BODY

An extended canopy protects service deck area. High tensile strength 400 BHN abrasion resistant alloy steel is used in thicknesses indicated below:

Floor	16 mm
Front	9 mm
Sides	9 mm
Canopy	6 mm
Corners	12 mm

High strength 690 N/mm^2 (100 000 psi) alloy steel is also used for the canopy side members and floor stiffeners. The body is rubber cushioned on the frame.

SERVICE CAPACITIES

Crankcase (includes filters)	260 L
Engine Cooling System	725 L
Fuel Tank (Standard)	2 900 L
Fuel Tank (Optional)	5 100 L
Hydraulic system	950 L
Rear Brake cooling system	170 L
Planetary Drives (L & R)	360 L
Front Wheels (L & R)	24 L
Control Cabinet Cooling System	59 L
Main Accumulator	2 X 70 L
Windshield Washer	20 L

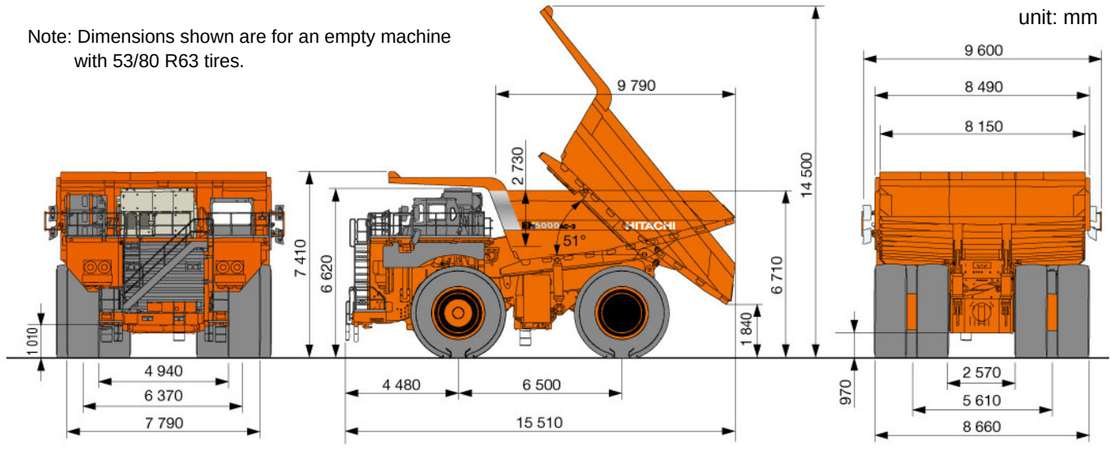
OPTIONAL EQUIPMENT

Auxiliary dump connection
Auxiliary steer connection
Body liners (400BHN)
Body prop pins
Body sizes **
Cold weather package **
Fast fluid filling system couplers
Fast fuel filling system coupler
Fuel tank, 5 100 L
Full size operator's seat, air suspension & 6 position, with 3-point, 50 mm width seat belt
Full size trainer's seat, air suspension & 6 position, with 2-point, 50 mm width seat belt
Halogen front tire lights (2)
Heated mirrors
HID headlights (8)
Loadweight display (2)
Rims, 38 inch
Sound attenuation package **
Spare rim
Trolley assist configulation **
** : engineered on request

Dimensions:

Note: Dimensions shown are for an empty machine with 53/80 R63 tires.

unit: mm



Hitachi Construction Machinery
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These specifications are subject to change without notice.
Illustrations and photos show the standard models, and may or may not include optional equipment, accessories and all standard equipment with some differences in color and features.

