KOMATSU

HM
250

Articulated Dump Truck

HM250-2

ENGINE POWER
232 kW / 311 HP @ 2.000 rpm

MAX. PAYLOAD
24 ton

BODY CAPACITY, HEAPED
14,7 m^3

Walk-Around

The latest Komatsu technology and components combine to put the HM250-2 articulated dump truck in a class of its own. A powerful ecot3 Komatsu engine offers maximum productivity and fast travel speeds while several original features help to further enhance efficiency and reduce maintenance costs. With a robust exterior and state of the art solutions for its suspension and retarder systems, the HM250-2 is a machine that is built to last.

First-class operator comfort

- Wide, spacious cab
- Unique hydro-pneumatic trailing arm suspension
- Easy-to-use controls
- Low operating noise levels
- Double doors and power window

Easy maintenance

- Tilting cab
- Centralized grease points
- Maintenance-free oscillating hitch
- Maintenance-free brakes
- Ground level battery access

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MAX. PAYLOAD
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BODY CAPACITY, HEAPED
14,7 m³

High productivity and efficiency

- High-torque and low-consumption ecot3 Komatsu engine
- Automatic traction control with limited slip differentials
- Wide tyres (optional)
- Selectable power mode

Excellent durability

- Based on market leading Komatsu HM300-2 design
- >12.000 hrs brake replacement interval
- Sealed multi-disc, oil-cooled brake system
- Reliable Komatsu-manufactured major components
- K-ATOMiCS transmission with “Shift-lock” function

Highest safety standards

- Secure platform access to cab and maintenance areas
- Excellent all-round visibility
- Emergency steering and secondary brakes
- Rear frame tip-over protection
- Highly responsive retarder

KOMTRAX
Komatsu Satellite
Monitoring System

High Productivity and Efficiency

Powerful and efficient ecot3 engine

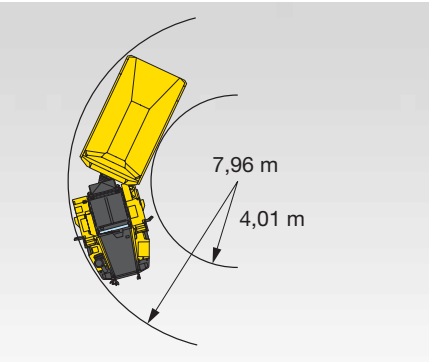
Certified for EPA Tier III and EU Stage IIIA emission regulations, the Komatsu SAA6D125E-5 “ecot3” engine provides high torque, a better performance at slow speeds and low fuel consumption. It features a new design for the combustion chamber with an optimised ignition and combustion timing. For increased fuel efficiency, the operating pressure of the new common rail system also ensures optimal injection, and the air-to-air intercooler reduces the temperature of the compressed air supplied by the turbo charger to the cylinders.

Komatsu-designed differential locking systems

The full-time six-wheel drive system uses a wet multiple-disc interaxle clutch that locks the three axles in unison for greater traction. The interaxle lock can be switched to manual or automatic while the truck is travelling, ensuring uninterrupted productivity. In combination with the limited slip differentials, the system provides an ideal solution to tyre slip, and automatically regulates the traction according to ground conditions.

Articulated steering

Fully hydraulic and articulated steering offers low-effort operating and great manoeuvrability. A minimum turning radius of only 7,96 m makes it easy to work in tight areas.



Engine power mode selection

Sometimes extra power is required to get the job done, and the HM250-2 lets the operator quickly react to severe operating conditions. The perfect working mode is easily selected between “High-power” or “Economy”, by simply flipping a switch in the operator’s cab.

- High-power mode

For use on high production job sites or when uphill hauls are required. Take full advantage of this high output power mode and enjoy greater productivity and reduced cycle times.

- Economy mode

For work under normal conditions. The fastest engine speed for maximum output, downshift, and upshift is set lower.

Large capacity body and box section frame structure

With a payload of 24 tonnes, the HM250-2’s body capacity is among the highest for a truck in this class. A loading height of only 2.670 mm enables easy loading, lowers the centre of gravity and maintains a high ground clearance. The body is made of high-strength and wear-resistant steel, with a Brinell hardness of 400. Its shape provides excellent durability and load stability. Rugged enough for the toughest jobs, the HM250-2’s frame is designed with a rigid box structure and connecting torque tubes made of high strength low alloy steel.

