

Payhauler

CORP.

350 C Rear Dump

Summary of All-Wheel-Drive Benefits

- **Lowest Haulage Cost Per Ton Mile.**
- **Best Payload to Truck Weight Ratio.**
The lowest center of gravity of any 50-ton hauler and an Empty Vehicle Weight that undercuts the average competitor by 9 ton (8200 kg). Both contribute to improved productivity and fuel economy.
- **Lowest Operating and Maintenance Costs.**
- **Equal Weight Distribution.**
By design, the 350C's 8 tires share the load equally.
- **Lowest Tire Costs.**
- **All Weather – All Condition Operation**
The 350C extends production into rainy and snowy seasons with mobility that exceeds all others.



50 ton (45mt)
Payload Rating

Proven superior in all applications, the 350C Payhauler is the world's only 50-ton **all-wheel-drive** multi-purpose hauler. It is designed and built to meet owner expectations

of increased productivity with reduced cost per ton. The 350C Payhauler has proven most efficient in direct tests against all comparable haulers.

350 C 50 Ton Payhauler

Engine

	Cummins	Detroit Diesel
Make	VTA-28C	16V71N-65
Model	4-cycle	2-cycle
Type: diesel, direct start	635 (473)	615 (459)
Power: rated, hp (kw)*	607 (453)	587 (438)
flywheel, hp (kw)**	2100	2100
rated speed, rpm	1747 (2369)	1625 (2203)
Torque max, lb ft (Nm)	1500	1600
rated speed, rpm	12	16
Cylinders, No.	1710 (28.0)	1135 (18.6)
Displacement, cu in. (litre)	5.5 (140)	4.2 (108)
Bore, in. (mm)	6.0 (152)	5.0 (127)
Stroke, in. (mm)	24 volt	24 volt
Electrical system		

*Power; rated: output of standard engine complete with water pump, lubricating oil pump and fuel pump under SAE standard ambient temperature and barometric conditions of 29.61" Hg (100 kPa) and 77° F (25°C).

**Power; flywheel: output of standard engine as installed in this vehicle with addition of fan, air cleaner, alternator and air compressor.

Torque Converter

Type	single stage
Torque ratio @ stall	2.21:1
Automatic converter lock-up. (Direct drive in all gears.)	

Retarder

Foot operated hydraulic retarder, (integral with converter), controls and reduces vehicle speed. Speed is selected in the transmission. The retarder is oil cooled and is normally operated without assist from service brakes.

Transmission

Full power shift, countershaft type, constant mesh with electric shift control and downshift inhibitor. Six speeds forward and one reverse. The torque converter has an automatic lock-up feature in all gears. The interaxle differential and clutch are located in the transmission.

Front and Rear Drive Axles

Full-floating axles with first reduction in differential bevel gears and final reduction in wheel planetaries. Axle components are mounted in a cast alloy steel housing.

Reduction Ratios:

Differential	3.1:1
Planetary	5.5:1
Total axle reduction	17.05:1

Brakes

Service Brakes:

Disc, sliding dual caliper, all four wheels (with protected reservoir for each wheel). Air over hydraulic actuation system with dual brake valve.

Parking and Reserve Braking System:

Spring applied, air released, sliding single caliper disc brakes, mounted on each axle.

Steering

Full-time hydraulic steering with two direct double acting cylinders. A manually controlled electric auxiliary system is standard.

Turning radius	33'4" (10.16 m)
Vehicle clearance circle	76'8" (23.37 m)

Suspension

Soft-riding, high-amplitude, low-frequency leaf springs with variable rate and shock absorber control. The springs are isolated from power and braking reactions by a system of 3 radius rods per axle.

Tires

Dual, front and rear, tubeless.

Standard	18.00 R25 ★ ★ (E-3) Radial
Optional	18.00-25, 32 PR (E-3) Bias
	18.00-25, 32 PR (E-4) Bias
	18.00 R25 ★ ★ (E-4) Radial

NOTE: Payhauler Corp. and your dealer are available to assist you in selecting the best tires for your application.

Frame

High-strength, low-alloy steel, fabricated "I" section side and cross members, integral front bumper.

Body

High-strength, 100,000 psi (689.5 MPA) yield, heat-treated steel, mono-floor design. Full ROPS canopy and exhaust heating are standard.

Hydraulic System

Two hydraulic gear pumps mounted in tandem for hoist and steering. The hoist system uses two, 3-stage, double-acting cylinders. Hoist time to maximum dump angle (67°) is 17 seconds.

