EH series

HITACHI

Reliable solutions

EH4000AC-3

Aerial Angle

DUMP TRUCK

Model Code : EH4000AC-3
Nominal Payload with Standard Equipment : 221 tonnes (243.6 tons)
Target Gross Machine Operating Weight : 384 000 kg
Engine : Standard : Cummins QSKTA60-CE
Rated Power 1 864 kW (2 500 HP)
Optional : MTU 16V4000 C21
Rated Power 1 864 kW (2 500 HP)

Refined engineering and advanced Hitachi AC Drive system technology have created hauling capability well recognized in the surface mining industry.

The EH4000AC-3 continues to prove itself as an exceedingly capable and reliable solution to mine applications worldwide.

AC Drive Proven Performance & Economic Advantages

Hitachi engineered AC drives make your hauler a more valuable asset in your mining operation. Better performance, higher availability, and significant reductions in maintenance and operating costs - result in a lower cost per tonne and a higher return on your investment.

High-Powered Engine Selection

Standard Cummins QSKTA60-CE engine or optional MTU 16V4000 C21 engine is selectable for the market outside of North America. Within North America, choice is limited to the Cummins QSKTA60-CE engine.

Long Frame Life

A fabricated box section and rectangular frame rail construction provides superior resistance to bending and torsional loads. The top and bottom flanges eliminate cross member tie-in joints and provide a larger exposed center area for access to major components.

Tough Body

The Hitachi horizontal stiffener design minimizes stress concentrations by dissipating load shocks over the entire body length. Efficiently spaced stiffeners provide additional protection by minimizing distances between unsupported areas.

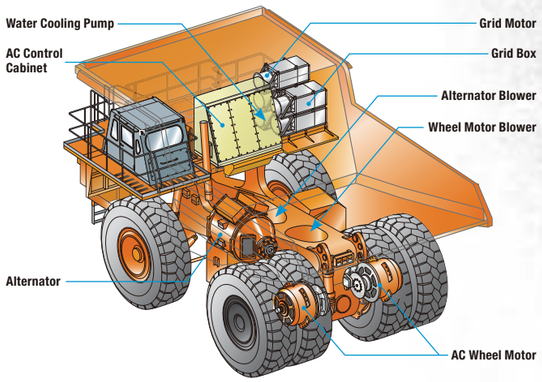
Well Matched: EH4000AC-3 & Excavators

Excavator	EX3600-6		EX5600-6		EX8000-6	
Front	BH	LD	BH	LD	BH	LD
Bucket	*22.0 m^3	21.0 m^3	*34.0 m^3	29.0 m^3	*43.0 m^3	40.0 m^3
Passes	6	6	4	4 – 5	3	3

BH : Backhoe LD : Loading shovel * : SAE heaped capacity

AC Drive Advantage

Hitachi AC drive technology provides superior truck performance with higher top speeds, better gradeability and stronger electric braking. Hitachi inverter modules provide high rigid truck controllability and efficiency. The Hitachi AC wheel motors do not have commutators and brushes, which improves truck performance by providing reduced maintenance costs, higher truck availability and higher travel speeds. These advantages result in more productivity and lower costs per tonne. Hitachi AC drive systems also power electric train locomotives world wide.

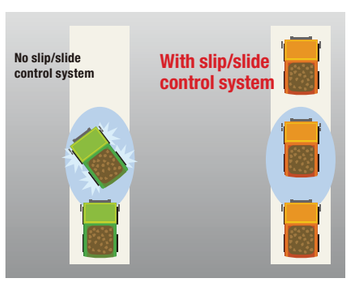


Hitachi Drive Control System

New Hitachi drive control system for optimal operational stability and performance as follows.

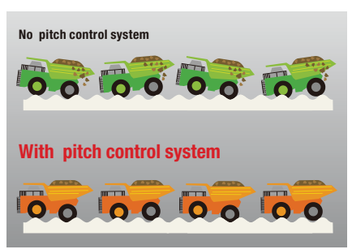
1. Slip / Slide Control System

If the system senses slipping or locking of rear wheels when traveling on slippery or frozen roads, it adjusts the torques of the wheel motors accordingly, bringing the truck more stable traveling.



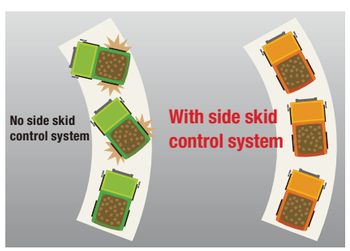
2. Pitch Control System

If the system senses pitching when traveling on bumpy roads or stopping abruptly, it adjusts the torques of the wheel motors accordingly to reduce pitching of the truck, resulting in better operating comfort and fewer load spillage.



3. Side Skid Control System

If the system senses oversteer or understeer from the newly equipped sensors, it adjusts the torques of the wheel motors accordingly to control the side skidding. This brings the truck smoother movements and more stable traveling and steering.



Note: This system is designed originally to enhance pleasant driving, so please drive at a safety speed or lower, and make periodic maintenance of the haul road.

AC Drive Control

Superior Electric Braking enables the driver to stop the truck using the electric brake pedal only with the exception of emergencies, because the AC drive control system applies the service brakes automatically just before the stopping, resulting in easy machine operation and longer time between service brake maintenance intervals.

Auto Cruise Control keeps vehicle speed constant within the set range by limiting the minimum vehicle speed.

