

D9H

Track-type Tractor

engine (continued)

Caterpillar four-stroke-cycle diesel Model D353 with six cylinders, 6.25" (159 mm) bore, 8" (203 mm) stroke and 1473 cu. in. (24.2 litres) displacement.

Turbocharged and aftercooled, with non-clogging individual adjustment-free fuel injection pumps and precombustion chambers. Stellite-faced valves and hard alloy steel seats. Valve rotators provide even heat distribution.

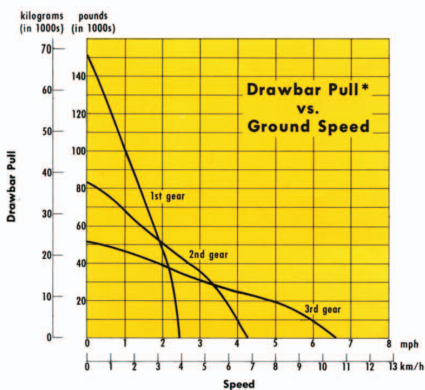
Spray-cooled, cam-shaped and tapered aluminum alloy pistons with three-ring design. Cast-iron ring bands for both compression rings. Steel-backed aluminum alloy bearings. Hi-Electro hardened crankshaft journals. Dry-type air cleaner with automatic dust ejector. Uses economical No. 2 fuel oil (ASTM Specification D396), often called No. 2 furnace or burner oil, with a minimum cetane rating of 35. Premium quality diesel fuel can be used but is not required. 24-volt direct electric starter with 19-amp alternator and two 200-amp, 12-volt batteries.

transmission

Planetary-type power shift with 21" (530 mm) diameter, high-torque-capacity oil clutches. Special modulation system permits unrestricted speed and direction changes under full load.

Single-stage torque converter with output torque divider. Connected to transmission by double universal joint for unit construction.

Gear	Forward Speed		Reverse Speed	
	MPH	(km/h)	MPH	(km/h)
1	0-2.5	(4.0)	0-3.1	(5.0)
2	0-4.3	(6.9)	0-5.4	(8.7)
3	0-6.7	(10.8)	0-8.2	(13.2)



steering

Hydraulically actuated, multiple-disc oil clutches require no adjustment. Oil-cooled, hydraulically boosted contracting band brakes. Clutch and brake assemblies can be serviced as a unit.

Hand levers combine steering clutch disengagement and braking in one control. Pull back slightly to disengage steering clutches, fully back to brake track. Brake pedals are retained for operators who prefer them and for cross steering and emergency stops. Mechanical parking brake.

final drives

Planetary-type gearing. Filtered, full-pressure lubrication and Duo-Cone® floating ring seals. Steel final drive cases. Sprockets with bolt-on, replaceable rim segments.

track roller frame

Reinforced box-section construction includes welded-on track-guiding guards with replaceable, bolt-on wear strips. Outside-mounted carrier rollers. Lifetime-Lubricated rollers and idlers with Duo-Cone® floating ring seals. Adjustable, two-position idler. Pinned equalizer bar and diagonal braces hold track roller frames in lateral alignment.

Number of rollers (each side)	7
Oscillation at front idler	17.69" (449 mm)

Sealed and Lubricated Track

Sealed and Lubricated Track surrounds the track pin with lubricant to greatly reduce internal bushing wear. Lubricant is held in place by a sealing arrangement consisting of a polyurethane seal, a rubber load ring and a thrust ring. Additional lubricant is contained in a reservoir drilled into the track pin. Extends track wear life and undercarriage maintenance intervals — reduces costs. Hydraulic track adjusters and track-guiding guards standard. Split master link standard.

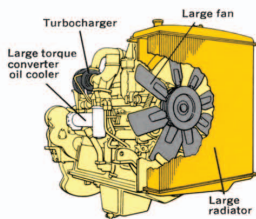
Number of shoes (each side)	39
Width of standard shoe	24" (610 mm)
Length of track on ground	132" (3350 mm)
Ground contact area with standard shoes	6,338 sq. in. (4.09 m ²)
Grouser height (from ground face of shoe)	3.44" (87 mm)

service refill capacities

	U.S. Gallons	(litres)
Fuel tank	230	(870)
Cooling system	41	(155)
Diesel engine crankcase	11.25	(42.6)
Transmission, bevel gear and steering clutch compartments (includes torque converter)	34	(129)
Final drives (each)	11.25	(42.6)

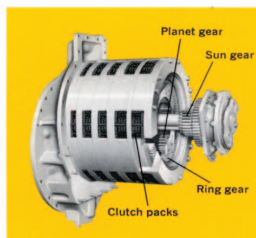
weight (approximate)

Shipping (includes coolant, lubricants, 5% fuel and ROPS mounting) 72,400 lb. (32 840 kg)



And these design refinements make the D9H a reliable performer:

- Large torque converter oil cooler quickly dissipates heat of the efficient D9H torque converter.
- Ample radiator capacity is eight tube rows for effective cooling.

