



CATERPILLAR

D5B Track-type Tractor

Summary of features

- **Operator comfort** is provided by the optional semi-modular, sound-suppressed ROPS cab, non-glare dashboard, two-way adjustable seat, single lever dozer control with adjustable lever, and combined hand-lever steering and braking.
- **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 3306 diesel Engine** . . . 638 cu. in. (10.5 litres) displacement . . . with individual adjustment-free fuel pumps and valves.
- **Choice of planetary power shift or direct drive transmissions.**
- **Easy maintenance** with spin-on fuel filter, split master link, hydraulic track adjusters, optional tilt cab. 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 @ 1750 RPM

Power shift and Direct Drive 105 (78 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, including blower fan, fuel priming pump, filter, dry-type air cleaner, and muffler. Engine will maintain specified power up to 5,000 ft. (1500 m) altitude.

Caterpillar 4-stroke-cycle 3306 diesel with 6 cylinders, 4.75" (121 mm) bore, 6.0" (152 mm) stroke, and 638 cu. in. (10.5 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.

Shown with optional ROPS sound-suppressed cab (ROPS canopy is standard in U.S.A.), lights, track roller guards, end guiding guards, hydraulic control, and 5S Bulldozer.



transmission

Power shift:

Planetary power shift with 12.25" (311 mm) diameter, high-torque-capacity oil clutches. Special valve permits unrestricted speed and direction changes under full load. Three speeds forward, three reverse.

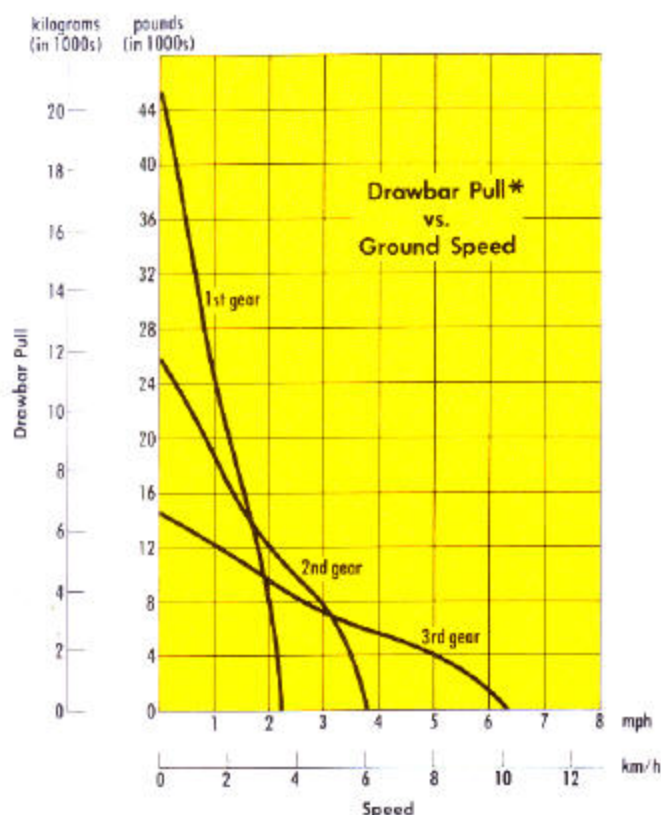
Single-stage torque converter directly connects to the transmission. Oil-to-air heat exchangers cool the torque converter oil.

Gear	Forward Speed		Reverse Speed	
	MPH	(km/h)	MPH	(km/h)
1	2.2	(3.5)	2.6	(4.2)
2	3.8	(6.1)	4.6	(7.4)
3	6.3	(10.1)	7.6	(12.2)

D5B

Track-type Tractor

transmission (continued)



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

Direct drive:

Sliding gear-type transmission with fast forward-reverse shift. Filtered, full-pressure lubrication.

Flywheel clutch has two metallic-faced plates with over-center engagement. Clutch lubricated and cooled by pressure-circulated oil. Connected to the transmission by double universal joint.