Auto Retarding Control keeps vehicle downhill speed constant within the set range by limiting the maximum vehicle speed.

The AC Drive Wheel Motors

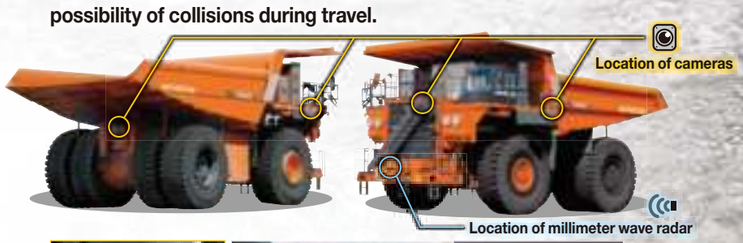
The Hitachi Dual Path Epicyclic Planetary design provides high efficiency and easy maintenance. Allowing the 1st (outer) planetary carrier to travel at wheel speed provides lower operating temperatures. Better component and lubricant life is the result of an inverter controlled lubricant circulation system that includes lubricant cooling and filtration.

System to Improve Safety

Aerial Angle (Optional for Dump Truck)

Hitachi Dump Truck with Object Detect Assist

The dump truck Aerial Angle system is designed to assist in preventing collisions with obstacles. Aerial Angle has been newly implemented as an advancement and addition to the previous Peripheral Vision system. Obstacles within the front and surrounding areas of the machine are detected with warnings being activated by the system. The dump truck Aerial Angle has two modes. Stationary Mode detects any obstacles within the vicinity when the machine is stationary during dumping, loading, or when it is parked. Forward Mode warns the operator of the possibility of collisions during travel.



Camera Monitor for Aerial Angle

Screen Changeover Switch

Blue frame photos : Stationary Mode

Orange frame photos : Forward Mode

Warning:
- When driving the vehicle, be sure to perform a direct visual check all around the vehicle with your eyes.
- This System is an auxiliary system to assist the operator in driving, and its use should never substitute the use of common sense safety measures, direct visual observation, and professional judgment. Never solely rely upon this System to operate the vehicle.
- Failure to understand or correctly interpret the images displayed and the alert features of this System may lead to accidents involving serious personal injury or property damage. Operate this System properly by thoroughly reading Aerial Angle Operator's Manual and getting a good understanding of this System before using it.
- The images projected by this System from above are processed, synthesized camera images; therefore, the surroundings may not continuously appear on the monitor, objects may appear upside down or may not appear, or otherwise appear differently from visual observation.
- Depending on the surrounding environment or the subject of detection, the detection function of this System may not work properly.
- The brightness of the surroundings, weather, road surface conditions, and shape and material of objects detected may cause the alarm of this System to become non-operational or malfunction.
- Do not operate the monitor when you are driving the vehicle.

Note: There are countries the system cannot be used in due to local laws and regulations etc.

Stationary Mode

Screen Changeover Switch - Check the operating area with the choice of six different screens

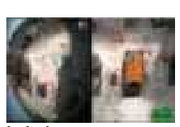
The display layout of the previous Peripheral Vision system has been improved and now includes an additional screen (a total of six screens). This provides greater convenience allowing views to the sides as well as a birds-eye view of the machine itself.

Wide range view + Rear view

Wide range view

Mid-range view

Close range view



Left view + Wide range view

Wide range view + Right view

Obstacle Detection (When Stationary) - Supports safer checks before operating

The camera places markers on the screens as it detects obstacles. Red markers indicate any obstacles in the immediate vicinity of the machine, whereas yellow markers indicate obstacles further away. The markers will continue to follow obstacles until they no longer appear on the screen and have been avoided. This system enables the operator to check for outside obstacles on-screen without having to leave machine. The color of the machine's icon will change red when an obstacle comes underneath the machine to warn the operator.

Light vehicle is far away

Light vehicle is getting closer

Shape of the light vehicle will be transformed in screen composition

Light vehicle is underneath the dump truck

Note: For obstacles underneath the machine, the camera is only able to detect obstacles within its range.

If Light vehicle is gone out of the right side range, Screen will be changed to Close Range Views. And then, the red-bar will be displayed.

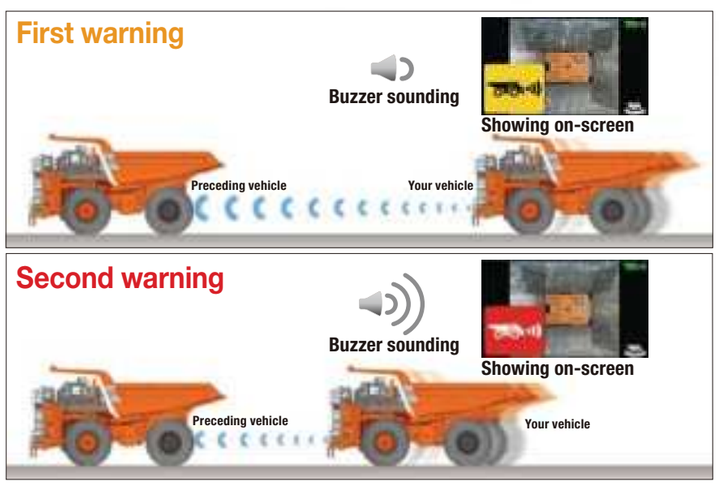
Forward Mode

Obstacle Detection (While Traveling) - Reduces collision risks during forward travel

Obstacles to the front and their distance from the machine are detected by a millimeter-wave radar. A warning will be activated when another machine in front comes too close. This warning notifies the operator by a buzzer sounding as well as being showing on-screen. Warnings are set at two distance ranges depending on the position of the machine in relation to obstacles.

