

Cat <sup>®</sup> C9 Engine with ACERT <sup>™</sup> Technology	1
Standard	
Net Power (ISO 9249) at 1850 rpm	138 kW/188 hp
XL/XW/LGP	
Net Power (ISO 9249) at 1850 rpm	149 kW/203 hp
Operating Weight	18 400 to 23 100 kg
Shipping Weight	14 800 to 19 100 kg

# **D6T Track-Type Tractor**

### **Operator's Station**

The comfortable operator's station provides an excellent viewing area to the blade and rear of the machine for maximum operator productivity. Controls are low effort and easy to reach. pg. 4

### Engine

✓ ACERT Technology works at the point ✓ The electronically controlled power of combustion to optimize engine performance and provide low exhaust emissions. Matched with the torque divider and power shift transmission, it provides years of dependable and efficient service. pg. 6

### **Power Train**

shift transmission and differential steering work together with the new C9 ACERT engine for maximum efficiency. pg. 8

### **Integrated Electronic Solutions**

 Caterpillar offers technology options such as Product Link and AccuGrade® Control System that provide greater accuracy, higher productivity, lower operating costs and more profitability. pg. 16

### **Serviceability**

Major components have a modular design for excellent serviceability and fast in-field component exchange. pg. 13

Engineered for demanding work, the D6T is designed to be productive in a variety of applications. It keeps material moving with the reliability and low operating costs you expect from Caterpillar machines.

✓ New feature

2

### Structure

CATERPELLAR

A heavy, strong and durable mainframe, strong case steel castings and reinforced frame rails provide durable support to the undercarriage, elevated final drives and other integral frame components. **pg. 10** 

### SystemOne<sup>™</sup> Undercarriage

With the elevated sprocket design, the final drives are located above the work area, isolating them from ground induced impacts. The different undercarriage configurations allow the machine to be matched to the application needs. **pg. 12** 

### Work Tools

Caterpillar<sup>®</sup> offers a variety of work tools to equip your D6T with the versatility needed to accomplish the job quickly and efficiently. pg. 14

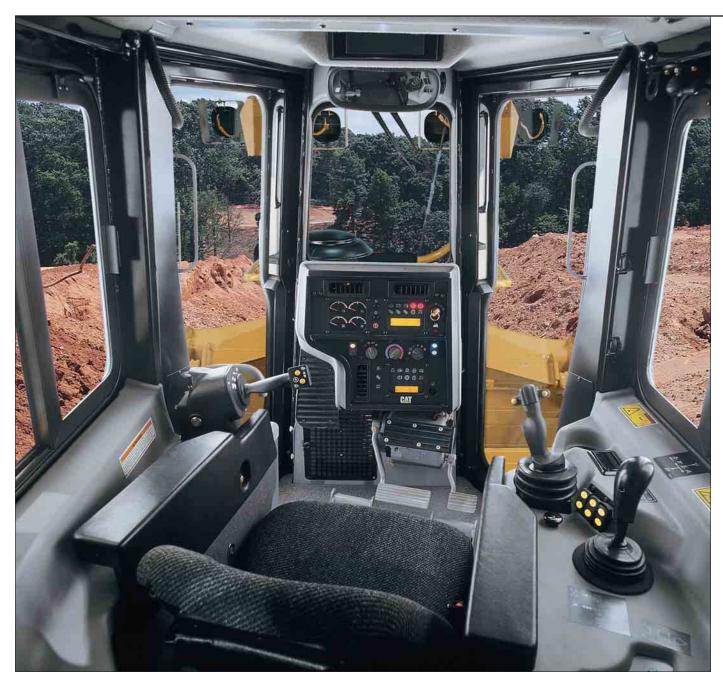
### **Total Customer Support**

Your Cat dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. The dealer will help you choose a plan that can cover everything from machine and attachment selection to replacement – helping get the best return on investment. **pg. 18** 

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## **Operator's Station**

The D6T operator's station is designed for comfort and ease of operation.



**Cab.** An isolation-mounted, pressurized cab reduces noise and vibration for operator comfort. The cab is pre-wired for a 12-volt or 24-volt radio, equipped with two speakers, an antenna and a radio mount recessed in the headliner. **Clear Working View.** The operator has an excellent view to the blade and rear of the machine for maximum productivity. The tapered hood, notched fuel tank and narrow single-shank ripper carriage give the operator a clear line of sight to the front and rear work areas. The large single-pane windows offer excellent viewing to the sides and blade. The low rear window lets the operator see the ripper tip.

**Cat Comfort Series Seat.** The Cat Comfort Series seat has a thick, contoured cushion, rolled down front edge and is adjustable eight-ways for optimal support and comfort. Seat side bolsters restrain side-to-side movement when working on steep grades or side slopes. The seat and suspension are designed for 10,000-hour life.

### Adjustable Armrests. Standard,

adjustable armrests provide additional comfort for the operator. Adjustment can be performed without the use of any tools.

### In-Dash Instrument Cluster.

The instrument panel, with easy-to-read gauges and warning lamps, keeps the operator aware of all system information. All gauges and readouts are easily visible in direct sunlight.

### Cat Monitoring System Display.

The dash mounted instrument cluster provides on-the-go operating information and gives the operator and service technician insight into the machine's operation and maintenance needs. The Caterpillar Monitoring System includes:

- Fuel level gauge
- Hydraulic oil temperature gauge
- Engine coolant temperature gauge
- Power train oil temperature gauge
- Engine oil pressure indicator
- Digital readout
- Transmission gear indicator

### Heating and Air Conditioning.

Conveniently located air circulation vents evenly distribute airflow within the cab. Controls are easily accessible from the operator seat.

**Power Converter.** The D6T features a 10-amp, 12-volt power converter for the convenient use of radios, wireless phones and laptop computers.

#### Work Tool Lock-Out Switch.

Redesigned from a mechanical rotary switch to an electronic rocker switch, the work tool lock-out valve prevents inadvertent operation of the hydraulic work tool attachments.

**Throttle Rocker Switch.** With the touch of a finger, the rocker switch activates high or low idle. A decelerator pedal gives the operator full control of engine speed when the rocker switch is in the high idle position. Engine speed can be set between high and low idle by simultaneously using the decelerator pedal and holding the Rabbit side of the throttle switch in for three seconds.

