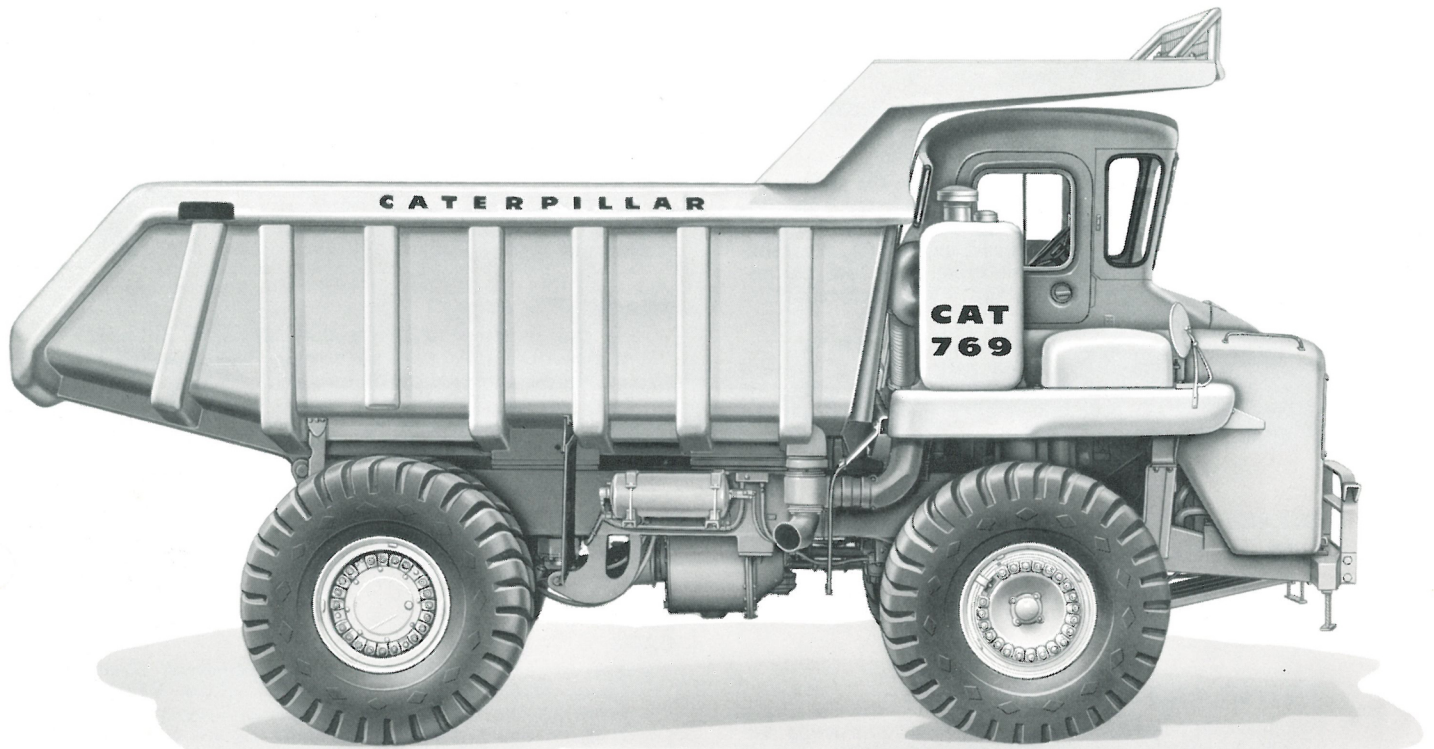


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**35-TON  
REAR DUMP TRUCK**

**CATERPILLAR**

**769**



#### **HT STEEL BODY**

- 35-Ton (31,8 t) carrying capacity
- 23.3 Cu. Yd. (17,8 m<sup>3</sup>) struck
- 55° dump angle and positive return
- Exhaust heated body standard

#### **DIESEL POWER**

- 400 HP (flywheel) Caterpillar Engine
- Automatic fuel-injection timing advance to give optimum performance at all RPM

#### **POWER SHIFT TRANSMISSION**

- Automatic shifting from torque divider drive to direct drive to overdrive in each of three forward speed ranges
- Top speed 43.0 MPH (69,2 km/h)

#### **OIL-COOLED DISC BRAKES**

- Can be used for complete stops anytime
- Can be used for 560 HP continuous braking effort

**BODY:**

Seven box-section ribs form framework for single thickness, 100,000 psi (70,3 kg/mm<sup>2</sup>) yield strength, HT steel side, front and bottom plates. Exhaust heating is standard.

