

EH1100-3 SPECIFICATIONS

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Truck
EH1100-3

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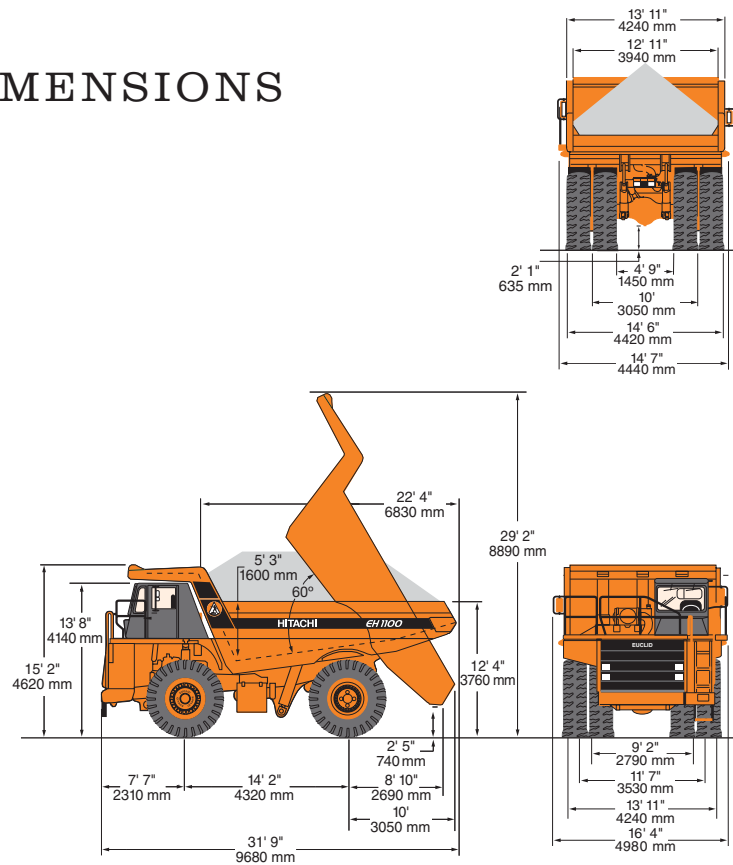


MAXIMUM GMW: 244,000 LB. (110 677 KG)

RATED POWER: 760 HP (567 KW)

HITACHI

EH1100-3 DIMENSIONS



STANDARD EQUIPMENT

General

ACCU-TRAC suspension system
 All-hydraulic braking
 Allison M6610 transmission
 Automatic transmission shifting
 Battery disconnect switch
 Body-down indicator, mechanical
 Body exhaust
 Body prop cable
 Body-up and -down cushioning
 Body-up speed restriction
 Bolt-on nose-cone bushing
 Canopy spill guard
 Circuit port, circuit breaker
 Circuit port, fuse
 Continuous heated body
 Cooling system surge tank
 Dagger clamps (rear wheels)
 DC/DC converter, 25 amp
 Driveline guard, front
 Electric horns
 Electric start
 Electronic hoist control
 Engine access step
 Engine belt protection
 Engine compartment light
 Fan guard
 Fenders
 Five-piece rims
 Fixed steering stops
 Fluid sampling port
 Front brake cut-off switch
 Fuel/water separator
 Guardrails
 Hoist interlock
 LED taillights
 Load/dump brake
 Lube system, centralized
 Mirrors, right and left, hand adjustable

NEOCON suspension struts

Park brake, dry disc
 Park-brake interlock
 Radiator grill guard
 Reverse alarm
 Rock-ejector bars
 Sight gauges for cooling system, hoist tank, steering tank, and transmission
 Steering accumulator
 Swing-out grille
 Tire guards, bolt-on
 Tow points, front and rear
 Trainer seat
 Transmission guard
 Two-speed reverse