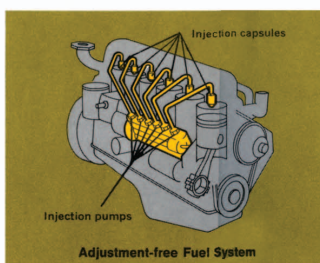


Planetary power shift transmission shifts on-the-move for quick speed and direction changes. Big-perimeter clutch packs absorb the shifting forces. And planetary gearing spreads out torque loads rather than concentrating them on a single gear. Hydraulic modulation eases clutch packs together for smooth and fast engagement and disengagement when shifting.

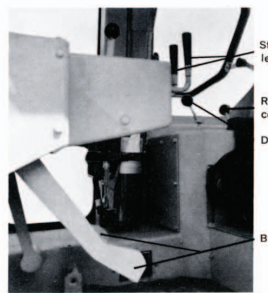
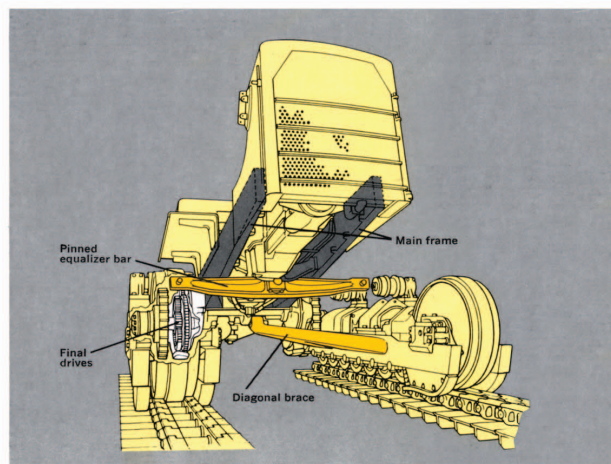
The D9H controls are simple to operate because of two innovations. Your operator can steer completely with just the hand levers. They combine steering clutch disengagement and braking. Pull back slightly for a gradual turn . . . all the way back to brake the track. Or your operator can use the brake pedals if he prefers. And hydraulic pilot controls actuate the dozer tilt and ripper hydraulics . . . so they're smooth and almost effortless to operate.

410 flywheel horsepower (306 kW) Cat D353 diesel delivers high-production dozing, ripping and push-loading. And it includes the many time-proven, dependable benefits of Cat diesel power:

- Adjustment-free fuel system has individual injection pumps and valves that precisely meter the proper amount of fuel for peak performance.
- Turbocharging and aftercooling pack more air into cylinders for more complete combustion, more power.

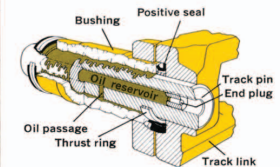
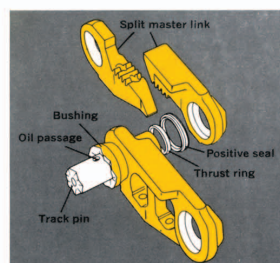


Adjustment-free Fuel System



Rugged undercarriage is designed to deliver longer service life with less maintenance:

- Pinned equalizer bar holds track frames in lateral alignment. Keeps track frames from spreading outward under loads . . . reduces stress on final drives.
- Strong box-section main frame features 1.62" (41 mm) thick top rail, 3" (76 mm) thick bottom rail and a depth of 17.9" (455 mm) at the saddle.
- Track rollers have thick guarding to protect against damage.



Sealed and Lubricated Track greatly reduces undercarriage maintenance and expenses. A special sealing arrangement holds in an oil film between pin and bushing contact surfaces. It virtually eliminates internal wear. The thicker bushing has longer external wear life. And the pin contains an oil reservoir in the center for continuous lubing. Sealed and Lubricated Track extends component life and noticeably reduces track noise.



Caterpillar Modular Cab (optional) combines increased operator protection, easy servicing and comfortable environment — all in one self-contained, factory-installed unit. The cab has integral ROPS and is sound suppressed. All controls are self-contained, and they disconnect so that the entire cab tilts rearward for servicing power train components. The cab has integral air filtration and pressurization and contains the housing for adding the optional 35,000 BTU/hr. (10 260 W) air conditioner and heater.



Single Shank Ripper

No. 9 Series D Rippers are parallelogram design for strength and ability to keep a nearly constant penetration angle. And you can adjust the angle hydraulically for best penetration of any material. A hydraulic pin puller is available with the single shank ripper (shown at right), so your operator can adjust shank length from his seat (standard on deep-ripping arrangement). Multishank ripper lets you use up to three shanks, depending on job conditions.

Ripper specifications

Ripper	Beam Width	Cross Section	Maximum Penetration	Maximum Clearance Raised	Shank Positions	Weight (without hydraulic controls)
Single shank, standard	4'6" (1370 mm)	17" x 19" (432 x 483 mm)	53.5" (1360 mm)	44.5" (1130 mm)	4	13,630 lb. (6180 kg)
Single shank, deep ripping	4'6" (1370 mm)	17" x 19" (432 x 483 mm)	77.5" (1970 mm)	44.5" (1130 mm)	6	14,050 lb. (6390 kg)
Multishank	9'10" (3000 mm)	17" x 19" (432 x 483 mm)	38.5" (980 mm)	34.5" (880 mm)	2	14,150 lb. (6420 kg)