

KOMATSU®

HD605-7

GROSS HORSEPOWER

551 kW 739 HP

NET HORSEPOWER

533 kW 715 HP

MAXIMUM GVW

109900 kg 242,290 lb

HD
605

OFF-HIGHWAY TRUCK



Photo may include optional equipment.

GALEO

HD605-7 Off-Highway Truck

WALK-AROUND

The all new Komatsu HD605-7 has arrived. This outstanding off-highway truck uses ultra-high tensile steel for its large capacity body, has ideal weight balance, and utilizes radial tires for unrivalled production and durability.

Productivity Features

- High Performance
SAA6D170E-3 Komatsu Engine
- Automatic Idling Setting System (AISS)
- Mode-Changing System
- Hydraulically Controlled Wet Multiple-Disc Brakes and Retarder
- Auto Retard Speed Control (ARSC)
- Original Quarry Body
- Small Turning Radius
- ABS (Anti-Lock Braking System) (Option)
- ASR (Automatic Spin Regulator) (Option)
- PLM II (Memory Card Type Payload Meter) (Option)

See page 4 and 5.



Harmony with Environment

- Meets North American EPA Tier II Emission Regulations for 2002 and Meets Stage II Directive 97/68/EC EU Emissions
- Low Operation Noise
- Low Fuel Consumption

HD605-7

OFF-HIGHWAY TRUCK

Operator Environment

- Wide, Spacious Cab with Excellent Visibility
- Ergonomically Designed Cab
- Easy-to-See Instrument Panel
- Suspension Seat
- Tilttable, Telescoping Steering Wheel and Low Effort Pedals
- Electric Body Dump Control Lever
- K-ATOMiCS with "Skip-Shift" Function
- Hydropneumatic Suspension for All Terrains
- Viscous Cab Mounts
- Built-in ROPS/FOPS
- Supplementary Steering and Secondary Brakes

GROSS HORSEPOWER
551 kW 739 HP @ 2000 rpm

NET HORSEPOWER
533 kW 715 HP @ 2000 rpm

MAXIMUM GVW
109900 kg 242,290 lb



Reliability Features

- Fully Hydraulic Braking System
 - Reliable Komatsu Manufactured Major Components
 - High-Rigidity Frames
 - Wet Multiple-Disc Brakes
 - Flat Face-to-Face O-Ring Seals
 - Sealed DT Connectors
 - Highly Reliable Hydraulic System
- See page 8.

Easy Maintenance

- Extended Oil Change Interval
- Centralized Greasing Points
- Centralized Arrangement of Filters
- Flanged Type Rim

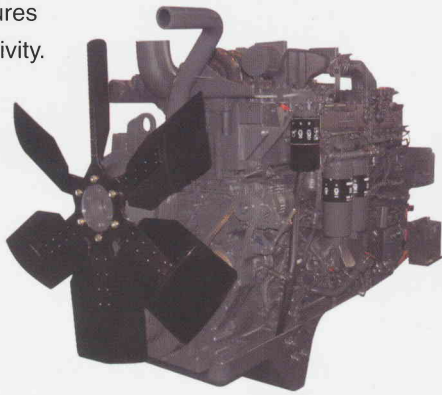
GALEO

Komatsu's highly productive, innovative technology, environmentally friendly machines built for the 21st century.

PRODUCTIVITY FEATURES

High Performance SAA6D170E-3 Komatsu Engine

This engine delivers faster acceleration and higher travel speeds with higher horsepower per ton. Advanced technology, such as High Pressure Injection system (HPI), air-to-air aftercooler, and an efficient turbo-charger enables the engine to meet the North American EPA Tier II emission regulations and to meet Stage II Directive 97/68/EC EU Emissions. High torque at low speed, impressive acceleration, and low fuel consumption ensures maximum productivity.



Automatic Idling Setting System (AISS)

This system facilitates quick engine warm-up and cab cooling/warming. When setting the system ON, engine idle speed is kept at 945 rpm when coolant temperature is 50°C **122°F** or lower.

