

# KOMATSU

## HD325-7

## HD405-7

**ENGINE POWER**  
386 kW / 518 HP @ 2.000 rpm

**MAXIMUM GVW**  
HD325-7: 69.900 kg  
HD405-7: 75.500 kg

**BODY CAPACITY, HEAPED**  
HD325-7: 24,0 m<sup>3</sup>  
HD405-7: 27,3 m<sup>3</sup>

**HD**  
**325**  
**405**



OFF-HIGHWAY TRUCK

**HD325-7 / HD405-7**

# WALK-AROUND

## ***Productivity features***

- High performance Komatsu SAA6D140E-5 engine
- Variable horsepower control at Economy mode
- Automatic Idling Setting System (AISS)
- Hydraulically controlled wet multiple-disc brakes and retarder
- Auto Retard Speed Control (ARSC)
- High strength body
- Minimum turning radius: 7,2 m
- ASR (Automatic Spin Regulator) (Option)
- PLM II (Memory card type payload meter) (Option)

**ecot3**

ecology & economy - technology 3

## ***Komatsu SAA6D140E-5***

engine with high pressure common rail injection delivers ample power in a fuel efficient way. The engine meets EU Stage IIIA and EPA Tier III emissions regulations.



## ***Environment-friendly***

- Low operating noise
- Low fuel consumption
- Lead-free radiator
- Brake cooling oil recovery tank

**Operator environment**

- Wide, spacious cab with excellent visibility
- Ergonomically designed cab
- Easy-to-see instrument panel
- Air suspension seat
- Tilttable, telescoping steering wheel and low effort pedals
- Electric body dump control lever
- K-ATOMICS transmission with "Skip-Shift" function
- Hydropneumatic suspension for all terrains
- Viscous cab mounts
- Built-in ROPS/FOPS
- Supplementary steering (Automatic)
- Pedal-operated secondary brakes
- Three-mode hydropneumatic suspension (auto-suspension) (Option)
- Front stairway with handrails

**ENGINE POWER**

386 kW / 518 HP @ 2.000 rpm

**MAXIMUM GVW**

HD325-7: 69.900 kg

HD405-7: 75.500 kg

**BODY CAPACITY, HEAPED**HD325-7: 24,0 m<sup>3</sup>HD405-7: 27,3 m<sup>3</sup>**Reliability features**

- Fully hydraulic brake system
- Reliable Komatsu manufactured major components
- High-rigidity frame
- Wet multiple-disc brakes
- Flat face-to-face O-ring seals
- Sealed DT-connectors
- Highly reliable hydraulic system

**Easy maintenance**

- Long oil change interval
- Centralized greasing points
- Centralized arrangement of filters
- Flanged type rims
- KOMTRAX™ Komatsu Tracking System

# PRODUCTIVITY FEATURES



## High performance SAA6D140E-5 engine

### Electronic control system

Komatsu's electronic control system monitors the vehicle performance, optimizing emissions, fuel efficiency and noise levels, even under extreme conditions.

### Heavy duty HPCR system

#### (High Pressure Common Rail fuel injection)

A high pressure pump pumps fuel into an accumulator chamber or 'Common Rail'. An ECU (electronic control unit) then optimizes fuel injection from the common rail into the engine cylinders. This improves engine power and fuel efficiency, reducing emission and noise levels.

### Heavy-duty cooled EGR system

#### (Exhaust Gas Recirculation)

Cooled exhaust gas returned to the cylinders prevents nitrogen and oxygen bonding during combustion, reducing NOx emissions, lowering thermal stress and improving fuel efficiency.

### Air-to-air charge air cooling system

By cooling the compressed air supplied by the turbo-charger to the cylinders, this system optimizes combustion efficiency, reduces emissions and improves engine performance.

### New combustion system

Our new combustion system optimises combustion timing and ignition. Thanks to extensive computer simulations and analyses, its specially designed combustion chamber reduces NOx and particulates emissions, fuel consumption and noise levels.

### Engine power mode selection system

The system allows selection of the appropriate mode between two modes "Power mode" or "Economy mode" according to each working condition. The mode is easily selected using a switch in the operator's cab.

#### Power mode

Great productivity can be attained by taking full advantage of high output power. It is appropriate for job sites where large production on an uphill haul is required.

#### Economy mode (Variable horsepower control)

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

### 7-speed, fully automatic K-ATOMiCS transmission

The K-ATOMiCS (Komatsu Advanced Transmission with Optimum Modulation Control System) automatically selects the optimum gear according to vehicle speed, engine speed and the shift position you've chosen. The result: the best gear for any driving situation.

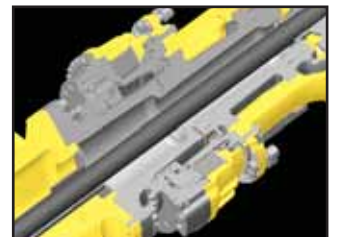


K-ATOMiCS (Komatsu Advanced Transmission with Optimum Modulation Control System)

### Hydraulically controlled wet multiple-disc brakes and retarder

Wet multiple-disc brakes ensure 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): 662 kW 887 HP
- Brake surface (rear): 50.847 cm<sup>2</sup>





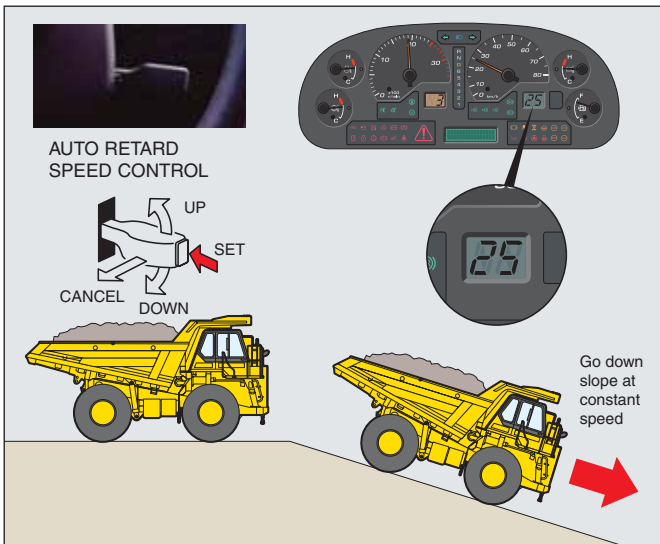
**Automatic Idling Setting System (AISS)**



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 or lower. Speed automatically returns to 750 rpm when coolant temperature reaches 50 °C.

