

CATERPILLAR

769C Truck

Summary of features

- **31.8 metric tons (35 tons) capacity** . . . dual-slope body with V-bottom provides large target, low loading height, excellent load retention.
- **Oil-cooled disc brakes** are fade resistant . . . completely sealed against moisture and abrasives.
- **Oil-pneumatic suspension** . . . absorbs haul road and loading shocks to reduce stresses on frame and other components.
- **Cat 3408 diesel Engine** delivers 336 kW (450 horsepower) at the flywheel. Low loaded-vehicle-weight-to-power ratio.
- **Cat-designed-and-built automatic transmission** . . . seven speeds forward and one reverse. Top speed loaded: 69 km/h (43 MPH).
- **CAT PLUS** . . . from your Caterpillar Dealer . . . the most comprehensive, total customer support system in the industry.



Caterpillar Engine

Flywheel kilowatts @ 2000 RPM 336
 Horsepower 450

(Kilowatts (kW) is the International System of Units equivalent of horsepower.)

The net power at the flywheel of the vehicle engine operating under SAE standard ambient temperature and barometric conditions, 29°C (85°F) and 995 mbar (29.38" Hg), using 35 API gravity fuel oil at 15.6°C (60°F). Vehicle engine equipment includes fan, air cleaner, water pump, lubricating oil pump, fuel pump and alternator. Engine will maintain specified power up to 2300 m (7,500 ft.) altitude.

Caterpillar 4-stroke-cycle 3408 diesel Engine, 65° V-8 with 137 mm (5.4") bore, 152 mm (6.0") stroke and 18.0 litres (1,099 cu. in.) displacement.

Turbocharged and aftercooled. Integral inlet manifold porting with two intake and two exhaust valves per cylinder. Valves are actuated by a pushrod mechanism. Single camshaft is mounted into "V" of engine. Variable timing fuel system. Adjustment-free fuel pumps, non-clogging injection valves and precombustion chamber design.

24-volt direct electric starting system with glow plugs for preheating precombustion chambers. 50-amp alternator. Two 220-amp-hour, 12-volt batteries.

769C

Truck



transmission

Caterpillar seven-speed, automatic transmission. Seven speeds forward and one reverse. Reverse is torque converter drive. First gear has both torque converter drive and direct drive. Gears two through seven are direct drive. Single-lever shift control provides automatic shifting in all gears up to the one selected by the control lever.



final drives

Type	Planetary
Axle	Full Floating
Ratios:	
Differential	2.74:1
Planetary	4.80:1
Total reduction	13.15:1



tires

Productive capabilities of the 769C Truck are such that, under certain job conditions, tkm/h (Ton-MPH) capabilities of standard or optional tires could be exceeded and, therefore, limit production. Caterpillar recommends the user evaluate all job conditions in order to make proper tire selection.

Standard, front and dual rear:
18.00-33, 28 PR (E-3)

Optional, front and dual rear:
18.00-33, 32 PR (E-4)
18.00-33, Radial steel cord



brakes

(System meets OSHA and MESA regulations)

Front — air-over-oil actuated, expander tube type. Operator can switch front brakes out of service system when not needed.
Brake lining surface

3200 cm² (496 sq. in.)

Rear — Caterpillar oil-cooled, air-over-oil actuated disc brakes provide both service and retarder braking. Completely sealed from dirt and water. Individually replaceable as units.

Braking surface

50 742 cm² (7865 sq. in.)

Emergency/parking — spring applied, oil pressure disengaged oil-cooled disc brakes on rear axle. Front brakes will activate as part of the emergency system even if switched out of service system.



steering

Separate hydraulic system with twin double-acting cylinders. Front suspension cylinders serve as king-pins. Manually controlled electric supplemental steering system is standard.