Speed automatically returns to 750 rpm when coolant temperature reaches 50°C **122°F**.



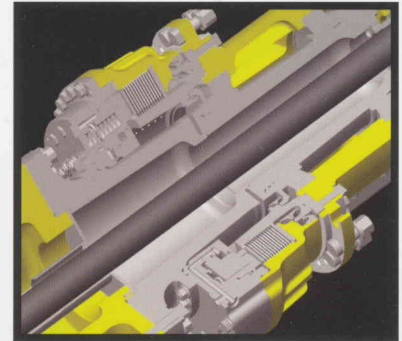
Mode-Changing System

Electronic engine control provides superior climbing ability and outstanding fuel economy. High power mode with superior operating power is suited to job sites where more 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.

Hydraulically Controlled Wet Multiple-Disc Brakes and Retarder

Wet multiple-disc brakes ensures highly reliable and stable brake performance. 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): 785 kW **1,052 HP**
- Brake Surface (rear): 64230 cm² **9,956 in²**.



Auto Retard Speed Control (ARSC)

ARSC allows the operator to simply set the downhill travel speed and go down slopes at a constant speed. As a result, the operator can concentrate on steering. The speed can be set at increments of 1 km/h **0.63 MPH** per click (± 5 km/h **3.1 MPH** of maximum speed adjustment) to match the optimum speed for the slope. Also, since the retarder cooling oil temperature is always monitored, the speed is automatically lowered to prevent overheating.



High Strength Body

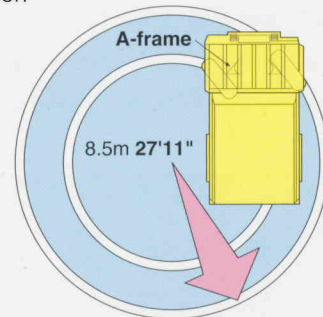
The body is built of 130 kg/mm² **184,900 PSI** wear-resistant high-tensile steel with a Brinell hardness of 400.

The V-shape design also increases structural strength, and provides excellent load stability.



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.



ABS (Anti-Lock Braking System) (Option)

Using its outstanding electronics technology, Komatsu is the first in the industry to introduce ABS on construction machinery. This system prevents the tires from locking, thus minimizing skidding under slippery conditions while applying the service brake.

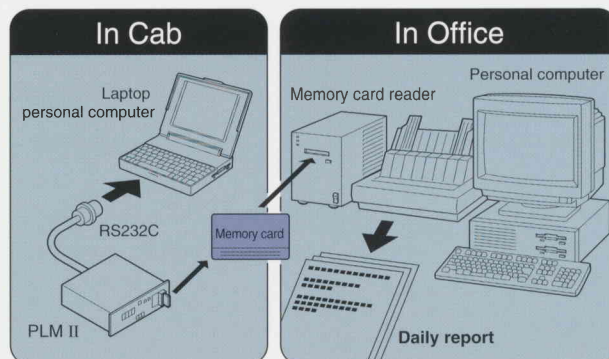
ASR (Automatic Spin Regulator) (Option)

ASR automatically prevents the rear tires on either side from slipping on soft ground for optimal traction.

Note: Although you could not select ABS and ASR together in HD605-5, you can select ABS and ASR together in HD605-7.

PLM II (Memory Card Type Payload Meter) (Option)

PLM II allows the production volume and the working conditions on the dump truck to be analyzed and controlled directly via a personal computer. The system can store up to 2,900 working cycles.



Note: The memory card, card reader, and software for data processing are available as options.

OPERATOR

ENVIRONMENT

Wide, Spacious Cab with Excellent Visibility

The wide cab provides a comfortable space for the operator and a full size buddy seat. Large electrically operated windows ensure 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.

Suspension Seat

The suspension, fabric-covered seat, which is adjustable to the operator's weight, is provided as standard. The suspension seat lowers vibrations transmitted from the machine and reduces operator fatigue as well as holding the operator securely to assure confident operation.