Cab

12-volt accessory connection
 Air conditioning
 Air-filtration/replaceable element
 Cigarette lighter
 Climate center with air conditioner and heat
 Door locks
 Footrest (left and right)
 Full trainer seat
 Heater and defroster, 26,000 Btu
 Integral ROPS/FOPS cab
 ISO driver envelope
 Quick-connect test ports
 Rubber floor mat
 Seat, air ride
 Seat belts, retractable (operator/trainer)
 Speakers, antenna, and wiring
 Tilt/telescopic steering wheel
 Tinted safety glass, with roll-down windows
 Windshield washer, intermittent wiper

Gauges and Indicators

Battery charge
 Body up
 Brake system oil pressure
 Central warning (caution)
 Central warning (stop)
 Engine coolant level
 Engine oil pressure
 Engine, other malfunctions
 Filter restrictions
 High beam
 Parking brake applied
 Steering oil pressure
 Steering oil temperature
 Transmission malfunction
 Transmission oil pressure
 Turn signal/hazard
 Brake oil temperature
 Converter oil temperature
 Coolant temperature
 Hour meter (LCD)
 Odometer
 Speedometer
 Steering/brake oil pressure
 Tachometer

Machine Lights

Backup lights (2)
 Clearance lights (2)
 High-intensity headlights (HID) (4)
 Stop and tail (2)
 Turn signals and 4-way flashers

OPTIONAL EQUIPMENT

Cab

Active Traction Control (ATC) w/ Electronic Downhill Speed Control (EDSC)
 Air suspension seat, semi-active, with heat and lumbar, 3-point seat belts
 AM/FM radio with CD/MP3 player
 Power cab windows

Chassis

Additional backup light
 Automatic lube system, Groeneveld
 Body liner, heavy duty (1/2 in. with rock cap)
 Body liner, partial (add 3/8 in. to floor plate and valley)
 Body liner, standard (3/8 in. with rock cap)
 Body side extensions
 Canopy arm guard
 Canopy spill guard extension
 Mild cold-weather package (32 deg. F to -4 deg. F)
 Extreme cold-weather package (-4 deg. F to -41 deg. F)
 Electrically heated mirrors
 Exhaust system, deck mounted
 Fog lights
 Ground-level engine shutdown
 Haultronics III load-monitoring system
 Hill hold brake
 Rear driveline guard
 Rock cap
 Service center without fast filling
 Service center with fast filling on steel tank (must purchase steel fuel tank)
 Side mud guard
 Sound-suppression kit

Miscellaneous

Extra operator's manual
 Extra parts manual—hard copy
 Service manuals—hard copy

EH1100-3 SPECIFICATIONS

ENGINE

Model	MTU Series 2000
Type	4-cycle, 12-cylinder, diesel injection
Emission Certification	U.S. E.P.A. Tier 2, E.U. Stage II
Aspiration	Turbocharged/Aftercooled
Rated Power @ 2,100 rpm	
Gross (SAE J1995)	760 hp (567 kW)
Net (SAE J1349)	697 hp (520 kW)
Maximum Torque @ 1,350 rpm	2,280 ft./lb. (315 kgf.m) (3091 N.m)
Bore and Stroke	5.12 in. x 5.91 in. (130 x 150 mm)
Piston Displacement	1,458 cu. in. (23.9 liters)
Torque Rise	20%
Starting	Electric

TRANSMISSION

Model	Allison H6610A
Design	Fully automatic, planetary type with integral lockup converter
Mounting/Position	Remote from engine and rear axle for serviceability
Ranges	6 forward, 2 reverse
Control	Allison CEC2 electronics shift system with Shift Energy Management (SEM)

Maximum Speeds @ Governed Engine Speed

Differential	3.64:1	
Planetary	5.80:1	
Gear	Ratio	mph (km/h)
1	4.00	6.0 (9.7)
2	2.68	9.0 (14.5)
3	2.01	12 (19.3)
4	1.35	17.9 (28.8)
5	1.00	24.1 (38.8)
6	0.67	36 (57.9)
R1	5.15	4.7 (7.6)
R2	3.46	7 (11.3)

DRIVE AXLE

Model Differential	2354
Axle Design	Full floating axle shafts using Model 2354 differential and single-reduction planetaries at each wheel
Traction Control	Optional electronic feature that includes electronic downhill speed control
Differential and Final-Drive Ratios	
Differential	3.64:1
Planetary	5.80:1
Total Reduction	21.11:1
Maximum Speeds	
With 24.00 R35 Tires	36 mph (57.9 km/h)

TIRES

Front	24.00 R35 (Standard)
Rear	24.00 R35 (Standard)
Bridgestone VRLS E2A E4 tires standard. Optional tire brands and tread patterns available.	

