

ARTICULATED DUMP TRUCK KOMATSU HA270-3



Model shown may include optional equipment.

Komatsu, the name to rely on

With unique features like its permanent six-wheel drive and turning ring articulation system, this machine guarantees outstanding performance, economy and reliability, whatever the terrain.

Design points throughout improve durability and simplify maintenance to reduce overall operating costs.

The ergonomically designed cab together with a dependable combination of the newest Komatsu diesel engine and transmission ensure easy and efficient operation.

HA270-3

ARTICULATED DUMP TRUCK

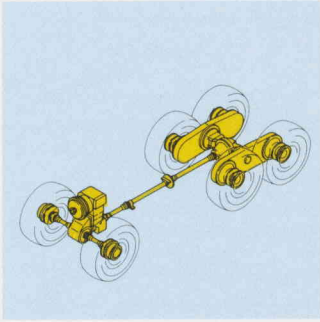
FLYWHEEL HORSEPOWER: **179 kW (243 PS)** at 2200 RPM

CAPACITIES (heaped): **16.1 m³**

OPERATING WEIGHT* (loaded): **45400 kg**

KOMATSU

6x6 Full-Time Drive Gives Them Exceptional Tractive Performance On Soft Terrain!



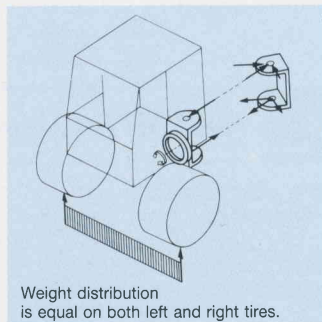
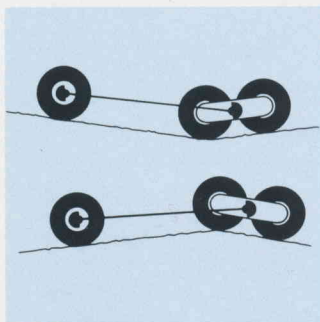
Constant traction

With unique features like its permanent six-wheel drive and turning ring articulation system, the HA270 guarantees outstanding performance, economy and reliability, whatever the terrain. The permanent six-wheel drive keeps the power in contact with the ground at all times to keep the truck moving even in the toughest situations. It uses a single driveshaft to a pivoting rear tandem and differential to transmit power to the rear wheels. The limited slip differential and differential locks reduce slippage to a minimum, for better traction and longer tire life. This improves gradeability, so the equipment can handle steeper slopes to shorten hauling distances and cycle time, particularly in quarries.

And the turning ring articulation system increases manoeuvrability in confined areas, for greater productivity.

Manoeuvring stability

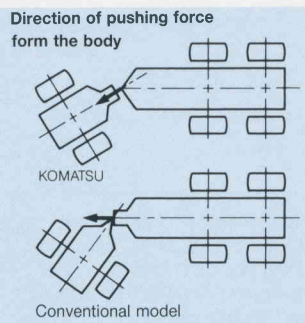
The articulated frame hydraulic steering of the HA270 delivers instant response for precise positioning. It can swing a full 45° to the left or right. This enables the HA270 to operate smoothly in narrow places and tight corners such as underground mines and steelworks. The turning ring in front of the steering pivot on the HA270 provides a very strong link between the front and rear frames and equalizes the load on both front wheels during operation. This prevents the outside wheel from sinking during turns, improves stability and reduces tire wear. In addition, its large payload and low loadover height ideally suit the unit to all types of loading equipment and materials.



Designed for durability

The HA270 utilizes a unique sloping chassis design to provide a flat body floor and do away with the need for a scow end. It also takes advantage of the load to improve stability and operator safety. The automatic mechanical linkage operated tailgate is standard for greater carrying capacity and easier handling of loose, dry materials. The body is constructed throughout of

tough steel plates in the floor, front and sides with extra strengthening of high-tensile-strength steel sections. Exhaust heating is also available when moving wet or cohesive material. The standard vehicle is equipped with a high-tensile steel body, with excellent resistance to even hard and abrasive materials.



High Durability, Low Maintenance Maximum uptime



Comfortable operation

The cab is tested and approved to ROPS/FOPS standards (ISO 3471, ISO 3449, SAE J1040 Apr. '88 and SAE J231). Fitted with two doors for easy access, tinted safety glass, heating and defrosting system and an adjustable air suspended seat; the cab is centrally located and rubbermounted to enhance operator comfort and visibility. It is equipped with a steering column which is adjustable for both tilt and height.