Direct drive speeds and drawbar pulls:

Gear	Forward		Reverse		Drawbar Pull Forward*			
	MPH (km/h)	MPH (km/h)	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)	19,340 (8770)	24,540 (11,130)				
2	2.6 (4.2)	3.3 (5.3)	12,130 (5500)	15,530 (7040)				
3	3.6 (5.8)	4.6 (7.4)	8,270 (3750)	10,700 (4850)				
4	5.0 (8.0)	6.3 (10.1)	5,610 (2540)	7,380 (3350)				
5	6.9 (11.1)	—	3,660 (1660)	4,950 (2250)				

Optional transmission:

1	2.3 (3.7)	3.0 (4.8)	13,910 (6310)	17,760 (8060)
2	2.7 (4.3)	3.5 (5.6)	11,690 (5300)	14,980 (6790)
3	3.3 (5.3)	4.2 (6.8)	9,390 (4260)	12,100 (5490)
4	3.7 (6.0)	4.8 (7.7)	8,000 (3630)	10,370 (4700)
5	4.2 (6.8)	—	6,900 (3130)	9,000 (4080)
6	5.1 (8.2)	—	5,390 (2440)	7,100 (3220)

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



steering

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

Hand levers combine steering clutch disengagement and braking in one control. Brake pedals are retained for operators who prefer them. Mechanical parking brake.



final drives

Crown-shaved, single-reduction final drive gears. Duo-Cone® Floating Ring Seals. Sprockets with bolt-on, replaceable rim segments.



track roller frame

Reinforced box-section construction. Inside-mounted carrier rollers. Lifetime-Lubricated rollers and idlers. Number of rollers (each side) 6
Oscillation at front idler 11.0" (279 mm)



Sealed and Lubricated Track

Sealed and Lubricated Track surrounds the track pin with lubricant to greatly reduce internal bushing wear. Lubricant held by a sealing arrangement consisting of a polyurethane seal, a rubber load ring and a thrust ring. Hydraulic track adjusters and split master link standard.

Number of shoes (each side) 39
Width of standard shoe 16" (406 mm)
Length of track on ground 87" (2210 mm)
Ground contact area with 16" (406 mm) shoes 2,800 sq. in. (1.81 m²)
Grouser height (from ground face of shoe) 2.25" (57 mm)



hydraulic controls

Four optional systems are available. Complete system consists of pump, tank, filter, valves, lines, linkage and control levers. Systems available, with approximate installed weights, are:

One valve (internal) for bulldozer 520 lb. (236 kg)
Positions: Raise, hold, lower, float.

Two valve (both internal), for bulldozer and tilt cylinder 660 lb. (299 kg)
Tilt cylinder positions: Tilt right, hold, tilt left.

Two valve (one internal, one external), for bulldozer and ripper 690 lb. (313 kg)
Ripper positions: Raise, hold, lower.

Three valve (two internal, one external), for bulldozer, tilt cylinder and ripper 840 lb. (381 kg)

Pump, gear-type:

	Power Shift	Direct Drive
Capacity @ 1000 psi (69 bar)	43 gpm (163 litres/min)	43 gpm (163 litres/min)
RPM @ rated engine speed	1750	1750
Relief valve setting	2250 psi (155 bar)	
Drive	Geared from auxiliary drive	

Reservoir:

Mounting Rear of engine
Tank capacity 13 gallons (49.2 litres)



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.

	U.S. Gallons	(litres)
Fuel tank	65	(246)
Cooling system	9	(34.1)
Lubricating systems		
Diesel engine crankcase	7.25	(27.4)
Tractor hydraulic system	20.5	(76)
Final drives (each):		
60" (1520 mm) gauge	2.38	(9.0)
74" (1880 mm) gauge	3	(11.4)

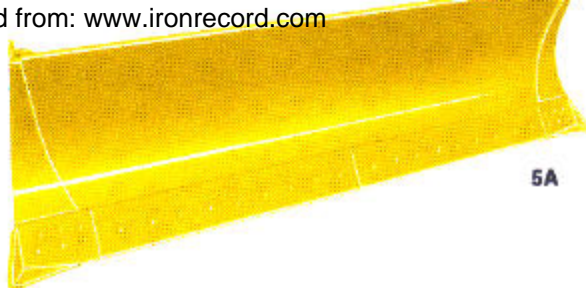
weight (approximate)

