

# D6N

## Track-Type Tractor



### Engine

Engine Model	Cat® C6.6 ACERT™	
Flywheel Power	111.8 kW	150 hp
<b>Weights</b>		
Operating Weight – XL	16 605 kg	36,610 lb
Operating Weight – LGP	17 791 kg	39,222 lb

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# D6N Track-Type Tractor

## Engine

- ✓ The Cat® C6.6 engine meets stringent Tier 3/Stage IIIA emission standards while providing outstanding engine performance, fuel efficiency and long-term durability. **pg. 4**

## Differential Steering

- ✓ This dependable system maintains power to both tracks while turning. Simultaneous control of speed, direction and steering with the tiller bar controller delivers maximum productivity. **pg. 5**

## Drive Train

- ✓ The new Multi Velocity Program (MVP) enhances the capability and performance of the Powershift transmission. Now, 5 speed ranges are available to match a wider range of operating conditions and application requirements. **pg. 6**

## SystemOne Undercarriage

- ✓ Designed exclusively by Caterpillar for Cat® Machines, SystemOne Undercarriage extends undercarriage system life, improves reliability and reduces Owning and Operating costs. **pg. 13**

## Work Tools

- Caterpillar offers a variety blade designs and other work tools to tackle virtually any job quickly and efficiently.

**pg. 14**

*Engineered to excel on the most demanding work sites. Combining power, rugged components and superior balance, the versatile D6N is designed for tough working conditions. It keeps material moving with the reliability and durability you expect from Caterpillar® machines.*



## **Operator Station**

- ✓ Redesigned Operator station provides improved visibility and reduces sound and vibration levels. Standard Air Conditioning and C500 Air Suspended Seat provide outstanding comfort to the operator. **pg. 8**

## **AccuGrade™ Laser and GPS Machine Control and Guidance Systems**

- ✓ AccuGrade Laser and GPS systems can be easily installed on the AccuGrade ARO (Attachment Ready Option) equipped machine. **pg. 10**

## **Structure**

- ✓ Steel castings and heavy steel plates are welded to insure a rigid one piece case and frame structure. Bolted soft mounted cab supports reduce sound level and vibration. Fuel tank rubber isolation mounts eliminate vibration and reduce stress. **pg. 12**

## **Serviceability**

- ✓ The time between PM service intervals has been increased allowing more up-time. All major components, filters, and lube points are easily accessible and modular in design. The updated EMS III machine monitoring system has increased diagnostic capabilities. **pg. 16**

## **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. 17**



✓ *New Feature*

# Engine

The new Caterpillar® C6.6 Diesel Engine with ACERT™ Technology meets worldwide emissions requirements for EPA Tier 3, EU Stage IIIA and Japan Moc Step 3 engine exhaust emission regulations, while providing excellent performance.



## Cat® C6.6 Engine with ACERT™ Technology

**Technology.** The Cat® C6.6 is a 6.6 liters (403 in<sup>3</sup>) displacement, six cylinder, inline configured engine equipped with a Caterpillar Common Rail fuel System. 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 Cat C6.6 with ACERT Technology meets the U.S. EPA Tier 3, European Union Stage IIIA and Japan MOC Step 3 emissions standards.

**Design.** The C6.6 features a compact design with heavy-duty engine features for outstanding durability, reliability and performance. The C6.6 incorporates a new cross flow cylinder head design, a 4 valve head and an ADEM™ A4 electronic controller.

**Electronic Controls.** The C6.6 engines use advanced electronic controllers, which have a proven track record for performance and reliability. ADEM A4 Electronic Control Module (ECM) receives data from engine-mounted sensors and adjusts critical parameters to maintain optimum performance. These adjustments also optimize fuel economy and emissions compliance. Electronics also make engines easier to troubleshoot and repair.

