KOMATSU

HM300-5

EU Stage IV Engine

HM300

ARTICULATED DUMP TRUCK



ENGINE POWER
248 kW / 332 HP @ 2.000 rpm

BODY CAPACITY, HEAPED
17,1 m³

MAX. PAYLOAD
28 ton

Walk-Around

HM300-5



ENGINE POWER
248 kW / 332 HP @ 2.000 rpm

BODY CAPACITY, HEAPED
17,1 m³

MAX. PAYLOAD
28 ton



PRODUCTIVITY ON DEMAND

Powerful and Environmentally Friendly
- EU Stage IV engine
- Komatsu fuel-saving technology
- Eco-guidance & Eco-gauge

First-Class Comfort
- Fully air-suspended operator seat
- Low-noise design
- Hydro-pneumatic suspension



Maximised Efficiency
- Komatsu Traction Control System (KTCS)
- Selectable working modes
- Adjustable idle shutdown
- Integrated payload meter (optional)

Safety First
- Komatsu SpaceCab™ – Built-in ROPS/FOPS
- Rear-view camera system
- Safe cab access

Easy Maintenance
- Ground level access to filters
- Reversible radiator fan
- Power cab tilt

KOMTRAX™
- Komatsu Wireless Monitoring System
- 3G mobile communications
- Integrated communication antenna
- Increased operational data and fuel savings

KOMATSU CARE™

A maintenance program for Komatsu customers

Powerful and Environmentally Friendly



Productivity on demand

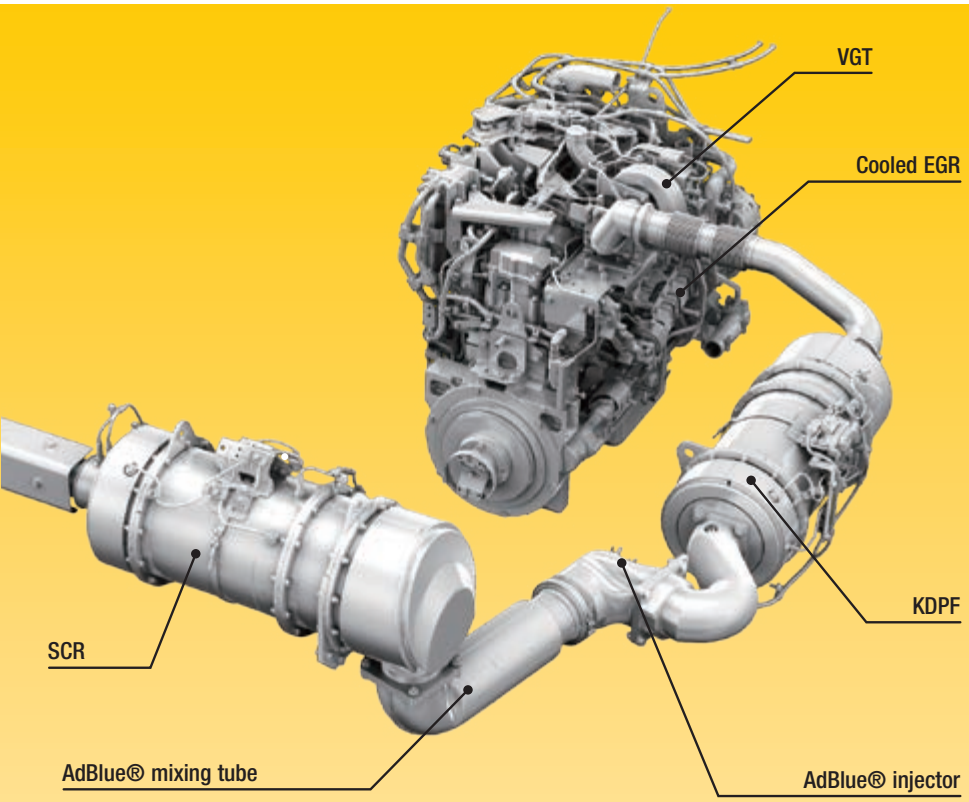
With a powerful Komatsu EU Stage IV engine, the advanced Komatsu Traction Control System, selectable working modes for on-demand performance adjustments, a robust exterior, and state-of-the-art solutions for its suspension and retarder, the HM300-5 is a perfect choice for any jobsite, in any conditions.

