SPECIFICATIONS

ENGINE

Model ..... Komatsu SAA12V140E-3
Type ..... Common rail direct injection, water-cooled, turbocharged, after-cooled diesel
Engine power
  at rated engine speed ..... 1.900 rpm
  ISO 14396 ..... 895 kW/1.200 HP
  ISO 9249 (net engine power) ..... 879 kW/1.179 HP
No. of cylinders 12
Bore × stroke ..... 140 × 165 mm
Displacement ..... 30,48 ltr
Max. torque ..... 518 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 2 reverse (RH/RL)
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 (lockup)
Shift control ..... Electronic shift control with automatic clutch modulation in all gears
Max. travel speed ..... 65 km/h

AXLES

Final drive type ..... Planetary gear
Rear axle ..... Full floating
Ratios:
  Differential 3,357
  Planetary 6,333

SUSPENSION

Independent, hydropneumatic suspension cylinder with fixed throttle to dampen vibration.
Effective cylinder stroke:
  Front suspension ..... 320 mm
  Rear suspension ..... 127 mm
Rear axle oscillation ..... 6,5°

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 ..... 10,1 m
Maximum steering angle (outside tyre) ..... 41°

BRAKES

Brakes meet ISO 3450 and SAE J1473 standards.
Service brakes:
  Front ..... Full-hydraulic control, oil-cooled multiple-disc type
  Rear ..... Full-hydraulic control, oil-cooled multiple-disc type
Parking brake Spring applied, multiple-disc type, acting on all wheels
Retarder ..... Oil-cooled, multiple-disc front and rear brakes act as retarder
Retarder capacity (continuous) ..... 1.092 kW / 1.464 HP
Secondary brake ..... Manual pedal operation
When hydraulic pressure drops below the rated level, parking brake is automatically actuated.
Brake surface:
  Front ..... 37.467 cm²
  Rear ..... 72.414 cm²

HYDRAULIC SYSTEM

Hoist cylinder ..... Twin, 2-stage telescopic type
Relief pressure ..... 20,6 MPa/210 kg/cm²
Hoist time (at high idle) ..... 13 sec
Lowing time (float) ..... 14 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
Integral front bumpers

TYRES

Standard tyres 27.00 R49

BODY

Capacity:
- Struck ..... 40 m³
- Heaped (2:1, SAE) ..... 60 m³

Payload ..... 91 metric tons
Material ..... 130 kg/mm²
400 Brinell high tensile strength steel
Material thickness:
- Bottom ..... 19 mm
- Front ..... 12 mm
- Sides ..... 9 mm

Target area (inside length × width) ..... 7.065 mm × 5.200 mm
Dumping angle ..... 48°
Height at full dump ..... 10.210 mm
Heating ..... Exhaust heating

ENVIRONMENT

Engine emissions ..... Fully complies with EPA Tier II exhaust emission regulations
Noise levels:
- LpA operator ear ..... 75 dB(A) (SAE J1166)

Vibration levels (EN 12096:1997)*
- Hand/arm ..... ≤ 2,5 m/s² (uncertainty K = 0,65 m/s²)
- Body ..... ≤ 0,5 m/s² (uncertainty K = 0,21 m/s²)

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

WEIGHT (APPROX.)

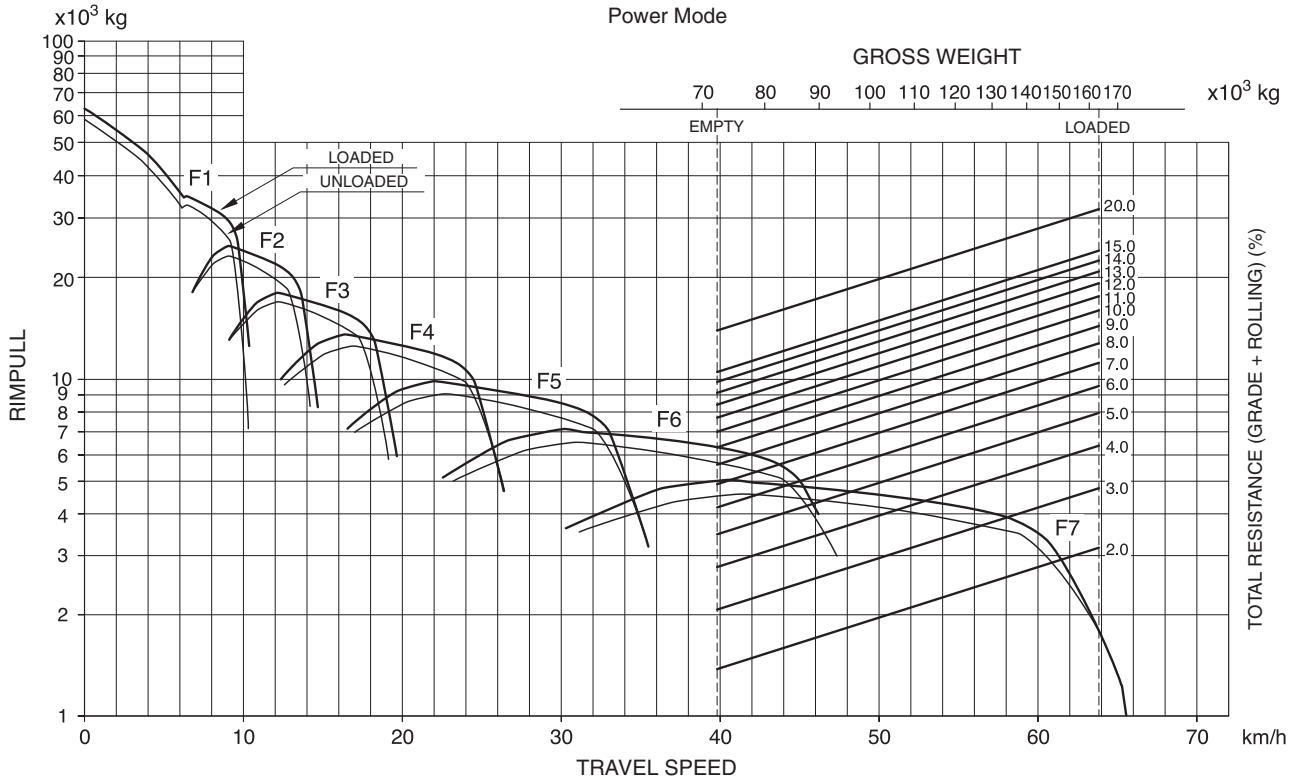
Empty weight ..... 72.600 kg
Gross vehicle weight ..... 166.000 kg
Not to exceed max. gross vehicle weight, including options, fuel and payload.
Weight distribution
Empty:
- Front axle 47%
- Rear axle 53%

