

Global Solutions For The Long Haul<sup>SM</sup>



# KRESS<sup>®</sup> 200C III COAL HAULER



## Engine

Four-stroke cycle, 3516C HD quad turbocharged and aftercooled diesel engine

### Engine

Four stroke cycle, 3516C HD quad turbo charged and aftercooled diesel engine

**Table 1: Ratings at**

Net Power	kW	HP
Gross Power	1566	2100
Net Power	1468	1969

The following ratings apply at 1750 rpm when tested under the specified standard conditions for the specified standard.

**Table 2: Netpower**

Net Power	kW	HP
Caterpillar	1468	1969
ISO9249	1468	1969
SAEJ1349	1468	1969
EEC 80/1269	1468	1969

**Table 3: Dimensions**

Bore	170mm	6.7in
Stroke	215 mm	8.5in
Displacement	58.6 liters	4766in <sup>3</sup>

## Final Drives

Planetary, full-floating

Ratios (standard):	
Differential	1.80:1
Planetary, single reduction	10.83:1
Total reduction	19.49:1

### Power Rating Conditions

- Ratings based on SAE J1995 standard air conditions of 25°C (77°F) and 99kPa (29.32Hg) barometer. Power based on fuel with API gravity of 35 at 16°C (60°F) and an LHV of 42,780 kJ/kg (18,390 BTU/lb) when engine used at 30°C (86°).
- net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator
- no derating required up to 3658 m (12,000 ft) altitude.
- automatic derate is included in the electronic controls.
- When applicable, the 3516C engine, (EPA/ARB Flexibility) arrangement is complaint with U.S. Environmental Protection Agency regulations.

### Features

- full electronic control
- high pressure Electronic Unit Injection
- two hard faced intake and two exhaust valves per cylinder with valve rotators and hard, alloy steel seats.
- self aligning roller followers on cam shaft
- two piece pistons have steel crowns, thermally isolated aluminum skirts, three rings each and are cooled by dual oil spray.
- steel backed, copper bonded crankshaft bearings.
- hardened crankshaft journals
- dry type air cleaners with primary and secondary elements and precleaner
- 24 volt electric system with 150 amp alternator and four 100 amp hour, low maintenance, high output, 12 volt batteries.
- two electric starters.

## Brakes

Meets ISO 3450 Jan 98

Rear Braking surface 134,590 cm<sup>2</sup> (20,861 in<sup>2</sup>); Front Braking surface 102,116 cm<sup>2</sup> (15,828 in<sup>2</sup>)

### Features

- Service:
  - forced oil cooled
  - oil actuated
  - front wet disc brakes
  - rear wet disc brakes
  - sealed from dirt and water
  - individually serviceable as units
- Retarding System:
  - Foot operated pedal provides modulate engagement of service brakes for retarding
  - Automatic Retarder Control (ARC)
- Secondary Braking:
  - spring engaged, hydraulically released
  - use rear disc brakes in service system
- Parking Brakes:
  - spring engaged, hydraulically released
  - use rear disc brakes in service system
  - switch activated
- Traction System:
  - minimize wheel slip by transferring torque to wheel with traction
  - Traction Control System (TCS)

## Transmission

Caterpillar six speed, electronically controlled, automatic power shift transmission.

**Table 1: Maximum travel speeds (19.49:1 final drive ratio)**

1935 rpm	gear	36.00-R51 tires	
		km/h	mph
Forward	1	15.1	9.4
	2	20.3	12.6
	3	27.5	17.1
	4	37.2	23.1
	5	50.5	31.4
	6	68.1	42.3
Reverse		14.2	8.8

### Features

- six speeds forward and one reverse
- reverse is torque convertor driven
- first gear has both torque converter drive and direct drive
- second through sixth gears are direct drive
- single-lever shift control provides automatic shifting in all gears.
- each shift is individually modulated for maximum smoothness.
- separate hydraulic circuit with cooler diagnostics and facility code memory, event memory and programmable features.
- Controlled Throttle Shift (CTS)
- Directional Shift Management
- Neutral Coast Inhibitor

## Unitized Body & Frame

*High strength low alloy steels allow unit to withstand years of demanding haulage.*

### Features

- Fully unitized body and frame giving a lighter truck with better performance.
- Frame design allows for superior structural integrity by supporting weight of truck equally on all corners of the truck. Frame is designed to take the most abusive conditions through out the coal handling industry.
- Design incorporates use of high yielding A514 plate allowing use of thinner plate resulting in an overall lighter frame than competitors.
- Sturdy tow points positioned around the machine.
- Front, Center and Rear Bulkheads integrated into the unitized body for strength, component protection and durability.
- Casting used in high stress areas with deep penetrating welds to improve durability.

## Suspension

*Independent Nitrogen/Hydraulic Charged*

### Features

- Each suspension cylinder utilizes separate Nitrogen charged chambers provide an ultra smooth ride in either the loaded or empty conditions.
- Front suspension cylinders are mounted into tube frame using tapered sockets providing secure attachment throughout machine life.

