

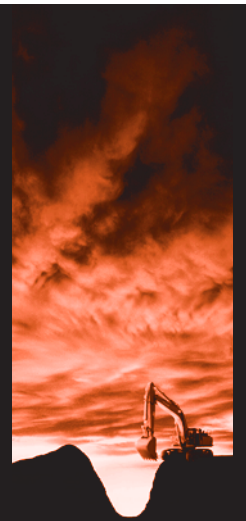
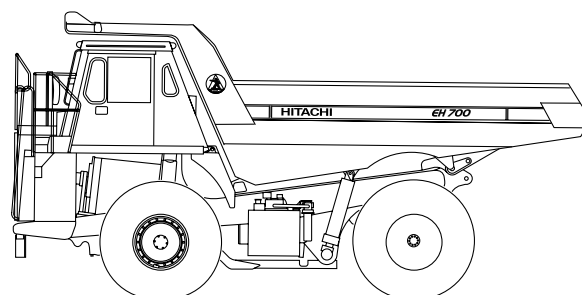
HITACHI EH700-2

maximum payload
37 600 kg

maximum payload with general type liners
35 400 kg

maximum GMW
69 900 kg

engine gross power
391 kW / 525 HP



HITACHI

Engine

Model Cummins QSX15-525
 Configuration 4 Cycle, in-line, 6 cylinder diesel
 Emission certification U.S. EPA Tier 2, EU Stage II
 Aspiration Turbocharged/Aftercooled
 Rated power @2 100 min⁻¹ (rpm)
 Gross power (SAE J1995) 391 kW (525 HP)
 Net power (SAE J1349) 358 kW (480 HP)
 Maximum torque @1 400 min⁻¹ (rpm) 2 440 Nm (249 kgf/m)
 Bore & stroke 137 x 170 mm
 Piston displacement 15 l
 Torque rise 37%
 Starting Electric

Transmission

Allison M5610A, planetary type, full automatic shift. Integral torque converter with automatic lock-up shifting in all ranges. Remote mounted, 6 forward speeds, 2 reverse. Allison Transmission Commercial Electronic Control (CEC II) shift system. Trim Boost Soft Shift (TBSS) provides smooth shifting to help reduce operator fatigue. Standard SEM (Shift Energy Management).

MAXIMUM SPEEDS @ GOVERNED ENGINE SPEED

Differential	3.13 : 1	3.13 : 1	2.81 : 1
Planetary	5.25 : 1	6.00 : 1	5.25 : 1
Gear	Ratio	km/h	km/h
1	4.00	9.5	10.5
2	2.68	16.9	18.8
3	2.01	22.5	25.0
4	1.35	33.5	37.3
5	1.00	45.2	50.3
6	0.67	68.2	76.0
R1	5.12	6.8	7.6
R2	3.46	13.2	14.7

Drive axle

Full floating axle shafts, Model 2052 differential and single reduction planetary at each wheel. Balanced life gear design maximizes gear life.

Optional Active Traction Control (ATC) with Electronic Downhill Speed Control (EDSC) available.

Ratios	Standard	Optional	Optional
Differential	3.13 : 1	3.13 : 1	2.81 : 1
Planetary	5.25 : 1	6.00 : 1	5.25 : 1
Total reduction	16.43 : 1	18.78 : 1	14.75 : 1
Maximum speeds			
With 18.00R33 tires	68.2 km/h	61.3 km/h	76.0 km/h

Tires

Standard - front and rear **Rim width**
 18.00 R33 (***) E4 radial 330 mm
 Optional tires, brands and treads available.

Electrical system

Twenty-four volt lighting and accessories system. 75 amp alternator with integral transistorized voltage regulator. Two 900 amp, cold cranking, 12-volt, maintenance-free, heavy-duty batteries connected in series. Standard automobile type monitor, traveling mode system, central warning system and hoist control system with built-in diagnostics, controlled by Hitachi controller. Standard Liquid Crystal Display. Optional Haultronic II load monitoring system controlled by Hitachi controller.