Preliminary

HITACHI

EH5000 AC-3

with Advanced Hitachi AC Drive System

Dump Truck
Nominal Payload with Standard Equipment: 296 tonnes (326 tons)
Target Gross Machine Operating Weight: 500 000 kg
Engine: Cummins QSKTTA60-CE
Rated Power 2 125 kW (2 850HP)

Specifications:

ENGINE

Model	Cummins QSKTTA60-CE
Type	4 Cycle Diesel w/ MCR fuel system
Aspiration	2 stage Turbocharged & Low Temperature Aftercooled
Emission Certification	U.S. EPA Tier 2
Gross Power @1900 min^{-1}(rpm) (SAE J1995)	2 125 kW (2 850 HP)
Net power @1900 min^{-1}(rpm)	1 970 kW (2 640 HP)
Maximum Torque @1 500 min^{-1}(rpm) (SAE J1995)	10 628N.m (1 084 kgf.m)
No. of Cylinders	16
Bore & Stroke	159 x 190 mm
Displacement	60 L
Starting	24 Volt Electric

ELECTRIC DRIVE

HITACHI AC-Drive System

AC Control Cabinet

Rectifier	
Number of units	1
Rated capacity	1 860 kW
Inverter	
Number of units	2
Rated capacity per unit	1 200 kVA
Chopper	
Number of units	2
Rated capacity per unit	1 950 kW

Equipped with reliable water cooling system
Pressurized cabinet to reduce dust
Equipped with lockable doors for safety
Equipped with small inverters to provide Grid motors and Blower motors with adequate AC current
Uniquely constructed for the Rigid Truck application

Specifications:

Alternator
- Number of units: 1
- Capacity: 2 050 kVA @ 1 900 min^{-1}(rpm)
- Equipped with an auxiliary alternator that provides AC current to Grid motors, Blower motors, Control cabinet coolant pump and Final dlive oil cooling & filtrating pump
- Air cooled by an AC drive blower

AC Wheel Motor
- Number of units: 2
- Capacity per unit: 920 kW
- Air cooled by an AC drive blower

Retarding Grid Box
- Number of modules: 6
- Capacity per unit: 625 kW (3 min.)
- Equipped with inverter controlled variable speed cooling fan

Axle
- Planetary Ratio: 41.0 : 1
- Maximum Speed (Continuous): 56 km/h

TIRES

Front and Rear	**Rim Width (Standard)**
53/80R63	914 mm (36 in)
	Rim Width (Optional)
	965 mm (38 in)

Certain job conditions may require higher TKPH (TMPH) in order to maintain maximum production. Hitachi recommends evaluating the job conditions and consulting with the tire manufacturer to make proper selection.

ELECTRICAL SYSTEM

Twenty-four volt system. 140 ampere engine driven alternator. Four 245H52, 12 volt, heavy duty batteries connected in series/parallel.

BODY CAPACITY

Struck (SAE)	148 m^3
Heap 3:1	185 m^3
Heap 2:1 (SAE)	202 m^3

Body capacity and payload subject to change based on customer specific material density and application.

STEERING SYSTEM

Closed-center, full time hydrostatic power steering system using two double-acting cylinders and a variable displacement piston pump.
Hitachi accumulators provide supplementary steering in accordance with ISO 5010 (SAE J1511), supplying a constant steering rate under all conditions.
A tilt/telescopic steering wheel with 35 degrees of tilt and 57 mm telescopic travel is standard.

Turning Diameter (ISO 7457) 29.9 m

HYDRAULIC SYSTEM

Two (2) Hitachi three-stage, double-acting cylinders, with electronic controlled cushioning in retraction and extension, containing dual rod seals and urethane energized scrapers, inverted and outboard mounted.
A tandem piston pump conbines with four position electronic pilot controlled hoist valve. The electrical controller is mounted to the shift tower.

Body Raise Travel	58 degrees
Body Raise Time	24 sec
Body Down Time (Float)	22 sec

BRAKE SYSTEM

Brake system complies with ISO 3450 (SAE J1473).

