

KOMATSU®

HD255-5

HORSEPOWER
GROSS 241 kW 323 HP
NET 235 kW 316 HP
MAX. GROSS VEHICLE WEIGHT
47525 kg 104,770 lb

HD
255



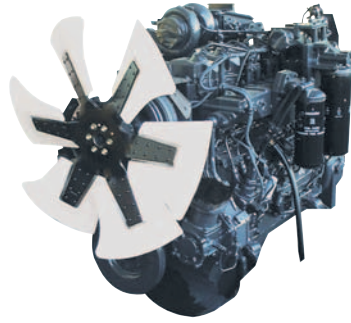
Photos may include optional equipment.

OFF-HIGHWAY TRUCK

PRODUCTIVITY FEATURES

Powerful KOMATSU SAA6D125E-3 Engine

This engine delivers quicker acceleration and higher travel speed with the highest output per weight. EPA Tier 2 and EU Stage 2 emissions certified engine includes advanced technology Common-Rail fuel injection (CRI) system, air-to-air aftercooler and efficient turbocharger. High torque at low speed, impressive acceleration, and low fuel consumption ensure maximum productivity.



6-Speed, Fully Automatic K-ATOMiCS Transmission with Shift-Limiter Function

The K-ATOMiCS (Komatsu Advanced Transmission with Optimum Modulation Control System) automatically selects optimum gear according to vehicle speed, engine speed and shift position you've chosen. The standard equipment shift-limiter function allows first gear to be maintained when descending steep grades.

Oil-Cooled Multiple-Disc Retarder and Exhaust Brake

The large capacity continuously oil-cooled wet multiple disc retarder and the exhaust brake are standard equipment and enable safe and continuous downhill drive travel.

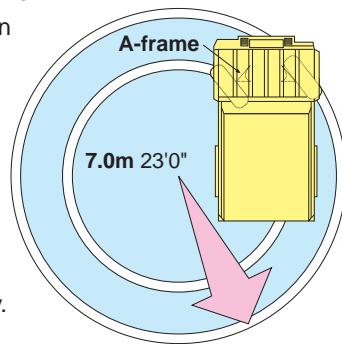


High Strength Quarry Body for Easy Loading Operation

The robust body is constructed of thick wear-resistant steel having 500 Brinell hardness. The V-shape, flat-bottom design also increases structural strength, and provides excellent load stability.

Outstanding Small Turning Radius

The 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 allowing the truck to be positioned quickly and easily.



OPERATOR ENVIRONMENT

Wide, Spacious Cab with Excellent Visibility

The integrated cab ROPS structure conforms to ISO 3471 and SAE J1040 standards. The operator compartment makes it very easy and comfortable for the operator to use all the controls. The wide windshield and large rearview mirrors provide superior visibility and safe operation.

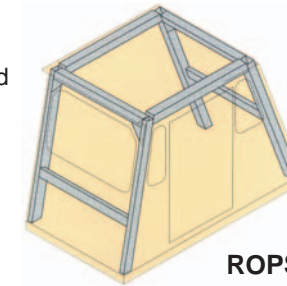


Photo may include optional equipment.

Suspension Seat

The standard equipment fabric covered suspension seat is adjustable to operator's weight. The suspension seat dampens vibrations transmitted from the chassis and reduces operator fatigue as well as holding the operator securely to assure confident operation.



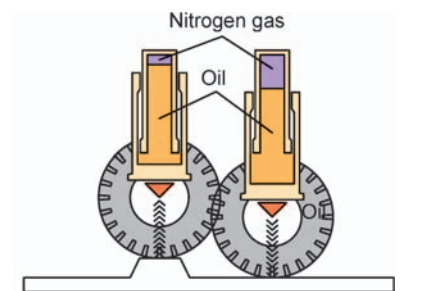
Automatic Supplementary Steering and Secondary Brakes

Automatic supplementary steering and secondary brakes are standard equipment. If an abnormality occurs in the steering hydraulic circuits or engine stops suddenly, this supplementary steering system works automatically and enables continued steering operation.