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.

Electric Body Dump Control Lever

The low effort lever makes dumping easier than ever. A positioning sensor is installed for dump body control which significantly reduces the shock made by the lowering of the dump body.

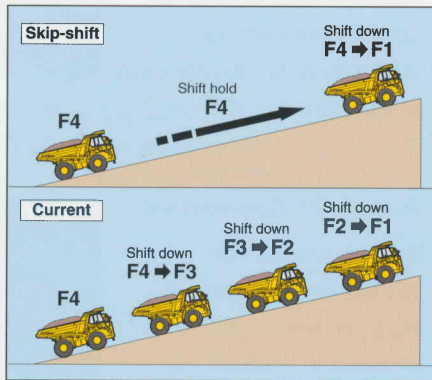


K-ATOMiCS with "Skip-Shift" Function

The K-ATOMiCS (Komatsu Advanced Transmission with Optimum Modulation Control System) ensures proper clutch modulation pressure when the clutch is engaged. The total control system controls both the engine and transmission by monitoring the vehicle conditions. This system and newly added "skip-shift" function ensure smooth shifting and responsive acceleration.

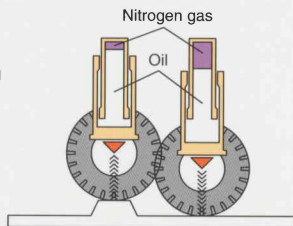
"Skip-Shift" Function

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



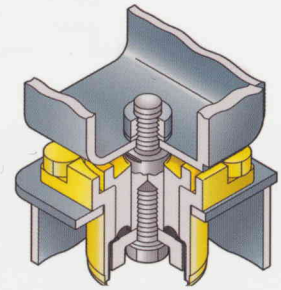
Hydropneumatic Suspension for all Terrains

The hydropneumatic 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 77 dB(A) noise level.



Built-in ROPS/FOPS

These structures conform to ISO 3471 and SAE J1040 standards.



Supplementary Steering and Secondary Brakes

Supplementary steering and secondary brakes are standard features. Steering: ISO 5010, SAE J1511, SAE J53
Brakes: ISO 3450, SAE J1473



RELIABILITY FEATURES

Komatsu Components

Komatsu manufactures the engine, torque converter, transmission, hydraulic units, and electrical parts on this dump truck. Komatsu dump trucks are manufactured with an integrated production system under a strict quality control system.

High-Rigidity Frames

Cast-steel components are used in the main frame for high-stress areas where loads and shocks are most concentrated.



Wet Multiple-Disc Brakes and Fully Hydraulic Braking System

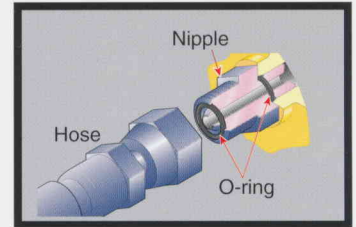
mean lower maintenance costs and higher reliability. Wet disc brakes are fully sealed. Contaminants are kept out, reducing wear and maintenance. Brakes require no adjustments for wear, meaning even lower maintenance. The new parking brake is also an adjustment-free, wet multiple-disc for high reliability and long life. Added reliability is designed into the braking system by the use of three independent hydraulic circuits. Provides hydraulic backup should one of the circuits fail. Fully hydraulic brakes system means no air system to bleed, or condensation of water that can lead to contamination, corrosion, and freezing.



Accumulator for braking system

Flat Face-to-Face O-Ring Seals

Flat face-to-face O-ring seals are used to securely seal all hydraulic hose connections and to prevent oil leakage.



Sealed DT Connectors

Main harnesses and controller connectors are equipped with sealed DT connectors providing high reliability, water resistance and dust resistance.



Reliable Hydraulic System

A large capacity oil cooler is installed in each hydraulic circuit, improving the reliability of the hydraulic units during sudden temperature rises. Further, in addition to the main filter, a 52-micron line filter is located at the entrance to the transmission control valve. This system helps prevent secondary faults.