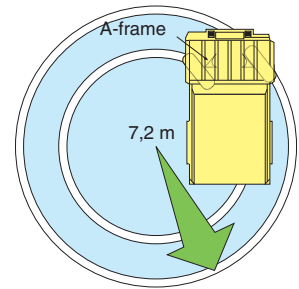
**Auto Retard Speed Control (ARSC)**

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 per click to match the optimum speed for the slope. Also, when it is predicted that the retarder oil temperature becomes overheated, since the retarder oil temperature is always monitored, operator is informed this by warning lamp.



**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.

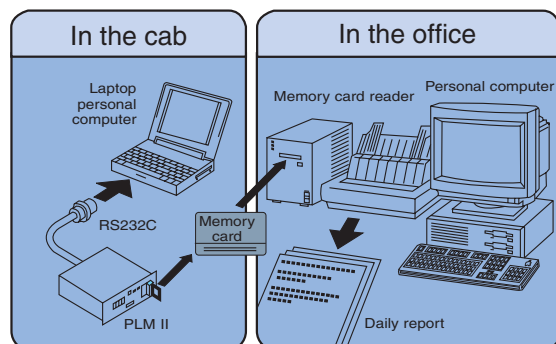


**ASR (Automatic Spin Regulator) (Option)**

ASR automatically prevents the rear tyres on either side from slipping on soft ground for optimal traction. The steering angle is monitored in order to ensure smooth turning.

**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 trainer's seat. A large electrically operated window and the operator's seat positioned on the left hand 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. A rear view camera and monitor system is supplied as standard.

## **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. This Komatsu on-board monitoring system makes the machine very friendly and easy to service.

## **Air suspension seat is standard**

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.



## **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 an 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.

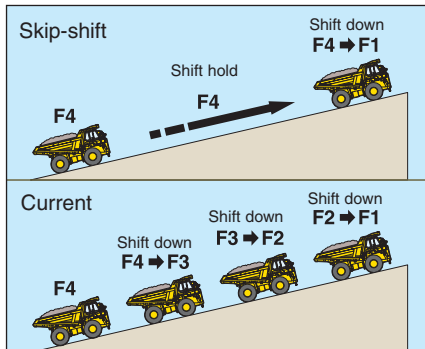


**K-ATOMiCS with “Skip-Shift” function**

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.

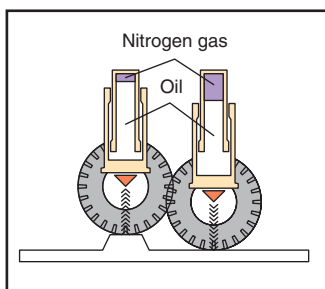
**“Skip-shift” function**

The optimum travel speed automatically selected in response to the angle of ascent. Reduced frequency of down shifts and smoother operation are provided.



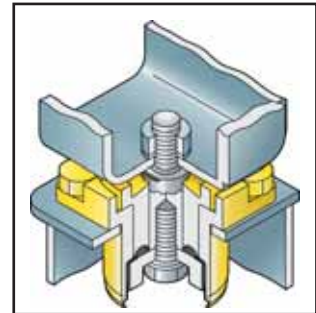
**Hydro-pneumatic suspension for all terrains**

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 78 dB(A) noise level



**Built-in ROPS/FOPS**

These structures conform to ISO 3471 and SAE J1040 standards and ISO 3449 and SAE J231 FOPS 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

**Three-mode hydropneumatic suspension (Auto-suspension) (Option)**

For a comfortable and stable ride, the suspension mode is automatically switched to one of three stages (soft, medium and hard) according to load and operating conditions.

**Stairway**

A stairway at the front of the radiator grill simplifies such everyday operations as getting on and off the machine.



# ADVANCED MONITORING SYSTEM

## Availability rate with vehicle monitoring system

The electronic display panel shows current vehicle condition and how to fix them with action codes and check results with service codes. Thus, vehicle management is easier and the working rate is higher. At the same time the monitoring data is saved to be used for later troubleshooting.

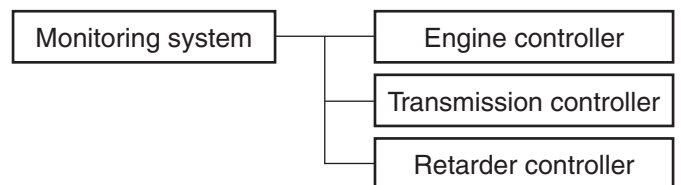


## Equipment Management Monitoring System (EMMS)



This window is normally used as the service meter/odometer. If the dump truck has any abnormality or needs to be inspected or serviced, a message of proper remedy and an action code are displayed in this window. Each time the starting switch is turned on, the system is checked. If any filter or oil needs to be replaced at this time, the maintenance caution lamp flashes or lights up and the filter or oil to be replaced is displayed. If any abnormality occurs in the dump truck, a message is displayed on the character display to notify the operator of what action to take. Accordingly, the operator can take that action immediately. The abnormality is displayed as a fault code on the character display and stored so that it will be available for quick troubleshooting to shorten downtime.

### Monitoring network





# EASY MAINTENANCE



## Centralized greasing points

Greasing points are centralized at three locations.

## Flange type rims

Flange type rims provide easy removal/installation of the tyres.



## Electric circuit breaker

A circuit breaker is adopted in important electric circuits that should be restored in a short time when a problem occurs in the electrical system.



## Centralized arrangement of filters

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



## Extended service intervals

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

- Engine oil 500 hours
- Hydraulic oil 4.000 hours



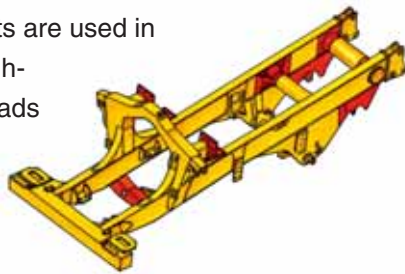
# RELIABILITY FEATURES

## 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.



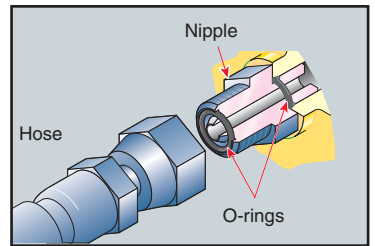
## Wet multiple-disc brakes and fully hydraulic braking system

For 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.