Body options

To further enhance productivity, Komatsu offers several body options: for lower density materials, side extensions will increase the body capacity. To avoid sand or gravel spillage on steeper grades, an overhung tailgate is available. Body heating can be used to keep some materials from sticking, and tough wear plate can be installed when loading shot rock.

First-Class Operator Comfort

Wide and comfortable cab

The wide cab with user-friendly controls provides a spacious and comfortable working environment. A fully adjustable air-suspension seat dampens vibrations, holds the operator safe, and reduces the fatigue of long shifts. Plenty of room is left for an extra full-size trainer's seat. Large front and electric side windows ensure superior visibility and increased operator confidence, while an electric heated rear window facilitates defrosting and speeds the start-up of operations.

Steering wheel and pedals

A tilting, telescopic steering column helps to maintain an optimal driving position at all times. Low effort pedals reduce operator fatigue when working continuously for long periods.

Low noise levels

To reduce the noise levels, the cab is mounted on viscous dampeners. Further noise reduction is achieved by the integrated cab floor: it makes the cab air-tight and seals off the engine compartment. A low-noise and sound-insulated muffler / exhaust pipe also helps to bring the sound levels way down.

Easy-to-see instrument panel

It's easy to monitor all critical machine functions on the instrument panel, and a caution light will warn the operator should a problem arise. This Komatsu on-board monitoring system makes the machine user-friendly and simple to service.

Electric body dump control lever

The low-effort lever makes dumping easier than ever, and a standard dump counter keeps track of the total daily production.

Unique hydro-pneumatic suspension

On both the front and rear axles, Komatsu's unique trailing arm hydro-pneumatic suspension gives the HM250-2 a smooth ride with reduced pitching and excellent driving comfort. Less shocks to the operator and to the machine components - and less spilled material - also result in increased durability, comfort, and productivity.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Excellent Durability

Based on market leading Komatsu HM300-2 design

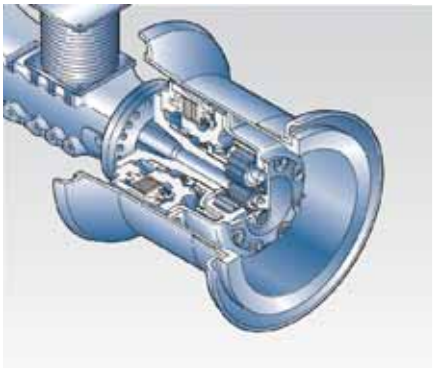
Made from the same mould as the top-selling HM300-2, the HM250-2 uses the same reliable Komatsu-manufactured components that successfully prove their durability day after day. The entire power train is Komatsu-designed and the engine, transmission and axles are perfectly matched for unsurpassed productivity and durability.

K-ATOMiCS transmission

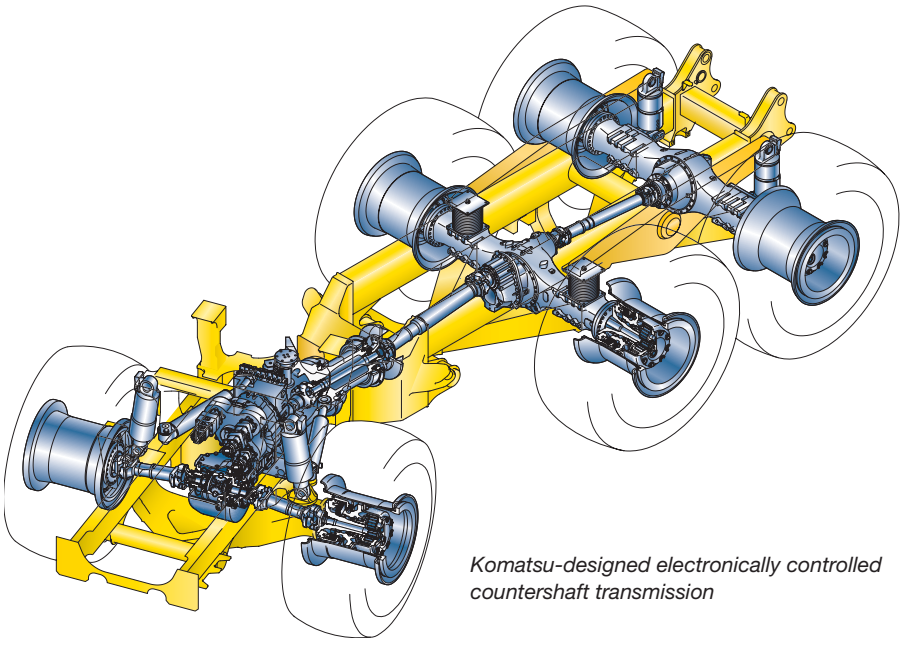
K-ATOMiCS, Komatsu's exclusive electronically controlled transmission is perfectly tuned for the HM250-2. The electronic clutch modulation system ensures proper pressure when the clutch is engaged. The "total control system" manages both the engine and transmission by monitoring the vehicle's condition. This Komatsu-designed technology guarantees smooth shifting and maximises transmission life.

