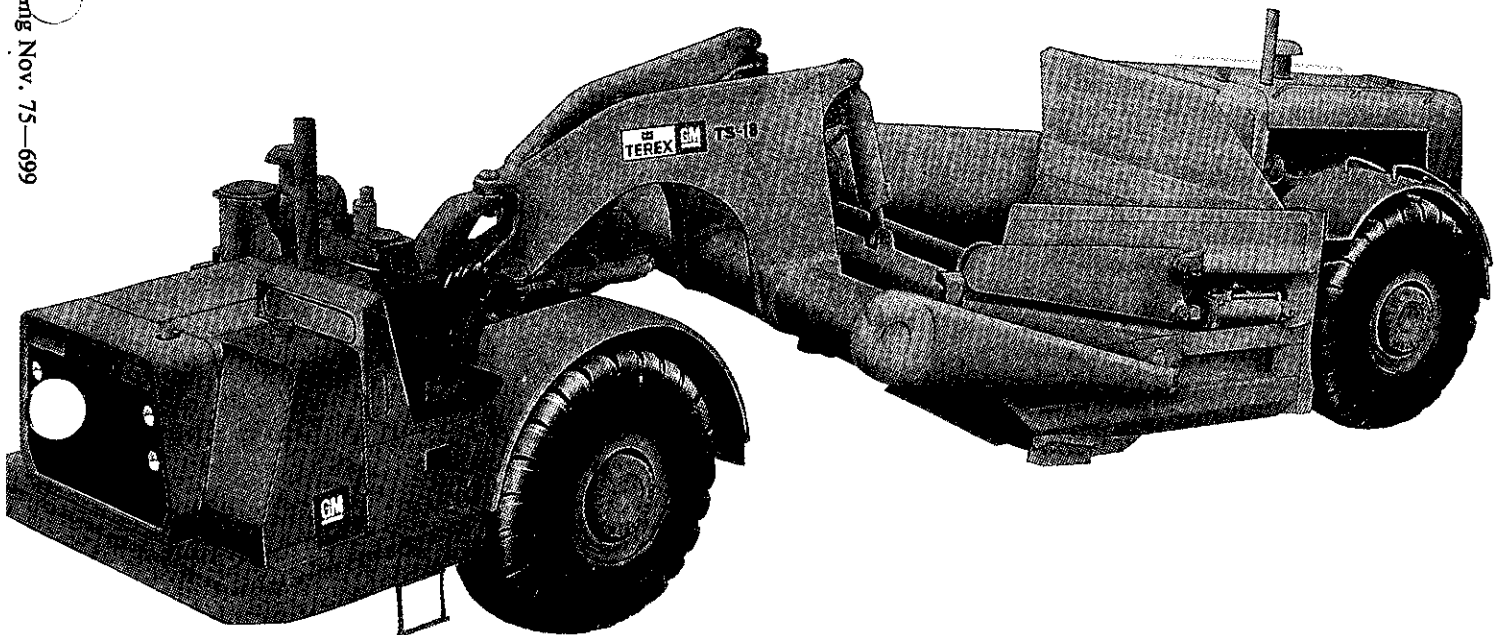


TEREX TS-18 SCRAPER



517 Flywheel Horsepower
All-Wheel Drive
60,000 Pound Payload

TEREX TS-18 SCRAPER

MODEL 33TOT-92SH

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

CAPACITY

Struck Measure (S.A.E. Rating)	18 cu. yds. (13,8 m ³)
Heaped 3:1 slope	20 cu. yds. (15,3 m ³)
Heaped 1:1 (S.A.E. Rating)	24 cu. yds. (18,4 m ³)

TRACTOR (33TOT)

ENGINE

General Motors 8V-71N, 2 Cycle Diesel

NOTE: Two separate throttle controls for front and rear engines may be used separately or together.

Gross tractor HP @ 2100 RPM	318
Flywheel HP @ 2100 RPM	292

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

Number of cylinders	8
Bore and stroke	4 $\frac{1}{4}$ " x 5" (108 mm x 127 mm)
Piston displacement	568 cu. in. (9,3 liters)
Maximum torque @ 1400 RPM	814 ft-lb (112,6 kg m)
Oil-MIL-L-2104B	SAE 30
Fuel	No. 2-D recommended
Governor type	Limiting speed
Maximum RPM, full load	2100
Maximum RPM, no load	2250
Idle speed	700
Air cleaner	(1) Donaldson dry, T-type (STG-16)

TRANSMISSION—Allison CLT-4465

Allison Torqmatic transmission with 400 series single stage converter. Automatic converter lock-up is standard in top five speed ranges. Torqmatic transmission has spur planetary gearing. Six speeds forward, one reverse. Full powershifting through hydraulically actuated multiple disc clutches.

