

TEREX TS-36 COAL SCRAPER



- 619HP (462 kW) Flywheel Power
- All-Wheel Drive
- 80,000 lbs. (36 288 kg) Payload

TEREX TS-36 COAL SCRAPER

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

CAPACITY

Payload80,000 lbs. (36 288 kg)
Struck Measure (S.A.E. Rating)36 yd³ (27.5 m³)
Heaped 1:1 (S.A.E. Rating)46 yd³ (35.2 m³)

TRACTOR (007)

ENGINE

Detroit Diesel 12V-71N, 2 Cycle Diesel

Gross Tractor Power @ 2100 RPM434HP (324 kW)
Flywheel Power @ 2100 RPM394HP (294 kW)

Above ratings at sea level and 60°F. (15.5°C.). Gross Tractor Power rating includes deductions for standard engine equipment such as water pump, fuel pump and lubricating oil pump. Flywheel Power rating is the net power after deduction from Gross Tractor Power for fan, alternator and air compressor requirements.

Maximum Torque @
1200 RPM1154 ft. lbs. (1 565 N·m)
Number of cylinders12
Bore and stroke4.25 in. x 5 in. (108 mm x 127 mm)
Piston Displacement852 in.³ (14.0 litres)
FuelNo. 2-D recommended
Governor typeLimiting Speed
Air cleaners(2) Donaldson Dry, T-type (STG-14)

TRANSMISSION—Allison CLT-5860

Allison Powershift transmission with planetary gearing. Six speeds forward, one reverse. Full power-shifting through hydraulically actuated multiple-disc clutches. Hydraulic retarder, integral with transmission, is available to assist service brakes on long downhill hauls.

● Maximum speed @ 2100 RPM30 MPH (48.3 km/hr)

TORQUE CONVERTER—Allison TC-580

Single stage converter mounted integral with transmission incorporates automatic lock-up in top five speed ranges for direct drive efficiency and faster haul road speeds.

DRIVE AXLE

Heavy duty, full floating with single reduction bevel gear differential and planetary reduction in each wheel. The TEREX operator controlled power locking differential is standard. This feature helps prevent wheel slippage under poor traction conditions and low vehicle speeds. A foot pedal engages and disengages the locking mechanism.

HYDRAULIC SYSTEM

Hydraulic system is filtered and has one reservoir with two separate interchangeable pumps for steering and scraper controls.

Scraper Bowl Control Pump - Gear Type

Capacity @ 2100 RPM
& 1750 psi (12 066 kPa)80 GPM (5.05 lit/sec)
System Relief Pressure1750 psi (12 066 kPa)

CONTROLS

Three lever control allows independent operation of the apron, bowl and ejector. A single movement of the apron lever closes the apron and raises the bowl to travel position. Hydraulic valves are mechanically actuated.

STEERING SYSTEM

Full hydraulic type provided by two single stage, double acting cylinders. Full 90° swing to either right or left. Steering cylinders mounted below gooseneck to steering frame for good stability.

Bore and stroke7.00 in. x 20.75 in. (178 mm x 527 mm)
Pump-gear type80 GPM (5.05 lit/sec) @ 2100 RPM
& 1850 psi (12 756 kPa)
System Relief Pressure1850 psi (12 756 kPa)

BRAKES (Tractor & Scraper)

Service - Internal expanding S-cam shoe brakes are fully air actuated. Four shoes per wheel.

Parking - Service brakes to all wheels are applied for parking purposes.

● Emergency - System automatically applies brakes in the event of air losses. Warning horn alerts operator to condition. Meets SAE standard J319B.

Air Compressor Capacity - 12 ft³/min (5 650 cm³/s).

TIRES & RIMS (Tractor & Scraper)

Tire Size	Rim Width
Standard - 33.5 x 33 - 38PR, E-3.....	28 in. (711 mm)
Optional - 33.5 x 33 - 44PR, E-3.....	28 in. (711 mm)

Radial Steel Cord Tires Available.