Side and front plate thickness . . . . .375" (10 mm)

Bottom plate thickness . . . . .75" (19 mm)

Operating width, with canopy deflectors . . . . . 12' 7½" (3848 mm)

**CAPACITY:**

Tons . . . . . 35 (31,8 t)

Cubic yards, Struck . . . . . 23.3 (17,8 m<sup>3</sup>)

Heaped (3:1) . . . . . 28 (21,4 m<sup>3</sup>)

Heaped (2:1) (S.A.E.) . . . . . 29 (22,2 m<sup>3</sup>)

Heaped (1:1) . . . . . 34 (26,0 m<sup>3</sup>)

**BODY HOISTS:**

Twin, three-stage hydraulic cylinders, double-acting in third stage.

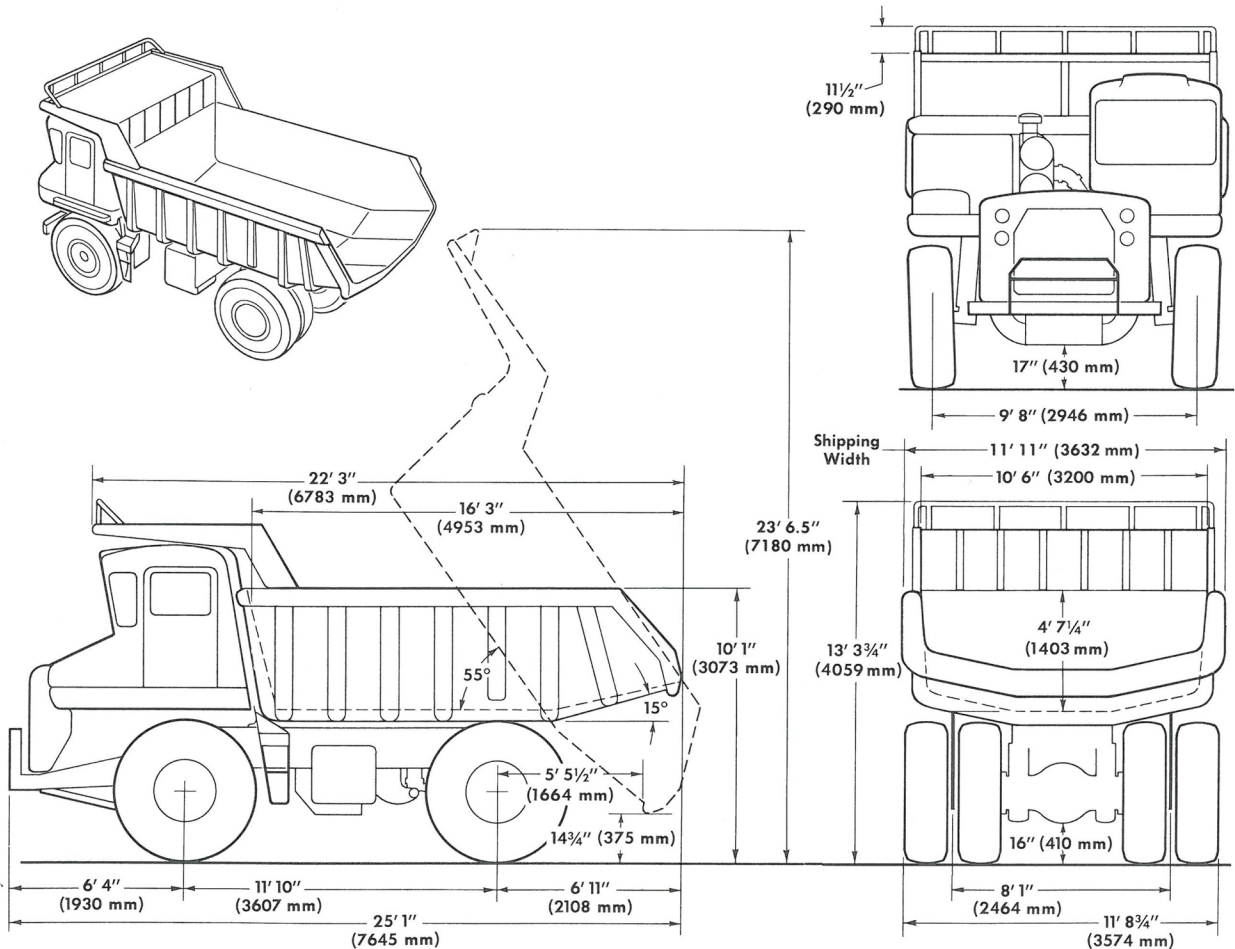
Pump capacity and pressure . . 72 GPM @ 1900 psi. (273 l/min @ 134 kg/cm<sup>2</sup>)