Ratios: 1st 4.00:1	2nd 2.82:1	3rd 2.00:1
4th 1.41:1	5th 1.00:1	6th 0.71:1
		Reverse 4.77:1

Transfer Case

Stall speed	1665 - 1765 RPM
Maximum speed @ 2100 RPM	31.2 MPH (50.2 km/hr)

TORQUE CONVERTER—Allison TC-490

Mounted integral with transmission. Maximum torque multiplication 2.60:1

DRIVE AXLE

Heavy duty, full floating axle with TEREX 305 single reduction bevel gear differential and planetary reduction in each wheel.

Ratios: Differential	3.62:1
Planetary	4.59:1
Total Reduction	16.62:1

STEERING SYSTEM

Full hydraulic type provided by two single stage, double acting cylinders. Full 90° swing to either right or left.

Steering cylinder bore and stroke

Type	Gear
Drive	Gear
Capacity @ 2100 RPM	
& 1850 psi	32 GPM (121,1 liters/min)
System Pressure @ 1500 RPM	1850 psi (130 kg/cm ²)

BRAKES (Tractor and Scraper)

Two shoe internal expanding type. Emergency braking system and air-water separator are standard.

Brake Lining:	
Diameter	23" (584 mm)
Shoe width	7" (178 mm)
Lining thickness	$\frac{3}{4}$ " (19 mm)
Lining area—tractor axle	690 sq. in. (4452 cm ²)
Lining area—scraper axle	690 sq. in. (4452 cm ²)
Air compressor capacity	12 cfm (.340 m ³ /min.)

TIRES AND RIMS (Tractor and Scraper)

Tire Size	Rim Size
Standard - 29.5 x 29 - 34 PR, E-3	25" (635 mm)
Optional - 29.5 x 35 - 34 PR, E-3	25" (635 mm)
27.00 x 33 - 30 PR, E-3	22" (558 mm)

Radial Steel Cord Tires available in 29.5x29 and 29.5x35 sizes. Tires are mounted on demountable rims

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 volt GM. Two heavy duty 12 volt 205 amp-hr batteries. Ventilated 50 amp alternator.

SERVICE DATA

Water cooling system	U.S. Gal. (liters)
Fuel tank	22.8 gals. (86,1)
Crankcase (dry fill)	150 gals. (567,8)
Transmission and converter	7 gals. (26,5)
Hydraulic system	8 gals. (30,3)
Drive axle—Differential	46 gals. (174,1)
Drive axle—Planetary	11.8 gals. (44,5)
	2 gals. (7,6)

SCRAPER (92SH)

ENGINE

General Motors 6V-71N, 2 Cycle Diesel

Gross scraper HP @ 2100 RPM	238
Flywheel HP @ 2100 RPM	225

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

Number of cylinders	6
Bore and stroke	4 $\frac{1}{4}$ " x 5" (108 mm x 127 mm)
Piston displacement	426 cu. in. (7,0 liters)
Maximum torque @ 1400 RPM	610 ft-lb (84,3 kg m)
Oil-MIL-L-2104B	SAE 30
Fuel	No. 2-D recommended
Governor type	Limiting speed
Maximum RPM, full load	2100
Maximum RPM, no load	2275
Idle speed	700
Air cleaner	(1) Donaldson dry, T-type (STG-14)

TRANSMISSION—Allison CLT-4465

Stall speed

Stall speed	1775 - 1875 RPM
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Other specifications and ratios same as tractor.

TORQUE CONVERTER—Allison TC-470

Engine mounted. Maximum torque multiplication 2.80:1

DRIVE AXLE

Heavy duty, full floating TEREX 'T' type with single reduction bevel gear differential and planetary reduction in each wheel. NoSPIN differential is standard. Ratios same as tractor.

CONTROLS

Three lever control allows independent operation of the apron, bowl, and ejector. The bowl lever is equipped with a trigger which allows single-lever control of bowl and apron.

CUTTING EDGE

Four section cutting edge with variable length drop center. All blades are interchangeable and reversible.