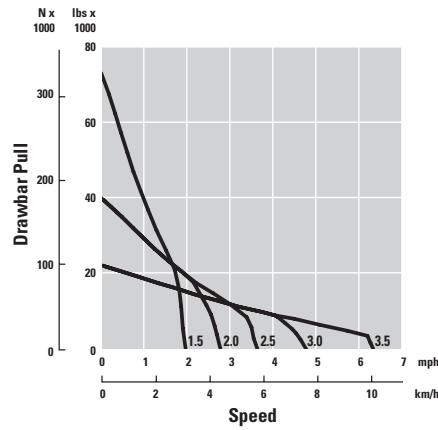
**Fuel Delivery.** Fuel is introduced in the combustion chamber in a number of precisely controlled microbursts. Injecting fuel in this way allows for precise shaping of the combustion process. The ADEM A4 module directs the injectors to deliver precise quantities of fuel at exactly the right times during combustion for optimum efficiency and performance.

**Air Management.** The C6.6 uses a turbocharger fitted with a smart waste gate to give precise control of the boost pressure. Over the entire engine operating ranges the result is improved: Throttle response, Lower fuel Consumption and optimized engine performance. A new cross-flow design in the cylinder head facilitates air movement, while tighter tolerances between the piston and cylinder liner are reducing blow by gases.

## Turbocharged and Aftercooled.

A well-matched turbocharger and air-to-air aftercooler results in higher power while keeping rpm steady and exhaust temperatures low.

**Electric fuel priming pump.** A standard electric fuel priming pump is located in the primary fuel filter base above the combined water separator/primary fuel filter. A switch enables to easily prime the fuel system after a fuel filter service.



D6N Drawbar Pull

**Torque Rise.** The direct injection electronic fuel system provides a controlled fuel delivery increase as the engine lugs back from rated speed. This results in increased horsepower below rated power. A combination of increased torque rise and maximum horsepower improves response, provides greater drawbar pull and faster dozing cycles.

## Differential Steering

*Differential Steering maintains power to both tracks while turning. Operators have control of machine speed, direction and steering with the tiller bar controller, while maximizing production.*



**Tiller Bar Control System.** The tiller bar control system allows for simultaneous comfortable, one-handed steering, direction and transmission control.

- The differential steering tiller bar has easy touch shift buttons for upshifts and downshifts.
- The farther the tiller bar is moved, the tighter the turn.
- To change machine direction, operators rotate the tiller bar clockwise for forward or counterclockwise for reverse. Neutral transmission position is in the middle between the two.
- Low tiller bar efforts assure operator comfort during long shifts.

### Power Turn with Differential Steering.

With differential steering, large blade loads can be smoothly maneuvered while turning. The operator maintains precise control on slopes, around buildings, bridge abutments, trees or other obstacles.

- Differential Steering has the ability to work in tight areas by providing a “Best in Class” tight turning radius.
- Steering modulation is finely tuned for precise control in all turning applications.
- Regardless of ground conditions, steering is consistent because power is maintained to both tracks during operation.

**Differential Steering System.** A planetary differential turns the machine by speeding up one track and slowing the other while maintaining full power to both. The differential steering system consists of:

- Three planetary gear sets.
- A dedicated variable-displacement hydraulic pump.
- A bi-directional, fixed-displacement steering motor.

- Heavy-duty steering drive gears.
- Two planetary gear sets (steering and drive) make up the dual differential.
- A third planetary gear set, the equalizing planetary, resides in the main case and provides a maximum 4.0 km/h (2.49 mph) speed difference between tracks.



**Operation.** When moving straight ahead, power flows through the transmission pinion and bevel gear into the dual differential, transmitting equal, uninterrupted power to each final drive. While turning, power is shifted to the outboard track speeding it up. The inboard track slows down to accommodate a tighter turning radius. Forward ground speed remains the same throughout the turn.

## Drive Train

*Rugged, durable and reliable components deliver smooth, responsive power and lasting reliability.*

### Multi Velocity Program (MVP).

Caterpillar's Multi Velocity Program (MVP) allows operators to choose from five different speed ranges in both forward and reverse, increasing machine productivity, decreasing fuel consumption and significantly reducing operating costs.

