

TEREX TS.24 SCRAPER



- 600 hp (448 kW) Flywheel Power
- All-Wheel Drive
- 24 yd³ (18.4 m³) Struck Capacity
- 80 000 lb. (36 290 kg) Payload

TEREX TS-24 SCRAPER

MARK V

MODEL B10LOT-B24SH

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

CAPACITY

Struck measure (S.A.E. rating)	24 yd ³ (18.4 m ³)
Heaped 3:1 slope	27 yd ³ (20.6 m ³)
Heaped 1:1 (S.A.E. rating).....	32 yd ³ (24.5 m ³)

TRACTOR (B10LOT)

ENGINE

Detroit Diesel 8V-71N 2 Cycle Diesel

NOTE: Dual pedals allow synchronised operation of tractor and scraper engines or independent control of tractor engine.

Flywheel Power at 2100 rev/min.....300 hp (224 kW)

NOTE: Rating at 60°F (15.5°C) and sea level. Flywheel power is net power available with standard engine equipment (water pump, oil pump, fuel pump, fan, air compressor, alternator).

Number of cylinders.....	8
Piston displacement.....	568 in ³ (9.3 l)
Bore and stroke.....	4.25 x 5.00 in (108 x 127 mm)
Maximum rev/min, full load	2100
Starter	Electric
Air cleaner.....	Donaldson dry T-type (STG-16)
Fuel	No. 2-D recommended
Oil	MIL-L-2104 B, SAE 30

TRANSMISSION—Allison CLT-5660/1

Allison Torqmatic full powershift with six speeds forward and one reverse, constant mesh planetary gearing and hydraulically actuated, oil cooled and lubricated multiple disc clutches.

Ratios: 1st 4.00:1	2nd 2.68:1	3rd 2.01:1
4th 1.35:1	5th 1.00:1	6th 0.67:1
Reverse 5.12:1		

Maximum road speed at 2 100 rev/min35 mile/h (56 km/h)

TORQUE CONVERTER—Allison TC-570-3E

Single stage with automatic lock up in top five speeds. Integral with transmission.

Maximum torque multiplication	3.2:1
Stall speed.....	1 850-1 950 rev/min

AXLE

Full floating, double reduction with bevel gear differential and 4 pinion planetary hub reduction.

Ratios: Differential reduction.....	3.92:1
Planetary reduction.....	5.80:1
Total reduction.....	22.74:1

STEERING

Full hydraulic with two interchangeable, single stage, double acting cylinders supplied by gear type pump. 90° swing in either direction.

Pump output at 2 100 rev/min.....	58 gal/min (4.4 l/s)
Cylinder bore and stroke	7.00 x 20.75 in (178 x 527 mm)
System relief pressure.....	1 500 lb/in ² (10 340 kPa)

BRAKES (Tractor and Scraper)

Full air operated drum brakes with automatic emergency application on dangerous loss of air pressure. Emergency system can also be manually applied. Parking by mechanical locking of service brakes.

Air compressor capacity.....	12 ft ³ /min (5.7 dm ³ /s)
Brake lining dimensions:	
Diameter.....	26 in (660 mm)
Shoe width.....	5 in (127 mm)
Lining thickness.....	0.75 in (19 mm)
Lining area—each axle	1 194 in ² (7 704 cm ²)

TYRES AND RIMS (Tractor and Scraper)

Tyre size	33.5 x 33—38 PR, E3
Rim width	28 in (711 mm)

NOTE: Performance capabilities of TEREX Scrapers are such that under specific job conditions the Ton-MPH capability of tyres can be exceeded. Operation above the Ton-MPH rating may lead to premature tyre problems. TEREX recommends that the user evaluate all job conditions and consults the tyre manufacturer.

ELECTRICAL

24 V with two 12 V, 205 Ah (738 kC) batteries and 50 A alternator.

SERVICE DATA

	UK gal	(litres)
Fuel tank	150	(682)
Engine crankcase.....	6	(27)
Cooling system	21	(96)
Transmission and converter.....	14	(64)
Axle	18	(82)
Hydraulic system	46	(209)

SCRAPER (B24SH)

ENGINE

Basically same as tractor engine but with air starter motor. Air throttle control.

TRANSMISSION

Same as tractor.