### Steering and Transmission Control.

Differential steering controls the direction and degree of turns, forwardreverse shifting and gear selection in a single control handle which enhances operator comfort. Touch shift buttons on the steering control shifts the electronically controlled powershift transmission. The tiller allows the operator to work precisely in close areas around structures, grade stakes and other machines with the finest modulation in the industry.

**Auto-Shift/Auto-Kickdown.** Auto-shift allows the operator to pre-select a forward and reverse gear for easy, efficient directional changes. Auto-shift settings include first forward to second reverse, second forward to second reverse, and second forward to first reverse. Auto-kickdown allows the transmission to automatically downshift when significant load increases are detected.



**Dozer Control Lever.** The D6T features ergonomically designed dozer controls with low-effort, pilot-operated hydraulics for added operator comfort, easy operation and precise work tool control. When equipped with a VPAT blade, the blade control allows simultaneous six-way control of the blade with a thumb rocker control to adjust blade angle. The dozer control is changed to an electro-hydraulic control when the AccuGrade<sup>®</sup> Ready Option is installed.

**Ripper Control Lever.** The ripper control with low-effort pilot-operated hydraulics contributes to operator comfort, easy operation and precise work tool control.

## Engine

A combination of innovations working at the point of combustion, ACERT Technology optimizes engine performance while meeting emission regulations for off-road applications.



### Cat C9 with ACERT Technology.

The Cat C9 is an 8.8 L displacement, six cylinder, in-line configured engine with hydraulically actuated electronic fuel injection or HEUI<sup>™</sup>. It uses ACERT Technology, a series of Caterpillar engineered innovations that provide advanced electronic control, precision fuel delivery and refined air management, resulting in outstanding performance and lower emissions. The C9 with ACERT Technology meets European Union Stage IIIA emissions standards. **Cylinder Block**. Increased block and head material strength minimizes the effect of high cylinder pressure. A strengthened flywheel housing joint reduces leaks. The sculpted heavy-duty design reduces sound and vibration levels. The mid-supported liner has fewer sealing joints for a reduced risk of leaks. The integral oil cooler reduces engine width, weight and potential leaks while improving coolant and oil flow. **Cylinder Head.** A new cross-flow air design with four valves per cylinder and updated port geometry dramatically improve airflow and engine breathability. The cylinder head block features a robust six-bolt design for an improved seal between the head and block at the fire ring which prevents combustion gas leaks. It also minimizes bore/liner distortion. The improved intake port geometry provides a smoother transition and less flow restrictions.

### Fractured-Split Connecting Rods.

The new fractured-split connecting rods are designed to create near-perfect joint alignment, maximizing rod bearing life. This, in combination with a high efficiency oil filter, ensures long engine life.

**ADEM A4™ Engine Controller.** The aircooled ADEM A4 controller is the brain of the engine and contains the engine's control software. It regulates fuel delivery, airflow and other engine functions. In addition, it directs the HEUI injectors to deliver multiple injections of fuel during the engine's compression stroke.

**Fuel Delivery.** Multiple injection fuel delivery involves a high degree of precision. Precisely controlling the combustion cycle lowers combustion chamber temperatures, which lowers emissions and optimizes fuel economy. This translates into more work output per unit of fuel.

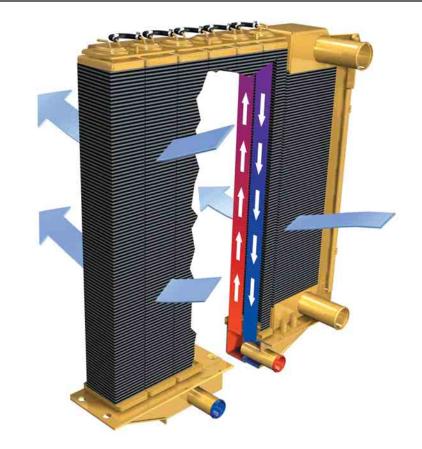
**HEUI Fuel System.** The HEUI fuel system is highly evolved, with a proven record of reliability. HEUI uses the technical advancement of an electronic control system with the flexibility of hydraulically controlled unit fuel injection. The system excels in its ability to control injection pressure over the entire engine operating speed range. These features allow the C9 to have complete control over injection timing, duration, and pressure.

**Air-to-Air Aftercooler.** The air-to-air aftercooler (ATAAC) brings cool air to the engine which increases life and lowers emissions. In addition, the ATAAC, together with the tight tolerance combustion chamber components, maximizes fuel efficiency.

**Wastegate Turbocharger.** The wastegate allows high-volume exhaust to be routed around the turbocharger to the exhaust piping to prevent wheel spin overspeed at high rpm but low load conditions.

**Service.** The new C9 engine offers easier maintenance and repair through monitoring key functions and logging critical indicators. Electronic diagnostic access is possible with a single tool, the Cat Electronic Technician.

Advanced Modular Cooling System (AMOCS). Using a two pass system, the AMOCS radiator provides more efficient heat exchange and improved cooling capacity over the D6T Series II. The coolant is routed from a sectioned bottom tank up the front side, over the top of the core and down the engine side of the core to the bottom tank. This flow pattern allows the coolant to pass through the radiator twice for better cooling.



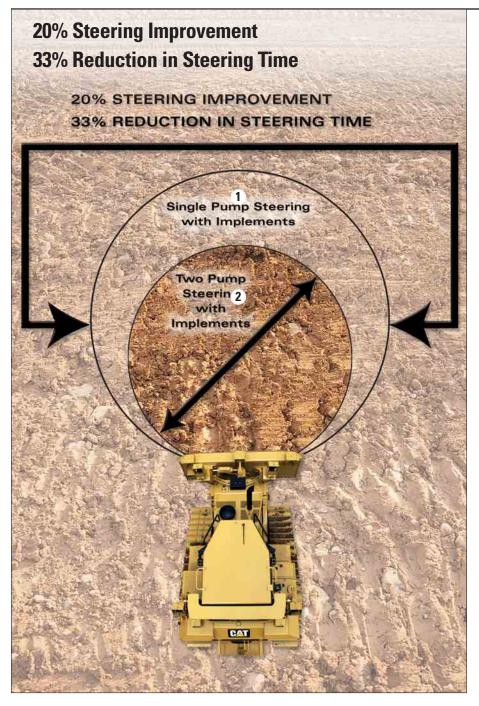
**Serviceability.** This modular core design permits removal of a single core without removing the entire radiator so repair costs and downtime are reduced. The top tank, side channels and one sealing surface makes AMOCS more reliable and easier to service. A site gauge allows for quick service checks.