Cab

All steel, cushion-mounted. Heater, defroster, cab air filter pressurizer, windshield wiper, washer, sun visor and insulation (sound and temperature) standard. Adjustable high back "Air-ride" seat and adjustable tilt steering wheel.

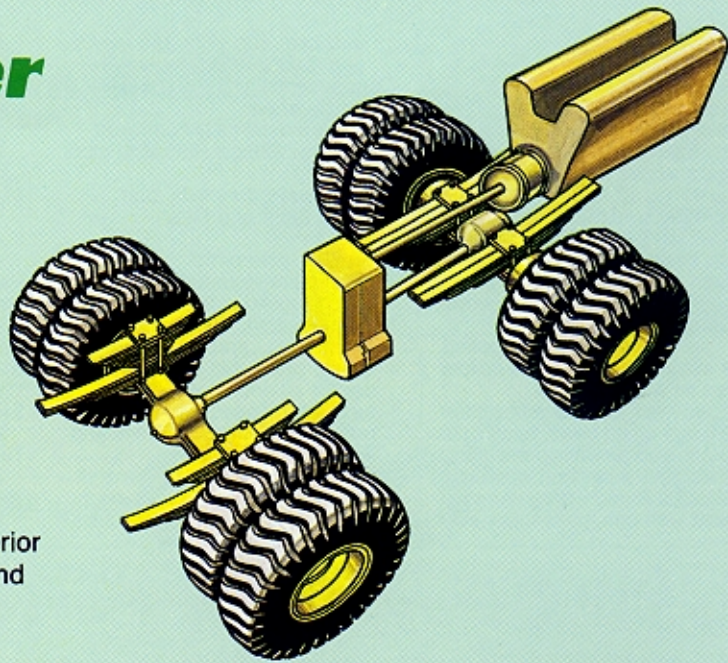
Service Capacities (Approx.)

	U.S. Gal.	(Litre)
Fuel tanks (dual)	226	(855.0)
Cooling system	49	(185.5)
Crankcase: Cummins	18	(68.1)
Detroit Diesel	16	(60.5)
Transmission	28	(106.0)
Hydraulic Reservoir	30	(113.6)
Differential: Front	2.25	(8.5)
Rear	2.50	(9.5)
Planetaries, each (4)	2.25	(8.5)

The Payhauler Advantage

Benefits of ALL-WHEEL-DRIVE

The **all-wheel-drive** concept incorporates two equally loaded and powered drive axles with dual wheels, front and rear. This design, with ideal power and weight distribution, utilizes more efficient drive-train components and a lighter but stronger frame. **All-wheel-drive** provides a lower center of gravity and loading height, superior roll control and stability, all-weather operation and lowest tire cost for superior hauling economy.



Unmatched TRACTION . . . Operate More Days per Year

On the Payhauler, all the wheels drive and retard the hauler, providing unmatched tractive effort. The load is carried equally by each wheel. Dual tires put more rubber on the ground and provide excellent flotation. Each wheel has equal driving and retarding force. No other hauler can boast the total mobility that keeps the Payhauler working when others can't. The 350C Payhauler's positive traction maximizes available production time to meet the most demanding schedule.

Faster – Safer – Comfortable RIDE . . . More Hauling Cycles per Hour

The payload on the Payhauler rides low for greater stability. The load is carried equally on both axles and all wheels. Vehicle roll and sway movements are fully controlled using simple leaf spring suspension. The operator always has a good, smooth ride. With a non-punishing ride, the 350C Payhauler can operate safely . . . at higher speeds . . . on downhill hauls . . . in turns . . . and on loose surfaces. Ample driving power is always available. The gear ratios are close, and with **all-wheel-drive**, rim-pull is equal on all eight tires.

Excellent MANEUVERABILITY

The Payhauler **all-wheel-drive** design incorporates a short wheelbase for better weight distribution and improved maneuverability. The front wheels pull the Payhauler through a turn, therefore, even at moderate speeds and in soft roadway conditions, the published 350C Payhauler turning circle is realistic.