Body capacity

Struck (SAE) 17.0 m³
 Heap 3 : 1 21.6 m³
 Heap 2 : 1 (SAE) 24.0 m³

Weights

Chassis with hoist 24 800 kg
 Body 7 500 kg
 Net machine weight 32 300 kg
 Maximum GMW with std. tires
 [18.00R33(***)E4 radial]
 including options, 50% fuel,
 operator & payload not to exceed 69 900
 Maximum payload 37 600

MAJOR OPTIONS

Approximate change in Net Machine Weight:
 General type body liners - Complete - 400BHN steel 2 230
 Heavy duty type body liners - Complete 2 870
 Max. payload with general type body liners - Complete 35 400
 Max. payload with heavy duty type body liners - Complete. 34 700

Weight distribution	Front	Rear
Empty	50%	50%
Loaded	34%	66%

Steering system

Closed-center, full-time hydrostatic power steering system using two double-acting cylinders, pressure limit with unload piston pump and brake actuation/steering system reservoir. Accumulator provides supplementary steering in accordance with SAE J1511 and ISO 5010. Tilt/telescopic steering wheel with 35 degrees of tilt and 57.2 mm telescopic travel.

Steering angle 42°
 Turning diameter (SAE) 16.15 m
 Steering pump output 95.8 l/min
 System pressure 19.0 MPa

Hydraulic system

Two two-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 time (@ 1 700 min ⁻¹ (rpm))	13.9 s
Body float down time	14.0 s
Brake cooling pump output (@ 2 100 min ⁻¹ (rpm))	200 l/min
Hoist pump output (@ 2 100 min ⁻¹ (rpm))	301 l/min
System relief pressure	17.2 MPa

Brake system

Brake system complies with SAE J/ISO 3450.

All-hydraulic actuated braking system provides precise braking control and quick system response. The 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 dry disc brakes, and rear wet disc brakes.

FRONT AXLE – DRY DISC

Disc diameter each (2 discs/axle)	673 mm
Brake surface area per axle	0.413 m ²
Lining area per axle	0.139 m ²
Brake pressure (max.)	15.9 MPa

REAR AXLE – OIL-COOLED WET DISCS

Brake surface area per axle	3.72 m ²
Brake pressure (max.)	8.3 MPa

OPTIONAL INCREASED CAPACITY

Brake surface area per axle	4.96 m ²
Brake pressure (max.)	8.3 MPa

SECONDARY

Two independent circuits within the service brake system provide fully modulated reserve braking capability. System also incorporates automatic application when loss of pressure is detected.

PARKING

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

Size (diameter)	558 mm
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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.

Continuous	484 kW (649 HP)
Intermittent	969 kW (1 300 HP)

Wet disc brake

The 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.

Hi-Tech ROPS/FOPS cabin

HI-TECH ROPS/FOPS CABIN

ROPS complies with ISO3471 and SAE J1040 May '94. FOPS complies with ISO3449. Double wall construction of 11 gauge inner and outer steel panels, lends itself to a more structurally sound cabin. Foam rubber lining material along with foam rubber-backed carpeting and multiple layered floor mat act to absorb sound and control interior temperature. A three-point rubber isomount 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. The upper dash utilizes four (4) removable panels that house gauges and customer options, each individually accessible. A removable panel located behind the seat provides easy access to the shifting control, Hitachi controller, 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, automobile type monitor and warning system with Liquid Crystal Display (LCD), a spacious environment, six-way adjustable mechanical seat, tilt/ telescopic steering wheel, filtered ventilation, door locks, and a padded trainer seat, all contribute to operator convenience and comfort.

Suspension

FRONT AND REAR SUSPENSION

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

The 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 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.

Body

Body is a flat chute type, sloped floor. It is rubber cushioned and continuously exhaust-heated. High tensile strength 400 BHN abrasion-resistant alloy steel is used in thickness of:

Floor	16 mm
Front	8 mm
Sides	8 mm
Canopy	5 mm
Body liners, complete	
Floor & corners	10 mm
Sides, front, end protection	6 mm
Top rails	10 mm

