EH1700



DUMP TRUCK

- Model Code: EH1700-3
 Nominal Payload with Standard Equipment: 95.2 tonnes (104.9 tons)
 Target Gross Machine Operating Weight: 163 300 kg
 Engine: MTU Detroit Diesel 16V Series 2000
 Rated Power 783 kW (1 050 HP)

Refined Engineering has Created Hauling Capability well Recognized in the Construction, Quarry, and Mining industry.



Hitachi Technologies

Hitachi Trucks, like Hitachi Excavators are designed and manufactured using cutting edge technology. Trucks designed by Hitachi using Hitachi Electronic devices result in great electrical system reliability, efficiency and control.



Fuel Efficient

The EH1700-3 uses the efficient 783 kW (1 050 HP) MTU Detroit Series 2000 engine, providing long life while optimizing performance and reliability. As well as fuel efficient, the engine fulfills the requirements of U.S. EPA Tier 2.



Long Frame Life

Frame rails are tapered from front to rear to distribute the load evenly over the entire length of the chassis. In place of castings, cold rolled steel is used as it is known to be more homogeneous and easier to repair. Weld joints are oriented longitudinally to the principal flow of stress for strength and long life. Proven design and manufacturing methods with state-of-the-art ultrasonic testing ensure a quality product.



Unique Body Design

The single sloped floor evenly distributes material shedding during dumping. A continuously exhaust-heated body reduces carry-back of material, and muffles exhaust. Horizontal floor and side rail stiffeners distribute load shocks evenly over the entire body length, minimizing stress concentrations in any one area. Closely spaced floor stiffeners reduce wear due to impact loading.

Well Matched: EH1700-3 & Excavators

Excavator	EX1900-6 (BH)	EX1900-6 (LD)	EX2500-6 (BH)	EX2500-6 (LD)
Boom	8.3 m - Boom	1	9.0 m - Boom	-
Arm	3.6 m - Arm	1	4.2 m - Arm	-
Bucket Capacity (SAE, PCSA heaped)	12.0 m ³	11.0 m ³	15.0 m ³	15.0 m ³
Passes	4 or 5	5	3 or 4	3 or 4

BH: Backhoe LD: Loading shovel



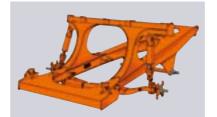


Technologically Advanced

The EH1700-3 is designed to develop low cycle times and extra efficiency in the heavy duty applications of quarrying and mining. This truck provides low operating costs, unparalleled productivity and overall quality through its superior structure and systems design.

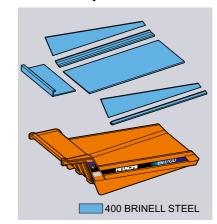


Robust Frame



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. Frame utilizes 345 MPa yield high strength low alloy steel that is robotically welded to ensure consistently high quality welds.

Reinforced Body



Built for quarry and mining applications, the EH1700-3 body uses a 18 mm floor plate and 8 mm side plates made of 400 BHN high-tensile steel. This provides high resistance to wear and impact. A low loading height and large target area allow easy, quick loading by a variety of loading tools.

Fully Hydraulic Brake



The fully hydraulic brakes feature high reliability, durability and serviceability. Optimum brake force yields maximum available braking under tough ground conditions for best control. Unique variable front to rear brake proportioning maximizes stop performance under slippery road conditions.

Ease of Operation HI-TECH ROPS / FOPS Cab

The new Hi-TECH (Hitachi Technology) ROPS/FOPS Cab features a center integrated, "flat panel" style dashboard that positions the display and controls within close view of the road ahead. The cab uses double-wall construction and a 3-point rubber isomount to absorb shocks and noise. The new high powered heater

provides ample BTU's for all enviroments and working conditions. The new Hitachi controller, built by Hitachi and also used in excavators, will perform its function of processing input and output information with reliability during the most rigorous haul





Auto-Lubrication System (Optional)

A pump fed system automatically applies grease to lube points via plumbing. The lubricant is automatically delivered in time controlled and metered quantities to all connected lube points in

A choice between the Groeneveld or the Lincoln lubrication system is available.

