

KOMATSU

HM
300



HM300-1

HM300-1

ARTICULATED DUMP TRUCK

MAXIMUM PAYLOAD
27,3 tonnes

NET HORSEPOWER
242 kW 324 HP

HEAD CAPACITY
16,6 m³

WALK-AROUND

Wide, spacious cab

- The wide cab offers a comfortable operator environment
- Viscous mounts support the cab while absorbing vibrations and noise
- Interior noise level ISO 6396 79 dB(A)

Tiltable cab

can be tilted rearward to provide easy service.

High performance and environment-friendly SAA6D125E-3 engine

- Net horsepower 242 kW 324 HP
- Meets European stage II regulations

Fully hydraulic articulated steering

- Light and easy operation
- Minimum turning radius 7,96 m



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).

MAXIMUM PAYLOAD

27,3 tonnes

NET HORSEPOWER

242 kW 324 HP @ 2000 rpm

HEAPED CAPACITY

16,6 m³

Easy-to-Load Body

- Heaped capacity 16,6 m³
- Low loading height 2.790 mm
- Robust body constructed of thick wear-resistant steel with 400 Brinell hardness



All Terrain Hydro-pneumatic Suspension.

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

Maintenance-free oscillating pivot with tapered roller bearings

means lower operating costs by eliminating the need to lubricate the pivot.

Reliable, continuously cooled, wet type multiple-disc brake and retarder

- Fully hydraulic controlled wet multiple-disc brake
- Retarder Absorbing Capacity (continuous descent)
349 kW 468 HP
449 kW 602 HP with engine exhaust retarder

PRODUCTIVITY FEATURES

The combination of high travel speeds and an efficient engine with low emissions delivers maximum productivity at the lowest cost.

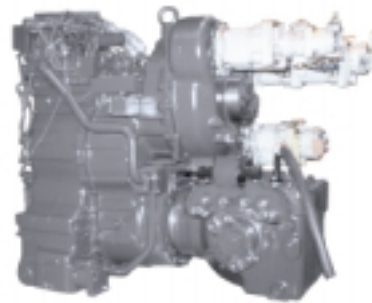
High Performance SAA6D125E-3 Komatsu Engine

This engine delivers faster acceleration and higher travel speeds with the highest horsepower per ton in its class. Advanced technology, such as Common Rail Injection system (CRI), air to air aftercooler, and an efficient turbo-charger enables the engine to meet the European stage II emission regulations. High torque at low speed, impressive acceleration, and low fuel consumption ensure maximum productivity.



