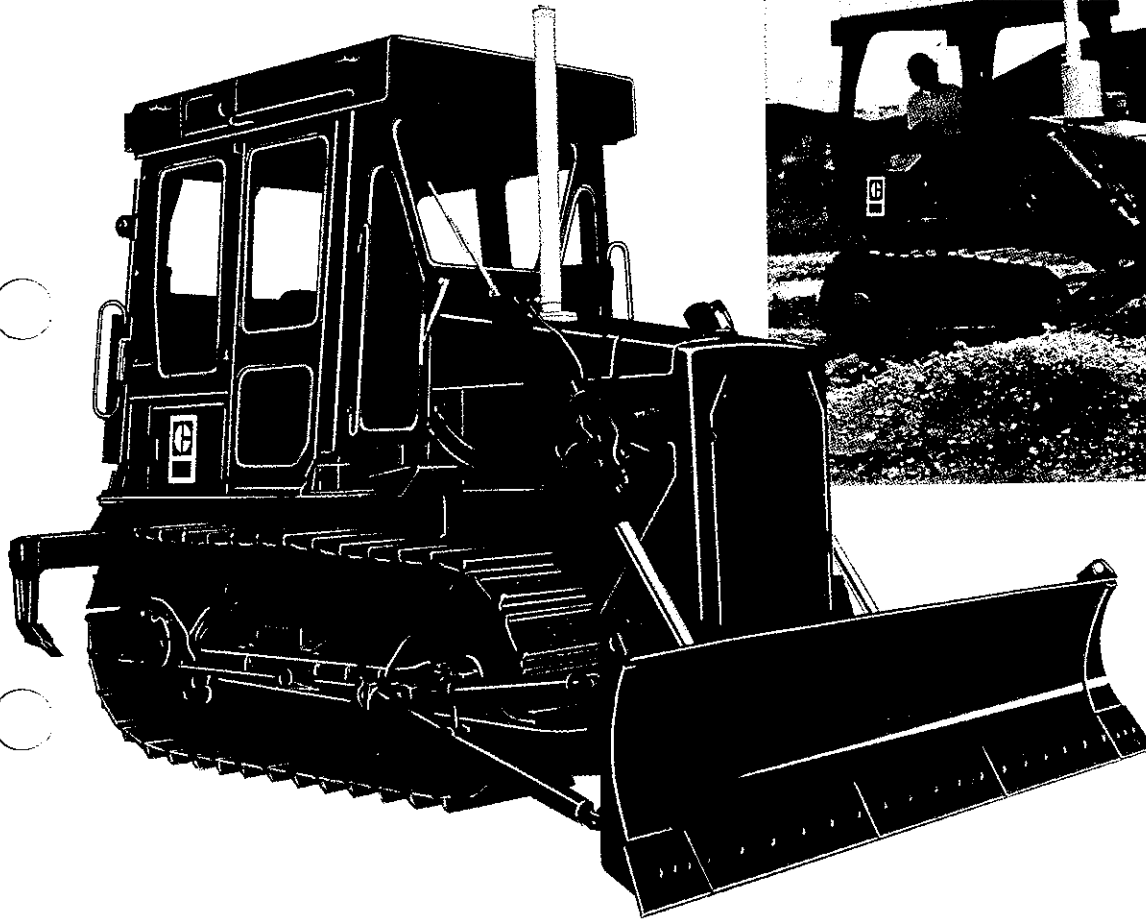




CATERPILLAR



Shown with optional ROPS sound-suppressed cab (ROPS canopy is standard in U.S.A.), hydraulic control, 4A Bulldozer and ripper.

Summary of features

- **Operator comfort** is provided by the unitized operator platform, non-glare dashboard, fully adjustable seat and console mounted steering levers. Semi-modular, sound-suppressed ROPS cab, shock dampening seat, air conditioner and heater are available as options.
- **Sealed and Lubricated Track** greatly reduces internal pin and bushing wear for lower undercarriage maintenance costs.
- **Oil-cooled steering clutches and brakes** . . . increase component life and improve reliability.
- **Cat 3304 diesel Engine** . . . 425 cu. in. (7.0 litres) displacement . . . with individual adjustment-free fuel pumps and valves.
- **Choice of planetary power shift transmission** or one of three direct drive transmissions.
- **Easy maintenance** with spin-on fuel and oil filters, split master link, hydraulic track adjusters. Power train oil dipstick and filler spout are within easy reach from ground level. Steering clutches and brakes are removable as a unit.
- **CAT PLUS** . . . from your Caterpillar Dealer . . . the most comprehensive, total customer support system in the industry.