The system adjusts the warning activation distance depending on the current gross laden weight of the vehicle.

The system detects the wheel rotation direction and enables or disables the warning accordingly. (This is activated only during forward travel.)



Ease of Operation

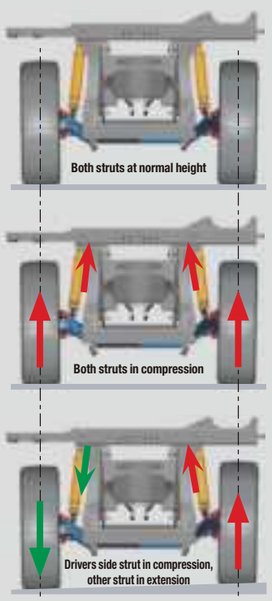
Superior Suspension

The Hitachi trailing arm suspension system delivers excellent maneuverability, even at higher speeds. The trailing arm layout offers greater ease of servicing while improving truck performance compared to suspended king-pin designs. The pivot mounting of the trailing arm design allows only axial input to the strut and allows wheel movement to the vertical plane only.

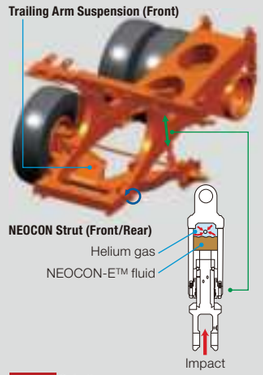
Features:

- Lateral forces that act on the front wheels are minimized, resulting in reduced tire scuffing.
- Dynamic friction (side-wall force) within the strut is low due to the features of the trailing arm suspension design, allowing the use of a lighter strut engineered to a smaller diameter and longer stroke.
- The necessary frame bulk (horse-collar structure) needed to mount a suspended king-pin is non-existent.
- The elimination of the “horse-collar” member provides greater engine access.
- The NEOCON strut used with the trailing arm suspension, improves operator and component isolation, provides better hauler stability and predictable operational control.
- Locating the king-pin close to the wheel assembly and at a slight angle results in low “Dry Park Steering” effort.
- Development of the compressible media, NEOCON-E™ fluid (proprietary, silicone based) for use in the suspension strut with Helium gas, results in an improved energy absorption (isolation) system and an improved energy release (stability) system that responds favorably whether traveling empty or loaded in a wide range of ambient temperatures.

The trailing arm suspension design allows the front struts to be removed and installed without removing the front brakes or tires. This means fewer tools and less labor time are required, resulting in less downtime and higher productivity.



With no horizontal deflection



Spindle
Each controlled by a hydraulic steering cylinder, rotates around the king-pin and the outer end of the trailing arm to position the wheels for steering. The spindles are attached by one simple tie-rod.

Trailing Arm
Main suspension member to which other suspension components are attached. The trailing arms hinge on a cross tube that is clamped to the front of the frame.

Neocon Strut
The energy absorption and release component of the trailing arm suspension system. Pinned to ball bushings at the frame and at the top of each trailing arm to prevent bending moments from transferring to the strut. Receives only axial input.

The Fast Filling System

The fast filling system, provided standard on the left side of the radiator, allows direct access at ground level for fast feeding of coolant, grease, hydraulic oil and engine oil.
(Couplers are optional.)

1 Hydraulic oil
2 Coolant 1
3 Coolant 2
4 Grease
5 Engine oil

Electric Drive Enables Lower Diesel Fuel Consumption

Trolley System (Optional)

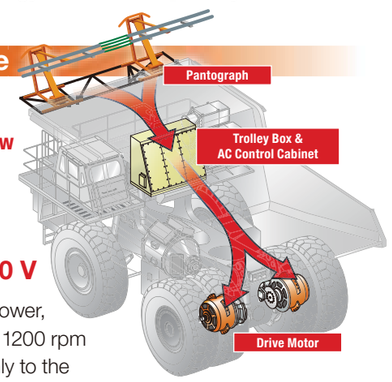
Power supply from an overhead line provides powerful and relentless travel on slopes. Switch between the on-board power source and an external power line smoothly and easily. Comfortable, stress-free operation.

Difference of Energy Flow between Trolley and Diesel Truck

Trolley Mode

V DC = V Trolley

Energy Flow



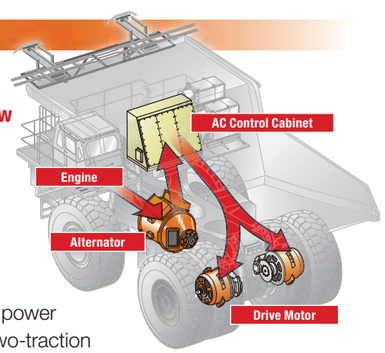
DC 2400-2600 V

While on electric power, the engine idles at 1200 rpm directing power only to the auxiliaries and the hydraulic pump - even when the machine is being driven uphill under load.

Diesel Mode

V DC = V Diesel

Energy Flow



DC 1800 V

Engine runs at max power supplying drive to two-traction motors, all auxiliaries, and the hydraulic pump when being driven uphill under load.