>12.000 hrs brake replacement interval

No other constructor offers wet disc brakes on all its ADTs, and the Komatsu HM250-2 is the only truck in its class with forced oil-cooled wet disc brakes. No matter how abrasive the application, there is no need to worry about early replacement of the brake disc packs. Embedded in an oil bath and sealed off from the environment, brakes on the HM250-2 have a scheduled overhaul period of 12.000 hours - and they can last a lifetime.



Hydraulically controlled wet multi-disc brakes and retarder



Komatsu-designed electronically controlled countershaft transmission


HM250

Easy Maintenance

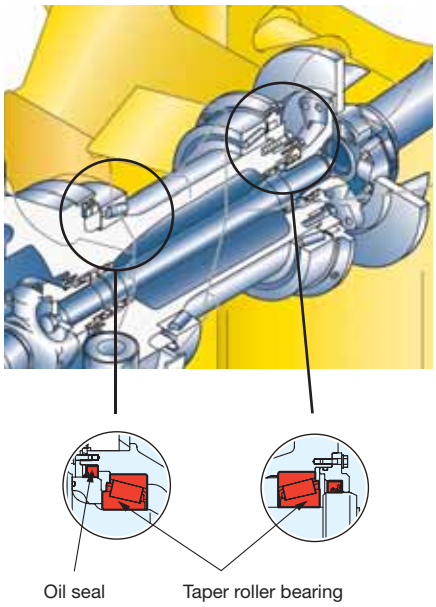
Extended service intervals

Service intervals have been extended:

- Engine oil 500 hours
- Transmission oil 1.000 hours
- Engine oil filter 500 hours
- Transmission oil filters 1.000 hours

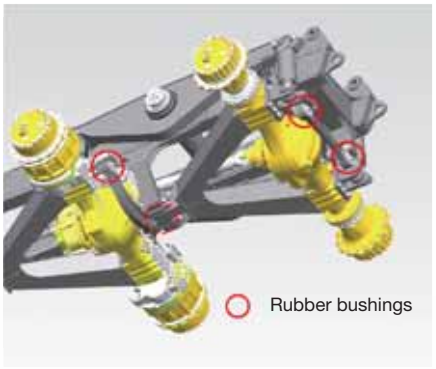
Remote centralised greasing

With maintenance-free rubber bushings and an oscillating hitch, grease points have been minimized and centralized for remote greasing at ground level.



Maintenance-free oscillating hitch

Lubricated once and for all, the oscillating hitch is completely maintenance-free.



Tilting cab

The cab can be tilted rearward 36 degrees to provide easy maintenance and service to the engine and transmission.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Highest Safety Standards

Hydraulically controlled wet multiple-disc brakes and retarder

Wet multiple-disc brakes with proven performance in larger articulated and rigid trucks are tailored for use in the HM250-2. The large-capacity, continuously cooled, wet-multiple disc brakes also function as a highly responsive retarder that gives the operator greater confidence at higher speeds when travelling downhill. (Retarder absorbing capacity, continuous descent: 349 kW 468 HP)

Supplementary steering and secondary brakes

Supplementary steering and secondary brakes are standard features. They help to guarantee operator safety in emergency situations.