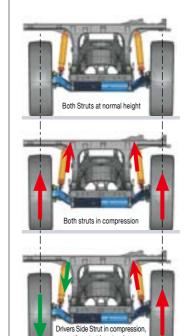


Auto Lubricator Operation and Error Indicator (Groeneveld) (Groeneveld)

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 in the vertical plane only.

- 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 suspention design, allowing the use of a lighter strut engineered to a smaller diameter and longer stroke.
- The necessary frame bulk (horsecollar structure) needed to mount a suspended king-pin is non-existent.
- The elimination of the "horse-collar" member provides greater engine ac-
- 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" ef-
- Development of the compressible media, NEOCON-E ™ fluid (proprietary, silicone based, environmentally friendly) 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 with payload in a wide range of ambient temperatures.



With no horizontal deflection

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-

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

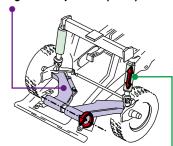
Neocon Strut

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 movements from transferring to the strut. Receives only axial input.

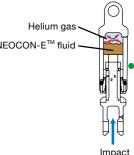


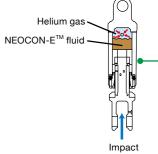
The trailing arm suspension design allows the front struts to be removed and installed without removing the front brakes or tires. This means fewer tools and less labor time are required. resulting in less downtime and higher productivity.

Trailing Arm Suspension (Front)



NEOCON Strut (Front/Rear)





SPECIFICATIONS

ENGINE Standard:

MTU Detroit Diesel 16V Series 2000 Model Type 4 Cycle, V16, diesel injection

Emission Certification . U.S. E.P.A Tier 2

Aspiration...... Turbocharged / Aftercooled

Rated Power

SAE J1995, gross .. 783 kW (1 050 HP) at 2 100 min⁻¹(rpm) SAE J1349, net...... 710 kW (953 HP) at 2 100 min⁻¹(rpm) ISO 9249, net........ 710 kW (953 HP) at 2 100 min⁻¹(rpm) EEC 80/1269, net .. 710 kW (953 HP) at 2 100 min⁻¹(rpm) Maximum Torque....... 4 461 N·m (454.9 kgf·m) at 1 350 min⁻¹(rpm)

Piston Displacement... 31.9 L

Bore and Stroke....... 130 x 150 mm

Starting Electric

Optional:

Model...... MTU Detroit Diesel 16V Series 2000 Type 4 Cycle, V16, diesel injection Emission Certification . U.S. E.P.A Tier 2 Aspiration...... Turbocharged / Aftercooled Rated Power SAE J1995, gross .. 899 kW (1 205 HP) at 2 100 min⁻¹(rpm) SAE J1349, net...... 826 kW (1 108 HP) at 2 100 min⁻¹(rpm) ISO 9249, net........ 826 kW (1 108 HP) at 2 100 min⁻¹(rpm) EEC 80/1269, net .. 826 kW (1 108 HP) at 2 100 min⁻¹(rpm) Maximum Torque...... 5 296 N·m (540 kgf·m) at 1 500 min⁻¹(rpm) Piston Displacement... 31.9 L

Torque Rise 30 %

Starting Electric

Bore and Stroke....... 130 x 150 mm

TRANSMISSION

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Stariuaru.	
Model	Allison H8610A
Design	Fully automatic, planetary type with integral
	lock-up converter
Mounting/Position	Remote from engine and rear axle for serviceability
Ranges	6 forward, 1 reverse
Control	Allison CEC2 electronics shift system with
	SEM (Shift Energy Management)