## 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.

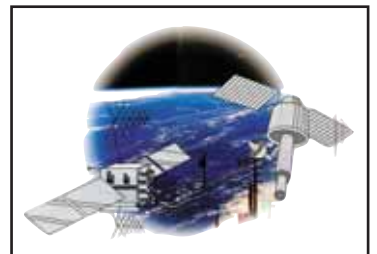


## Reliable hydraulic system

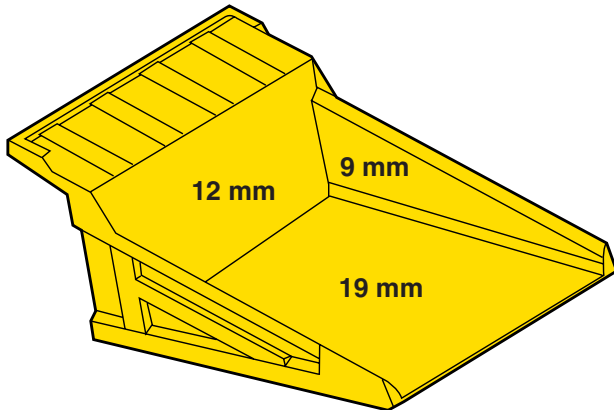
A large capacity oil cooler is installed in each hydraulic circuit, improving the reliability of the hydraulic units during sudden temperature rises. Further, in addition to the main filter, a 10-micron line filter is located at the entrance to the transmission control valve. This system helps to prevent secondary faults.

## KOMTRAX™ Komatsu Tracking System

The Komatsu Tracking System, KOMTRAX™, provides a revolutionary new way to monitor your equipment, anytime, anywhere. It lets you pin-point the precise location of your machines and obtain real-time machine data. Using GPS transmitter and satellite technology, it's designed to be future proof and will meet your demands today and tomorrow.



## HD325-7: High-strength body



The body is built of 130 kg/mm<sup>2</sup> wear-resistant high-tensile steel with a Brinell hardness of 400. The V-shape design also increases structural strength, and provides excellent load stability.



### Body capacity HD325-7

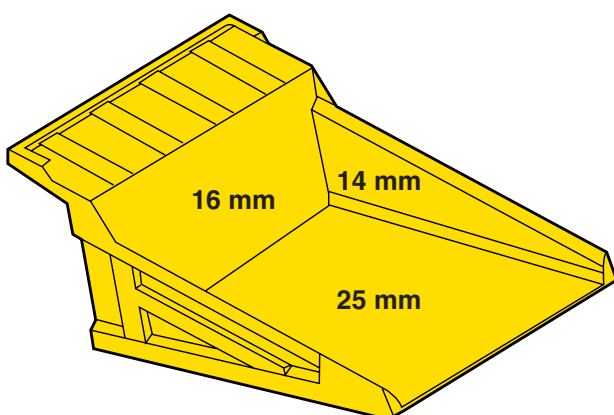
Struck: 18,0 m<sup>3</sup>

Heaped 3:1: 21,5 m<sup>3</sup>

Heaped 2:1 SAE: 24,0 m<sup>3</sup>

## HD405-7: Ultra-hard, wear-resistant, high-tensile-strength steel plates

Komatsu and leading European and Japanese steel makers have developed a new ultra-hard, wear-resistant steel with a tensile strength of 145 kg/mm<sup>2</sup>, making it the hardest and most wear-resistant steel ever developed for dump truck bodies. The material is up to 12,5% harder than that used in previous Komatsu dump trucks, with about two times the hardness of widely used liner materials and a Brinell hardness rating of 450. By adopting the material in thicker plates, we have enhanced both productivity and durability. Further, our dump trucks have large capacity bodies, ideal front and rear weight balance on tyres and high maximum loading capacities.



### Body capacity HD405-7

Struck: 20,0 m<sup>3</sup>

Heaped 3:1: 24,5 m<sup>3</sup>

Heaped 2:1 SAE: 27,3 m<sup>3</sup>





# SPECIFICATIONS HD325-7



## ENGINE

Model.....Komatsu SAA6D140E-5  
 Type..... Common rail direct injection, water-cooled, turbocharged, after-cooled, cooled EGR diesel  
 Engine power  
 at rated engine speed .....2.000 rpm  
 ISO 14396.....386 kW / 518 HP  
 ISO 9249 (net engine power).....371 kW / 498 HP  
 No. of cylinders ..... 6  
 Bore x stroke ..... 140 x 165 mm  
 Displacement..... 15,24 ltr  
 Max. torque.....2.167 Nm/221 kgf-m  
 Governor..... Electronically controlled  
 Lubrication system:  
 Lubrication method ..... Gear pump, force lubrication  
 Filter ..... Full flow  
 Air filter ..... 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  
 Lock-up 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 gears  
 Max. travel speed..... 70 km/h



## AXLES

Final drive type ..... Planetary gear  
 Rear axle ..... Full floating  
 Ratios:  
 Differential ..... 3,125  
 Planetary..... 4,737



## SUSPENSION

Independent, hydropneumatic suspension cylinder with fixed throttle to dampen vibration.  
 Effective cylinder stroke:  
 Front suspension .....250 mm  
 Rear suspension..... 129 mm  
 Rear axle oscillation:  
 Oil stopper..... 6,8°  
 Mechanical stopper..... 8,1°



## STEERING SYSTEM

Type.....Fully hydraulic power steering with two double-acting cylinders  
 Supplementary steering ..... Automatically and manually controlled (meets ISO 5010, SAE J1511 and SAE J53)  
 Minimum turning radius, centre of front tyre ..... 7,2 m  
 Maximum steering angle (outside tyre) .....43°



## BRAKES

Brakes meet ISO 3450 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.  
 Retarder capacity (continuous)..... 662 kW / 887 HP  
 Secondary brake ..... A relay valve automatically actuates the service brakes when hydraulic pressure drops below the rated level. Manual operation is also possible.  
 Brake surface:  
 Front..... 968 cm<sup>2</sup>  
 Rear ..... 50.847 cm<sup>2</sup>



## HYDRAULIC SYSTEM

Hoist cylinder ..... Twin, 2-stage telescopic type  
 Relief pressure ..... 20,6 MPa/210 kg/cm<sup>2</sup>  
 Hoist time (at high idle).....10 sec  
 Lowing time (float) .....10 sec



## CAB

Dimensions comply with ISO 3471 and SAE J1040-1988c ROPS (Roll-Over Protective Structure) standards and ISO 3449 and SAE J231 FOPS (Falling Object Protective Structure) standard.