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

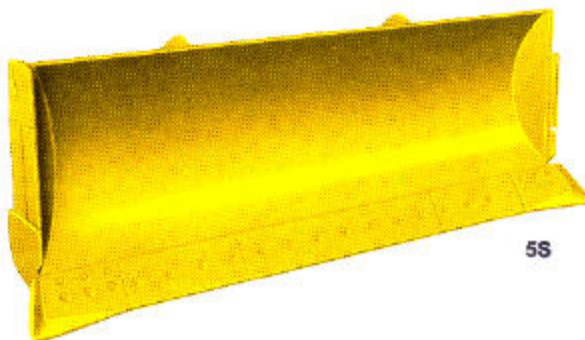
Power shift:		
60" (1520 mm) gauge	20,900 lb.	(9480 kg)
74" (1880 mm) gauge	21,200 lb.	(9620 kg)
Direct drive:		
60" (1520 mm) gauge	20,400 lb.	(9250 kg)
74" (1880 mm) gauge	20,900 lb.	(9480 kg)

Operating (includes lubricants, coolant, full fuel tank, hydraulic control, 5S Bulldozer, ROPS canopy and operator):

Power shift:		
60" (1520 mm) gauge	24,800 lb.	(11 250 kg)
74" (1880 mm) gauge	25,800 lb.	(11 700 kg)
Direct drive:		
60" (1520 mm) gauge	25,500 lb.	(11 570 kg)
74" (1880 mm) gauge	25,200 lb.	(11 400 kg)



5A



5S

D5B Bulldozers feature a single lever that controls raise, lower and tilt functions. Blades are multiple box-section construction, heat-treated steel moldboards and DH-2 steel cutting edges and end bits. Complete bulldozer consists of dozer moldboard, C-frame for 5A, push arms for 5S, braces, trunnions, lift cylinders and brackets. Hydraulic controls are required but not included with bulldozers.

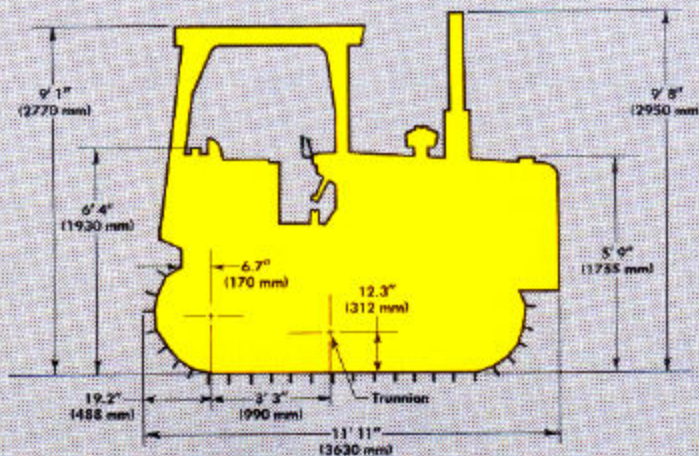
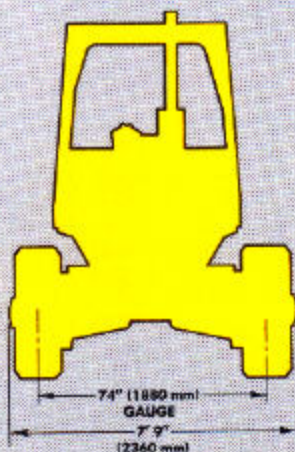
Bulldozer specifications

Blade	Overall Width (tractor with bulldozer)	Height	Digging Depth	Ground Clearance	Maximum Tilt	Weight (without hydraulic controls)
5S, 60" (1520 mm) gauge	8'8" (2640 mm)	38" (965 mm)	19.9" (505 mm)	34.2" (870 mm)	40" (1015 mm)	3,000 lb. (1360 kg)
74" (1880 mm) gauge	10'4" (3150 mm)	38" (965 mm)	19.9" (505 mm)	34.2" (870 mm)	39.5" (1005 mm)	3,200 lb. (1450 kg)
5A, 74" (1880 mm) gauge						
Straight	11'11" (3630 mm)	33.7" (855 mm)	21.7" (550 mm)	32.2" (820 mm)	11.0" (280 mm)	4,200 lb. (1910 kg)
Angled	10'10" (3300 mm)	33.7" (855 mm)	21.7" (550 mm)	38.2" (970 mm)	11.0" (280 mm)	----



dimensions (approximate)