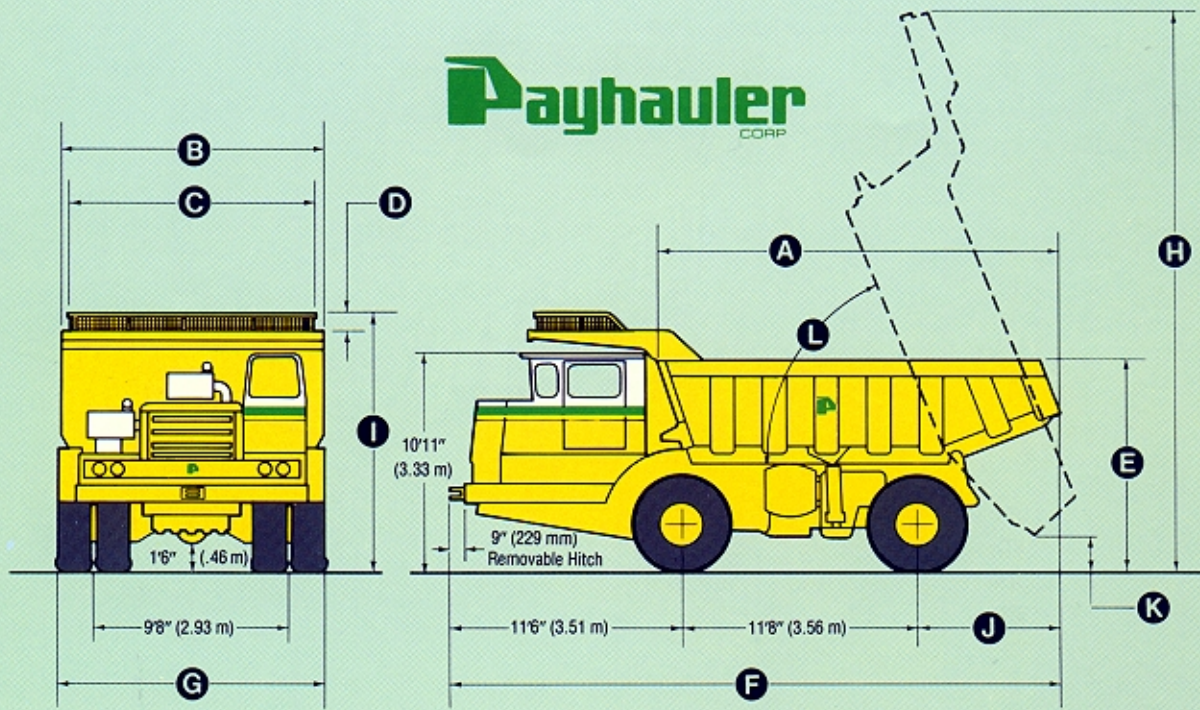
Longer Life and Lower TIRE COST

A set of tires on a Payhauler last longer. Eight equally loaded driving tires, instead of four, put more working rubber on the ground for reduced abrasion and even wear. With **all-wheel-drive**, side scuffing of non-driven front tires is eliminated.

Replacement costs of eight 18.00 x 25 tires for the 350C Payhauler vs the price of six 21.00 x 35 or larger tires on the traditional 50-ton hauler represent a $\approx 35\%$ savings. Since tire costs represent $\approx 25\%$ of operating costs, this, in addition to longer tire life, gives Payhauler owners a tremendous cost-per-ton advantage.

The Payhauler is a PROFIT MAKER

The advanced design and superior quality of the **all-wheel-drive** 350C Payhauler rewards owners with compound benefits. It costs less to operate . . . to maintain . . . to own. Because of superior traction, maneuverability and stability, the 350C Payhauler will work many additional days per year and haul more at a lower cost per ton mile than any comparable hauler.