## MAIN FRAME

Type ..... Box-sectioned construction



## TYRES

Standard tyres ..... 18.00 R33



**BODY**

Capacity:

Struck.....	18,0 m <sup>3</sup>
Heaped (3:1).....	21,5 m <sup>3</sup>
Heaped (2:1, SAE).....	24,0 m <sup>3</sup>
Payload.....	36,5 metric tons
Material.....	130 kg/mm <sup>2</sup>
	400 Brinell high tensile strength steel

Material thickness:

Bottom.....	19 mm
Front.....	12 mm
Sides.....	9 mm

Target area (inside length x width) ..... 5.500 mm x 3.380 mm  
 Dumping angle ..... 48°  
 Height at full dump..... 8.070 mm  
 Heating ..... Exhaust heating



**WEIGHT (APPROX.)**

Empty weight.....	33.400 kg
Gross vehicle weight .....	69.900 kg
Not to exceed max. gross vehicle weight, including options, fuel and payload.	
Weight distribution	
Empty:	
Front axle .....	54,2%
Rear axle.....	45,8%
Loaded:	
Front axle .....	34,6%
Rear axle.....	65,4%



**ENVIRONMENT**

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

Noise levels:

LpA operator ear .....	78 dB(A) (ISO 6396 dynamic test)
LwA external .....	110 dB(A) (2000/14/EC Stage II)

Vibration levels (EN 12096:1997)\*

Hand/arm .....	≤ 2,5 m/s <sup>2</sup> (uncertainty K = 0,68 m/s <sup>2</sup> )
Body.....	≤ 0,5 m/s <sup>2</sup> (uncertainty K = 0,29 m/s <sup>2</sup> )

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

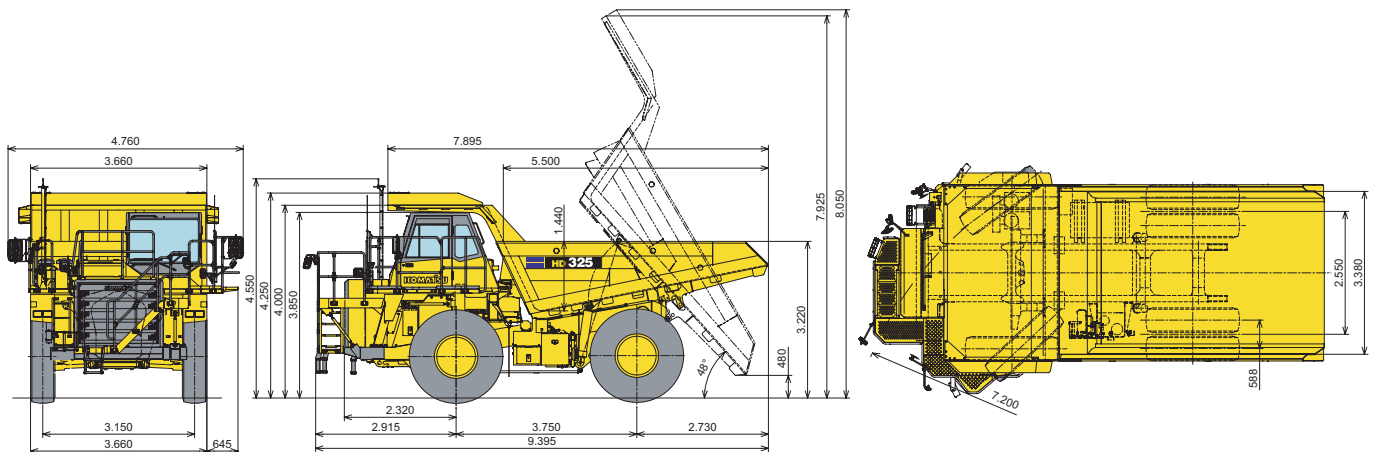


**SERVICE REFILL CAPACITIES**

Fuel tank.....	484 ltr
Engine oil.....	50 ltr
Torque converter, transmission and retarder cooling.....	90 ltr
Differentials (total) .....	45 ltr
Final drives (total) .....	30 ltr
Hydraulic system .....	129 ltr
Suspension (total).....	44,2 ltr

