HITACHI

EH4000

Maximum Payload
228,0 Tonne (251.4 Ton)

Maximum Payload
with Standard Liners
216,5 Tonne (238.7 Ton)

Maximum GMW
385 923 kg (850,800 lb)

Engine
Detroit Diesel 16V-4000
Rated Output 1 864 kW (2,500 hp)

Specifications: EH4000

ENGINE

Make	**Detroit Diesel with DDEC**			
Model	16V-4000			
Type	4 Cycle			
Aspiration	Turbocharged/Aftercooled			
Rated Output				
(SAE @ 1900 rpm)	kW	**hp**	1 864	**2,500**
Flywheel Output				
(SAE @ 1900 rpm)	kW	**hp**	1 883	**2,458**
No. Cylinders	16			
Bore & Stroke	mm	165 x 190		
	in	**6 1/2 x 6 1/2**		
Displacement	liters	**in³**	65,0	**3,966**
Starting	Electric			

ELECTRIC DRIVE

Controls
General Electric Statex III System with full electric contactors and latest fuel enhancement feature.

Alternator
General Electric Model GTA 26F. Direct mounted to engine.

Wheel Motors
General Electric Model 787FS motors complete with planetary assembly in each rear wheel.

Planetary Ratio	31.875:1			
Maximum Speed	km/h	**mph**	48,8	**30.3**

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

TIRES

Standard - Front and Rear	**Rim Width**			
40.00R57(**)E4 Radials	mm	**in**	737	**29**

Optional rims available.

ELECTRICAL SYSTEM

Twenty-four volt lighting and accessories system. Two-hundred twenty amp alternator with integral transistorized voltage regulator. Eight 12-volt heavy-duty batteries connected in series.

BODY CAPACITY

	m³	**yd³**
Struck (SAE)	92,9	**121.5**
Heap 3:1	119,5	**156.3**
Heap 2:1 (SAE)	131,9	**172.5**

WEIGHTS

	kg	**lb**
Chassis with Hoist	128 647	**283,618**
Body	29 245	**64,474**
Net Machine Weight	157 895	**348,092**
Front Axle	77 367	**170,565**
Rear Axle	80 525	**177,527**
Maximum GMW: [40.00R57(**)E4] Including Options, 50% Fuel, Operator & Payload Not to Exceed	385 923	**850,800**
Load Weight Distribution Front - 33% Rear - 67%		
Maximum Payload	228 028	**502,708**

Note:
Maximum GMW subject to General Electric approval for a given application.

Options: Approximate change in Net Machine Weight:

	kg	**lb**
Body Liners, Complete	11 498	**25,348**
Max. Payload with Body Liners Complete	216 530	**477,360**

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 with unload piston pump, and a brake actuation/steering system reservoir. An accumulator provides supplementary steering in accordance with SAE J/ISO 5010. A tilt/telescopic steering wheel with 35° of tilt and 57,15 mm **2.25"** telescopic travel is standard.

Steering Angle				**42°**
Turning Diameter (SAE)	m	**ft**	28,4	**93.1**
Steering Pump Output (@ 1900 rpm)	l/min	**gpm**	249,0	**65.8**
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 electronic pilot controlled hoist valve. Electric controller is mounted to operator's seat.

Body Raise Time	s		23.0	
Hoist Pump Output @ 1900 rpm	l/min	**gpm**	952,3	**256.0**
System Relief Pressure	kPa	**psi**	17 238	**2,500**

BRAKE SYSTEM

Brake systems meet or surpass SAE J/ISO 3450.

Service
The EH4000 is equipped with an all-hydraulic actuated braking system that provides precise braking control. A direct pedal actuated brake control valve provides precise modulation and fast system response. The system is pressure proportioned, front to rear, for improved slip-pery road control. Three calipers per front disc, one caliper per rear disc, are utilized. A primary accumulator stores oil under sufficient pressure to ensure 100% braking capacity is always available. The braking system complies with SAE J/ISO 3450.