Steering: ISO 5010, SAE J1511, SAE J53
Brakes: ISO 3450, SAE J1473

Hydropneumatic Suspension for All Terrains

The hydropneumatic suspension assures comfortable ride even over rough terrain and ensures maximum productivity and operator confidence.



- ① Large-sized rear view mirror
- ② Rubber mudguard
- ③ Rubber mudguard (at right platform)



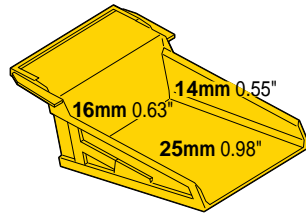
EXCELLENT RELIABILITY AND DURABILITY

Komatsu Components

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

High Strength Body

The side plates of the body are reinforced with cross ribs to increase the rigidity. The ribs of the bottom plate also greatly increase the rigidity. Furthermore, the body is made of new steel Komatsu developed in cooperation with a Japanese steel manufacturer having the best steel manufacturing technologies in the world. This ultra hard wear-resisting steel has hardness 25% higher than the conventional steel and about 2.5 times higher than the common lining steel.



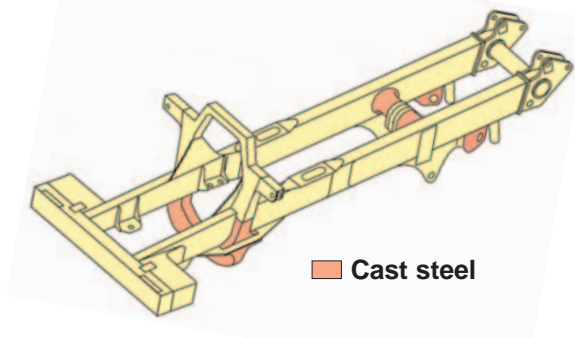
Sealed DT Connectors

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



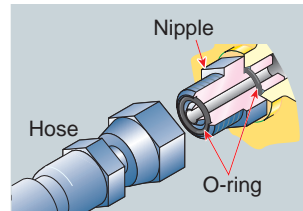
High-Rigidity Frames

Cast-steel components are used in the main frame for high-stress areas where loads and shocks are most concentrated. It provides a superior reliability and durability.



Flat Face-to-Face O-Ring Seals

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



EASY MAINTENANCE

Extended Oil Change Intervals

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

Engine oil change intervals: **250 hours → 500 hours**

Wet Multiple-Disc Brakes

The wet multiple-disc brakes on rear wheels make maintenance and adjustment unnecessary.

Flange Type Rim

The flange type rims provide easy removal/installation of the tires.

Centralized Arrangement of Filters and Greasing Points

The engine oil filter and fuel filter are centralized on the left side of the machine so that they can be serviced easily.

The greasing points are also centralized at two locations.

These filter and greasing maintenances can be done on the ground.

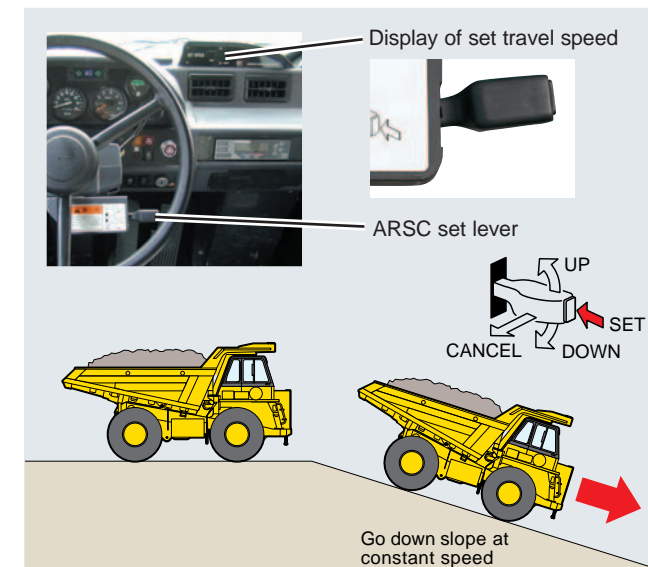


VALUE-ENHANCING OPTIONS

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 0.6 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.