Caterpillar Engine

Flywheel horsepower:
 Power shift @ 2000 RPM 75 (56 kW)
 Direct drive @ 1900 RPM 75 (56 kW)

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

The net power at the flywheel of the vehicle engine operating under SAE conditions: 85°F (29°C) and 29.38" Hg (995 mbar), using 35 API gravity fuel oil at 60°F (15.6°C). Standard engine accessories include: muffler, blower fan, air cleaner, water pump, lubricating oil pump, fuel pump and alternator. Engine will maintain specified power up to 5,000 ft. (1500 m) altitude on direct drive models, 7,500 ft. (2300 m) with power shift.

Caterpillar 4-stroke-cycle 3304 diesel with four cylinders, 4.75" (121 mm) bore, 6.0" (152 mm) stroke, and 425 cu. in. (7.0 litres) displacement.

Precombustion chamber fuel system with individual adjustment-free injection pumps and valves. Cam-ground and tapered aluminum alloy pistons with 3-ring design. Steel-backed aluminum bearings, Hi-Electro hardened crankshaft journals.

Pressure lubrication with full-flow filtered oil. Dry-type air cleaner with primary and safety elements.

Two 24-volt direct electric starting systems – standard or low temperature. Glow plugs for preheating precombustion chambers are included with both.

D4E

Track-type Tractor



transmission

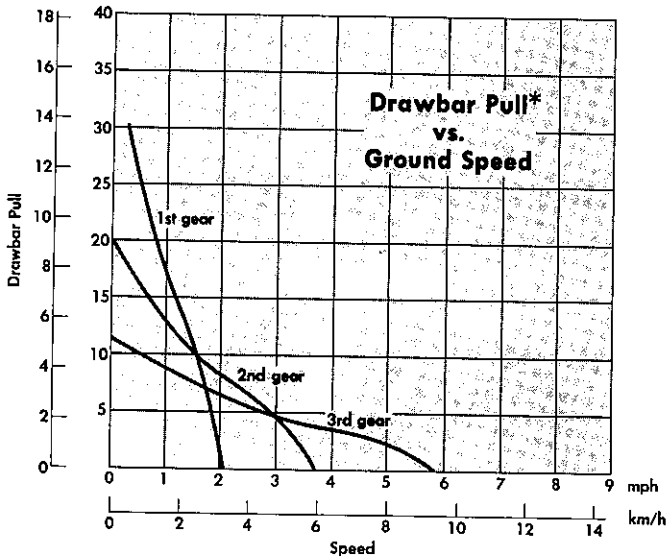
Power shift:

Planetary-type with 10.4" (264 mm) diameter, high-torque-capacity oil clutches. Special valve modulates clutch engagement for speed and direction changes under full load. Single-stage torque converter integral with power shift transmission. Converter connected to flywheel with a flexible drive coupling. Power shift with live PTO available for use with 54 Winch.

Speeds with power shift transmission (approximate):

Gear	Forward		Reverse	
	MPH	km/h	MPH	km/h
1	2.1	3.4	2.5	4.0
2	3.7	6.0	4.4	7.0
3	5.9	9.5	7.1	11.4

kg x 1000 lb. x 1000



* Usable pull will depend upon weight and traction of equipped tractor.

Direct drive:

Sliding gear-type transmission with fast forward-reverse shift. Magnetic filter, splash lubrication, and live PTO. Flywheel clutch has two metallic-faced plates with mechanical, over-center engagement. Clutch continuously lubricated and cooled by pressure-circulated oil. Connected to transmission by double universal joint.

Standard transmission speeds and drawbar pulls:

Gear	Forward		Reverse		Drawbar Pull Forward*			
	MPH	km/h	MPH	km/h	At Rated RPM		Maximum At Lug	
					Lb	Kg	Lb	Kg
1	1.7	2.7	2.1	3.4	13,550	6146	16,500	7484
2	2.5	4.0	2.9	4.6	9,140	4146	11,220	5089
3	3.4	5.4	4.1	6.6	6,210	2817	7,700	3493
4	4.5	7.2	5.3	8.5	4,480	2032	5,630	2554
5	5.9	9.5	6.9	11.1	3,120	1415	3,990	1810

Optional transmission with closely spaced working speeds:

1	1.9	3.0	2.2	3.5	12,490	5670	15,240	6910
2	2.5	4.0	2.9	4.6	9,140	4150	11,220	5090
3	3.0	4.8	3.6	5.7	7,250	3290	8,950	4060
4	3.4	5.4	4.1	6.5	6,210	2820	7,700	3490
5	4.7	7.6	5.3	8.5	3,880	1720	4,900	2220

Optional transmission with lower speeds and increased drawbar pull:

1	1.5	2.4	1.8	2.8	15,980	7250	19,430	8810
2	2.0	3.2	2.3	3.7	11,540	5230	14,100	6400
3	3.0	4.8	3.6	5.7	7,250	3290	8,950	4060
4	3.4	5.4	4.1	6.5	6,210	2820	7,700	3490
5	4.7	7.6	5.3	8.5	3,880	1760	4,900	2220

* Usable pull will depend upon weight and traction of equipped tractor.



steering

Hydraulically actuated, multiple-disc oil cooled steering clutches are held in engagement by springs and disengaged hydraulically. The resilient fibrous disc assemblies provide high load carrying capability, and long life; require no adjustment. Mechanically actuated, oil cooled, contracting band brakes. Clutch and brake assemblies may be serviced as a unit.



final drives

Crown-shaved, coarse-pitch final drive gears. Duo-Cone® Floating Ring Seals.



track roller frame

Boxed-channel construction, with five rollers on each side. Lifetime Lubricated track rollers, carrier rollers and idlers. Disc-type idlers (standard size or optional large diameter). Oscillation at front idler, 10.9" (277 mm).



Sealed and Lubricated Track

Sealed and Lubricated Track greatly reduces pin and internal bushing wear by surrounding the track pin with lubricant. The lubricant is held in place by a sealing arrangement consisting of a polyurethane seal, a rubber load ring and a thrust ring. Two-piece master link and hydraulic track adjusters are standard.

Number of shoes (each side) 35
 Width of standard shoe 13" (330 mm)
 Length of track on ground 72.0" (1829 mm)
 Ground contact area with
 13" (330 mm) shoes 1872 sq. in. (1.2 m²)
 Grouser height (from ground face of shoe) 1.88" (48 mm)



hydraulic controls

Nine optional systems available. Complete system consists of pump, filter, tank, valves, lines, linkage and actuating levers. All hydraulic control systems are equipped with a minimum of the No. 1 valves and lines, and the No. 2 valve installed.

Systems available with approximate installed weights:

143 Hydraulic Control:

One Valve for ripper or rear implement
 includes extra valve without lines 357 lb. (162 kg)
 Positions (No. 1 valve): Raise, hold, lower

One Valve for bulldozer includes extra valve
 without lines 365 lb. (166 kg)
 Positions (No. 2 valve): Raise, hold, lower, float

Two Valve for bulldozer and tilt cylinder 435 lb. (197 kg)
 Positions (No. 1 valve): Tilt forward, hold, tilt back
 (No. 2 valve): Raise, hold, lower, float

Two Valve for bulldozer and ripper or
 one rear implement 420 lb. (191 kg)
 Positions (No. 1 valve): Raise, hold, lower
 (No. 2 valve): Raise, hold, lower, float

Three Valve for bulldozer, tilt cylinder and
 ripper or one rear implement 570 lb. (259 kg)
 Positions (No. 1 & No. 3 valves): Raise, hold, lower
 (No. 2 valve): Raise, hold, lower, float

Three Valve for bulldozer and
 two rear implements 555 lb. (252 kg)
 Positions (No. 1 & No. 3 valves): Raise, hold, lower
 (No. 2 valve): Raise, hold, lower, float

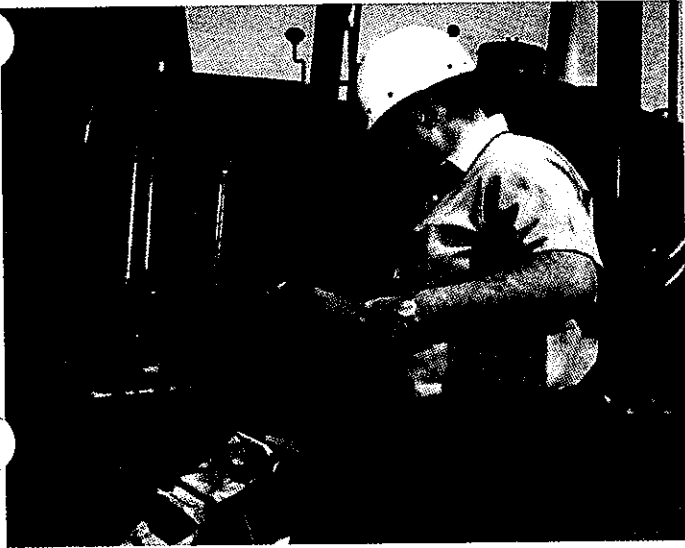
141 Hydraulic Control (for direct drive only):