Turning diameter on front wheel track

16.5 m (54')

Vehicle clearance turning circle

18.5 m (60'8")

Steering angle (left or right)

39°



frame

Full box-section with torque tube crossmember, integral front bumper. Front box beams for strut and ROPS support. Box-section rear crossmember for body and ROPS support with attachment points for maintenance platform and rear hood hinge support.



cab

Two cab versions available, one with integral ROPS which is standard in U.S.A. Both all-steel, sound-suppressed cabs have fully suspended seat with seat belts. Convenient gauge arrangement for quick observation. Heater/defroster, tinted glass, passenger seats with seat belt, sun visor, mirrors on both sides, dome and courtesy lights. Excellent visibility.



service refill capacities

	Litres	U.S. Gallons
Fuel tank	530	140
Cooling system	106	28
Crankcase	45	12
Differential & final drive	83	22
Steering tank	55	14.5
Steering system (includes tank)	83	22
Hydraulic tank	166	44
Hydraulic system (includes tank)	329	87



suspension

Independent, self-contained, oil pneumatic suspension cylinders on each wheel. Front suspension cylinders are bolted to both upper and lower frame members for maximum support. A rear sway bar attaches to the frame and differential housing, minimizing lateral sway and improving vehicle handling and operator comfort.

Effective cylinder stroke, front

236 mm (9.3")

Rear

165 mm (6.5")

Rear wheel oscillation (maximum)

±8.5°



body

Dual-slope main floor with V-bottom. Eight box-sectioned, ribs form framework for single-thickness, high-tensile, heat-treated steel side, front and bottom plates with 6205 bar (90,000 psi) yield strength. Curved corner sections between sides and bottom join with wrap-around ribs for added strength and durability. Exhaust heating is standard.

Sidewall plate thickness

10 mm (0.38")

Front plate thickness

10 mm (0.38")

Bottom plate thickness

19 mm (0.75")

Operating width

3912 mm (12'10")



body hoists

Twin, two-stage hydraulic cylinders mounted inside main frame. Power raise in both stages and power down in first stage.

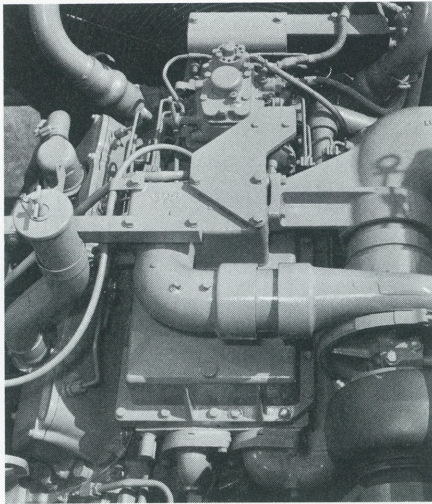
Pump capacity

310 lit/min (82 gpm)

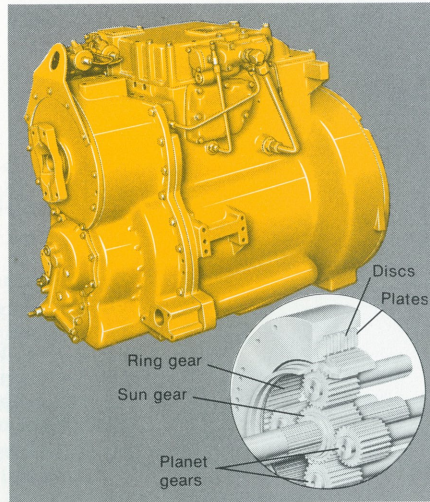
Relief valve setting

152 bar (2200 psi)

Reliable Cat power train — efficient and responsive.

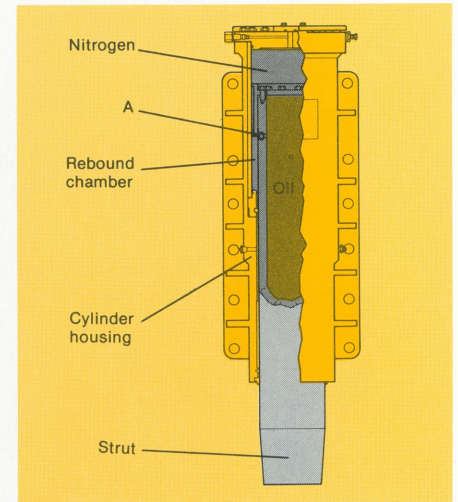


Cat-designed and built 3408 V-8 Engine delivers smooth, fast performance. This engine develops 336 kW (450 horsepower) at the flywheel and has a low weight-to-power ratio. Proven in the Cat 631 family of Scrapers, the 3408 has many reliable features you've come to expect from Caterpillar: cam-ground and tapered aluminum alloy pistons. Stellite-faced valves that resist warping. Valve rotators to increase valve life. Individual, adjustment-free injection pumps. Rubber engine mounts to reduce vibration for quieter operation.