Benefits of the Trolley System

- Higher speeds during loaded hill climbing - faster than in Diesel mode (Travels at approx. twice the speed of a large-motor vehicle in Diesel mode) ➤ **Shorter cycle times, higher productivity**
- Lower diesel fuel consumption High-efficiency trolley travel thanks to the high-voltage DC (2400-2600 V) system ➤ **Lower running costs, greater economy**
- Less engine stress leads to longer engine life ➤ **Lower running costs and greater economy and productivity due to less frequent engine overhauls**
- Lower exhaust emissions and lower engine noise ➤ **Environmental friendliness**
- Development of pantographs specifically for dump trucks ➤ **Reduces risk of damage due to vibrations and uses carbon-metallic contact strips**
- Body raising prohibited during trolley travel ➤ **Safer operation (electric shock prevention)**
- Low engine RPM during trolley travel (1,200 RPM) ➤ **Reduces noise inside cab**

Comfortable Space

Ample legroom

Drink holder

Foot rest

Net pocket

Front pocket

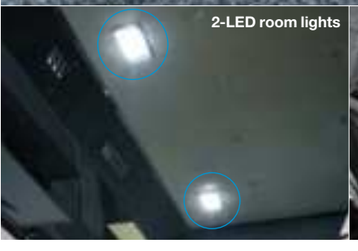
Front tray with edge block

Drink holder

Net pocket

Drink holder

Document holder



Note: Photo may include optional equipment, accessories,and all standard equipment with some differences in color and features.

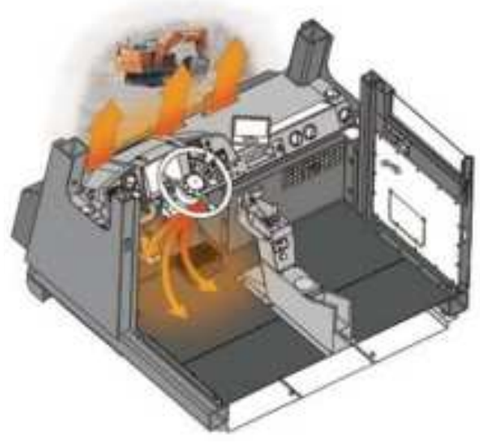
HI-TECH ROPS/FOPS Cab

The HI-TECH ROPS/FOPS cab has been equipped with a Hitachi controller and a large centrally mounted, color Liquid Crystal Display (LCD) as used in Hitachi large sized excavators. Double wall construction of 11 gauge inner and outer steel panels produces a more structurally sound cab. A three-point rubber isolation-mount arrangement minimizes vibration to the operator compartment.

Excellent Vision with Air Conditioning Maintains a Comfortable Operating Environment

Additional A/C leg room vents are provided within the cab. These help to keep the lower leg room areas warm or cool depending on conditions providing a more comfortable working environment for the operator.

A new vent positioned for the lower legs.



Simplified Maintenance

Low Maintenance Air filters with Evacuator Valves

Four Air filters with evacuator valves bring easy maintenance.

Ground Level Battery Box and Relay Box

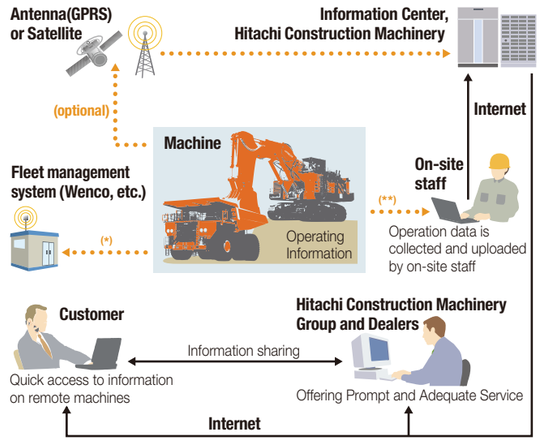
The battery box door with gas cylinders allows the operator safe and easy maintenance.

Collapsible Step for Maintenance inside Rear Axle

The collapsible step and flat service stage inside rear axle bring higher serviceability and safety.

Remote Machine Management with Global e-Service

This on-line machine management system allows you to access each on-site machine from a PC in your office. You can get its operating information and location to increase productivity. Operating data and log are sent to a Hitachi server for processing, and then to customer and dealers. This system is available 24 hours a day, all the year around.



Note : In some regions, Global e-service is not available by local regulations.
* DTU (optional) and fleet management system contract are required.
DTU : Data Transfer Unit
** WIU (optional) to transmit operating data for wireless collection is required.
WIU : Wireless Interface Unit

SPECIFICATIONS

ENGINE

Standard

Model	Cummins QSKTA60-CE
Type	4 Cycle Diesel w/ MCR fuel system
Aspiration	1 stage Turbocharged & Low Temperature Aftercooled
Emission Certification	U.S. EPA Tier 2
Gross Power @1900 min^{-1} (rpm)	
SAE J1995	1 864 kW (2 500 HP)
Net power @1900 min^{-1} (rpm)	1 771 kW (2 370 HP)
Maximum Torque @1 500 min^{-1} (rpm)	
SAE J1995	9 839 N.m (1 004 kgf.m)
No. of Cylinders	16
Bore & Stroke	159 x 190 mm
Displacement	60 L
Starting	24 Volt Electric