Front Axle - Dry Disc

Disc Diameter Each (2 discs/axle)	cm	**in**	121,3	**48**
Brake Surface Area Per Axle	cm²	**in²**	17 032	**2,640**
Lining Area per Axle	cm²	**in²**	6 194	**960**
Brake Pressure (Max.)	kPa	**psi**	18 960	**2,750**

Rear Axle - Armature Speed Dry Disc

Disc Diameter Each (4 discs/axle)	cm	**in**	63,5	**25**
Brake Surface Area Per Axle	cm²	**in²**	14 298	**2,216**
Lining Area per Axle	cm²	**in²**	3 097	**480**
Brake Pressure (Max.)	kPa	**psi**	13 790	**2,000**

Secondary
Dual 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.

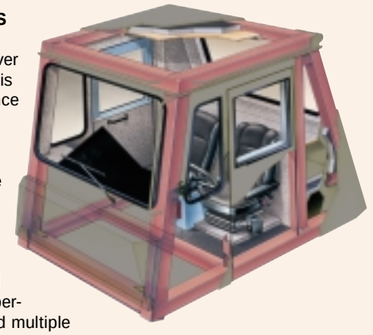
Parking
Four spring on, hydraulic off armature disc brake heads provide parking capabilities. The braking system complies with SAE J/ISO 3450.

Retarder
Retardation on grades is achieved through D.C. wheel motors in con-junction with the General Electric resistor grid package. A recessed grid box, located on the service deck, enhances operator visibility. Cooling for the grid package is achieved with forced air flow provided by dual blowers driven by a single electric motor. Seven-step extended range retardation package is standard.

Maximum dynamic retarding with continuous rated blown grids:

Standard	kW	**hp**	2 811	**3,770**
Optional	kW	**hp**	3 101	**4,158**

COMMAND CAB III



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

Double wall con-struction 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, and cycle count can all be measured and recorded to further 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.

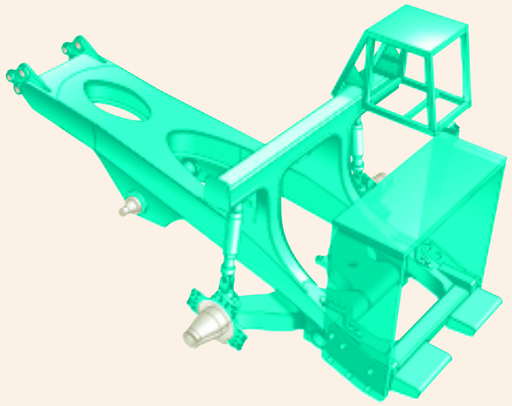
Excellent Serviceability
A removable front closure allows easy access to the service brake valve and heater connections. The upper dash utilizes four (4) removable panels that house gauges and customer options, each individually accessible. A removable closure located behind the seat provides easy access 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 and Rear Suspension
For years, Euclid haulers have enjoyed an industry-wide reputation for superior suspension systems. That experience and knowledge has now been pushed to the next level, to develop the truly advanced ACCU-TRAC suspension for the EH4000.

The new ACCU-TRAC suspension system features independent trailing arms for each front wheel with NEOCON struts, containing energy absorbing gas and compressible NEOCON-E™ fluid, mounted between the king pins and the frame. This arrangement allows a wider front track that provides a better ride, improved stability and a reduced turning circle. The rear NEOCON struts are mounted in a more vertical position which allows a more pure axial loading and reduces the tractive and breaking forces transmitted to the nose cone.



NEOCON struts outperform competitive strut designs by improving isolation, stability, and control. Improved isolation means reduced impact loading on the 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.

The Euclid frame and ACCU-TRAC suspension system 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 ACCU-TRAC independent trailing arm 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 ensuring a purely axial input to the ride strut. The wide track stance of the ACCU-TRAC suspension system and the long wheel base assure a more stable, comfortable ride.