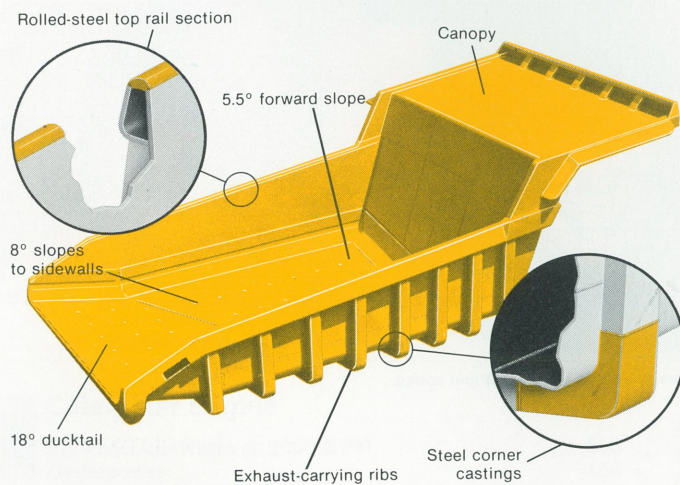
Cat automatic planetary power shift with seven speeds forward and one reverse, provides hauling speeds up to 69 km/h (43 mph). Controlled by a single lever, the transmission will automatically shift up or down between first and the top gear selected by the operator. Reverse and the lower range of first are torque converter drive. Gears two through seven are all efficient direct drive, with brief torque converter drive to cushion gear engagement during shifts. Standard downshift inhibitor reduces possibility of engine overspeeding should operator improperly downshift.

Built-in convenience, comfort &

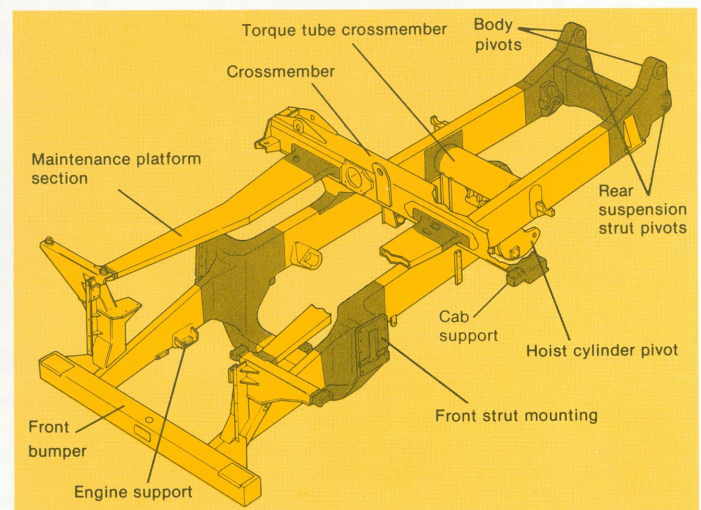


Oil-pneumatic suspension cylinders at all four wheels absorb loading shocks and haul road bumps for a smoother ride and reduced stress on operator and components. Rolling over a bump forces the strut into the cylinder housing, compressing nitrogen through orifices and a check valve at point A. This also forces oil into a rebound chamber through orifices and a check valve at point A. When the wheel drops back down, the oil in the rebound chamber returns to the inner chamber at a restricted rate, controlling rebound.

Rugged components — for rugged work.

