

KOMATSU®

HM300-3

GROSS HORSEPOWER

248 kW 332 HP

NET HORSEPOWER

242 kW 324 HP

MAXIMUM GVW

52990 kg

**HM
300**

ARTICULATED DUMP TRUCK

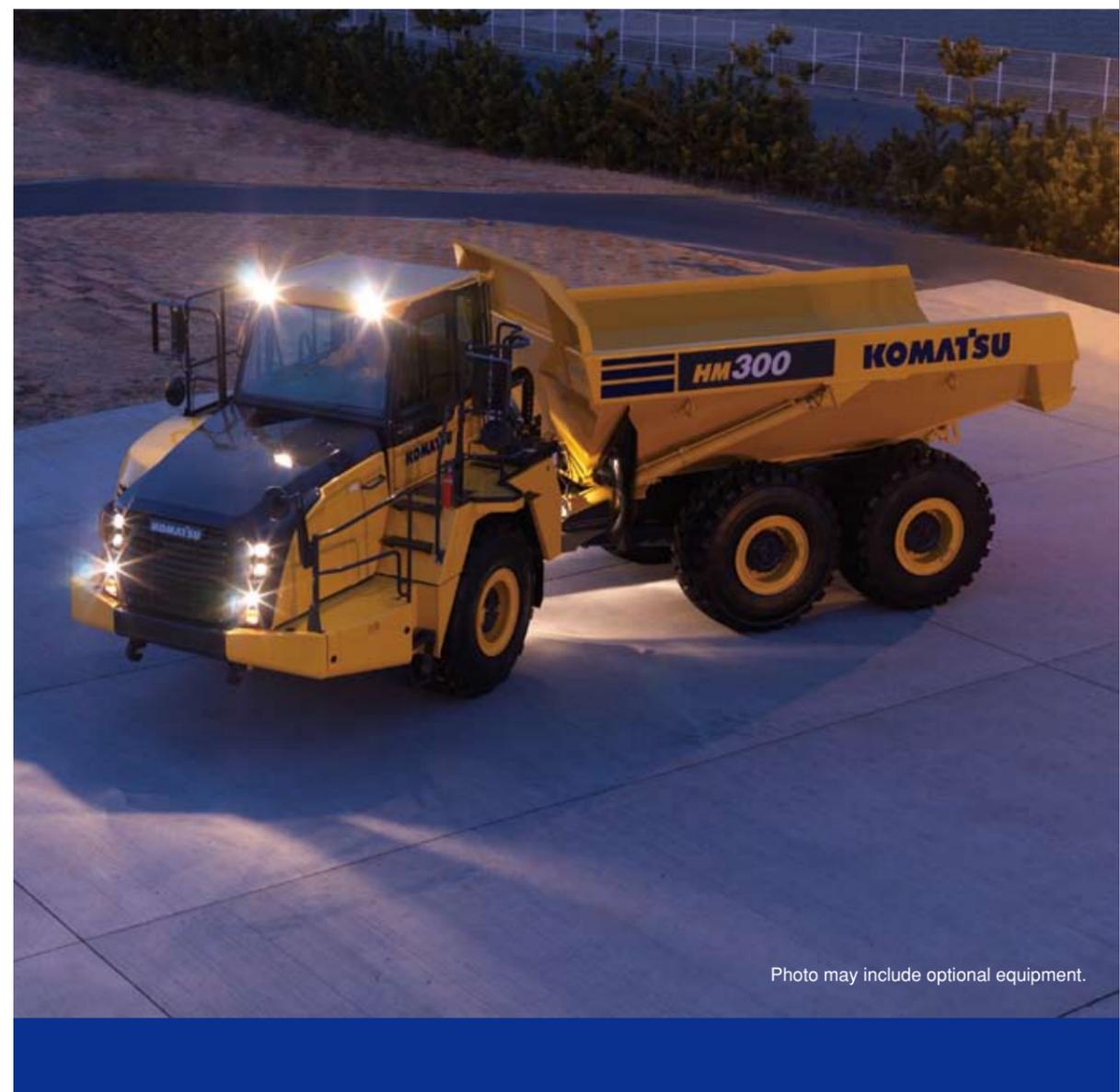


Photo may include optional equipment.

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.

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WALK-AROUND

High performance and environment-friendly SAA6D125E-6 engine

- Gross horsepower 248 kW 332 HP
- EPA Tier 4 Interim and EU Stage 3B emissions certified.
- Engine power mode selection system realizes both greater productivity and improved fuel economy.

KTCS (Komatsu Traction Control System)

allows easy traveling on soft ground.