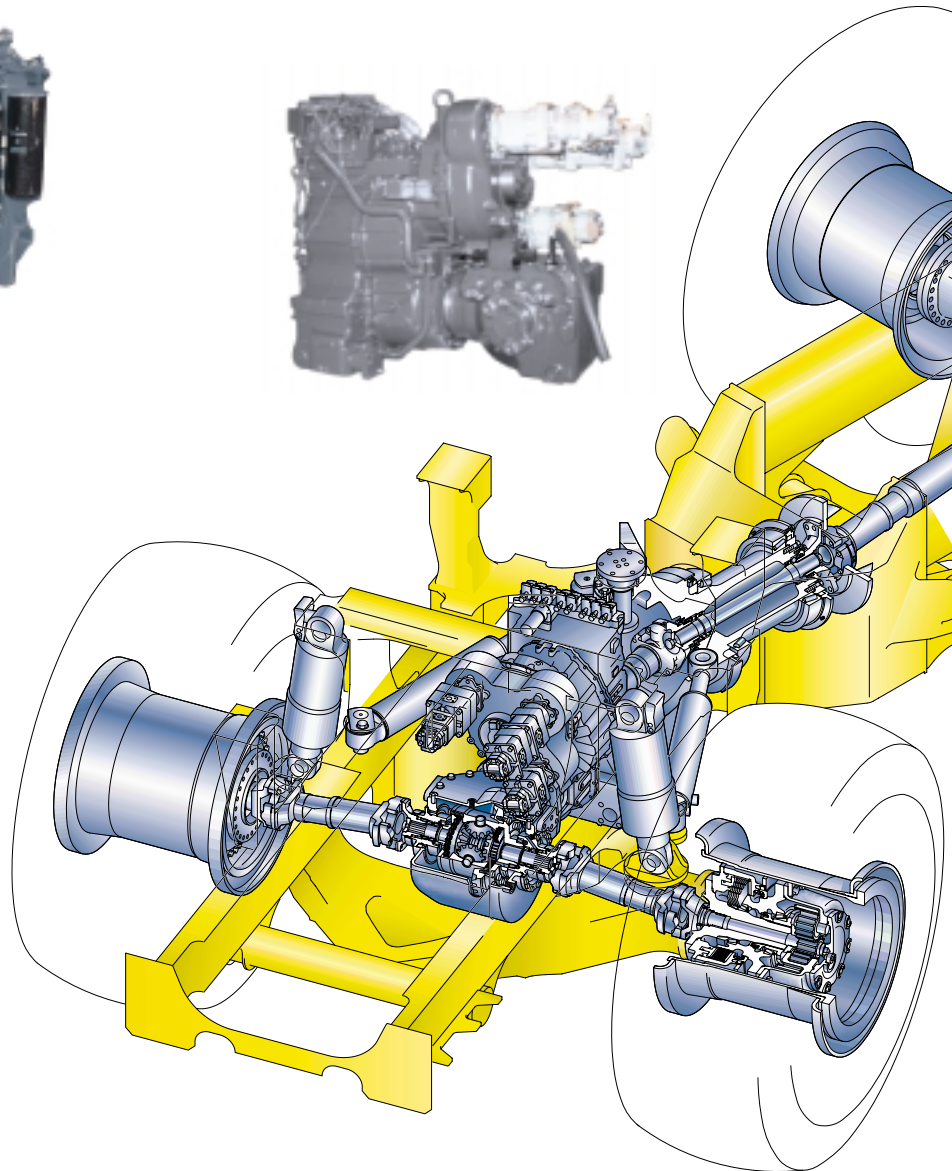
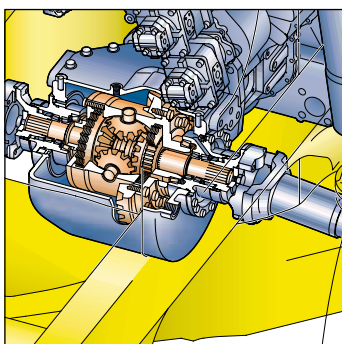
Komatsu Designed Electronically Controlled Countershaft Transmission

The Komatsu designed Electronically Controlled Transmission called K-ATOMiCS has been successfully employed 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.



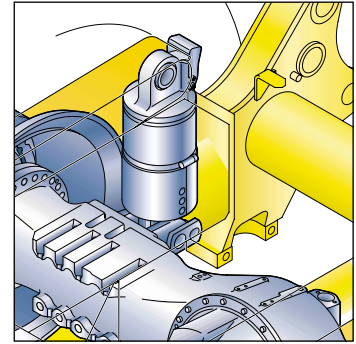
Komatsu Designed Differential Locking Systems

The full-time six-wheel drive system reduces slippage. A wet multiple-disc interaxle clutch also locks the three axles in unison for greater traction. The interaxle lock can be switched on and off while the truck is travelling, thereby boosting productivity. In addition, limited slip differentials prevent the tires on either side from slipping on soft ground.