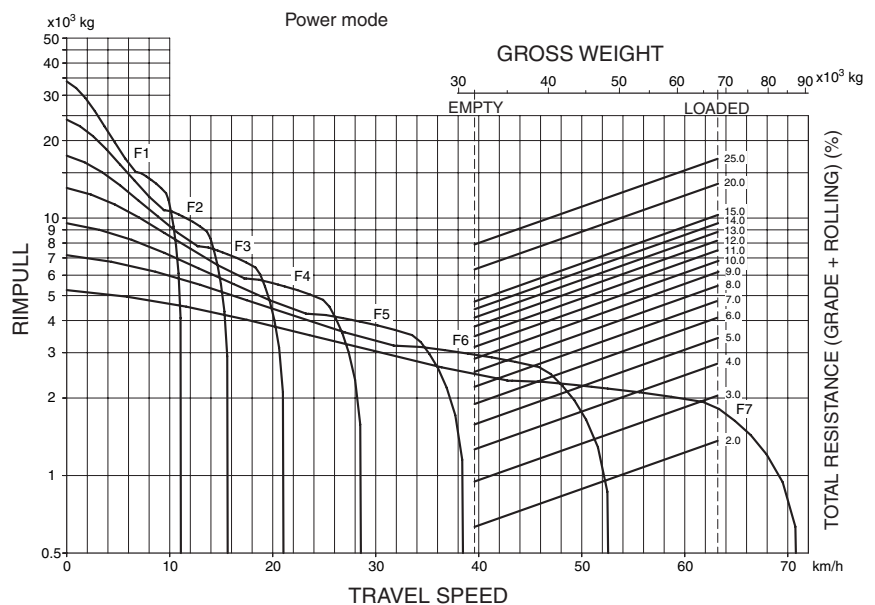


# MACHINE DIMENSIONS HD325-7



## TRAVEL PERFORMANCE

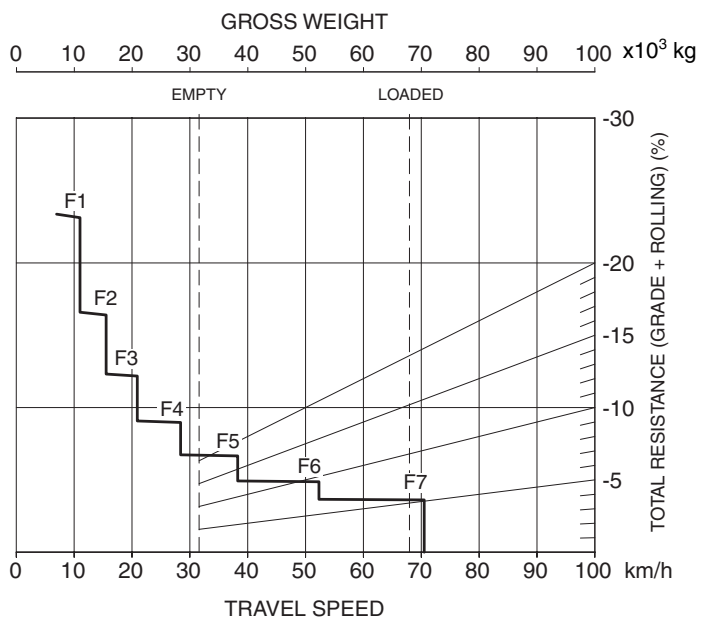
To determine travel performance:  
 Read from gross weight down to the percent of total resistance. From this weight-resistance point, read horizontally to the curve with the highest obtainable speed range, then down to maximum speed. Usable rimpull depends upon traction available and weight on drive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



## RETARDER 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.

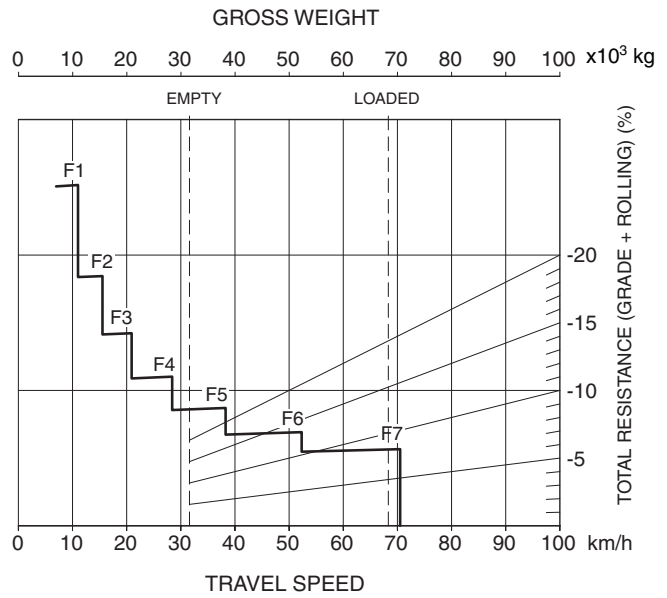
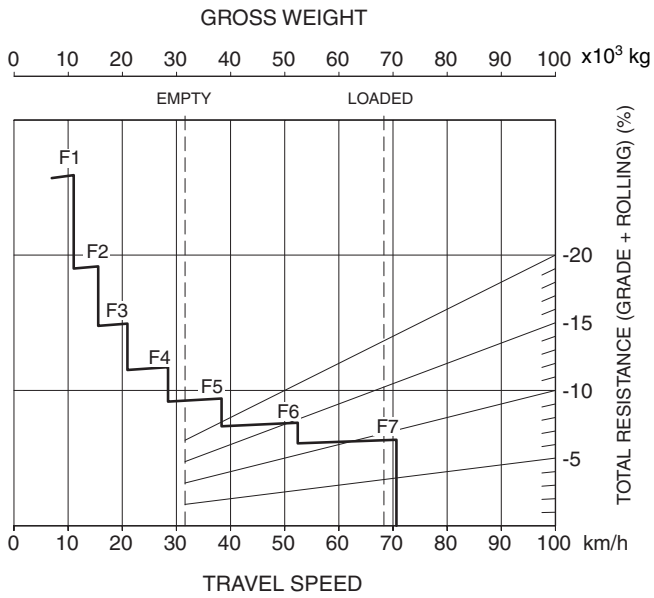
## GRADE DISTANCE: CONTINUOUS DESCENT





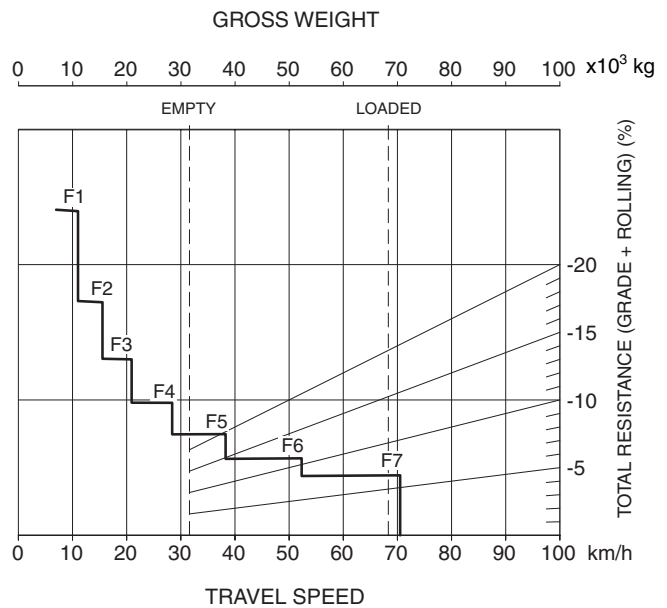
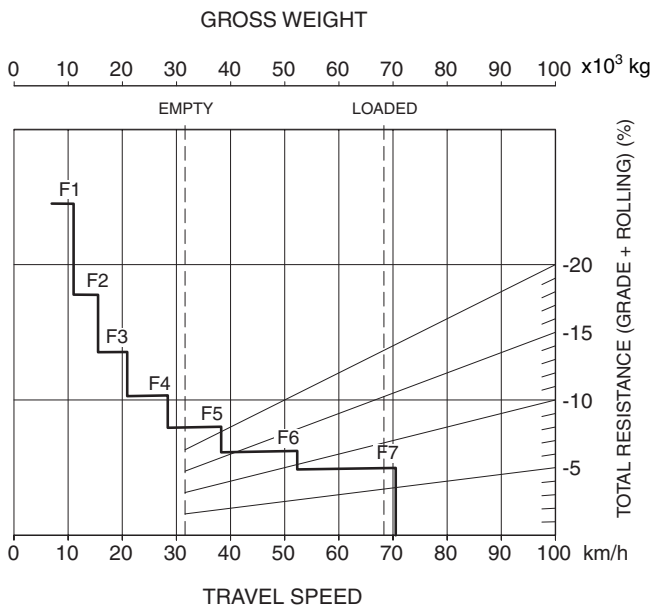
GRADE DISTANCE: 450 m

