D10R
Track-Type Tractor



Cat® 3412E Diesel Engine		
Gross Power	457 kW	613 HP
Flywheel Power	425 kW	570 HP
Blade Capacity to	22.0 m^3	28.7 yd^3

Featured machine may include additional equipment applicable only for special applications. See your Caterpillar dealer for available options.

D10R Track-Type Tractor

The D10R combines power and efficiency with advanced technology for outstanding production at lower cost-per-yard.

Power Train

The rugged, easy-to-service Caterpillar 3412E engine has a 30% torque rise.

✔ *The Hydraulically actuated, Electronically controlled, Unit Injection (HEUI) fuel system* provides reduced sound and emission levels, with improved fuel efficiency. An exclusive Caterpillar designed torque divider allows the engine to respond quickly to varying work applications. **pg. 4-5**

Engine Power Train Integration

✔ *The Caterpillar Data Link System* electronically combines engine, transmission and brake information to optimize overall tractor performance. The Electronic Technician (ET) gives access to stored diagnostic data, significantly reducing downtime. **pg. 6**

Cooling System

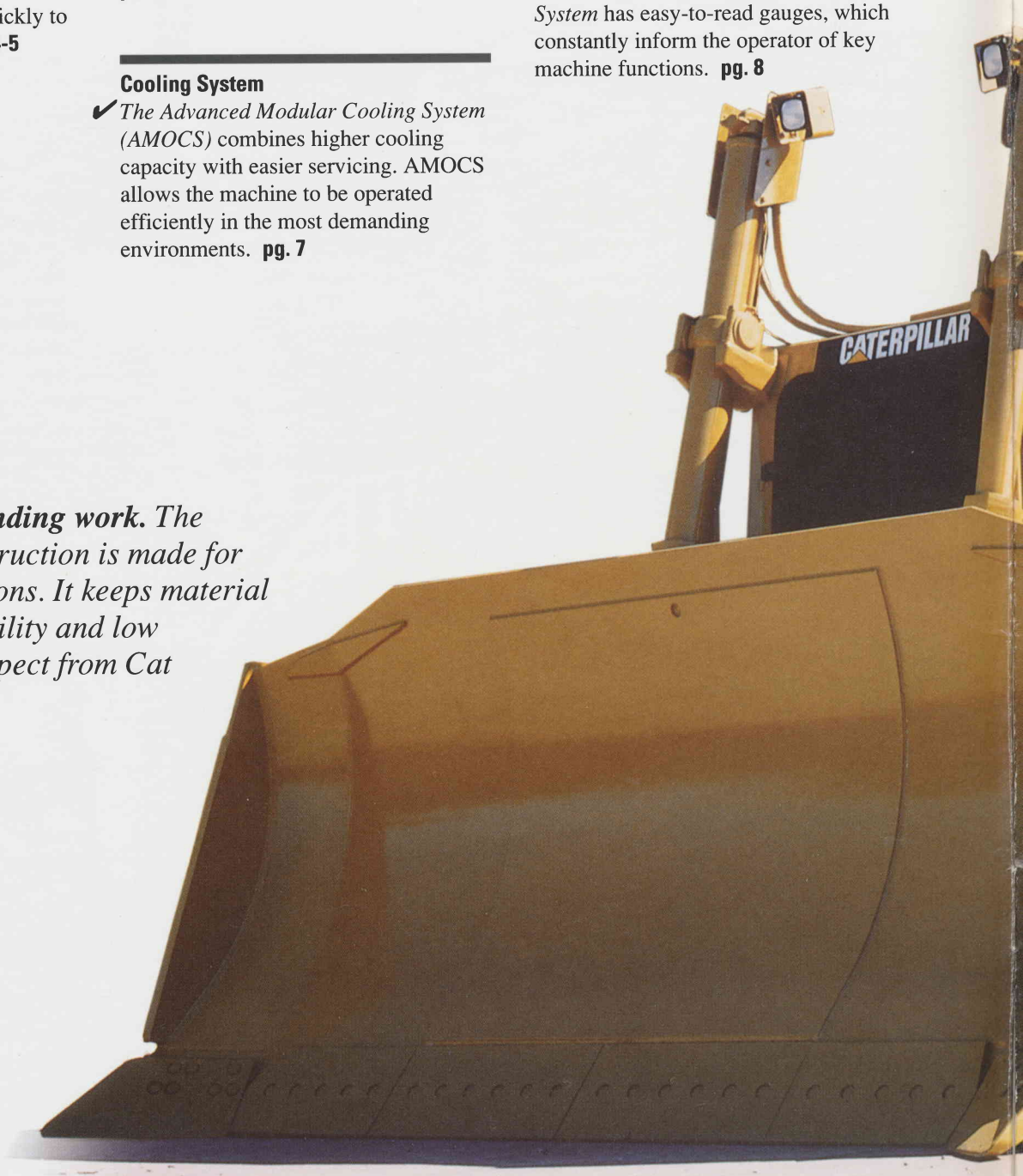
✔ *The Advanced Modular Cooling System (AMOCS)* combines higher cooling capacity with easier servicing. AMOCS allows the machine to be operated efficiently in the most demanding environments. **pg. 7**

Operator Station

The comfortable, efficient control deck encourages top output. Controls are low-effort and easy to reach. Cat Contour Series Seat provides proper support and automotive comfort. The front, side and rear views from the seat are exceptional.

✔ *The Caterpillar D10R Monitoring System* has easy-to-read gauges, which constantly inform the operator of key machine functions. **pg. 8**

Engineered for demanding work. *The D10R's durable construction is made for tough working conditions. It keeps material moving with the reliability and low operating costs you expect from Cat tractors.*



Electronic Steering and Transmission Controls

This Caterpillar designed and manufactured system provides smooth, ✔ one handed, *Fingertip Control (FTC)* for steering and transmission. Low-effort controls can reduce cycle time for improved production rates. **pg. 9**

Structure

Mainframe is heavy, strong and durable. Full box sections, steel castings and continuous rolled rails provide durable support to the suspended undercarriage, elevated final drives and other integral frame components. **pg. 10**

Undercarriage

The elevated sprocket moves the final drives above the work area, isolating them from ground impacts. The suspended undercarriage puts more track on the ground for higher traction and less slippage. It also absorbs shocks for a smoother ride and longer machine life. **pg. 11**



Work Tools

The variety of bulldozer blades, rippers and other options allow you to adapt the D10R to match your specific application. **pg. 12**