Two Valve for tool bar and
 one rear implement 420 lb. (191 kg)
 Positions (No. 1 valve): Raise, hold, lower
 (No. 2 valve): Raise, hold, lower, float

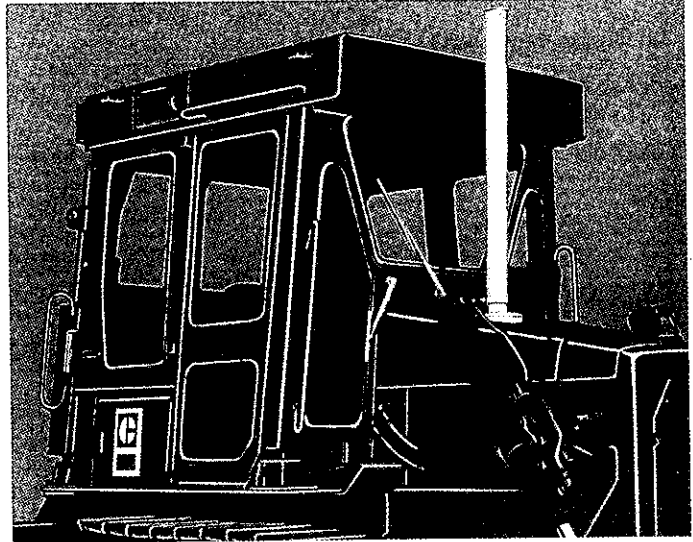
Two Valve for two rear implements 412 lb. (187 kg)
 Positions (No. 1 valve): Raise, hold, lower
 (No. 2 valve): Raise, hold, lower, float

Three Valve for tool bar and
 two rear implements 555 lb. (252 kg)
 Positions (No. 1 & No. 3 valves): Raise, hold, lower
 (No. 2 valve): Raise, hold, lower, float

Serviceability — less time on maintenance, more time on the job.

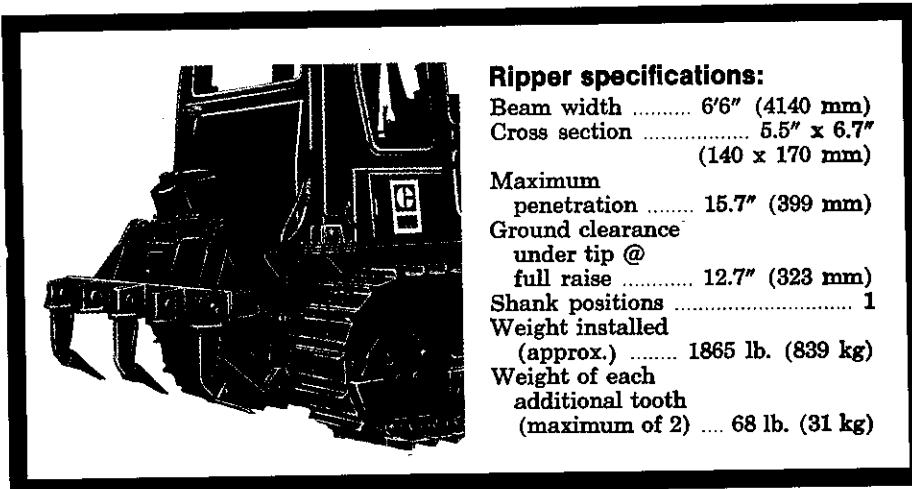


Day-to-day servicing has been simplified on the D4E. A single piece removable floor plate provides easy access to transmission top, filters and screens. Hinged doors provide access to batteries in the operator's compartment, fuel shutoff valve at the rear of tractor, and transmission and power train filler spouts and dipsticks at the right of the operator's platform. Other maintenance features include: spin-on fuel and oil filters, hydraulic track adjusters, split master link, adjustment-free fuel system, and unit removal of steering clutches and brakes.



The optional sound-suppressed ROPS cab contains many standard operator comfort features: air pressurizer and filter, windshield washers and wipers, tinted glass, dome light and floor mat. Air conditioner, heater and a cab accessory group containing coat hook, sun visor and ashtray are available options. ROPS canopy is standard in U.S.A. Both cab and canopy meet current OSHA and ISO requirements for operator rollover protection.