Settable range: 7 km/h 4.3 MPH to 45 km/h 28.0 MPH



Desiccant Type Air Dryer

Desiccant type air dryer is available as an option. It removes moisture and oil in the compressed air provided from the air compressor. Therefore, reliability and durability of the air circuit is improved.

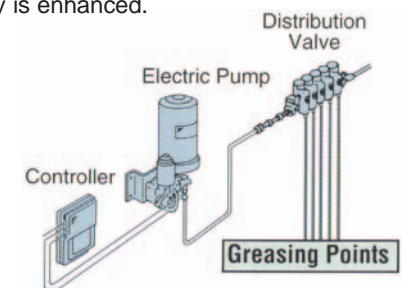


Front Brake Ratio Valve

The front brake ratio valve lowers the air pressure at the beginning of braking operations to limit the efficiency of the front brake to reduce heating and wear of the brake pad. If the brake pedal is pressed more than half, however, the air pressure isn't lowered, and the front brake works as designed.

Automatic Greasing System

This releases operators and mechanics from burdensome greasing work on the ground. Maintenance time is shortened, and productivity is enhanced.



SPECIFICATIONS



ENGINE

Model Komatsu SAA6D125E-3
 Type Water-cooled, 4-cycle
 Aspiration Turbo-charged and air-to-air after-cooled
 Number of cylinders 6
 Bore 125 mm 4.92"
 Stroke 150 mm 5.91"
 Piston displacement 11.04 ltr 674 in³
 Horsepower
 ISO 9249 / SAE J1349 Gross **241 kW** 323 HP
 Net **235 kW** 316 HP
 Rated rpm 2100 rpm
 Maximum torque **1375 N•m 140 kg•m** 1,013 lb•ft at 1,400 rpm
 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, plus dust indicator

EPA Tier 2 and EU Stage 2 emissions certified.



TRANSMISSION

Torque converter 3-elements, 1-stage, 2-phase
 Transmission Full-automatic, planetary type
 Speed range 6 speeds forward and 1 reverse
 Lockup clutch Wet, single-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
 Maximum travel speed **47.0 km/h** 29.2 mph



AXLES

Rear axle type Full-floating
 Final drive type Planetary gear
 Ratios:
 Differential 3.900
 Planetary 4.941



SUSPENSION SYSTEM

Independent hydropneumatic suspension cylinder with fixed throttle to dampen vibration.



STEERING SYSTEM

Type Fully hydraulic power steering with two double-acting cylinders
 Supplementary steering Automatic control with manual switch (meets ISO 5010, SAE J1511 and SAE J53)
 Minimum turning radius **7.0 m** 23'0"



CAB

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



MAIN FRAME

Type Box-sectioned structure



BRAKES

Brakes meet ISO 3450 and SAE J1473 standards.
 Service brakes:
 Front Air-over-hydraulic, caliper disc type
 Rear Air-over-hydraulic, oil-cooled multiple-disc type
 Parking brake Spring applied, internal-expanding brake
 Retarder Air-over-hydraulic, oil-cooled, multiple-disc rear brakes act as retarder. Plus exhaust retarder.
 Secondary brake A relay valve automatically actuates the service brakes when air pressure drops below the rated level. Manual operation is also possible.