NOTE: Productivity and performance capabilities of TEREX scrapers are such that under specific job conditions the Ton-MPH capability of Standard or Optional tires can be exceeded. Operation above the Ton-MPH rating may lead to premature tire problems. TEREX recommends that the user consult the tire manufacturer, and evaluate all job conditions in order to make the proper tire selection.

ELECTRICAL

Direct electric starting, 24 volts, negative ground. Two heavy duty 12 volt 8D 205 amp-hr batteries. Delco Remy model 25 SI sealed alternator, output 23 amps at 700 RPM, 50 amps at 2100 RPM. Transistorized voltage regulator integral with alternator. Electrical disconnect master switch, two front working lights, and cutting edge light standard. All dash gauges illuminated. Integral neutral start position for safe starting.

SERVICE DATA

	U.S. Gal.	(litres)
Cooling System	22.5	(85)
Fuel Tank	200	(757)
● Crankcase (incl. filters)	9.5	(36)
Transmission & Converter	13.5	(51)
Hydraulic System (dry fill)	73	(276)
Drive Axle	10.8	(41)

SCRAPER (008)

ENGINE

Detroit Diesel 6V-71N, 2 Cycle Diesel

Gross Scraper Power @ 2100 RPM238HP (178 kW)
Flywheel Power @ 2100 RPM225HP (168 kW)

Above ratings at sea level and 60°F. (15.5°C.). Gross Scraper Power rating includes deductions for standard engine equipment such as water pump, fuel pump and lubricating oil pump. Flywheel Power rating is the net power after deduction from Gross Scraper Power for fan requirement.

Maximum Torque @
1400 RPM610 ft. lbs. (827 N·m)
Number of cylinders6
Bore and stroke4.25 in. x 5 in. (108 mm x 127 mm)
Piston displacement426 in.³ (7.0 litres)
FuelNo. 2-D recommended
Governor typeLimiting speed
Air cleaner(1) Donaldson Dry, T-type (STG-14)

● TRANSMISSION—Allison CLT-750

Allison automatic transmission with planetary gearing. Five speeds forward, one reverse; fully automatic shifting through integral control valve. Transmission automatically shifts in response to output speed and rimpull demand. Built-in inhibitors prevent harmful downshifts or reverse shifts at excessive engine speeds. Hydraulic retarder, mounted integral with transmission, is available to assist service brakes on long downhill hauls.

● TORQUE CONVERTER—Allison TC-470

Single stage converter mounted integral with transmission incorporates automatic lock-up in top four speed ranges for direct drive efficiency and faster haul road speeds.

DRIVE AXLE

Heavy duty, full floating with single reduction bevel gear differential and planetary reduction in each wheel. The standard NoSPIN element helps prevent wheel slippage under poor traction conditions. NoSPIN action is automatic requiring no operator actuation.

CUTTING EDGE

Four section cutting edge with drop center capability. All edges are interchangeable and reversible to reduce parts stocking costs and extend service life. Double row of bolts standard.

BOWL

High strength alloy steel used in cutting edge base, lift beam, upper and lower cross beams and sides for strength and life. Bowl employs two single acting lift cylinders with linkage. Cylinders are interchangeable.

Bowl cylinder bore and stroke7.93 in. x 25.00 in. (201 mm x 635 mm)

APRON

True Radial design, power closing apron operated by two double acting cylinders. Cylinders are mounted on the outside of the bowl and act directly on the apron arms. This allows non-binding operation, constant closure force regardless of opening and maximum opening for easy ejection of materials. Cylinders are interchangeable.

Apron cylinder bore and stroke6.25 in. x 23.75 in. (159 mm x 603 mm)
Apron closing force, any bowl position, approx.23,000 lbs. (102 304 N) (10 433 kg)

EJECTOR

Positive roll-out ejector. Powered by one, three stage, single acting cylinder.