Increase machine versatility with rugged Cat-built attachments.

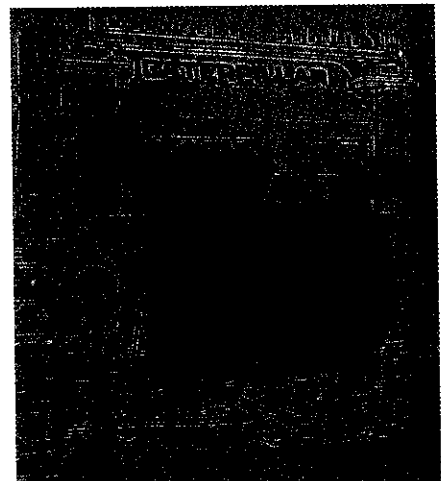


Ripper specifications:

- Beam width 6'6" (4140 mm)
- Cross section 5.5" x 6.7"
(140 x 170 mm)
- Maximum penetration 15.7" (399 mm)
- Ground clearance under tip @ full raise 12.7" (323 mm)
- Shank positions 1
- Weight installed (approx.) 1865 lb. (839 kg)
- Weight of each additional tooth (maximum of 2) 68 lb. (31 kg)

Parallelogram design multi-shank ripper maintains constant tip angle for easy penetration. Complete ripper consists of mounting bracket, linkage assembly,

hydraulic cylinder, beam assembly and three teeth with replaceable tips. (Two additional teeth are optional.) Hydraulic control required but not included.



Optional Cat Winch operates with only one lever for easy control of reel-in and braking. Drum speeds are matched to tractor ground speeds in first gear, so cable winds smoothly. Easy access for servicing the brakes or gear train.

hydraulic controls (continued)

Pump:

Capacity @ 1000 psi (69 bar)

	Power Shift	Direct Drive
143 Hydraulic Control ..	37.8 gpm 143 litres/min	35.9 gpm 136 litres/min
141 Hydraulic Control ..	---	20.4 gpm 77 litres/min
RPM @ rated engine speed	2000	1900

Relief valve setting 143	1730 psi (119 bar)
141	1200 psi (83 bar)
Drive	Geared from auxiliary drive
Reservoir mounting	Dash
Tank capacity	6.0 gallons (22.7 litres)



service refill capacities

	U.S. Gallons	Litres
Fuel tank	63	238
Cooling system	8	30.3
Engine crankcase	5	18.9
Transmission (Power Shift)	10.5	39.7
(Direct Drive)	2.25	8.5
Oil flywheel clutch (direct drive only)	2.25	8.5
Steering clutch case and booster system (Power Shift)	16.5	62.4
(Direct Drive)	18	68
Final drives (each)	2.5	9.4
Hydraulic tank	6	22.7



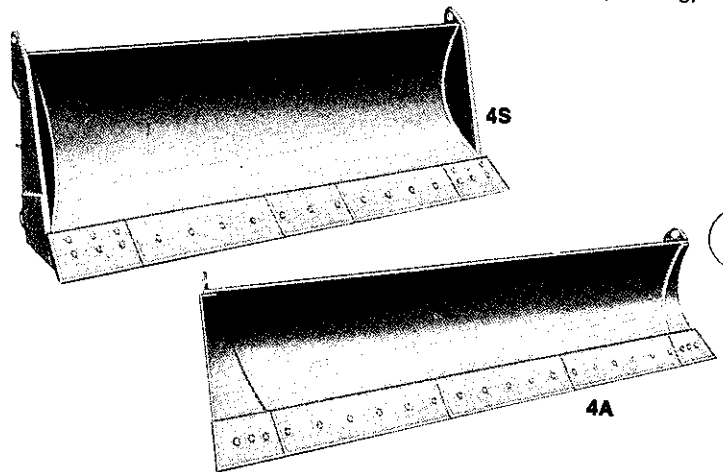
weight (approximate)

Shipping (includes lubricants, coolant, ROPS canopy and 10% fuel)

Power shift	16,350 lb. (7416 kg)
Power shift with live PTO	16,400 lb. (7439 kg)
Direct drive	16,230 lb. (7362 kg)

Operating (includes lubricants, coolant, ROPS canopy, 100% fuel, operator and 4S Bulldozer)

Power shift	19,450 lb. (8823 kg)
Power shift with live PTO	19,500 lb. (8845 kg)
Direct drive	19,330 lb. (8768 kg)



ROPS

(ROPS canopy is standard in U.S.A. only.)
ROPS (Rollover Protective Structures) offered by Caterpillar for this machine meet ROPS criteria: SAE J395, SAE J1040a and ISO 3471. They also meet FOPS (Falling Object Protective Structure) criteria SAE J231 and ISO 3449.