**STANDARD EQUIPMENT:**

Starting system, glow plugs, engine tachometer, air-suspension seat, exhaust heated body, rock ejector bars, thermostatically controlled fan, crank-case guard, oil disc brakes, body warning light, air cleaner service indicator and twin windshield wipers.

**OPTIONAL EQUIPMENT:**

Tool kit, heater and defroster, tinted safety glass for windshield, recording tachograph, backup light and alarm, rear vision mirrors (right and left), passenger seat, sun visor and windshield washer. Fuel tank, hydraulic tank and oil filler cap locks.



# 769 TRUCK

## CATERPILLAR ENGINE:

Flywheel Horsepower @ 1900 RPM..... 400

Flywheel horsepower is the net horsepower at flywheel of standard engine operating under normal temperature and barometric conditions [up to 5000 ft. (1500 m) altitude]. Standard engine equipment includes fan, air cleaners, water pump, lubricating oil pump, fuel pump, charging alternator and air compressor.

NACC H.P. for U.S.A. tax purposes ..... 70

### Design Data

Four-cycle, 5.4" (137,2 mm) bore and 6.5" (165,1 mm) stroke, six-cylinder diesel. 893 cu. in. (14,634 lit) displacement.

Pressure ratio controlled turbocharger. Intake air aftercooler. Parallel manifold porting with two intake and two exhaust valves per cylinder. Valves directly actuated by overhead camshafts. Variable Timing fuel system. Adjustment-free fuel pumps, non-fouling injection valves and precombustion chamber design.

Burns economy-type No. 2 Fuel Oil (ASTM Specification D396-48T), often called No. 2 furnace or burner oil, with a minimum cetane rating of 35. Expensive, premium-quality diesel fuel can be used, but is not required.

## DIESEL STARTING METHODS (choice of):

Direct electric starting (24-volt motor).

Air motor starting [7 cu. ft. (198 lit) air reservoir and 17 HP motor].

## POWER SHIFT TRANSMISSION:

Caterpillar-built for 769. Three automatically selected speeds — Torque Divider Drive, Direct Drive and Overdrive — in each of three manually selected gear ranges for a total of nine forward speeds, three reverse. Torque Divider Drive combines high-torque, anti-stall characteristics with direct drive response and efficiency. Single lever shift control.

## FINAL DRIVE:

Type ..... Planetary  
 Axle ..... Full-floating  
 Bearings ..... Double row roller  
 Ratios:  
 Differential ..... 2.74:1  
 Planetary ..... 4.80:1  
 Total reduction ..... 13.15:1

## TIRES (Tubeless):

Standard,  
 Front and dual rear ..... 18.00-25 (32 PR)  
 Options, Front & rear,  
 Extra tread ..... 18.00-25 (32 PR)  
 Radial Steel Cord ..... 18.00-25  
 Recommended tire pressure .. 80 psi (5,6 kg/cm<sup>2</sup>)  
 Rim size ..... 13.00-25

## BRAKES:

Rear — Caterpillar oil-cooled, air-actuated disc brakes provide both service and continuous braking effort when equipped with brake heat exchanger.

Braking surface ..... 10,545 sq. in. (6,76 m<sup>2</sup>)

Front, optional — Air boosted, hydraulically actuated, expander tube type.

Braking surface ..... 496 sq. in. (3200 cm<sup>2</sup>)

Parking — Internal expanding shoes with over-center engagement on transmission output shaft. Adjustable from seat.