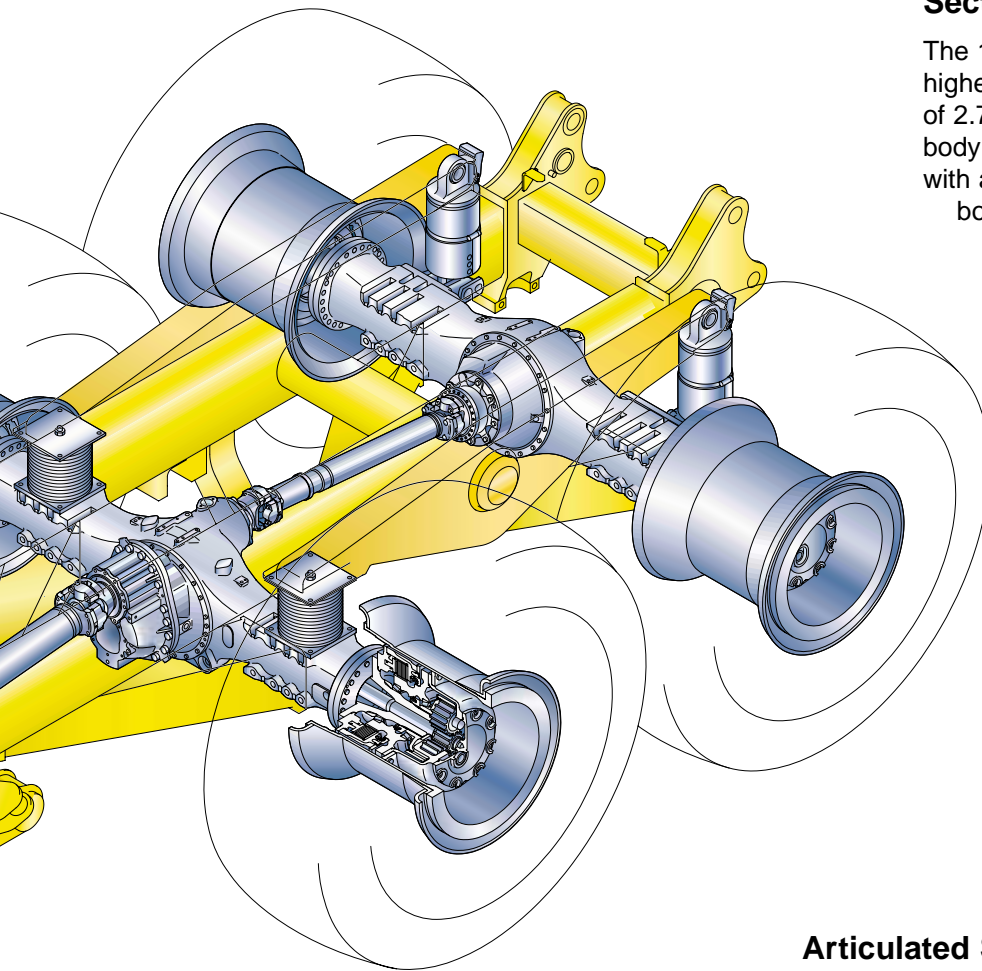
Hydro-pneumatic Suspension

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



Large Capacity Body and Box Section Frame Structure

The 16,6 m³ heaped capacity is among the highest in its class. The low loading height of 2.790 mm enables easy loading. The body is built of thick 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 high strength low alloy steel.



Hydraulically Controlled Wet Multiple-Disc Brakes and Retarder

Wet multiple-disc brakes have been proven on Komatsu rigid dump trucks and wheel loaders ensuring highly reliable and stable brake performance.

Retarder Absorbing Capacity (continuous descent):

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)

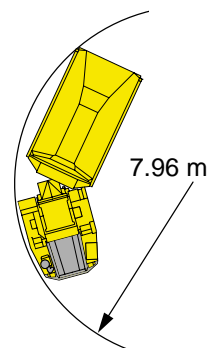
349 kW 468 HP

449 kW 602 HP with engine exhaust retarder.

Articulated Steering

Fully hydraulic articulated steering offers low-effort operating performance and maneuverability.

A minimum turning radius of only 7,96 m provides the freedom to move about in confined areas.



OPERATOR ENVIRONMENT

Komatsu has developed a state-of-the-art, wide comfortable cab. The low level of vibration and noise ensure maximum productivity from the operator.

Wide, Spacious Cab with Excellent Visibility

The wide cab provides a comfortable space for the operator and a full size trainer seat. Large electrically operated windows and the operator's seat positioned to the left side ensures superior visibility.

Ergonomically Designed Cab

The ergonomically designed operator's compartment makes it very easy and comfortable for the operator to use all the controls. The result is more confident operation by operators and greater productivity.