Komatsu fuel-saving technology

The variable displacement piston pump reduces Power Take-Off (PTO) loss. Improvements in transmission and axles increase energy savings, and the sophisticated electronic control of the engine operation helps to achieve optimal energy efficiency.

Adjustable idle shutdown

To reduce unnecessary fuel consumption and exhaust emissions, and for lower operating costs, the Komatsu auto idle shutdown automatically turns off the engine after it idles for a set period of time, which can be easily programmed from 5 to 60 minutes. An Eco-gauge and Eco guidance tips on the cab monitor further encourage efficient operations.



Komatsu EU Stage IV

The Komatsu EU Stage IV engine is productive, dependable and efficient. With ultra-low emissions, it provides a lower environmental impact and a superior performance to help reduce operating costs and lets the operator work in complete peace of mind.

Heavy-duty aftertreatment

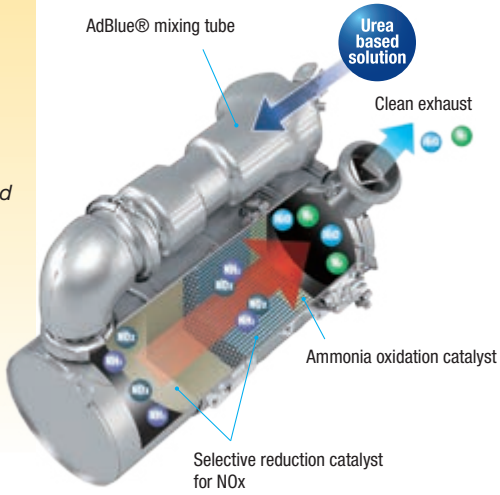
The aftertreatment system combines a Komatsu Diesel Particulate Filter (KDPF) and Selective Catalytic Reduction (SCR). The SCR injects the correct amount of AdBlue® into the system at the proper rate to break down NOx into water (H2O) and non-toxic nitrogen gas (N2). NOx emissions are reduced by 80% vs. EU Stage IIIB engines.

Exhaust Gas Recirculation (EGR)
Cooled EGR is a technology well-proven in current Komatsu engines. The increased capacity of the EGR cooler now ensures very low NOx emissions and a better engine performance.

Komatsu Closed Crankcase Ventilation (KCCV)
Crankcase emissions (blow-by gas) are passed through a CCV filter. The oil mist trapped in the filter is returned back to the crankcase while the filtered gas is returned to the air intake.

High-Pressure Common Rail (HPCR)
To achieve complete fuel burn and lower exhaust emissions, the heavy-duty High-Pressure Common Rail fuel injection system is computer controlled to deliver a precise quantity of pressurised fuel into the redesigned engine combustion chamber by multiple injections.

Variable Geometry Turbo (VGT)
The VGT provides optimal airflow to the engine combustion chamber under all speed and load conditions. Exhaust gas is cleaner, fuel economy is improved while machine power and performance are maintained.

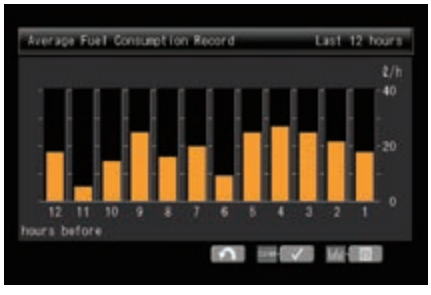




Adjustable idle shutdown



Eco-gauge and Eco guidance



Fuel consumption history

Maximised Efficiency

HM300-5

Komatsu Traction Control System (KTCS)

For its world renowned rigid dump trucks, Komatsu developed various wheel slip control systems that were refined and combined with new technologies to produce the advanced traction control system that equips all HM300-5 machines. KTCS automatically provides optimum traction in any ground condition. If tyre slippage is detected by one of the speed sensors located on four of the wheels, it triggers the automatic application of the inter-axle differential lock. If slippage persists, the intelligent brakes systems automatically control the slipping wheel and regain traction on the opposite side. This improves productivity and tyre durability.