ELECTRICAL SYSTEM

24-volt starting, lighting, and accessories system. 75-ampere alternator with integral transistorized voltage regulator. Two 12-volt heavy-duty batteries capable of 1,300 cold cranking amps (each) at 0 deg. F (-17 deg. C). A Hitachi solid-state reprogrammable controller regulates and monitors hauler systems, provides output information to control gauges and lights, and incorporates connections for diagnostic tools.

BODY CAPACITY

Struck (SAE)	37 cu. yd.	28.2 m ³
Heap 3:1	46 cu. yd.	35.2 m ³
Heap 2:1 (SAE)	51 cu. yd.	38.7 m ³
Body capacity and payload subject to change based on customer-specific material density, options, and application.		

WEIGHTS

Weights given are for standard options, body, and tires. Net machine weight changes will directly affect the payload. Material density will determine body volume figures.		
Chassis with Hoist	73,482 lb. (33 325 kg)	
Body	27,536 lb. (12 488 kg)	
Net Machine Weight	101,018 lb. (45 813 kg)	

WEIGHTS (CONTINUED)

Maximum GMW with Standard Tires [24.00 R35], including options, 50% fuel, with operator and payload, not to exceed	244,000 lb. (110 677 kg)
Maximum Payload with Standard Equipment	71.5 tons (65 tonne) (Refer to Hitachi payload policy)
Nominal Payload with Standard Equipment	65.0 tons (59.0 tonne) (Nominal Payload is 100/110 of Maximum Payload with Standard Equipment)

STEERING SYSTEM

Closed-center, full-time hydrostatic steering system using two double-acting cylinders, pressure limit with unload piston pump, and brake actuation/steering system reservoir. An accumulator provides supplementary steering in accordance with SAE J1511 and ISO 5010. The operator's steering wheel offers 35 deg. of tilt and 2.25 (59.4 mm) in. of tilt travel.

Steering Angle	39 deg.
Turning Diameter (SAE)	63 ft. 3 in. (19.28 m)
Steering Pump Output @ 2,100 rpm	25.3 gpm (95.7 L/min.)
System Pressure	2,745 psi (18.9 Mpa)

HYDRAULIC SYSTEM

Two double-stage, double-acting cylinders, with cushioning in extension and retraction, inverted and outboard mounted. Separate hoist/brake cooling reservoir and independent tandem gear pump. Control valve mounted on reservoir.

Body-Raise Travel	60 deg.
Body-Raise Time (@ 2,100 rpm)	12.0 sec.
Body-Down Time (@ idle)	16.0 sec.
Brake Cooling Pump Output (@ 2,100 rpm)	46.5 gpm (176 L/min.)
Hoist Pump Output (@ 2,100 rpm)	123.6 gpm (468 L/min.)
System Relief Pressure	2,495 psi (17.2 MPa)

HIGH-TECH ROPS/FOPS CAB

ROPS complies with ISO 3471 and SAE J1040-May 94.

FOPS complies with ISO 3449. Double-wall construction of 11-gauge inner and outer steel panels contributes to a more structurally sound cab. Multiple-layered floor mats act to absorb sound and control interior temperature. A three-point rubber iso-mount arrangement to the deck surface minimizes vibration to the operator compartment.

EXCELLENT SERVICEABILITY

A removable front panel allows easy access to service brake valves, retarder valve, and heater assembly. A removable cover located behind the operator's seat provides easy access to the Transmission Contoller Unit (TCU), Central Contoller Unit (CCU), and all electrical junction points.