Effective cylinder stroke:

Front 600mm (24")

Rear 600mm (24")

## Dump Doors & Cylinders

*Double acting hydraulic cylinders*

### Features

- Dump Doors are hung with linkages providing long lasting trouble free operation along with eliminating cylinder side loading.
- Door Linkages maximize door opening and ground clearance for stockpiling.
- Controlled door opening to optimize stock piling performance.

## ROPS/FOPS

*ROPS structure/FOPS cab*

### Features

- ROPS (Rollover Protection Structure) offered by Kress for the machine meets ISO 3471:2008 ROPS criteria.
- FOPS (Falling Object Protective Structure) offered by Kress for the machine meets ISO 3449:2005 Level 11 FOPS criteria.
- When properly installed and maintained the cab offered by Caterpillar with doors and windows closed as per work cycle procedures specified in SAE J1166-2008, results in an operator sound exposure Leq equivalent sound level) of less than 80 dB(A) This operator weighted sound exposure meets OSHA and MSHA occupational noise exposure criteria.

## Tires

Standard: 36.00R51

### Features

- Productive capabilities of the 200C III are such that, under certain job conditions, TKPH/TMPH limits of the tires could be exceeded and therefore, affect production.
- Kress recommends that all job conditions be evaluated for proper tire selection & operating pressures.

## Rear Canopy

*Hydraulically actuated to aid in engine bay serviceability*

### Features

- Allows Engine to cool quickly
- Permits easy access to the top of the engine and to components, in the engine compartment

## Steering

*Dual Steering Circuits*

### Features

- The steering system is charged by two separate systems/circuits.
- Both circuits incorporate four piston accumulators with a total capacity to exceed standard requirements. Both circuits/systems meet SAEJ1511 Oct1990 and ISO5010-1992 standards for the max operating weight of the 200C III.
- Twin, double acting cylinders
- Road width required for 180° turn (standard tires) - 21.5m (70'6")
- Wall width required for 180° turn (standard tires) - 25.2m (82'9")
- Ackerman steering allows steering angle of up to 85° and minimized tire wear.

## Rear Axle

*Dual Torsional Tube Frame*

### Features

- Fabricated Dual Torsional Tube Frame utilizes high strength alloy steels and A514 rolled tubes.
- Precision machined to provide accurate component alignment.
- Easily accessible from the side and rear for inspection or removal.

## Sound Rating

### Features

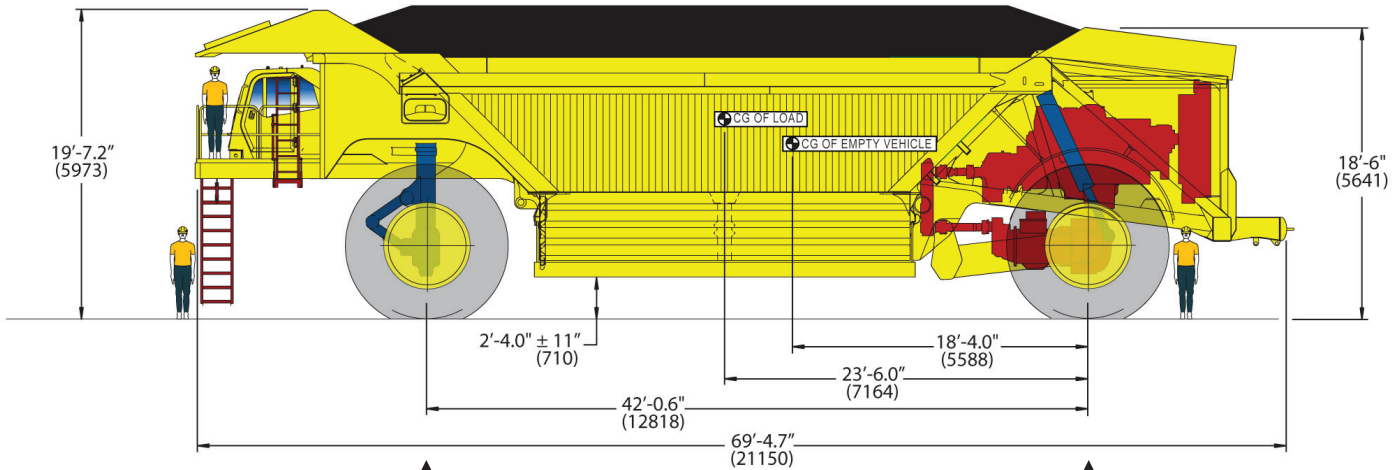
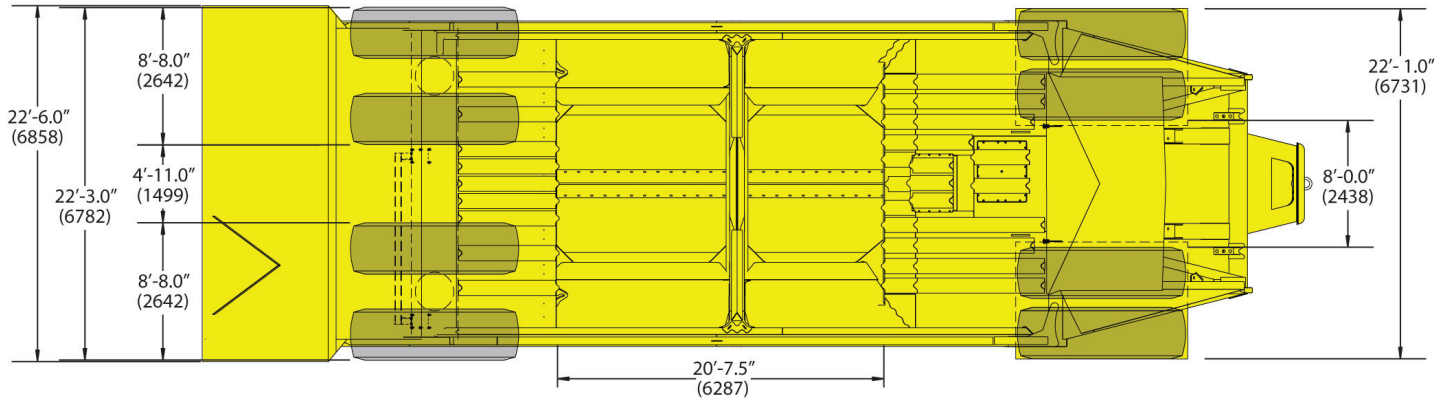
Exterior-

