

# KOMATSU®

## HD255-5

GROSS HORSEPOWER

241 kW 323 HP

NET HORSEPOWER

235 kW 316 HP

MAX. GROSS VEHICLE WEIGHT

47525 kg 104,770 lb



Photo may include optional equipment.



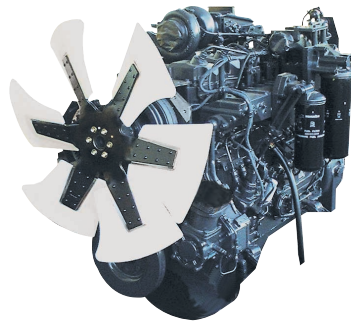
## OFF-HIGHWAY TRUCK



# PRODUCTIVITY FEATURES

## Powerful KOMATSU SAA6D125E-3 Engine

This engine delivers quicker acceleration and higher travel speed with the highest output per weight. Advanced technology, such as Common-Rail fuel Injection system, air-to-air aftercooler, and an efficient turbocharger enables the engine to meet the North American EPA Tier 2 emission regulations. High torque at low speed, impressive acceleration, and low fuel consumption ensures maximum productivity.

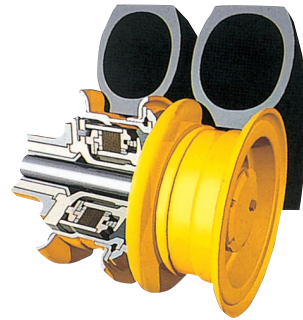


## 6-Speed, Fully Automatic K-ATOMiCS Transmission with Shift-Limiter Function

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. A shift-limiter function is equipped as a standard. It enables to maintain 1st gear when the vehicle descends a steep grade.

## Oil-Cooled Multiple-Disc Retarder and Exhaust Brake

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

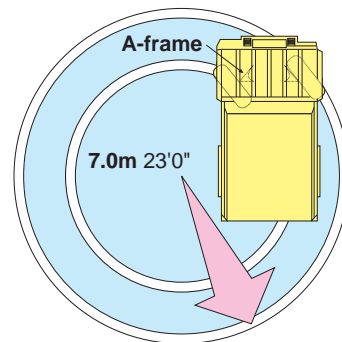


## High Strength Quarry Body for Easy Loading Operation

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.

## Outstandingly Small Turning Radius

The A-frames employed to the front wheels give a large steering angle, and realizes the outstandingly small turning radius. It enables to position the truck at a desired place easily and quickly.



# OPERATOR ENVIRONMENT

## Wide, Specious Cab with Excellent Visibility

The cab is integrated with ROPS and the structures conform to ISO 3471 and SAE J1040 standards. The driver's compartment makes it very easy and comfortable for the operator to use all the controls. The wide windshield and large rearview mirrors provide the superior visibility and safety operation.

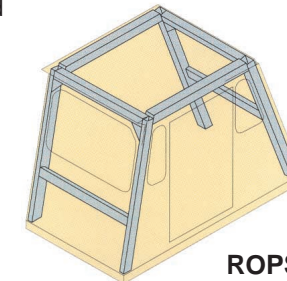
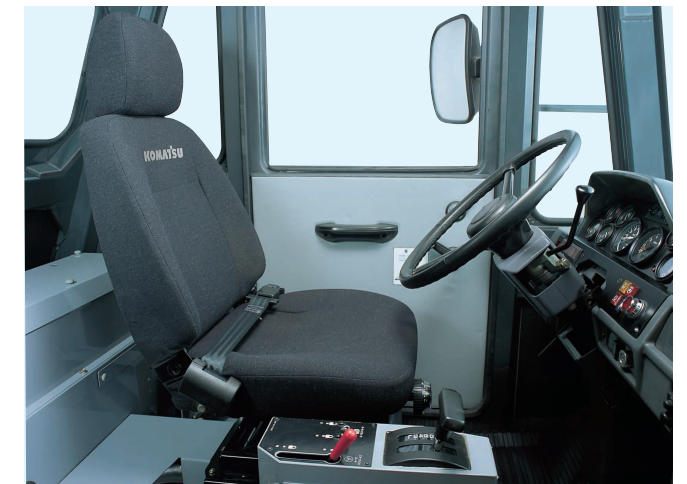


Photo may include optional equipment.