Interior sound level (ISO 6394): 81 db(A)

The ergonomic layout of the instrument panel provides smooth, easy control, and all meters and gauges are backlit for easy reading. Everything about the cab, from the controls layout to the heating and ventilation system, is designed to help the operator.

Superior performance

A dependable combination of the newest KOMATSU diesel engine and a ZF transmission power the permanent six-wheel drive. Komatsu's S6D125 diesel engine delivers a maximum of 248 HP at 2200 RPM and features a direct-injection system to maximize fuel efficiency. And the automatic powershift transmission with automatic converter lock-up provides easy gear selection.



Simple maintenance

Since the full-flow, fuel, transmission, and hydraulic filters are all concentrated on the left side of the machine, replacing any of them is quick and easy. The fuel and hydraulic tanks are positioned low for easy refilling. The engine bonnet of the HA270 tilts for greater service access.

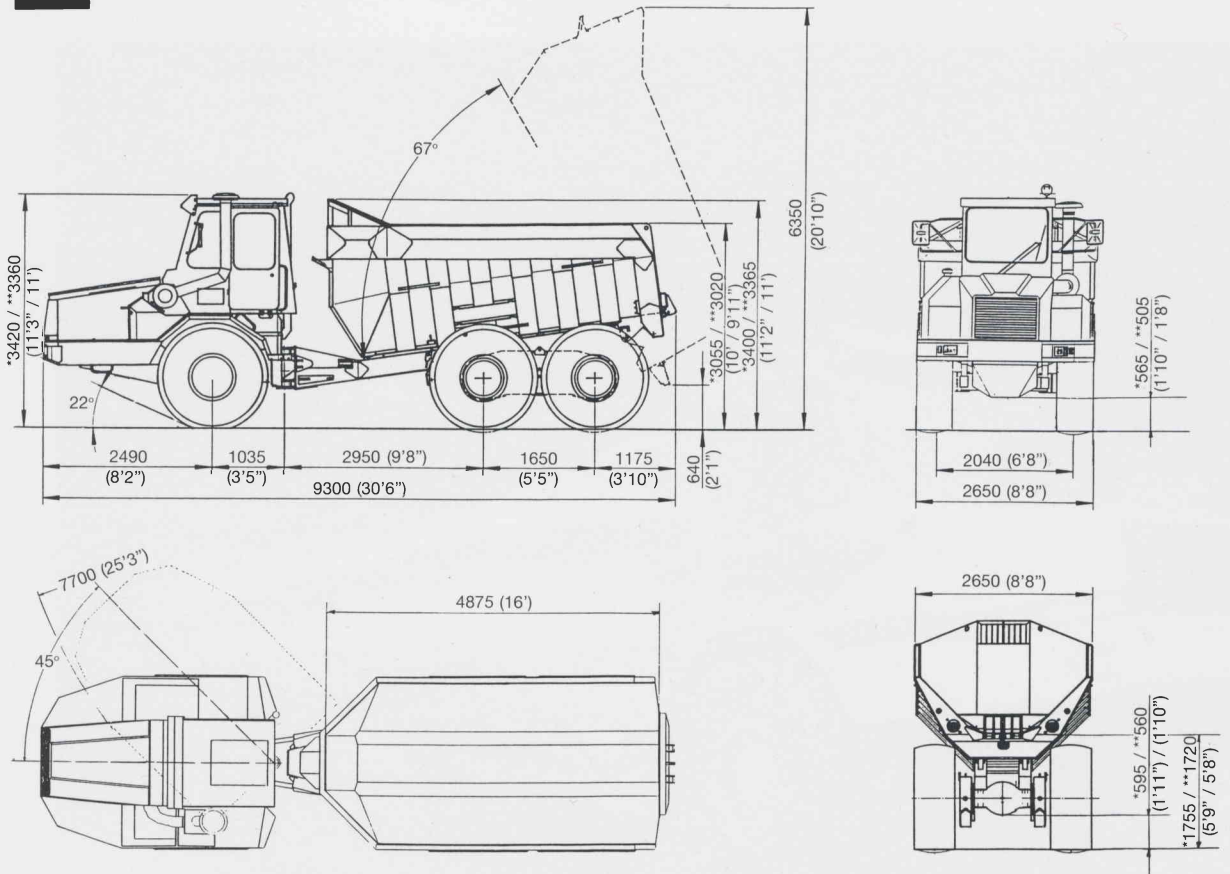
HA270-3





DIMENSIONS

Unit: mm (ft.in)