GRADE DISTANCE: 600 m



GRADE DISTANCE: 900 m

GRADE DISTANCE: 1.500 m



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 Displacement..... 15,24 ltr  
 Max. torque.....2.167 Nm/221 kgf-m  
 Governor..... Electronically controlled  
 Lubrication system:  
 Lubrication method ..... Gear pump, force lubrication  
 Filter ..... Full flow  
 Air filter ..... 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  
 Lock-up 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 gears  
 Max. travel speed..... 70 km/h



## AXLES

Final drive type ..... Planetary gear  
 Rear axle ..... Full floating  
 Ratios:  
 Differential ..... 3,125  
 Planetary..... 4,737



## SUSPENSION

Independent, hydropneumatic suspension cylinder with fixed throttle to dampen vibration.  
 Effective cylinder stroke:  
 Front suspension ..... 250 mm  
 Rear suspension ..... 129 mm  
 Rear axle oscillation:  
 Oil stopper..... 6,8°  
 Mechanical stopper..... 8,1°



## STEERING SYSTEM

Type ..... Fully hydraulic power steering with two double-acting cylinders  
 Supplementary steering ..... Automatically and manually controlled (meets ISO 5010, SAE J1511 and SAE J53)  
 Minimum turning radius, centre of front tyre ..... 7,2 m  
 Maximum steering angle (outside tyre) ..... 43°



## BRAKES

Brakes meet ISO 3450 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.  
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 Secondary brake ..... A relay valve automatically actuates the service brakes when hydraulic pressure drops below the rated level. Manual operation is also possible.  
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## MAIN FRAME

Type ..... Box-sectioned construction



## TYRES

Standard tyres ..... 18.00 R33



**BODY**

Capacity:

Struck.....	20,0 m <sup>3</sup>
Heaped (3:1).....	24,5 m <sup>3</sup>
Heaped (2:1, SAE).....	27,3 m <sup>3</sup>
Payload.....	40,0 metric tons
Material.....	145 kg/mm <sup>2</sup>
	450 Brinell high tensile strength steel

Material thickness:

Bottom.....	25 mm
Front.....	16 mm
Sides.....	14 mm
Target area (inside length x width).....	5.590 mm x 3.380 mm
Dumping angle.....	48°
Height at full dump.....	8.070 mm
Heating.....	Exhaust heating



**ENVIRONMENT**

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

Noise levels:

LpA operator ear.....	78 dB(A) (ISO 6396 dynamic test)
LwA external.....	110 dB(A) (2000/14/EC Stage II)

Vibration levels (EN 12096:1997)\*

Hand/arm.....	≤ 2,5 m/s <sup>2</sup> (uncertainty K = 0,55 m/s <sup>2</sup> )
Body.....	≤ 0,5 m/s <sup>2</sup> (uncertainty K = 0,28 m/s <sup>2</sup> )

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



**WEIGHT (APPROX.)**

Empty weight.....	35.500 kg
Gross vehicle weight.....	75.500 kg
Not to exceed max. gross vehicle weight, including options, fuel and payload.	
Weight distribution	
Empty:	
Front axle.....	53,2%
Rear axle.....	46,8%
Loaded:	
Front axle.....	34,3%
Rear axle.....	65,7%



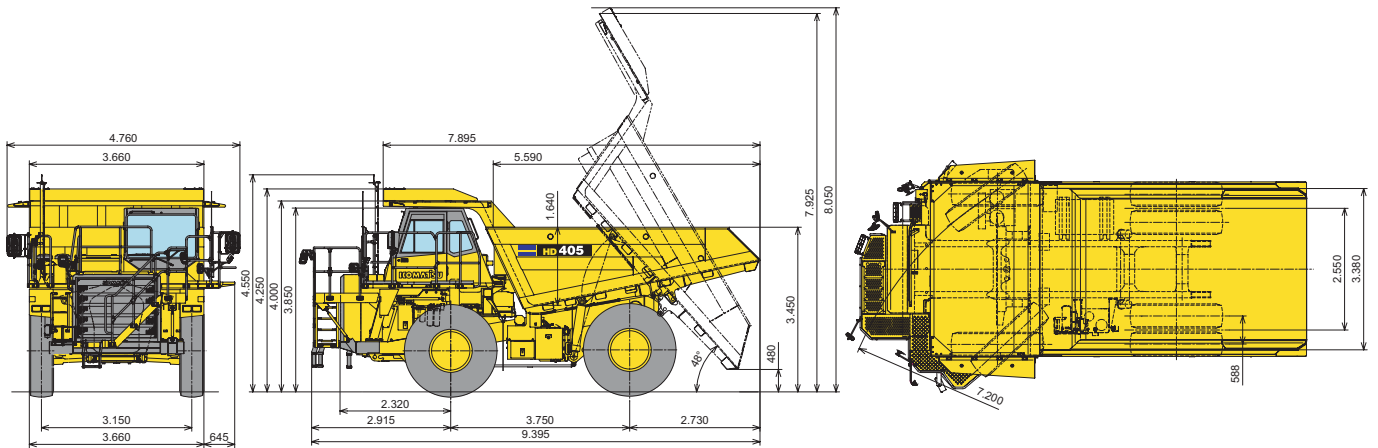
**SERVICE REFILL CAPACITIES**

Fuel tank.....	484 ltr
Engine oil.....	50 ltr
Torque converter, transmission and retarder cooling.....	90 ltr
Differentials (total).....	45 ltr
Final drives (total).....	30 ltr
Hydraulic system.....	129 ltr
Suspension (total).....	44,2 ltr