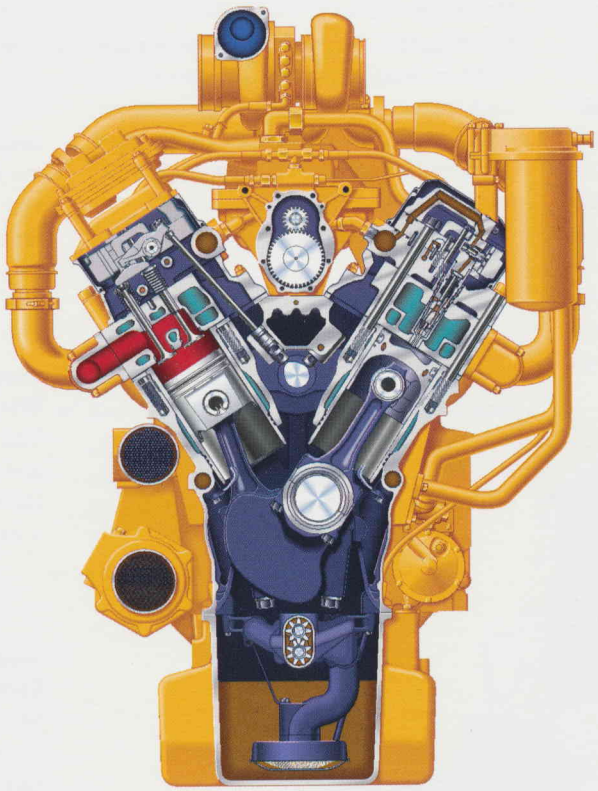
Serviceability

Major modular components are designed for excellent serviceability, and allows fast in-field component exchange. **pg. 13**

✔ *New feature*

Power Train

The 3412E engine, when matched with the torque divider and field proven power shift transmission, will provide years of dependable service.



Caterpillar® 3412E engine performs at full-rated net power of 425 kW (570 hp) at 1900 rpm with a high torque rise of 30%. The large displacement and high torque rise allow the D10R to doze through tough material.

Turbocharging and aftercooling provide high horsepower while keeping RPM and exhaust temperatures low for long hours of continuous operation.

1 **The Hydraulically actuated Electronically controlled Unit Injection (HEUI) system** is a unique and proven high-pressure, direct injection fuel system. The electronic control module monitors operator and sensor inputs to optimize engine performance and fuel efficiency. The HEUI system is truly unique in its ability to independently control injection pressure over the entire engine operating speed range. These features allow the 3412E to have complete control over injection timing, duration and pressure.

HEUI fuel system incorporates rate shaping technology which modifies the heat release characteristics of the combustion process for significant decreases in combustion sound and emission levels. The engine's fuel system helps it meet current sound and emission standards.

Exhaust smoke is significantly reduced through precise, electronic control of fueling limits and injection timing.

Improved reliability through reduction of complex mechanical linkages and by electronically protecting the engine during:

- Cold starts
- Prolonged idling periods
- High altitude operation

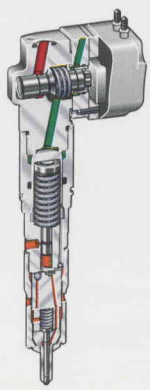
Easier maintenance and repair through monitoring key functions and logging critical indicators. Electronic diagnostic access is possible with a single tool, the Electronic Technician (ET).

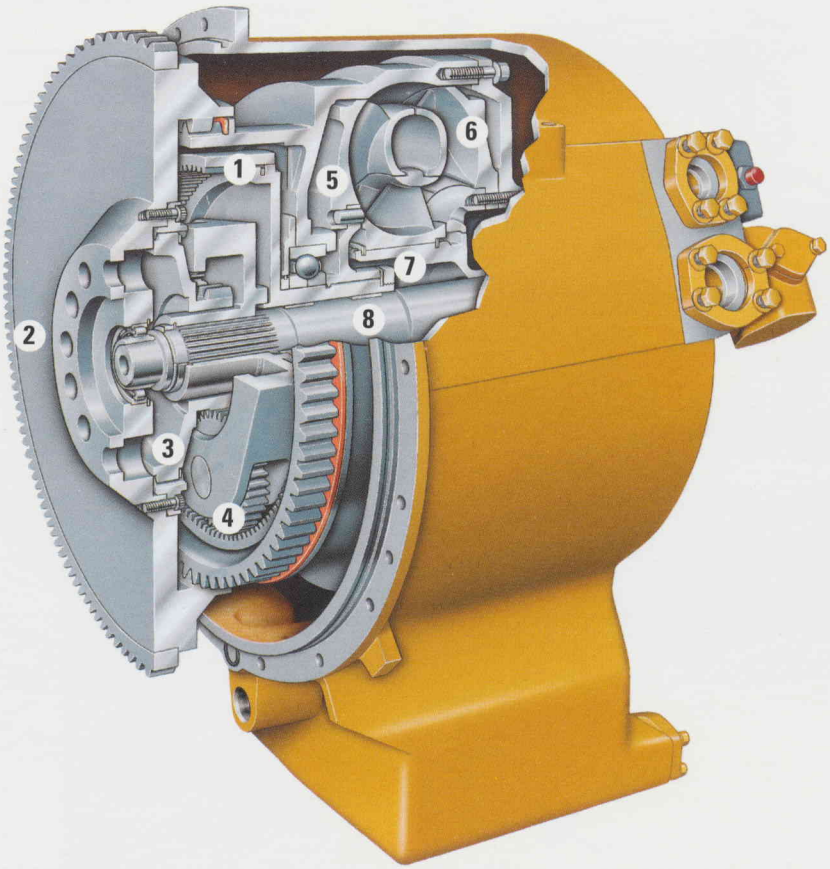
A steel spacer between the block and head eliminates the need for block counterbores, extending block life.

Stellite-faced valves, through-hardened crankshaft journals and steel-backed, copper-bonded aluminum bearings help assure reliable performance in the toughest duty.

Components live longer because oil-cooled pistons and full-length water-cooled cylinder liners provide maximum heat transfer. The cylinder heads also utilize additional coolant passages to provide maximum cooling to the rear of the engine.

Cat dealer's exchange program for major engine components can cut repair time and costs.





Torque Divider. A single-stage torque converter with output torque divider sends 75% of engine torque through the converter, 25% through a direct drive shaft for greater driveline efficiency and higher torque multiplication.

The torque converter shields the driveline from sudden torque shocks and vibration.

Elevated final drives are isolated from ground and implement induced impact loads for extended power train life.

- Crown-shaved drive gears provide smooth, quiet, low maintenance operation.
- Splash lubrication and Duo-Cone Seals extend service life.

Planetary Power Shift Transmission has 3-speeds forward and 3-speeds reverse and utilizes large diameter, high-capacity, oil-cooled clutches.