Electric Brake
Superior retardation to zero speed on grades is achieved through AC wheel motors in conjunction with six Hitachi resistor grid packages. Service brake blending occurs at speeds below 0.5 km/h.
Maximum dynamic braking (Standard) 3 750 kW

Service Brake
An all-hydraulic actuated braking system provides precise braking control and quick system response. The system is pressure proportioned, front to rear, for improved slippery road control.

Front Axle – Dry Disc
Disc Diameter Each (2 discs/axle, 4 calipers/disc) 133.3 cm

Rear Axle – Oil-cooled Wet Disc
Total Friction Area per Brake 75 760 cm^2

Secondary
Dual independent hydraulic circuits within the service brake system provide fully modulated reserve braking capability. Both front and rear brakes are automatically applied when loss of supply pressure is detected.

Parking
Two spring on, hydraulic off armature disc brake heads provide effective parking. The braking system complies with ISO 3450 (SAE J1473).

Load/Dump Brake Apply
Through activation of a switch by the operator, a solenoid is energized, sending full brake pressure to apply the rear Wet Disc brakes. For use during the load and dump cycles.

WEIGHTS (Approximate)

Net machine weight stated below includes standard equipment. Net machine weight changes will directly affect the Nominal Payload.

Chassis with Hoist & Body parts	174 000 kg
Body	30 000 kg
Net Machine Weight	204 000 kg

The Net Machine Weight specification includes operator and 100 % fuel.

Note: Body parts mean assembled standard parts to the body, such as mud guards, body pads, rock ejector bars, arm guard and fasteners.

Nominal Payload	296 tonnes
Target GMOW	500 000 kg

Weight Distribution	Front	Rear
Empty	48 %	52 %
Loaded	33 %	67 %

HI-TECH ROPS/FOPS CAB

New HI-TEC ROPS/FOPS Cab
ROPS complies with ISO3471 and SAE J1040-May 94, FOPS complies with ISO3449. A three-point rubber ISO-mount arrangement to the high-arch cross member minimizes vibration transfer to the operator compartment. New wider cab with double full size seat available and enough trainer's leg space brings comfortable operating and training.

Monitoring System
A new Hitachi system monitor provides display information and diagnostics of all onboard systems and controls which include the engine and Hitachi AC drive.
Data links offer complete integration, while a color Liquid Crystal Display (LCD) clearly details machine functions. Downtime is minimized with faster and more reliable troubleshooting and analysis.
A new Hitachi load monitoring system offers benefits such as better equipment utilization on the jobsite, accurate unit and fleet production results, and benchmark unit statistics against fleet results.
Cycle time, distance and cycle count can all be measured and recorded as information that can help in developing higher productivity. The Hitachi load monitoring system is fully integrated with the Hitachi vehicle monitoring system and display interface, avoiding potential failure or error common in aftermarket systems.

Camera Monitoring System
Included as standard safety equipment, an analog monitor has been mounted to the dashboard to display live camera information of the rear and right front area.

SUSPENSION

Front Suspension
Independent trailing arms make up the front axle. NEOCON struts containing energy-absorbing gas and compressible NEOCON-E™ fluid are mounted between the trailing arms and frame. Inherent in the Neocon strut design is a variable damping and rebound feature.

Rear Suspension
"A" frame structure, integral with axle housing, links the drive axle to the frame at forward center point with pin and spherical bushing. A track rod provides lateral stability between the frame and drive axle. Heavy-duty rear-mounted NEOCON struts containing energy-absorbing gas and compressible NEOCON-E™ fluid suspend the drive axle from the frame. Integral variable damping and rebound feature included.

FRAME

Full fabricated box section main rails with section height tapered from rear to front. Narrow at the rear to support the loads and wider at the front to allow for engine accessibility. One piece top and bottom flanges that eliminate cross member tie in joints and provide a large exposed center area for access to major components. Large radii minimize stress concentrations. Welded joints are oriented longitudinally to the principal flow of stress for greater durability and more strength.
New High Arch Desigh with bolt fastened cab support brings less assembling time and higher serviceability during engine overhaul.