Cutting edge dimensions	16.00" x 29.81" x 1"
	(406,4 mm x 757,2 mm x 25,4 mm)

BOWL

Bowl employs two single stage, double acting cylinders to exert positive down pressure on cutting edge. Cylinders are interchangeable.

Bowl cylinder bore and stroke7.00" x 26.50" (177,8 mm x 673,1 mm)
 Maximum available hydraulic down pressure on cutting edge134,000 lbs. (60782 kg)
 Maximum down pressure on cutting edge @ rated payload125,000 lbs. (56700 kg)
 Maximum down pressure on cutting edge @ NVW 56,000 lbs. (25402 kg)

APRON

True radial design, power closing apron operated by two double acting cylinders. Cylinders act directly on apron arms which are located outside the bowl for non-binding operation. Maximum opening for easy ejection. Cylinders are interchangeable.

Apron cylinder bore and stroke6.25" x 20.00" (158,8 mm x 508,0 mm)
 Apron closing force, any bowl position, approx.25,000 lbs. (11340 kg)

EJECTION

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

Ejector cylinder bore and stroke9.17" x 24.97" (232,9 mm x 634,2 mm)

HYDRAULIC SYSTEM

Hydraulic system has full flow filtration with one tandem pump for steering and scraper controls.

Scraper bowl control pump
 TypeGear
 DriveGear
 Capacity @ 2100 RPM & 1850 psi52 GPM (196,8 liter/min)
 System pressure @ 1500 RPM1850 psi (130 kg/cm²)

SERVICE DATA

	U.S. Gal. (liters)
Water cooling system	18 gals. (68,1)
Fuel tank	140 gals. (529,9)
Crankcase (dry fill)	5.5 gals. (20,8)
Transmission and converter	8.0 gals. (30,3)
Drive axle—Differential	11.8 gals. (44,5)
Drive axle—Planetary	2 gals. (7,6)

DIMENSIONS

Wheelbase—drive to scraper axle	25'- 6" (7772 mm)
Length—overall	41'-11" (12776 mm)
Width—overall	11'-10" (3607 mm)
Height (max.)	12'- 4" (3759 mm)
Apron opening	6'- 7" (2007 mm)
Width of cutting edge	10'- 0" (3048 mm)
Width of cut	10'- 3 1/2" (3137 mm)
Depth of cut (max.)	1'- 0" (305 mm)
Depth of spread (max.)	1'-11" (584 mm)
Clearance under drive axle	2'- 1" (635 mm)
Clearance under bowl (max.)	2'- 0" (610 mm)
Non-stop 180° turning width for vehicle clearance	37'- 8" (11481 mm)

WEIGHTS

NET WEIGHT DISTRIBUTION

		kg
Tractor axle	58.3%	42,000 lbs. (19051)
Scraper axle	41.7%	30,000 lbs. (13608)
Total		72,000 lbs. (32659)
PAYLOAD		60,000 lbs. (27216)

GROSS WEIGHT DISTRIBUTION

Tractor axle	49.7%	65,700 lbs. (29801)
Scraper axle	50.3%	66,300 lbs. (30074)
Total		132,000 lbs. (59875)

STANDARD EQUIPMENT (Tractor and Scraper)

Dry 'T' Type Air Cleaners, Full Flow Hydraulic Filtration, Engine Oil Pressure Gauges, Engine Temperature Gauges, Converter Oil Temperature Gauges, Clutch Pressure Gauges, Air Restriction Gauges, Positive Temperature Cooling System, Mufflers, Maintenance and Parts Manuals, Emergency and Parking Brake System (SAE J-319B).

Tractor Only: Tachometer, Hourmeter, Air Pressure Gauge, Air Horn, Air Suspension Seat, Cutting Edge Floodlight, Built in ROPS Pads, Full Width Front Fenders (SAE J-321A).

Scraper Only: NoSPIN Differential, Power Train Warning Alarm.