Easy-to-See Instrument Panel

The instrument panel makes it easy to monitor critical machine functions. In addition, a caution light warns the operator of any problems that may occur. Problems are recorded in the monitor and indicated as service codes. This makes the machine very friendly and easy to service.



Steering Wheel and Pedals

Low effort pedals reduce operator fatigue when working continuously for long periods. The tiltable, telescoping steering column enables operators to maintain the optimum driving position at all times.



Built-in ROPS/FOPS

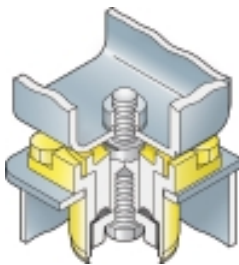
These structures conform to ISO 3471 and SAE J1040-1988C standards.

All Terrain Hydro-pneumatic Suspension

The hydro-pneumatic suspension assures a comfortable ride even over rough terrain and ensures maximum productivity and operator confidence.

Viscous Cab Mounts

Viscous mounts reduce the noise transmitted to the cab and achieve a quiet 79 dB(A) noise level - ISO 6396



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 as well as holding the operator securely to assure confident operation.

Electric Body Dump Control Lever

The low effort lever makes dumping easier than ever.

Supplementary Steering

Supplementary steering is a standard feature. Meets: ISO 5010-1992, SAE J1511



EASY MAINTENANCE

The HM300-1 has been designed to keep service time down and productivity up by having a maintenance-free oscillating pivot, a reduced number of grease points, easy access to filters, and longer intervals between oil changes.

Tiltable Cab

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



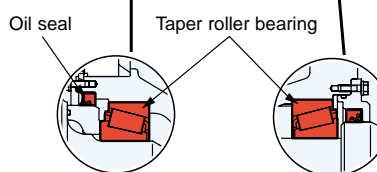
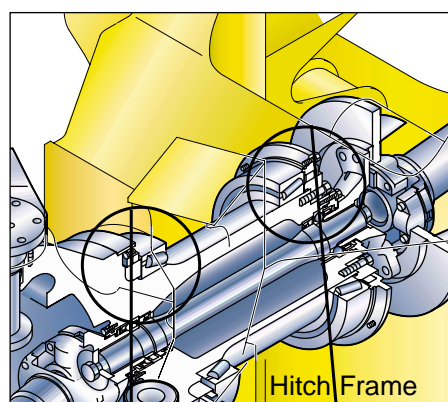
Fewer Grease Points

The number of grease points are minimized by using maintenance-free rubber bushings and a maintenance-free oscillating hitch.

Extended Service Intervals

In order to minimize operating costs, service intervals have been extended:

- Engine oil 500 hours
- Transmission oil 1.000 hours
- Engine and transmission filters 500 hours



Guards

The following guards are provided as standard:

- Protective grill for rear window
- Engine underguard
- Transmission underguard
- Propeller shaft guards
- Exhaust thermal guard
- Fire prevention covers

Easy acces for filters and lubricants



SPECIFICATIONS



ENGINE

ModelKomatsu SAA6D125E-3
 TypeWater-cooled, 4-cycle
 AspirationTurbo-charged and air-to-air after-cooled
 Number of cylinders6
 Bore125 mm
 Stroke150 mm
 Piston displacement11.04 ltr
 Performance:
 Gross horsepower250 kW 335 HP
 Flywheel horsepower242 kW 324 HP
 Rated rpm2000 rpm
 Maximum torque160 kg·m
 Fuel systemDirect injection
 GovernorElectronically controlled
 Lubrication system
 MethodGear pump, force-lubrication
 FilterFull-flow type
 Air cleanerDry type with double elements and
 precleaner (cyclopac type), plus dust indicator



TRANSMISSION

Torque converter3-elements, 1-stage, 2-phase
 TransmissionFull-automatic, counter-shaft type
 Speed range6 speeds forward and 2 reverse
 Lockup clutchWet, single-disk clutch
 ForwardTorque converter drive in 1st gear,
 direct drive in 1st lockup and all higher gears
 ReverseTorque converter drive and direct drive in all gear
 Shift controlElectronic shift control with automatic
 clutch modulation in all gear
 Maximum travel speed59.0 km/h