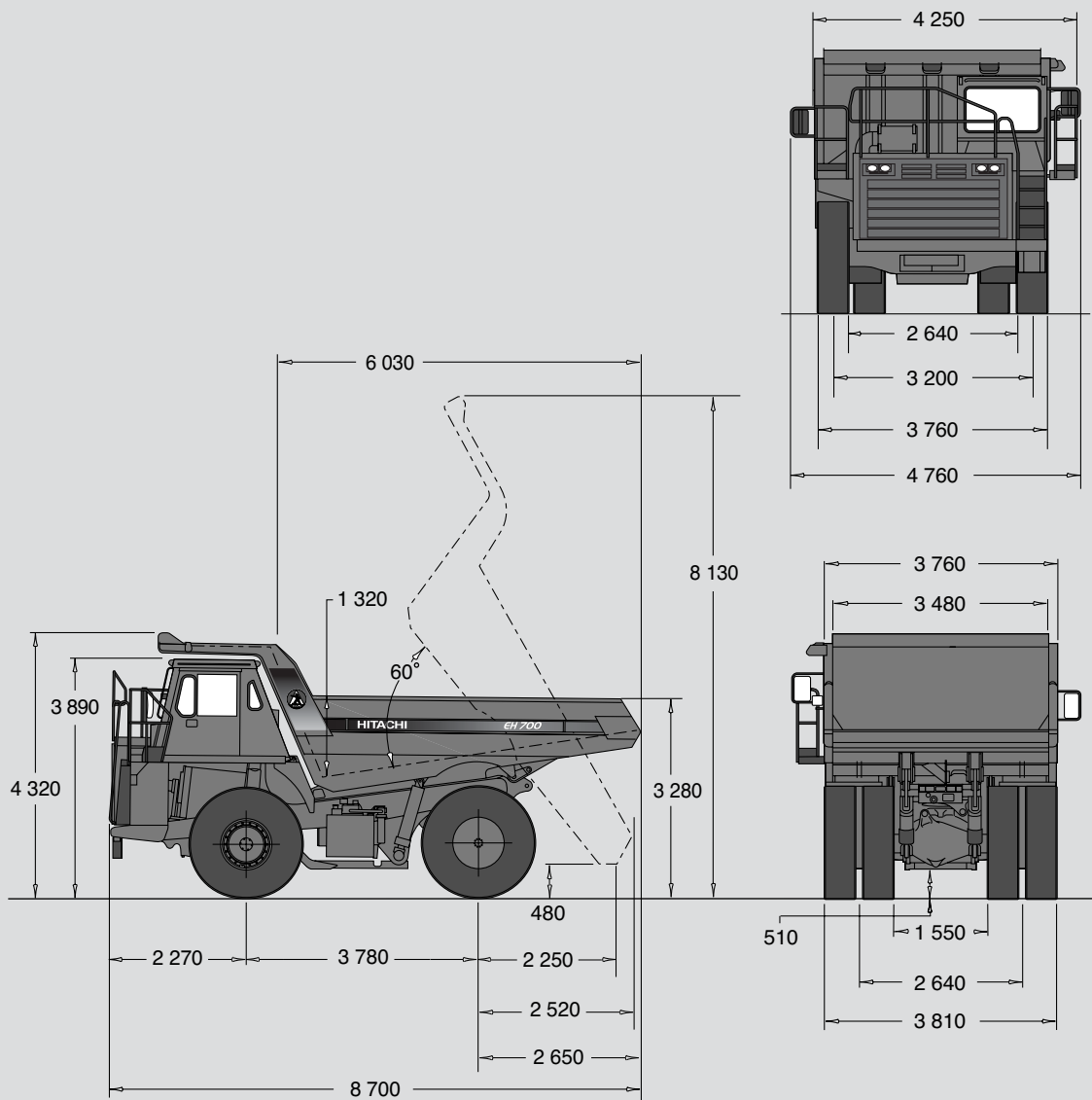
High yield strength alloy steel is also used for canopy side members and floor stiffeners. The horizontal stiffener design minimizes stress concentrations. Load shocks are dissipated over the entire body length. Closely spaced stiffeners provide additional protection by minimizing distances between unsupported areas.

Service capacities

Crankcase (includes filters)	61.0 l
Transmission	70.0 l
Cooling system	159 l
Fuel tank	454 l
Hydraulics	
Hoist system	178 l
Steering system	97 l
Drive axle	50.3 l
Windshield washers	5.7 l

Dimensions

Unit: mm



Note: Dimensions shown are for empty machine with 18.00R33(**)E4 radial tires.

Standard Equipment

Standard equipment may vary by country, so please consult your Hitachi dealer for details.

GENERAL

- ACCU-TRAC suspension system
- All-hydraulic braking
- Allison M5610A transmission
- Automatic transmission shifting
- Battery disconnect switch
- Body down indicator, mechanical
- Body down cushioning
- Body up speed restriction
- Body prop pins
- Canopy spill guard
- CE Marking
- Continuous heated body
- Driveline guard, front
- Electric horns
- Electric start
- Electronic hoist
- Engine belt protection
- Engine compartment step
- Fan guard
- Fenders
- Fixed steering stops
- Fixed extinguisher mount bracket
- Front brake cut-off switch
- Guard rails
- Hoist interlock
- Hoist tank sight gauges
- ISO decals
- Load/dump brake
- Mirrors right and left, hand adjustable
- Mud flaps
- NEOCON suspension struts
- Park brake interlock
- Radiator grill guard
- Reverse alarm
- Rock ejector bars
- Steering accumulator
- Steering tank sight gauge
- Tires, 18.00R33(**)E4
- Tow points front/rear
- Transmission guard
- Transmission sight gauge
- Two speed reverse
- Unit sound suppression