EASY

HD605-7

OFF-HIGHWAY TRUCK

MAINTENANCE

Extended Oil Change Intervals

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

- Engine oil 500 hours
- Hydraulic oil 4000 hours

Flange Type Rim with Radial Tire

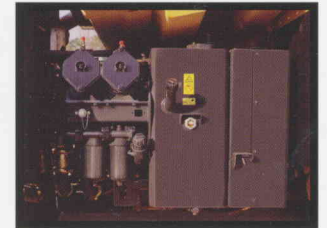
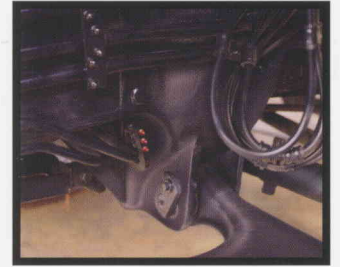
Tires occupy a large part of the running cost of an off-highway truck. The HD605-7 has flange type rims for ease of tire installation and removal, and is equipped with radial tires as standard to reduce the fuel consumption and increase traction on slippery roads.

Centralized Greasing Points

Greasing points are centralized at three locations.

Centralized Arrangement of Filters

The filters are centralized so that they can be serviced easily.



SPECIFICATIONS



ENGINE

Model	Komatsu SAA6D170E-3
Type	Water-cooled, 4-cycle
Aspiration	Turbo-charged and air-to-air after-cooled
Number of cylinders	6
Bore	170 mm 6.69"
Stroke	170 mm 6.69"
Piston displacement	23.15 ltr 1,413 in³
Performance:	
Gross horsepower	551 kW 739 HP
Flywheel horsepower	533 kW 715 HP
Rated rpm	2000 rpm
Maximum torque	332 kg·m 2,401 lb ft
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



TRANSMISSION

Torque converter	3-elements, 1-stage, 2-phase
Transmission	Full-automatic, planetary type
Speed range	7 speeds forward and 1 reverse
Lockup clutch	Wet, multiple-disc clutch
Forward	Torque converter drive in 1st gear, direct drive in 1st lockup and all higher gears
Reverse	Torque converter drive
Shift control	Electronic shift control with automatic clutch modulation in all gear
Maximum travel speed	70.0 km/h 43.5 mph



AXLES

Final drive type	Planetary gear
Rear Axle	Full-floating
Ratios:	
Differential	3.538
Planetary	4.737



SUSPENSION SYSTEM

Independent, hydropneumatic suspension cylinder with fixed throttle to lessen vibration.	
Effective cylinder stroke (front suspension)	303 mm 11.9"
Rear axle oscillation:	
Oil stopper	6.8°
Mechanical stopper	7.7°



STEERING SYSTEM

Type	Fully hydraulic power steering with two double-acting cylinders
Supplementary steering	Manually controlled (meets ISO 5010, SAE J1511 and SAE J53)
Minimum turning radius	8.5 m 27'11"
Maximum steering angle (outside tire)	39°



CAB

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



MAIN FRAME

Type	Box-sectioned construction
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BRAKES

Brakes meet ISO J3450 and SAE J1473 standards.

Service brakes:

Front	Full-hydraulic control, caliper disc type
Rear	Full-hydraulic control, oil-cooled multiple-disc type
Parking brake	Spring applied, multiple-disc type
Retarder	Oil-cooled, multiple-disc rear brakes act as retarder.
Secondary brake	Manual pedal operation.
When hydraulic pressure drops below the rated level, parking brake is automatically actuated.	