Optional

Model	MTU 16V4000 C21
Type	4 Cycle Diesel w/ DDEC
Aspiration	1 stage Turbocharged & Low Temperature Aftercooled
Emission Certification	Not Certified
Gross Power @1900 min^{-1} (rpm)	
SAE J1995	1 864 kW (2 500 HP)
Net power @1900 min^{-1} (rpm)	1 771 kW (2 370 HP)
Maximum Torque @1 500 min^{-1} (rpm)	
SAE J1995	10 931 N.m (1 115 kgf.m)
No. of Cylinders	16
Bore & Stroke	165 x 190 mm
Displacement	65 L
Starting	24 Volt Electric

ELECTRIC DRIVE

HITACHI AC-Drive System

AC Control Cabinet

Rectifier

Number of units	1
Rated capacity	1 680 kW

IGBT Inverter

Number of units	2
Rated capacity per unit	1 000 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

Alternator

Number of units	1
Capacity	1 900 kVA at 1 900min^{-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	765 kW

Grid Box (Electric Brake)

Number of modules	5
Capacity per unit	625 kW (3 min.)

Equipped with inverter controlled variable speed cooling fan.

Axle

Planetary Ratio	35.3 : 1
Maximum Speed (Continuous)	56 km/h

TIRES

Front and Rear	Rim Width
46/90R57 (standard)	736.6 mm (29 in)
40.00R57	736.6 mm (29 in)

Tire manufacturers offer tires having a range of capabilities suitable for a variety of applications. For high performance hauling it is important to consult with the tire manufacturer to choose a tire that is best matched to truck TGMOW, travel speed and customer specific jobsite conditions. Jobsite condition severity, may result in a reduced truck payload and travel speed recommendation.

ELECTRICAL SYSTEM

Twenty-four volt system. 140 ampere Cummins engine driven or 260 ampere MTU engine driven alternator. Four 245H52, 12 volt, heavy duty batteries connected in series/parallel.

BODY CAPACITIES

Struck (SAE)	106 m^3
Heaped 3:1	138 m^3
Heaped 2:1 (SAE)	154 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)	30.2 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 combines with four position electronic pilot controlled hoist valve. The electrical controller is mounted to the shift tower.

Body Raise Travel	57.5 degrees
Body Raise Time	18.0 sec
Body Down Time (Float)	13.0 sec

BRAKE SYSTEM

Brake system complies with ISO 3450 (SAE J1473).

Service Brake

Service braking for the EH4000AC-3 is made up of front and rear hydraulically applied brakes and the electric brake.

Front Axle – Dry Disc

Disc Diameter Each (2 discs/axle, 4 calipers/disc)	121.6 cm

Rear Axle – Oil-cooled Wet Disc

Total Friction Area per Brake	75 760 cm^2

Secondary

Two of front hydraulic, rear hydraulic and electric brake within the service brake system provide modulated reserve braking capability. Both front and rear hydraulic brakes are automatically applied when loss of pressure is detected.

Parking Brake

This system is designed to use spring applied, hydraulically released brake calipers to hold the truck stationary.

Electric Brake

The Electric Brake is used for usual operating brake for the EH4000AC-3. The Hitachi AC Drive system provides all necessary truck speed control, including speed reduction to 0 km/h travel speed when the electric brake pedal is depressed. Also, the rear service brakes automatically apply at speeds below 0.5 km/h if this pedal is depressed.

Maximum dynamic braking (Standard)	3 200 kW

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.

SPECIFICATIONS

WEIGHTS (Approximate)

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

With Standard 46/90R57 Tires

Chassis with Hoist & Body Parts	137 000 kg
Body Excluding Body Parts	26 000 kg
Net Machine Weight	163 000 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	221 tonnes
Target GMOW	384 000 kg

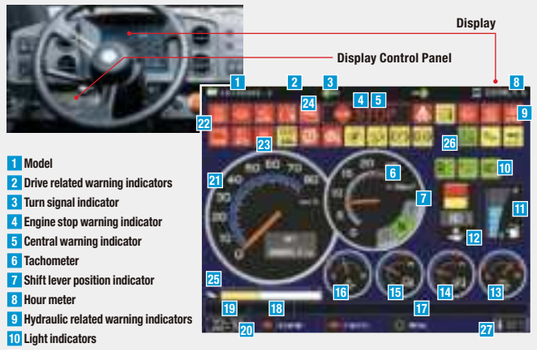
Note:
The Nominal Payload specification is calculated using the Hitachi Loading Policy. Specific job site requirements may result in an adjustment to the Nominal Payload weight. Consult your Hitachi dealer for a truck configulation which will match your haulage application.

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

HI-TECH ROPS/FOPS CAB

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.