- This machine in a standard configuration, when measured and operated as per the prescribe modes in ISO 6393 and ISO 6395, has a 22m sound pressure level of (TBA) db(A) for the mode that gives the highest level.

Interior-

- Due to the rear mounted engine design, decibel levels less than 75db(A).

200C III



64,550 kg  
(142,300 lbs)

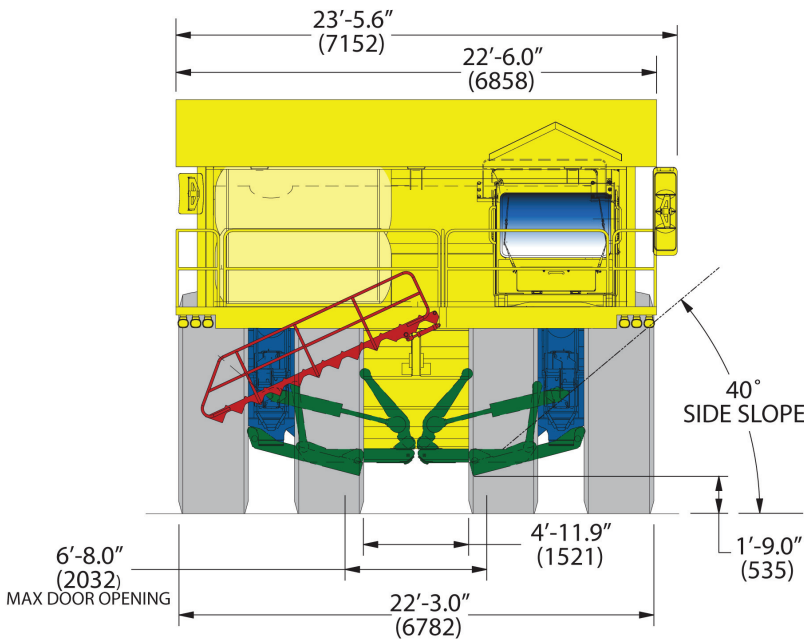
EMPTY VEHICLE  
TOTAL WEIGHT 148,500 kg  
(327,400 lbs)

83,950 kg  
(185,100 lbs)

187,550 kg  
(413,500 lbs)

GROSS VEHICLE  
TOTAL WEIGHT 368,500 kg  
(812,400 lbs)

180,950 kg  
(398,900 lbs)