Ejector cylinder bore and stroke7.50 in. x 5.75 in. x 4.00 in. x 97.31 in. (190.5 mm x 146.1 mm x 101.6 mm x 2 471.7 mm)

PUSH BLOCK

Exclusive roller push block assures total control of the bowl by the operator and minimizes tire spin when being push loaded.

SERVICE DATA

	U.S. Gal.	(litres)
Cooling System	18	(68)
Fuel Tank	140	(530)
Crankcase (dry fill)	5.5	(21)
Transmission and Converter	8.0	(30)
Drive Axle	9.6	(36)

DIMENSIONS

(At 12 in. carry with standard tires)

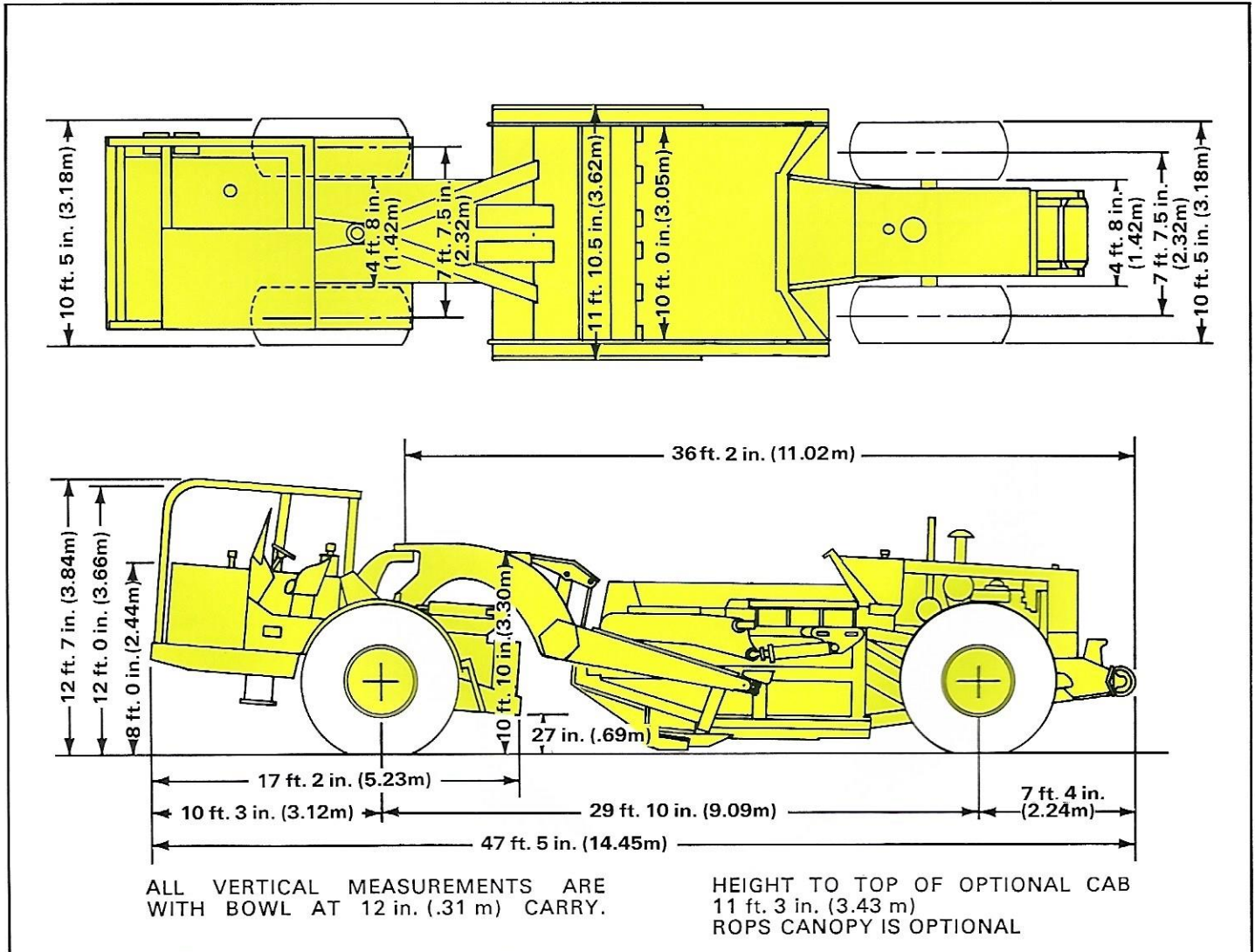
Apron Opening	7 ft. 4 in.	(2.24 m)
Width of Cut	10 ft. 3.5 in.	(3.14 m)
Depth of Cut (Max.)	1 ft. 0 in.	(.31 m)
Depth of Spread (Max.)	2 ft. 0 in.	(.61 m)
Clearance—Under Drive Axle	2 ft. 2.5 in.	(.67 m)
Clearance—Under Bowl	2 ft. 0 in.	(.61 m)
Non-Stop 180° Turning Width for vehicle clearance	40 ft. 11 in.	(12.47 m)