TORQUE CONVERTER

Same as tractor.

AXLE

Basically same as tractor axle but with NoSpin differential as standard.

CONTROLS

Three levers allow independent operation of apron, bowl and ejector. A co-ordinated apron-close/bowl-raise system automatically raises bowl to the travel position on closure of apron. Hydraulic control valves are mechanically operated.

CUTTING EDGE

Four section cutting edge allowing straight or variable length drop centre. All sections interchangeable and reversible.

Dimensions (each section)	16.00 x 29.80 x 1.00 in
	(406 x 758 x 25 mm)

BOWL

Bowl operation by two interchangeable single acting cylinders and linkage.

Cylinder bore and stroke	9.17 x 25.00 in
	(233 x 635 mm)

APRON

Radial design, power closing apron operated by two interchangeable, double acting cylinders acting directly on apron arms. Arms outside bowl.

Cylinder bore and stroke	6.25 in x 23.76 in
	(159 x 604 mm)
Closing force (any bowl position)....	approx. 23 000 lb(102 350 N)

EJECTION

Roll out ejector operated by one three stage single acting cylinder.

Cylinder bores and stroke.....	8.50 x 6.75 x 5.00 x 97.31 in
	(216 x 172 x 127 x 2 472 mm)

HYDRAULIC SYSTEM

Separate gear type pumps supply fully filtered oil from a single tank to steering and scraper hydraulic systems.

Bowl system:

Pump output at 2100 rev/min	67 gal/min (5 l/s)
Relief pressure	1 750 lb/in ² (12 070 kPa)

Steering system—see tractor details.

PUSH BLOCK

Exclusive TEREX roller push block aids smooth pusher control.

SERVICE DATA

	UK gal	(litres)
Fuel tank	119	(541)
Engine crankcase	6	(27)
Cooling system	21	(96)
Transmission and converter	14	(64)
Axle	18	(82)

DIMENSIONS

Wheelbase	28 ft- 0 in	(8 535 mm)
Length—overall	46 ft- 3 in	(14 095 mm)
Width—overall	11 ft-8½ in	(3 570 mm)
Height—maximum	13 ft- 1 in	(3 990 mm)
Apron opening	7 ft-4½ in	(2 250 mm)
Width of cutting edge	10 ft- 0 in	(3 050 mm)
Width of cut	10 ft-3½ in	(3 135 mm)
Depth of cut—maximum	1 ft-1½ in	(345 mm)
Depth of spread—maximum	2 ft- 0 in	(610 mm)
Clearance—under front axle	2 ft- 2 in	(660 mm)
—under bowl (normal carry position)	2 ft- 1 in	(635 mm)
Minimum turning width	36 ft- 6 in	(11 125 mm)

WEIGHTS

NET WEIGHT DISTRIBUTION

Front axle	53%	47 490 lb	(21 540 kg)
Rear axle	47%	42 860 lb	(19 440 kg)
Total	100%	90 350 lb	(40 980 kg)

PAYLOAD.....80 000 lb (36 290 kg)

GROSS WEIGHT DISTRIBUTION

Front axle	48%	81 670 lb	(37 050 kg)
Rear axle	52%	88 680 lb	(40 220 kg)
Total	100%	170 350 lb	(77 270 kg)

STANDARD EQUIPMENT

Tractor and Scraper

INSTRUMENTS—Engine oil pressure gauges; Engine water temperature gauges; Air cleaner restriction indicators; Converter oil temperature gauges; Clutch oil pressure gauges.

GENERAL—Cold start aids; Silencers; Parking and emergency brakes; Maintenance and Parts manuals.

Tractor Only

INSTRUMENTS—Tachometer; Ammeter; Hourmeter; Converter lock-up warning light; Air pressure gauge.

GENERAL—Air suspension seat; Seat belts; Air horn; Cutting edge floodlight.

Scraper Only

GENERAL—Power train warning alarm; NoSpin differential; Heavy duty side cutters; Roller push block.