**Leak Protection.** To reduce the potential for coolant leaks, brass tubes are welded to a large, thick header to improve the strength of the tube-to-header joint. In conditions where abrasive materials can be airborne, the attachment sand blast grid should be used to prevent core damage. **Sand Blast Grid.** In an application where airborne debris is prevalent, radiator core protection is a concern. To extend radiator life in harsh applications, a sand blast grid is available as an option to deflect the damaging debris the engine fan propels at the radiator.

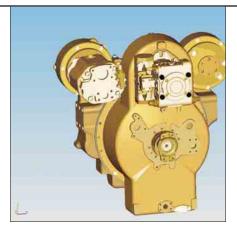
**On-Demand Fan Option.** Based primarily on ambient air temperature, the optional demand fan can improve productivity up to three percent and reduce fuel consumption up to four percent since the demand fan will only run at a speed needed to meet the cooling requirements of the machine. As cooling requirements increase above 24° C, the demand fan performance converges towards that of the standard fan so lesser benefit is achieved.

## **Power Train**

The power shift transmission and differential steering work in tandem with the new C9 engine to deliver the outstanding power and reliability expected from Caterpillar.



Single Pump Steering with Implements
Two Pump Steering with Implements



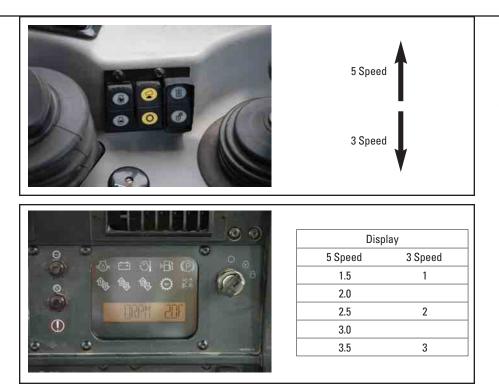
### Two Pump Hydraulic System.

- Split pump design for dedicated hydraulic power to steering and implements, improving blade and ripper response and overall power in steering-intensive applications
- Improved steering performance independent of implement operation
- Constant flow in steering circuit improves hydraulic cooling, increasing cooling capacity of the machine
- Improved response in simultaneous steering/implement applications, making the machine more maneuverable overall
- Enhanced blade response when using AccuGrade

**Torque Divider.** A single-stage torque divider sends 70 percent of engine torque through a converter and 30 percent through a direct drive shaft for greater driveline efficiency and higher torque multiplication.

The D6T torque divider provides:

- High reliability
- Low dynamic torque
- Optimum combination of operator efficiency and driveline reliability
- Components designed to absorb full engine power



### forward to steer the tractor to the left and pulled back to move right. Low tiller bar efforts assure operator comfort during long shifts. Large blade loads can be maneuvered around buildings, bridge abutments, trees or other obstacles. Steering modulation is also optimized for precise control in these applications. Greater load capacity, power and speed control are possible in soft underfoot conditions on steep slopes because both tracks are powered during turns.

#### Multi Velocity Program (MVP).

The Multi Velocity Program (MVP) is an innovative machine control system that allows the operator to choose from five different speed ranges in Forward and Reverse, providing the operator with the flexibility to match machine speed to a variety of applications and ground conditions. This exclusive solution allows the operator to maximize production, minimize fuel consumption, and lower overall machine operating costs.

MVP provides the operator with five speed ranges in both Forward and Reverse. The engine speed in each speed range has been optimized to provide the best performance, fuel economy, and drawbar pull. The operator retains the ability to operate the machine in either the 3 speed or 5 speed mode.

### **Operating Efficiency and Driveline**

**Reliability.** The D6T torque divider attains the best combination of operating efficiency and driveline reliability. It acts as a hydrodynamic component between the engine and transmission to reduce dozing shock loads to the transmission and final drives.

#### **Planetary Power Shift Transmission.**

The D6T planetary power shift transmission includes three speeds forward and three speeds reverse and utilizes large diameter, high capacity, oil-cooled clutches. These clutches provide higher torque capacity and increased service life. The planetary power shift transmission offers several key features and benefits, including:

- Electronically controlled modulation system that allows fast, smooth speed and direction changes
- Modular transmission and differential slide into rear case for servicing ease, even when a ripper is installed

### **Differential Steering System.**

Differential steering maintains power to both tracks while turning. The tractor turns when one track speeds up and the other slows down an equal amount. The operator can steer and control the transmission simultaneously, which can reduce cycle times in some applications. The differential steering tiller bar has touch shift buttons for upshifts and downshifts. The tiller bar itself is easily rotated forward or reverse to change the respective tractor direction. It is moved



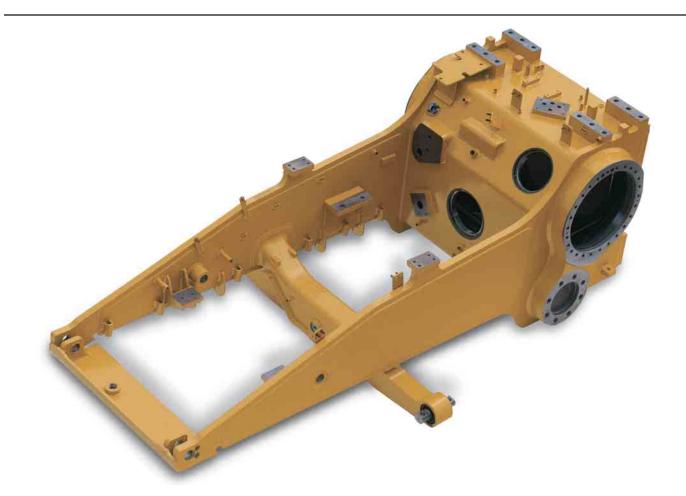
**Elevated Final Drive.** Elevated final drives are isolated from ground and work tool-induced impact loads for extended power train life. The modular design ensures quick and easy service when required.