WEIGHTS (MASS)

NET WEIGHT (MASS) DISTRIBUTION	lbs.	kg.
Drive Axle	59.1%	57,350 (26 014)
Scraper Axle	40.9%	36,650 (17 984)
Total		97,000 (43 998)
PAYLOAD		80,000 (36 288)
GROSS WEIGHT (MASS) DISTRIBUTION		
Drive Axle	50%	88,410 (40 102)
Scraper Axle	50%	88,590 (40 184)
Total		177,000 (80 286)

CONVERSION CHART

1 mile	=1.609 kilometres	1 lb.	=4.448 newtons
1 foot	=.3048 metres	1 lb.	=0.4536 kilograms
1 inch	=25.4 millimetres	1 ft. lb.	=1.356 newton-metres
1 U.S. Gal.	=3.785 litres	1 PSI	=6.8948 kPa
1 U.S. Gal.	=0.833 imp. gals.	1 in. ²	=6.452 centimetres ²
1 U.S. Gal.		1 in. ³	=0.0164 litres
diesel fuel	=7.3 lbs. (approx.)	1 in. ³	=16 387 millimetres ³
1 U.S. Gal.		1 ft. ²	=929 centimetres ²
coolant	=8.3 lbs. (approx.)	1 yd. ²	=0.836 metres ²
1 HP	=0.746 kW	1 yd. ³	=0.7646 metres ³



STANDARD EQUIPMENT

Tractor & Scraper

- Driveline Guards
- Dry T-Type Air Cleaners
- Emergency & Parking Brake System (SAE J319B)
- Full Flow Hydraulic Filtration
- Gauges
 - Air Cleaner Restriction
 - Clutch Pressure
 - Converter Oil Temperature
 - Engine Oil Pressure
 - Engine Temperature
- Muffler

Tractor Only

- Air Horn
- Air Suspension Seat
- Battery Disconnect Switch
- Cutting Edge Floodlight
- Fenders
- Gauges
 - Air Pressure
 - Ammeter
 - Hourmeter, Electric
 - Tachometer
- Power Locking Differential
- ROPS Mounting Pads
- Seat Belt (SAE J386)
- Windshield & Wiper