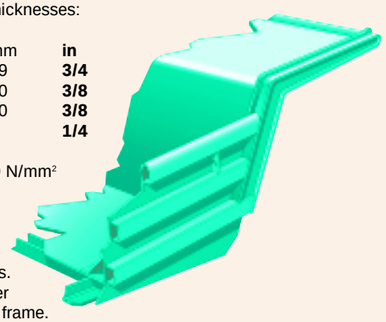
FRAME

Full fabricated box section main rails with section height tapered from rear to front. Wider at the rear to support the loads and narrower 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. Frame utilizes 345 N/mm² **50,000 psi** yield strength alloy steel that is robotically welded to ensure high quality welds.

BODY

Flat chute type, sloped floor, 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 shocks over the entire body length. Closely spaced stiffeners provide additional protection by minimizing distances between unsupported areas.

SERVICE CAPACITIES

	liters	**gallons**
Accumulator	47,5	**12.6**
Crankcase (incl. filters)		
Detroit Diesel S-4000	220,7	**58.3**
Cooling System	522,3	**138.0**
Fuel Tank	3 785	**1,000**
Hydraulics		
Hoist System	757,1	**200.0**
Steering System	196,8	**52.0**
GE 787 wheel motors (per wheel)	39,7	**10.5**
Windshield washer	3,79	**1.0**

Equipment & Dimensions: EH4000

STANDARD EQUIPMENT

GENERAL
Access ladders
Air conditioning
Air cleaner protection
All-hydraulic braking
Automatic lubrication system
Battery box, ground level
Battery isolation switch
Body down indicator, mechanical
Body prop pins
Centralized service panel
Continuous heated body
Electric horn, dual
Electric hoist control
Electric start
Engine access ladders (2)
Extended range dynamic retarding (7 step)
Fan guard
Field repairable tube radiator
Fuel gauge on tank
Ground level engine shutdown switch
Guard rails around platform
HAULTRONIC II load weighing system
HID headlights
Hoist kickout
Mirrors, 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, 18-element
Reverse alarm
Rock ejector bars
Supplementary steering system, accumulator
Thermatic fan
Tires, 40.00R57(**)E4
Tow hooks, front and rear
Two-speed overspeed setting
Wiggins fast fueling

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
Heater and defroster 26,000 Btu
Integral ROPS/FOPS cab
ISO driver envelope
Load and hold switch
Modular instrumentation
Roll down windows
Rubber floor mat
Operator seat belt
Safety glass
Sun visor
Tilt/telescopic steering
Tinted glass all windows
Trainer seat belt
Windshield washer
Windshield wiper

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
- Steer supply pressure
- Turn signals/hazard

Payload monitoring
Gauges:
- Engine coolant temperature
- Fuel gauge in cab
- HAULTRONIC II
- Hourmeter (LCD)
- Speedometer
- Steer/brake supply pressure
- Tachometer
- Voltmeter (LCD)
- Wheel motor temperature

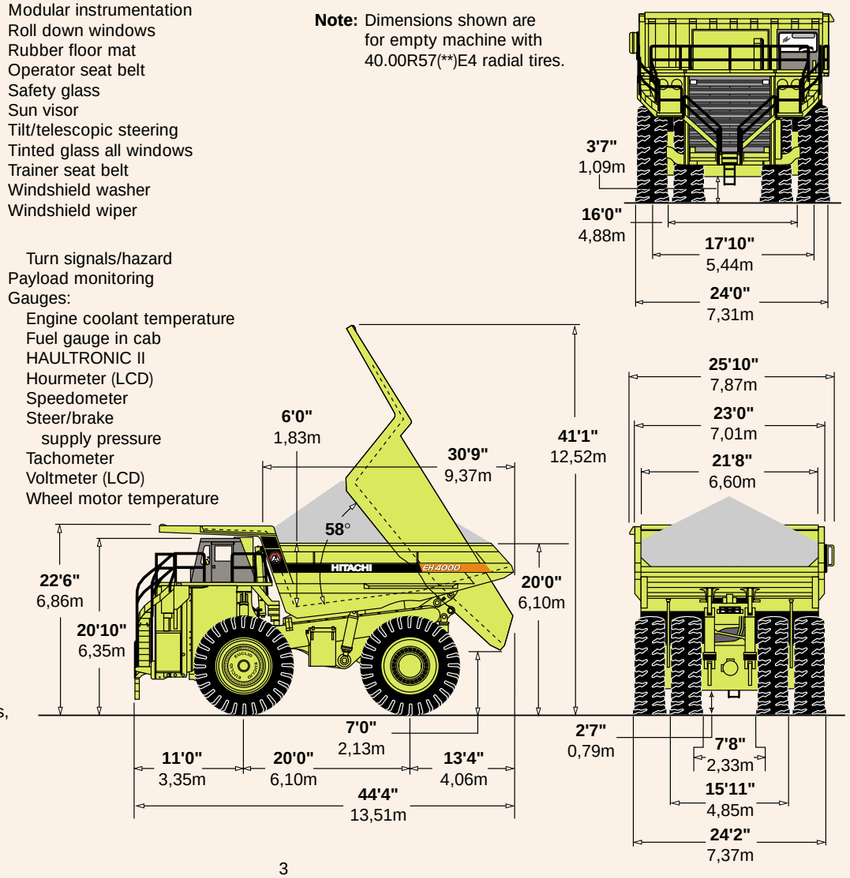
MACHINE LIGHTS
Back-up light, (2)
Clearance lights, LED (4)
Control cabinet lights, (3)
Dual combination stop and tail lights, LED (2)
Dynamic retarding light, LED (1)
Engine compartment lights, (2)
HID headlights, (4)
Payload monitoring lights, LED
Rear axle light, (1)
Turn signals and four-way flashers

