

EH600

Nominal Payload with Standard Equipment
30.1 tonnes (33.2 tons)

Maximum GMW
56 900 kg (125 000 lb)

Engine
Cummins N14-C400
Rated Power 298 kW (400 HP)



Equipment & Dimensions: EH600

Performance Data: EH600

STANDARD EQUIPMENT

BODY EQUIPMENT
Body heating (exhaust) Rock body

HYDRAULIC SYSTEM
Hoist
One three-stage telescoping cylinder, two-stage double-acting

ENGINE AND ELECTRICAL SYSTEM
Alternator Pilot lamps for: body up, bright lights, charging, engine oil pressure/temp, flashers and directional indicators, lock-up convertor, parking brake
Electric engine/transmission coolant and oil heaters (Opt.)
Gauges/Instruments: fuel pressure, air (two circuits) pressure, engine oil pressure, transmission oil speedometer/odometer, transmission oil pressure, transmission oil temp, tachometer/hourmeter
Lights: backup beams, direction indicators, headlights, bright/dim/asymmetric instrument lighting, backup lights, cab lights, parking lights, tail

SAFETY AND COMFORT

Air conditioning (R134a)
Anti-theft lock
Cab heating with filtered fresh air intake and defroster
Cigarette lighter and ashtray
Ergonomically designed and adjustable operator's seat
Hazard flashers
Horn
Indicator for air cleaner
Instructor's seat with lap belt
Rear-view mirrors
Reverse alarm
Rock ejectors
Rubber floor mat
Seat belt, operator
Sun visor
Supplementary steering
Tinted glass
Windshield washers
Windshield wipers

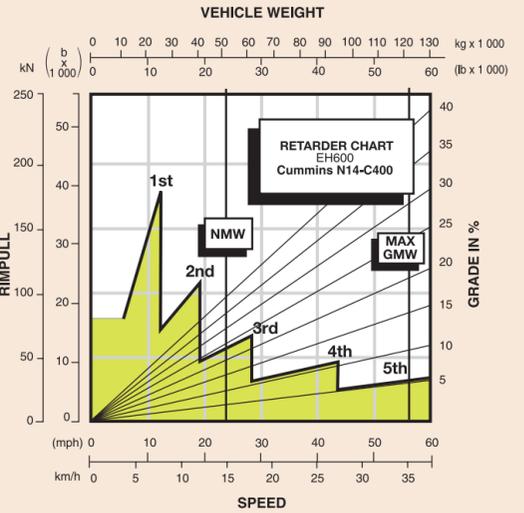
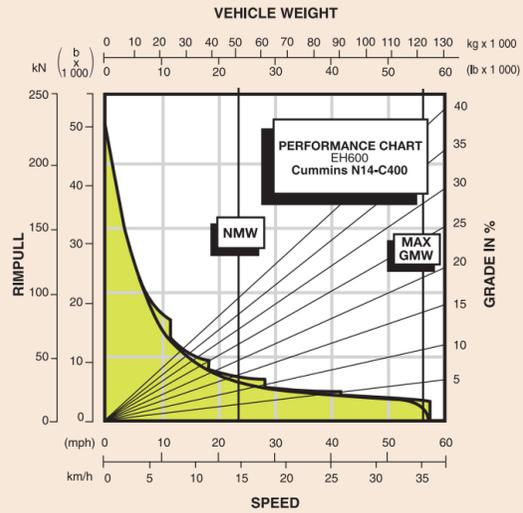
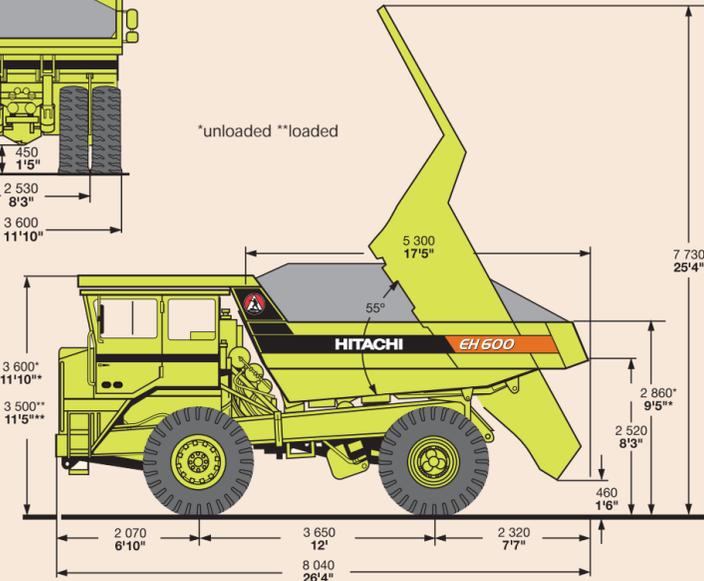
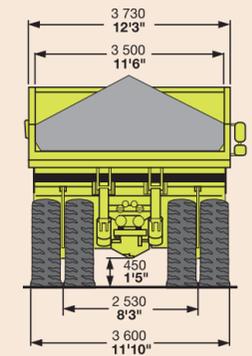
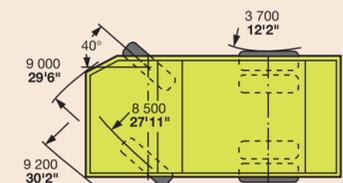
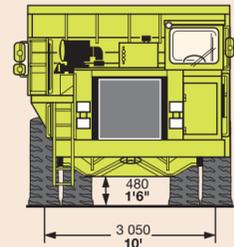
TRANSMISSION