Komatsu designed, electronically controlled transmission for a comfortable ride.

F6-R2 counter-shaft type transmission with K-ATOMiCS (Komatsu Advanced Transmission with Optimum Modulation Control System). Transmission shift hold button optimizes the operator control.

Wide, spacious cab with excellent visibility

- Center-located Operator's Seat
- Short nose design
- The rounded engine hood provides improved front visibility
- Color rear view camera & monitor
- The wide cab offers a comfortable operator and passenger environment



Photo may include optional equipment.

For operator comfort

- Low noise cab through improved sealing with integrated floor Interior noise level 73 dB(A)
- Air suspension seat
- Radio with AUX terminal

Information & Communication technology

- Multiple-purpose color monitor
- The energy saving operation is supported by "ECO Guidance" in real time.
- ECO gauge

High capacity, reliable, continuously cooled, wet type multiple-disc brakes and retarder

- Fully hydraulic controlled wet multiple-disc brakes
- Retarder absorbing capacity (continuous descent)
392 kW 526 HP



Easy-to-load body

- Heaped capacity 17.1 m³
- Low loading height 2830 mm
- High strength body constructed of thick wear-resistant steel having 400 Brinell hardness

Hydro-pneumatic suspension for all terrains.

The hydro-pneumatic suspension in both front and rear suspensions assures a comfortable ride even over rough terrain.

GROSS HORSEPOWER
248 kW 332 HP @ 2000 min⁻¹

NET HORSEPOWER
242 kW 324 HP @ 2000 min⁻¹

MAXIMUM GVW
52990 kg

PRODUCTIVITY & ECOLOGY FEATURES

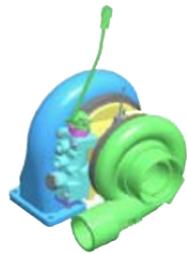
High Performance Komatsu SAA6D125E-6 Engine

This engine delivers faster acceleration and higher travel speeds with high horsepower per ton in its class. Advanced technology, such as KVGT (Komatsu Variable Geometry Turbocharger), KDPF (Komatsu Diesel Particulate Filter), and HPCR (High-Pressure Common Rail) enables the engine to meet EPA Tier 4 Interim and EU Stage 3B emissions certification. High torque at low speed, impressive acceleration, and low fuel consumption ensure maximum productivity.

Komatsu's new engine technology includes

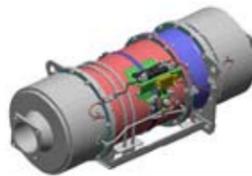
New designed KVGT (Komatsu Variable Geometry Turbocharger)

A newly designed variable geometry turbocharger features Komatsu proprietary technology that varies the air-flow and delivers optimum air quantity to the engine combustion chamber under all speed and load conditions. The result is cleaner exhaust gas and improved fuel economy while maintaining power and performance.



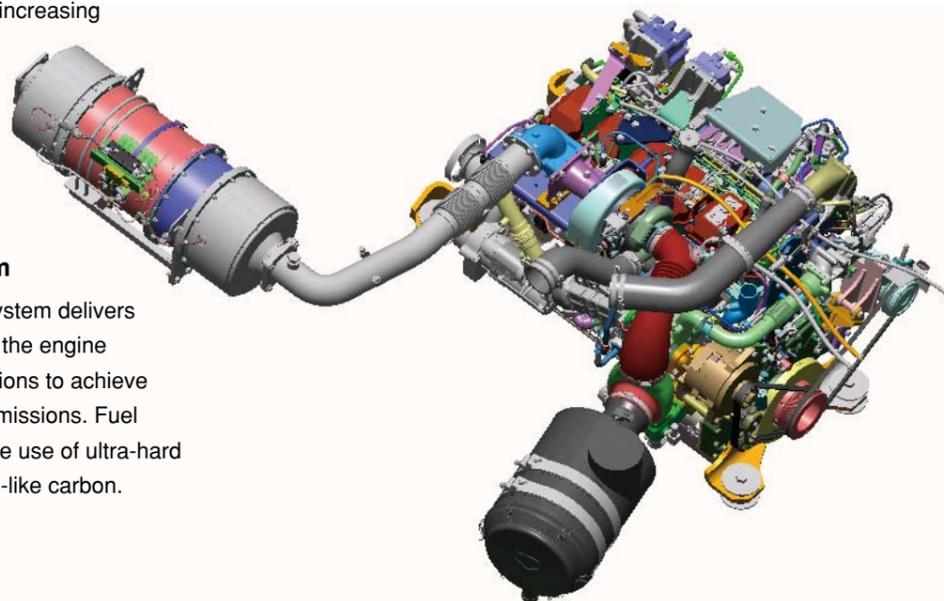
Newly designed KDPF (Komatsu Diesel Particulate Filter)

Komatsu has designed and developed a high efficiency diesel particulate filter that captures more than 90% of PM (Particulate Matter). Passive and active regeneration is initiated automatically by the engine controller as needed to burn the particulates while the engine is running allowing uninterrupted machine operation. A special oxidation catalyst with fuel injection system eliminates the need for a traditional fuel burner thereby reducing maintenance costs and increasing reliability.