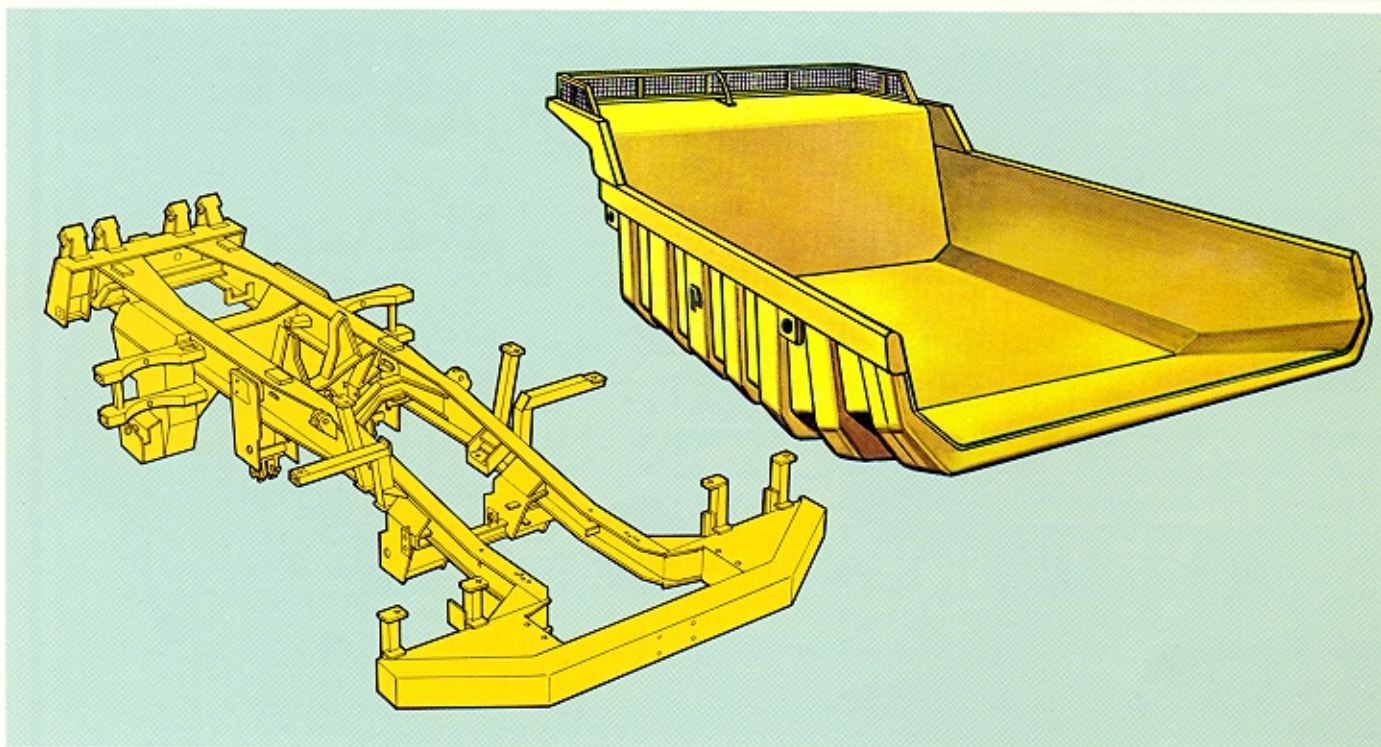
Rated Payload - 50 ton (45mt)

NOTE: Specifications include all standard equipment and/or options as shown.			BODY SERVICE				
			Rock	Heavy Rock	Earth	Coal	
BODY DIMENSIONS	SAE Capacity, yd ³ (m ³)	Heaped 1:1	51.7 (39.5)	51.7 (39.5)	51.7 (39.5)	78.0 (59.6)	
		Heaped 2:1	41.8 (32.0)	41.8 (32.0)	41.8 (32.0)	66.7 (51.0)	
		Heaped 3:1	38.3 (29.3)	38.3 (29.3)	38.3 (29.3)	62.9 (48.1)	
		Struck	31.1 (23.8)	31.1 (23.8)	31.1 (23.8)	55.7 (42.6)	
	Inside Length, (m)	A	19'9" (6.02)	19'9" (6.02)	19'9" (6.02)	19'6" (5.94)	
	Width, (m)	Outside	B	13'2" (4.02)	13'2" (4.02)	13'2" (4.02)	14'2" (4.32)
		Inside	C	12'4" (3.77)	12'4" (3.77)	12'4" (3.77)	13'5" (4.09)
	Depth, (m)		4'1" (1.24)	4'1" (1.24)	4'1" (1.24)	6'4" (1.93)	
	Fence height, (mm)	D	10" (254)	10" (254)	10" (254)	—	
	Floor Thickness, (mm)		0.75" (19)	1.25" (32)	0.50" (13)	0.50" (13)	
HAULER WITH BODY	Loading Height, (m)	E	10'11" (3.33)	10'11" (3.33)	10'11" (3.33)	13'0" (3.98)	
	Overall Length, (m)	F	30'3" (9.22)	30'3" (9.22)	30'3" (9.22)	30'3" (9.22)	
	Overall Width, (m)	G	13'3" (4.04)	13'3" (4.04)	13'3" (4.04)	14'2" (4.32)	
	Overall Height, (m)	Body raised	H	27'5" (8.36)	27'5" (8.36)	27'5" (8.36)	27'2" (8.28)
		Body lowered	I	13'4" (4.06)	13'4" (4.06)	13'4" (4.06)	13'0" (3.98)
	Overhang, (m)	J	7'1" (2.16)	7'1" (2.16)	7'1" (2.16)	7'1" (2.16)	
	Clearance, body raised, (m)	K	1'11" (0.58)	1'11" (0.58)	1'11" (0.58)	2'7" (0.79)	
	Dump angle, degrees	L	67	67	67	55	