CABIN

- Acoustical lining
- Air conditioning
- Air filtration/replaceable element
- Ash tray
- Cabin interior light
- Cigar lighter, 24-volt
- Door locks
- Foot rest (left and right)
- Hot and cool box
- Heater and defroster
- Integral ROPS/FOPS cabin
- ISO driver envelope
- Liquid Crystal Display (Contronic II): Boost pressure, clutch pressure, distance traveled, engine oil pressure, fuel level, fuel pressure, injector timing rail-pressure, intake manifold temperature, integrated engine diagnostics, integrated transmission diagnostics, load counter, shift selection, service intervals, job site adjustable, throttle position, total engine hours, total idle hours, voltmeter
- Modular instrumentation
- Quick connect test ports
- Roll down window (operator side)
- Rubber floor mat
- Safety glass
- Seat belts, retractable (operator/trainer)
- KAB Seat, mechanical 6 position
- Sunvisor
- Tilt/telescopic steering wheel
- Tinted glass all windows
- Trainer seat
- 12-volt accessory connection
- Windshield washer
- Windshield wiper, intermittent

GAUGES AND INDICATORS

- CONTRONIC II monitoring and alarm system, multi-function indicator lights: Battery charge, body up, brake system oil pressure, central warning (caution), central warning (stop), engine oil pressure, engine coolant level, engine other malfunctions, filter restriction, high beam, parking brake applied, steering oil pressure, steering oil temperature, transmission filter, transmission oil pressure, turn signals/hazard
- Gauges: Brake temperature, converter temperature, coolant temperature, hour meter, odometer, speedometer, steering/brake pressure, tachometer