Heavy duty HPCR (High-Pressure Common Rail) fuel injection system

Computer controlled heavy duty HPCR system delivers a precise quantity of pressurized fuel into the engine combustion chamber using multiple injections to achieve complete fuel burn and reduce exhaust emissions. Fuel injector life has been improved through the use of ultra-hard wear resistant materials such as diamond-like carbon.



Larger more robust cooled EGR (Exhaust Gas Recirculation) system

Cooled EGR, a technology well-proven in existing Komatsu engines, has increased capacity to further reduce NOx to Tier 4 levels. Larger more robust components ensure reliable performance during the demanding work conditions of construction equipment.



Redesigned combustion chamber at top of piston

The fuel/air combustion chamber located at the top of the engine piston has a new shape designed to improve combustion and further reduce NOx, PM, fuel consumption and noise.

KCCV (Komatsu Closed Crankcase Ventilation)

Oil mist trap efficiency is significantly increased from previous "Breather"s, from around 50% trap efficiency to 95% trap efficiency. Almost oil mist free crankcase gas (blow-by gas) is delivered back to the intake.



Low fuel consumption

Realize 8% better fuel economy in the field compared to the HM300-2.

New variable displacement piston pump for reducing PTO (Power Take-Off) pressure loss, improvements in transmission and axles for increasing energy saving, and the sophisticated electronic control of the engine operation to achieve optimal energy efficiency in producing required power as sensed through changing fan load data, all combined, realize 8% better fuel economy in the field compared to the HM300-2.

Fuel consumption 8% reduction

* Compared with the HM300-2 fuel consumption varies depending on job conditions.

Engine power mode selection system

The system allows the appropriate mode, <Power mode> or <Economy mode>, to be selected according to each working condition. The mode is easily selected with a switch in the operator's cab.

Power mode

Great productivity can be attained by taking a full advantage of high output power. It is appropriate for job sites where larger production when uphill-hauling is required.

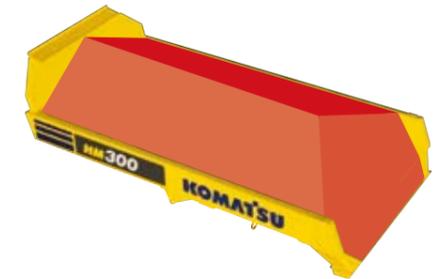
Economy mode

Engine speeds of the maximum output, downshift, and upshift are set to a lower level. It is appropriate for light work on flat ground.

Increased body capacity and box section frame structure

Increased the loading capacity from 27.3 to 28.0 metric tons by increasing the body capacity.

The HM300 has the large heaped capacity of 17.1 m³ body. The low loading height of 2830 mm enables easy loading. The body is built of high strength wear-resistant steel with a Brinell hardness of 400, and the body shape provides excellent load stability.



Rugged enough for the toughest jobs, the HM300's frame is designed using a rigid box structure with connecting torque tubes made of high strength low alloy steel.

Komatsu designed electronically controlled countershaft transmission

The Komatsu designed Electronically Controlled Transmission called K-ATOMiCS has been a success in Komatsu's rigid dump trucks. The electronic clutch modulation system ensures proper clutch pressure when the clutch is engaged. The total control system controls both the engine and transmission by monitoring the vehicle conditions. This high technology system assures smooth shifts without shock and maximizes power train life.

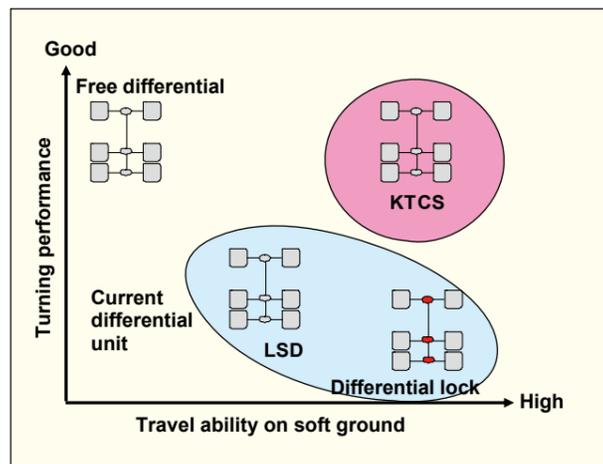


SAFETY FEATURES

Komatsu Traction Control System (KTCS)

Komatsu has developed various shoe/wheel slip control technologies including Shoe Slip Control (SSC) system for bulldozers, Automatic Spin Regulator (ASR) for rigid type off-highway dump trucks, etc. These technologies are refined and combined with newly developed slip control technologies for articulated dump trucks to produce the evolutionally-advanced traction control system.