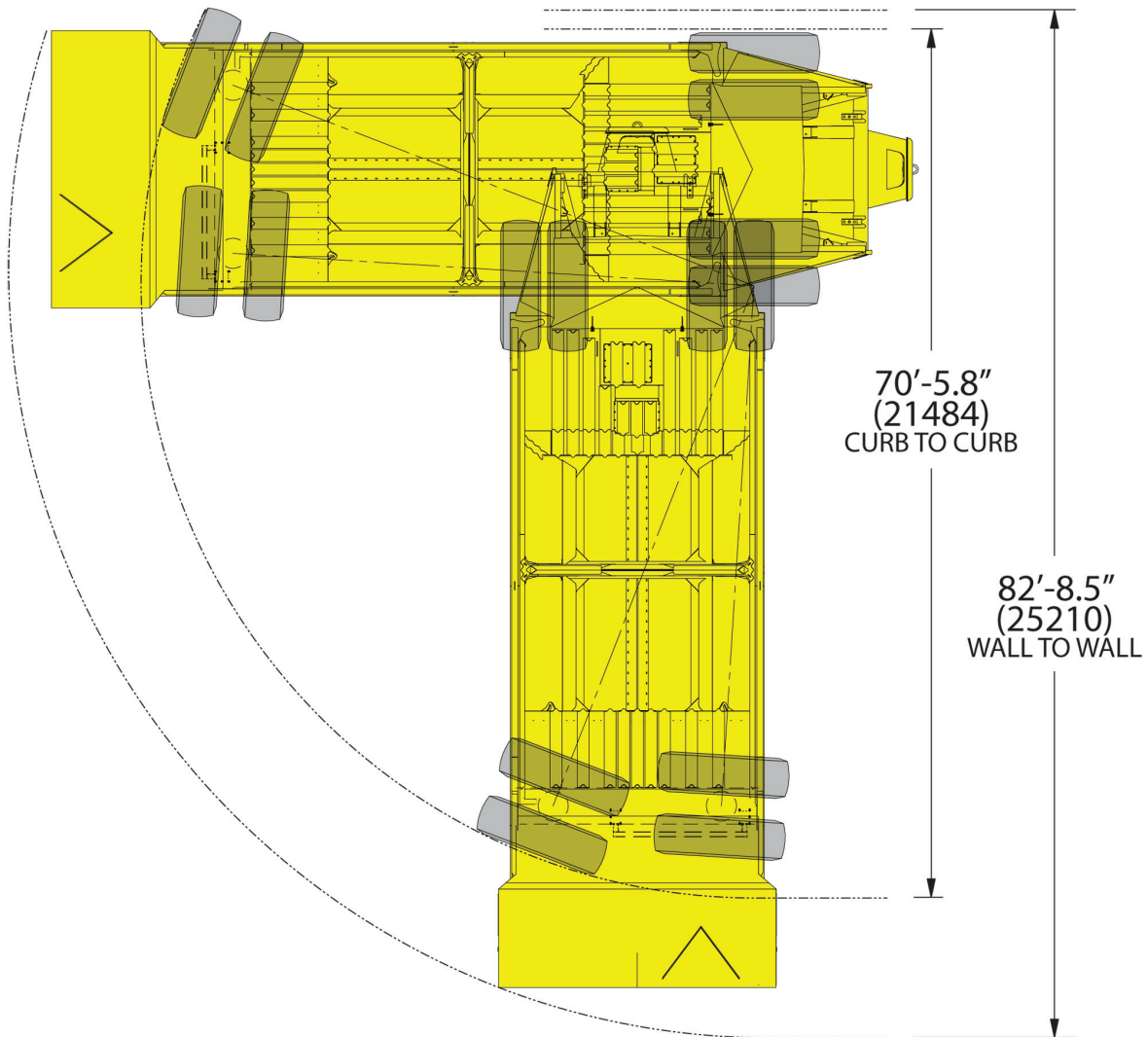


**Kress has multiple truck body length configurations to maximize your productivity based on the density of your haulage material.**

Capacity	220 Tonnes	240 Tons
Struck	192 m <sup>3</sup>	251 yd <sup>3</sup>
Heaped 3:1 SAE	228 m <sup>3</sup>	298 yd <sup>3</sup>
Heaped 2:1 SAE	246 m <sup>3</sup>	322 yd <sup>3</sup>
Empty Loading Height	5080 m	16'8"

Service Refill Capacities		
	L	Gallons (US)
Fuel Tank	3,600	950
Cooling System*	757	200
Crankcase	291	77
Differential*	143	38
Front wheels (4), each*	7.6	2.0
Final Drives (2), each*	238.5	63
Hydraulic Tank*	1,100	290
Hydraulic System (includes tank)*	1,610	425
Transfer Case only	17	6
Transfer Case (including lines)	25	9
Transmission Tank	106	28
Transmission System (includes tank)	246	65