Steering
ISO 5010-1992, SAE J1511
Brakes
ISO 3450-1996, SAE J1473

Excellent all-round visibility

To keep the working area under control, a laminated-glass windshield, wide side windows, a standard rear-view camera and monitor, 3 additional under-view mirrors and 4 rear-view mirrors minimise blind spots.

Built-in ROPS/FOPS

These structures conform to ISO 3471 and SAE J1040-1988c standards.

Safe access

Operators can enter the machine easily and safely with a secure access from the platform to the double door cab. The access steps are located on the front of the machine, away from the potentially hazardous articulation.

Rear frame inclination sensor

To avoid personal and machine damage, this system warns the operator if there is a risk of body tip over.

Guards

The following guards are provided as standard:

- Protective grille for rear window
- Engine underguard
- Heavy-duty transmission underguard
- Propeller shaft guards
- Exhaust thermal guard
- Fire prevention covers

Komatsu Satellite Monitoring System

KOMTRAX™ is a revolutionary machine tracking system designed to save you time and money. You can now monitor your equipment anytime and anywhere. Use valuable machine data received via the KOMTRAX™ web site to optimise your maintenance planning and machine performances.

KOMTRAX™ can assist you with:

Full machine monitoring

Get detailed operation data to know when your machines are used and how productive they are.

Total Fleet Management

Keep track of the location of your machines at all times and discourage unapproved usage or theft.

Complete machine status

Receive warnings, alerts and cautions, via a web site or by e-mail, to help with maintenance planning and for longer machine life.

For further details on KOMTRAX™, please ask your Komatsu dealer for the latest KOMTRAX™ brochure.

Machine working time - With the "daily working record" chart, get precise engine running time data: when your machine was started and when it was shut down, as well as total engine running time.

Maintenance planning - To increase productivity and improve maintenance planning, alerts indicate when items such as filters or oil must be replaced.

Fleet location - The machine list instantly locates all your machines, even those in other countries.

Machine tracking during transport - When your machine is transported, KOMTRAX™ sends travel messages to the web site or by e-mail to inform you of its progress, and confirms when it reaches its destination.

Alarm notifications - You can receive notification of alarms both via the KOMTRAX™ website and by e-mail.

Added security - The "engine lock" feature allows to program when a machine's engine can be started. And with "geo-fence", KOMTRAX™ sends notification every time your machine moves in or out of a predetermined operating area.

Specifications

ENGINE

Model ..... Komatsu SAA6D125E-5
Common rail direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel
Engine power
at rated engine speed ..... 2.000 rpm
ISO 14396 ..... 232 kW/311 HP
ISO 9249 (net engine power) ..... 222 kW/298 HP
No. of cylinders 6
Bore × stroke ..... 125 × 150 mm
Displacement ..... 11,04 ltr
Max. torque ..... 1.706 Nm (174 kgf-m)
Governor ..... Electronically controlled
Lubricating system ..... Gear pump, force lubrication
Filter ..... Full-flow filter
Air-filter type ..... Dry type with double elements and precleaner (cyclonpack type), plus dust indicator

TRANSMISSION

Torque converter 3-elements, 1-stage, 2-phase
Transmission ..... Full-automatic, counter-shaft type
Speed range ..... 6 speeds forward and 2 reverse
Lock-up clutch ..... Wet, single-disc clutch
Forward ..... Torque converter drive in 1st gear, direct drive in 1st lock-up and all higher gears
Reverse ..... Torque converter drive and direct drive in all gears
Shift control ..... Electronic shift control with automatic clutch modulation in all gears

Max. travel speeds:

	Forward						Reverse	
Gear	1.	2.	3.	4.	5.	6.	1.	2.
km/h	5,9	12,2	15,4	24,3	36,8	57,6	7,2	17,2

STEERING SYSTEM

Type ..... Articulated type, fully hydraulic power steering with two double-acting cylinders
Supplementary steering ..... Automatically actuated, electrically powered
Minimum turning radius, wall to wall ..... 7,96 m
Articulation angle ..... 45° each direction

SUSPENSION

Front ..... Hydro-pneumatic suspension
Rear ..... Combined hydro-pneumatic and rubber suspension system

AXLES

Full time all wheel drive with limited slip differential in all axles.
Final drive type ..... Planetary gear
Ratios:
Differential 3,154
Planetary 4,667

BRAKES

Service brakes ..... Full-hydraulic control, oil-cooled multiple-disc type (front and centre axle)
Parking brake ..... Spring applied, caliper disc type
Retarder ..... Front and centre axle brakes act as retarder

MAIN FRAME

Type ..... Articulated type, box-sectioned construction on front and rear. Connected by strong torque tubes.