### Load Compensating Shifting.

With load compensating shifting, clutch engagement timing automatically adjusts according to the load factor. This allows improved tractor performance and operator comfort during speed changes and reduces the amount of energy dissipated through the clutches to help extend transmission component life.

## Structure

The D6T frame is built to absorb high impact shock loads and twisting forces.

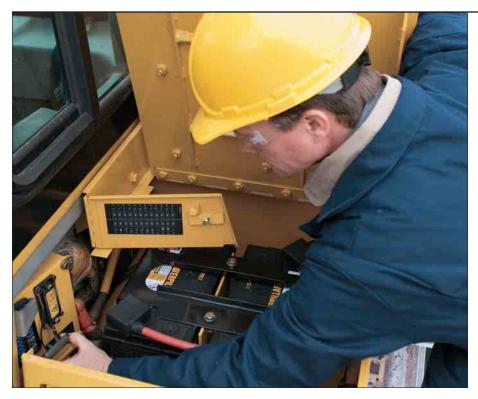


**Frame and Castings.** The D6T III frame is built to absorb high impact shock loads and twisting forces. The frame has a reinforced saddle and a welded front cross-member that add strength to the frame to better handle lateral and twisting forces. Steel castings augment the strength of the main case.

**VPAT Frame.** The D6T III VPAT frame has solid side rails to provide a stronger structure. The trunnion joint is located in the saddle to allow the dozer side loads to go into the mainframe instead of through the radiator guard. The reinforced saddle accommodates additional loads through the frame. **Pivot Shaft.** The pivot shaft is bolted to the mainframe and connects to the rear roller frames to allow independent oscillation. The pivot shaft distributes impact loads through the case. This design eliminates alignment problems and the need for diagonal braces on the roller frames. **Equalizer Bar.** The pinned equalizer bar gives the roller frames the ability to oscillate up or down independently to better match ground contours while providing maximum traction and operator comfort. The redesigned equalizer bar features bolted end pins to offer longer life and reduce downtime. This design also allows for improved serviceability and reliability.

## **Serviceability**

Simplified service means more productive uptime.



**Built-in Serviceability.** Major D6T components are made as modules and most can be removed without disturbing or removing others. This means less service time and more productivity.

### **Power Train Oil Filter and Pressure**

**Taps.** The power train oil filter and pressure taps are remote-mounted in the right-hand fender. This provides ease of service and aids machine diagnostics.

**Engine Oil Filter.** The engine oil filter is located on the engine for easy servicing access and minimal downtime and is the only engine maintenance item on the right side of the engine compartment. An optional quick oil change attachment can further reduce maintenance time.

### Water Separator and Fuel Filter.

Easily located just inside the engine access panel, the water separator functions as the primary fuel filter, just ahead of the secondary fuel filter. A standard electric priming pump on the primary filter reduces the effort required to prime the system.

### **Quick Disconnect Fittings.**

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

### Scheduled Oil Sampling Analysis.

Scheduled oil sampling is made easier through live sampling ports for the engine oil, power train oil, hydraulic oil and coolant. The ports are also color coded for easy identification of each system.

**Underhood Service Light.** To make nighttime service and maintenance easier, an adjustable service light is located under the hood behind the radiator.



### Caterpillar Monitoring System.

The D6T III features a flexible monitoring system that is easily upgraded by flashing software. As technology changes and new electronics and software become available, this upgradable monitoring system allows the machine to be easily updated and take advantage of improvements.

The Caterpillar Monitoring System is designed to:

- Allow easy upgrades
- Reduce downtime
- Match software to unique application needs

# SystemOne Undercarriage

The elevated sprocket arrangements allow optimized balance for the best possible performance in each application.



### SystemOne Undercarriage.

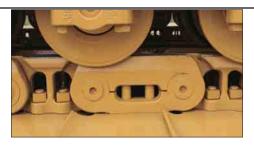
The exclusive SystemOne Undercarriage is designed for reliability and durability by greatly increasing undercarriage life and reducing owning and operating costs.

### **Undercarriage Configuration**

		STD	XL	XL VPAT	XW	XW VPAT	LGP	LGP VPAT
D6T	mm	1880	1880	2134	2032	2286	2286	2286



Roller Design. The SystemOne<sup>™</sup> roller has a taller flange to improve track guiding, especially in sidesloping applications. Advanced features and reduced piece parts enhance the rollers which help eliminate any flexing in the collars and avoid oil loss. The roller is maintenance-free and serviced as a group only. To achieve total balanced wear, carrier rollers with increased wear life are also used.



**Master Link.** A unique feature of the SystemOne Undercarriage is that, unlike traditional undercarriage, a master style link is not required. This improves track reliability and durability. The unique straight link design allows the track to be taken apart at any joint by using the proper Caterpillar tooling to press the link on or off.

A clamp-style master link is available but not recommended for high impact conditions or machines using wide shoes in these types of applications.

**Shoe Selection.** Shoe selection is still key to maintaining the proper flotation while using the narrowest shoe possible. There are several sizes in both moderate and extreme service available.

**Sealed Cartridge-Style Joints.** The all-new cartridge design is factory assembled and sealed for life. A new revolutionary sealing system, synthetic oil, a factory set face load and a newly developed retention system that eliminates endplay are all new features.



**Center Tread Idler.** The SystemOne Undercarriage uses center tread idlers which coupled with new, taller flange rollers, improve guiding and eliminate link scalloping. The center tread idler will increase system life 50 percent or more in most applications since they will last as long as two link assemblies. In combination with the rotating bushing design, the center tread idlers and sprocket segments can be reused through at least two undercarriage lives. **Track Gauge.** Wider gauges for the D6T III ensure overall better performance on slopes and make the tractor easier to turn in a variety of applications. Additionally, the gauge changes allow for wider straight shoes on all configurations except LGP VPAT.