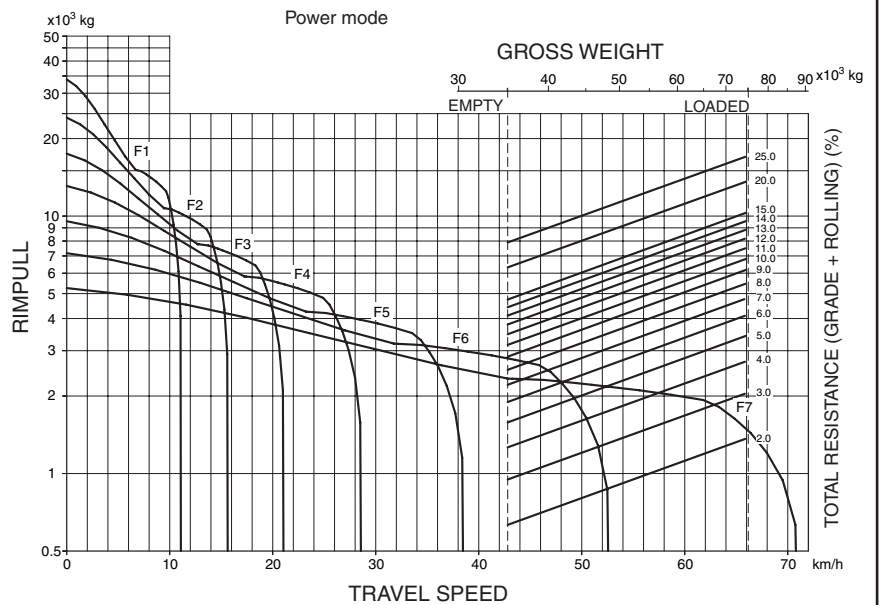


# MACHINE DIMENSIONS HD405-7



## TRAVEL PERFORMANCE

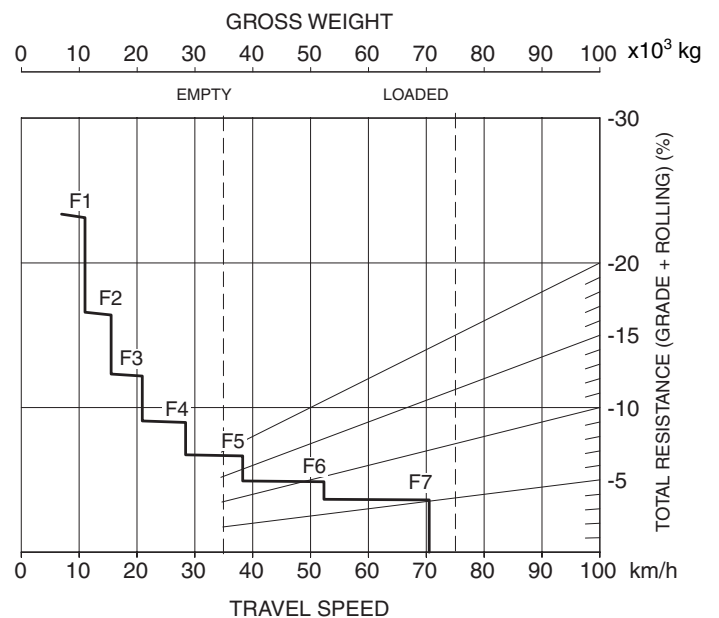
To determine travel performance:  
 Read from gross weight down to the percent of total resistance. From this weight-resistance point, read horizontally to the curve with the highest obtainable speed range, then down to maximum speed. Usable rimpull depends upon traction available and weight on drive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



## RETARDER PERFORMANCE

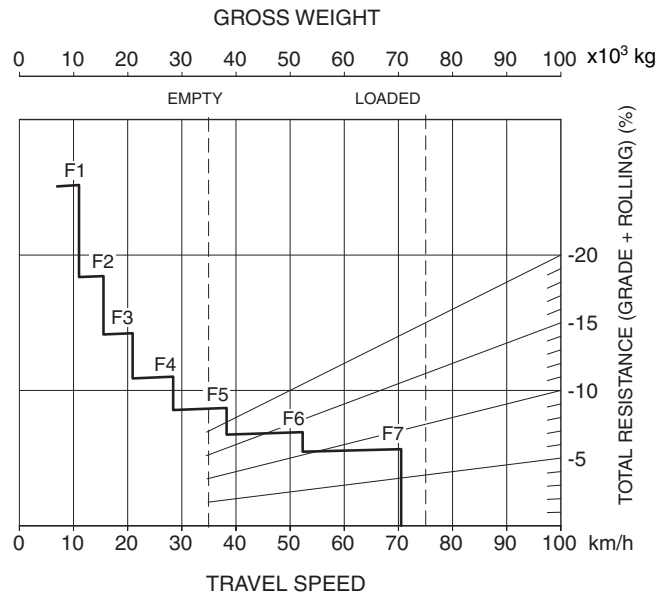
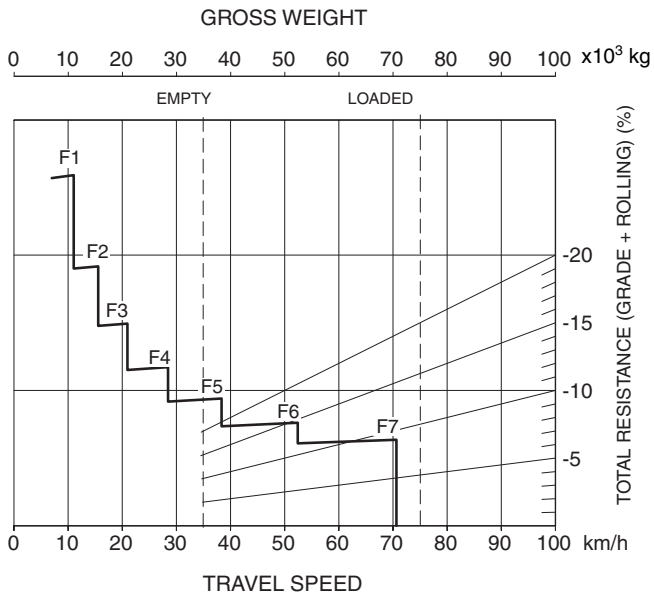
To determine brake performance:  
 These curves are provided to establish the maximum speed and gearshift position for safer descents on roads with a given distance. Read from gross weight down to the percent of total resistance. From this weight-resistance point, read horizontally to the curve with the highest obtainable speed range, then down to maximum descent speed the brakes can safely handle without exceeding cooling capacity.