BODY

Capacity:
Struck ..... 11,1 m³
Heaped (2:1, SAE) ..... 14,7 m³
Payload ..... 24,0 t
Material ..... 130 kg/mm² high tensile strength steel
Material thickness:
Bottom ..... 14 mm
Front ..... 8 mm
Sides ..... 12 mm
Target area (inside length × width) ..... 4.975 mm × 2.685 mm
Heating ..... Exhaust heating (option)

HYDRAULIC SYSTEM

Hoist cylinder ..... Twin, 1-stage type
Relief pressure ..... 20,6 MPa (210 kg/cm²)
Hoist time ..... 12 sec

CAB

Dimensions comply with ISO 3471 and SAE J1040-1988c ROPS (Roll-Over Protective Structure) standards.

WEIGHT (APPROX.)

Empty weight ..... 23.600 kg
Gross vehicle weight ..... 47.680 kg

Weight distribution
Empty:
- Front axle 57,6%
- Centre axle 22,8%
- Rear axle 19,6%

Loaded:
- Front axle 32,3%
- Centre axle 35,4%
- Rear axle 32,3%

TYRES

Standard tyres 23.5 R25

SERVICE REFILL CAPACITIES

Fuel tank ..... 384 ltr
Engine oil ..... 37 ltr
Torque converter, transmission and retarder cooling ..... 80 ltr
Differentials (total) ..... 63,5 ltr
Final drives (total) ..... 24 ltr
Hydraulic system ..... 120 ltr
Suspension (total) ..... 8,4 ltr

ENVIRONMENT

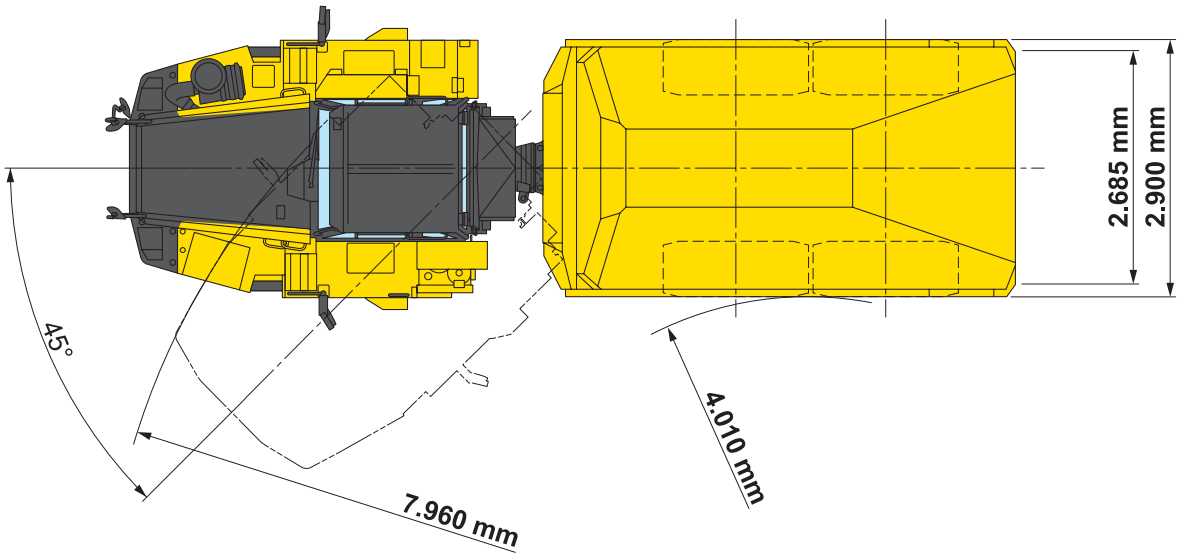
Engine emissions ..... Fully complies with EU Stage IIIA and EPA Tier III exhaust emission regulations