Automatic lock-up convertor
Automatic power shift transmission
Retarder
2nd gear start (1st gear manually selectable)

OPTIONAL EQUIPMENT

Additional working lights
Body liners
Cab guard
Cab heater, auxiliary
Canopy reinforcement
Engine/Trans, heater package
FOPS-cab protection
Front wheel protection ring
Heated rear-view mirrors
Muffler
Mud flaps, front wheels
Pin plate manufactured in India
Spare rim
Spare wheel
Seat, air ride operator's
Seat, heated operator's
Tool kit
Top extension 190 mm (7.5 in)
Ether Cold Start Aid

Standard and optional equipment may vary from country to country. Special options provided on request. All specifications are subject to change without notice.



unit:mm
ft in

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.

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

Hitachi Construction Machinery
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Specifications: EH600



ENGINE

Cummins N14-C400 Turbo Charged and Aftercooled, 4 stroke, high torque rise diesel engine, Tier 1/Stage 1 certified emission level.

Cold starter: Ether cold start aid with optional oil & coolant heater.

Air filter: Cyclone cleaner, main filter of paper type and catch-all safety filter.

Radiator fan: Extraction fan mounted on engine.

Make	Cummins
Model	N14-C400
Type	4 Cycle
Aspiration	Turbocharged/Aftercooled
Rated Power @ 2 100 min ⁻¹ (rpm) (SAE J1995)	298 kW (400 HP)
Net Power @ 2 100 min ⁻¹ (rpm) (SAE J1349)	286 kW (384 HP)
No. Cylinders	6
Bore & Stroke	140 x 152 mm (5.5 in x 6.0 in)
Displacement	14.0 L (855 in ³)
Maximum Torque @ 1 400 min ⁻¹ (rpm) (SAE J1995)	1 857 N·m (1 370 lb-ft)
Starting	Electric



TRANSMISSION

Transmission: Allison CLBT 754. Automatic planetary-type transmission with built-in retarder and 2nd gear start.

Torque converter: Allison TC-498. Torque converter integral with transmission with lock-up on all gears (except reverse).

Range	Ratio	km/h	mph
1	5.18:1	11	6.8
2	3.19:1	18	11.2
3	2.02:1	28	17.4
4	1.38:1	41	25.5
5	1.00:1	60	37.1
R	4.72:1	12	7.5



DRIVE AXLE

Axle shafts: Fully floating axle shafts with planetary hub reductions.

Ratios	
Differential	2.40:1
Planetary gear	4.94:1
Total reduction, rear axle	11.86:1



TIRES

Standard - Front and Rear	Rim Width
Michelin 18.00-R25E4	330 mm (13 in)

Optional tires, brands and treads available.

Note: Certain job conditions may require higher TKPH(TMPH) in order to maintain maximum production. Evaluating the job conditions and consulting the tire manufacturer to make proper tire selection are recommended.



BODY CAPACITY

Load volume complies with SAE J/ISO 6483.

	m ³	yd ³
Struck (SAE)	14.6	(19.1)
Heap 2:1 (SAE)	21.0	(27.5)



WEIGHTS

	kg	(lb)
Net Machine Weight	23 790	(52 450)

Maximum GMW with Std. Tires [18.00R25E4] Including Options, 50% Fuel, Operator & Payload Not to Exceed	kg	(lb)
	56 911	(125 467)

Weights given are for standard options, standard body and tires. Net machine weight changes will directly effect the payload. Material density will determine body volume figures.

Weight Distribution	FRONT	REAR
Empty	50%	50%
Loaded	32%	68%

Payload with Standard Equipment	33.1 tonnes (36.5 tons)
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Note: Nominal Payload on front cover shows 100/110 of Payload with Standard Equipment.

Major Options		
Approximate change in Net Machine Weight:	kg	(lb)
Body Liners, Complete	2 100	(4 630)



HYDRAULIC SYSTEM

Hoist: One three-stage telescopic cylinder, two stages are double-acting. A hoist stop is built into the cylinder.

Hydraulic system: Load-sensing hydrostatic system. One engine-driven piston pump mounted on the transmission's power take-off. Common pump and reservoir for steering and hoist. Steering is always given priority over the hoist system.

Hoist	
Raise Time with Load	12 s
Lower Time	12 s

Hydraulic System	
Relief Pressure	19 MPa (2 755 psi)
Flow	189 L/min (49.9 gpm)
At Engine Speed	35 rps (2 100 rpm)



BRAKE SYSTEM

Service brakes: Uses dual circuit air-operated drum brakes on all four wheels. Brake system complies with ISO 3450

Circuit division: Circuit 1 supplies the front brakes. Circuit 2 supplies the rear brakes.