Loaded:
- Front axle 31,5%
- Rear axle 68,5%

SERVICE REFILL CAPACITIES

Fuel tank ..... 1.308 ltr
Engine oil ..... 129 ltr
Torque converter, transmission and retarder cooling ..... 205 ltr
Differentials (total) ..... 137 ltr
Final drives (total) ..... 128 ltr
Hydraulic system ..... 175 ltr
Brake control ..... 36 ltr
Suspension (total) ..... 93 ltr

SPECIFICATIONS



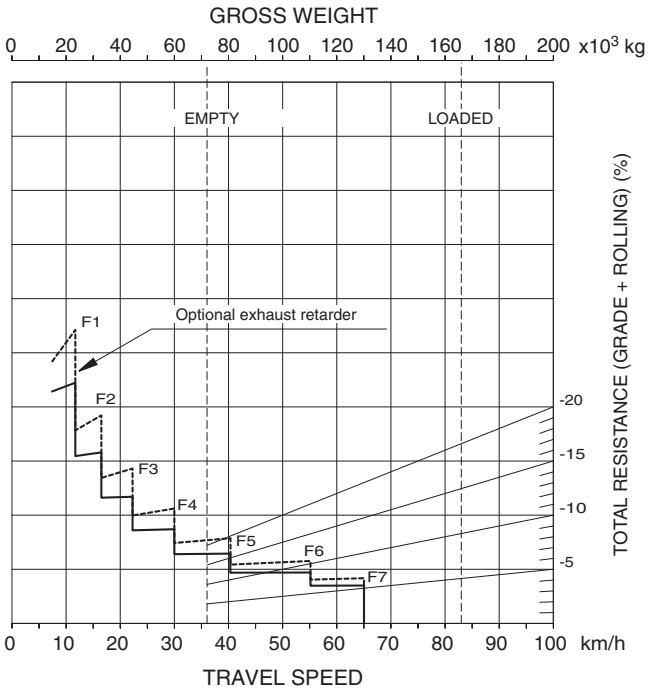
TRAVEL PERFORMANCE

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.

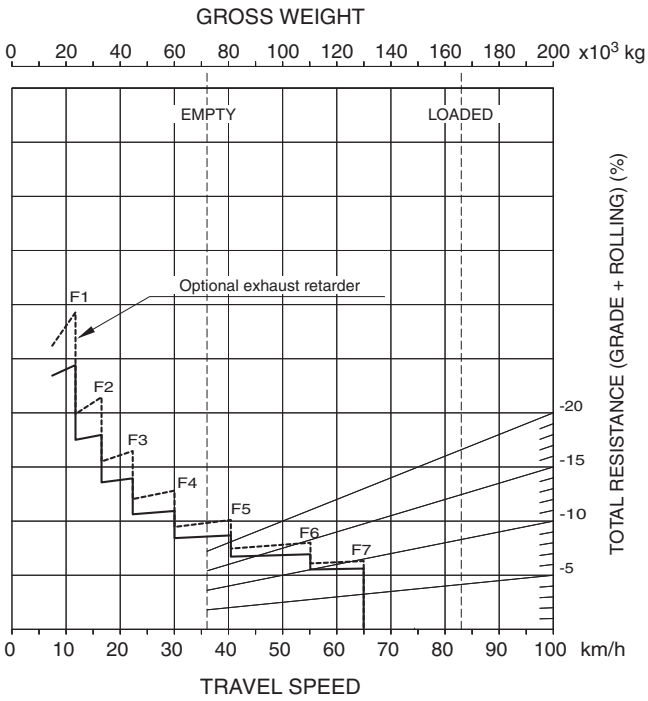
RETARDER PERFORMANCE

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.