**Primary Track Guiding.** SystemOne track primary track guiding is greatly improved over conventional track guiding. New SystemOne single flange track rollers have a 40 percent increase in flange height which increases roller flange side surface area to greatly improve track retention in the rollers. Only the tall, single flange rollers are offered with SystemOne undercarriage.

### Secondary Track Guiding.

SystemOne secondary track guiding is improved. The straight track link design eliminates the conventional link pin boss. The fixed track frame guiding surfaces guide directly on the hardened link side rail. The fixed guide wear surfaces are specifically profiled to match the SystemOne track link side rail geometry.

## Work Tools

Cat D6T work tools are designed to provide flexibility to match the machine to the job.



**Cat Blades.** All blades feature a strong box-section design that resists twisting and cracking. Blades are made of Cat DH-2<sup>™</sup> steel that has high tensile strength and stands up to the most severe applications. Heavy moldboard construction and hardened bolt-on cutting edges and end bits add strength and durability.

**Semi-Universal.** The Semi-Universal blade is built for tough applications where penetration and capacity is important. The blade wings are designed for superior load retention and penetration in tightly packed materials.

**Straight Blade.** The S-blade provides good versatility. Since it has less blade capacity, it can handle heavier materials than a larger blade.

**Angle Blade.** The angle blade is secured by outside-mounted pusharms using a pinned connection that allows blade angling and tilting, left or right. Blade angle is changed manually and blade tilt is changed hydraulically.

### Variable Pitch Angle Tilt (VPAT) Blade.

The Variable Pitch Angle Tilt (VPAT) blade allows the operator to hydraulically adjust the blade lift, angle and tilt simultaneously using the ergonomically designed blade control. The operator can also manually adjust blade pitch. The versatility of the VPAT blade gives the D6T III the ability to take on a variety of applications such as finish grading, spreading material, side casting, V-ditching and backfilling. The VPAT blade is available on the XL, XW and LGP configurations and requires either a counterweight or a rear work tool attachment for optimal machine balance.

The new D6T III VPAT blade offers several improvements over the Series II design:

- Manually adjustable blade pitch
- Better cutting edge visibility from operator station
- Improved tilt and angle cylinder lines routing and guarding
- Improved structural durability
- No wear plates required on the radiator guard or main frame

### Site Preparation Arrangements.

The Ripper Package and Drawbar Package are configured to optimize the performance of the D6T in light to medium duty dozing applications common to site preparation jobs.

Answering a need for a maneuverable tractor with the ability to cut and finish grades, the D6T III gives operators the stability needed when working on slopes. When coupled with the VPAT blade, the D6T III allows for more efficient rough and finish grade in applications such as golf course development and house pad construction. **L-Shaped Push Arms.** L-shaped push arms bring the blade closer to the machine than diagonal brace designs, providing excellent maneuverability, machine balance and blade penetration. The L-shaped design provides solid lateral stability throughout the life of the machine and better cylinder positions for constant pryout independent of blade height.

**Cutting Edges and End Bits.** Hightensile strength Cat DH-2<sup>™</sup> steel cutting edges resist torsional bending and distortion in tough applications. End bits are DH-3<sup>™</sup> to provide maximum service life in tough materials.

**Load Sensing Hydraulics.** Field-proven, load-sensing, pilot controlled hydraulics respond to operating requirements by automatically and continually adjusting hydraulic power to maximize work tool efficiency.

**Winch.** A single lever control actuates both clutch and brake functions to improve operator efficiency.

- Input clutches on PTO shaft reduces engine horsepower losses to maintain fuel efficiency
- Clutch engagement and brake release are automatically synchronized for smoother operation
- Winch components can be serviced with winch mounted on the tractor



### Rear Counterweight. Rear

counterweights may be needed to optimize balance for backing up steep slopes or increasing performance in heavy dozing applications. Rear counterweights are recommended if another rear attachment is not specified.

**Drawbar.** The D6T III can be equipped with a drawbar for retrieving other equipment or pulling work tools such as:

- Disks
- Compactors
- Chopper wheels

Optional implement towing arrangements allow for quick setup and use of a hydraulically controlled towed scraper.



**Multi-Shank Ripper.** The multi-shank parallelogram ripper offers the choice of one, two or three shanks depending on job conditions. Curved or straight ripper shanks are available.

## **Integrated Electronic Solutions**

Caterpillar technology offers customers new opportunities for efficiency and profitability.



### AccuGrade® System for Track-Type

**Tractors.** Caterpillar is helping customers revolutionize the way they move material with new technology solutions for earthmoving machines – solutions that provide greater accuracy, higher productivity, lower operating costs and more profitability.

The AccuGrade System is designed and integrated into the machine and hydraulic systems to create an automated blade control system that allows operators to grade with increased accuracy. The system uses machine-mounted sensors to calculate precise blade slope and elevation information.

The integrated electrohydraulic valve control module uses the information received from the sensors to automatically adjust the blade to maintain grade.

Automated blade control allows operators to improve efficiency and productivity by achieving grade faster and in fewer passes than ever before, reducing the need for traditional survey stakes or grade checkers. **AccuGrade Ready Option.** The factory ready option machine makes system installation and setup quick and easy, and optimizes performance and reliability.

- Hydraulic control systems are integrated into the machine hydraulics for maximum performance and dependability.
- AccuGrade controls are integrated into the machine controls and levers for reliable operation and precise control.
- Wiring harnesses and cables are routed during assembly for improved wear protection and better reliability.
- System is designed to withstand vibration for long life in rugged working environments.
- Safety interlock feature is built in for added protection during automated operation.

**AccuGrade Laser**. AccuGrade Laser designed for precise grade control using a laser transmitter and receiver.

A laser transmitter is set up on the work site and creates a constant grade reference over the work area. A digital laser receiver is mounted on the machine and captures the laser signal as the machine moves across the work site.

The system captures information and calculates the blade adjustments necessary to achieve grade. The system makes automatic elevation adjustments typically performed by the operator and provides automatic blade control. The operator simply steers the machine. The system also calculates cut/fill requirements for manual blade control.



**AccuGrade GPS.** AccuGrade GPS computes the positioning information on the machine, compares the position of the blade relative to the design plan and delivers that information to the operator via an in-cab display.