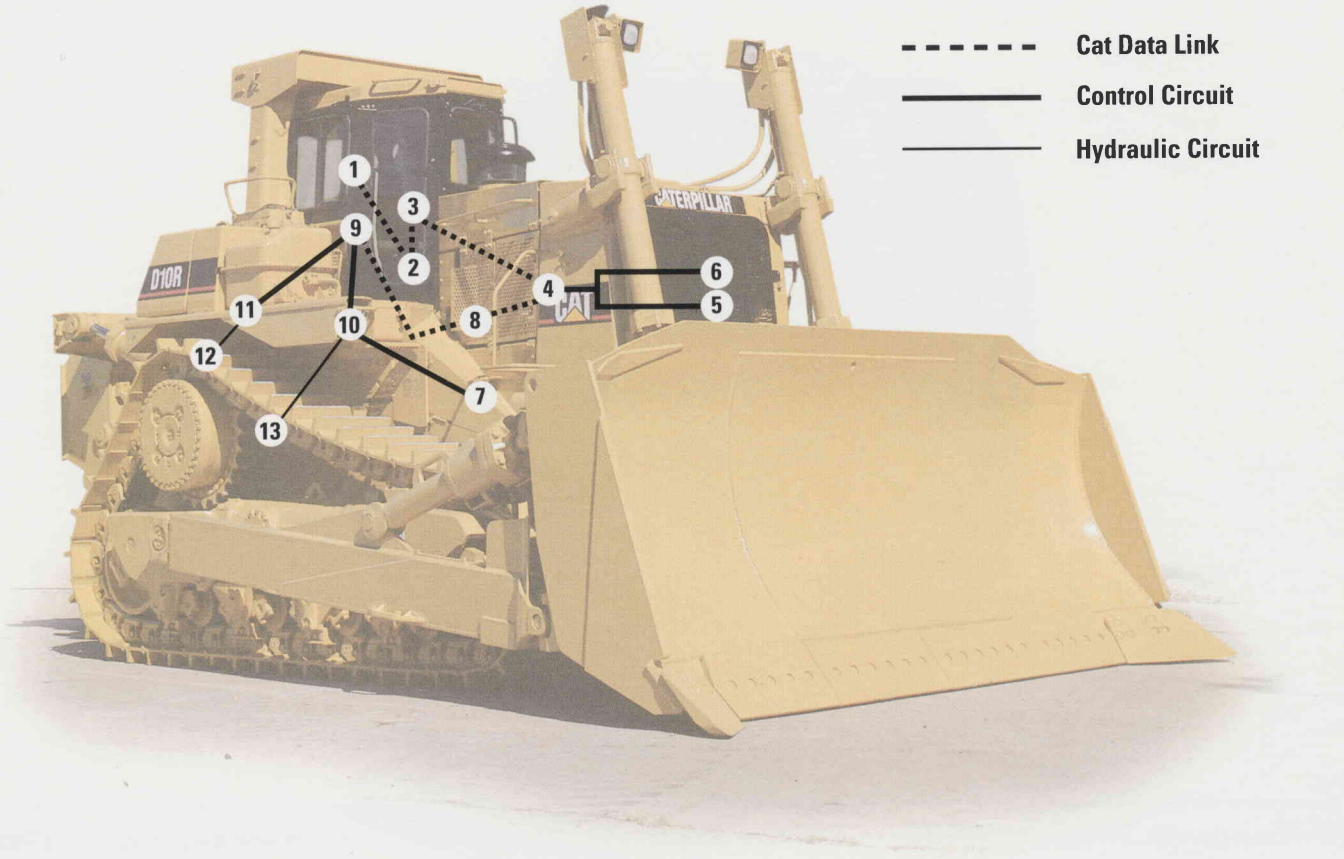
- Modulation system permits fast speed and direction changes.
- Modular transmission and bevel gear slide into rear case for servicing ease, even with ripper installed.
- Oil-to-water cooler for maximum cooling capacity.
- Forced oil flow lubricates and cools clutch packs to provide maximum clutch life.

1 Ring gear
2 Flywheel
3 Sun gear
4 Planet gear
5 Turbine
6 Impeller
7 Output shaft

NOTE: Artwork represents torque divider concept only.

Engine/Power Train Integration

Combining the electronic engine control with the Caterpillar electronic transmission control allows these critical power train components to work more intelligently.



By communicating, these components work to optimize overall power train performance, reliability and component life for reduced power train operating cost.

The Cat data link electronically connects the engine and transmission controls to provide these benefits:

- Controlled Throttle Shifting – Regulates engine speed during directional shifts for smoother operation and longer component life.

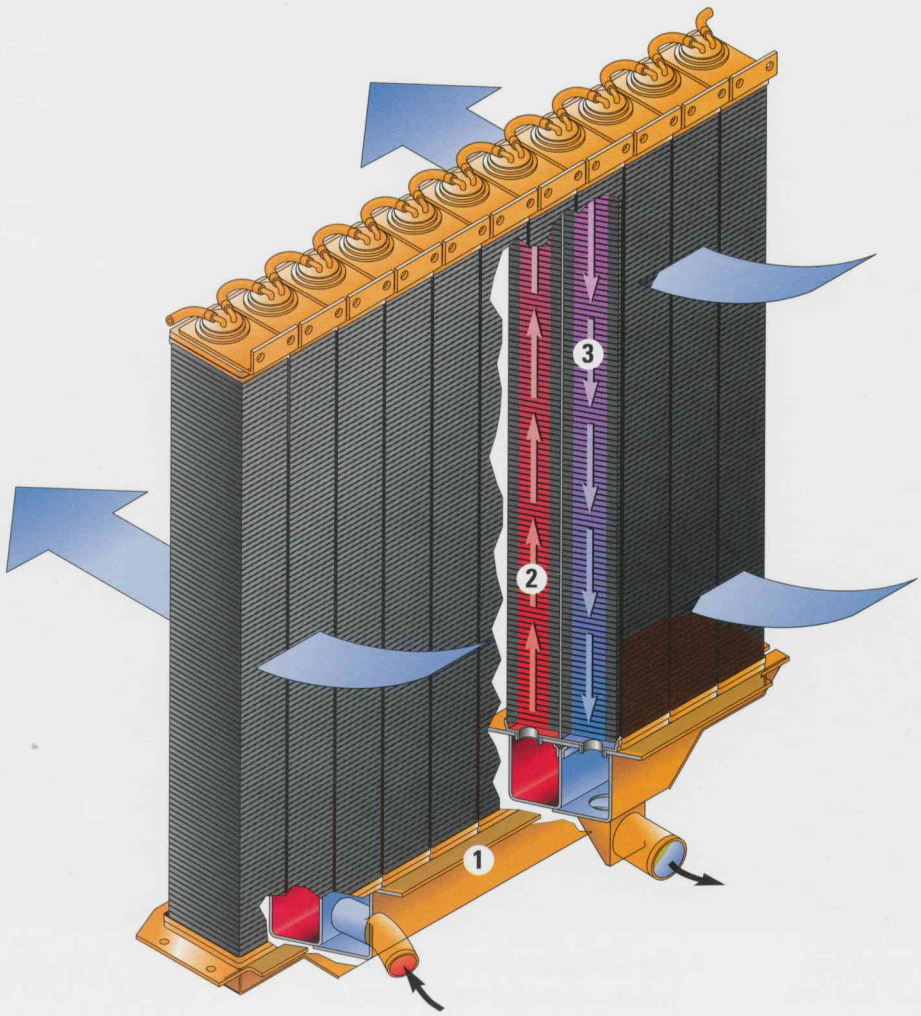
Improved Diagnostics/Serviceability. The electronic engine and transmission controls provide enhanced diagnostic capability. The ability to store both active and intermittent indicators will simplify problem diagnosis and total repair time, resulting in improved mechanical availability and lower operating costs.