K-ATOMiCS transmission

Komatsu's exclusive electronically controlled transmission, or K-ATOMiCS, is tuned perfectly for the HM300-5. 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.

Large capacity body

The HM300-5 has a payload of 28 tonnes that combines with a loading height of only 2.830 mm to enable easy loading. The truck features a low centre of gravity and a high ground clearance.

Selectable working modes

"Power mode" is for high production jobs and uphill hauling. It increases the engine's maximum output and raises the upshift and downshift engine speeds during operation. For lighter work on flat ground, the "Economy mode" will lower the engine's maximum output and the upshift and downshift speeds.

Payload meter (optional)

The loaded weight is displayed on the cab monitor, and its status is also communicated to the loader operator with an external light, located on top of the cab. PLM data is stored in the truck's controller: it can be directly downloaded to a PC and is included in the KOMTRAX™ data you can access via the internet.



Komatsu Traction Control System (KTCS): maximum machine performance on soft and slippery ground



Payload meter displays the loaded weight




300

First-Class Comfort



Wide and comfortable cab

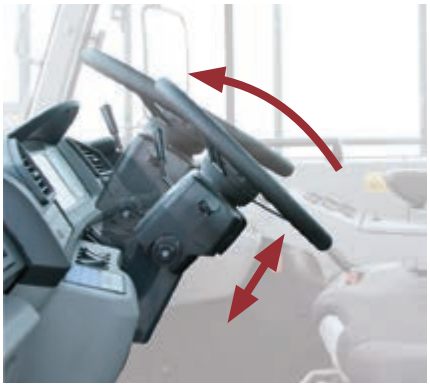
The wide Komatsu SpaceCab™ with user-friendly controls provides a comfortable and safe work environment. A fully adjustable air-suspended seat dampens vibrations and reduces the fatigue of long shifts. Large front and electric side windows give a superior visibility and increased confidence. The rear window can be electrically heated for quick defrosting.

Unique hydro-pneumatic suspension

On both the front and rear axle, Komatsu's unique trailing arm hydro-pneumatic suspension gives the HM300-5 a smooth ride with reduced pitching and excellent driving comfort. Less shocks for the operator and for the machine components also mean less spilled material and increased durability, comfort and productivity.

Low-noise design

To reduce 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 helps to bring sound levels way down, to just 73 dB(A).



Set the steering wheel to the most comfortable position



The full size trainer seat has a foldable cushion and back rest for easy cab entry and access to the air conditioner filter and glove compartment



Convenient auxiliary input (MP3 jack) and 12 V power supply



Air-suspended seat

A high comfort air-suspended seat, with lumbar support and multiple adjustments, ensures operator well-being during the entire work shift. Both seats can be heated, for an easy start on cold winter days.

Information & Communication Technology



Lower operating costs

Komatsu ICT contributes to the reduction of operating costs by assisting to comfortably and efficiently manage operations. It raises the level of customer satisfaction and the competitive edge of our products.

Large TFT colour monitor

A large user-friendly colour monitor enables safe, accurate and smooth work. Multilingual and with all essential information available at a glance, it features simple and easy-to-operate switches and multifunction keys that provide fingertip access to a wide range of functions and operating information.

Eco guidance

The monitor panel displays instant guidance messages to help promote energy saving, and the Eco-gauge indicates the actual fuel consumption: keep the Eco-gauge in the green zone for better fuel efficiency. To further improve savings, logs can be consulted for operations, Eco guidance and fuel consumption.