	FORWARD						REVERSE	
Gear	1	2	3	4	5	6	1	2
km/h	6,2	9,8	15,2	23,9	37,5	59,0	7,2	17,5
mile/h	3,9	6,1	9,4	14,9	23,3	36,7	4,5	10,9



AXLES

Full time all wheel drive with limited slip differential in all axles.
 Final drive typePlanetary gear
 Ratios:
 Differential3.154
 Planetary4.667



SUSPENSION SYSTEM

FrontHydro-pneumatic suspension
 RearCombined hydro-pneumatic
 and rubber suspension system



STEERING SYSTEM

TypeArticulated type, fully hydraulic power steering
 with two double-acting cylinders
 Supplementary steeringAutomatically actuated,
 electrically powered
 Minimum turning radius, wall to wall7.96 m
 Articulation angle45° each direction



BRAKES

Service brakesFull-hydraulic control, oil-cooled
 multiple-disc type
 Parking brakeSpring applied, caliper disc type



MAIN FRAME

TypeArticulated type, box-sectioned
 construction on front and rear



BODY

Capacity:
 Struck12.9 m³
 Heaped (2:1, SAE)16.6 m³
 Payload27.3 metric tonnes
 Material130 kg/mm²
 400 Brinel high tensile strength steel
 Material thickness:
 Bottom16 mm
 Front8 mm
 Sides12 mm
 Target area
 (inside length x width)5240 mm x 2685 mm



HYDRAULIC SYSTEM

Hoist cylinderTwin, 2-stage telescopic type
 Relief pressure20.6 Mpa 210 kg/cm²
 Hoist time12 sec



ENVIRONMENT

Engine emissions Fully complies with European stage 2 exhaust
 emission regulations
 Noise levels at operators ear
 inside cabine (dynamic)LpA 79 dB(A) ISO 6396

SPECIFICATIONS



CAB

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



WEIGHT (APPROXIMATE)

Empty weight22500 kg
 Gross vehicle weight49875 kg
 Weight distribution:
 Empty: Front axle56.8%
 Center axle22.2%
 Rear axles21.0%
 Loaded: Front axle29.8%
 Center axle35.7%
 Rear axles34.5%



GROUND PRESSURE

At 75 mm ground penetration and with specified weights and tire pressures:

With tires	23.5 R25	750/65 R25
<i>Unloaded</i>		
Front	122 kpa	100 kpa
Rear	90 kpa	60 kpa
<i>Loaded</i>		
Front	150 kpa	140 kpa
Rear	170 kpa	130 kpa



TIRES

Standard tire23.5 R25



SERVICE REFILL CAPACITIES

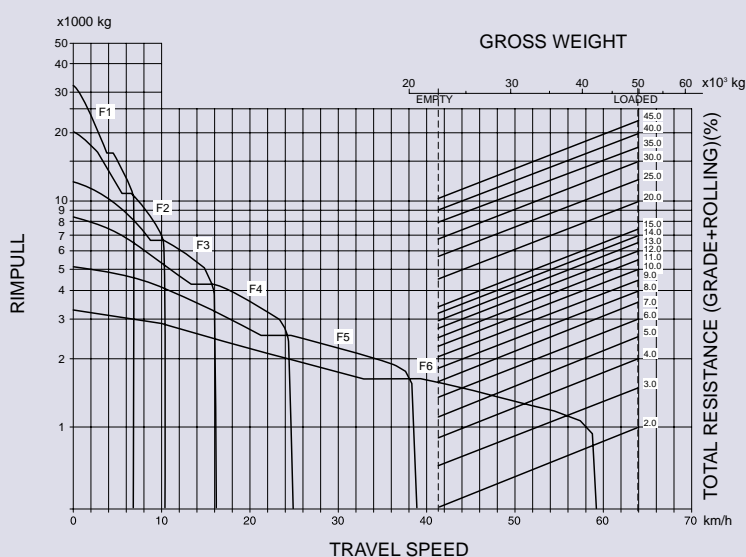
Fuel tank382 ltr.
 Engine oil35 ltr.
 Torque converter, transmission and
 retarder cooling77.5 ltr.
 Differentials (total)50 ltr.
 Final drives (total)27 ltr.
 Hydraulic system120 ltr.
 Suspension (total)10.4 ltr.