## STEERING:

Full hydraulic with twin, double acting cylinders  
 Turning circle on front wheel track ..... 49.8'

(15,2 m)

Vehicle clearance turning circle ..... 54.2'

(16,5 m)

Steering angle (left or right)..... 42°

## FRAME:

Full box section, special-rolled top and bottom members, box section and torque tube type cross members, integral front bumper.

## SUSPENSION:

Independent, self-contained pneumatic-oil suspension on each wheel. Variable rebound rate reduces impact, smooths ride.

Effective cylinder stroke, front... 9.2" (234 mm)

rear... 7.6" (193 mm)

Rear wheel oscillation (maximum)..... 11°

## CAB:

Constructed of lightweight, shock resistant fiber glass. Windshield tilted to reduce glare. Ventilated air circulation. Twin wipers. Gauges electrically energized for lighting, sealed against dust.

## SEAT:

Caterpillar air-suspension with automatic leveling. Adjustable forward and back.

## SERVICE INFORMATION:

	U.S. Gal.	(lit)
Fuel tank .....	100	(378)
Cooling system .....	34.5	(131)
Crankcase .....	9.25	(35)
Differential .....	16	(61)
Final Drive (each side).....	3.25	(12)
Integral transmission, brake, steering and hoist refill system .....	60	(227)

## WEIGHTS (approx.):

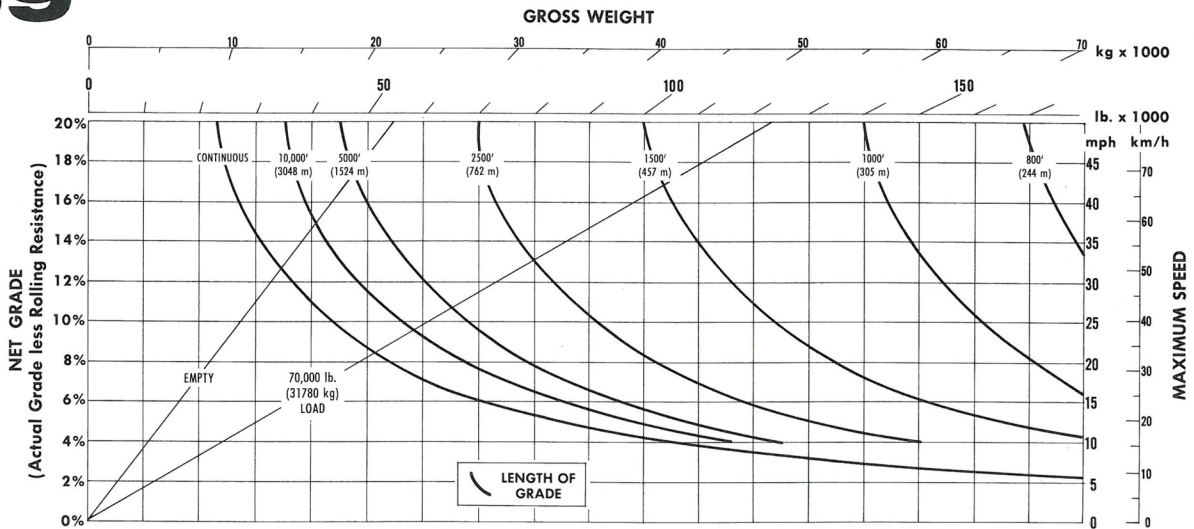
	Lb.	(kg)
Total empty weight*.....	55,870	(25365)
Chassis with hoists.....	41,870	(19009)
Body, empty .....	14,000	(6356)

### Weight distribution

Empty,		
Front axle, 51%.....	28,490	(12934)
Drive axle, 49%.....	27,380	(12431)
Loaded [based on 70,000 lb. (31780 kg) load]		
Front axle, 33%.....	41,540	(18859)
Drive axle, 67%.....	84,330	(38286)
Total gross weight.....	125,870	(57145)

