speed surpasses 4 km/hour.</td>
</tr>
<tr>
<td>Anti-hunting system</td>
<td>When running near a shift point, smooth automatic shifting takes place.</td>
</tr>
<tr>
<td>Neutral safety</td>
<td>The engine is prevented from starting when the shift lever is not in neutral.</td>
</tr>
</tbody>
</table>

Reliable hydraulic system
The oil cooler is installed below the retarder, improving the reliability of the hydraulic system during sudden temperature rises. Further, in addition to the main filter, a 52-micron line filter is set at the entrance to the transmission control valve. This system helps prevent secondary faults.

Excellent footwork and durable power train
By adopting electronic modulation on all levels, peak torque when shifting is reduced, raising the endurance of the power train.

Electronic devices for excellent operation
In the harness connection, a dual-lock connector is used to prevent loosening from vibrations and contact failure. Also, the base boards for controllers and other devices are fixed by molding (with resin) , realizing high water, dust and vibration resistance.
Adjustment-free brakes

The front service brakes and the parking brake are adjustment-free caliper disc type.

Centralized greasing points and oil filters

Greasing points have been centralized at three locations. Fuel and engine oil filters are also located together on the left-hand remote mount, for easy, remote inspection from the ground.

Advanced monitoring system

Availability rate with vehicle monitoring system

The electronic display panel shows current vehicle condition and how to fix them with action codes and check results with service codes. Thus, vehicle management is easier and the working rate is higher. At the same time the monitoring data is saved to be used for later troubleshooting.

Action code display function

If an abnormality on the truck occurs, an “E” appears on the electronic display panel with the appropriate action code, which notifies the operator how to deal with the abnormality. The operator never misses an abnormality and can take the proper corrective action.

Service code display and memory function

The contents of each controller are displayed on the electronic display panel in service codes. The stored vehicle information can be downloaded to a personal computer. This enables a quick response to problems and shortens maintenance time. This also shows the truck’s current condition and facilitates management.

Network functions

- Engine control (Electronic governor)
- Transmission control
- Auto suspension
- PC (service tool)

(*OPTION)
Auto Retard Speed Control (ARSC)
ARSC is available as an option. This allows you to simply set the downhill travel speed and go down slopes at a constant speed (travel speed permitted from brake performance). As a result, you can concentrate on steering. The speed can be set at increments of 1km/h 0.6mph per one click (±5km/h 3.1mph of setting speed) to match the optimum speed for the slope. Also, when it is predicted that the retarder oil temperature becomes overheat, since the retarder oil temperature is always monitored, operator is informed this by warning lamp.

<table>
<thead>
<tr>
<th>Body type</th>
<th>Linerless body (standard)</th>
<th>Rock body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications</td>
<td>Hauling clay, sand and gravel</td>
<td>Hauling rocks</td>
</tr>
<tr>
<td>Features</td>
<td>•Suitable for loading clay, sand and gravel</td>
<td>•Suitable for loading rocks at quarries, limestone mining site or construction work</td>
</tr>
<tr>
<td></td>
<td>•Liner is not incorporated</td>
<td>•Steel liner is incorporated throughout the entire body</td>
</tr>
<tr>
<td>Body capacity:</td>
<td>18 m³ 23.5 yd³</td>
<td>18 m³ 23.5 yd³</td>
</tr>
<tr>
<td>Struck</td>
<td>24 m³ 31.4 yd³</td>
<td>24 m³ 31.4 yd³</td>
</tr>
<tr>
<td>Heaped (2:1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body inside dimensions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>5500 mm 18'1&quot;</td>
<td>5485 mm 18'0&quot;</td>
</tr>
<tr>
<td>Width</td>
<td>3380 mm 11'1&quot;</td>
<td>3355 mm 11'0&quot;</td>
</tr>
<tr>
<td>Max.depth</td>
<td>1440 mm 4'9&quot;</td>
<td>1430 mm 4'8&quot;</td>
</tr>
<tr>
<td>Loading</td>
<td>3200 mm 10'6&quot;</td>
<td>3200 mm 10'6&quot;</td>
</tr>
</tbody>
</table>

PLM®II (IC card type payload meter)
This system allows the production volume and the working conditions on the dump truck to be analyzed and managed directly via a personal computer. It can store up to 2900 working cycles.

Engine exhaust retarder
The retarder capacity is increased by 30%, so faster speed is permitted on the downward slope. This improves safety and hauling performance.

Three-mode hydropneumatic suspension (optional)
To further enhance driving comfort, automatic three-mode suspension is optionally available. This enables the operator to select one of three cushioning effects (SOFT, NORMAL or HARD), depending on road conditions, for improved damping control.

ABS (Anti-lock brake System)
ABS is introduced to construction machinery first in the industry by Komatsu’s outstanding electronics technology. This system prevents the tire lock under slippery condition while applying service brake and gives safety drive of the truck.