1 Model
2 Drive related warning indicators
3 Turn signal indicator
4 Engine stop warning indicator
5 Central warning indicator
6 Tachometer
7 Shift lever position indicator
8 Hour meter
9 Hydraulic related warning indicators
10 Light indicators
11 Fuel gauge
12 Load meter
13 Brake /steering hydraulic oil pressure gauge
14 Wheel motor temperature gauge
15 Coolant temperature gauge
16 Engine oil pressure gauge
17 Indicate message
18 Indicate SAE code
19 Indicate HCM code
20 Clock
21 Speedometer (with odometer)
22 Engine related warning indicators
23 Stop valve warning indicator
24 AC drive system maintenance required warning indicator
25 Body angel indicator
26 Drive control status indicator
27 Ambient temperature

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

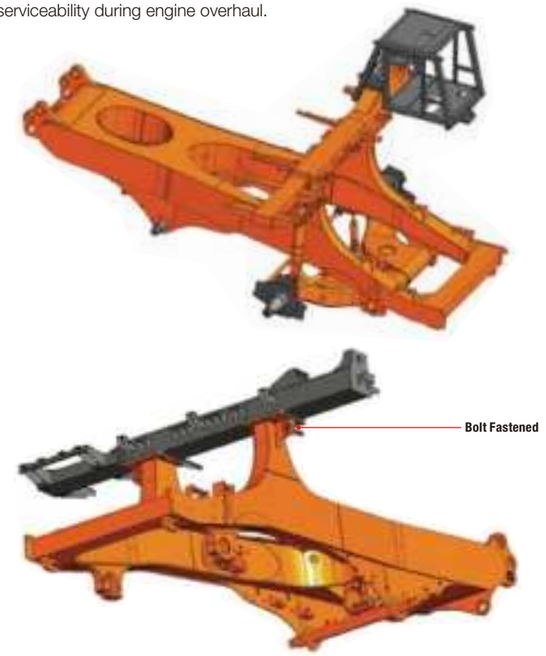
SUSPENSION

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 load and wider at the front allowing truck stability and excellent engine access for servicing. 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 at frame junctions are blended and ground to minimize stress concentrations. Weld joints are oriented longitudinally to the principal flow of stress for greater durability and more strength. The new “bolt-on” High Arch Design requires less assembling time and no welding. The design provides higher structural quality and better serviceability during engine overhaul.



SPECIFICATIONS

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/mm² (100 000 psi) alloy steel is also used for the canopy side members and floor stiffeners. The body is rubber cushioned on the frame.

Optional Body Liners

Floor & Corners	12 mm
Sides & Front	6 mm
Canopy drop edge	6 mm

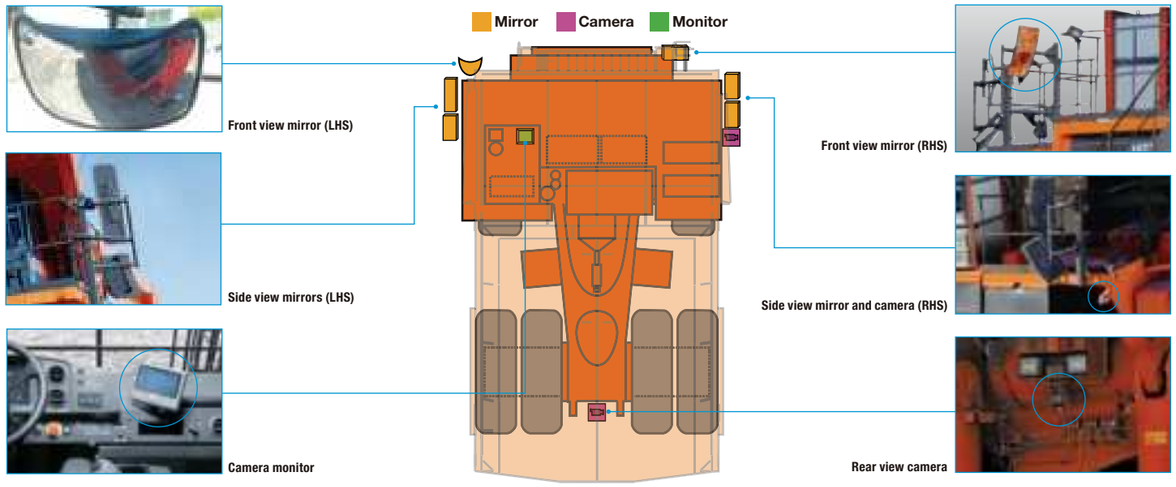
Special plate thicknesses and partial plates are available.

SERVICE CAPACITIES

Crankcase (Includes Filters): Cummins	260 L
Crankcase (Includes Filters): MTU	250 L
Engine Cooling System: Cummins	619 L
Engine Cooling System: MTU	710 L
Fuel Tank (Standard)	2 680 L
Fuel Tank (Optional)	4 570 L
Hydraulic System	750 L
Brake Cooling System	250 L
Planetary Drives (L & R)	300 L
Front Wheels (L & R)	34 L
Windshield Washer	20 L
Main Accumulator	85 L

PERIMETER VISIBILITY (STANDARD)

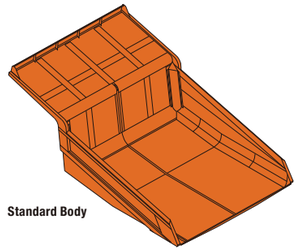
The addition of mirrors and cameras to the base model make the truck compliant to the perimeter viewing requirement of standards ISO 5006 and ISO 14401.



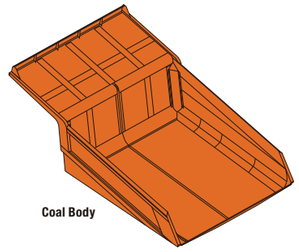
HITACHI BODIES

Tough Body Structure

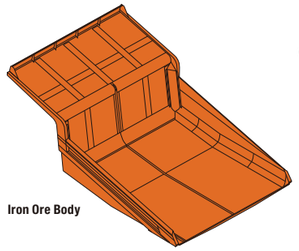
Designed by Hitachi for long lasting strength and productivity. Hitachi offers customized solutions to match specific load and haul applications. Optional bodies and parts are engineered on request.