OPTIONAL EQUIPMENT

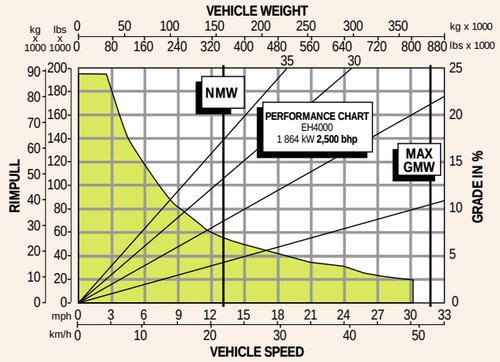
Ansul centralized fire extinguishing system (12 nozzle)
Auxiliary dump
Auxiliary steer
Body liners (400 BHN)
Body side extensions
Cab, acoustic package
Canopy spillguard extension
Cold starting aid
Cold weather package
Engine coolant and oil heater (220 V AC)
Extended body canopy
Fast fueling system, on tank
Foreign language decals
Hubodometer
Keyless starter switch
Kim Hotstart
Ladder lights
Mufflers
Oil sampling connections
Radiator shutters
Retarder grid package, 20-element
Reverse pedal configuration
Wheel motor air filtration system

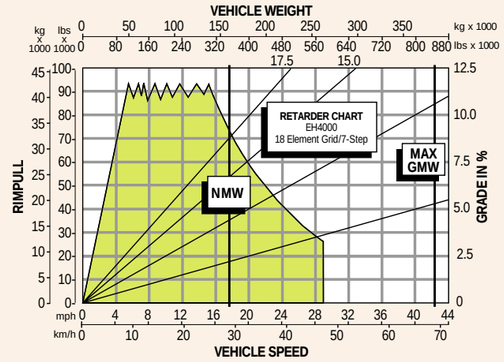
Standard and optional equipment may vary from country to country. Special options provided on request. All specifications are subject to change without notice.

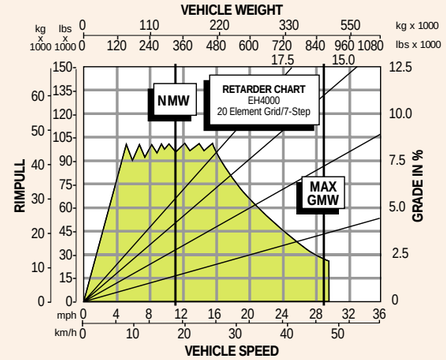
Note: Dimensions shown are for empty machine with 40.00R57(**)E4 radial tires.



Performance Data: EH4000







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 of performance 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 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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FORM NO. EH4000
DATE 7/01
Printed in U.S.A.