Information at a glance: basic dashboard LCD monitor



A multifunction monitor displays and controls a wealth of operational and maintenance information

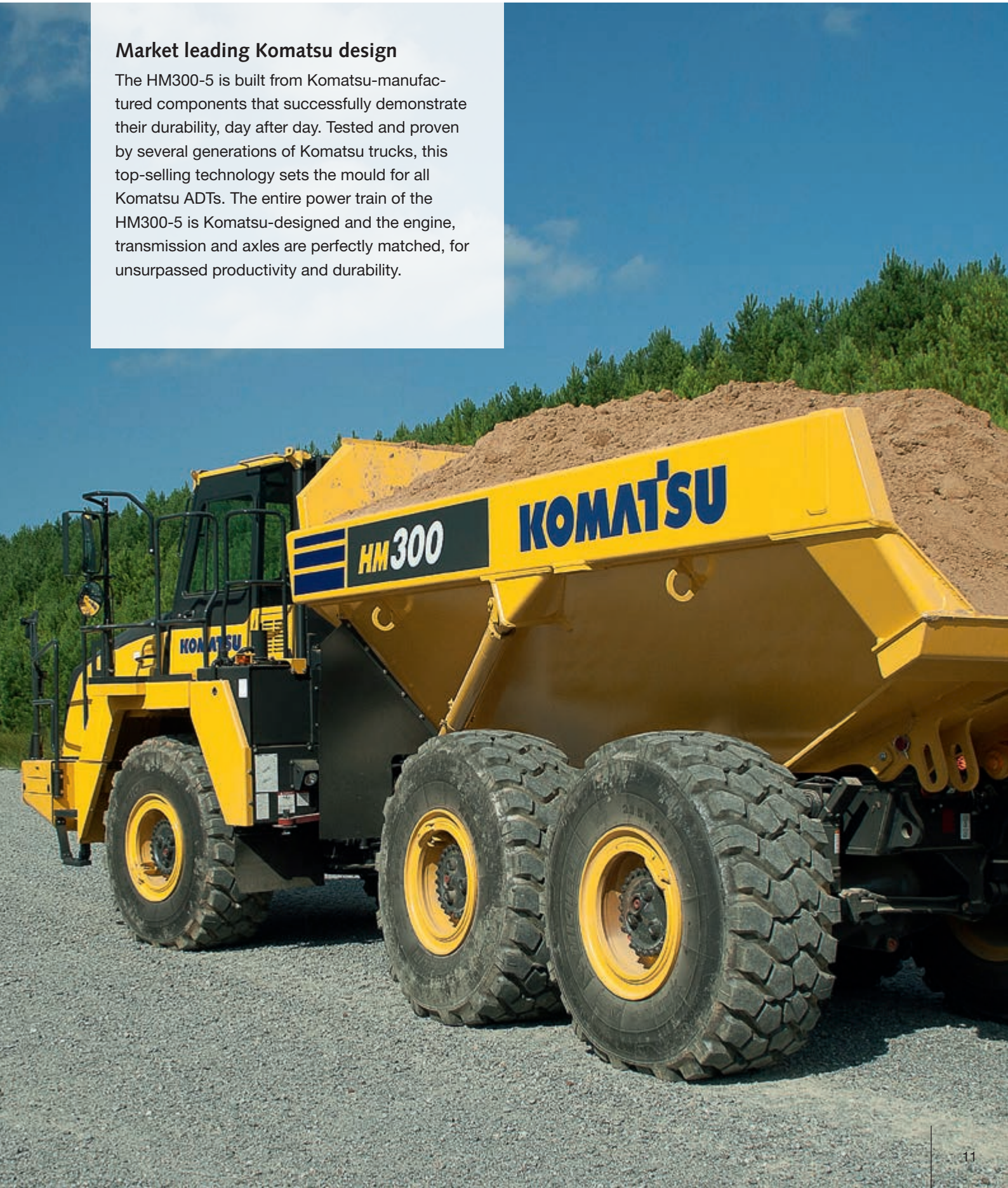


Eco guidance supports energy saving in real time

Tough and Reliable

Market leading Komatsu design

The HM300-5 is built from Komatsu-manufactured components that successfully demonstrate their durability, day after day. Tested and proven by several generations of Komatsu trucks, this top-selling technology sets the mould for all Komatsu ADTs. The entire power train of the HM300-5 is Komatsu-designed and the engine, transmission and axles are perfectly matched, for unsurpassed productivity and durability.