Standard Body



Coal Body



Iron Ore Body

Standard Body

The Hitachi standard body is designed to accommodate the needs of popular mid-range material densities and the most popular loading machines. Various options, such as liners, spill guard, extended canopy are available.

Coal Body (Optional)

The Hitachi coal body has been designed for low material density, small fragmented, low abrasive material. This coal body offers excellent material shedding, low empty weight and large capacity.

Iron Ore Body (Optional)

The Hitachi iron ore body has been designed for use in rugged iron ore mining applications. The body has been designed for high density material and optimized loading and dumping.

Customized Body (Optional)

Upon request and approval, Hitachi will design bodies to suit special mining applications.

HITACHI LOADING POLICY

Operational Benefits

Haulroad Safety

Truck loading within the limitations of the Hitachi Loading Policy will result in designed and certified operational performance of the steering, brake and ROPS systems of the truck.*

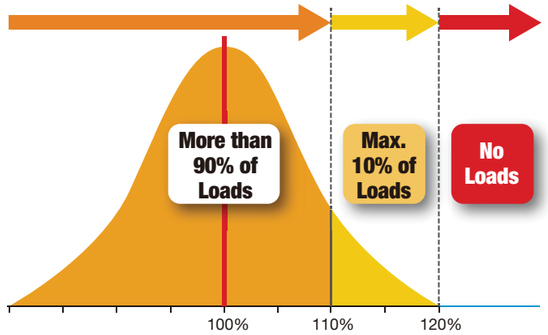
Efficient Productivity

Truck loading within the limitations of the Hitachi Loading Policy will result in optimizing the fuel economy and travel speed performance to which the truck was designed to.*

Availability and Maintenance

Lower maintenance costs and higher availability can be achieved if truck loading is within the limitations of the Hitachi Loading Policy.*

*Hitachi recommended maintenance is required.

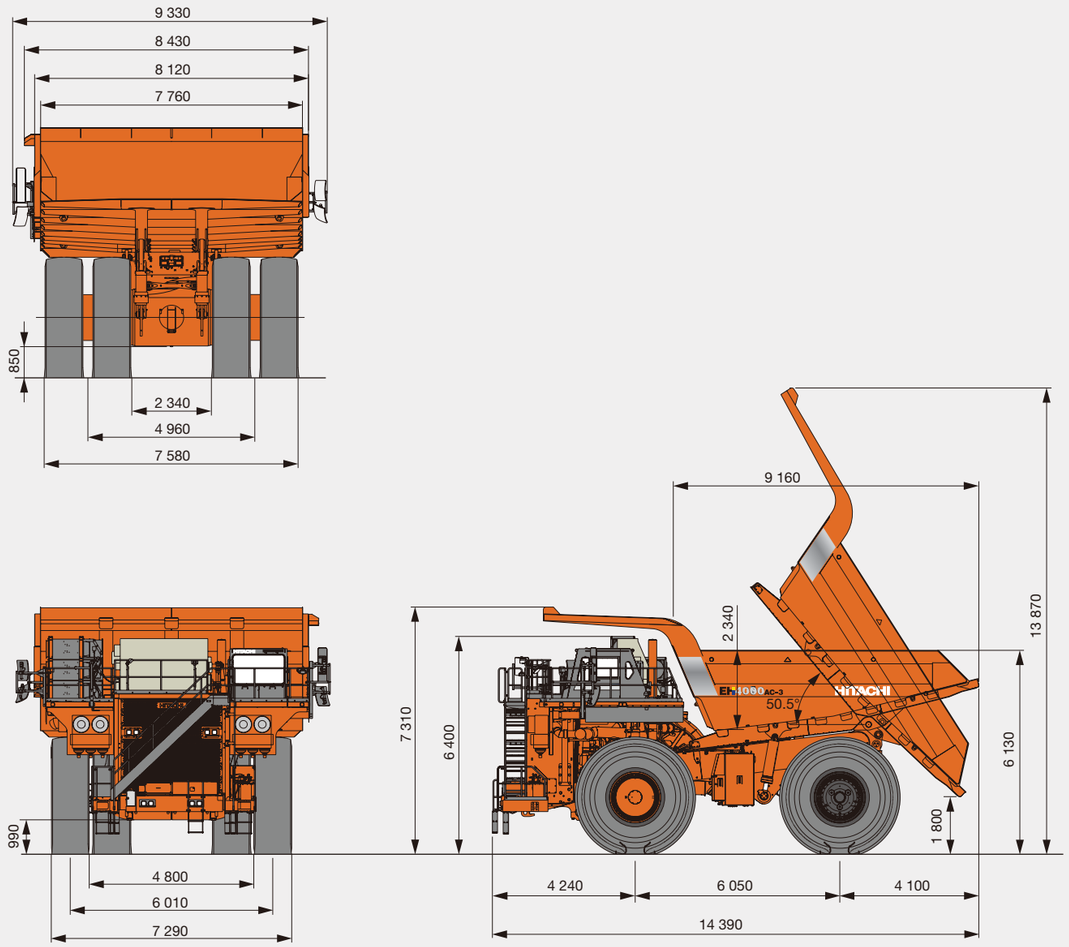


Percent of Nominal Payload

1: More than 90% of all loads must fall below 110% area (Orange area).
2: If necessary due to excessive variation in material density, loader bucket fill-factors or bucket sizes, loading the truck to between 110% and 120% of Nominal Payload is allowed if it accounts for less than 10% of all loads (Yellow area).
3: Loading above 120% of Nominal Payload is not allowed. (Red Area)

DIMENSIONS

Unit: mm



Note: Dimensions shown are for an empty machine with 46/90R57 tires.
Exact dimensions may vary due to tire make, type, and inflation pressure.