BODY

Capacity:
 Struck **13.2 m³** 17.3 yd³
 Heaped (2:1, SAE) **17.7 m³** 23.2 yd³
 Payload **25 metric tons** 27.6 U.S. tons
 Material **160 kg/mm²** 227,500 psi high tensile strength steel
 Structure V-shape body with flat-bottom
 Material thickness:
 Bottom **25 mm** 0.98"
 Front **16 mm** 0.63"
 Sides **14 mm** 0.55"
 Target area
 (inside length x width) **4570 mm x 2995 mm** 15'0" x 9'10"
 Dumping angle 49°
 Height at full dump **7075 mm** 23'3"
 Heating Exhaust heating



HYDRAULIC SYSTEM

Hoist cylinder Single, 3-stage telescopic type
 Relief pressure **20.6 MPa 210 kg/cm²** 2,990 psi
 Hoist time 7 sec



WEIGHT (APPROXIMATE)

Empty weight **22450 kg** 49,490 lb
 Max. gross vehicle weight:
 Standard tire **47525 kg** 104,770 lb
 Optional tire **48035 kg** 105,900 lb
 Not to exceed max. gross vehicle weight, including options, fuel and payload.
 Weight distribution:
 Empty: Front axle 48%
 Rear axles 52%
 Loaded: Front axle 32%
 Rear axles 68%



TIRES

Standard tire 16.00-25-28PR(E3)