## Suspension Seat

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

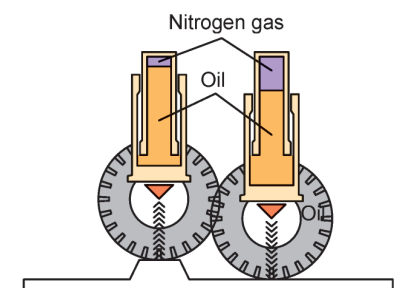
If an abnormality occurs in the steering hydraulic circuits or engine stops suddenly, this supplementary steering system works automatically and enables to continue steering operation.

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)





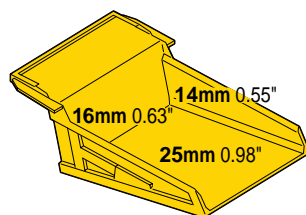
# EXCELLENT RELIABILITY AND DURABILITY

## 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 increase the rigidity greatly. Furthermore, the body is made of new steel which we 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.



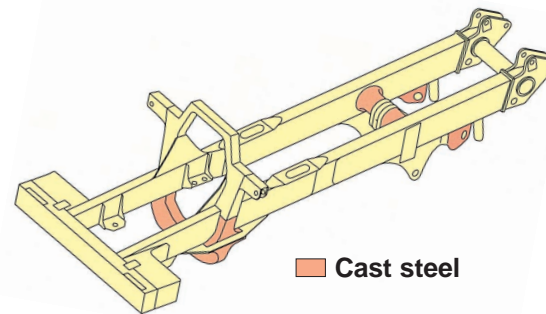
## Sealed DT Connectors

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



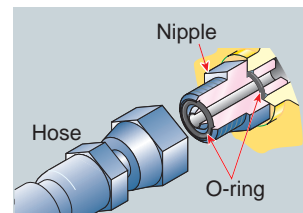
## High-Rigidity Frames

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

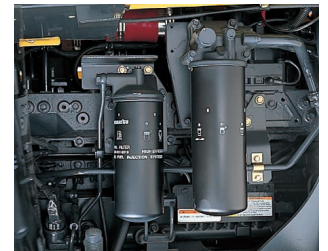
The wet multiple-disc brakes on rear wheels make maintenance and adjustment unnecessary.

## Flange Type Rim

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

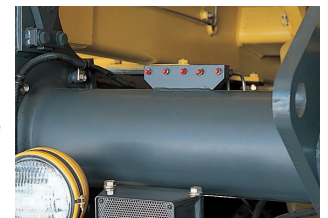
## Centralized Arrangement of Filters and Greasing Points

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 from the ground level.

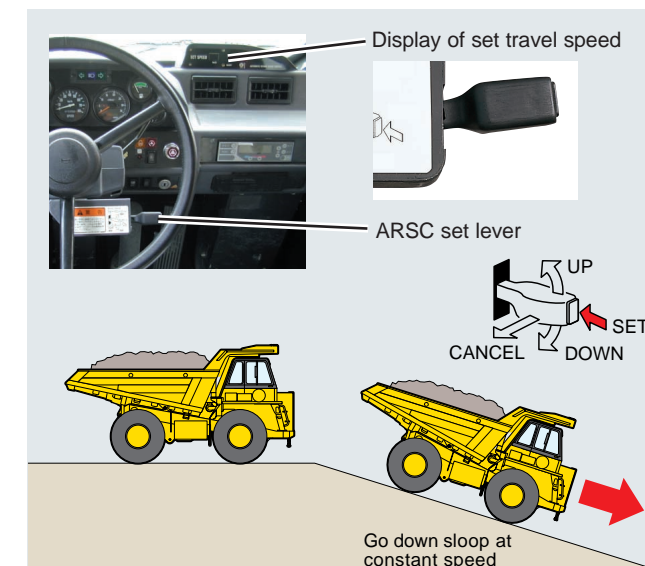


# VALUE-ENHANCING OPTIONS

## ARSC (Auto Retard Speed Control)

ARSC, which enables to maintain the constant downhill travel speed, is available as an option. It allows the operator to simply set downhill travel speed. Even after setting the travel speed, the operator can still adjust it finely at increments of **1 km/h 0.4MPH** per click (**±5 km/h 3.1 MPH** within max. travel speed) to match the optimum speed for the slope. Also, since temperature of retarder cooling oil 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 enables to get rid of the moisture and oil content in the compressed air that are provided from the air compressor. Therefore, reliability and durability of the air circuit is improved spectacularly.