- Access to diagnostic data is made easy through the use of a single service tool – ECAP or Electronic Technician (ET) software package.
- ET accesses data stored in the engine and transmission controls via the Cat data link. Information on engine boost pressure, fuel consumption, engine speed and transmission shift data can be retrieved by ET.
- ET is also a powerful diagnostic tool. It replaces 13 mechanical tools to perform functions like cylinder cut-out checks, injector solenoid test, and timing calibration.

1 Electronic Technician (ET)
2 Caterpillar Data Link
3 Caterpillar Monitoring System
4 Engine Control Module (ECM)
5 Demand Control Fan
6 Fan Speed Sensor
7 Odometer Sensor
8 Control Throttle Shifting
9 Fingertip Control Module (FTC)
10 Electronic Clutch/Brake Control Module (ECB)
11 Electric Transmission Control
12 Transmission
13 Steering, Clutch and Brakes

Cooling System

Superior cooling in the most demanding work conditions.



Advanced Modular Cooling System (AMOCS) utilizes an exclusive two pass cooling system and increased cooling surface area to provide significantly more cooling capacity than conventional systems.

The servicing of the AMOCS can be performed without tilting the radiator guard.

- No need to remove or replace a major component as on single-core radiators.
- Each core module can be replaced individually (without removing the entire radiator), saving considerable cost and repair time.

Two pass cooling system circulates coolant from the sectioned bottom tank **(1)** up through one side **(2)** of the cooling element and down through the other side **(3)** returning it to the bottom tank.

The cooling elements are individual core modules that are connected to a sectioned bottom tank. There is no top tank to remove.

- 9 steel fins per inch.
- Brass tube construction within each core.

Demand Control Fan

- Engine Control Module (ECM) regulates engine fan speed through a multi-disc fan clutch.
- Fan speed varies according to specific engine cooling requirements.
- Increases available horsepower reducing parasitic load.
- Fuel Efficient.
- Reduced spectator and operator sound levels.

Operator Station

Designed for comfort and ease of operation.



Clear panoramic view. Angled seat, tapered hood and "notched" fuel tank give the operator a clear line of sight to the front and rear work areas. Redesigned single shank ripper frame improves ripper tip visibility. Large single-pane door windows allow the operator to see close-in to each side without leaning.

Comfortable, non-tiring operation. An optional isolation-mounted cab reduces noise and vibration, maintaining an internal sound level under 85 dB(A). The cab is pre-wired for a 12-volt or 24-volt radio, and equipped with two speakers, antenna and radio mount recessed in the headliner.

1 **Low effort Fingertip Controls (FTC)** are easily accessible and provide sure, precise maneuvering with enhanced operator comfort. FTC module with padded armrest is adjustable to accommodate different size operators.

2 **The Caterpillar Contour Series Seat** is fully adjustable and designed for comfort and support. The seat cushion reduces the pressure on the lower back and thighs while allowing unrestricted arm and leg movement. Retractable 75 mm (3") wide seat belt provides positive, comfortable restraints.

3 **Caterpillar D10R Monitoring System** has 3 display sections. The system provides instant feedback on machine systems with 3 levels of operator alert. The system also records performance data for assistance in diagnosis, is easy to read, reliable and provides fast troubleshooting.

- Section one has analog gauges which display engine coolant temperature, transmission oil temperature, hydraulic oil temperature and fuel level.
- Section two contains an analog tachometer and a gear/direction display.
- Section three displays information through 10 LED indicators and through a switchable, digital display. LED indicators provide information on the engine oil pressure, air filter, power train filter, battery, brake system, parking brake, transmission system, steering system, engine check, and coolant flow. Switchable digital display allows operator to scroll through or display tachometer, odometer, hour meter, engine oil pressure and diagnostic codes.

4 **Throttle rocker switch** replaces the throttle lever, simplifying operation. High or low idle is delivered with the touch of a finger.

5 **Implement control lever restraints,** when engaged, prevent inadvertent movement of control lever. These restraints accept standard Caterpillar padlocks.

Electronic Steering and Transmission Controls

Combines steering, machine direction and gear selection into a control system which can be operated with one hand, for enhanced operator comfort and increased productivity.

Fingertip Controls (FTC) are clustered for easy, one-handed operation to the operator's left. They control steering, machine direction and gear selection.

1 Electronic Clutch and Brake (ECB) steering system consists of two small levers which send signals that control the steering valve.

- Levers require less than 3 pounds of pull to actuate.
- Steering is accomplished in much the same way as with traditional clutch and brake arrangements but with less time and effort.

ECB System allows the operator to work more precisely in close areas, around structures, obstacles, grade stakes, other machines or on fine grades.

Adjustable operator comfort
The system is attached to an electrical linear actuator which allows the FTC module to be adjusted up and down. Fore/aft adjustment is controlled by a manual lever on the front of the control module.

2 Machine Direction is controlled by a pivoting knob which can be actuated by the thumb of the left hand. Rotating the knob up shifts the machine transmission to forward. Rotating the knob down reverses the machine. The middle setting puts the machine transmission in neutral.

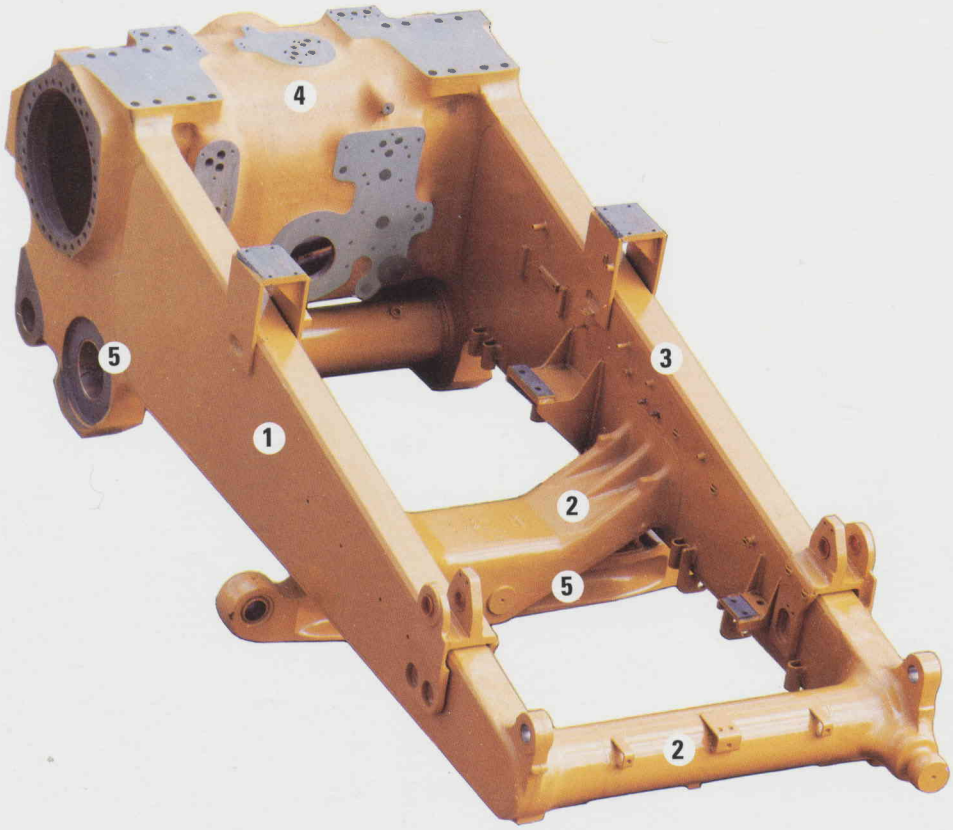


3 Gear selection is made by two buttons to the right of the machine direction knob. The top (up-shift) button shifts the machine transmission to the next higher gear while the bottom (down-shift) button shifts to the next lower gear.