MACHINE LIGHTS

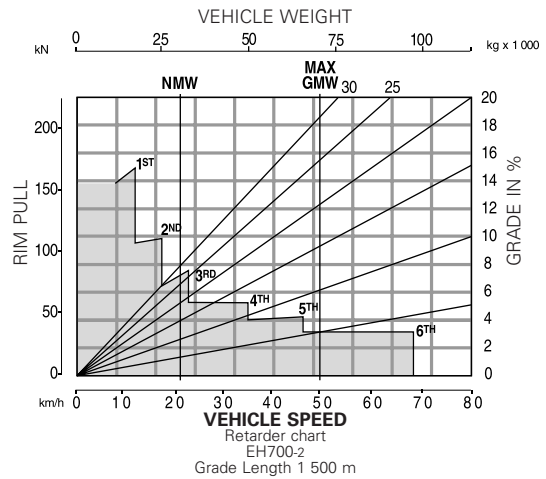
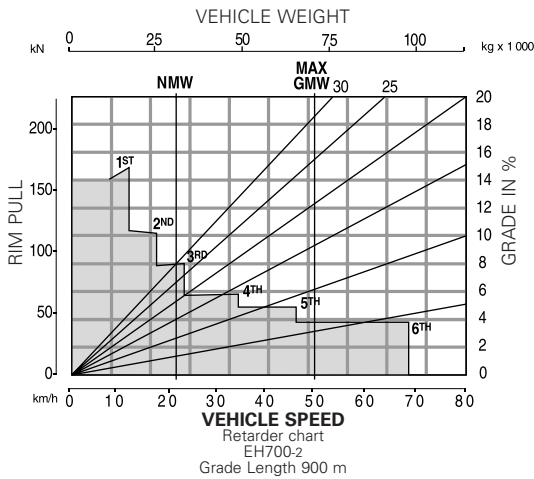
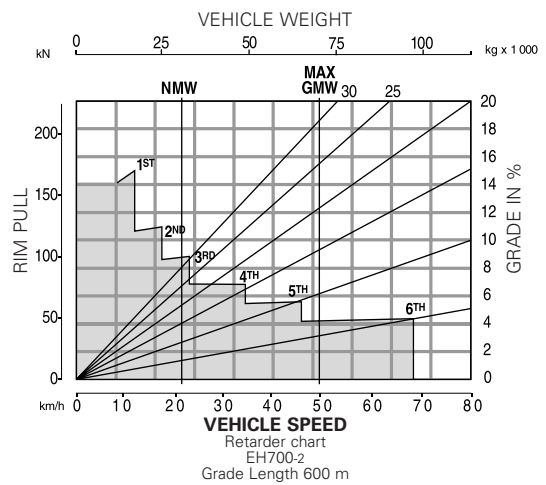
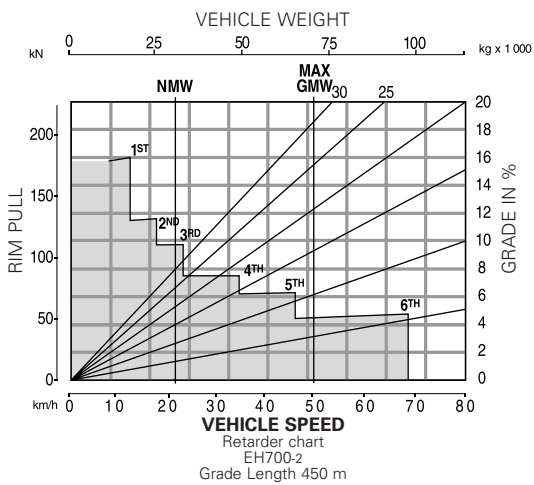
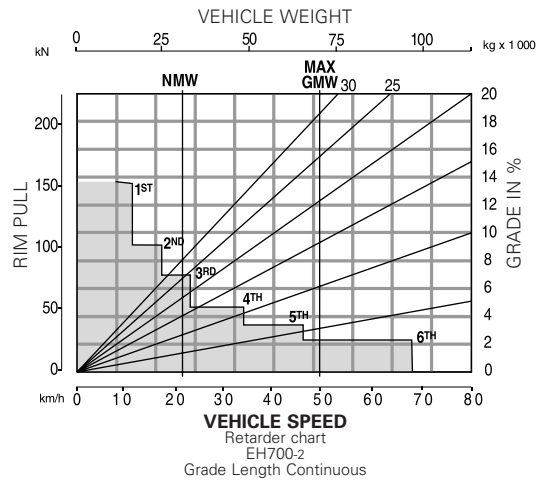
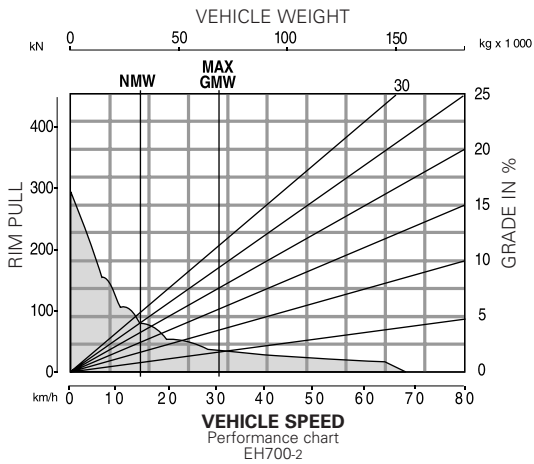
- Back-up light
- Clearance lights, (2)
- Halogen headlights, (4)
- Stop & tail, (2)
- Turn signals and four-way flashers

Optional Equipment

Optional equipment may vary by country, so please consult your Hitachi dealer for details.

- Active Traction Control (ATC) with Electronic Downhill Speed Control (EDSC)
- Air suspension, electrical heated seat
- Air suspension seat
- AM-FM radio, selectable by region
- Body liners (400 BHN) plates, light or heavy duty
- Body sideboard extensions
- Canopy spill guard extension
- Cold start aid
- Differential, 2.81 : 1 ratio
- Electrical heated seat
- Engine compartment lights
- Engine heater (oil & coolant)
- Extra headlights
- Extra reverse alarm
- Extra reverse lights onto front fenders
- Extra reverse lights onto tail light mount bracket
- Haultronic II load-monitoring system
- HID headlights
- Lube system, centralized
- Muffler, deck mounted
- Planetary, 6.00 : 1 ratio
- Radio & CD player
- Radio & tape player
- Rock cap
- Speaker & antenna only
- Starter lock-out switch
- Tires (size, type & rating)
- Wheel block wedge and mounting bracket

PERFORMANCE DATA



NOTE:

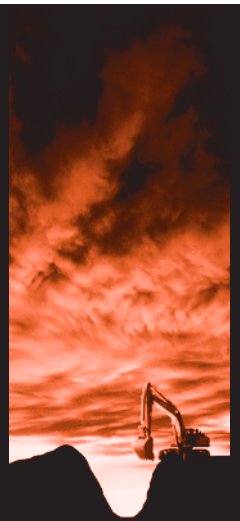
Diagonal lines represent total resistance (Grade % plus rolling resistance).
Charts based on 0% rolling resistance, standard tires and gearing unless otherwise stated.

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.

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**Breaking
new
ground**

HITACHI