Selectable operating speeds have been optimized to provide the best performance, fuel economy and drawbar pull. The engine speed in each speed range adapts automatically to provide a smooth, comfortable and performing machine. Operator speed ranges are independently selectable in both forward and reverse from 1.5, 2.0, 2.5, 3.0 and 3.5.

**Auto-Shift/Auto-Kickdown.** Auto-shift allows the operator to pre-select a forward and reverse speed range for easy, efficient directional changes.

Auto-shift settings include:

- 1.5 forward to 2.5 reverse.
- 2.5 forward to 2.5 reverse.
- 2.5 forward to 1.5 reverse.

Auto-kickdown allows the transmission to automatically downshift when significant load increases are detected.

### Electronic Clutch Pressure Control.

The D6N has an additional transmission shifting feature for added performance and operator comfort – the Electronic Clutch Pressure Control (ECPC).

This unique feature provides smoother shifting by regulating and modulating the individual clutches based on current operating conditions.

### Steering and Transmission Controls.

The D6N Differential Steering system delivers the control the operators need for all applications. Soft touch buttons located on the steering controls shift the electronically controlled transmission.

**Torque Converter.** The D6N single-stage torque converter efficiently responds to changing load conditions by providing torque multiplication, therefore increasing drawbar pull. It provides protection to the drive train components by preventing shock loads from heavy dozing applications. The torque converter is efficiently matched to the power train components and provides the superior performance you need.

**Transmission.** The proven planetary powershift transmission features five speed ranges forward and five speed ranges reverse and utilizes large diameter, high capacity, oil cooled clutches. To maximize the life of the transmission, the planetary design distributes loads and stresses over multiple gears.

- Controlled throttle shifting regulates engine speed during high-energy directional shifts for smoother operation and longer component life.
- The transmission and bevel gear set are modular by design, and easily slide into the machine's rear case, even with the ripper installed.
- Forced oil flow lubricates and cools clutch packs to provide maximum clutch life.
- Load compensating shifting provides smooth engagement of the clutches under loaded conditions.

**Brakes.** Oil cooled, hydraulically actuated, brakes provide higher torque capacity and increased service life.



### Elevated Final Drive.

- Isolates final drives from ground and work tool induced impact loads for extended power train life.
- Keeps sprocket teeth, bushings and final drives away from abrasive materials and moisture.
- Caterpillar uses single reduction planetary final drives in the D6N providing long-lasting performance and durability.

**1) Steering Control.** Differential Steering Tiller Bar control system provides simultaneous one-handed steering and transmission control.

**2) Differential Steering Motor.** Bi-directional hydraulic steering motor activates the dual differential, which changes the speed of individual tracks. Slowing one track and increasing the speed of the other track achieves a smooth power turn.

**3) Power Shift Transmission.** Proven planetary design provides fast smooth speed changes while distributing loads over multiple gears for long life.

**4) Final Drive.** Caterpillar elevated final drives provide isolation from ground or work tool impact loads, extending service life.

**5) Brake Assembly.** Oil cooled large diameter brake discs provide long service life.

**6) Engine.** Caterpillar® C6.6 Diesel Engine with ACERT Technology meets current engine exhaust emission regulations.

**7) Torque Converter.** Efficient torque converter provides torque multiplication for increased drawbar pull and protects the drive train from shock loads.

**8) Radiator.** Aluminum bar plate radiator provides excellent heat transfer.



## Operator Station

*State-of-the-art operator station has reduced sound levels, low cab vibrations and excellent visibility. The Caterpillar comfort series air suspension seat helps reduce operator fatigue. Cab and air conditioning are standard.*



**Cab.** The design is spacious and comfortable to promote shift-long productivity. Large glass window and door panels allow for excellent visibility to the blade, rear and sides of the machine. Door and window seal design allows for a fully pressurized low dust

cab. Acoustic headliner material, and sound suppression foam panels reduce sound levels.