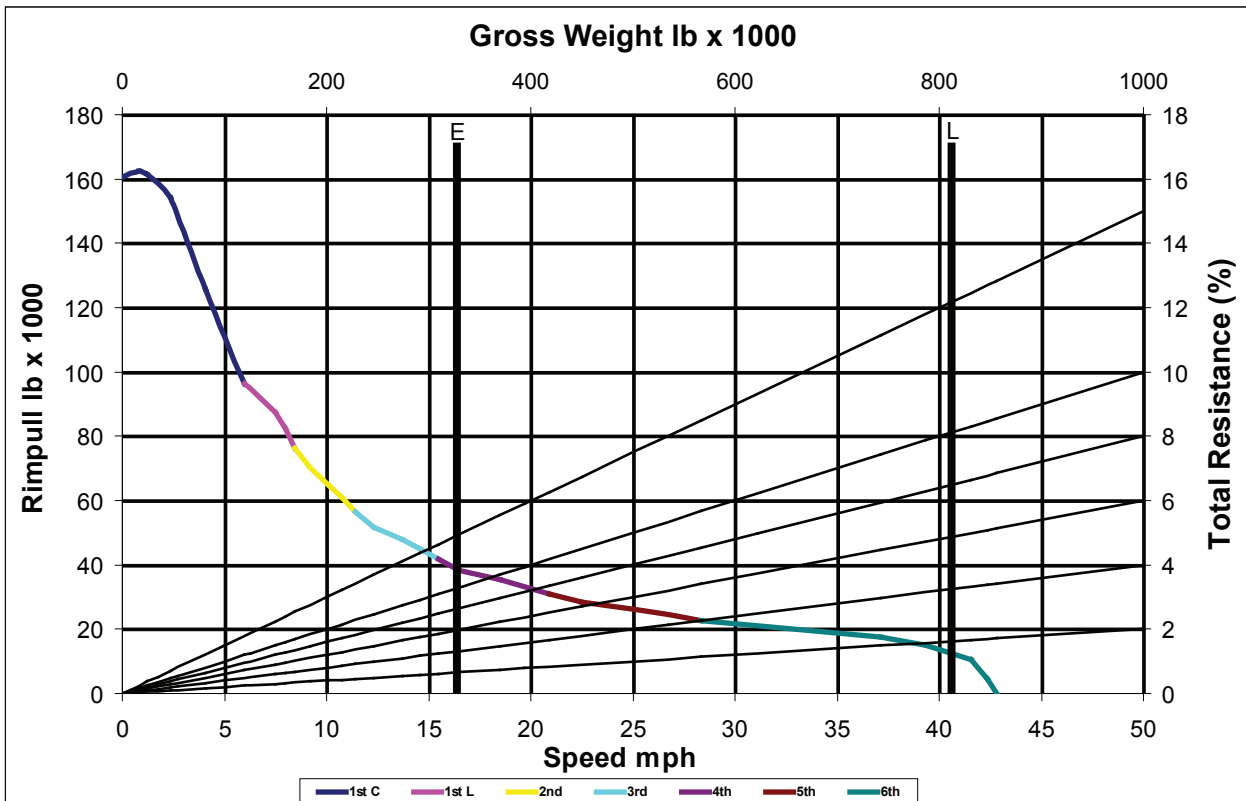
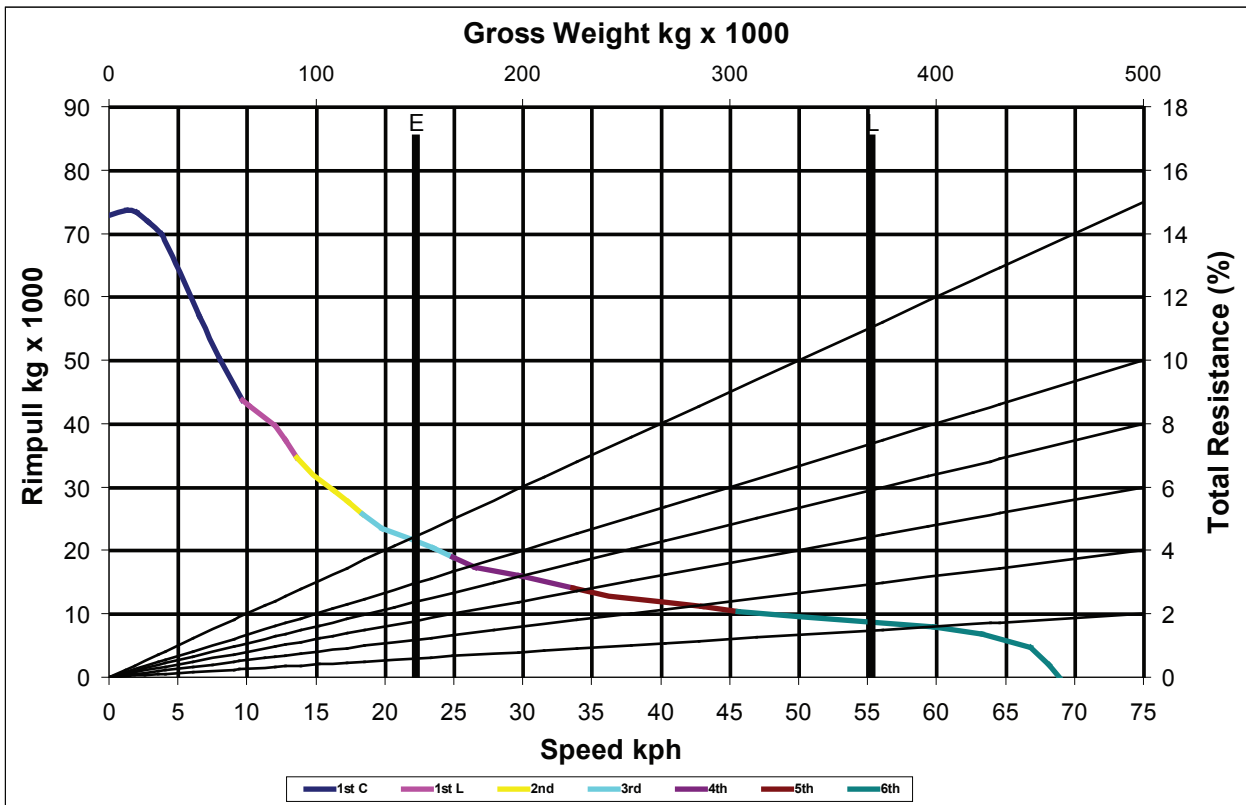
\*Estimates