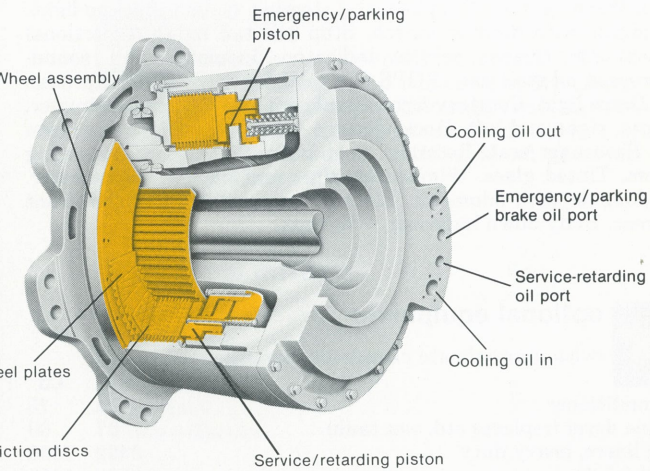


Familiar dual-slope Cat body has eight box-sectioned ribs to reinforce the body against loading stresses. The ribs with steel corner castings are welded to the floor, curved corner plates add strength and durability in this high stress area. Heavy rolled-steel toprail sections reinforce the sidewalls. An 18° slope on the body helps retain loads on the haul road. An 8° slope from the center of the bed to the sidewalls plus a 5.5° slope toward the front help deflect loading shocks.

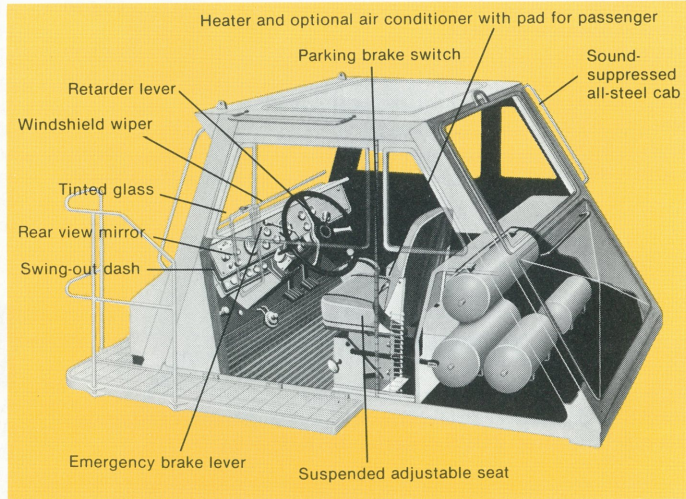


Full box-sectioned frame has torque tube crossmember, integral front bumper, box-section crossmember for body and ROPS support, and fore and aft box beams for strut support. Rear crossmember has attachment points for maintenance platform and rear hood hinge support. Two additional fore to aft box-section reinforcing members run between the front and rear maintenance platform and cab attachment areas. The maintenance platform is bolted directly to the fore-to-aft reinforcing member and the vertical front frame members.

protection.



Oil-cooled disc brakes: a time proven design that provides reliable, fade-resistant braking. These brakes act on the 769C rear wheels and combine four braking functions: service, emergency, parking, and retarding. Cooled oil is constantly pumped through the brakes removing heat generated by constant service or retarder use. Expander tube brakes are standard on the front wheels and can be ditched out of the service brake system when not needed.



Standard heavy duty all-steel sound-suppressed cab is available with or without integral ROPS protection (ROPS is standard in U.S.A.). When properly installed and maintained, the cabs meet OSHA and MESA requirements for operator sound exposure limits in effect at the date of manufacture. The cabs feature easy-to-read dash gauges with international symbols. All gauges point to 3 o'clock in normal position for fast, at-a-glance checking. There's a fully adjustable suspension seat for the operator, and a cushioned passenger seat — both with seat belts. Heater, defroster, windshield wipers and washers, rear view mirrors are all standard equipment. Air conditioning is an available option.

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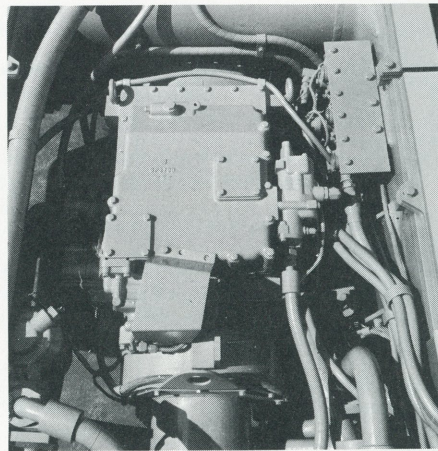
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serviceability — less maintenance time more work time.



In-frame serviceability of drive train: Raise the dump body and insert the self-storing retaining pins for unrestricted access to transmission, torque converter, drive shaft and differential.

