

HITACHI

EH 3000

Maximum Payload
156,9 Tonne (173.0 Ton)

**Maximum Payload
with Standard Liners**
147,4 Tonne (162.5 Ton)

Maximum GMW
278 964 kg (615,000 lb)

Engine
Cummins K1800E
Rated Output 1 343 kW (1,800 hp)



Specifications: EH3000



ENGINE

Make	Cummins			
Model	K1800E with CENTRY			
Type	4 Cycle			
Aspiration	Turbocharged			
*Gross Power @1900 rpm (SAE 1995)	kW	hp	1 343	1,800
Net Power @1900 rpm (SAE 1349)	kW	hp	1 264	1,695
Max. Torque @ 1500 rpm (SAE 1995)	N-m	lb-ft	7 020	5,225
No. Cylinders	16			
Bore & Stroke	mm	159 x 159		
	in	6.25 x 6.25		
Displacement	liters	in³	50.3	3,067
Starting	Electric			
*Optional Engine	kW	hp	1 193	1,600



ELECTRIC DRIVE

Controls
General Electric Statex III System with latest fuel enhancement feature and wet weather retarding.

Alternator
General Electric Model GTA 22M. Direct mounted to engine.

Wheel Motors	
Standard	GE 776
Optional	GE 788

Planetary Ratio	GE 776	28.85:1			
Optional	GE 788	26.08:1			
Maximum Speed	GE 776	km/h	mph	54,7	34.0
Optional	GE 788	km/h	mph	51,0	31.7

Note:
Wheel motor and dynamic retarding configuration subject to GE approval for a given application.



TIRES

Standard - Front and Rear	Rim Width		
36.00R51(**)E4 Radials	mm	in	660 26.0

Certain job conditions may require higher TKPH (TMPH) in order to maintain maximum production. Euclid recommends evaluating the job conditions and consult the tire manufacturer to make proper tire selection. Optional tire types, treads, ply ratings and rims available.



ELECTRICAL SYSTEM

Twenty-four volt lighting and accessories system. 175 amp alternator with integral transistorized regulator. Eight 12-volt, heavy-duty batteries connected in series-parallel.



BODY CAPACITY

	m³	yd³
Struck (SAE)	72,2	94.4
Heap 3:1	92,3	120.7
Heap 2:1 (SAE)	101,9	133.3



WEIGHTS

	kg	lb
Chassis with Hoist	96 657	213,088
Body	24 041	53,000
Net Machine Weight	122 058	269,088
Front Axle	59 330	130,799
Rear Axle	62 728	138,289

Maximum GMW:	
36.00R51(**)E4	
Including Options, 50% Fuel, Operator & Payload Not to Exceed	278 964 615,000
Load Weight Distribution	
Front - 33% Rear - 67%	

Maximum Payload	156 906	345,912
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Note: Maximum GMW subject to GE approval for a given application.
Net Machine Weight includes 36.00R51(**)E4 tires.

Options: Approximate change in Net Machine Weight:

	kg	lb
Body Liners, Complete	9 528	21,000
Max. Payload with Body Liners, Complete	147 378	324,912

Floor	mm	in	19	3/4
Sides and front	mm	in	10	3/8
Corners	mm	in	19	3/4
Canopy	mm	in	6	1/4
Top rails	mm	in	10	3/8



STEERING SYSTEM

Closed-center, full-time hydrostatic power steering system using two double-acting cylinders, pressure limit compensated piston pump, and a brake actuation/steering system reservoir. An accumulator provides supplementary steering in accordance with J/ISO 5010. A tilt/telescopic steering wheel with 35° of tilt and 57,15 mm 2.25" telescopic travel is standard.

Steering Angle				41°
Turning Diameter (SAE)	m	ft in	25,6	84.0
Steering Pump Output (@ 1900 rpm)	l/min	gpm	186,5	49.4
System Operating Pressure	kPa	psi	20 685	3,000



HYDRAULIC SYSTEM

Two (2) Euclid three-stage, double-acting cylinders with cushioning in retraction, containing dual rod seals and rubber energized scrapers, inverted and outboard mounted. Separate reservoir and tandem gear pump connects with a four-position electric pilot controlled hoist valve. Electronic controller is mounted to operator's seat.