**Turning Data**

## Gradeability/Speed Rimpull

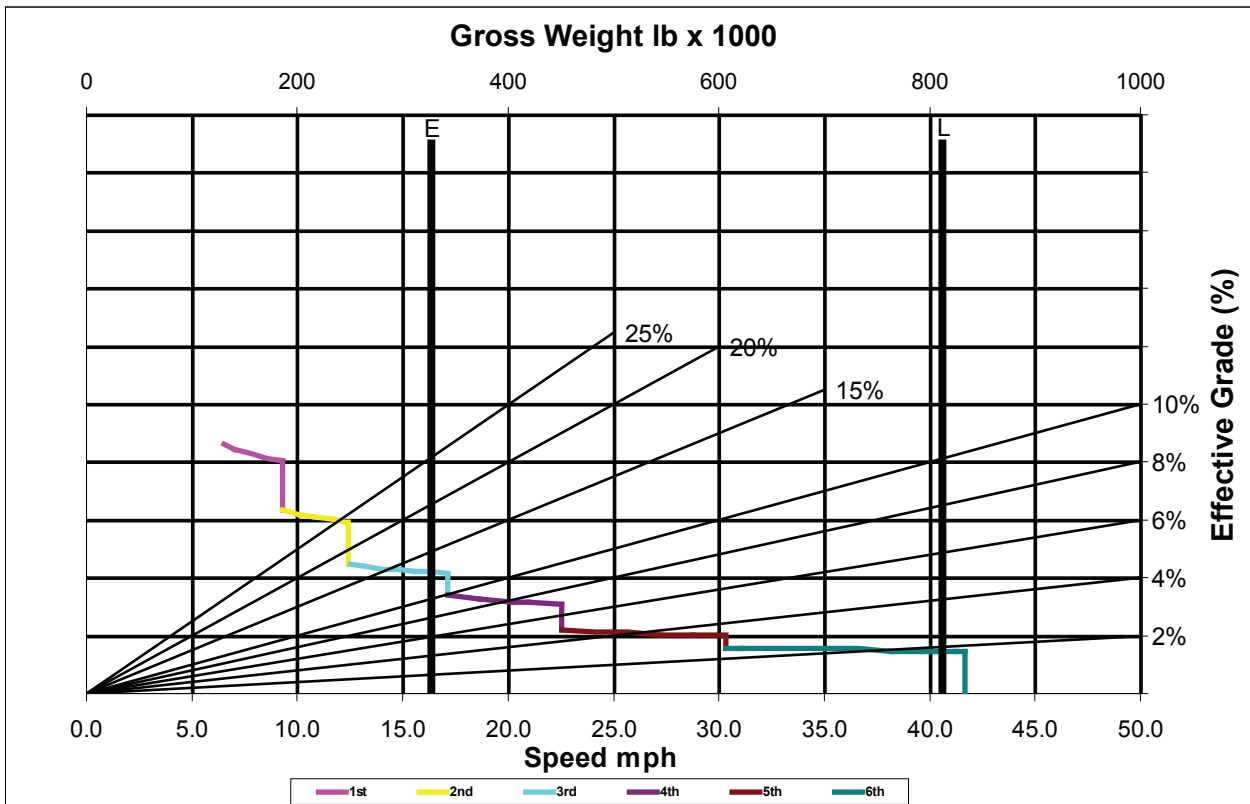
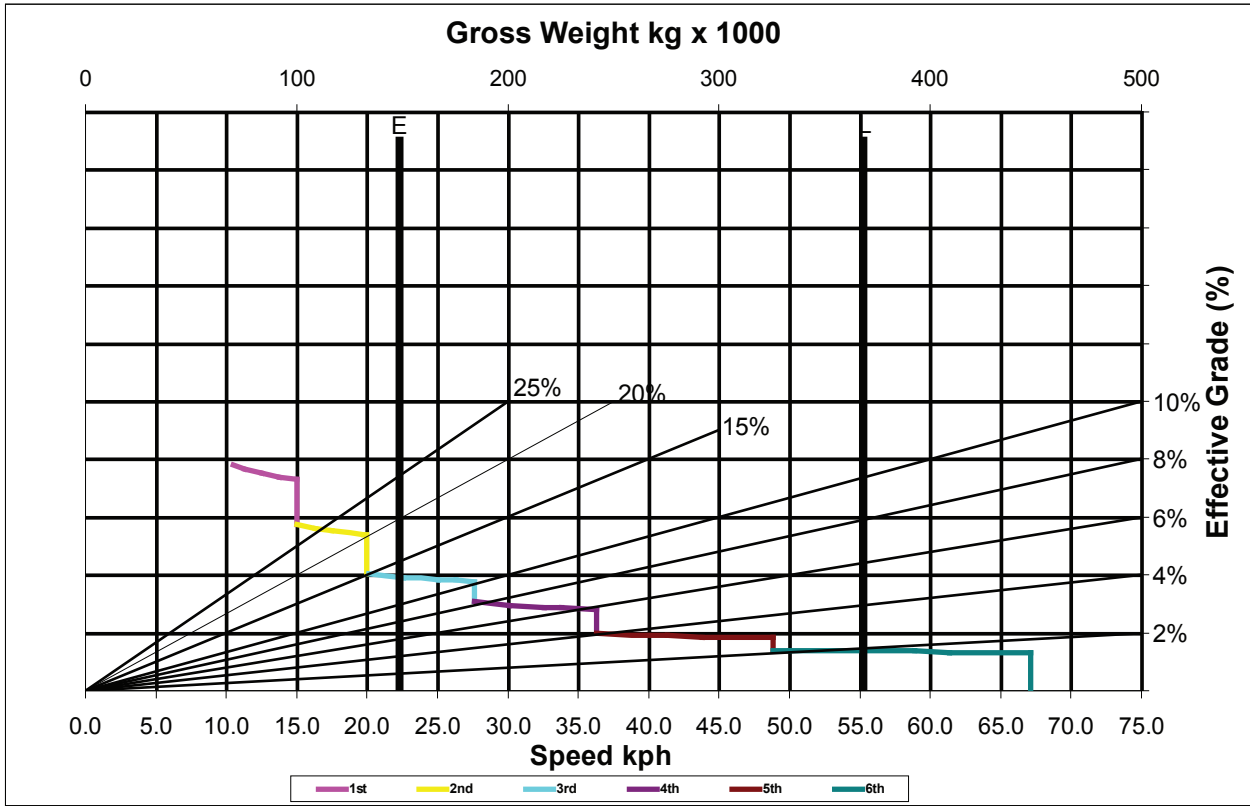
To determine gradeability performance: Read from gross weight down to the percent of total resistance. Total resistance equals actual percent grade plus 1% for each 10 kg/t of rolling resistance. From this weight resistance point, read horizontally to the curve with the highest obtainable gear, then down to maximum speed. Usable rimpull will depend upon traction available and weight on drive wheels.