4 Parking Brake switch electronically locks ECB system.

Structures

Engineered to provide durability and the solid support necessary for maximum production and service life.



Mainframe Strength. The D10R mainframe is built to absorb high impact shock loads and twisting forces.

1 **Frame rails are full box section, designed** to keep components rigidly aligned.

2 **Heavy steel castings give added strength** to the main case, equalizer bar saddle, front cross member and tag-link trunnion.

3 **The top and bottom rails are continuous rolled sections,** with no machining or welding to provide superior mainframe durability.

4 **The main case elevates the final drives** well above the ground level work area to protect them from impact loads, abrasion and contaminants.

5 **A pivot shaft and pinned equalizer bar** maintain track roller frame alignment.

Tag-link construction has fewer parts for reduced wear and brings the blade closer to the machine for more precise dozing and load control.

Tag-link design provides solid lateral stability and better cylinder positions for constant pryout independent of blade height.

Undercarriage

The Caterpillar elevated sprockets are designed for better machine balance and component life.



Suspended undercarriage design absorbs impact loads to reduce the shock loads transferred to the undercarriage by up to 50%.

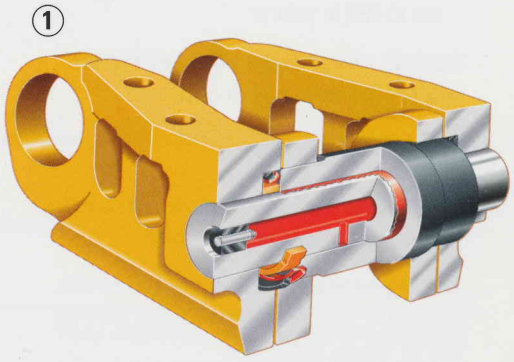
Bogie suspension conforms more closely to the ground to provide up to 15% more ground contact, especially in hard, uneven terrain. Higher traction means less slippage, better balance, and a smoother ride.

Roller Frames are tubular, to resist bending and twisting, with added reinforcement where operating loads are the highest.

- Roller frames attach to tractor by a pivot shaft and pinned equalizer bar.
- Large pivot bushings operate in an oil reservoir.
- A low friction, no maintenance bushing is used in the saddle connection.
- Resilient pads restrain equalizer bar oscillation.
- The recoil system is sealed and lubricated.

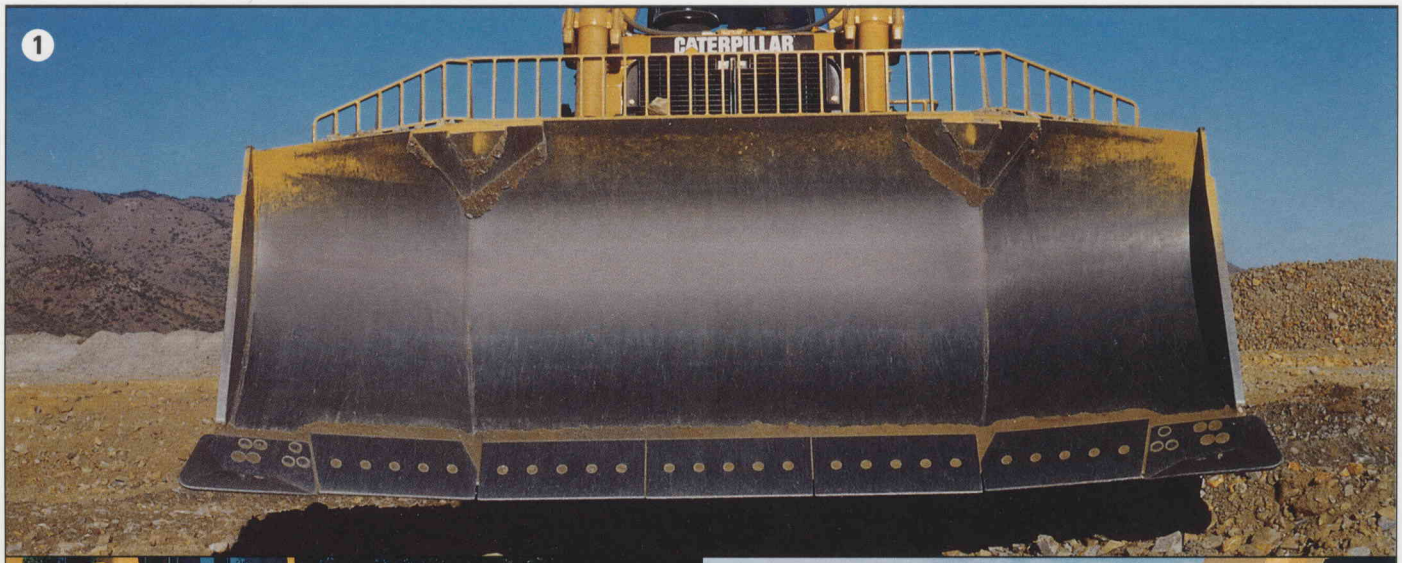
1 Sealed and Lubricated Track. Permanently coats the track pin with a sealed-in lubricant, minimizing metal-to-metal contact.

- Virtually eliminates internal pin and bushing wear.
- Lubricant is held in a reservoir in the track pin.



Work Tool Attachments

A variety of attachments provide the flexibility to match the machine to the job.







1 Bulldozers. The 10SU blade, rated at 18.5 m^3 (24.2 yd^3), and the 10U blade at 22.0 m^3 (28.7 yd^3) make full use of the D10R's power.

Dual tilt option improves load control. Allows the operator to optimize the blade pitch angle for each portion of the dozing cycle.

Single lever controls all blade movements, including the optional dual tilt.

Cutting edges are DH-2 steel. End bits are DH-3 to provide maximum service life in tough materials.

Rippers. Single and multi-shank rippers are made to penetrate tough material fast and rip thoroughly for use in a variety of materials.

Hydraulic pitch adjustment cylinders vary the shank angle to get the best penetration so the material is lifted and shattered.