Maximum Speeds @Rated Engine Speed with standard 27.00R49(**)E4 tires

Differential Planetary		Final Drive 3.15 : 1 8.00 : 1
Gear	Ratio	km/h
1	4.24	9.6
2	2.32	17.5
3	1.69	24.1
4	1.31	31.1
5	1.00	40.7
6	0.73	55.7
R1	5.75	7.1

Optional:

Model Allison H9610A Fully automatic, planetary type with integral Design... lock-up converter Mounting/Position...... Remote from engine and rear axle for serviceability Ranges 6 forward, 2 reverse Control...... Allison CEC2 electronics shift system with SEM (Shift Energy Management)

Final Drive

Maximum Speeds @Rated Engine Speed with standard 27.00R49(**)E4 tires

Diπerential		3.15:1
Planetary		8.00 : 1
Gear	Ratio	km/h
1	4.24	9.6
2	3.05	13.3
3	2.32	17.5
4	1.67	24.4
5	1.00	40.7
6	0.72	56.5
R1	5.75	7.1
R2	4.13	9.9

DRIVE AXLE

Model Differential...... 2657

Axle Design Full floating axle shafts using a model 2657 differential and single reduction planetaries at each wheel

Traction Control...

An optional electronic feature that includes the Electronic Downhill Speed Control feature

Differential and Final Drive Ratios

Hatios	
Differential	3.15:1
Planetary	8.00:1
Total Reduction	25.2:1
Maximum Speeds	
with 27.00R49 tires	55.7 km/h

TIRES

Front	27.00 R49(**) E4 (Radial)
Rear	27.00 R49(**) E4 (Radial)
Rim Width	495 mm (19.5 in)
Optional tires and tread	patterns may be available.

Certain job conditions may require higher rated TKPH (TMPH) tires in order to maintain maximum production. Hitachi recommends evaluating the job conditions and consulting the tire manufacturer to make proper tire

ELECTRICAL SYSTEM

Twenty-four volt starting, lighting and accessories system. Seventy-five ampere alternator with integral transistorized voltage regulator. Two 12 V heavy duty batteries capable of 1300 cold cranking amps, each, at -18 degree C (0 degree F). A Hitachi solid state reprogrammable controller controls and monitors hauler systems, provides output information to control gauges and lights and incorporates connections for diagnostic tools.

BODY CAPACITY

	m ³
Struck (SAE)	39.5
Heap 3:1	54.1
Heap 2:1 (SAE)	60.4

Body capacity and payload subject to change based on customer specific material density, options and application.

WEIGHTS (Approximate)

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

Chassis with Hoist	52 672 kg
Body	15 465 kg
Net Machine Weight	68 137 kg
The Net Machine Weight specification includes operator and	100 % fuel.

Nominal Payload 95.2 tonnes

Target GMOW 163 300 kg

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 configuration which will match your haulage application.

Major Options

The following list of options are examples which will change the Nominal Paylaod.

Automatic Fire Suppression

Body Liner

Deck Mounted Muffler

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

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 ISO 5010 (SAE J1511). The Operators steering wheel offers 35 degrees of tilt and 47.7 mm of telescopic travel.

Steering Angle	38 degrees
Turning Diameter: (SAE)	21.8 m
Steering Pump Output (at 2 100 min ⁻¹ (rpm))	158.1 L/mir
System Pressure	19.0 MPa

HYDRAULIC SYSTEM

Two 2-stage, double-acting cylinders, with cushioning in retraction. inverted and outboard mounted. Separate Hoist/Brake Cooling reservoir and independent tandem gear pump. Control valve mounted on reservoir.

Body Raise Travel	60 degrees
Body Raise Time (at 2 100 min ⁻¹ (rpm))	12.8 second
Body Down Time (at idle)	15.5 second
Brake Cooling Pump Output (at 2 100 min ⁻¹ (rpm))	472 L/min
Hoist Pump Output (at 2 100 min ⁻¹ (rpm))	472 L/min
System Relief Pressure (Hoist)	20.3 MPa

BRAKE SYSTEM

Brake system complies with ISO 3450 (SAE J1473).