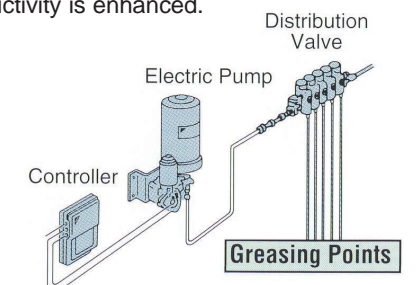


## Front Brake Ratio Valve

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, but the front brake works as designed.

## Automatic Greasing System

This releases operators and mechanics from burdensome greasing work on the undercarriage. 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 in<sup>3</sup>  
Flywheel 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



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 J3450 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.  
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 m<sup>3</sup>** 17.2 yd<sup>3</sup>  
Heaped (2:1, SAE) ..... **17.7 m<sup>3</sup>** 23.2 yd<sup>3</sup>  
Payload ..... **25 metric tons** 27.6 U.S. tons  
Material ..... **160 kg/mm<sup>2</sup>** 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/cm<sup>2</sup>** 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)

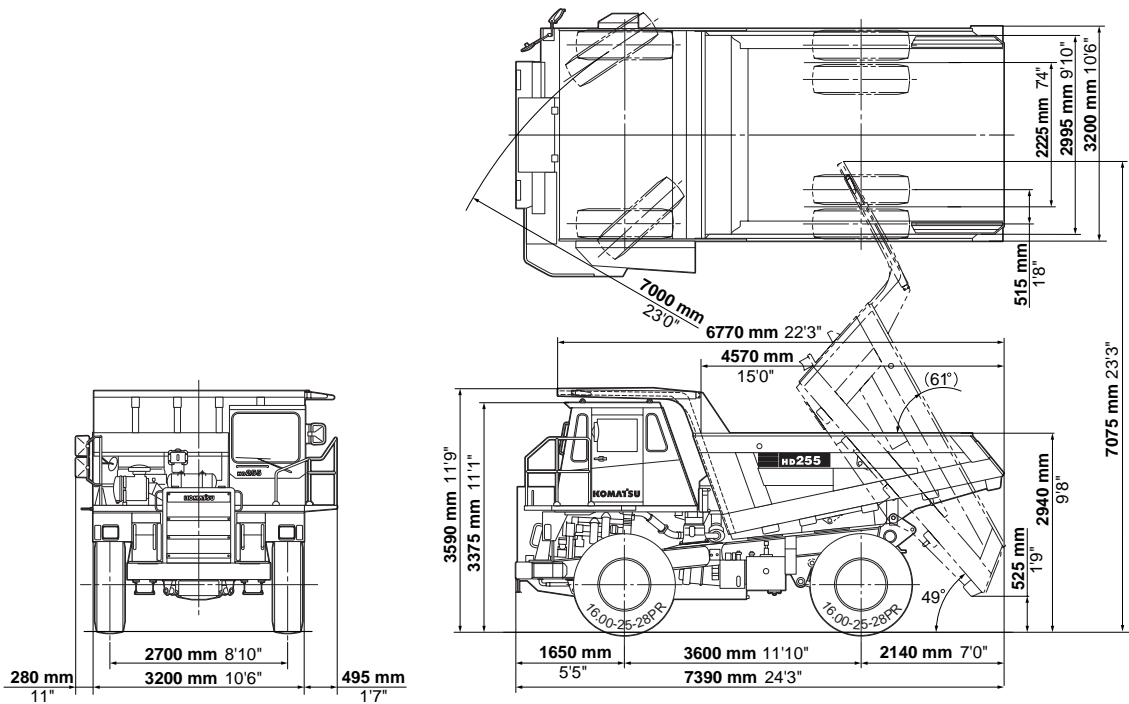


SERVICE REFILL CAPACITIES

Fuel tank ..... **374 ltr.** 98.8 U.S. Gal  
Engine oil ..... **38 ltr.** 7.1 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