New traction control system allows easy traveling on soft ground and slippery road only by operating the accelerator. This also provides much better turning performance than the conventional differential lock-up or the Limited Slip Differential (LSD).



Access safety

A spike type hubbly-faced antiskid plate is used for boarding the HM300-3. Also supplemented a protective fence around the engine hood.



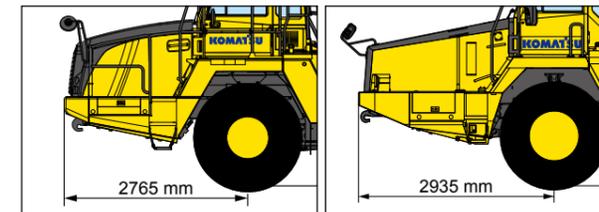
Protective fence



All-around visibility

Short nose

New layout of the cooling system allows for a shorter nose shape compared to the previous model increasing the field of view to the operator.



HM300-3

HM300-2

Color rear view camera and monitor

The new color rear view camera & monitor are equipped as standard.

Wide and balanced view

The operator's seat placed at the center of the cab provides wide and balanced view to the right and left.

Round type mirrors and foldable back mirrors

The round type mirrors are incorporated providing a wide view. The back mirrors can be folded by removing only one bolt.

Heated mirror (Optional)

The heated front mirrors are available options.

Round halogen lamp and optional fog lamp

Round halogen lamps are used for the head lamps and optional fog lamps. They are incorporated in the engine hood to give a sense of unity.



Head lamp (High)

Head lamp (Low)

Fog lamp

Rear combination lamp

Long-life LED brake lamp (tail lamp) is optionally available.



LED lamp (Optional)



STD lamp

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 HM300-3. The large-capacity, continuously cooled, wet-multiple disc brakes also function as a highly responsive retarder which gives the operator greater confidence at higher speeds when travelling downhill.

Retarder Absorbing Capacity (continuous descent):

392 kW 526 HP

OPERATOR COMFORT



Ergonomic comfort

Ergonomic design round dashboard is incorporated. Switches are so arranged that they are easy to reach.

Machine monitor



Color rear view monitor



Multi-switch panel



Air suspension seat

The air suspension, fabric-covered seat which is adjustable to the operator's weight is provided as standard. The air suspension seat dampens vibrations transmitted from the machine and reduces operator fatigue.



3 point seat belt

The machine is equipped with the three-point seat belt as standard equipment, which secures the wearer from hitting hard interior of the machine.

Foldable passenger seat

The cushion and back rest of the passenger seat are foldable. Folding the cushion allows the operator to come in and out of the cab and allows easy access to the recirculation filter of the air conditioner. Folding the backrest allows access to the glove compartment at the rear of the seat.



Tilt-away steering column

The tiltable steering column and telescopic steering wheel allows the operator to set the steering wheel to the desired position. The tilt mechanism is spring-assist type for easy adjustment.

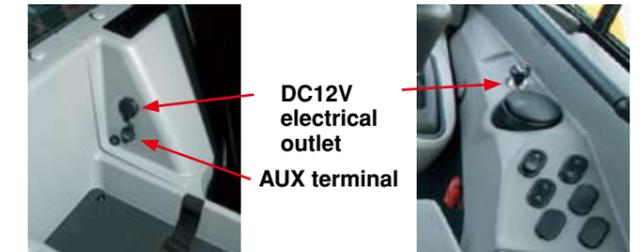


Radio with AUX terminal

To connect MP3 player etc., AUX terminal is prepared in the cab.

Adopted two of DC12V electrical outlets

A 12 V cigarette lighter is installed at the front right with an additional 12 V outlet.



Center-located operator seat

Provides a wide view placing the seat at the center of driver's cabin.



Hydro-pneumatic suspension

Hydro-pneumatic suspension with proven performance in larger articulated and rigid trucks is tailored for use in the HM300-3.