COMFORT AND EASE OF OPERATION

A flat-panel dashboard positions controls within easy reach and visual contact. A full complement of easy-to-read gauges, automobile-type monitor with warning system, a spacious environment, multiple-position adjustable seat, tilt/telescopic steering wheel, filtered cab ventilation, and door locks all contribute to operator convenience, control, and comfort.

BODY

The body has been made to the flat-floor, flat-tail-chute design. The rear hinge has been designed to cause the hinge pin to float when the body is in the fully lowered position. The weight of the body and payload is distributed across rubber body pads that are evenly spread across the length of the body rail-box that rests on the truck frame.

SERVICE CAPACITIES

Crankcase (includes filters)	22.0 gal. (83.3 L)
Transmission, Cooler, and Lines	24.6 gal. (93.3 L)
Cooling System	59.3 gal. (224.5 L)
Fuel Tank	185.0 gal. (700 L)
Hydraulic	
Hoist Tank and System	67.6 gal. (256 L)
Steering Tank and System	29.6 gal. (112 L)
Drive Axle (2 wheels and differential)	27.2 gal. (103 L)
Windshield Washer Fluid	1.5 gal. (5.7 L)

BRAKE SYSTEM

Complies with SAE J1473/ISO 3450. All-hydraulic actuated braking system provides precise braking control and quick system response. The Hitachi brake controller has a unique variable front to rear brake proportioning that maximizes the stopping performance under all road conditions. The Hitachi wet-disc brake is engineered for long service life even in the most extreme environments. The wet-disc brakes are located on the rear axle and provide service braking, secondary braking, and retarding. The wet-disc brake is designed with automatic retraction to prevent drag. The brakes are a multi-plate design and continuously oil-cooled. The sealed design protects against environmental contamination for prolonged service life. Separate pedals activate the service braking and retarding functions. Two independent circuits within the service brake system provide backup stopping capability. System is manually or automatically applied to stop machine within prescribed braking distance. The parking brake is a dry disc mounted on differential input shaft and controlled by a toggle switch on the dash. Brakes apply automatically if hydraulic pressure is lost.

FRONT AXLE (DRY DISC)

Disc Diameter, Each (2 discs/axle)	27 in. (686 mm)
Brake Surface Area Per Axle	640 sq. in. (4129 cm ²)
Lining Area Per Axle	432 sq. in. (2787 cm ²)
Brake Pressure (Max.)	2,291 psi (15.8 MPa)

REAR AXLE (OIL-COOLED WET DISC)

Brake Surface Area Per Axle	9,245 sq. in. (59 616 cm ²)
Brake Pressure (Max.)	696 psi (4.8 MPa)

PARKING BRAKE (DRY DISC)

Disc Diameter	23.5 in. (597 mm)
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SHIPPING INFORMATION

	LENGTH		WIDTH		HEIGHT		VOLUME		GROSS WEIGHT	
	In.	Meters	In.	Meters	In.	Meters	Cu. Ft.	M ³	Lb.	Kg
CHASSIS, LESS REAR DUAL TIRES, LESS BODY (RORO)										
Minimum—26' 0" well, detachable double drop-float "with deck"	305	7.75	174	4.42	163	4.14	5,006.02	141.82	67,200	30,482
DUMP BODY WITH 2 TIRE/RIM ASSEMBLY INSIDE BODY (LOLO)										
Step or double drop-float	338	8.59	167	4.24	113	2.87	3,691.2	104.53	35,100	15,921
							No Liner		30,450	13,812
TOTAL							8,697.22	246.35	102,300	46,403
								No Liner	97,650	44,294

NOTE: Front struts drained to lower height.