ROPS
This protects the operator and cab should the truck turn over. (Meets ISO 3471 and SAE J1040 APR88 ROPS standards.)
**HD325-6 OFF-HIGHWAY TRUCK**

### SPECIFICATIONS

#### ENGINE

- **Model**: KOMATSU SAA6D140E-3
- **Type**: Water-cooled, 4-cycle
- **Aspiration**: Turbo-charged and after-cooled
- **Bore x stroke**: 140 mm x 165 mm (5.5" x 6.5")
- **Piston displacement**: 15.23 ltr. 930 in³
- **Horsepower**: 379 kW 508 HP
- **Rated rpm**: 2000 rpm
- **Maximum torque**: 2167 N•m 221 kg•m 1600 lb•ft/1,400 rpm
- **Fuel system**: Direct injection
- **Governor**: Electronically controlled
- **Lubrication system**: Gear pump, force-lubrication
- **Air cleaner**: Dry type with double elements and precleaner, plus dust indicator

#### BRAKES

- **Service brakes**:
  - Front: Air-over-hydraulic, caliper disc type
  - Rear: Air-over-hydraulic, oil-cooled, multiple-disc type
- **Parking brake**: Spring applied, caliper disc type
- **Retarder**: Air-over-hydraulic, oil-cooled, multiple-disc type
- **Emergency brake**: Air-over-hydraulic, oil-cooled, multiple-disc type

#### TRANSMISSION

- **Torque converter**: 3-elements, 1-stage, 2-phase
- **Lockup clutch**: Wet, single-disk clutch
- **Transmission**: Full-automatic, planetary gear
- **Speed range**: 7 speeds forward and one reverse
- **Shift control**: Electronic shift control with automatic clutch modulation in all gear
- **Maximum travel speed**: 70 km/h 43.5 mph

#### AXLES

- **Final drive type**: Planetary
- **Rear axle**: Full-floating
- **Ratios**:
  - **Differential**: 3.125
  - **Planetary**: 4.737

#### SUSPENSION SYSTEM

- **Independent, hydro pneumatic suspension cylinder with fixed throttle to dampen vibration.**

#### STEERING SYSTEM

- **Type**: Fully hydraulic power steering with two double-acting cylinder
- **Emergency steering**: Manual control
- **Min. turning radius**: 7.2 m 237'

#### CAB

- **Dimensions comply with ISO 3471 and SAE J1040-1988c ROPS (Roll-Over Protective Structure) standards. (OPTION) The cab is mounted on rubber pads and well insulated.**

#### HYDRAULIC SYSTEM

- **Hoist cylinder**: Twin, 2-stage telescopic type
- **Hydraulic pump capacity**: 255 ltr./min. 67.4 U.S. gal/min
- **Relief valve setting**: 3000 ps/20.6 MPa
- **Hydraulic system**: Full-flow type
- **Weight distribution**:
  - Front axle: 48%
  - Rear axle: 52%
  - Loaded, front axle: 32%
  - Loaded, rear axle: 68%

#### TIRES

- **Standard body**:
  - Struck: 18 m³ 23.5 yd³
  - Empty weight: 28700 kg 63,270 lb
  - Gross vehicle weight: 65200 kg 143,740 lb
  - Payload: 36.5 metric tons 40 U.S. tons
  - Retarder: Air-over-hydraulic, oil-cooled, multiple-disc type
  - Emergency brake: Air-over-hydraulic, oil-cooled, multiple-disc type

#### WEIGHT (APPROXIMATE)

- **Empty weight**: 28700 kg 63,270 lb
- **Gross vehicle weight with 32 metric ton (35 U.S. ton) payload**: 60775 kg 133,990 lb
- **Weight distribution**:
  - Empty, front axle: 48%
  - Rear axle: 52%
  - Loaded, front axle: 32%
  - Loaded, rear axle: 68%

- **Engine oil**: 129 ltr. 34.1 U.S. gal
- **Final drive (left and right)**: 26 ltr. 6.9 U.S. gal
- **Hydraulic system**: 43.8 ltr. 11.6 U.S. gal

#### SERVICE REFILL CAPACITIES

- **Coolant**: 89 ltr. 23.5 U.S. gal
- **Fuel tank**: 500 ltr. 132.1 U.S. gal
- **Engine oil**: 52 ltr. 13.7 U.S. gal
- **Torque converter**: 90 ltr. 23.8 U.S. gal
Standard equipment may vary for each country, and this specification sheet may contain attachments and optional equipment that are not available in your area. Please consult your Komatsu distributor for detailed information.
**TRAVEL PERFORMANCE**

To determine travel performance: Read from gross weight down to the percent of total resistance. From this weight-resistance point, read horizontally to the curve with the highest obtainable speed range, then down to maximum speed. Usable rimpull depends upon traction available and weight on drive wheels.

**BRAKE PERFORMANCE**

To determine brake performance: These curves are provided to establish the maximum speed and gearshift position for safer descents on roads with a given distance. Read from gross weight down to the percent of total resistance. From this weight resistance point, read horizontally to the curve with the highest obtainable speed range, then down to maximum descent speed the brakes can safely handle without exceeding cooling capacity.

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<table>
<thead>
<tr>
<th>Grade distance: 600 m (1970 ft)</th>
<th>Grade distance: Continuous Descent</th>
<th>Grade distance: 450 m (1480 ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROSS WEIGHT</td>
<td>TRAVEL SPEED</td>
<td>GROSS WEIGHT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0  10  20  30  40  50  60  70  80  90  100</td>
<td></td>
<td>0  10  20  30  40  50  60  70  80  90  100</td>
</tr>
<tr>
<td>0  10  20  30  40  50  60  70  80  90  100</td>
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Performance line:
Solid lines...Exhaust retarder brake, additional (OPTION)