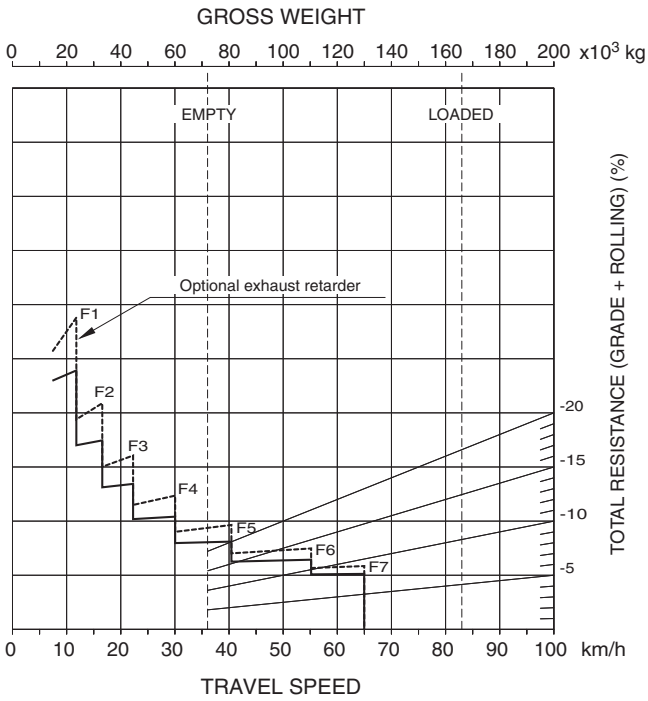
GRADE DISTANCE: CONTINOUS DESCENT



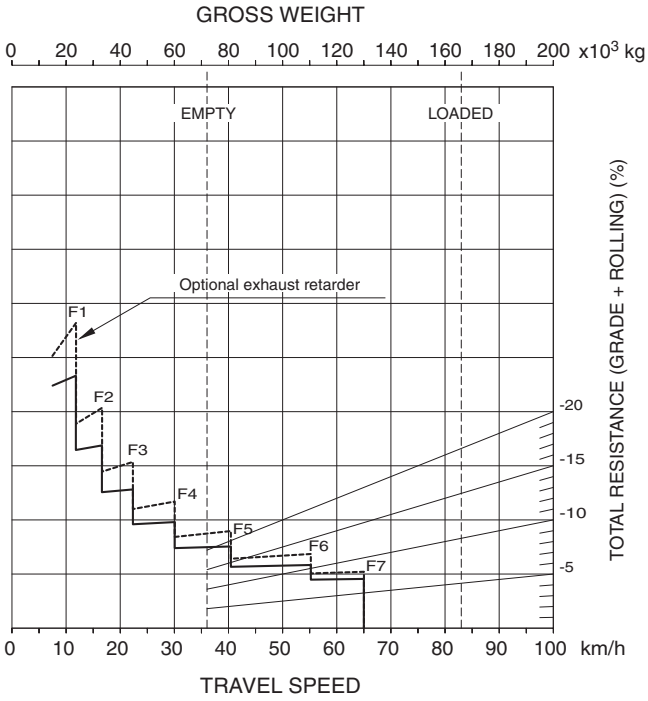
GRADE DISTANCE: 450 m



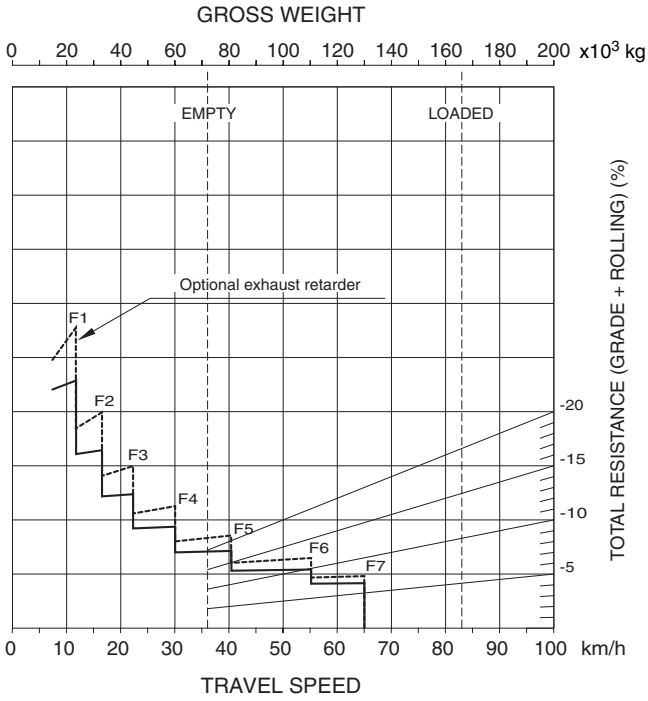
GRADE DISTANCE: 600 m



GRADE DISTANCE: 900 m



GRADE DISTANCE: 1.500 m



MACHINE DIMENSIONS