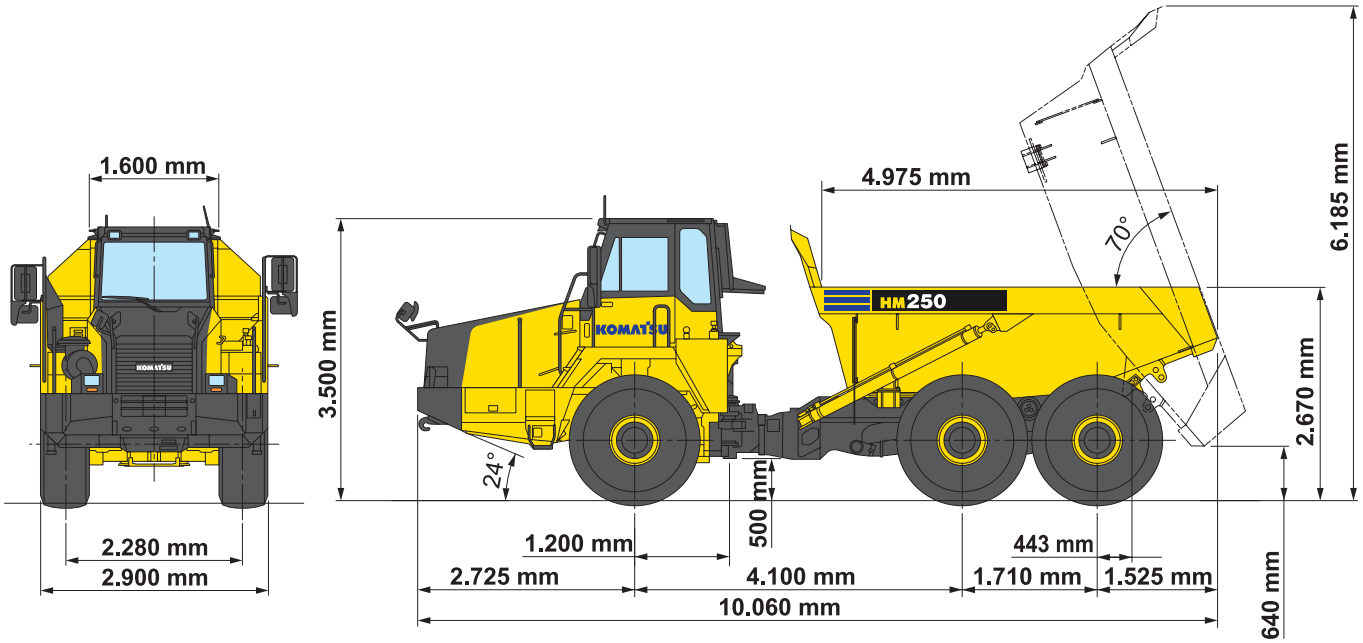
Noise levels
- LwA external ..... 108 dB(A) (2000/14/EC Stage II)
- LpA operator ear ..... 76 dB(A) (ISO 6396 dynamic test)

Vibration levels (EN 12096:1997)*
- Hand/arm ..... ≤ 2,5 m/s^2 (uncertainty K = 0,77 m/s^2)
- Body ..... ≤ 0,5 m/s^2 (uncertainty K = 0,21 m/s^2)

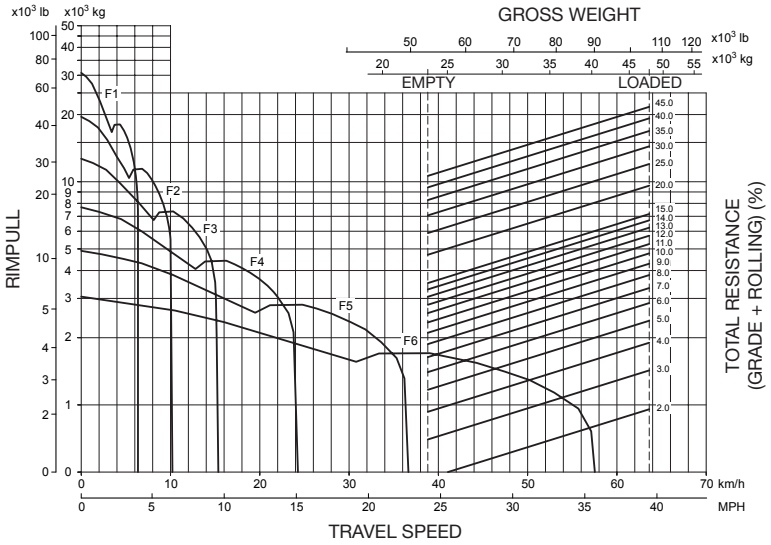
* for the purpose of risk assessment under directive 2002/44/EC, please refer to ISO/TR 25398:2006.