2 Single Shank Ripper.

- Operator can adjust the shank depth from the seat using an optional single shank pin puller.
- Large upper frame view hole improves ripper tip visibility.
- Heat treated spacer bars in ripper carriage to extend pocket life and reduce shank notching.
- Large one piece shank.
- Available in deep rip configuration.

3 Multi-shank ripper tailors the tractor to the material by using one, two or three shanks.

Winches. Standard and slow speed arrangements available for enhanced line control. Single lever control and infinite control of line speed provide smooth response, allowing effortless operation.

Rear counterweights provide proper tractor balance to maximize dozing production. Recommended if other rear attachment not specified.

Serviceability

Major modular component design allows fast in-field component exchange. Less time spent on maintenance gives you more time on the job.



Built-in servicing ease. Less service time means more working time. Major components are made as modules and most can be removed without disturbing or removing others.

Spin-on fuel and engine oil filters are located on the engine for easy servicing access and minimal downtime. Further time is saved with fast fuel and quick oil change attachments. Equipped with a dozer and ripper, the D10R has only 17 lube points.

Heater and air conditioner cores are accessible without disconnecting lines.

A diagnostic connector allows the Cat Dealer's electronic test instrument to quickly troubleshoot the electrical system.

Quick disconnect fittings allow for fast diagnosis of the power train and implement oil systems.

Ecology drains provide an environmentally safer method to drain fluids. They are included on the radiator, hydraulic tank and major power train components.

AMOCS individual cooling elements allow radiator servicing without major component removal, saving considerable time and cost.

Complete Customer Support

The most serviceable machines from the most committed dealers.

Dealers committed to fast, quality customer support. Your Cat dealer's investment in service begins with the fastest and most complete parts availability in the industry. The full range of exchange components and Caterpillar Remanufactured parts is aimed at saving you time and money. All carrying new-parts warranty.

Dealer service response extends to programs such as Custom Track Service (CTS), Scheduled Oil Sampling (S·O·S), and guaranteed maintenance contracts that get peak life and performance from your machine.

Your dealer is also expert at arranging affordable lease, rental or purchase financing for all Caterpillar products.

Engine

Four-stroke cycle, 65° V12 3412E turbocharged and aftercooled diesel engine.

Ratings at 1900 RPM*	kW	HP
Gross power	457	613
Flywheel power	425	570

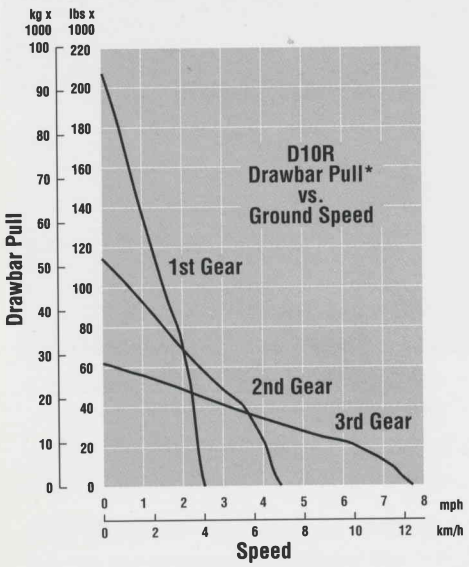
The following ratings apply at 1900 RPM when tested under the specified standard conditions for the specified standard:

Net power	kW	HP	PS
Caterpillar	425	570	—
ISO 1585	425	570	—
SAE J1349	421	564	—
EU 80/1269	425	570	—
DIN 70020	—	—	590

Dimensions

Bore	137 mm	5.4 in
Stroke	152 mm	6.0 in
Displacement	27 liters	1649 cu in

Power Shift with Steering Clutches and Brakes



***Power rating conditions**

- based on standard conditions of 25°C (77°F) and 99 kPa (29.32 in Hg) dry barometer
- used 35°C API gravity fuel having an LHV of 42,780 kJ/kg (18,390 Btu/lb) when used at 30°C (86°F) [ref. a fuel density of 838.9 g/L (7.001 lb/ U.S. gal)]
- net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator
- no derating required up to 1524 m (5000 ft) altitude, beyond 1524 m (5000 ft) auto derating occurs at 3% per 1000 ft depending on application

Features

- high pressure injectors
- full electronic control
- parallel manifold porting with two intake and two exhaust valves per cylinder. Stellite-faced valves, hard alloy steel seats and valve rotators
- cam-ground and tapered, aluminum-alloy pistons with three keystone-designed rings, each cooled by oil spray
- steel-backed, copper-bonded, aluminum bearings, through-hardened crankshaft journals
- pressure lubricated with full-flow filtered and cooled oil
- dry-type air cleaner with primary and secondary elements
- 24-volt, direct-electric starting system, 75-amp alternator with two 12-volt, 190 amp-hour batteries
- engine/torque divider module is isolation mounted to the main frame reducing machine vibration and structure-radiated noise
- water cooled turbocharger bearing for longer life

Transmission

Planetary power shift with three speeds forward and reverse.

Maximum travel speeds

Speed		km/h	MPH
Forward	1	4.0	2.5
	2	7.1	4.4
	3	12.5	7.7
Reverse	1	5.0	3.1
	2	8.9	5.5
	3	15.6	9.7

Features

- controlled throttle shifting
- special modulation system permits fast speed and direction changes
- 432 mm (17") diameter, high torque capacity oil clutches
- modular transmission, bevel gear and differential plug into rear of main drive case
- oil-to-water cooler mounted to the engine
- single stage torque converter with output torque divider

Final Drives

Crown-shaved, double reduction planetary final drive gears.

Features

- splash lubricated and sealed with Duo-Cone floating ring seals
- sprockets have five bolt-on replaceable rim segments

Sealed and Lubricated Track

Coats the track pin with a sealed-in lubricant.

Pitch	260 mm	10.2"
Number shoes/side		44
Shoe type		Extreme service
Width of shoe	610 mm	24"
Length of track on ground	3885 mm	12'9"
Ground contact area	4.7 m^2	7326 in^2
Grouser height (from ground face of shoe)	93 mm	3.66"
Ground clearance	615 mm	24.2"
Gauge	2550 mm	8'4"

Features

- lubricant reduces internal bushing wear
- hydraulic track adjusters, track guiding guards and large, positive-clamping, two-piece master link are standard

Track Roller Frame

Lifetime Lubricated rollers and idlers resiliently mounted to roller frame by a series of bogies.

Features

- tubular design resists torsional loads
- bogies oscillate on sealed and lubricated cartridge pin connections, travel controlled by resilient pads
- roller frame attaches by a pivot shaft and fully pinned equalizer bar
- eight rollers per side
- large pivot bushings operate in an oil reservoir
- equalizer bar-roller frame ball joint pins and high capacity bearing are sealed and lubricated; saddle connection is a low-friction, no-maintenance bushing
- recoil system is fully sealed and lubricated
- oscillation of 351 mm (13.8")
- large idler caps with three bolt mounting

Cab

Caterpillar cab is optional and Rollover Protective Structure (ROPS) is standard.