Safety First

Safer with KTCS

By operating only the accelerator, Komatsu's unique Traction Control System (KTCS) allows full-time all-wheel drive, along with safe and easy turning on soft ground and slippery roads. Thanks to this superior steering, no extra skill is required to drive an HM300-5.

Wet multiple-disc brakes and retarder

Wet multiple-disc brakes are tailored for the HM300-5, with proven performance in larger articulated and rigid trucks. The large-capacity, continuously cooled, wet-multiple disc brakes also function as a highly responsive retarder for greater confidence when travelling downhill at higher speeds. (Retarder absorbing capacity, continuous descent: 392 kW 526 HP)

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 combine to minimise blind spots.

Rear frame inclination sensor

To help avoid personal and machine damage, the system will issue a warning if ever there should be a risk of body tip over.

Supplementary steering and secondary brakes

Standard features on the HM300-5 include supplementary steering and secondary brakes. They help to guarantee safety in emergency situations.



Built-in ROPS/FOPS to ISO 3471 and SAE J1040-1988c standards



Safe cab access with handrail, away from the potentially hazardous articulation



Rear-view camera system



Secondary engine shutdown switch



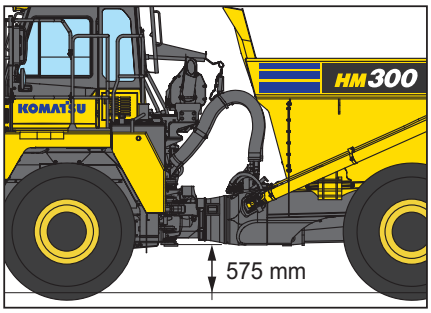

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KOMATSU
HM300
KOMATSU

Easy Maintenance



Ground level access

Transmission oil filters and brake systems can be serviced from ground level.



Ground clearance

With 575 mm free space, the hinge connection on the HM300-5 stays out of the mud and its robust maintenance-free build gives it a longer life.

Reversible radiator fan

By a touch on the monitor panel, the radiator can be cleaned easily with a reversible, hydraulically driven cooling fan. A clean radiator reduces fuel consumption and increases overall machine performance.



AdBlue® tank

For simple access, the AdBlue® tank is installed next to the fuel tank.

Lowest brake maintenance cost

No matter how abrasive the application, no need to worry about an early replacement of the brake disc packs. Brakes on the HM300-5 are embedded in an oil bath and sealed off from the environment. Their exceptionally long overhaul period minimises maintenance costs.

Tilting cab

The cab can be electrically tilted rearward 29 degrees to provide easy maintenance and service to the engine and transmission.



Basic maintenance screen



Radiator fan mode



AdBlue® level and refill guidance



KOMTRAX™

The way to higher productivity

KOMTRAX™ uses the latest wireless monitoring technology. Compatible on PC, smartphone or tablet, it delivers insightful and cost saving information about your fleet and equipment, and offers a wealth of information to facilitate peak machine performance. By creating a tightly integrated web of support it allows proactive and preventive maintenance and helps to efficiently run a business.





Knowledge

You get quick answers to basic and critical questions about your machines – what they're doing, when they did it, where they're located, how they can be used more efficiently, and when they need to be serviced. Performance data is relayed by wireless communication technology (Satellite, GPRS or 3G depending on model) from the machine to a computer and to the local Komatsu distributor – who's readily available for expert analysis and feedback.

Power

The detailed information that KOMTRAX™ puts at your fingertips 24 hours a day, 7 days a week gives the power to make better daily and long-term strategic decisions – at no extra cost. Problems can be anticipated, maintenance schedules customised, downtime minimised and machines kept where they belong: working on the jobsite.

Convenience

KOMTRAX™ enables convenient fleet management on the web, wherever you are. Data is analysed and packaged specifically for effortless and intuitive viewing in maps, lists, graphs and charts. You can foresee eventual maintenance issues and required spare parts, and troubleshoot a problem before Komatsu technicians arrive on site.