Ground clearance, from ground face of shoe (per SAE J894) 10.9" (277 mm)



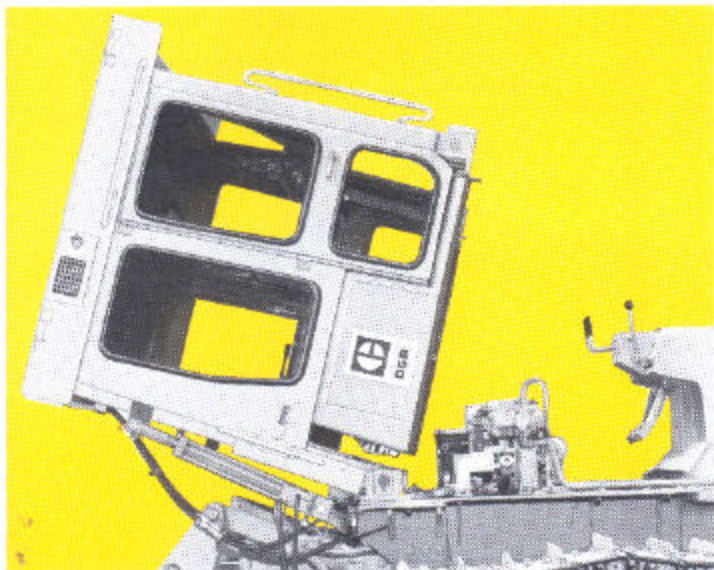
WITH FOLLOWING ATTACHMENTS, ADD TO BASIC TRACTOR LENGTH OF 11' 11" (3630 mm):

RIPPER	3' 7" (1092 mm)
S-DOZER	3' 2" (965 mm)
A-DOZER	3' 1" (940 mm)
A-DOZER ANGLED	5' 6" (1676 mm)

MACHINE HEIGHT FROM TIP OF GROUTER WITH THE FOLLOWING EQUIPMENT:

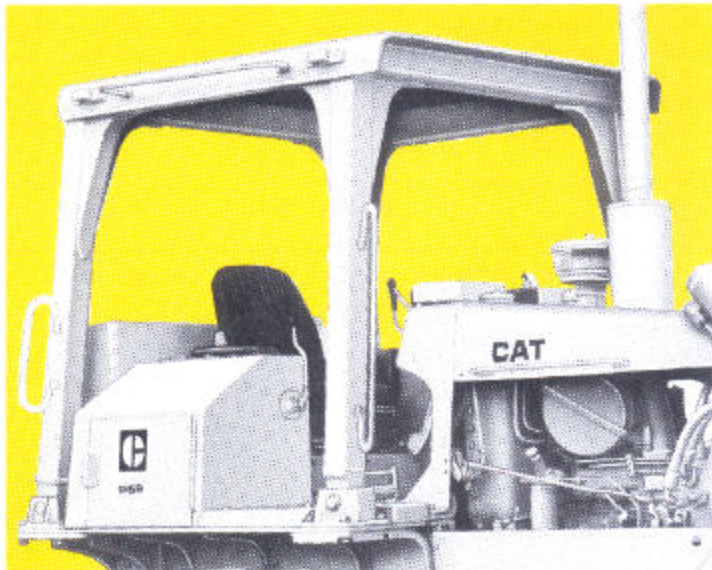
ROPS CANOPY	9' 3" (2819 mm)
ROPS CAB	9' 10" (2997 mm)
ROPS CAB WITH AIR CONDITIONER	9' 11" (3023 mm)

Serviceability — less time on maintenance, easier repair.



Easy serviceability is designed into the D5B: For day-to-day servicing — 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 and fuel shut-off valve at rear of tractor.