D4E Bulldozers feature a single lever that controls raise, lower and tilt functions. Blades are multiple box-section construction, with heat-treated steel moldboards and DH-2 steel cutting edges and end bits. Complete bulldozer consists of dozer moldboard, C-frame for 4A, push arms for 4S, trunnions, lines, lift cylinders and brackets. Hydraulic control is required but not included with bulldozers.

Bulldozer specifications:

4S	8'0" 2440 mm	33.1" 840 mm	15.5" 394 mm	32.3" 820 mm	13.3" 338 mm	1940 lb. 880 kg
4A	10'3" 3124 mm	27.8" 706 mm	14.4" 366 mm	31.9" 810 mm	---	2250 lb. 1021 kg

ripper	3'3" (990 mm)
S-DOZER	2'2" (660 mm)
A-DOZER	2'2" (660 mm)
A-DOZER-ANGLED	4'3" (1295 mm)

ROPS CANOPY	9'0" (2743 mm)
ROPS CAB	9'6" (2895 mm)
ROPS CAB WITH AIR CONDITIONER	9'7" (2921 mm)



standard equipment

24-volt direct electric starting.
19-amp alternator.
Blower fan.
Backup alarm (U.S.A. only).

Electric hour meter.
Forward warning horn (U.S.A. only).
Fuel priming pump.
Muffler.
5-roller track frame.
Rain cap.

Sealed and Lubricated Track with 13" (330 mm) 35-section single grouser track shoes and disc type idler.

Hydraulic track adjusters.
ROPS canopy (U.S.A. only).
Seat belt.
Power shift or direct drive transmission.



optional equipment

(with approximate installed weight)

	Lb	Kg		Lb	Kg
Air conditioning system (for cab only):			Screen for ROPS canopy	60	27
Heats only	25	11	Seat, shock dampening	57	26
Cools only	125	57	Starting system, low temperature	110	50
Heats and cools	150	68	Sweeps, logging, for ROPS cab or canopy	190	86
Alternator, 50-amp	15	7	Tool kit	15	7
Backup alarm (standard in U.S.A.)	15	7	Tracks, pair: Sealed and Lubricated or Sealed (non-lubricated)		
Cab, ROPS, sound suppressed	2486	1128	35-section for use with standard idlers:		
Canopy, ROPS (standard in U.S.A.)	1436	651	16" (406 mm)	225	114
Cylinders, hydraulic, tool bar lift	94	43	18" (457 mm)	380	172
Decelerator	13	6	20" (510 mm)	540	245
Drawbar, rigid	62	28	36-section, for use with large idlers:		
Swinging	235	107	13" (330 mm)	80	36
Engine enclosure	50	23	16" (406 mm)	300	136
Extension, air cleaner inlet	30	14	18" (457 mm)	480	216
Fan, reversible	24	11	20" (510 mm)	620	281
Suction	-14	-6	37-section, for use with non-oscillating 5-roller track frame:		
Forward warning horn (std. in U.S.A.)	5	2.2	16" (406 mm)	504	229
Frame, non-oscillating, 5-roller	1485	668	18" (457 mm)	728	328
Guards:			20" (510 mm)	844	380
Track guiding, center section only	90	41	Transmission, direct drive, closely spaced working speeds	0	0
Ends only	225	102	Lower speeds and increased drawbar pull ..	150	68
Track roller	274	124	Vandalism protection:		
For use with end track guiding guards ..	262	119	Instrument panel guard	4	2
Heater, engine coolant	3	1	Cap locks for:		
Hook, front pull	30	14	Oil filler	2	1
Idlers, large diameter, front, set of 2	40	18	Oil dipstick	1	0.5
Lighting system, four lights	39	18	Fuel tank	1	0.5
Two lights	13	6	Hydraulic tank	1	0.5
Precleaner with prescreener	10	5	Radiator	4	1.8
Radiator core protector grid	43	20	Water separator (for fuel system)	5	2.2
Ripper	1865	839	Winch	1600	726
Screen for ROPS cab	80	36			

Materials and specifications are subject to change without notice.