Specifications

HM300-5

ENGINE

Model	Komatsu SAA6D125E-7
Type	Common rail direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel
Engine power	
at rated engine speed	2.000 rpm
ISO 14396	248 kW/332 HP
ISO 9249 (net engine power)	242 kW/324 HP
No. of cylinders	6
Bore × stroke	125 × 150 mm
Displacement	11,04 l
Max. torque	1.680 Nm (171 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 speed	58,6 km/h

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	8,10 m
Articulation angle	45° each direction

SUSPENSION

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

TYRES

Standard tyres	23.5 R25

CAB

Complies ISO 3471 ROPS (Roll-Over Protective Structure)
ISO 3449 FOPS (Falling Object Protection Structure) standards.

AXLES

Full time all wheel drive with Komatsu Traction Control System.	
Final drive type	Planetary gear
Ratios:	
Differential	3,154
Planetary	4,667

BRAKES

Service brakes	Independent front and center wheel brakes, full-hydraulic control, oil-cooled, multiple-disc type
Parking brake	Spring applied, calliper 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.

SERVICE REFILL CAPACITIES

Fuel tank	388 l
Engine oil	35 l
Torque converter, transmission and retarder cooling	98 l
Differentials (total)	71,5 l
Final drives (total)	23 l
Hydraulic system	103 l
Suspension (total)	10,4 l
AdBlue® tank	32,8 l

HYDRAULIC SYSTEM

Hoist cylinder	Twin, 1-stage type
Relief pressure	29,4 MPa (300 kg/cm²)
Hoist time	10,5 s

ENVIRONMENT

Engine emissions	Fully complies with EU Stage IV exhaust emission regulations
Noise levels	
LwA external	114 dB(A) (2000/14/EC Stage II)
LpA operator ear	73 dB(A) (ISO 6396 dynamic test)
Vibration levels (EN 12096:1997)	
Hand/arm	≤ 2,5 m/s² (uncertainty K = 1,17 m/s²)
Body	≤ 0,5 m/s² (uncertainty K = 0,45 m/s²)

Contains fluorinated greenhouse gas HFC-134a (GWP 1430).
Quantity of gas 0,9 kg, CO_2 equivalent 1,29 t