Brake surface

Front	1936 cm ² 300 in²
Rear	64230 cm ² 9,956 in²



BODY

Capacity:

Struck	29.0 m ³ 37.9 yd³
Heaped (2:1, SAE)	40.0 m ³ 52.3 yd³
Payload	63.0 metric tons 69.4 U.S. tons
Material	160 kg/mm ² 227,500 psi high tensile strength steel

Structure V-shape body with V-bottom

Material thickness:

Bottom	25 mm 0.99"
Front	16 mm 0.64"
Sides	14 mm 0.55"

Target area

(inside length x width) 6600 mm x 3870 mm **21'8" x 12'8"**

Dumping angle 48°

Height at full dump 8800 mm **28'10"**

Heating Exhaust heating



HYDRAULIC SYSTEM

Hoist cylinder	Twin, 2-stage telescopic type
Relief pressure	20.6 MPa 210 kg/cm ² 2,990 psi
Hoist time	11.5 sec



WEIGHT (APPROXIMATE)

Empty weight	45900 kg 101,190 lb
Max. gross vehicle weight:	109900 kg 242,290 lb
Not to exceed max. gross vehicle weight, including options, fuel and payload.	

Weight distribution:

Empty: Front axle	47%
Rear axles	53%
Loaded: Front axle	32%
Rear axles	68%



TIRES

Standard tire	24.00 R35
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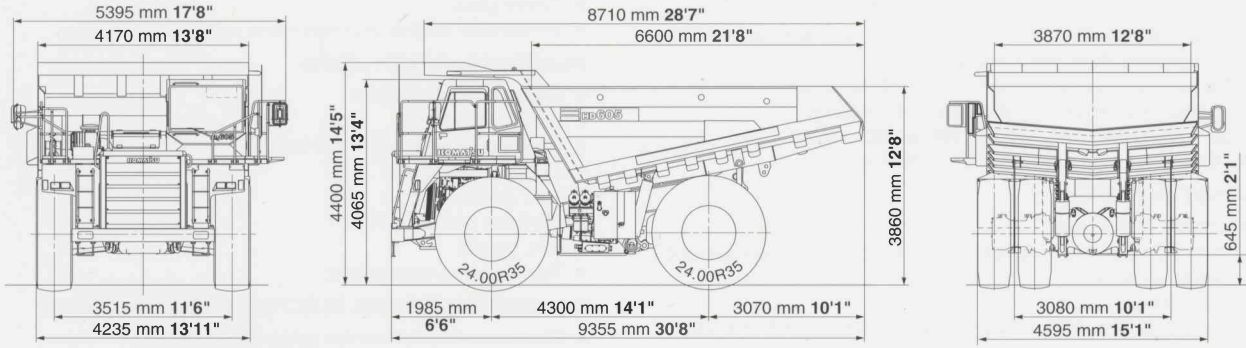
SERVICE REFILL CAPACITIES

Fuel tank	780 ltr. 206.1 U.S. Gal
Engine oil	57 ltr. 15.1 U.S. Gal
Torque converter, transmission and retarder cooling	190 ltr. 50.2 U.S. Gal
Differentials (total)	95 ltr. 25.1 U.S. Gal
Final drives (total)	42 ltr. 11.1 U.S. Gal
Hydraulic system	122 ltr. 32.2 U.S. Gal
Suspension (total)	55.6 ltr. 14.7 U.S. Gal