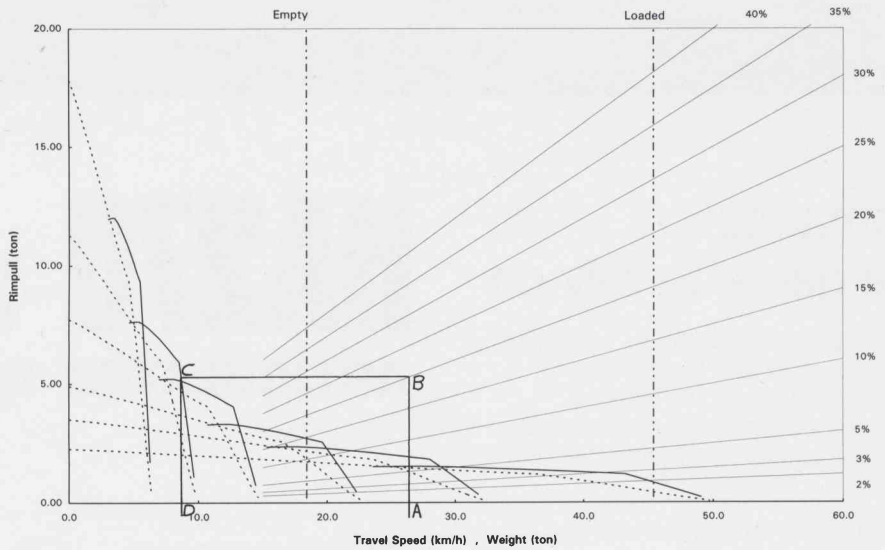


Note: *dimensions for unloaded / **dimensions for loaded

Travel performance curve

Gradeability

To find the gradeability performance, read from vehicle weight (A) up to percentage grade (B). From this point read horizontally to the curve with highest speed range (C), then down to maximum speed (D). Usable tractive effort depends upon traction available, weight on drive wheels and friction.



HA270-3 SPECIFICATIONS



ENGINE

Komatsu S6D125 4-cycle, water-cooled, turbocharged diesel engine, 6 cylinders with 125 mm (4.9") bore x 150 mm (5.9") stroke and 11.0 ltr. (674 cu.in) piston displacement.

Gross horsepower: 248 HP (185 kW)/2200 RPM

Flywheel horsepower:

240 HP (179 kW) at 2200 RPM SAE J1349)

243 PS (179 kW) at 2200 RPM

Direct injection for fuel economy. Gear-pump-driven forced lubrication with full-flow filter. Dry-type air cleaner and high-capacity radiator. 24 V/7.5 kW electrical starter motor. 24 V/35 A alternator. 12 V/144 Ah x 2 batteries.



TRANSMISSION

ZF type 6WG 200 electronically controlled automatic gearshifting transmission with the facility to manually overdrive in gears 1,2 & 3. For greater efficiency, the torque converter has automatic lock-up in all gears. In addition, a torque proportioning differential is located in the transmission dropbox. By splitting the power, one third to the front axle and two thirds to the rear axle, correct distribution to the wheels at all times is ensured.

No. of forward gears 6

No. of reverse gears 1

Travel speed:

Forward 1st 6 km/h

2nd 9 km/h

3rd 14 km/h

4th 21 km/h

5th 30 km/h

6th 46 km/h

Reverse 1st 6 km/h



AXLES

An automatic limited slip differential fitted to the front and rear axle allows the unit to be steered under all conditions without damage or loss of traction. The free-swinging tandem layout transmit 100% of the tractive force to the wheel that is in contact with the ground.



TYRES

Standard: 23.5 x 25, one-star radial on all six wheels.

Air pressure 3,5 kg/m³ (50 PSI/343 kPa)

All wheels are fitted with a five-piece rim.



STEERING SYSTEM

The hydraulically operated pivot steering system is combined with a turning ring and cast steel articulation hinge. Twin double-acting steering cylinders are utilized to allow articulation in either direction. A ground driven emergency system to ensure steering in the event of engine failure is standard.