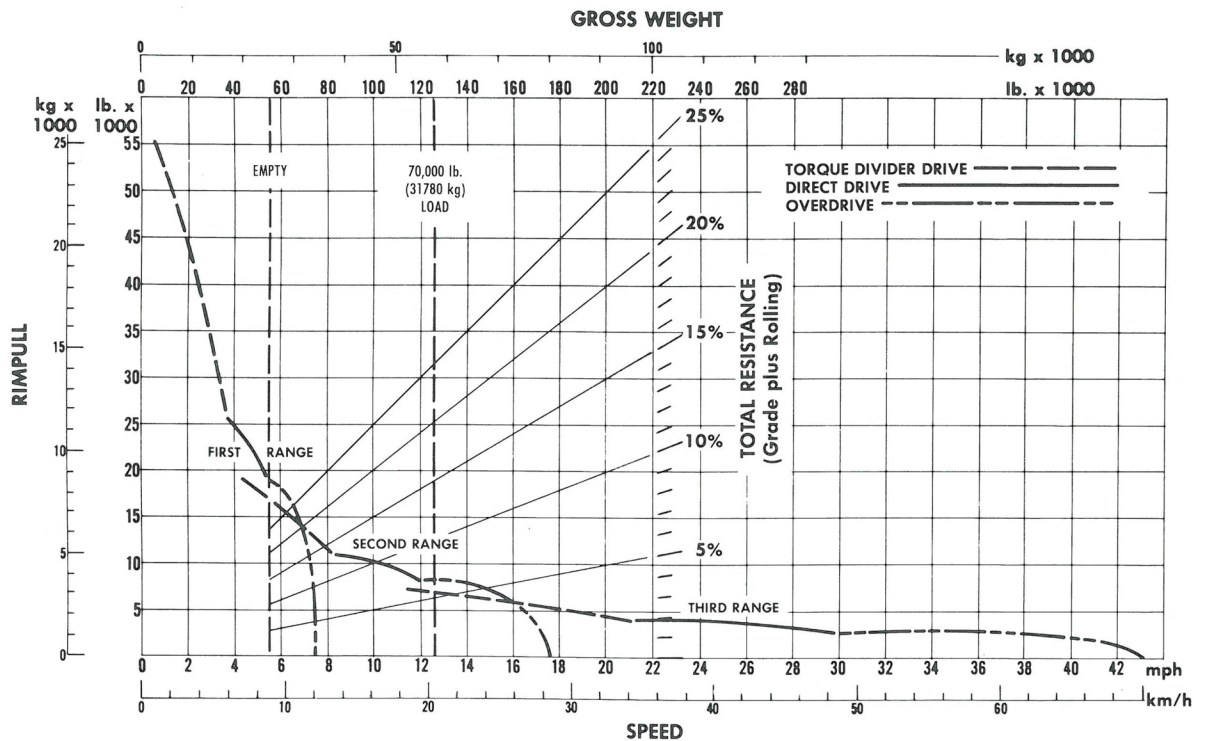
\*Includes all wheel brakes and brake heat exchanger.

## OIL-DISC BRAKE PERFORMANCE WITH HEAT EXCHANGER



**To determine brake performance:** Read horizontally from net grade to vehicle weight [Net grade equal actual % grade less 1% for each 20 lb/ton (10 kg/t) of rolling resistance]. From weight-grade point, read vertically to grade length line, then horizontally to the right to determine maximum descent speed brakes can safely handle without exceeding cooling capacity. When braking is continuous over prolonged periods, rated engine RPM should be maintained.

## GRADEABILITY — SPEED — RIMPULL



**To determine gradeability performance:** Read from gross weight down to the % of total resistance. [Total resistance equals actual % grade plus 1% for each 20 lb/ton (10 kg/t) 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 depends upon traction available and weight on drive wheels.

CONVERSION TABLE	
1 Mile = 1,609 Kilometers	1 Lb. = 0,4536 Kilogram
1 Foot = 30,48 Centimeters	1 Sq. In. = 6,452 Sq. Centimeters
1 Inch = 2,54 Centimeters	1 Sq. Ft. = 929 Sq. Centimeters
1 U.S. Gal. = 3,785 Liters	1 Sq. Yd. = 0,836 Sq. Meters
1 U.S. Gal. = 0,833 Imp. Gals.	1 Cu. Yd. = 0,7646 Cu. Meters
1 U.S. Gal. Diesel Fuel = 7.3 Lb. (approx.)	
1 U.S. Gal. Coolant = 8.3 Lb. (approx.)	

# CATERPILLAR

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Materials and specifications are subject to change without notice.