Service time and effort are minimized on the 769C. Steering hydraulic tank and air lines are easily checked and serviced from the uncluttered maintenance platform. Engine coolant is checked through an access port to the front of the platform and engine oil dipstick is accessible through an access door at the rear. A hinged door on the right side of the platform provides access to batteries. Hinged doors in the service deck open completely exposing the engine compartment and radiator area — giving mechanics a clear work area around the engine. Fuel filters, engine, transmission and torque converter oil filters are easily accessible from ground level.



CAT PLUS — the most comprehensive, total customer support system in the industry — comes with every 769C. Your Caterpillar Dealer provides product application counseling and flexible finance planning before you buy, and these services after:

- Planned inspection and preventive maintenance
- Component Exchange Service
- In-field service
- Complete range of technical assistance
- Machine customizing services
- Personnel training for operators and mechanics
- Cat Care seminars



weights (approximate)

	Kg	Lb
Total empty weight	29 556	65,160
Chassis with hoist	21 609	47,640
Body, empty	7947	17,520
Weight distribution (empty):		
Front axle 49%	14 606	32,200
Rear axle 51%	14 950	32,960
Loaded — based on 31 750 kg (70,000 lb.) load:		
Front axle 35%	21 219	46,780
Rear axle 65%	40 089	88,380
Total gross weight	61 308	135,160



ROPS

(ROPS cab is standard in U.S.A.)
ROPS (Rollover Protective Structure) offered by Caterpillar for this machine meet ROPS criteria: SAE J1040a.



capacity

	Tons	M ³	Cu. Yd.
Struck	31.8 t (35)	17.4	22.8
Heaped 3:1		21.6	28.2
Heaped 2:1 (SAE)		23.5	30.8
Heaped 1:1		29.4	38.5



standard equipment

24-volt direct electric starting. 50-amp alternator. Automatic power shift transmission with down shift inhibitor. Oil disc brakes (rear). Expander tube brakes (front). Emergency braking system. Parking brake. Brake heat exchanger. Backup alarm. Warning horn. Supplemental steering system. Backup light. Headlights with dimmer switch. Stop and tail lights. Directional signals. Air cleaner service indicator. Insulated and sound-suppressed all-steel cab (ROPS cab in U.S.A.). Vandalism protection. Dome light. Courtesy light. Crankcase guard. Heater/defroster. Mirrors, right and left. Rock ejectors. Sun visor. Full suspension seat. Passenger seat. Retarder. Seat belts. Supplemental steering system. Tinted glass. Windshield wiper and washer. Tachometer. Speedometer with odometer. Electric hour meter. Tow pins, front and rear. Body down indicator. Wet tank.