All-hydraulic actuated braking system providing precise braking control and guick system response. The Hitachi brake controller has a unique variable front to rear brake proportioning that maximizes the stopping performance under all road conditions.

Service

All-hydraulic actuated front disc brakes and rear oil-cooled wet disc.

WET DISC BRAKE

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 brakes are a multi-plate design, and continuously oil-cooled. The sealed design protects against environmental contamination for prolonged service life. The wet disc brake is designed with automatic retraction to prevent drag. Separate pedals activate the service braking and retarding functions.

Front Axle - Dry Disc

Disc Diameter Each (2 discs/axle) 101.6 cm 13 899 cm² Brake Surface Area Per Axle Lining Area Per Axle 4 129 cm² Brake Pressure (Max.) 19.0 MPa

Rear Axle - Oil-Cooled Wet Disc

Brake Surface Area Per Axle 79 277 cm² Brake Pressure (Max.) 13.8 MPa

Secondary

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.

Dry disc mounted on differential input shaft. Controlled by a toggle switch on the dash. Automatically applied if brake hydraulic pressure is

Size (Diameter) 686 mm

Retarder

Foot-operated valve controls all-hydraulic actuation of oil-cooled wet disc brakes on rear axle. System provides modulated pressure to rear brakes for constant speed control.

1 051 kW (1 410 HP) Continuous Intermittent 1 820 kW (2 440 HP)

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.

HI-TECH ROPS / FOPS CAB

Hi-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, lends itself to a more structurally sound cab. Multiple layered floor mats act to absorb sound and control interior temperature.

A properly maintained cab from Hitachi, tested with doors and windows closed per work cycle procedures in ISO 6394: 1998 (dBA), results in an operator sound exposure Leq (Equivalent Sound Level) of 81 dB(A). 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 operators seat provides easy access to the Transmission Controller (TCU), Central Controller (CCU) and all electrical junction points.

Comfort and Ease of Operation

A flat panel style 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.

8 9

SPECIFICATIONS

SUSPENSION

Front and Rear Suspension

The trailing arm 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 axle housing has an A-frame mounting. The rear NEOCON struts are mounted in a more vertical position which allows a more pure axial loading and reduces the tractive and braking forces transmitted through the parallel links to the frame.

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 increased productivity. Improved stability means more consistent dynamic response of the machine to fluctuating load energy, resulting in predictable machine performance. The improved control means better machine maneuverability.

The Hitachi frame and trailing arm 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 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 trailing arm suspension system and the long wheel base assure a more stable, comfortable ride.

BODY

The body has been made to the flat floor, flat tail chute design.

The rear hinge has been designed to allow 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.

Thickness

	mm	(in)
Floor	18	(0.69)
Front	8	(0.31)
Sides	8	(0.31)
Canopy	5	(0.188)
Optional Body Liners (Medium Duty)		
Floor & Corners	10	(0.38)
Sides & Front	6	(0.25)
End Protection	6	(0.25)
Optional Body Liners (Heavy Duty)		
Floor & Corners	16	(0.63)
Sides & Front	8	(0.31)
End Protection	6	(0.25)
Optional Partial Liner (Heavy Duty)		
Floor & Corners	16	(0.63)
End Protection	6	(0.25)
Optional Rock Cap		
Top of the Body Side Plate	10	(0.38)

The horizontal stiffener design of the Hitachi body minimizes stress concentrations in any one area. Load shocks are dissipated over the entire body lenath

The closely spaced floor stiffeners provide additional protection by minimizing distance between unsupported areas.