Body Raise Time	s		17.9	
Hoist Pump Output @ 1900 rpm	l/m	gpm	607,0	160.0
System Relief Pressure	kPa	psi	18 961	2,750



BRAKE SYSTEM

Brake systems meet or surpass SAE J/ISO 3450.

Service
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. Three calipers per front disc, one caliper per rear disc are utilized. The main valves are conveniently located on the firewall. This placement enhances serviceability as all pressure checks and system troubleshooting can be made at a central location. A primary accumulator stores oil under sufficient pressure to ensure 100% braking capacity is always available.

Front Axle - Dry Disc				
Disc Diameter Each (2 discs/axle)	cm	in	106,0	42
Brake Surface Area Per Axle	cm²	in²	15 001	2,325
Lining Area per Axle	cm²	in²	6 194	960
Brake Pressure (Max.)	kPa	psi	18 961	2,750

Rear Axle - Armature Speed Dry Disc				
Disc Diameter Each (4 discs/axle)	cm	in	51,1	20
Brake Surface Area Per Axle	cm²	in²	14 298	2,216
Lining Area per Axle	cm²	in²	2 426	376
Brake Pressure (Max.)	kPa	psi	8 964	1,300

Operation
Two independent hydraulic circuits within the service brake system provide fully modulated reserve braking capability. The system is automatically applied when loss of pressure is detected.

Parking
Spring-on, hydraulic-off park brake heads provide parking capability. The braking system complies with J/ISO 3450.

Retarder
Retardation on grades is achieved through D.C. wheel motors in conjunction with the General Electric resistor grid package located on the cab deck. Cooling for the grid package is achieved with forced air flow provided by dual blowers driven by a single electric motor. Three-step extended range retardation package is standard.

Maximum dynamic retarding with continuous rated blown grids:				
Standard	kW	hp	2 028	2,720



COMMAND CAB III

Integral ROPS/FOPS
Command Cab III integral ROPS (Rollover Protective Structure) is standard in accordance with J/ISO 3471.



Double wall construction of 11 gauge inner and outer steel panels produces a more structurally sound cab. Foam rubber lining material along with foam rubber-backed carpeting and multiple layered floor mat act to absorb sound and control interior temperature. A properly maintained cab from Euclid, tested with doors and windows closed per work cycle procedures in SAE J1166, results in an operator sound exposure L_{eq} (Equivalent Sound Level) of 81 dB(A). A three-point rubber iso-mount arrangement to the deck surface minimizes vibration to the operator compartment.

Monitoring System
CONTRONIC II monitors and diagnoses all onboard systems including Siemens drive system and engine. Data links offer complete integration, while a single multi-language Liquid Crystal Display (LCD) clearly details machine functions. Downtime is minimized with faster and more reliable troubleshooting and analysis.

HAULTRONIC II load weighing 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, cycle count can all be measured and recorded to further and improve job productivity. HAULTRONIC II is fully integrated with CONTRONIC II vehicle monitoring system and display interface, avoiding potential failure or error common in aftermarket systems.

Excellent Serviceability
A removable front closure allows easy access to the service brake valve and heater connections. The upper dash utilizes four (4) removable panels that house gauges and customer options, each individually accessible. A removable closure located behind the seat provides easy access to the shifting control, CONTRONIC II, and all electrical junction points.

Comfort and Ease of Operation
A wrap-around style dashboard positions controls within easy reach and visual contact. A full complement of easy-to-read gauges, CONTRONIC II monitoring and warning system, a spacious environment, six-way adjustable air seat, tilt/telescopic steering wheel, filtered ventilation, door locks, and a full size trainer seat, all contribute to operator safety and comfort.



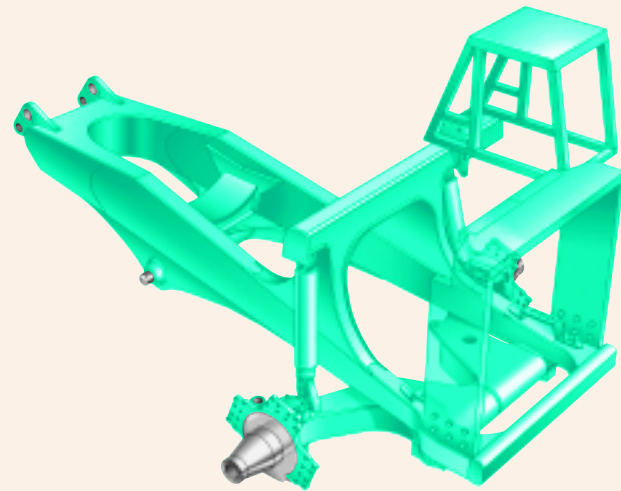
SUSPENSION

Front Suspension

Independent trailing arm for each front wheel. NEOCON struts containing energy-absorbing gas and compressible NEOCON-E™ fluid are mounted between the trailing arms and frame. Variable damping and rebound feature included.