Information, such as blade elevation, necessary cut/fill to achieve grade, visual indication of the blade's position on the design surface and a graphical view of the design plan with machine location.

AccuGrade GPS puts all the information the operator needs to complete the job in the cab, resulting in a greater level of control. Vertical and horizontal guidance tools visually guide the operator to the desired grade.

Automated features allow the hydraulic system to automatically control blade adjustments to move the blade to grade. The operator simply uses the light bars to guide the machine for consistent, accurate grades and slopes, resulting in higher productivity with less fatigue.

### **Increases Productivity and Efficiency.**

- Increases productivity by up to 50%
- Reduces guesswork and costly rework by moving dirt right the first time
- Reduces survey costs up to 90%
- Improves material utilization
- Reduces operating costs
- · Extends the work day

### Enhances Worksite Safety.

• Reduces the need for ground personnel (survey stakers and checkers) on the worksite, in the vicinity of working equipment.

### Assists with Labor Shortage.

- Reduces labor requirements and costs
- Customers can get the job done more quickly and efficiently
- Reduces need for staking and grade checkers
- Empowers operator, and improves operator confidence by delivering grading information to the cab

# Improves Employee Satisfaction and Retention.

- In-cab display brings elevation control to the cab
- Empowers operator with real-time results
- Real-time feedback on progress increases job satisfaction, eliminates guesswork and reduces operator stress
- Improves operator skills and takes performance to the next level
- Investing in the latest technology leads to a sense of value and trust by the operator

### Cat Machine Security System (MSS).

This Caterpillar designed system guards against theft by disabling the starting system when a potential thief is attempting to steal it using the standard Caterpillar key. Only an MSS key with your unique code will allow the machine to start. And, because MSS is integrated into the electronics, thieves cannot bypass it to start your equipment.

### Benefits.

- Protects from theft
- · Control who can start your equipment
- Control which days and hours equipment may be started
- Easily installed on Cat and other brands of equipment
- Caterpillar designed and machine integrated
- Potential insurance savings due to increased machine security



**Cat® Product Link.** When machines are operating at several different job sites, it becomes more difficult to keep current and accurate records. That can lead to missed maintenance, poor use of assets and wasted time. Product Link provides two-way information flow between machine on-board systems and your desktop computer through Dealer Store Front and Equipment Manager. Cat Product Link enables the use of Equipment Manager to keep you in touch with your machines.

### Benefits.

- Provides machine location
- Provides machine health information
- Eliminates trips for service meter hour readings
- Monitors fuel level and consumption
- Identifies unauthorized machine use
- Facilitates efficient maintenance scheduling
- Can be retrofitted on Cat and other brands of machines

## **Total Customer Support**

Caterpillar dealer support is unmatched in the industry!



**Machine Selection**. Make detailed comparisons of the machines you are considering before you buy. How long do components last? What is the cost of preventive maintenance? What is the true cost of lost production? Your Cat dealer can give you answers to these very important questions.

**Purchase.** Consider the financing options available, as well as the day-to-day operating costs. This is also the time to look at dealer services that can be included in the cost of the machine to yield lower equipment owning and operating costs over the long run.

**Serviceability.** Quick and easy serviceability means less downtime and more productivity. Sight gauges, filter locations, convenient access to oil and coolant sampling ports and an engine compartment-mounted work lamp make daily and periodic service faster and easier.

**Product Support.** Nearly all D6T parts can be found at Cat dealer parts counters. Cat dealers utilize a worldwide computer network to find instock parts to minimize machine downtime. An exchange program for major components may be available. This will shorten repair time and lower costs. **Remanufactured Components.** Genuine Cat remanufactured parts helps save money with the same warranty and reliability as new products at cost savings of 40 to 70 percent. Components are available for the drive train, engine and hydraulics.

**Parts Pricing.** The price of parts can impact the overall owning and operating cost of any piece of equipment and are often overlooked when a purchase is being considered. At several points in the machine's life cycle, maintenance or repair parts will be required. Parts pricing is all about maximizing the bottom line of the end-user and as a result, Cat parts are priced, on average, 35 percent lower than those of other tractors in this size class.

**Resale Value.** History has proven, and continues to show, that Cat machines bring a much higher price than other brands when resold. This translates into all Cat equipment owners getting a greater return on their investment than with other brands.

## Engine

Cat C9 Engine with ACERT Technology

### Standard

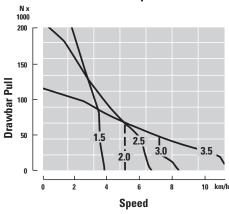
159 kW/216 hp
138 kW/188 hp
138 kW/188 hp
112 mm
149 mm
8.8 Liters

### XL/XW/LGP

Gross Power (J1995)	170 kW/231 hp
Net Power at 1850 rpm	
ISO 9249	149 kW/203 hp
80/1269/EEC	149 kW/203 hp
Bore	112 mm
Stroke	149 mm
Displacement	8.8 Liters

- All engine horsepower (hp) are metric including front page.
- 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 2300 m altitude, beyond 2300 m automatic derating occurs.
- Maximum altitude of 3000 m

### **Drawbar Pull vs Ground Speed**



# **Brakes**

ISO 10265 MARCH99

# **Service Refill Capacities**

	Liters
Fuel Tank	424
Cooling System	76.8
Engine Crankcase	28.0
Power Train	145.7
Final Drives (each)	13.6
Roller Frames (each)	24.6
Hydraulic Tank	51.5
Pivot Shaft Compartment	1.9

# **Hydraulic Controls**

Pump	
Capacity	69 bai
Rated Engine Speed	
Implement	1965 rpm
Steering	2625 rpm
Pump Output	
Implement	189 L/min
Steering	179 L/min
Cylinder Flow	
Lift	189 L/min
Tilt	80 L/min
Ripper	189 L/mir
Angle VPAT	170 L/min