Dimensions & Performance Figures



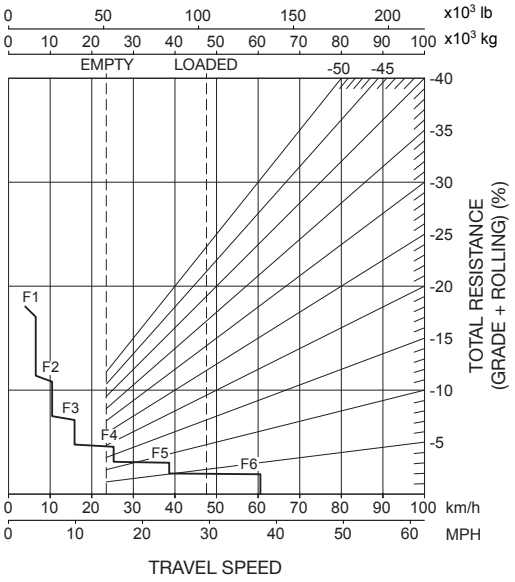


TRAVEL PERFORMANCE



BRAKE PERFORMANCE

GRADE DISTANCE: CONTINUOUS DESCENT
GROSS WEIGHT



Articulated Dump Truck

HM250-2

Standard and Optional Equipment

ENGINE	
Komatsu SAA6D125E-5 turbocharged common rail direct injection diesel engine EU Stage IIIA/EPA Tier III compliant	●
Exhaust muffler with stack	●
Alternator 50 A/24 V	●
Starter motor 7,5 kW	●
Batteries 2 × 12 V/136 Ah	●
Alternator 75 A/24 V	○

BODY	
Electronic hoist control system	●
Body exhaust heating kit	○
Body liner	○
Tail gate, wire type, overall width 2.998 mm	○
Upper side extension, 200 mm	○

AXLES AND TYRES	
Limited slip differentials in all axles	●
Tyres 23.5 R25	●
Tyres 30/65 R25 (750/65 R25)	○

SERVICE AND MAINTENANCE	
Centralized greasing	●
EMMS (Equipment Management and Monitoring System) with self-diagnostic function and maintenance display	●
KOMTRAX™ - Komatsu satellite monitoring system	●
Gas charge tool for suspension cylinders	○
Toolkit and spare parts for first service	○
Vandalism protection	○

CABIN	
Tilting ROPS/FOPS cab, sound suppression type	●
Two doors, left and right	●
Operator seat, reclining, air suspension type with retractable 78 mm width seat belt	●
Trainer seat	●
Steering wheel, tilt and telescopic	●
Air conditioner	●
Heated rear window	●
Power window (l.h.)	●
Sun visor, front window	●
Cigarette lighter, ashtray, cup holder, space for lunch box	●
Power window (r.h.)	○
Radio	○
Cassette-radio	○
Body dump counter	○

SAFETY EQUIPMENT	
Beacon light	●
Back-up alarm	●
Anti-slip material on fenders	●
Automatic supplementary steering	●
Coolant temperature alarm and light	●
Electric circuit breaker, 24 V	●
Hand rails for platform	●
Horn, electric	●
Ladders, left and right hand side	●
Protective grille for rear window	●
Rear-view mirrors	●
Under-view mirrors	●
Steering joint locking assembly	●
Side marker	●
Fire extinguisher	○
Rear-view camera and monitor	○

LIGHTING SYSTEM	
Back-up light	●
Hazard lights	●
Headlights with dimmer switch	●
Indicator, stop and tail lights	●
Back work lights, left and right side	○
Fog lights	○

OTHER EQUIPMENT	
Mud guards	●
Engine underguard	●
Propeller shaft guards, front and rear	●
Transmission underguard	●
Exhaust muffler thermal guard	●
Fire prevention covers	●
Automatic retarder with acceleration control (ARAC)	○

Further equipment on request

● standard equipment
○ optional equipment

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