Parking brake: Separate circuit. Spring-actuated drum brakes on all four wheels.

Compressor Capacity	
At	374 L/min (13.2 cfm)
And	0.86 MPa (125 psi)
	35 rps (2 100 rpm)
Pressure Regulator	
Actuate	0.75 MPa (109 psi)
Relief	0.81 MPa (117 psi)
Brake Area	
Front/Wheel (each)	1 770 cm ² (274 in ²)
Rear/Wheel (each)	1 770 cm ² (274 in ²)
No. of Reservoirs	3
Total Volume	140 L (4.94 ft ³)
Parking Brake	
Area	7 080 cm ² (1 097 in ²)

Retarder: Foot-operated valve activates retarder incorporated into the transmission.

Capacity	265 kW (360 HP)
At	35 rps (2 100 rpm)



STEERING SYSTEM

Load-sensing hydrostatic steering system of closed-center type.

Steering Angle	
	40°
Turning Diameters (SAE J/ISO 5010)	17.0 m (55'9")
Lock-to-lock turns	3.8
Steering Cylinders	2
Bore	63.0 mm (2.5 in)
Stroke	500.0 mm (19.69 in)
Piston Rod Diameter	40.0 mm (1.57 in)
Relief Pressure	17.5 MPa (2 540 psi)

Steering cylinders: Double-acting, one for each wheel, mounted between the steering knuckle arm and brackets on the front axle.

Hydraulic pumps: One engine driven, variable piston pump mounted on the transmission's power take-off. Priority is always given to the steering system over the hoist system.

Supplementary steering: A supplementary steer pump is activated when the pressure in the system falls below 0,5 MPa 73 psi. Meets J/ISO Emergency Steer System Requirements.



ELECTRICAL SYSTEM

Two 12-volt batteries connected in series.

Voltage	24 V
Battery capacity	200 Ah
Alternator	1 800 W
Starter motor	6.6 kW (9.0 HP)



CAB

ROPS-tested and approved steel cab. Cab mounted on rubber pads in the center-of-gravity line. Heat and sound insulated. Heater and defroster. All windows of tinted safety glass. Cab Meets J/ISO 3471

Operator's seat: Sprung and shock-absorbed with arm rests, head restraint and seat belt. Adjustable to operator's weight. Individual adjustment of both seat and backrest. Seat for instructor.

Sound level in cab max.	dB (A)	78 (SAE J1166)
Operator's seat		ISRI 6000
Number of exits		1



SUSPENSION

Same suspension cylinders on all four wheels.

Front axle: A fabricated box beam A-frame connects the wheels to the machine frame through a well-sealed spherical bearing, and gas-over-oil suspension cylinders. This three-point mounted axle provides excellent oscillation and stability.

Rear axle: Similar to the front axle, the rear suspension utilizes an A-frame structure bolted to the rear axle. The assembly is connected to the main frame by a spherical bearing at the front, and two air-over-oil suspension cylinders in the rear.

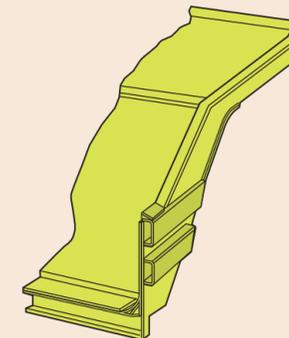
When the machine is loaded, the main frame rests on the rear axle for maximum stability.



BODY

Dumper body: Robust body made of hardened and tempered abrasion-resistant steel plate. The longitudinal stiffeners, made of high-grade steel, eliminate stress concentrations and distribute the force from impacts over the entire length of the body. A flat, sloping floor with rugged, uniformly spaced stiffeners ensures high durability.

The body is geometrically optimized to provide a compact yet spacious unit with a low load height and a low center of gravity for efficient loading. Rubber pads between body and frame. Exhaust-heated body.



Body		
Tensile strength	1 250 N/mm ²	(181 265 psi)
Hardness	360-440 HB	
Plate Thickness		
Front & Sides	10 mm	(0.39 in)
Floor	20 mm	(0.79 in)



FRAME

Robust construction with beams of carefully selected steel grade with high yield strength. Main beams of all-welded box section with a minimum of joints. Cross members, gussets and brackets have smooth junctions to the frame. Stresses are distributed evenly over the entire frame.



SERVICE CAPACITIES

Service: All vital parts such as engine, transmission, differential and hub reduction are easily accessible for service and maintenance.

	L	(U.S.gal)
Crankcase (incl. filters)	34.0	(9.0)
at change (approx.)	30.0	(8.0)
Transmission (incl. filters)	44.0	(11.5)
at change (approx.)	34.0	(9.0)
Rear Axle, Total	60.0	(15.9)
Cooling System	70.0	(18.5)
Fuel Tank	550.0	(145.0)
Hydraulic Tank	75.0	(19.8)
Hydraulic System (incl. tank)	110.0	(29.0)