### Main Relief Valve Settings

Pressure Setting	
Implement	217 bar
Implement VPAT	244 bar
Steering	417 bar

### **Maximum Operating Pressure**

• *	
Bulldozer	
Lift	193 bar
Tilt	193 bar
Ripper	193 bar

### **Maximum Operating Pressure VPAT**

Bulldozer	
Lift	216 bar
Tilt	216 bar
Angle	216 bar
Ripper	193 bar

## Winch

Winch PA	. 56
Weight	1179 kg
Bracket Length	1210 mm
Case Length	1210 mm
Case Width	975 mm
Increased Tractor Le	ngth
STD	517 mm
XL/XW	517 mm
LGP	397 mm
Flange Diameter	504 mm
Drum	
Width	330 mm
Diameter	254 mm
Capacity – 22 mm	88 000 mm
Capacity – 25 mm	67 000 mm
Capacity – 29 mm	67 000 mm
Ferrule Size	
(O.D. x Length)	54 x 67 mm
Oil Capacity	67 Liters

# Transmission

5 Speed	3 Speed	
Forward		km/h
1.5	1	3.8
2.0		5.2
2.5	2	6.6
3.0		8.5
3.5	3	11.4
Reverse		
1.5	1	4.8
2.0		6.6
2.5	2	8.4
3.0		10.9
3.5	3	14.6

# **ROPS/FOPS**

- ROPS (Rollover Protective Structure) meets ROPS criteria ISO 3471-1994.
- FOPS (Falling Object Protective Structure) meets ISO 3449-1992 Level II.

## **Ripper**

Туре	Fixed Parallelogram
Number of pockets	3
Overall beam width	2202 mm
Beam cross section	216 x 254 mm
Maximum clearance raised	
(under tip, pinned in bottom hole)	511 mm
Maximum penetration	500 mm
Maximum penetration force	66 kN
Pryout force	91 kN
Weight with one shank	1634 kg
each additional shank	74 kg

# Sound

- The operator sound level measured according to the procedures specified in ISO 6396:1992 is 80 dB(A), for cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.
- The labeled sound power level is 111 dB(A) measured according to the test procedures and conditions specified in 2000/14/EC.

# Weights

	<b>Operating Weight</b> kg	<b>Shipping Weight</b> kg		<b>Operating Weight</b> kg	<b>Shipping Weight</b> kg
STD A	18 737	14 776	XW SU	20 739	17 432
STD SU	18 393	14 776	XW VPAT	21 444	17 784
XL A	20 319	16 771	LGP S	21 783	18 915
XL SU	20 148	16 771	LGP VPAT	23 119	19 113
XL VPAT	21 178	17 246			

• Operating weight includes lubricants, coolant, full fuel tank, standard track, cab, hydraulic controls, drawbar and operator.

• Shipping weight includes lubricants, coolant, cab, hydraulic controls, standard track and 10 percent fuel.

# **Bulldozer Specifications**

		S STD	S LGP	SU STD	SU XL	SU XW	A*** STD	A*** Lgp	A*** XL	VPAT XL	VPAT XW	VPAT LGP
Blade Capacity	m <sup>3</sup>	3.89	3.75	5.61	5.61	5.62	3.93	5.22	3.93	4.73	5.10	4.32
Blade Width	mm	3360	4063	3260	3260	3556	4166	5070	4165	3880	4160	4160
Blade Height	mm	1257	1101	1412	1412	1412	1155	1134	1155	1295	1295	1191
Digging Depth	mm	473	655	473	459	459	506	828	524	737	737	672
Ground Clearance	mm	1104	1083	1104	1195	1195	1142	1088	1205	1174	1174	1230
Maximum Tilt	mm	765	701	743	743	743	408	476	408	440	460	502
Weight*	kg	2599	2836	2699	2973	2949	3050	3430	3150	3560	3650	3620
Weight**	kg	-	_	_	_	_	_	_	_	1593	1681	1591

\* Includes push arms, blade, blade tilt cylinder(s), cutting edges and miscellaneous hardware components

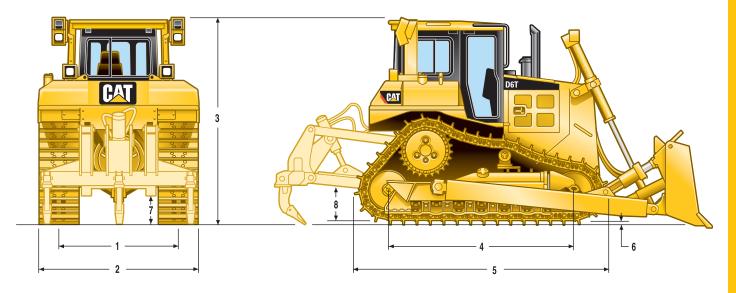
\*\* VPTA blade only

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\*\*\* Angle dozers include two tilt cylinders

# Dimensions

(approximate)



		STD	XL	XL VPAT	XW	XW VPAT	LGP S	LGP VPAT
1 Track gauge	mm	1880	1880	2134	2032	2286	2286	2286
<b>2</b> Width of tractor								
Over trunnions	mm	2640	2640	_	2950	_	3428	
Without trunnions (standard track)	mm	2440	2440	2692	2794	2997	3193	3150
<b>3</b> Machine height from tip of grouser:								
Stack	mm	3143	3143	3143	3143	3143	3193	3193
ROPS	mm	3195	3195	3195	3195	3195	3245	3245
<b>4</b> Length of track on ground	mm	2664	2871	2871	2871	2871	3275	3275
<b>5</b> Length of basic tractor	mm	3860	3860	3860	3860	3860	4247	4247
With following attachments add:								
Drawbar	mm	217	217	217	217	217	251	251
Ripper Multi-Shank (tip at ground line)	mm	1403	1403	1403	1403	1403	_	
Winch	mm	517	517	517	517	517	397	397
S Blade	mm	1043	_	_	_	_	1218	
SU Blade	mm	1235	1472	-	1472	_	_	_
A Blade	mm	1147		-	_	_	_	_
VPAT Blade	mm	_	_	1412	_	1524	_	1718
<b>6</b> Height of grouser	mm	65	65	65	65	65	65	65
7 Ground clearance	mm	383	383	383	383	383	433	433
Track pitch	mm	203	203	203	203	203	203	203
Number of shoes per side		39	41	41	41	41	45	45
Number of rollers per side		6	7	7	7	7	8	8
Standard shoe	mm	560	560	560	760	710	915	785
Ground contact area (standard track)	m <sup>2</sup>	2.98	3.22	3.22	4.36	4.08	5.99	5.16
Ground pressure*	bar	0.61	0.62	0.66	0.47	0.52	0.36	0.45
8 Drawbar height	mm	576	576	576	576	576	626	626
From ground face of shoe	mm	511	511	511	511	511	561	561

 $^{*}$  STD, XL, XW with SU blade, with no rear attachments unless otherwise specified.