Features

- meets OSHA and MSHA limits for operator and sound exposure with doors and windows closed (according to ANSI/SAE J1166 MAY90)
- ROPS meets the following criteria:
  SAE J394
  SAE 1040 APR88
  ISO 3471-1986
- also meets the following criteria for Falling Objects Protective Structure (FOPS):
  SAE J231 JAN81
  ISO 3449-1984

NOTE:
When properly installed and maintained, the cab offered by Caterpillar when tested with doors and windows closed according to ANSI/SAE J1166 MAY90, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture. The operator sound pressure level is under 85 dB(A) when measured per ISO 6394 or 86/662/EU.

Service Refill Capacities

	L	U.S. Gallons
Fuel tank	1109	293
Cooling system	132	34.9
Diesel engine crankcase	60	16
Power train	189	50
Final drives (each)	23	6
Roller frames (each)	90	23.8
Pivot shaft compartment	30.3	8
Implement hydraulic system tank only	108	28.5

Steering and Brakes

Electronic Fingertip Controls (FTC) combine steering clutch disengagement and braking for each track. Pull back slightly to disengage steering clutches, fully back to brake track.

- low-effort, Fingertip Controls for steering
- hydraulically applied multiple-disk clutches, 392 mm (15.4") diameter
- high capacity brakes are hydraulically released, spring applied, with computerized electronic brake control for excellent brake modulation
- single pedal simultaneously applies brakes to tracks for fast stops
- parking brake applied electronically — engaging parking brake electronically locks the Fingertip Controls

Weight (approximate)

Shipping:
(includes lubricants, coolant, 20% fuel and ROPS canopy) 47 174 kg (104,000 lb)

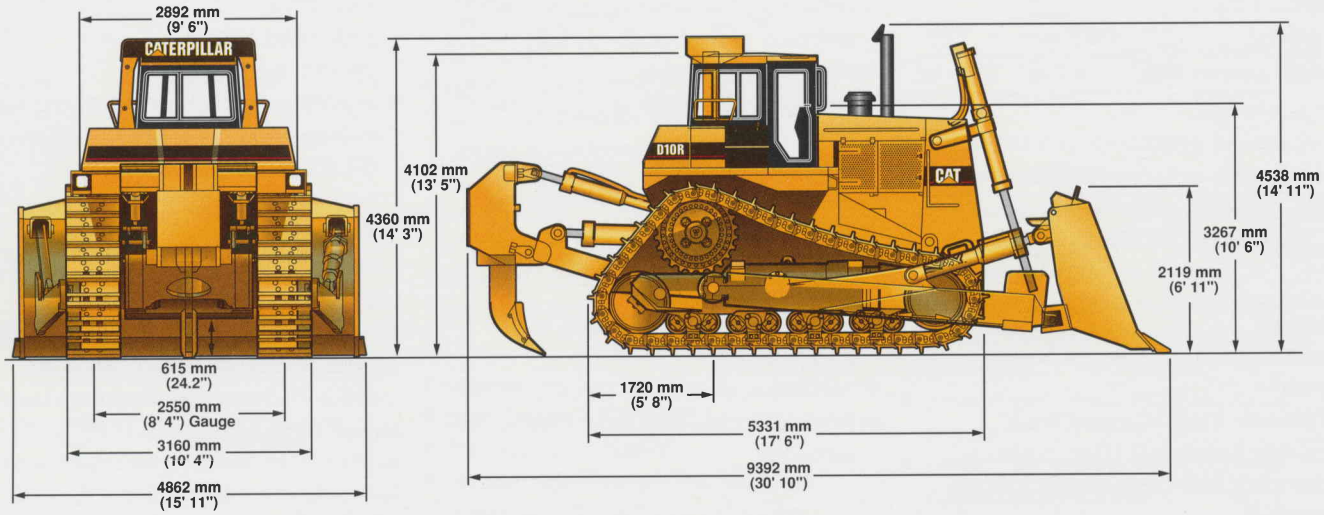
Operating:
includes lubricant, coolant, full fuel tank, hydraulic controls and fluids, 610 mm (24") extreme service shoes, optional equipment, (10 SU bulldozer, single shank ripper, ROPS/FOPS cab) and operator 65 764 kg (144,986 lb)

Dimensions

All dimensions are approximate.

With attachments add to overall machine length:		
Single Shank ripper	1892 mm	6'2.5"
Multi-shank ripper	1717 mm	5'7.6"
10 SU Dozer	2169 mm	7'1.4"
10 U Dozer	2423 mm	7'11.4"

Width over trunnions	3716 mm	12'2.0"
Drawbar height (centerline of clevis) from ground face of shoe	779 mm	30.7"



Hydraulic Controls

Complete system consists of pump, tank with filter, oil cooler, valves, lines, linkage and control levers.

Implements - Vane-type pump geared from flywheel		
Output at 1900 RPM and 6895 kPa (1000 psi)	408 liters/min	108 gpm
Tilt cylinder flow	121 liters/min	32 gpm
Relief valve settings		
Bulldozer	18 616 kPa	2700 psi
Tilt Cylinder	19 300 kPa	2800 psi
Ripper (Lift)	18 616 kPa	2700 psi
Ripper (Pitch)	18 616 kPa	2700 psi

Hydraulic pilot valves assist operations of ripper and dozer tilt controls. Standard hydraulic systems include two valves for 10SU or 10U bulldozer and tilt.

Optional hydraulic control

Two additional valves for ripper function

- hydraulic shank pitch adjustment
- adds 102 kg (226 lb)

Winch Specifications

Weight	2265 kg	4,983 lb
Increased tractor length	284 mm	11.2"
Winch case width	1564 mm	61.6"
Flange diameter	610 mm	24.0"
Drum width	292 mm	11.5"
Drum diameter	330 mm	13.0"
Recommended Cable size	29 mm	1.13"
Optional Cable size	32 mm	1.25"
Drum Capacity		
recommended cable	69 m	226'
optional cable	55 m	180'
Oil Capacity	70 L	18.5 gal
cable/ferrule size (OD x Length)	60 mm x 70 mm	2.38" x 2.75"

Rippers

Redesigned ripper frame for improved visibility to ripper tip.
Hydraulic tip adjustment cylinders vary shank angle to aid penetration and help lift and shatter rock.

		Single Shank	Single Shank, Deep Ripping Arrangement	+Multi-Shank Arrangement
Overall beam width	mm	–	–	2920
	ft/in	–	–	9'7"
Maximum penetration force* (shank vertical)	kN	205	206	205
	lb	45,980	46,135	45,980
Maximum penetration (standard tip)	mm	1370	1855	941
	ft/in	4'6"	6'3"	3'1"
Pryout force (multi-shank ripper with one tooth)	kN	429	428	429
	lb	96,360	96,290	96,360
Maximum clearance raised (under tip, pinned in bottom hole)	mm	1070	887	1070
	in	42.1"	34.9"	42.1"
Number of shank holes		3	3	2
Weight (without hydraulic controls)	kg	7117	7253	6919
	lb	15,690	15,990	15,253
Total operating weight** (with 10 SU blade and ripper)	kg	65 764	65 901	65 566
	lb	144,986	145,286	144,549

* Specifications are converted from British to metric measure and rounded.
** Operating weight includes lubricant, coolant, full fuel tank, hydraulic controls, 610 mm (24") extreme service shoe, ROPS/FOPS cab, and operator.
+ Includes one shank. Add 524 kg (1,155 lb) for each additional shank.
Note: Single shank, deep ripping arrangement weight includes required pin puller.