**GUARD AND COVERS:**

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

**SAFETY:**

  - Automatic supplementary steering
  - Back up alarm
- Tiltable and telescopic steering wheel

• Tinted glass

• Windshield washer and wiper

**EXHAUST RETARDER:**

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

**LIGHTING SYSTEM:**

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

**BODY:**

  - Body, **17.7m<sup>3</sup>** 23.2 yd<sup>3</sup> (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)



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")

**GUARD AND COVERS:**

  - Body spill guard (150 / 250 mm 5.9" / 9.8")
  - Engine side cover
  - Platform guard (Right hand side)
  - Radiator shutter (Canvas type)
  - Vandalism protection

**LIGHTING SYSTEM:**

  - Fog lamp
  - Hazard lamp
  - Side work lamps
  - Yellow beacon
- TIRES:**

  - 16.00 R25 Radial tire

**SAFETY:**

  - Dumping caution buzzer
  - Fire extinguisher
  - Front brake ratio valve

**MAINTENANCE:**

  - Air dryer, desiccant type
  - Auto greasing system
  - Jack, **30ton** 33 U.S. tons
  - Large capacity batteries (Wet type)
  - PM-clinic
- GAUGE ( MEASUREMENT EQUIPMENT):**

  - Revo-taco-graph
  - Tacho-graph

**OTHER:**

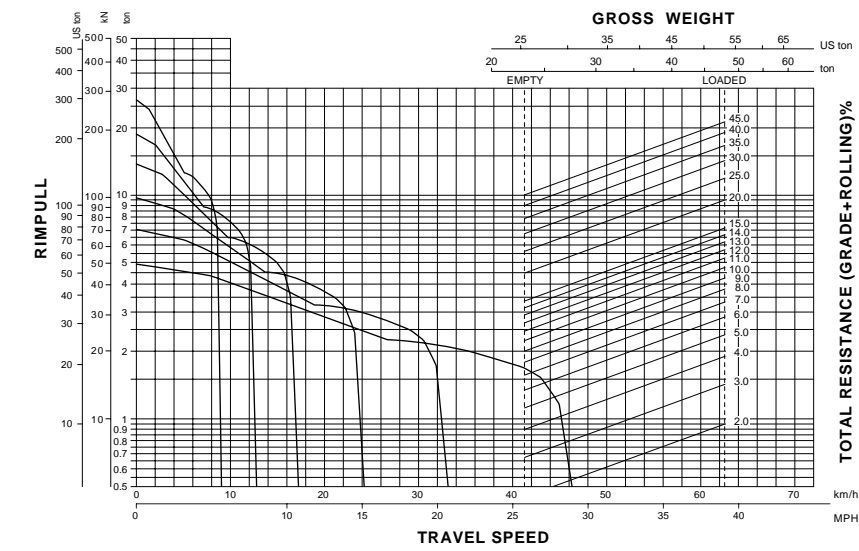
  - ARSC (Auto retard speed control)
  - Cold area arrangement (-30°C thru 40°C)
  - Hot area arrangement (-20°C thru 50°C)
  - Poor fuel arrangement
  - Sandy & dusty area arrangement
  - Tire chains

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

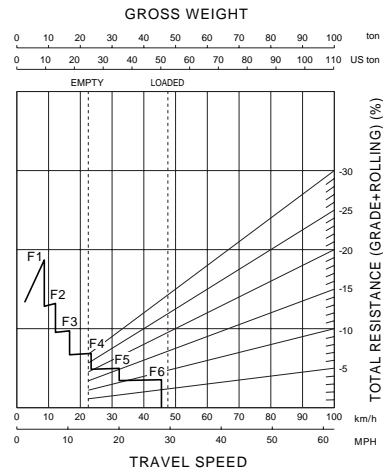
To determine travel performance: Read from gross weight down to the percent of total resistance. From this weight-resistance point, read horizontally to the curve with the highest obtainable speed range, then down to maximum speed. Usable rimpull depends upon traction available and weight on drive wheels.