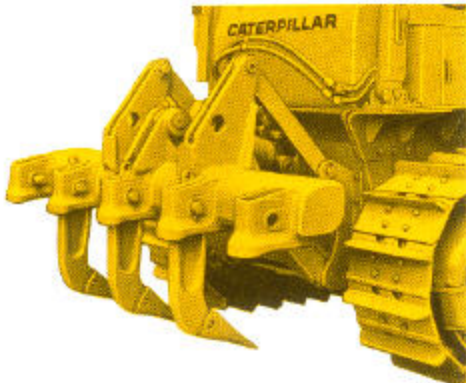
The optional sound-suppressed ROPS cab tilts rearward and out of the way if access to power train components is required. (Fuel tank must be removed before cab can be tilted.)



The cab contains many standard operator comfort features: air pressurizer and filter, windshield washers and wipers, tinted glass, dome light and floor mat. Air conditioner and heater are available as options. A cab accessory group is also available including coat hook, sun visor and ash tray.

ROPS canopy is standard in U.S.A. Both cab and canopy meet current OSHA and ISO requirements for operator rollover protection.

Increased machine versatility with rugged Cat-built attachments.



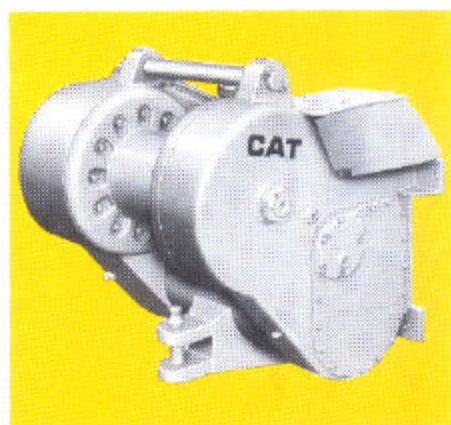
Ripper specifications

Beam width	7'8" (2340 mm)
Beam cross-section	8.5" x 10" (216 x 254 mm)
Maximum penetration	18.8" (478 mm)
Maximum clearance raised (under tip)	12.3" (312 mm)
Shank positions	One
Weight* (without hydraulic controls)	3,050 lb. (1380 kg)

* With three teeth; for each additional tooth, add 160 lb. (73 kg).

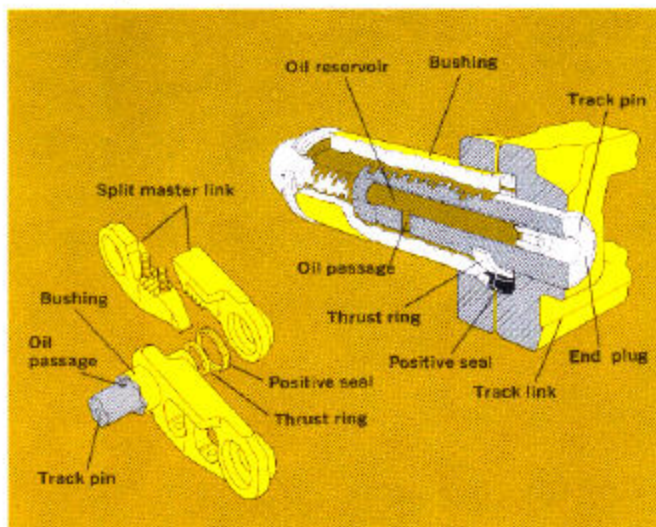
Parallelogram design No. 5 Ripper maintains a constant tip angle for easy penetration and continuous high production ripping. Complete ripper consists of mounting bracket, linkage as-

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



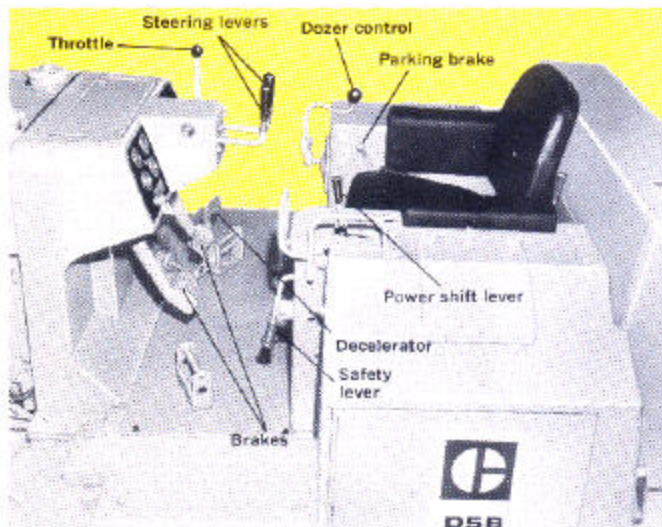
Optional Cat Winch operates with only one lever for easy control of reel-in, reel-out, inching and braking. Drum speeds are matched to tractor ground speeds in first gear, so cable winds and unwinds smoothly. There's easy access for servicing the brakes or gear train.