EXCAVATOR MATCH

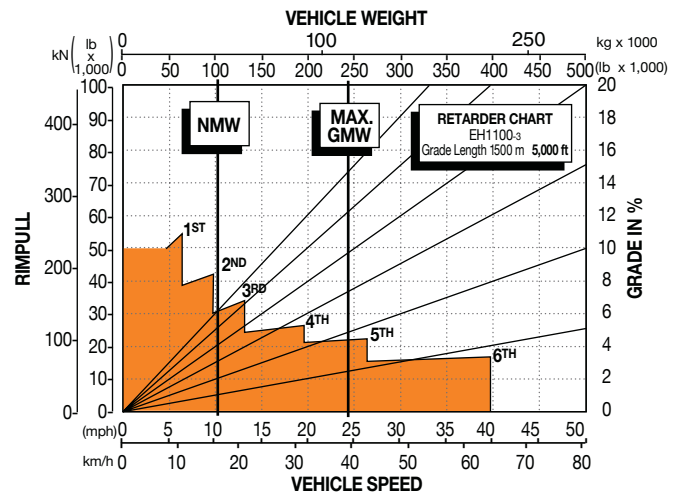
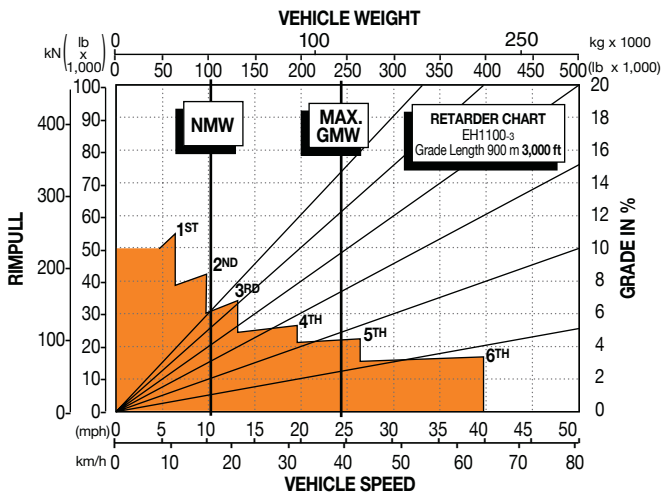
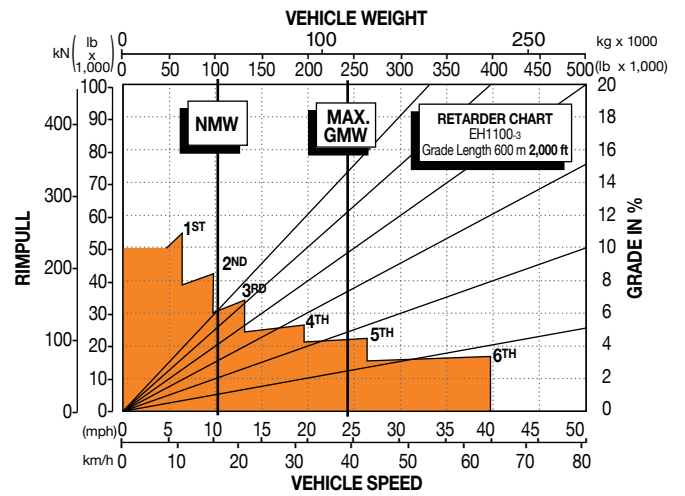
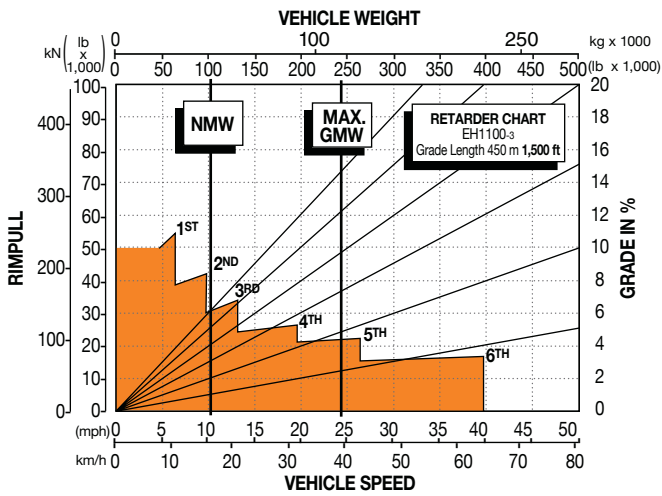
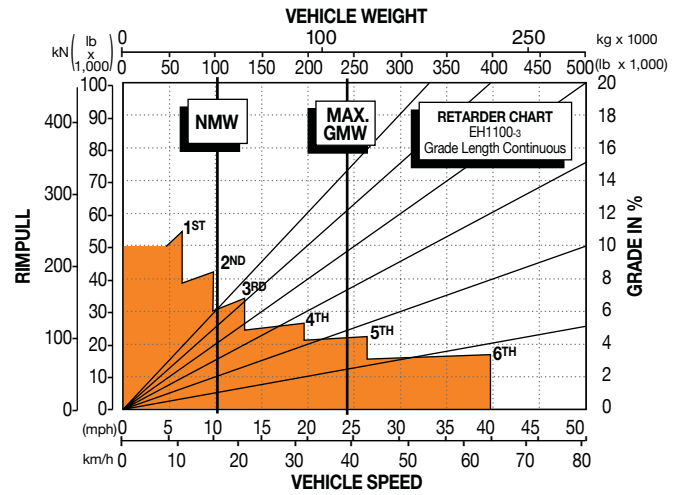
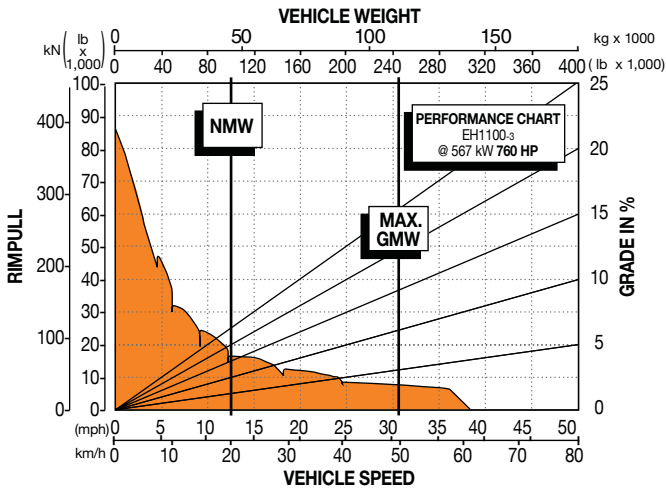
PASSES TO FILL EH1100-3**					
EX1200-5D Excavator			EX1900-5 Excavator		
Shovel	Shovel	Backhoe	Shovel	Shovel	Backhoe
7.7-cu.-yd. (5.9 m ³) Bucket*	8.5-cu.-yd. (6.5 m ³) Bucket*	9.3-cu.-yd. (7.1 m ³) Bucket*	14.4-cu.-yd. (11.0 m ³) Bucket*	15.7-cu.-yd. (11.0 m ³) Bucket*	15.7-cu.-yd. (11.0 m ³) Bucket*
6 to 7 Passes	5 to 6 Passes	5 to 6 Passes	3 to 4 Passes	3 to 4 Passes	3 to 4 Passes

*Bucket Capacity (SAE, PCSA heaped.)

**SAE 2:1 51.0-cu.-yd. (38.7 m³.)



PERFORMANCE DATA



NOTES:

Diagonal lines represent total resistance (Grade % plus rolling resistance %).

Charts based on 0% rolling resistance, standard power of engine, standard tires, and gearing unless otherwise stated.

1. Find the total resistance on diagonal lines on right-hand border of rimpull or retarder chart.
2. Follow the diagonal line downward and intersect the NMW or GMW weight line.
3. From intersection, read horizontally right or left to intersect the rimpull or retarder curve.
4. Read down for machine speed.

OUR NAME LOOKS GOOD ON ORANGE.

It's our color. It's our brand. New product-support initiatives and our strengthened dealer network are more proof that we are as passionate as ever about this industry. We are dedicated to building the best equipment in the world and keeping it painted Hitachi Orange.

HITACHI

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Specifications and design subject to change without notice.