The front axle hydro-pneumatic suspension employs "De Dion" type design, allowing the machine to ride more smoothly over bumps. The rear-axle are mounted on a dynamic equalizer structure equipped with hydro-pneumatic suspension. The entire vehicle's suspension delivers a comfortable ride and maximizes productivity.

Low noise

New hydraulically driven fans and redesigned layout of the cooling system helps achieve a low noise level that meets the EU regulation.

Electric body dump control lever

The low effort lever makes dumping easier than ever.

INFORMATION & COMMUNICATION TECHNOLOGY

ECO Guidance

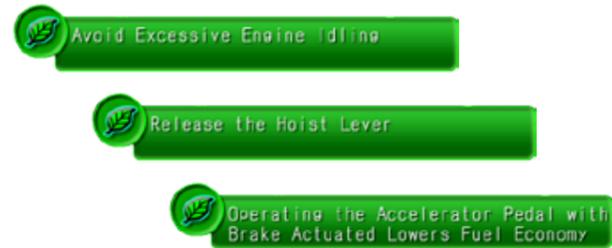
The energy saving operation is supported by "ECO Guidance" in real time.

This new model is equipped advanced ICT (Information & Communication Technology) devices such as multiple-purpose color monitor panel, which also provide the operator with energy saving machine operation guidance.



ECO Guidance

The ECO Guidance function displays the message to promote the energy-saving operation. For example, if the operator stops the machine for long periods of time with the engine running idle, The message of "Avoid Excessive Engine Idling" is displayed on the screen.

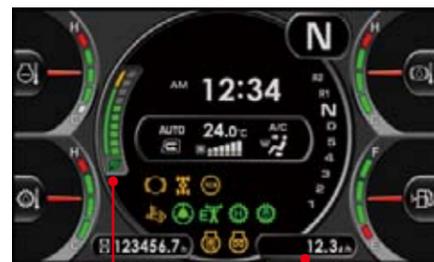


ECO gauge

The ECO gauge indicates the fuel consumption rate at the moment during operation.

Operating the machine by keeping the gauge within the green zone leads to the energy-saving operation.

* Fuel consumption rate depends on the work load and accelerator pedal operation.



ECO gauge

Fuel consumption gauge

Energy saving operation guide & report

The operator can check the operation record, ECO Guidance record, and fuel consumption record. The Operation Records indicates today's operation status of the machine.

The ECO Guidance Records displays the number of occurrences of each guidance message. During operation, it is requested to reduce the number of occurrences of each guidance message in order to achieved energy-saving operation.

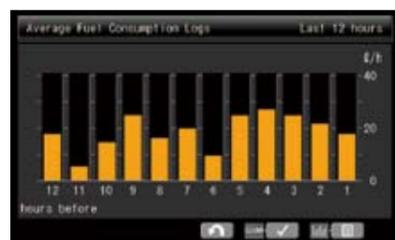
The Average Fuel Consumption Logs graph the fuel consumption for recent 12 hours (based on service meter reading) and daily fuel consumption in the previous one week.



Operation Records



ECO Guidance Records



Average Fuel Consumption Logs

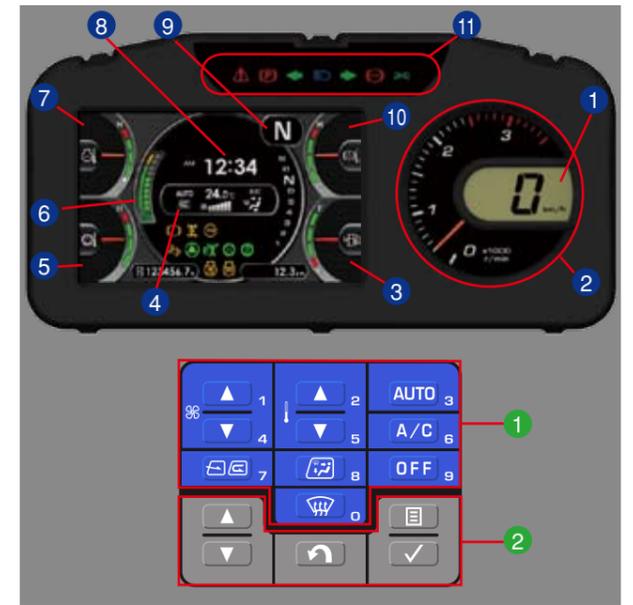
Machine Monitor

The machine monitor display various machine information and allows for various settings of the machine.

The LCD unit is a 7-inch color TFT-LCD and displays maintenance information, operation record, ECO guidance record, etc.

The switch panel is used to select various LCD unit screens and the air conditioner control screen.

By using the switch panel, you can display various user menus on the LCD unit screen and perform the settings of the machine.