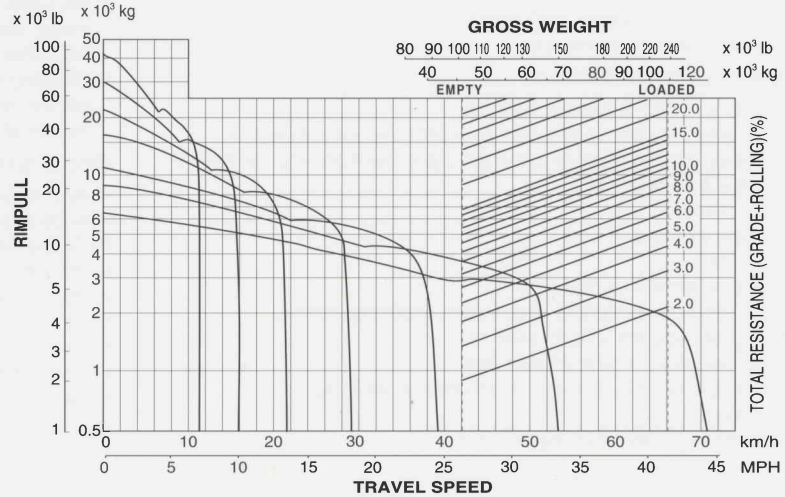
DIMENSIONS

HD605-7 OFF-HIGHWAY TRUCK



TRAVEL PERFORMANCE

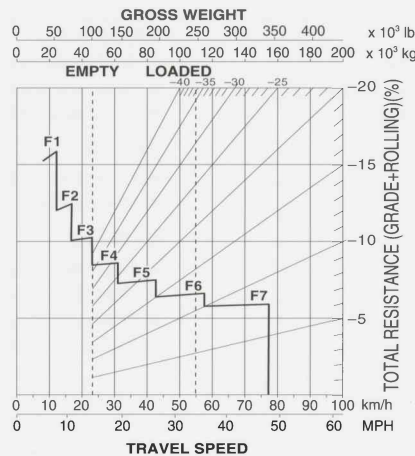
To determine travel performance: Read from gross weight down to the percent of total resistance. From this weight-resistance point, read horizontally to the curve with the highest obtainable speed range, then down to maximum speed. Usable rimpull depends upon traction available and weight on drive wheels.



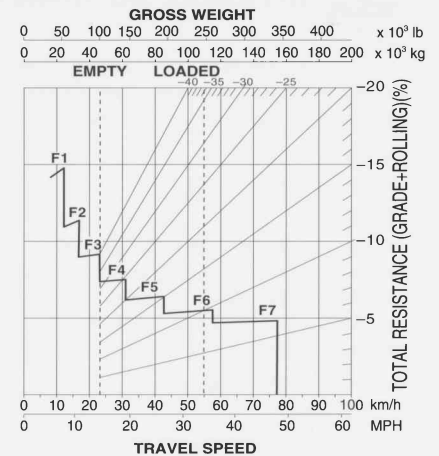
BRAKE PERFORMANCE

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.

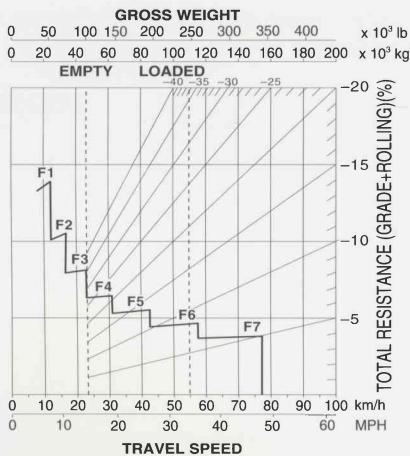
Grade distance: Continuous Descent



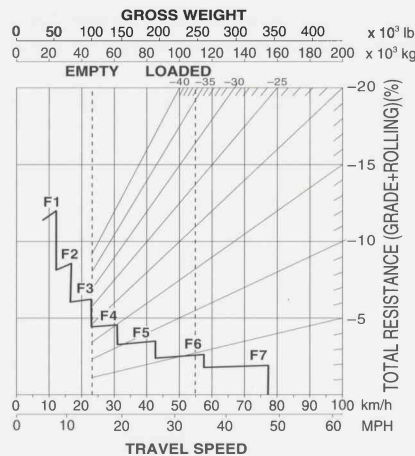
Grade distance: 450 m (1480 ft)



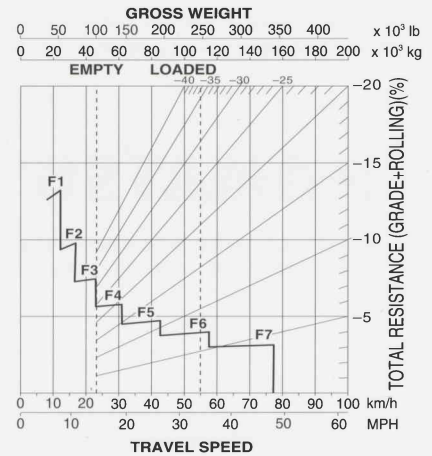
Grade distance: 600 m (1,970 ft)