Rear Suspension

"A" frame structure, integral with axle housing, links drive axle to 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 rebound feature included.



Maximum wheel oscillation

8°

The Euclid frame and suspension are designed to work in unison to provide maximum structural integrity and operator comfort. The fabricated rectangular frame rail construction provides superior resistance to bending and torsional loads while eliminating unnecessary weight. The unique trailing arm front suspension absorbs haul road input, minimizing suspension-induced frame twisting while providing independent tire action. NEOCON ride struts are mounted with spherical bushings, eliminating extreme sidewall forces by insuring a purely axial input to the ride strut. The wide track stance of the suspension system and the long wheel base assure a more stable, comfortable ride.

The unique Euclid NEOCON struts both front and rear combine the energy absorption characteristics of two different compressible media: NEOCON-E liquid and helium gas. They provide nearly twice the energy absorption as Nitrogen over Oil struts. The result is more comfort for the operator, maximum protection for the hauler frame, and excellent stability and control. NEOCON-E has also been approved by the US EPA and does not violate codes defined by TSCA Section 5.

The NEOCON strut outperforms competitive strut designs by improving isolation, stability, and control. Improved isolation means reduced impact loading on structural members of the machine and greater operator comfort, resulting in longer equipment life and productivity. Improved stability means more consistent dynamic response of the machine to fluctuating load energy, resulting in predictable machine performance. Improved control also means better machine maneuverability.



FRAME

The box section main frame rails are bridged by three crossmembers, front bumper and front suspension tube. The rails are constant taper, constructed of 690 N/mm² **100,000 psi** yield strength steel. Two rear crossmembers have integral suspension and drive axle mountings. Crossmember to frame rail junctions employ large radii transitions to minimize stress concentrations.



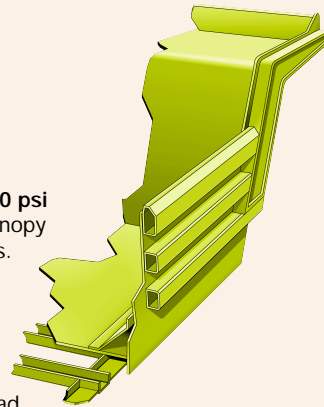
BODY

The body has a flat floor, sloped tailchute, and is continuously exhaust-heated. Extended canopy protects service deck area. High yield strength, 690 N/mm² **100,000 psi** alloy steel is used in the following thicknesses:

	mm	in
Floor	19	3/4
Front	10	3/8
Sides	10	3/8
Canopy	6	1/4

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.

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



SERVICE CAPACITIES

	liters	gallons
Crankcase (incl. filters)		
Cummins K1800E	204,4	54.0
Cooling System	322,7	85.3
Fuel Tank	2 838,8	750.0
Hydraulics		
Hoist System	565,9	149.5
Steering System	189,3	50.0
GE 776 wheel motor (per wheel)	18,9	5.0
Optional GE 788 wheel motor (per wheel)	39,7	10.5
Windshield washer	3,8	1.0

STANDARD EQUIPMENT

GENERAL

Access ladders
Air conditioning
Air cleaner protection
All-hydraulic braking
Automatic lubrication system
Battery isolation switch
Body down indicator, mechanical
Body prop cable
Centralized service panel
Continuous heated body
Electric horn, quad
Electronic hoist control
Electric start
Engine access ladders (2)
Fan guard
Fuel gauge on tank
Ground level engine shutdown switch
Guard rails around platform
HAULTRONIC II load weighing system

CAB

Acoustical lining
Air filtration/replaceable element
Air suspension seat, 6-position
Ash tray
Auxiliary outlet, 12-volt
Cab interior light
Cigar lighter
Door locks
Engine starter/shutdown switch
Full trainer seat
Integral ROPS/FOPS cab
ISO driver envelope