Features

- optional single shank pin puller lets operator adjust shank depth from seat
- large one piece shank: 100 mm x 400 mm (4" x 15.75")
- multi-shank ripper allows variable use of one, two or three shanks to match job conditions

Bulldozers

Tag link dozer coupling brings blade closer for better balance and control.

Blade		10SU	10U	10SU ABR	10U ABR
Blade capacity (SAE J1265)	m^3	18.5	22.0	18.5	22.0
	yd^3	24.2	28.7	24.2	28.7
Width with blade (over end bits)	mm	4862	5263	4862	5263
	ft/in	15'11"	17'3"	15'11"	17'3"
Blade height	mm	2119	2119	2119	2119
	ft/in	6'11"	6'11"	6'11"	6'11"
Digging depth	mm	674	674	674	674
	in	26.5	26.5	26.5	26.5
Ground clearance	mm	1497	1497	1497	1497
	ft/in	4'11"	4'11"	4'11"	4'11"
Maximum tilt	mm	993	1074	993	1074
	ft/in	3'3"	3'6"	3'3"	3'6"
Weight*	kg	10 228	10 737	11 069	12 152
	lb	22,550	23,670	24,403	26,790
Total operating weight**(with blade and single shank ripper)	kg	65 764	66 273	66 605	67 688
	lb	144,986	146,106	146,839	149,226

* Does not include hydraulic controls, but includes blade tilt cylinder.
** Includes hydraulic controls, blade tilt cylinder, coolant, lubricants, full fuel tank, ROPS/FOPS cab, and operator.

Features

- dual tilt is optional for improved blade fill and dumping
- cutting edges are DH-2 steel and end bits are DH-3 steel for maximum durability
- dozer lift cylinders mount to top corners of radiator guard to improve mechanical advantage
- single lever controls all blade movements, including optional dual tilt

Standard Equipment

Standard and optional equipment may vary. Consult your Caterpillar dealer for specifics.

Alarm, back-up
Alternator, 75-amp
Batteries, 12-volt(2), 190 amp-hour
Diagnostic connector
Equalizer bar, pinned
Horn, forward warning
Hydraulic control, two-valve
Lighting system, Halogen
  (2 forward, 2 rear)
Pull device, front
Receptacle, starting
Vandalism protection includes;
  instrument panel guard, cap locks for fuel tank, engine oil filler, radiator filler and dip stick, plus battery box locks (two) and left hand service area cover lock

Operator Environment

Decelerator pedal
Dozer control, low-effort
Fingertip Control (FTC) steering
Governor switch, electronic
Lever restraints, implement control
Monitoring system, Caterpillar D10R
Panel guard, instrument
Rearview mirror
ROPS/FOPS canopy (USA)
Seat, adjustable contour suspension
Seatbelt, retractable

Power train

3412E diesel engine
  24-volt electric start
  Air filter with precleaner
  Ether starting aid, automatic
  Fuel priming pump
  Hydraulic Electronic Unit Injection (HEUI)
  Laminated thermoshield
  Muffler with rain cap
  Prescreener
  Turbocharged/Aftercooled
  Water separator
Advanced Modular Cooling System
Blower fan with demand drive
Controlled throttle shifting
Drains, ecology fluid
Electronic transmission control module
Engine coolant heater, 120-volt
Guards;
  Bottom guards, hinged extreme service
  Crankcase, hinged extreme service
  Power train
  Radiator and fanblast deflector, hinged
Parking brake, electronic
Power shift transmission (3 speed)
  Four planet, double-reduction planetary final drives
Torque divider

Undercarriage

610 mm (24 inch) extreme service grouser with sealed and lubricated track (44 section) - non PPR track links
Rollers and idlers, lifetime lubricated
Sprocket rim segments, replaceable
Suspension-type undercarriage,
  Eight-roller tubular track roller frame
Track adjusters, hydraulic
Track guides
Two-piece master links

Optional Equipment

(with approximate change in operating weight)

	kg	lb
Air conditioner (R134a)	62	137
Air conditioner, ROPS mounted (R134A)	164	360
Armrest, adjustable right	3.6	8
Bulldozers:		
Dual tilt cylinders	200	441
Rock guards (for 10U blade only)	205	453
Cab, FOPS sound suppressed, with ROPS rollbar (includes heater,12-volt converter, cab accessory group and mirror)	225	496
Canopy, ROPS/FOPS, includes mirror (standard USA)	941	2,075
Counterweight:		
Front mounted	2424	5,344
*Rear mounted (basic)	4213	9,288
*Rear mounted (additional weight)	1198	2,660
Drawbar, rigid	680	1,500
Engine enclosure	56	123
Fast-fill fuel system for use with:		
Drawbar or counterweight	20	44
Ripper	27	59
Guard, rear power train	253	558
Hydraulic controls for dual tilt	42	93
Hydraulic controls for ripper (two additional valves)	102	226
Lights, supplemental		
2 front	10	23
2 rear	11	24
Low temp start (includes two additional heavy duty batteries and additional starting motor)	173	381
Oil change system for quick service to engine and transmission fluids	3.2	7
Operator arrangement, modified (improves visibility and comfort for smaller operators)	24	54
Pin puller (for single shank ripper)	74	163
Pin puller, hydraulic control	4.5	10
Prelubrication system, engine	8.2	18
Pushblock (for single shank ripper)	154	340
Radiator core protector grid	11	25
Rear screen	45	100
*Rippers:		
Single shank – Standard arrangement	7117	15,690
Single shank – Deep ripping (requires pin puller and hydraulic controls)	7253	15,990
Multi-shank (includes one shank)	6919	15,253
Ripper shank, additional (for multi-shank ripper)	524	1,155
Roller, carrier	156	345
Heater, fuel	6	13
Seat, air suspension		
Sound suppression, spectator	2.3	5
Tracks, pair, Sealed and Lubricated:		
711 mm (28"), Extreme Service	679	1,496
** 800 mm (31.5"), Extreme Service	1237	2,728
711 mm (28"), PPR Extreme Service	674	1,496
** 800 mm (31.5"), PPR Extreme Service	1229	2,728
Waste disposal arrangement	7707	16,990
*Winch arrangement	2015	4,442

* A rear attachment and/or counterweight is recommended for improved performance and balance.

** Cannot be used on machines equipped with rippers.

NOTE: All specifications are converted from metric to British measure and rounded, unless otherwise specified.

D10R Track-Type Tractor

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Materials and specifications are subject to change without notice.

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