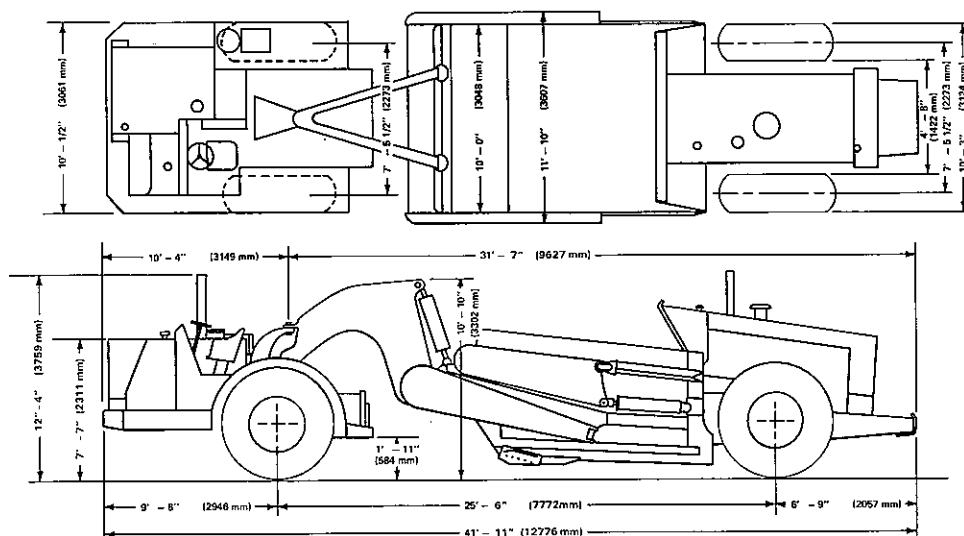
OPTIONAL EQUIPMENT

OPTIONS TO HELP USER COMPLY WITH OCCUPATIONAL SAFETY AND HEALTH ACT: Fenders, Full Width, Scraper (SAE J321A) Includes Steps and Grab Handles (SAE J185); Canopy, Roll Over Protective Structure (SAE J320A) Will Fit Over Optional Cab; Seat Belt (SAE J386); Reverse Alarm (SAE J994).

OTHER OPTIONS: Brake Drum Guards, Cab, Cab Defroster and Heater, Sun Canopy, Down Shift Inhibitor, Severe Duty Rear Radiator Guard, Power Locking Differential, Retarder, Roller Push Block, Bostrom Norseman Seat, Security Kit, Severe Application Kit, Spillguard Extension, Transmission Guard, Twin-Hitch, Windshield and Wiper, Sound Reduction Kit Including Cab.

CONVERSION CHART

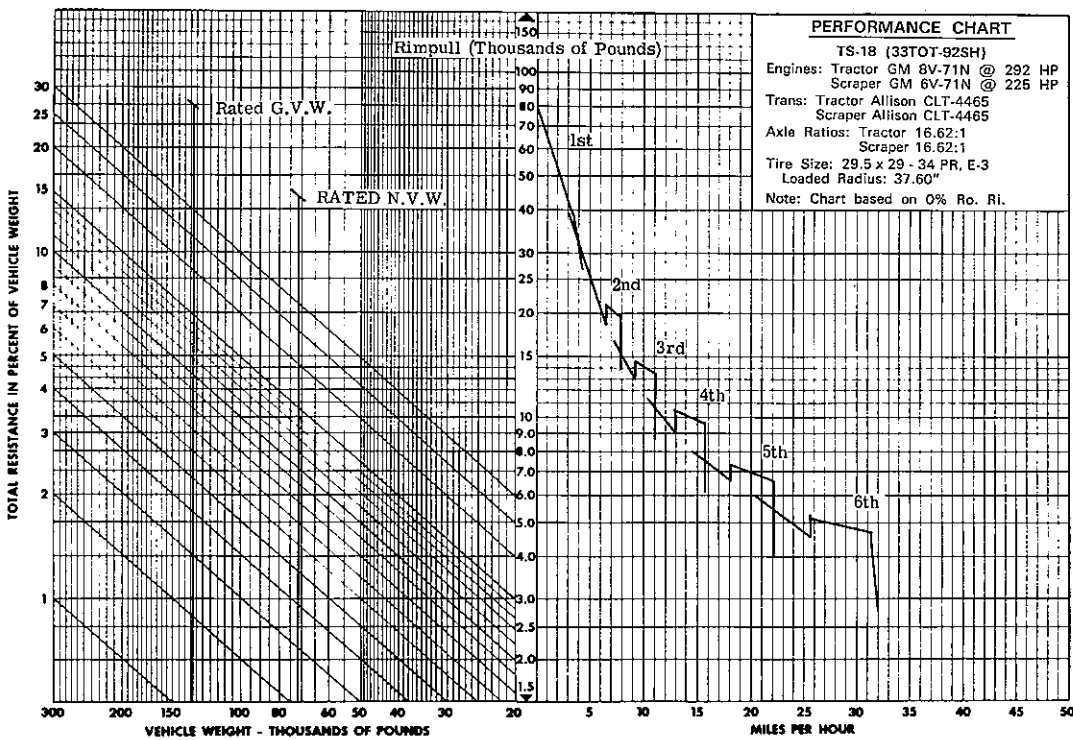
1 mile	=1.609 kilometers	1 U.S. Gal.	=8.3 lbs. (approx.)
1 foot	=30.48 centimeters	coolant	=0.4536 kilograms
1 inch	=2.54 centimeters	1 lb.	=453.6 grams
1 U.S. Gal.	=3.785 liters	1 sq. in.	=6.452 sq. centimeters
1 U.S. Gal.	=0.833 imp. gals.	1 sq. ft.	=929 sq. centimeters
1 U.S. Gal.		1 sq. yd.	=0.836 sq. meters
diesel fuel	=7.3 lbs. (approx.)	1 cu. yd.	=0.7646 cu. meters