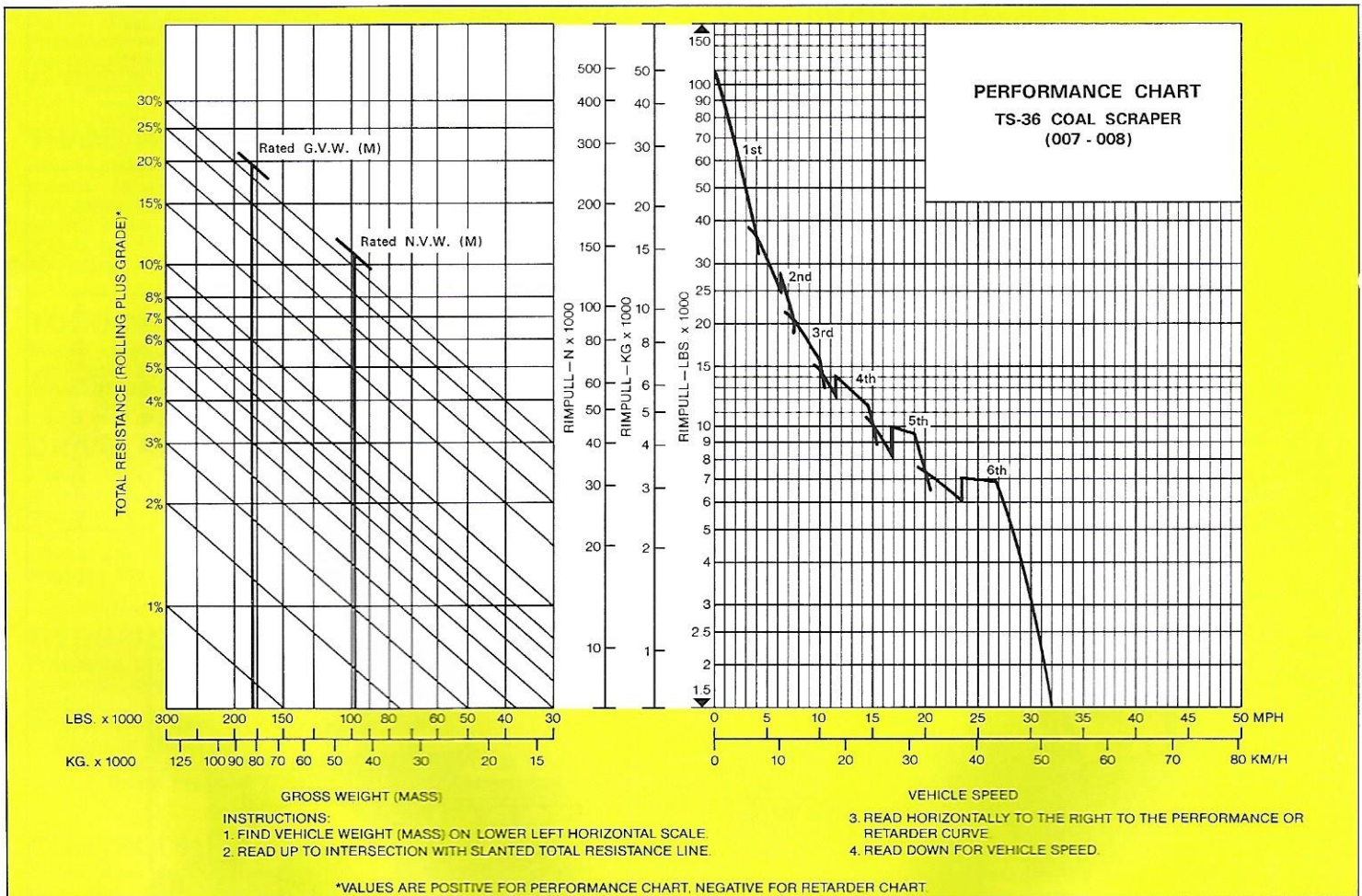
Scraper Only

- Alarm, 3-Way:
 - High Converter Temperature
 - High Coolant Temperature
 - Low Engine Oil Pressure
- NoSPIN Differential
- Roller Push Block

OPTIONAL EQUIPMENT

- Air Conditioning
- Aspirated Air Cleaner (Scraper Only)
- Brake Drum Guards
- Cab w/Windshield Wiper
- Downshift Inhibitor
- Heater & Defroster for Cab
- Fenders, Scraper Axle (SAE J321A)
- Retarders (Tractor and Scraper)
- Reverse Alarm (SAE J994)
- ROPS Canopy (SAE J320A)
- Security Kit (Tractor and Scraper)
- Soundpac, Including Cab
- Transmission Guard (Tractor Only)

● Revisions This Printing



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