SERVICE CAPACITIES

Crankcase (includes filters)	118.3
Transmission, Cooler and Lines	99.0
Cooling System	497
Fuel Tank	1 136
Hydraulics	
Hoist Tank and System	448
Steering Tank and System	170
Drive Axle (2 wheels and differential)	322
Windshield Washer Fluid	5.7

STANDARD EQUIPMENT

GENERAL

All-hydraulic braking Battery disconnect switch Body down cushioning Body down indicator Body prop cable Body up speed restriction w/light Brake accumulators Canopy spill guard Continuous body heating Cooling system surge tank Driveline guard, front Dual cab access ladders Electric horns Electric start Electronic air conditioning system, 30 500 BTU/hr Electronic heater system. 40 000 BTU/hr Electronic hoist Engine access ladders Engine belt protection Engine service lights Fan guard Front view mirror **Fenders** Fixed steering stops

Guard rails HID headlamps and LED tail-lights Hoist interlock Hoist tank sight glass ISO decals Load/dump brake Mirrors, left and right, hand adjustable Mud flans NEOCON-E suspension struts Park brake - dry disc Park brake interlock Reverse alarm and light Rear view camera system Rock ejector bars Steering accumulator Steering tank sight glass Tires 27.00R49 Tow points, front Transmission guard Transmission sight gauge Wet disc brake wear indicators 24 volt to 12 volt converter

Fuel tank level gauge

Fuel/Water Separator

CAB

Air Conditioning Air filtration/replaceable element Antenna and speakers Ashtray Cab interior light Camera monitor Cigar lighter, 24 volt Door locks Driver and trainer window activation mechanical Foot rest, left Fuses Heater and defroster Integral ROPS/FOPS cab Integrated engine diagnostics connector Integrated transmission diagnostics connector

Front brake cut-off, switchable

ISO driver envelope Instrumentation cluster, electronic Quick connect hydraulic test ports Rubber floor mat Safety glass Seat belts, retractable (operator and trainer) Seat, air-ride, 3" lap belt Sunvisor Tilt/telescoping steering wheel Tinted glass, all windows Trainers seat 12 volt accessory connection Windshield washer Windshield wiper, intermittent

EQUIPMENT / DIMENSIONS

Filter restrictions

ELECTRONIC DISPLAY (Hitachi Monitoring Information)

Active Traction Control High beam (optional) Parking brake Battery charge Payload red (optional) Payload yellow (optional) Body up Brake system oil pressure Retarder temperature Central warning (stop) Seat belt disconnected Central warning (yellow caution) Steering oil pressure Electronic downhill Transmission oil pressure speed control (optional) Transmission oil temperature Engine coolant level Turn signal/ hazard

Engine oil pressure LCD (Liquid Crystal Display)

Lights with ISO symbols

Adjustable units of measure Brake oil pressure Brake oil temperature Date and time Distance travelled Engine coolant temperature Engine oil pressure **Engine RPM** Hourmeter Load Count

Park brake applied Service intervals Steering oil pressure Steering oil temperature System diagnostics Transmission oil pressure Transmission oil temperature Transmission range selection Travel speed Voltmeter

GAUGES

Odometer

Engine coolant temperature Speedometer Fuel gauge Tachometer

MACHINE LIGHTS

Amber turn signals and four-way flashers Back-up light (1) Clearance light - front (2) Clearance light - rear (2) Dual combination stop and taillights (2) Headlights (4)

OPTIONAL EQUIPMENT

CAB

w/ Electonic Downhill Speed Control (EDSC) AM-FM radio w/ CD and MP3 Battery equalizer Circuit breakers, 12 and 24 volt Driver and trainer window activation, electric HAULTRONICS III load monitoring system

Active Traction Control (ATC)

Hill hold brake Indicator light, payload red Indicator light, payload yellow LCD display, payload meter Satellite radio Semi-active operators seat.

w/heat, w/lumber and 3 point seat

CHASSIS Backup lights, additional to taillight group Backup lights, auxiliary halogen deck mounted Backup lights, auxiliary HID deck mounted Body liners (400BHN) plates. medium, heavy duty or partial Cold weather package Mild cold weather package (0 deg C to -20 deg C) Extreme cold weather package (-20 deg C to -35 deg C) 82 cu.yd (64 m³) body Electrically heated mirrors Engine cooling fan clutch