Weights and Distribution, lbs (kg) Approx. with Rock Body	Empty		Loaded	
	Front	51,400 (23,315)	86,500 (39,236)	
	Rear	21,400 (9,707)	86,300 (39,146)	
	*Total	72,800 (33,022)	172,800 (78,382)	

*For a Detroit Diesel powered unit, subtract 1000 lbs. (454 kg) from the total weight. All dimensions, weights and performance values are per SAE Standards and/or Recommended Practices, where applicable. Optional bodies, tailgates and miscellaneous equipment are available. Contact your dealer or Payhauler Corp.





Strong Flexible FRAME

I-beam construction eliminates several thousand pounds of frame weight without sacrificing strength or durability. The body rests on four pads strategically placed to direct equal load onto maximum strength areas over the axles. The frame is engineered to distribute all stress loads evenly.

Human Engineered CAB

(Ergonomic Design)



The cab, designed for easy access, provides maximum operator comfort and safety. All instruments, gauges, air controls, heat controls and switches are placed within easy reach of the operator. The cab provides a pressurized environment with filtered air exchanged 4 times a minute. The sound deadening system exceeds OSHA and MSHA requirements for operator sound exposure limits. There are no long, tiring days for a 350C Payhauler operator.

Low Flat Bottom BODY

The Payhauler is easy to load because of the low height and long body length. The flat, open body provides the largest target for a variety of loading methods. A high dumping angle and wide flat chute discharge the load, with reduced side spill – well behind the wheels – away from the tires. The lift cylinders are three-stage hydraulic and fast acting. Three duty range bodies are available to handle any application. The canopy is a certified Roll-Over Protective Structure (ROPS).

Payhauler QUALITY Reduces Maintenance

The Payhauler is designed to stay on the job. Lubrication and filter service periods have been extended. All parts and assemblies are manufactured to meet the highest standards. When necessary, repairs are faster, simpler and less expensive. Axle components are easily removed. All chassis assemblies are accessible and contain many interchangeable, smaller and less expensive parts. For example, simple leaf springs, compared to expensive and sensitive nitrogen-oil suspension, save thousands of dollars in replacement costs and service.

Payhauler PRODUCT SUPPORT

Payhauler Corp. and your Payhauler dealer/distributor, a knowledgeable and experienced team, are ready to assist with individual application counseling and provide these invaluable after-purchase benefits for all Payhauler owners:

- Quality Parts and Service Support
- Preventive Maintenance Programs
- Component Exchange Service
- Hauler Custom Engineering
- Training for Operators and Mechanics

350 C Payhauler Equipment

Standard

Air dryer
 Alarm, backup
 Alternator, 24 volt, 50 amp
 Antifreeze
 Axles, full floating planetary drive, front and rear, 3.1:1 differentials
 Batteries (2) 12 volt
 Body, 41.8 cu yd (32 cu m) heaped (SAE 2:1) capacity, rock body with heated mono-floor
 Brakes: Service-air over hydraulic, self adjusting, all-wheel sliding dual caliper disc.
 Parking—spring applied, air release, sliding single caliper disc on each axle
 Cab, two man, all-steel with shatter resistant tinted glass, heater, defroster, cab air filter pressurizer, windshield wiper and washer, adjustable high back "Air-ride" seat with belt, passenger seat

and belt, sun visor and insulation (sound and temperature)
 Canopy fence
 Drive, all-wheel
 Fan, thermostatically controlled
 Fuel tanks, 226 gal (855 litre) total capacity
 Guard, heavy duty belly pan
 Hitches, Front and Rear
 Horns, air
 Interaxle differential, equipped with semi-automatic lock-up clutch applied in first and reverse
 Instrumentation: Gauges - air, engine oil and transmission clutch pressure; converter oil, engine oil and coolant temperature; hour, speed, tach and volt meters; indicators and warning lights-
 air cleaner service, downshift, engine coolant level, headlight high beam, interaxle differential

clutch on, parking brake on, transmission cold temperature, oil filter change and low air pressure wig-wag
 Lights, 4 front, rear back-up, red tail/stop
 Lube system, front axle remote
 Mirrors, right and left side/rear view
 Paint, polyurethane enamel over epoxy primer
 Radio, AM/FM
 Retarder, pedal applied
 Rock ejector bars - rear
 Shutters, radiator
 Steering, power with follow-up control and electric auxiliary
 Suspension, leaf spring with variable rate shock absorbers
 Tires, dual front and rear, 18.00-25, 32PR (E-3) tubeless, rock tread
 Torque converter with automatic lockup