Longer track life,
lower repair costs.



Sealed and Lubricated Track greatly reduces undercarriage maintenance and expense. A special sealing arrangement holds oil between pin and bushing contact surfaces, virtually eliminating internal wear. The pin contains an oil reservoir in the center for continuous lubrication. Sealed and Lubricated Track extends component life throughout the undercarriage assembly and noticeably reduces track noise.

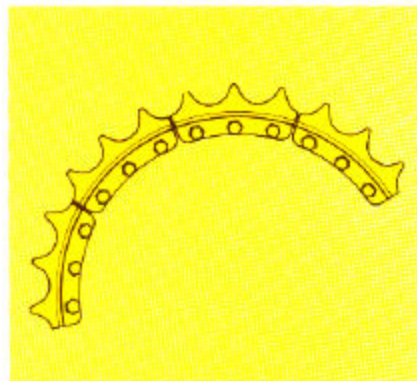
Built-in convenience, comfort and safety
mean more operator efficiency.



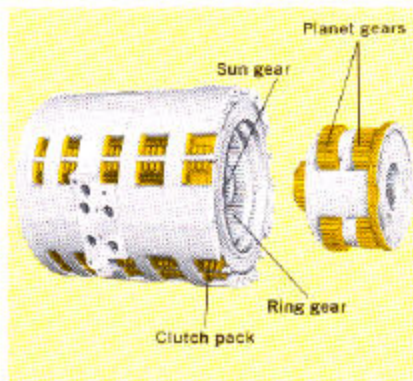
Combined steering and braking means the operator can both disengage steering clutches and apply the brakes with the hand levers. A slight pull on the lever gives a gradual turn . . . all the way back, a pivot turn. Brake pedals are retained for times when operator may prefer them and when the engine is not running.

Single lever dozer control. A single lever at the operator's right hand controls raise, lower and tilt functions. The lever is adjustable for operator comfort and efficiency.

Reliable Cat power train —
efficient, responsive.

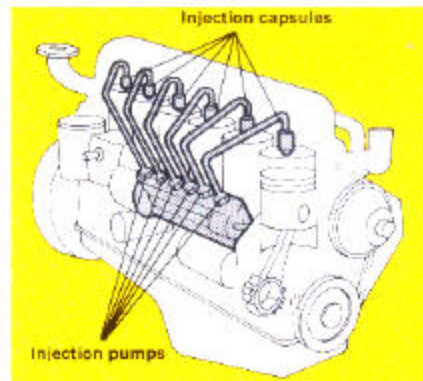


Bolt-on sprocket rim segments save on repair costs and reduce downtime. Sprocket segments can be changed in the field without breaking the track or removing the roller frame. Sprocket profile has been designed to help reduce bushing gouging and pocket wear caused by dirt packing between bushing and sprocket.



Planetary power shift transmission shifts on-the-go for quick speed and direction changes, fast cycles. Torque loads are spread through planetary gear sets rather than concentrating them on a single, rotating countershaft. Big clutch packs surround each gear set and engage with special hydraulic modulation for smooth, cushioned shifting. Clutch plates and gears are continuously cooled by oil for dependable performance and long life.

Direct drive transmission is also available. Sliding gears are pressure lubricated with filtered oil for long life.