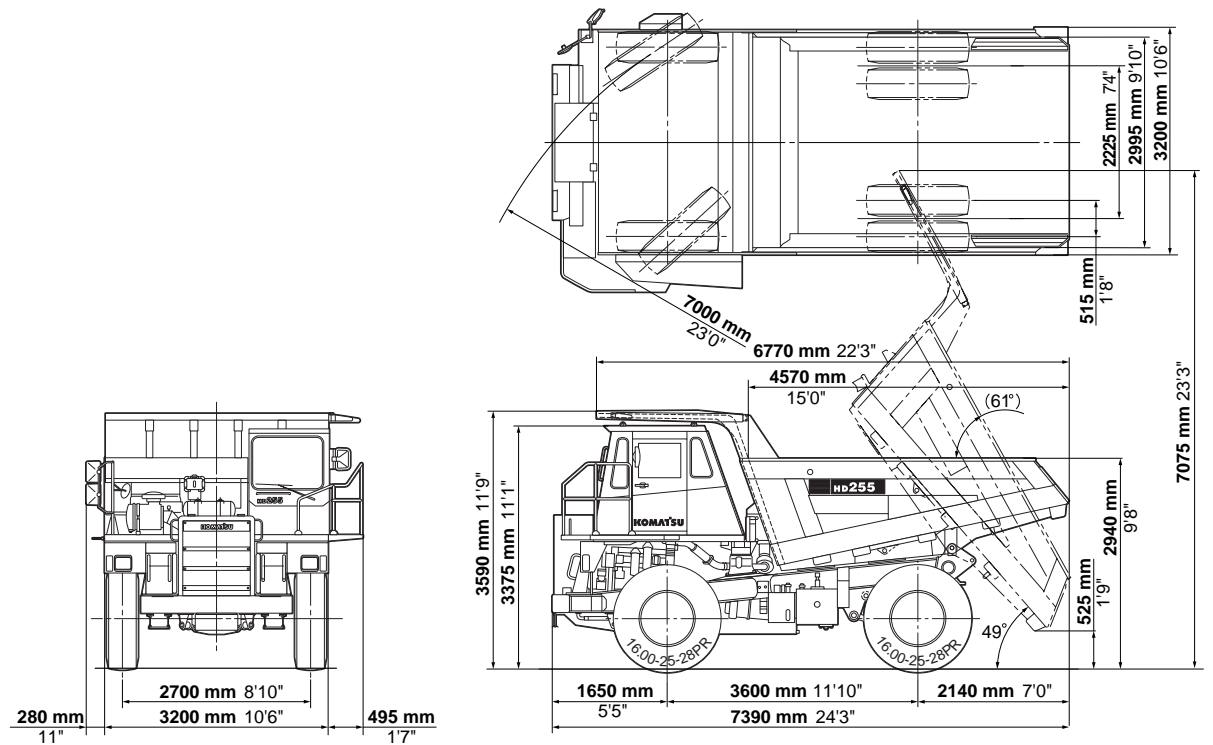


SERVICE REFILL CAPACITIES

Fuel tank **374 ltr.** 98.8 U.S. Gal
 Engine oil **38 ltr.** 10.0 U.S. Gal
 Torque converter, transmission and retarder cooling **70 ltr.** 18.5 U.S. Gal
 Differential **18 ltr.** 4.8 U.S. Gal
 Final drives (total) **14 ltr.** 3.7 U.S. Gal
 Hydraulic system **80 ltr.** 21.1 U.S. Gal
 Suspension (total) **30 ltr.** 7.9 U.S. Gal



DIMENSIONS



STANDARD EQUIPMENT FOR BASE MACHINE

ENGINE:

- Alternator 50A/24V
- Batteries 2 x 12V 150AH
- Komatsu SAA6D125E-3
- Starting motor, 7.5kW
- Engine auto preheater

CAB:

- Floor mat
- Foot rest
- Reclining suspension seat
- Retractable operator seat belt, 50mm 2" wide
- ROPS cab
- Sun-visor



OPTIONAL EQUIPMENT

CAB:

- Air conditioner
- Cigarette lighter and ashtray
- Intermittent windshield wiper
- Passenger seat (Fabric)
- Radio, AM / AM&FM
- Seatbelt (Two point anchor / 78mm 3.1")

BODY:

- Without body heating (with muffler)
- Body liner

- Tiltable and telescopic steering wheel
- Tinted glass
- Windshield washer and wiper

GUARD AND COVERS:

- Engine under guard
- Exhaust thermal-guard
- Fire protective covers
- Mudguards
- Transmission under-guard

SAFETY:

- Automatic supplementary steering
- Back up alarm

- Exhaust retarder
- Handrails for platform
- Horn, electric
- Ladders, left and right
- Rear view mirrors
- Secondary brake
- Under view mirror

LIGHTING SYSTEM:

- Back-up light
- Headlights
- Indicator, stop and tail lights

BODY:

- Body, **17.7m³** 23.2 yd³ (Heaped 2:1 SAE), with exhaust heating

- Cab guard, left side

TIRES:

- 16.00-25-28PR

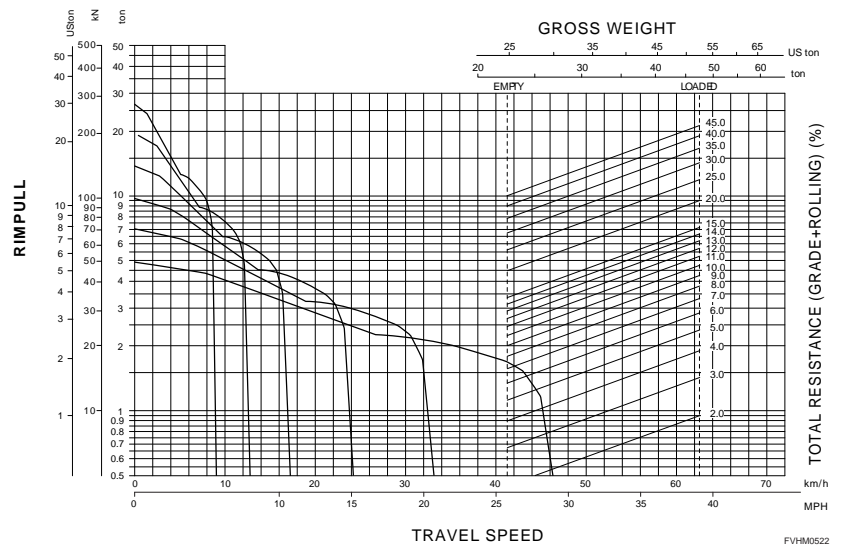
OTHER:

- Caliper disc brake (Front)
- Centralized greasing
- Fully automatic transmission with all speeds electronic modulation
- Hydropneumatic suspension (Front and Rear)
- Lock ejector
- Oil-cooled multiple disc brake (Rear)

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.