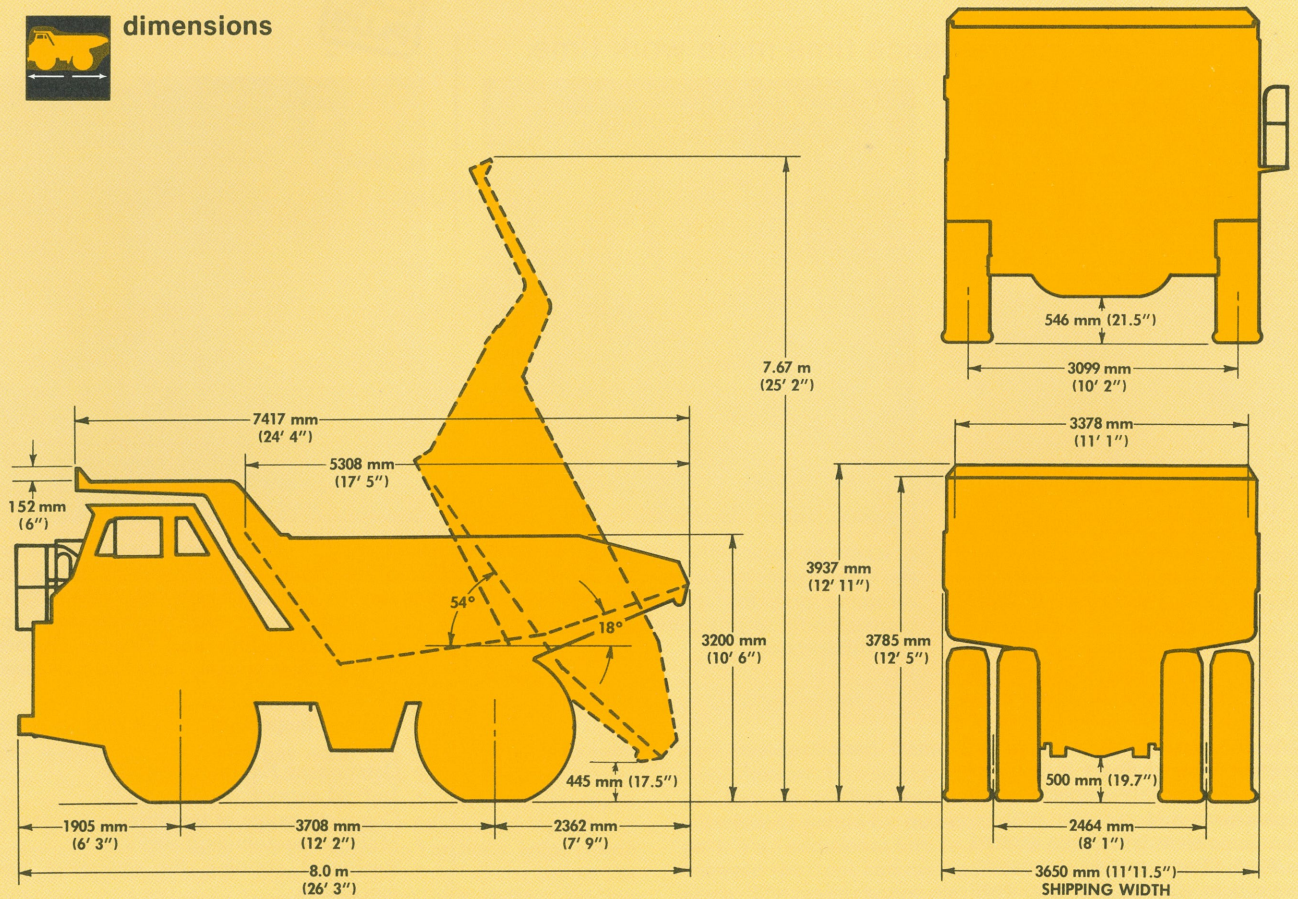
optional equipment

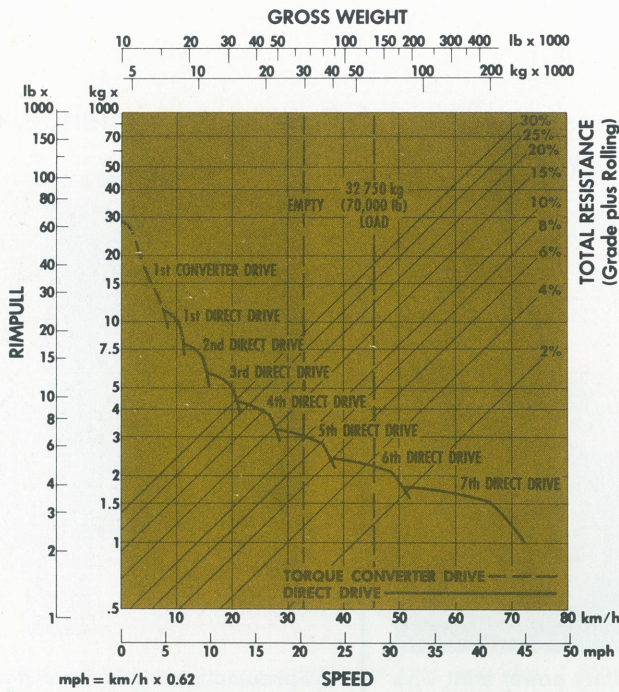
(with approximate change in operating weight)