OPTIONAL EQUIPMENT

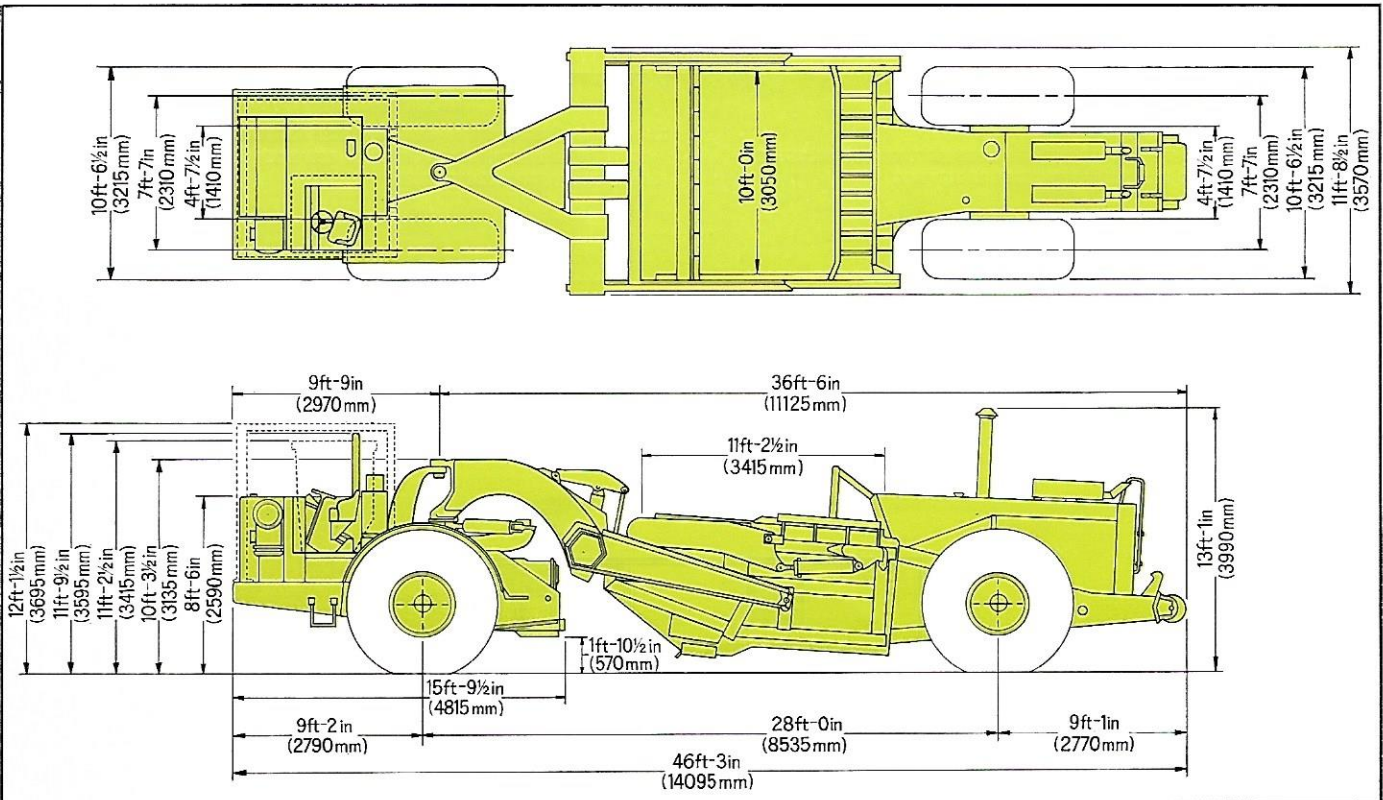
TRACTOR—Bostrom Norseman seat; Windshield with wiper; Cab (with front and rear wipers); Heater and demister; Noise reduction kit; ROPS (fits over cab); Hydraulic retarder; Power locking differential; NoSpin differential.

SCRAPER—Severe application kit (bowl side wear plates, ejector rock guard, ejector hoist guard); Six yard top extension (coal only); Hydraulic retarder; Reversing lights or Reverse warning lights.

GENERAL—Twin Hitch; Tyre inflation kit.