TRAVEL PERFORMANCE

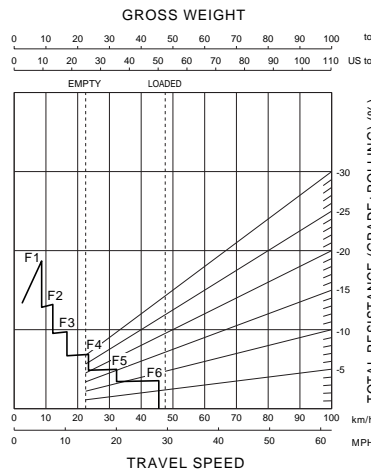
To determine travel performance: Read from gross weight down to the percent of total resistance. From this weight-resistance point, read horizontally to the curve with the highest obtainable speed range, then down to maximum speed. Usable rimpull depends upon traction available and weight on drive wheels.



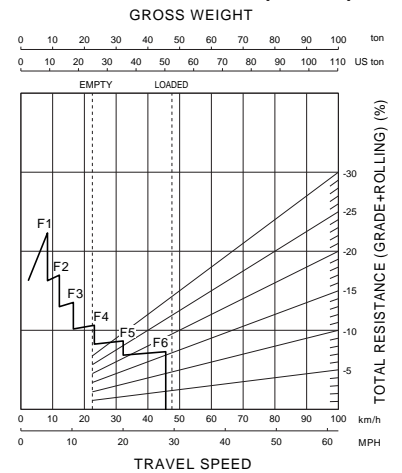
BRAKE PERFORMANCE

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.

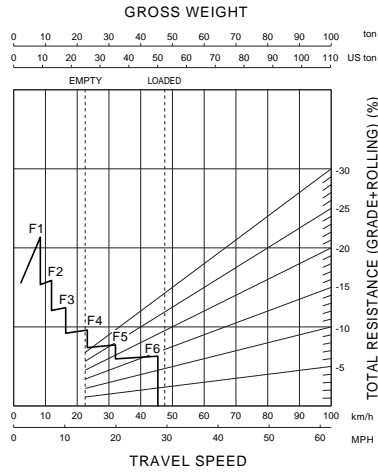
Grade distance: Continuous Descent



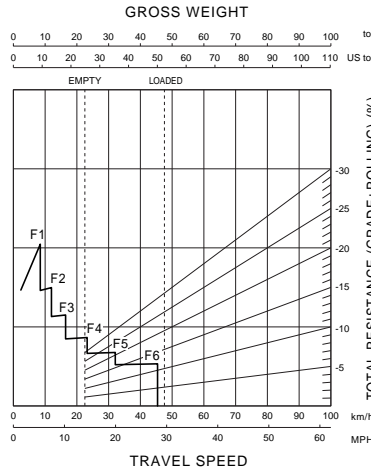
Grade distance: 450 m (1480 ft)



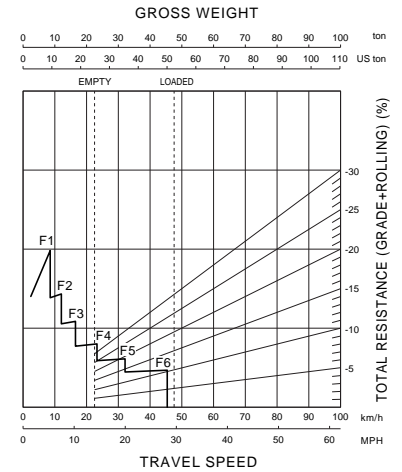
Grade distance: 600 m (1970 ft)



Grade distance: 900 m (2950 ft)



Grade distance: 1500 m (4920 ft)



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