GAUGES AND INDICATORS

CONTRONIC II monitoring and alarm system, multi-function indicator lights:
Air filter restriction
Alternator
Body up indicator
Brake supply pressure
Central warning
Engine oil pressure
Engine coolant temperature
High beam indicator
Hoist filter restriction
Hoist oil temperature
Hoist supply pressure
Parking brake applied
Steering filter restriction
Steering oil temperature
Traction blower failure
Traction system failure
Turn signal/hazard

MACHINE LIGHTS

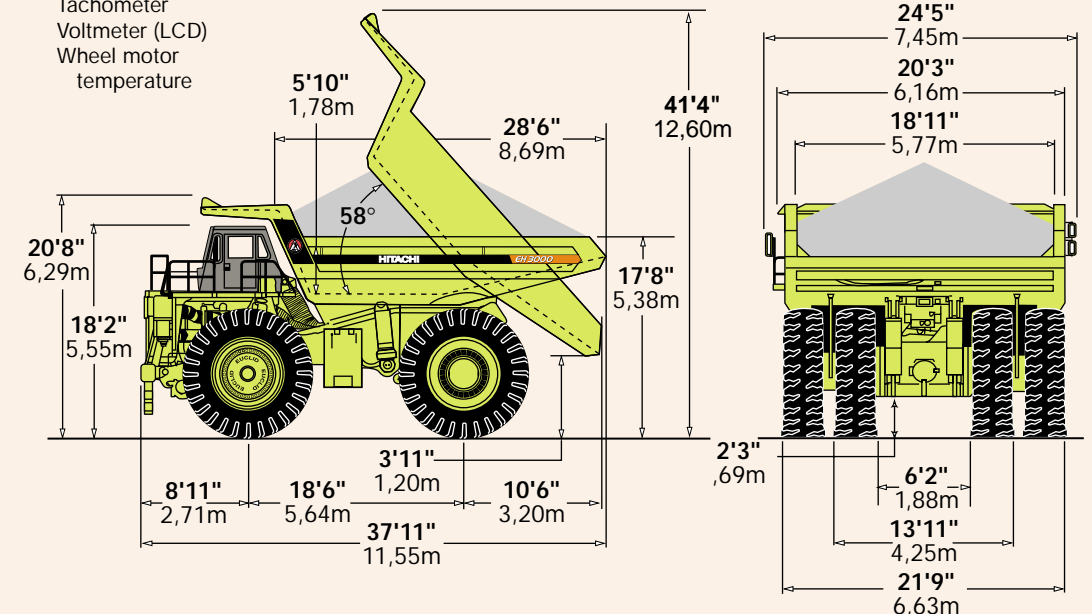
Back-up lights, (2)
Clearance lights, LED (4)
Control cabinet lights, (3)
Dual combination stop and tail lights, LED (2)
Dynamic retarding light, (1)
Engine compartment lights, (2)
HID Headlights, (4)
Payload monitoring lights, (6)
Rear axle light, (1)
Turn signals and four-way flashers (LED)

HID headlights
Hoist kickout
Ladder lights
Mirror, right and left
Mud flaps
NEOCON suspension struts
On board load box
Operator arm guard
Propulsion interlock, body up
Radiator grille guard
Retard speed control
Retarder grid package, 12-element, 3-step
Reverse alarm
Rock ejector bars
Supplementary steering system accumulator
Tires, 36.00R51(**)E4
Tow hooks, front
Two-speed overspeed setting

Load and hold switch
Modular heater/AC evaporator
Modular instrumentation
Operator & trainer seat belts
Roll down windows
Rubber floor mat
Safety glass
Sun visor
Tilt/telescopic steering
Tinted glass all windows
Windshield washer
Windshield wiper

Payload monitoring

Gauges:
Brake supply pressure
Fuel gauge in cab (LCD)
HAULTRONIC II
Hourmeter (LCD)
Speedometer, miles and kilometers
Steer supply pressure
Tachometer
Voltmeter (LCD)
Wheel motor temperature