## **Standard Equipment**

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

### Electrical

Alarm, backup Alternator, 95-amp Batteries, two maintenance-free 12V (24V system) Converter, 12V, 10 amp with two power outlets Diagnostic connector Horn, forward warning

### **Operator Environment**

Air conditioner, under-hood Armrests, adjustable Cab, ROPS/FOPS, sound-suppressed Differential steering control with touch shift Electronic distance travel indicator Caterpillar Monitoring System: Temperature (coolant, hydraulic, power train), fuel level, tachometer, odometer, gear indicator, and diagnostics Foot pads, dash Heater Hourmeter, electronic Mirror, rearview Multi Velocity Program, five speed Pedal, decelerator Pilot operated hydraulic controls with electronic deactivation switch Radio ready Planetary Transmission, with torque divider Seat, adjustable, contour suspension with gray fabric Seat belt, retractable 76 mm Throttle switch, electronic Wipers, intermittent

### **Power Train**

Advanced Modular Cooling System (AMOCS) Aftercooler, air-to-air (ATAAC) Air cleaner, pre-cleaner with strata tube dust ejector Air filter with electronic service indicator C9 ACERT, diesel, Electronic Unit Injection (HEUI) Coolant, extended life Electronically controlled powershift transmission, 3 forward, 3 reverse speeds Fan, blower, direct drive Final drives, 3-planet single reduction planetary Fuel priming pump, electric Muffler with mitered stack Parking brake, electronic Prescreener Shift management: Controlled throttle, load compensating Automatic directional and downshift Starting aid, automatic ether Torque divider Turbocharger, waste-gate Water separator

### Undercarriage

Carrier roller (XL, XW, and LGP) Equalizer bar, heavy-duty Guards, center track guiding (LGP) Guards, end guiding Idlers - SystemOne, center tread, lifetime lubricated Sprocket rim segments, replaceable Track adjusters, hydraulic Track roller frames, tubular Track rollers, lifetime lubricated Track, SystemOne, moderate service: Standard arrangement - 560 mm, 39-section XL arrangement 560 mm, 41 section, (VPAT models) 560 mm, 41 section (non-VPAT models) XW arrangement 710 mm, 41 section (VPAT models) 760 mm, 41 section (non-VPAT models) LGP arrangement 790 mm offset, 45-section (VPAT models) 915 mm, 45-section (non-VPAT models)

### **Other Standard Equipment**

CD-ROM parts book Cooler, hydraulic oil Engine enclosures, perforated Front pull device Guards, hinged bottom Hood, perforated Hydraulic, load sensing, dozer lift and tilt Product Link Radiator doors, hinged, fan blast deflector Scheduled oil sampling ports: Engine oil, power train oil, hydraulic oil, and engine coolant Tool box Vandalism protection: Cap locks for fluid compartments and battery box

## **Optional Equipment**

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

### Electrical

AccuGrade Ready Option (Laser/GPS) Alternator, 150 amp (brushless) Alternator, 95 amp (ducted) Lights, supplemental: 11 construction (not for VPAT models) 11 waste disposal/VPAT package 7 (for use with VPAT model) 7 (not for VPAT models) Sweeps Machine Security System Power converter

### **Operator Environment**

Air conditioner (ROPS mounted) Air suspension seat, cloth (for use with cab) Canopy arrangement (OROPS) Steps, heavy duty grab handles

### **Power Train**

Drains, ecology (torque converter and transmission) Fan: Demand (clutch drive), ejector, Flexxaire, or reversible Grid, radiator core protector Oil change system, high speed engine and power train Precleaner: turbine with or without screen, or with prescreener Radiator AMOCS, waste handling, 6 FIN/IN cores; abrasion resistant cores Starting Aids Batteries, heavy duty Heater, engine coolant Thermal shield

### Undercarriage

SystemOne, Extreme Service (ES), Moderate Service (MS) Track, Pairs (STD/XL) 560 mm, ES; 610 mm MS or ES Track, Pairs (XW) 762 mm ES or Trap Track, Pair (LGP, non-VPAT) 914 mm ES or Trap Heavy-duty, Extreme Service (ES), Moderate Service (MS) Track, Pairs (STD/XL) 560 mm MS or ES; 610 mm MS or ES Track, Pairs (XW) 762 mm, MS or ES Track, Pairs (LGP, non-VPAT) 914 mm MS

### Guards

Front pull hook, extreme service, sealed Crankcase - extreme service sound suppressed, sealed Final drive clamshell Final drive seals Fuel tank with or without mechanical winch or ripper Precleaner Radiator, bottom heavy-duty Radiator, heavy-duty, punched (non-VPAT) Radiator, hinged, two-piece, heavy-duty (non-VPAT) Radiator, hinged, 2-piece heavy-duty (VPAT) Rear heavy-duty, transmission Screen, rear - with ROPS mounted air conditioner Seals, idler GP Striker bar GP, front and rear Sweeps (not compatible with VPAT machines) SystemOne Guard, track guiding, center (STD, XL, XW) Guard, track roller (STD, XL, XW, LGP)

### Hydraulics

Ripper Winch AccuGrade

### **Rippers**

Ripper, multi-shank Ripper Attachments Tooth, D6 multi-shank ripper Curved or straight (up to 3)

### Winch Arrangements (PACCAR)

Fairlead, 3 rollers Fairlead roller (4th roller) Installation arrangement, winch Winch arrangement – slow speed with freespool (slow speed) or (normal speed)

### **Other Attachments**

AccuGrade blade kit Counterweight, rear Counterweight, additional rear slab Drawbar, rigid, long or short Sound suppression

# **D6T Track-Type Tractor**

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Caterpillar dealer for available options.

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