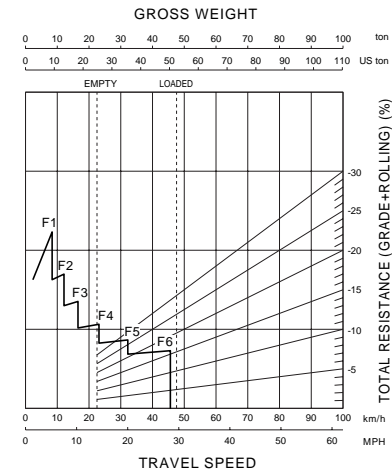
BRAKE PERFORMANCE

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.

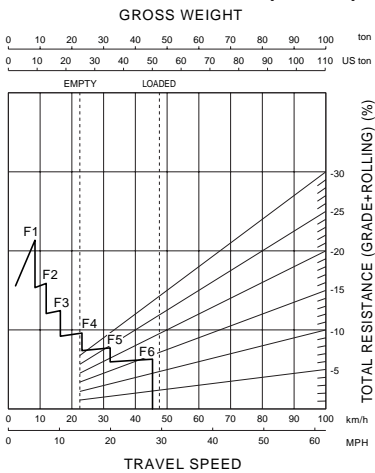
Grade distance: Continuous Descent



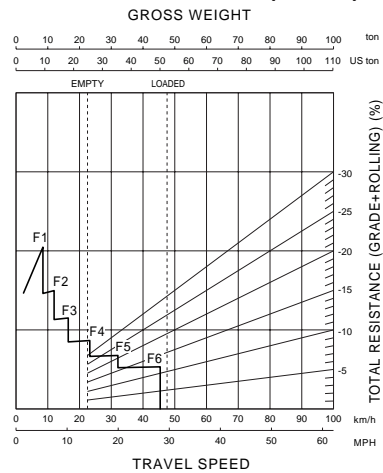
Grade distance: 450 m (1480 ft)



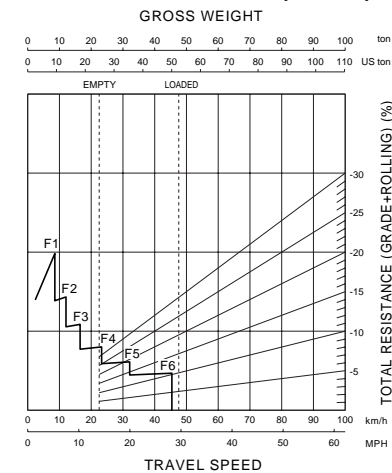
Grade distance: 600 m (1970 ft)



Grade distance: 900 m (2950 ft)

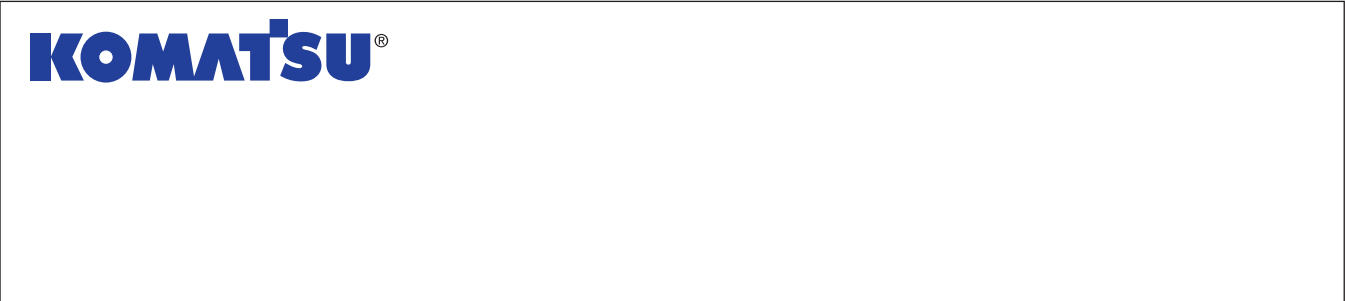


Grade distance: 1500 m (4920 ft)



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