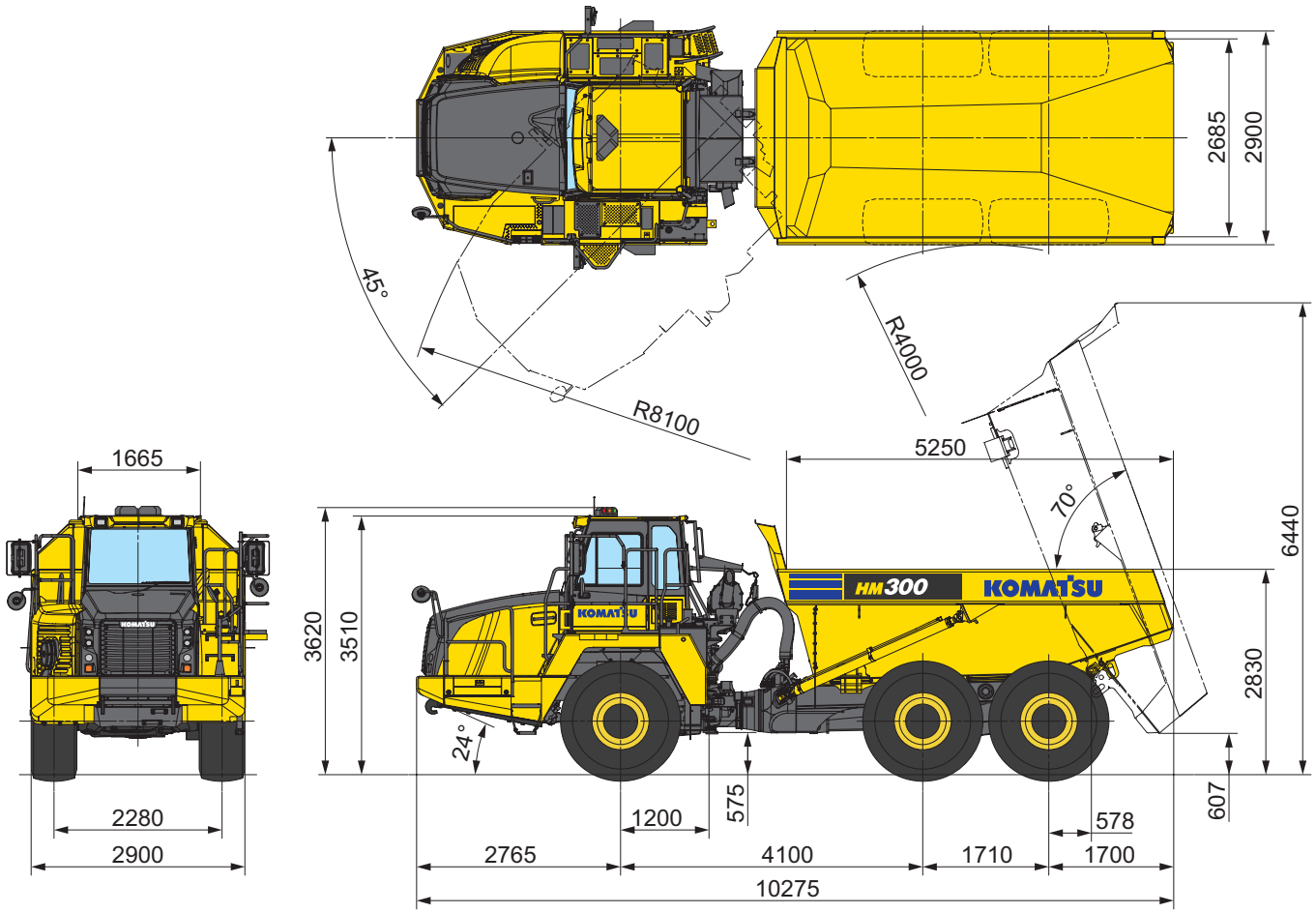
Dimensions & Performance Figures

WEIGHT (APPROX.)	
Empty weight	25.395 kg
Gross vehicle weight	53.475 kg
Weight distribution	
Empty:	
Front axle	59%
Centre axle	22,5%
Rear axle	18,5%
Loaded:	
Front axle	31%
Centre axle	36%
Rear axle	33%

BODY	
Capacity:	
Struck	13,4 m³
Heaped (2:1, SAE)	17,1 m³
Payload	28 tons
Material	130 kg/mm² High tensile strength steel
Material thickness:	
Bottom	14 mm
Front	8 mm
Sides	12 mm
Target area (inside length × width)	5.250 mm × 2.685 mm
Heating	Exhaust heating