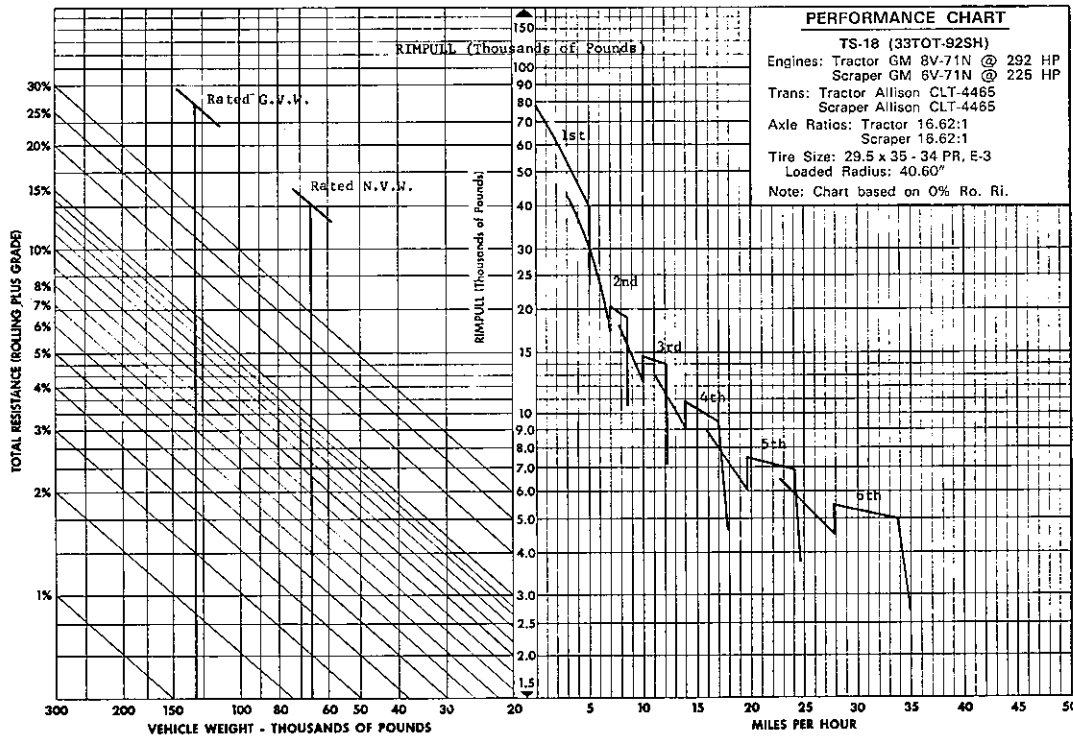
ALL VERTICAL MEASUREMENTS ARE FIGURED WITH BOWL AT 12" CARRY.

HEIGHT TO TOP OF OPTIONAL CAB 11'-7" (3531 mm)

HEIGHT TO TOP OF OPTIONAL ROPS 12'-2" (3708 mm)



- 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



- INSTRUCTIONS:**
1. FIND VEHICLE WEIGHT ON LOWER LEFT HORIZONTAL SCALE
 2. READ UP TO SLANTED TOTAL RESISTANCE LINE
 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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 General Motors Scotland Limited, Lanarkshire, Scotland
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