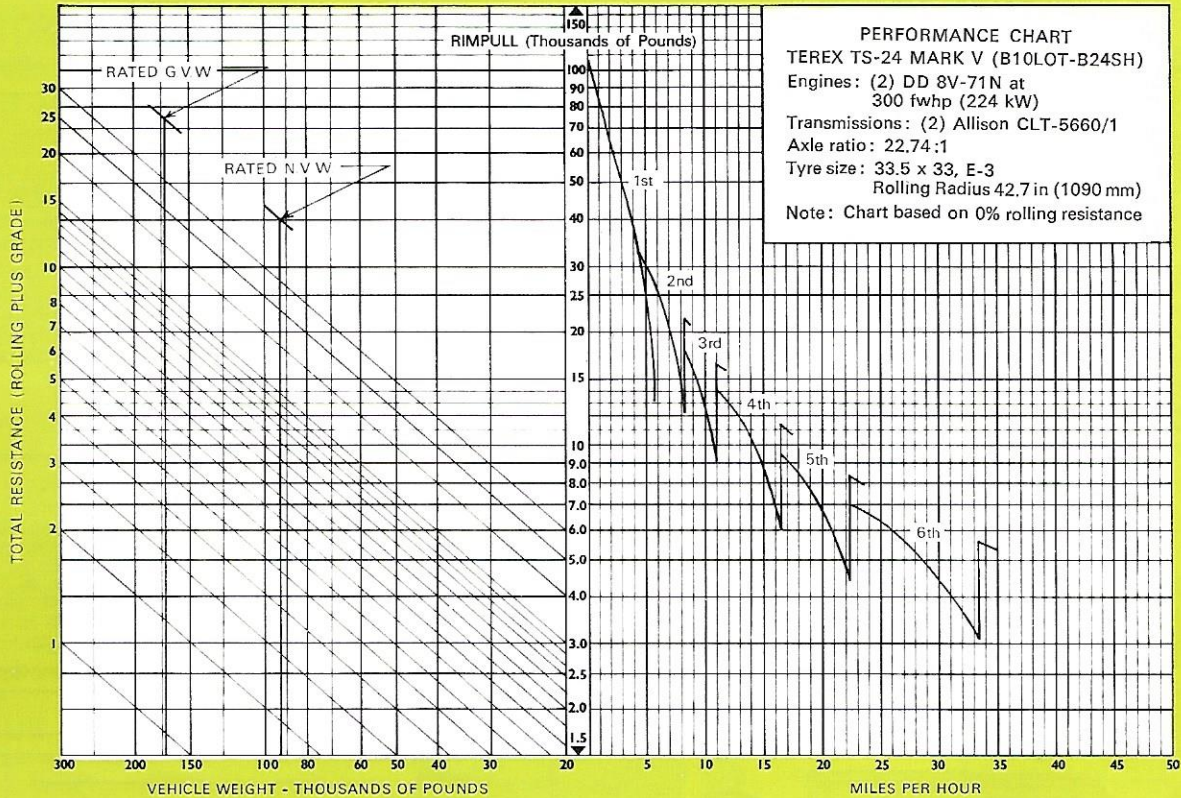
CONVERSION FACTORS

1 in	= 25.4 mm	1 UK gal	= 4.546 l
1 ft	= 0.3048 m	1 UK gal	= 1.2 US gal
1 yd	= 0.9144 m	1 lb	= 0.4536 kg
1 mile	= 1.609 km	1 lb	= 4.448 N
1 in ²	= 6.452 cm ²	1 kg	= 9.807 N
1 ft ²	= 926 cm ²	1 hp	= 0.7457 kW
1 yd ²	= 0.8361 m ²	1 UK gal Diesel	= 8.7 lb (approx.)
1 yd ³	= 0.7646 m ³	1 UK gal Coolant	= 10 lb (approx.)



ALL VERTICAL MEASUREMENTS ARE FIGURED WITH BOWL AT 12 in (305mm) CARRY.

OVERALL LENGTH WITH OPTIONAL TWIN HITCH
 BAIL RAISED - 52 ft 1 in (15 875mm)
 BAIL LOWERED - 53 ft 2 in (16 205mm)



INSTRUCTIONS:

1. FIND VEHICLE WEIGHT ON LOWER LEFT HORIZONTAL SCALE
2. READ UP TO SLANTED TOTAL RESISTANCE

3. FROM INTERSECTION READ HORIZONTALLY TO THE RIGHT TO INTERCEPTION WITH PERFORMANCE OR RETARDER CURVE
4. READ DOWN FOR VEHICLE SPEED



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