Cat 3306 diesel Engine, with 638 cu. in. (10.5 litres) displacement, delivers reliable power for dozing, ripping, skidding or drawbar productivity. The adjustment-free fuel system has individual fuel injection pumps and valves to meter fuel precisely for efficient performance. Cam-ground and tapered aluminum alloy pistons expand during the heat of combustion to fit snugly in the cylinders for smooth, even power flow.


standard equipment

24-volt direct electric starting.	Electric hour meter.	Retrieval hitch.	ROPS canopy (U.S.A. only).
19-amp alternator.	Fuel priming pump.	16" (406 mm) grouser tracks (39-section).	Power shift or direct drive transmission.
Blower fan.	Muffler.	Large idlers.	
Backup alarm (U.S.A. only).	6-roller track frame.	Hydraulic track adjusters.	
Forward warning horn (U.S.A. only).	60" (1520 mm) or 74" (1880 mm) gauge.	Rain cap.	
	Sealed and Lubricated Track.	Seat belt.	


optional equipment

(with approximate change in standard operating weight)

Air conditioning systems (for cab only)

Heats only	25 lb. (11 kg)
Cools only	125 lb. (57 kg)
Heats and cools	150 lb. (68 kg)
Alternator, 50-amp (std. with cab)	10 lb. (5 kg)
Backup alarm (std. in U.S.A.)	15 lb. (7 kg)
Cab, ROPS, sound suppressed	2,170 lb. (984 kg)
Canopy, ROPS (std. in U.S.A.)	1,500 lb. (680 kg)
Decelerator	13 lb. (6 kg)
Drawbar, rigid	165 lb. (75 kg)
Swinging	381 lb. (173 kg)
Engine enclosure	180 lb. (82 kg)
Fan, reversible blade	19 lb. (9 kg)
Suction	-14 lb. (-6 kg)
Fire extinguisher	30 lb. (14 kg)
Guards:	
Crankcase, extreme service	600 lb. (272 kg)
For use with ripper or swinging drawbar	585 lb. (265 kg)
Crankcase, normal service	350 lb. (159 kg)
For use with ripper or swinging drawbar	340 lb. (154 kg)
Engine, upper	120 lb. (54 kg)
Final drive	56 lb. (25 kg)
Precleaner	8 lb. (3.6 kg)
Radiator, hinged, heavy-duty	53 lb. (24 kg)
Normal service	10 lb. (5 kg)
Track guiding, center section only	95 lb. (43 kg)
Ends only, 60" (1520 mm) model	160 lb. (73 kg)
74" (1880 mm) model	200 lb. (91 kg)
Track roller, for severe applications and rock conditions	422 lb. (191 kg)
Normal application	150 lb. (68 kg)
For use with end track-guiding guards	320 lb. (145 kg)

Heater, engine coolant	3 lb. (1 kg)
Hook, front pull	50 lb. (23 kg)
Horn	5 lb. (2.2 kg)
Lighting systems:	
Four lights	40 lb. (18 kg)
Two lights	20 lb. (9 kg)
Precleaner with prescreener	6 lb. (3 kg)
Radiator core protector grid	36 lb. (16 kg)
Screen for ROPS cab	80 lb. (36 kg)
Screen for ROPS canopy	60 lb. (27 kg)
Seat, shock dampening	57 lb. (27 kg)
Spring, equalizer, solid,	
74" (1880 mm) gauge	90 lb. (41 kg)
Starting motor, low temperature,	
Direct drive model	10 lb. (5 kg)
Power shift model	20 lb. (9 kg)
Sweep, logging, for ROPS cab or canopy	250 lb. (113 kg)
Tool kit	15 lb. (7 kg)
Tracks, pair for 74" (1880 mm) or 60" (1520 mm) gauge:	
Sealed and Lubricated or Sealed (non-lubricated) 39-section:	
18" (457 mm)	218 lb. (99 kg)
20" (510 mm)	390 lb. (177 kg)
22" (560 mm)	550 lb. (249 kg)
Transmission, optional (for direct drive only)	0 lb. (0 kg)
Vandalism protection:	
Instrument panel guard	4 lb. (2 kg)
Cap locks for:	
Oil filler	2 lb. (1 kg)
Oil dipstick	4 lb. (2 kg)
Fuel tank	1 lb. (0.5 kg)
Hydraulic tank	1 lb. (0.5 kg)
Radiator	2 lb. (1 kg)
Water separator	5 lb. (2.2 kg)

Materials and specifications are subject to change without notice.