EQUIPMENT

STANDARD EQUIPMENT

GENERAL

AC drive system
Auto cruise control
Auto retarding control
Automatic lubrication system (Lincoln)
Battery isolation switch
Body prop cable
Control cabinet pressurized/liquid cooled/ lockable
Deck mounted muffler
Deck mounted stone guards
Diagonal front stairway
Electric controlled hoist system
Electric horns (4)
Emergency ladder
Engine access ladders (2)
Engine shutdown switch
  Beside engine (2)
  Ground level, on bumper (1)
  Inside rear axle (1)
Fan and belt guards
Fan clutch
Fast fluid filling system
Fast fuel filling system provision
Final drive lubricant cooling
Final drive lubricant filtration
Front view mirror, LHS/RHS
Fuel/Water separator
Fuel tank, 2 680 L
Ground level battery box
Ground level relay box
IGBT controlled blower fan motor for Alternator cooling (1)
IGBT controlled blower fan motor for Wheel Motor cooling (1)
IGBT controlled final drive lubricant motor (1)
IGBT controlled grid fan motors (5)
Load weighing system
Maximum speed control system according to payload
NEOCON suspension struts
Rear view camera
Rear view mirrors (4)
Rims, 29 inch
Side view camera (RHS)
Suction port shut off valve at hydraulic tank
Supplementary front braking system, accumulators
Supplementary rear braking system, accumulators
Supplementary steering system, accumulator
Tow hooks, front
Tow lugs, rear

CAB

Air conditioner
Ashtray, cigar lighter
Auxiliary outlet, 12 volt
Camera monitor
Coat hook
Document Holder
Drink holders (3)
Edge blocks, on tray (3)
Engine shutdown switch
FM radio
Foot rest
Heater and defroster
Integral ROPS/FOPS cab
LCD system monitor
LED room lights (2)
Load and dump brake switch
Net Pockets, on door (2)
Override switch
Seat
  Full size air suspention operator's seat with 3-point, 50 mm width seat belt, & automatic weight adjustment
  Regular size mechanical trainer's seat with 2-point, 50 mm width seat belt
Tinted safety glass, with roll-down windows
Tray, front and rear

INDICATORS AND GAUGES SHOWN ON MONITOR DISPLAY

AC drive system maintenance required warning indicator
Ambient temperature
Body angel indicator
Brake/steering hydraulic oil pressure gauge
Central warning indicator
Clock
Coolant temperature gauge
Drive control status indicator
Drive related warning indicators
Engine oil pressure gauge
Engine related warning indicators
Engine stop warning indicator
Fuel gauge
Hour meter
Hydraulic related warning indicators
Indicate HCM code
Indicate message
Indicate SAE code
Light indicators
Load meter
Model name
Shift lever position indicator
Speedometer (with odometer)
Stop valve warning indicator
Tachometer
Turn signal indicator
Wheel motor temperature gauge

MACHINE LIGHTS

Backup lights (2)
Clearance lights (4)
Combination stop and tail lights (2)
Deck lights (2)
Diagonal front stairway light
Engine compartment lights (2)
Halogen headlights (8)
Payload external indicators, 2 locations of 2 lights each
Rear axle compartment light

OPTIONAL EQUIPMENT

Aerial Angle
Auxiliary dump connection
Auxiliary steer connection
Body liners (400BHN)
Body prop pins
Body sizes **
Cold weather package **
Communication system (alternative) *
  GPRS communication system
  Satellite data transmitting system
Fast fluid filling system couplers
Fast fuel filling system coupler
Fuel tank, 4 570 L
Full size air suspension operator's seat with 3-point, 50 mm width seat belt, & semi-active suspension control
Full size air suspension trainer's seat with 3-point, 50 mm width seat belt, & automatic weight adjustment
Full size air suspension trainer's seat with 3-point, 50 mm width seat belt, & semi-active suspension control
Gridbox guard **
Halogen front tire lights (2)
Heated mirrors
HID headlights (8)
Loadweight displays (2)
Smart rim
Sound attenuation package **
Spare rim
Tire guards **
Trolley system
WIU (Wireless Interface Unit) *

* : The availability of the system depends on licensing regulations in each country. Please contact Hitachi dealer for more information.
** : Engineered on request

OPTIONAL EQUIPMENT WEIGHT

Body liners (400BHN) plates including floor & corners (12 mm thicknesses), sides & front and canopy (6 mm thicknesses)	8 200 kg
4 570 L fuel tank with 100 % fuel (additional weight to the standard tank with 100 % fuel)	2 300 kg
Loadweight display (2)	150 kg

Note: Regarding the Cummins engine, fuel optimized ratings available to meet worldwide emissions and enhanced fuel efficiency. Contact your nearest authorized Cummins Distributor for details and availability.

MEMO

Before using a machine with a satellite communication system, please make sure that the satellite communication system complies with local regulations, safety standards and legal requirements. If not so, please make modifications accordingly.

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.
Before use, read and understand the Operator's Manual for proper operation.

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