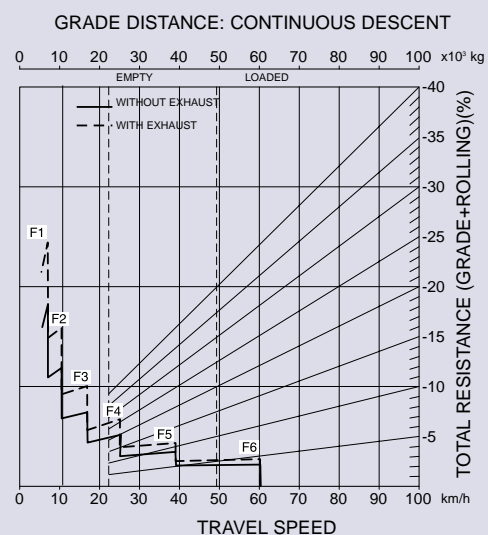


No increase in width by using 875/65R 29 tyres.

TRAVEL PERFORMANCE



BRAKE PERFORMANCE



ARTICULATED DUMP TRUCK



STANDARD EQUIPMENT

CAB

- ROPS FOPS
- Dual entry
- Air suspension seat with 78mm seat belt
- Trainer's seat
- Air conditioner/heater/defroster
- Provision for Radio Cassette
- Electric windows
- 12 Volt Electrical Outlet
- Cigarette Lighter & Ashtray
- Cupholder
- Hazard Warning Lights
- Electronic Hoist control
- Telescopic & Tilting Steering Wheel
- EMS Instrument Panel
- Tiltable cab for easy serviceability
- Windscreen washer and wiper – front and rear

BODY

- 16.6m³ body
- Muffler No body heating
- Mudflaps in front of leading rear wheels

ENGINE

- Alternator 75/A24V
- Dual element air cleaner
- Batteries, 112 Ah/2 x 12V
- Engine Exhaust brake
- Electric Governor
- Komatsu SAA6D140E-3 engine
- Exhaust muffler with stack
- Fully automatic K-ATOMIC transmission
- 11 KW starter
- Fuel/water separator

LIGHTING SYSTEM

- Reverse light
- Hazard light system
- Headlights with dimmer switch
- Stop, tail and turn signal lights
- Front working lights
- Side working lights

STANDARD TYRES

- Michelin 23.5 R25 XADN tyres

GENERAL

- Spare Parts for First Service
- General Tool Kit
- Cap & Overall

MACHINE PROTECTION/SECURITY

- Transmission Guard
- Engine UnderGuard
- Front Propshaft Guard

- Rear Propshaft Guard
- Rear Window Guard
- Supplementary steering
- Emergency Brake
- Overturn warning system
- Underview Mirror
- Rearview Mirrors
- Retarder /brake system continuously cooled

MACHINE

- Cab tilt Cylinder
- Central greasing
- Limited Slip Differentials in all axles
- Back up alarm
- Platform hand rails
- Electric horn
- Interaxle lock clutch type
- Ladders, left & right sides

OPTIONAL EQUIPMENT

TIRES

- Michelin 23.5 R25 XADT tyres
- Michelin 750 R25 XAD tyres

LIGHTS

- Fog Light
- Flashing Amber Beacon
- Light for Ladder

BODY

- Quarry Body 16.6m³
- Heated Body
- Wire Operated Overhung Tailgate
- 20 cm side extensions
- Body wear plates

SECURITY

- Rear view TV Monitor
- Fire Extinguisher
- Additional rearview mirrors

MACHINE

- Tachograph
- Revograph
- Maintenance Monitor

- Electric Fan
- Cold Arrangement (-30)
- Hot and Sandy Arrangement
- Automatic lubrication System
- Engine Oil & Coolant Heater
- 30 Ton Jack
- Suspension Gas Tool

KOMATSU

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