Machine monitor

- 1 Speed meter
- 2 Engine tachometer
- 3 Fuel gauge
- 4 Air conditioner display
- 5 Torque converter oil temperature gauge
- 6 ECO gauge
- 7 Engine water temperature gauge
- 8 Time display
- 9 Shift indicator
- 10 Retarder oil temperature gauge
- 11 LED indicator

Switch panel

- 1 Air conditioner switches / Numeral key pad
- 2 Function switches

LCD unit

The LCD unit displays various information of the machine such as ECO Guidance, operation records, and maintenance information. Since the LCD unit has wider display area compared to that of conventional model and uses color LCD, it displays more information and is easy to read.

For example, "Operation Records" menu displays various records of the actual working hours, average fuel consumption, idling hours, and E mode operation ratio, etc. These records are displayed in the form of daily data and time period data.

This information contributes to improvement in machine operation management and energy saving operation. The "Maintenance Information" menu displays maintenance items such as oil and filters, their replacement intervals, and remaining hours to the next replacement, allowing for understanding maintenance status of the machine at a glance.

The LCD unit can also be used to operate and perform setting of various functions of the machine.

For example, selecting the menu on the menu screen allows you to reverse the direction of the radiator fan or CAC fan to blow off dirt and dust accumulated on respective cores. The setting of machine monitor can be changed with the LCD. For example, the language to be displayed on the LCD unit can be selected from among 25 languages.

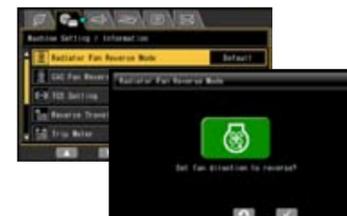


1 ECO Guidance

- Operation Records
- ECO guidance Records
- Average Fuel Consumption Logs
- Configurations

2 Machine setting / information

- Radiator fan reverse mode
- CAC fan reverse mode
- TCS setting etc.



3 KDPF regeneration

- Setting for regeneration stop
- Operation of manual stationary regeneration

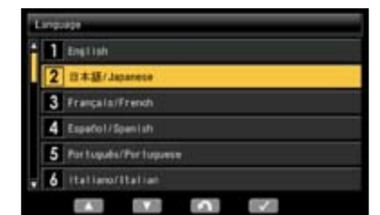
4 Maintenance

- Check and reset of various maintenance times



5 Monitor setting

- 25 Languages
- Rear view monitor setting
- Meter select
- Screen adjustment etc.



EASY MAINTENANCE

The HM300-3 has been designed to keep service time down.

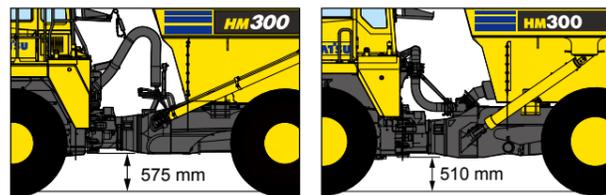
Ground access to the filters

The oil filter of the transmission and the brake systems to the right, allowing servicing from the ground.



Increase hitch height above ground

The bottom face of the hitch is higher than the bottom face of the differential gear of the front axle. The hitch height above ground is increased over the HM300-2.



HM300-3

HM300-2

Tiltable cab

The cab can be tilted rearward 32 degrees to provide easy maintenance/service for the engine and transmission.

Power cab tilt (optional)

Electrically-operate cab tilt is optionally available.



Easy draining of transmission oil

Two drain ports are added to facilitate drain of oil in the piping.

Electric priming pump

The manual priming pump is replaced with the electric priming pump.



SPECIFICATIONS



ENGINE

Model Komatsu SAA6D125E-6
 Type Water-cooled, 4-cycle
 Aspiration Turbo-charged, after-cooled, cooled EGR
 Number of cylinders 6
 Bore 125 mm
 Stroke 150 mm
 Piston displacement 11.04 L
 Horsepower
 SAE J1995 Gross 248 kW 332 HP
 ISO 9249 / SAE J1349 Net 242 kW 324 HP
 Rated rpm 2000 min⁻¹
 Fan drive type Hydraulic
 Maximum torque 1680 N·m 171 kg·m
 Fuel system Direct injection
 Governor Electronically controlled
 Lubrication system
 Method Gear pump, force-lubrication
 Filter Full-flow type
 Air cleaner Dry type with double elements and precleaner (cyclonpack type), plus dust indicator
 EPA Tier 4 Interim and EU Stage 3B emissions certified.