## Retarding Performance

To determine retarding performance: Read from gross weight down to the percent effective grade. Effective grade equals actual % grade minus 1% for each 10kg/t (20lbs/tons) of rolling resistance. From this weight-effective grade point, read horizontally to the curve with the highest obtainable gear, then down to maximum descent speed brakes can properly handle without exceeding cooling capacity. The following chart is based on these conditions: 32°C (90°F) ambient temperature, at sea level, with 36R51 tires.

NOTE: Select the proper gear to maintain engine rpm at the highest possible level, without overspeeding the engine. If cooling oil overheats, reduce ground speed to allow transmission to shift to the next lower speed range.



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**Standard Equipment** *(Standard equipment may vary. Consult your Kress/Caterpillar Dealer for specifics.)*


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**ELECTRICAL**

Back-up Alarm  
 Brushless Alternator, 150 ampere  
 Batteries, 1000 CCA@ 0°F (-18°C), low maintenance, 12 volt (8)  
 Converter 12-volt electrical  
 Electrical System, 24-volt, 10, 15 and 20 amp  
 Battery Charge Receptacle  
 Spare Harness from front to rear of truck  
 Electric Starters (2)  
 Lighting System  
   Back-up and Hazard Lights (HID)  
   Directional Signals (front and rear LED)  
   Front Stair Access/Engine Compartment  
   Stop/Tail Lights (LED)  
   VIMS, Blue Light (LED)  
   Headlights, with Lo-Hi Beam Selector (HID)  
   Clearance Lights on all corners (LED)