Transmission, six speed power shift with downshift inhibitor
 Vandalism protection

Optional

Air conditioning
 Aprongate
 Bodies, other than rock
 Cold starting aids
 Differentials, other gear ratios
 Fast-fill fuel equipment
 Fog lights
 Radio, AM/FM
 Rock ejector bars - front
 Service Module
 Tires, other than standard
 Tools

NOTE: Contact Payhauler Corp. or your dealer for other available equipment.

350 C Payhauler Performance

To Determine Vehicle Performance:

Step 1

Read down on the appropriate vehicle weight line to the intersection of the percent of total resistance.

Step 2

From that point, read horizontally to the speed curve.

Step 3

At the point of intersection with the speed range curve, read down to the maximum speed obtainable.

To Determine Retarder Performance:

Step 1

Read down on the appropriate vehicle weight line to the intersection of the percent of total assistance.

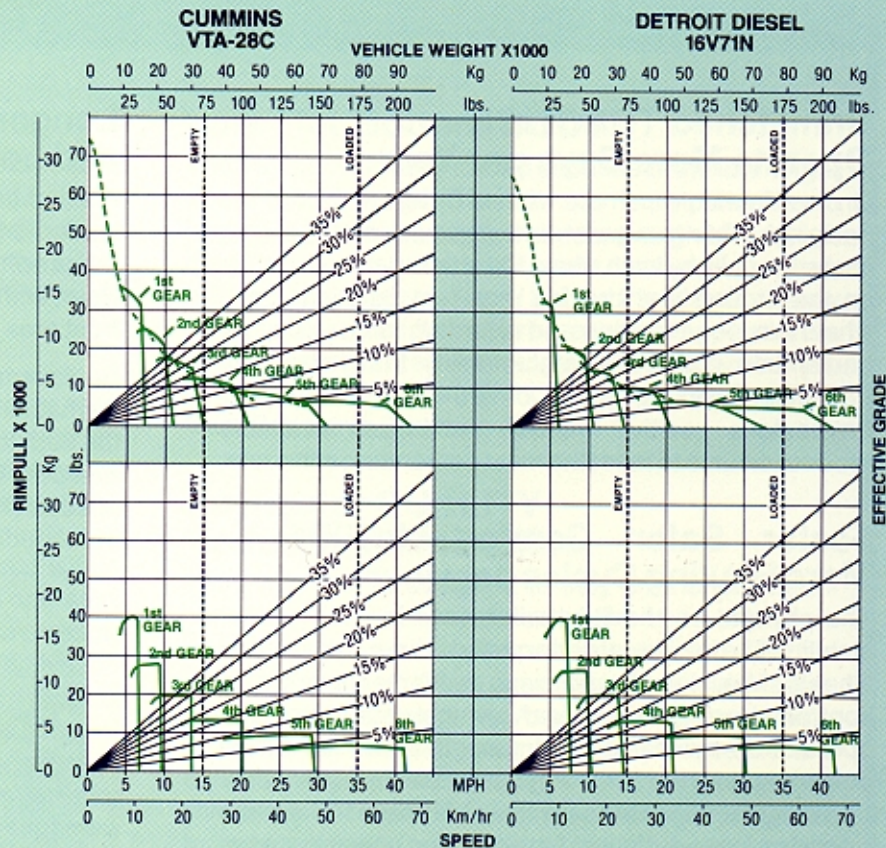
Step 2

From that intersection, read horizontally to the speed range curve, stop where the line intersects the curve.

Step 3

Read down to determine the speed which the retarder will provide.

NOTE: EFFECTIVE GRADE equals actual grade (percent) plus rolling resistance for Vehicle Performance or minus rolling resistance for Retarder Performance. Useable rimpull depends upon available traction and gross vehicle weight. Performance shown is based on vehicle with standard equipment. Full size performance curves are available on request.



Specifications subject to change without notice. Illustrations may include optional equipment and accessories and may not include all standard equipment.



1333 Kirk Road, Batavia, IL 60510
 312-879-6100 TWX: 9102360946
 FAX: 312-879-6148

80SP81101P
 10000

Printed in U.S.A.