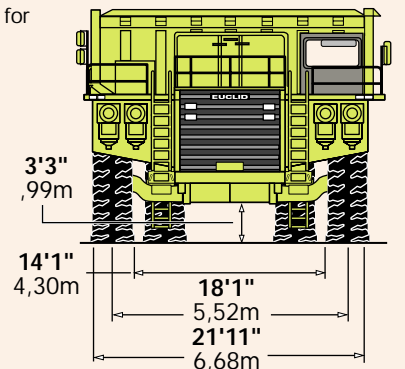
OPTIONAL EQUIPMENT

Ansul centralized fire extinguishing system (12 nozzle)
Auxiliary dump
Auxiliary steer
Body liners (400BHN)
Body side extensions
Buddy dump and steer
Cab, acoustic package
Canopy spillguard extension (12" total)
Engine, Cummins 1,600 hp
Engine coolant and oil heater (220 V AC)

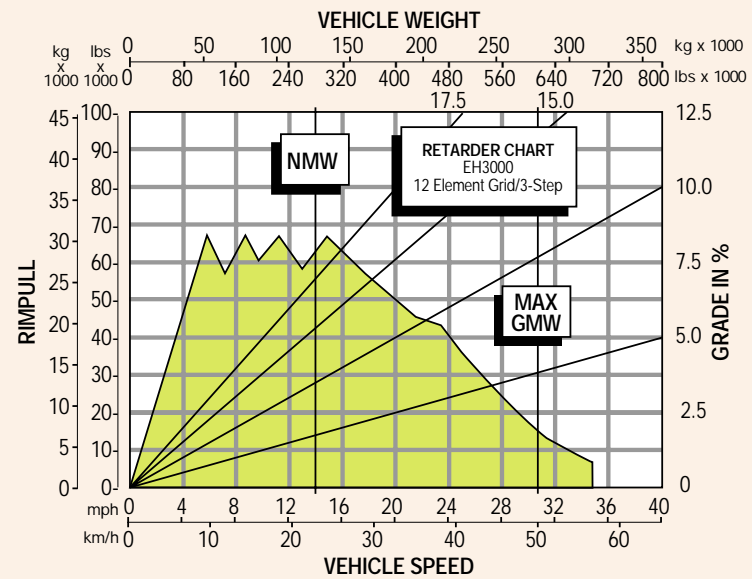
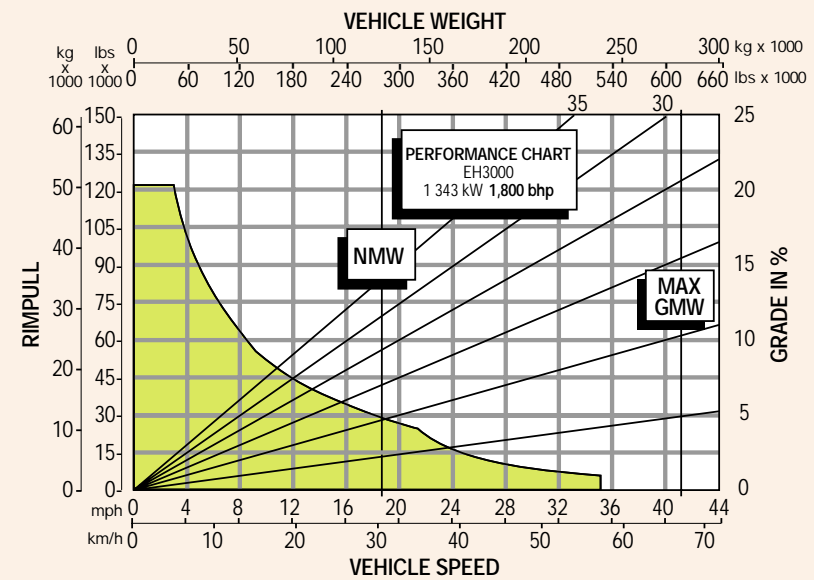
Fast fueling system, on tank
Hubodometer
Keyless starter switch
Kim Hotstart
Mufflers
Oil sampling connections
Radiator shutters
Rimex rims
Thermatic fan
Trolley assist configuration
Wheel motors, GE 788

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

Note: Dimensions shown are for empty machine with 36.00R51 tires.



Performance Data: EH3000



INSTRUCTIONS:

Diagonal lines represent total resistance (Grade % plus rolling resistance %). Charts based on 0% rolling resistance, standard tires and gearing unless otherwise stated.

1. Find the total resistance on diagonal lines on right-hand border
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 performance or retarder curve.
4. Read down for machine speed.

NOTE: Photos and illustrations throughout may show optional equipment.

Under our policy of continuous product improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

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