Fire protection deck mounted hand-held

Fire protection, manual Ansul system Fluid draining kit Fluid sampling ports Fog lights

Ground level engine shutdown High output powertrain, 899 kW MTU 16V-2000 engine and Allison H9610A

transmission

MISCELLANEOUS

Service manuals

Hi-lite green paint

Lube system, centralized

Lube system, Groeneveld

Lube system, Lincoln

Rear driveline guard

Rim (model choices)

RHS and LHS

Side view camera (RHS)

mounted to cab deck

Synthetic transmission fluid

Tires (type and rating)

Unit sound suppression

Spill guard 10" installed to canopy

Side extensions

Side mudguards,

Service center with fast fuel,

Rock cap

Spare rim

Tool kit

Muffler, deck mounted

Hill hold brake

LS arm guard

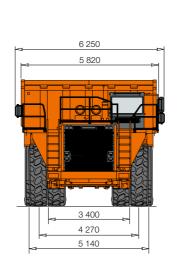
Extra operators manual Extra parts manual -choice of hardcopy or CD

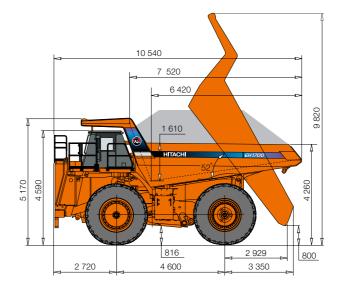
-choice of hardcopy or CD

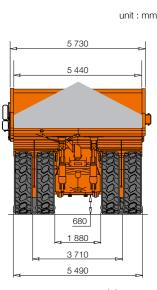
OPTIONAL EQUIPMENT WEIGHT

	кg
LS arm guard	60
Body liners (400BHN) plates, medium	3 813
Body liners (400BHN) plates, heavy duty	5 862
Body liners (400BHN) plates, partial	4 915
Lube system, Groeneveld	150
Lube system, Lincoln	100
Rock Cap	272
Spill guard	143

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



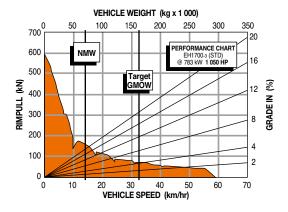




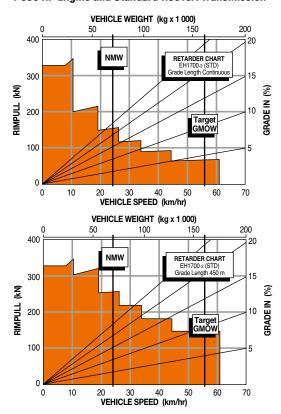
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PERFORMANCE DATA

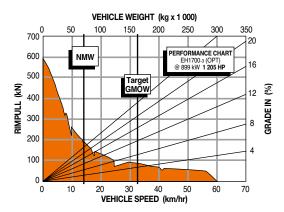
Performance Chart for EH1700-3 with Standard 1 050 HP Engine and Standard H8610A Transmission



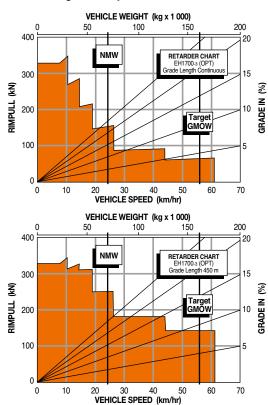
Retarder Chart for EH1700-3 with Standard 1 050 HP Engine and Standard H8610A Transmission



Performance Chart for EH1700-3 with Optional 1 205 HP Engine and Optional H9610A Transmission



Retarder Chart for EH1700-3 with Optional 1 205 HP Engine and Optional H9610A Transmission



NOTES:

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

Charts based on 0 % rolling resistance, standard power of each 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 GMOW 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 with some differences in color and features.

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