**OPERATOR ENVIRONMENT**

Air Conditioner w/ Auto Climate Control  
 12-volt DC Power Supply (3)  
 Coat Hook  
 Cup Holder  
 Diagnostic Connection Port (2)  
   Cat Data Link  
   Kress IQAN (USB)  
 Dome Courtesy Light  
 Dump Door Control Lever  
 Entertainment Radio Ready  
   5 amp Converter, Speakers, Antenna and Wiring Harness  
 FOPS Cab, Insulated/Sound Suppression  
 Heater/Defroster 11 070 kCal (45,930 Btu)  
 Horn  
 Mirrors, Right, Left, Cab access  
 Retractable Front Sun Visor  
 Seat, Operator, Air Suspension, Heated  
 Seat, Trainer, Air Suspension  
 Seatbelt, Operator, Three Point, Retractable  
 Seatbelt, Trainer, Three Point, Retractable  
 Stairway & Walkway Access, 600 mm (23.6 in)  
 Steering Wheel, Tilt, Padded, Telescopic  
 Storage Compartment  
 Tinted Glass  
 Transmission Gear Indicator  
 VIMS 3G With IQAN Display  
 Window, Operator, Electric Powered  
 Window, RH Side, Electric Powered  
 Windshield, Wiper Intermittent Control and Washer  
 Gauge/Indicators  
 Gauge Panel  
   Transmission Fluid Temperature  
   Brake Oil Temperature  
   Engine Coolant Temperature  
   Fuel Level  
   Torque Converter Oil Temperature  
 Electric Engine Control Fault Indicator  
 Electric Hour Meter  
 Speedometer  
 Tachometer

**POWER TRAIN**

Cat 3516HD Tier 2 Emissions Compliant Engine  
 Air Cleaner with Dust Ejector (2)  
 Air-to-air Aftercooler (ATAAC)  
 Automatic Starter Protection  
 Ether Starting Aid (automatic)  
 Multi-Point Oil Pressure Sensing  
 Turbocharging (4) / Aftercooled  
 Braking System  
   Automatic Retarding Control  
   Engine Overspeed Protection  
   Extended Life Brake Disc Material  
   Oil-cooled, Multi Disc (front & rear)Service, Retarding, Parking  
 Park Brake integrated with Gear Selector  
 Transmission 6-speed, Automatic Powershift  
   Controlled Throttle Shifting  
   Directional Shift Management  
   Downshift/Reverse Shift Inhibitor  
   Individual Clutch Modulation  
   Lock-up Torque Converter  
   Neutral Coast Inhibitor  
   Neutral Start Switch  
   Programmable Top Speed  
 Rear Axle Continuous Lubrication/Filtration

**OTHER STANDARD EQUIPMENT**

Automatic Lubrication System  
 Aux "Buddy" Quick Connect  
 Driveline Guard  
 Fast Fill Fuel System  
 Fuel Filter with Water Separator  
 Ground Level Battery Lockout  
 Ground Level Engine Shut-down (2)  
 Ground Level Engine Start Lockout  
 Ground Level Transmission Lockout  
 Ground Level VIMS 3G Data Point  
 Hydraulic Filters, 1000 hour  
 Reservoirs (4 separate)  
   Brake/Dump Door/Steering/Suspension  
   Transmission  
   Transfer Case  
   Rear Axle/Differential/Wheel Ends  
 Rims, Heavy Duty Bolt-on to fit 36.00R51 Tires (8)  
 ROPS Certified Structure  
 Secondary/Emergency Egress Ladder (With Ground Activation)  
 Service Points, Ground Level  
 Sight Level Gauges for Hydraulic/Engine Oil  
 S-O-S Sample Ports and Diagnostic Testing Ports  
 Supplemental Steering (automatic) Suspension  
   Hydraulic/Nitrogen charged  
   Fully Compensated automatic leveling system  
 Tow Points (front, rear and sides)  
 Traction Control System  
 Transmission Guard  
 Vandalism Protection Locks  
 Vital Information Management System (VIMS 3G)  
   Includes VIMS Payload Monitor with MAX  
   Payload & Speed Manager



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**Optional Equipment**

*Optional Equipment may vary. Consult Your Caterpillar Dealer for specifics.*

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Cat Detect System for Kress Coal Truck

Includes Cameras, Monitor and Object Detection Sensors

Cat Work Area Vision System (WAVS)

Includes Cameras and Monitor

Engine Pre-Lubrication Group

Engine Coolant and Oil Heaters For Cold Weather Starts

External Digital Payload Display

Rear Engine Bay Guards

Service Tool Group

External Heated Mirrors

**Kress has multiple truck body length configurations to maximize your productivity based on the density of your haulage material.**





## **MAINTENANCE, SERVICE AND SUPPORT**

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The Kress 200C III Coal Hauler is designed for serviceability, with multiple features that enable faster, more accurate troubleshooting and repairs.

Kress Coal Haulers are sold and serviced by select Cat Dealers and fully supported by Kress Corporation. Parts for the 200C III may be ordered through Caterpillar's global parts distribution network.

**Kress Corporation welcomes the opportunity to work with your company. For more information about the Kress 200C III Coal Hauler, please contact us today:**

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