	Kg	Lb
Air conditioner	34	75
Air line dryer (replaces std. wet tank)	27	60
Body liners, heavy duty	3402	7500
Light duty	2030	4475
Fast fuel filler, automatic	1.8	4
Manual	1.8	4
Heater, engine coolant	1.8	4
High-speed oil change	2.7	6
NoSPIN differential	-16	-35
Reverse inhibitor	2.3	5
Starting receptacle	1.4	3
Tachograph	6.0	13
Tires, set of six:		
18.00-33, 32 PR (E-4) Extra tread	726	1600
18.00-33, Radial steel cord	0	0
18.00-33, Radial steel cord	481	1060
18.00-33, Radial steel cord	294	648



dimensions





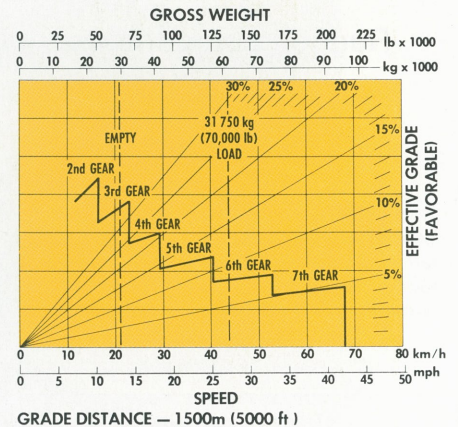
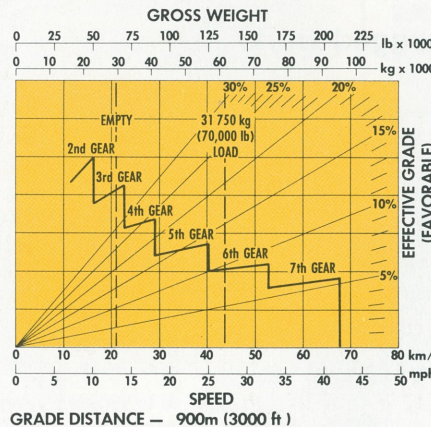
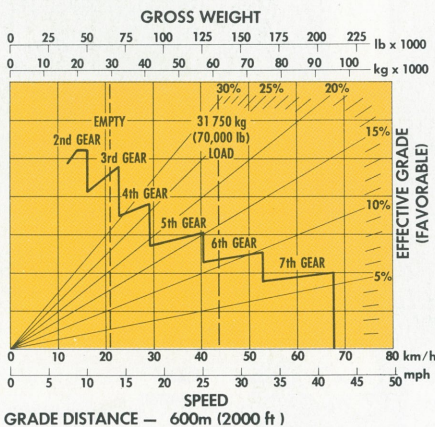
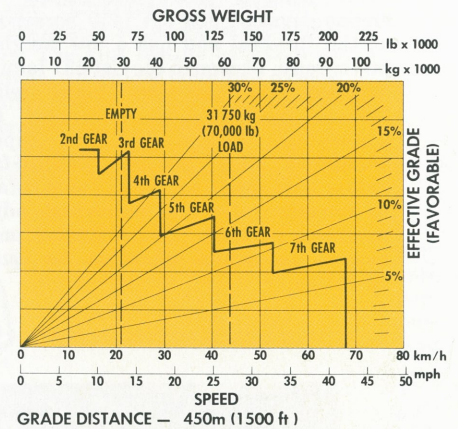
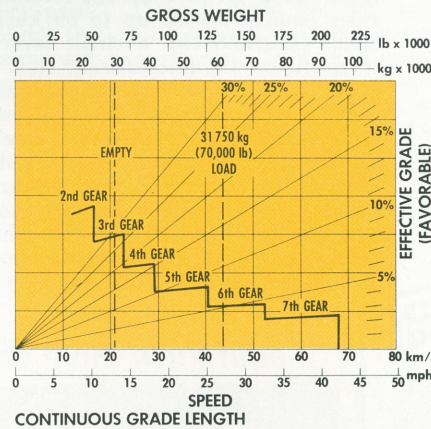
gradeability/speed/rimpull

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 (20 lb/ton) of rolling resistance.) From this weight-resistance point, read horizontally to the curve with the highest obtainable speed range, then down to maximum speed. Usable rimpull will depend upon traction available and weight on drive wheels.

Brake performance

To determine brake performance: Read from gross weight down to the percent effective grade. (Effective grade equals actual % grade minus 1% for each 10 kg/t (20 lb/ton) of rolling resistance.) From this weight-effective grade point, read horizontally to the curve with the highest obtainable speed range, then down to maximum descent speed. Brakes can safely handle without exceeding cooling capacity.

Note: Select the proper gear range 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.



Materials and specifications are subject to change without notice.