Turning radius (ISO 7457 8,60 m (loaded)

Maximum steering angle 45°



BRAKES

Service brakes: A dual-circuit braking system acting on all six wheels, the brakings are designed to conform to ISO 3450. All six wheels have air-over-hydraulic, self-adjusting dry disc brakes. The system is fitted with an efficient air dryer, to prevent moisture entry. In addition, an exhaust brake is fitted as standard.

Parking/emergency brake: Parking brake/emergency brake is spring actuated, air-released disc brake and acts direct on the rear propeller shaft. (Max. gradient 16,6 gr).

Retarder: Switch on dash board controls engine exhaust brake.



MAIN FRAME

Ladder-type, box-sectioned-welded construction for maximum rigidity.



BODY

The body is constructed throughout of hardened steel plates in the floor, front and sides, with outer strengthening of high-tensile steel box sections. Tipping is performed by means of multi-stage cylinders and a mechanical linkage operated bottom tailgate is standard. The body is designed for various applications and body lining is available as option. The floor is flat and inclined downwards from the hinge to help lower the center of gravity and improve stability.

Capacity: struck 13,6 m³

heaped (2:1, SAE J1363) 16,1 m³

Max. payload 27000 kg

Dimensions: inside length 4875 mm

inside width 2480 mm

max. body depth 1880 mm



HYDRAULIC SYSTEM

The steering and hoisting circuits are independently designed for sure control.

Hydraulic pump capacity 175 ltr./min. at engine rated RPM.

Relief valve setting:

Hoisting system 160 kg/cm²

Steering system 175 kg/cm²

Hoist cylinders Dual-cylinder, 6-stage single-acting telescope type

Body dumping speed 16 sec.

Dumping angle 67 deg.

Filter tested to ISO 4572



SERVICE REFILL CAPACITIES

Coolant 43 ltr.

Fuel tank 250 ltr.

Engine oil 26 ltr.

Torque convertor and transmission 14 ltr.

Axle oil: Front differential 8 ltr.

Final drive 2 x 2,5 ltr.

Rear differential 19 ltr.

Tandem housing 2 x 24 ltr.

Hydraulic system 115 ltr.



WEIGHT (approximate)

Gross weight (loaded) 45400 kg

Distribution: Front 14060 kg

Rear 31340 kg

Weight (underloaded) 18400 kg

Distribution: Front 9200 kg

Rear 9200 kg

HA270-3 ARTICULATED DUMP TRUCK KOMATSU



Specifications and equipments may vary according to regional availability

Standard equipment

- Komatsu S6D125 engine
- 7.5 kW/24 V electric starter
- 35 ampere alternator
- Torque converter with automatic lock-up
- 6-forward/1-reverse automatic transmission
- Exhaust brake
- Exhaust heatable body
- Cab heater
- Tinted glass
- Air filter (with service indicator)
- Emergency steering system
- Air dryer
- Automatic tailgate
- Engine compartment light
- Fully adjustable suspended seat
- Seat belt
- Windshield washer and wipers
- Horn
- Sun visor
- Rearview mirrors
- Directional and warning flashers
- Retainers to hold door open
- Cab light
- ROPS/FOPS safety cab
- Stop lights
- Working light on cab roof
- Tilt and height adjustable steering column
- Front light protection
- Rear light protection
- Battery disconnect switch
- Protective grill for rear window
- Parking light
- Cigarette lighter and ash tray
- Halogen headlights
- Front light protection
- Tire inflation outlet and hose
- Backup light and alarm
- Rear towing hook
- 23.5 x 25 one-star radial tires
- Fire extinguisher
- First-aid kit
- Protection under transmission and engine
- Warning triangle
- Tool kit

Optional equipment

- Air conditioner
- Extra ventilation (roof-mounted fan and outlets)
- Electric heated mirrors (4)
- Speedometer
- Radio with cassette player
- Top tailgate, twin-hinges
- Rotating beacon
- Exhaust catalyst
- Body lining kit for heavy-duty rock application (bottom and non-vertical front and side areas)
- Mudguards on body
- 25/65 x 25, 12 low-ground-pressure tires and wheels
- Front mudguard extension (for low-ground-pressure tires, left and right)
- Tachograph
- Wheel chocks(2)
- Spare wheel
- Mudflaps & brackets
- Rear bumper bar
- Automatic lubrication system
- B/S VMT 23.5 R25 tyre
- Michelin XHAD 20.5 R25
- Michelin XHAD 23.5 R25
- Sidevizer, door window
- Exhaust heated body
- Three reverse gears

KOMATSU

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