Grade distance: 900 m (2,950 ft)



Grade distance: 1,500 m (4920 ft)





STANDARD EQUIPMENT FOR BASE MACHINE

ENGINE:

- Engine, Komatsu SAA6D170E-3, turbocharged and aftercooled, direct injection, EPA Tier II compliant
- Full-automatic 7-speed transmission with all-speed electronic modulation and the "skip shift" feature
- Gross horsepower 551 kW **739 HP** at 2000 rpm
- Net horsepower 533 kW **715 HP** at 2000 rpm

ELECTRICAL SYSTEM:

- Alternator, 75 ampere
- Caution lights (battery charge, body raise position, retarder and transmission oil filter)
- Circuit breaker
- Indicators (dust indicator, headlights high beam, shift indicator, and turn signal)
- Large-capacity battery, 200 Ah/4 x 12V
- Two-way parking brake system

OPERATOR ENVIRONMENT:

- ROPS and FOPS integral with cab
- Cab, steel, sound suppression type with viscous cab mount, includes: air conditioner/heater/defroster, electronically controlled
- Ashtray and cigarette lighter
- Door pocket
- Electric windows
- Floor mat
- Radio, AM/FM with cassette
- Seat, driver's, adjustable suspension, reclining (fabric)
- Seat, passenger's with 3" seat belt
- Seat belt, driver's with 3" seat belt
- Steering system, automatic supplemental steering
- Sun visor
- Tilt and telescopic steering wheel

- Tinted glass
- Windshield washer and wiper with intermittent feature

GUARD AND COVER GROUP:

- Catwalk with handrails
- Deck rail
- Driveline guards, front and rear
- Engine underguard
- Mud guards
- Platform guard, LH & RH
- Tire guards
- Transmission underguard

MONITORING SYSTEM, ELECTRONIC DISPLAY ITEMS:

- Electronic display/monitor system (EDIMOS)
- Instrument panel (coolant temperature gauge, electric service meter, speedometer with odometer, tachometer, and torque converter oil temperature gauge)
- Warning light and alarm system (coolant temperature and level, engine oil pressure, parking brake, retarder oil temperature, and torque oil temperature)

OTHER STANDARD EQUIPMENT:

- Auto-retard speed control (ARSC)
- Body positioner
- Centralized lube block
- Front brake cut-off system
- Hydropneumatic suspension, front and rear
- Rearview mirror, LH
- Rock ejector bar
- Under view mirror
- Vandalism protection kit

Note: Tires and rims are not included as standard equipment



OPTIONAL EQUIPMENT

BODY:

- 40 m³ **52 yd³** rock body, unlined 19 mm .75" floor
- 40 m³ **52 yd³** rock body, lined 19 mm .75", floor 19 mm .75"
- 40 m³ **52 yd³** quarry body, unlined 25 mm 1" floor

CAB:

- Air suspension seat

TIRE:

- Rims for 24.00 x 35 tires (set of 6)
- 24.00 x R35, XRB, 2-Star, E3, Michelin
- 24.00 x R35, XDTA4, 2-Star, E4, Michelin
- 24.00 x R35, XKD1A, 2-Star, E4, Michelin
- 24.00 x R35, XDTB, 2-Star, E4, Michelin

LIGHTING SYSTEM:

- Fog lights
- Work lights LH and RH side

SAFETY:

- Additional rear view mirror (west coast type), (RH)
- Anti-lock brake system (ABS)
- Automatic slip regulation (ASR)

GAUGE:

- Payload meter II
- Payload meter pre-wiring

OTHERS:

- Deck mounted muffler, no body heating
- Fast fill fuel system
- Suspension gas charge tool
- Water separator

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.

AESS607-01

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DK09(5M)TP DataKom

09/02(EV-1)

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