## GRADE DISTANCE: CONTINUOUS DESCENT



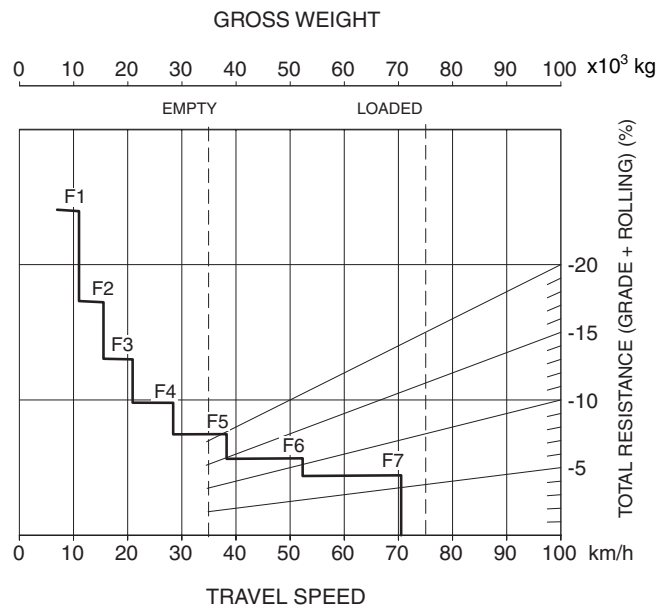
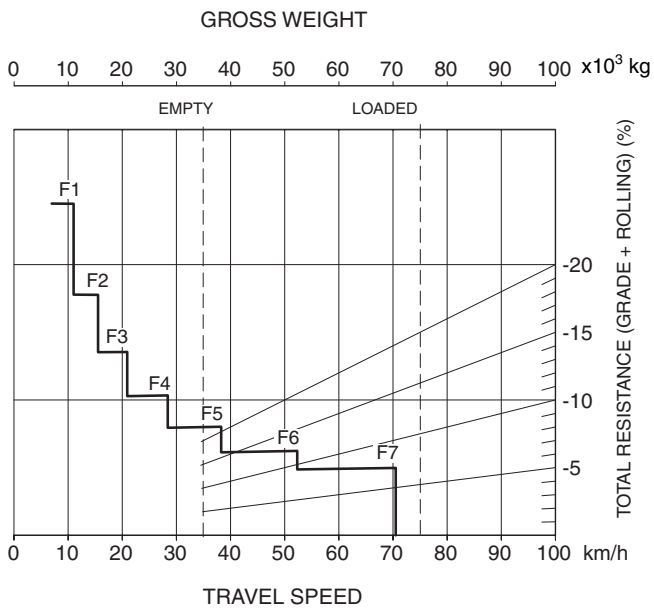
GRADE DISTANCE: 450 m

GRADE DISTANCE: 600 m



GRADE DISTANCE: 900 m

GRADE DISTANCE: 1.500 m



# OFF-HIGHWAY TRUCK

## STANDARD EQUIPMENT

### ENGINE

- Komatsu SAA6D140E-5 engine, EU Stage IIIA/EPA Tier III compliant
- AISS (Automatic Idling Setting System)
- Engine power mode selection system
- Alternator 50 A/24 V
- Batteries 2 × 12 V/170 Ah
- Starting motor 11 kW

### CAB

- ROPS cab with FOPS, sound suppression type
- Two doors, left and right
- Air conditioner
- Electronic maintenance display/monitoring system
- Electronic hoist control system
- Operator seat, reclining, air suspension type with retractable 78 mm width seat belt
- Power window (l.h.)

- Steering wheel, tilt and telescopic
- Sun visor
- Sun visor, additional
- Tinted glazing
- Pre radio installation
- Cigarette lighter, ashtray, cup holder, space for lunch box
- Windshield washer and wiper (with intermittent feature)

### LIGHTING SYSTEM

- Back-up light
- Hazard lights
- Headlights with dimmer switch
- Indicator, stop and tail lights

### GUARDS AND COVERS

- Exhaust thermal guard
- Fire prevention covers
- Engine underguard
- TM underguard
- Drive shaft guard (front and rear)
- Engine side covers

- Lockable fuel cap and covers

### SAFETY EQUIPMENT

- Back-up alarm
- Horn, electric
- Coolant temperature alarm and light
- Hand rails for platform
- Front brake cut-off system
- Ladders, left and right hand side
- Supplementary steering
- Secondary brake
- Rearview mirrors
- Underview mirrors
- Rear view camera and monitor
- Front stairway with handrails

### OTHER

- ARSC (Auto Retard Speed Control)
- Centralized greasing
- Electric circuit breaker, 24 V
- PM service connections
- Muffler with body heating
- Fuel tank with fast fill coupler

- Poor fuel arrangement (dust and water)
- Komtrax™ Komatsu Tracking System

### REGULATIONS

- Complies with EC requirements

### BODY

- Body exhaust heating
- Cab guard (left hand side)
- Spill guard, 250 mm
- Platform guard (right hand side)
- Tyre guards
- Mud guards

### RIMS

- Rims for 18.00 R33

## OPTIONAL EQUIPMENT

### CAB

- Cassette-radio
- Power window (r.h.)

### BODY

- Body liner (HD325-7)
- Rock body (HD325-7)
- Side extension, 200 mm (HD325-7)

### LIGHTING SYSTEM

- Rear working lights, left and right
- Fog lights

### SAFETY EQUIPMENT

- ASR (Automatic Spin Regulator)
- Overturn warning system

### ARRANGEMENTS

- High-capacity batteries
- Cold area arrangement (-30 °C to 40 °C)
- Sandy and dusty area arrangement

### OTHER

- Auto greasing system
- Engine coolant heater
- Engine oilpan heater
- First aid kit
- Payload meter (PLM II)
- Radiator shutter, canvas type
- Three-mode automatic hydropneumatic suspension

### TYRES

- 18.00-33-32PR (HD325-7)
- 18.00 R33



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