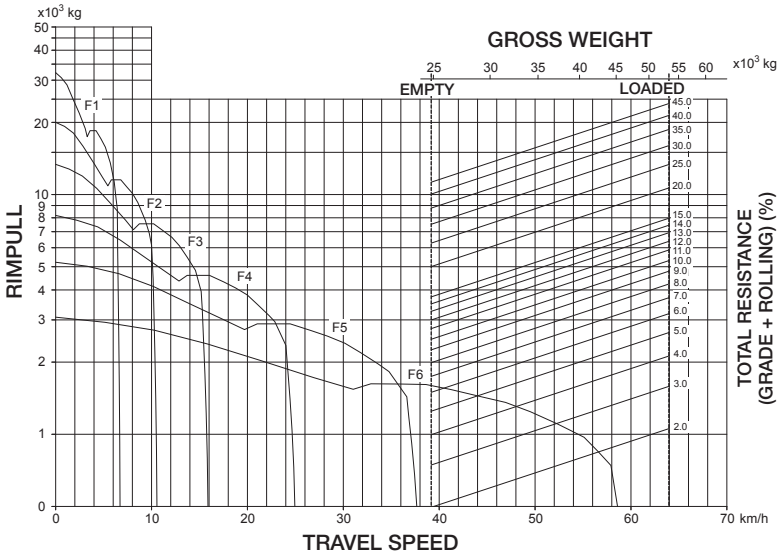


Dimensions & Performance Figures

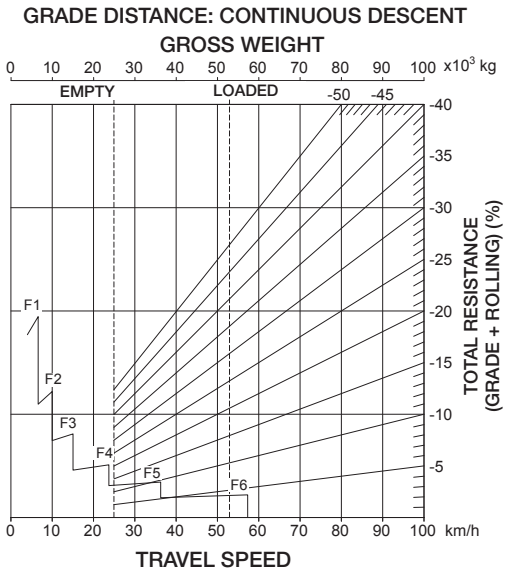


All measurements with tyres 23.5 R25

TRAVEL PERFORMANCE



BRAKE PERFORMANCE





Standard and Optional Equipment

HM300-5

ENGINE

Komatsu SAA6D125E-7 turbocharged common rail direct injection diesel engine	●
EU Stage IV compliant	●
Remote hydraulically driven, variable speed, reversible cooling fan	●
Auto-deceleration function	●
Adjustable idle shutdown	●
Alternator 150 A/24 V	●
Starter motor 7,5 kW/24 V	●
Batteries 2 × 12 V/136 Ah	●

SERVICE AND MAINTENANCE

Electrically tilting cab	●
Centralised greasing	●
Large TFT colour monitor panel	●
KOMTRAX™ – Komatsu wireless monitoring system	●
Komatsu CARE™ – a maintenance program for Komatsu customers	●
Electric refuelling pump with automatic shut-off function	●
Vandalism protection	●
Gas charge tool for suspension cylinders	○

OTHER EQUIPMENT

Mud guards	●
Engine underguard	●
Propeller shaft guards, front and rear	●
Transmission underguard	●
Komatsu Diesel Particulate Filter (KDPF) thermal guard	●
Fire prevention covers	●
Automatic retarder with acceleration control (ARAC)	●
Tool box storage compartment	●
Payload meter (PLM)	○

CABIN

ROPS/FOPS cab, sound suppression type	●
Operator seat, reclining, air suspension type with 50 mm width 3-point seat belt	●
Trainer seat with 2-point seat belt	●
Steering wheel, tilt and telescopic	●
Air conditioner	●
Heated rear window (electric)	●
Power window (l.h.)	●
Sun visor, front window	●
Body dump counter	●
Cigarette lighter, ashtray, cup holder, space for lunch box	●
Pre radio installation kit	●
Power mode, economy mode	●
Odometer	●
Eco guidance	●
2× 12 Volt power supply	●

LIGHTING SYSTEM

Back-up light	●
Turn indicator lights front/rear with hazard function	●
Headlights high and low beam with dimmer switch	●
Side lamps back cabin	●
Fog lights	●
LED stop and tail lights, turn indicator lights	●
Back work lights, left and right side	○

BODY

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

SAFETY EQUIPMENT

Back-up alarm	●
Anti-slip material on fenders	●
Automatic supplementary steering	●
Coolant temperature alarm and light	●
Battery main switch	●
Hand rails for platform	●
Horn, electric	●
Ladders, left and right hand side	●
Protective grille for rear window	●
Protective fence around engine hood	●
Rear-view mirrors (heated)	●
Under-view mirrors	●
Steering joint locking assembly	●
Side marker	●
Rear-view camera system	●
Side inclination caution alarm	●
Emergency engine stop switch	●
Fire extinguisher	○

AXLES AND TYRES

Komatsu Traction Control System	●
Differential lock switch	●
Tyres 23.5 R25	●
Tyres 30/65 R25 (750/65 R25)	○

Further equipment on request

● standard equipment
○ optional equipment

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EENSS20112 02/2017

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