TRANSMISSION

Torque converter 3-elements, 1-stage, 2-phase
 Transmission Full-automatic, counter-shaft type
 Speed range 6 speeds forward and 2 reverse
 Lockup clutch Wet, single-disk clutch
 Forward Torque converter drive in 1st gear, direct drive in 1st lockup and all higher gears
 Reverse Torque converter drive and direct drive in all gear
 Shift control Electronic shift control with automatic clutch modulation in all gear
 Maximum travel speed 58.6 km/h



AXLES

Full time all wheel drive
 Final drive type Planetary gear
 Ratios:
 Differential 3.154
 Planetary 4.667



SUSPENSION SYSTEM

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



STEERING SYSTEM

Type Articulated type, fully hydraulic power steering with two double-acting cylinders
 Supplementary steering Automatically actuated, electrically powered
 Standard ISO5010, SAE J1511
 Minimum turning radius, wall to wall 8.10 m
 Articulation angle 45° each direction



BRAKES

Service brakes Full-hydraulic control, oil-cooled multiple-disc type on front and center axles
 Standard ISO3450
 Parking brake Spring applied, caliper disc type
 Retarder Front and center 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 13.4 m³
 Heaped (2:1, SAE) 17.1 m³
 Payload 28.0 metric tons
 Material 130 kg/mm² high tensile strength steel
 Material thickness:
 Bottom 14 mm
 Front 8 mm
 Sides 12 mm
 Target area (inside length x width) 5250 mm x 2685 mm
 Heating Exhaust heating (option)



HYDRAULIC SYSTEM

Hoist cylinder Twin, telescopic type
 Relief pressure 29.4 MPa 300 kg/cm²
 Hoist time 10.5 s



CAB

Standard ISO3449 (FOPS)
 ISO3471 (ROPS)



WEIGHT (APPROXIMATE)

Empty weight 24,910 kg
 Gross vehicle weight 52,990 kg
 Weight distribution:
 Empty: Front axle 57.0%
 Center axle 23.0%
 Rear axle 20.0%
 Loaded: Front axle 29.0%
 Center axle 36.5%
 Rear axle 34.5%



TIRES

Standard tire 23.5 R25

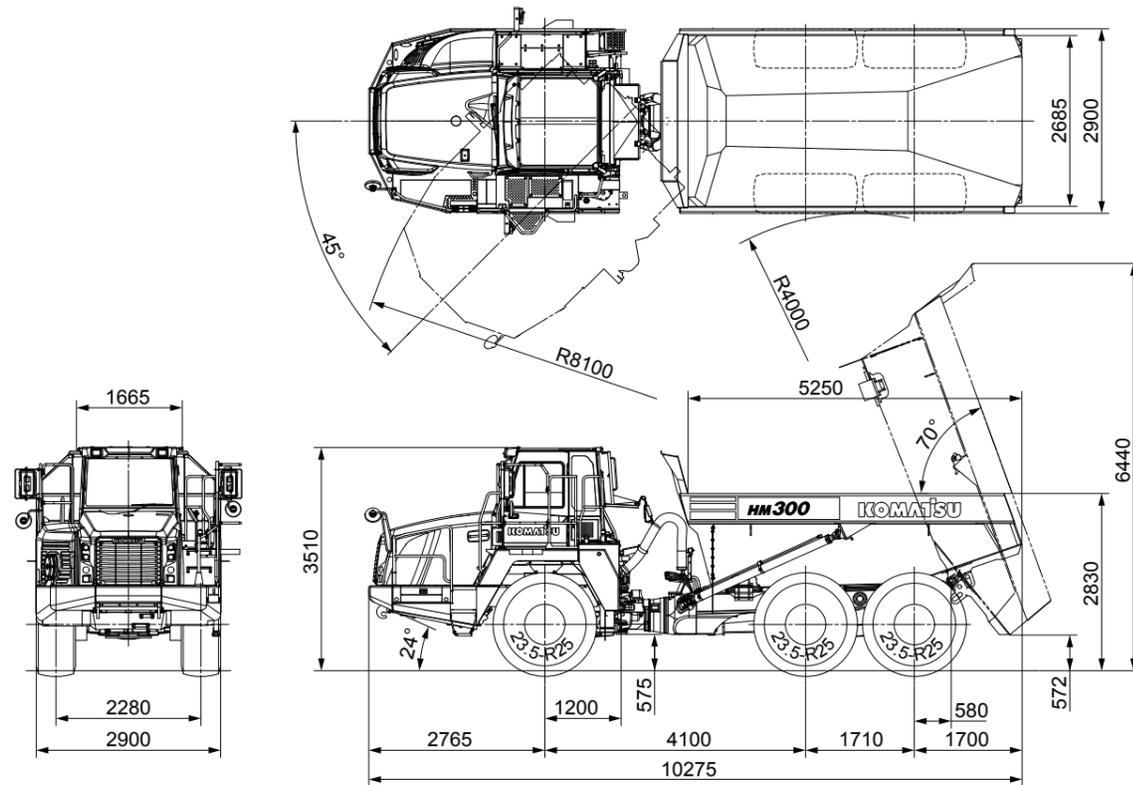


SERVICE REFILL CAPACITIES

Fuel tank 388.3 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

DIMENSIONS

unit: mm



STANDARD EQUIPMENT FOR BASE MACHINE

ENGINE:

- Alternator, 60 A, 24 V
- Batteries, 2 x 12 V/136 Ah
- Engine, Komatsu SAA6D125E-6
- KDPF
- Starting motor, 7.5 kW

CAB:

- 2 x DC12V electrical outlets
- Air conditioner
- AM/FM radio with AUX terminal
- Ashtray
- Cigarette lighter
- Color multi-monitor
- Cup holder
- Front wiper (with washer and intermittent)
- Operator seat, reclining, air suspension type with 3-point retractable seat belt
- Passenger seat with 2-point retractable seat belt
- Power window (L.H)
- Rear wiper (with washer)
- Space for lunch box
- Steering wheel, tilt and telescopic
- Sun visor, front window
- Tiltable ROPS cab with FOPS, sound suppression type

LIGHTING SYSTEM:

- Back-up lamp
- Back work lamps, LH and RH side
- Hazard lamps
- Round-shaped head lamp (High/Low)
- Stop and tail lamps and turn signal lamps

GUARD AND COVERS:

- Engine underguard
- Exhaust muffler thermal guard
- Fire prevention covers
- Propeller shaft guards, front and rear
- Transmission underguard

SAFETY EQUIPMENT:

- Alarm, backup
- Anti-slip material on fenders
- Automatic supplementary steering
- Color rear view camera and monitor
- Coolant temperature alarm and lamp
- Engine shutdown secondary switch
- Hand rails for platform
- Horn, electric
- Parking brake
- Protective grille for rear window
- Rearview mirrors
- Secondary brake

- Steering joint locking assembly
- Step (right side) and ladder (left side)
- Under view mirrors

BODY:

- Electronic hoist control system

TIRES:

- 23.5 R25

OTHER:

- Battery disconnect
- Centralized greasing
- ECO Guidance
- Electric circuit breaker, 24 V
- Electric priming fuel pump
- KTCS
- Mud guards
- Side marker
- Tool box

OPTIONAL EQUIPMENT

ARRANGEMENT:

- Sandy and dusty area arrangement

BODY:

- Body exhaust heating kit
- Body liner
- Overhung tail gate, wire type
- Upper side extension, 200 mm

LIGHTING SYSTEM:

- Round-Shaped fog lamps
- Stop and tail lamps and turn signal lamps (LED)
- Yellow beacon

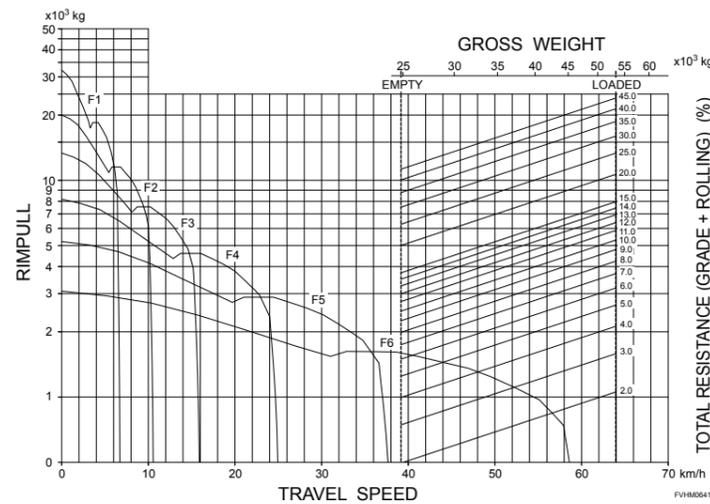
TIRES:

- 30/65 R25 (750/65 R25)

OTHER:

- Alternator, 90 A, 24 V
- ARAC (Automatic Retarder with Acceleration Control)
- Cab power tilt
- Dump counter
- Fire extinguisher
- Gas charge tool
- Heated mirror
- Large batteries
- Spare parts for first service
- Tool kit
- Vandalism protection

TRAVEL PERFORMANCE (Power mode)



BRAKE PERFORMANCE