Individual windshield wiper controls are located in the front section of the headliner. The cooling system is

incorporated into the cab structure providing good visibility to the rear of the machine. The operator can easily access to the vital information regarding machine functioning by having a look on the efficient and clear dashboard.



**Cat C500 Comfort Suspension Seat.** Caterpillar C500 Comfort Series Air Suspended Seat is ergonomically designed to support the operator in various site conditions. This comfort equipment is now standard on the D6N.

- Seat is fully adjustable for maximum operator comfort, support and reduced operator fatigue.
- Seat cushion reduces pressure on the lower back and thighs while allowing unrestricted arm and leg movement.
- A standard lumbar adjustment provides lower back comfort.
- Heated seat cushions are available from your Caterpillar Dealer.



**Dash.** The instrument panel, with easy to read analog gauges and warning lamps, keeps the operator aware of any potential problems. All gauges and readouts are easily visible in direct sunlight. Warning lights and gauges have been relocated, providing precise and efficient view of the alerts. HVAC controls and vents are conveniently located on the dash to provide climate control for the operator. Auto-shift and Auto-kickdown controls are located within easy reach. Footpads keep the operator stable and comfortable while working on slopes.

**Electronic Monitoring System (EMS III).** EMS III provides the operator instant feedback on machine conditions and records performance data to help diagnose problems. It has flashable memory allowing system upgrades, as new technology and software become available. This system is compatible with Cat ET and CMS service tools. EMS with new functionalities includes the following gauges and readouts:

- Fuel level gauge
- Hydraulic oil temperature gauge
- Engine coolant temperature gauge
- Power train oil temperature gauge

- Indicators for:
  - Oil Pressure
  - Water in Fuel Separator maintenance
  - Air Filter Plugging
- Engine oil pressure indicator
- Engine speed digital readout
- Transmission speed range indicator
- Hour meter
- Odometer

**Throttle Rocker Switch.** A rocker switch control activates high or low idle with a touch of the finger. A decelerator pedal gives the operator full control of engine speed when the rocker switch is in the high idle position. Specific engine speeds can also be set with the rocker switch to match application requirements.

To set engine speeds, push the decel pedal, select the desired speed and recall it by activating the rocker switch for 3 seconds.

**Work Tool Controls.** Low effort pilot operated hydraulic controls make the D6N easy to operate and provide sure, precise blade control with less operator fatigue. Ergonomically shaped blade and ripper controls provide increased operator comfort during long shifts.

#### Other Features

The D6N operator station interior storage and amenities include:

- Adjustable armrest
- Cigarette ashtray
- Coat hook
- Cup holder
- Dome light
- Electronic throttle control integrated in the right console
- Ergonomic pedals
- Inside door release
- Large storage space on each side of seat
- Lunchbox tie-downs
- Padded consoles for side slope operations
- Storage area behind seat for first-aid kit
- Two 12-volt plug-in receptacles
- Wide cab doors

# **AccuGrade® Laser and GPS Machine Control and Guidance Systems**

*Advanced Laser and GPS technology improves operator accuracy, increases production and lowers operating costs.*



## **AccuGrade Attachment Ready Option.**

The AccuGrade Attachment Ready Option (AccuGrade ARO) provides a factory installed on-board platform for the AccuGrade Laser or GPS system.

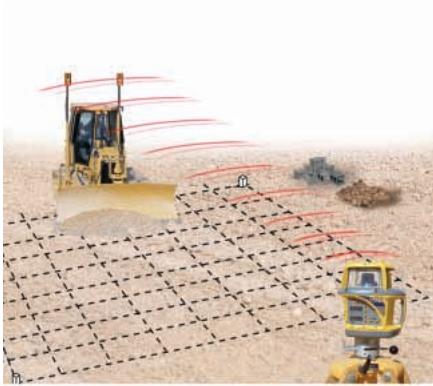
All of the changes required to the electrical system, hydraulic system, blade, and cab are incorporated into the AccuGrade ARO. Mounting brackets added on the blade allow easy installation of the masts. Mounting brackets in the cab secure the in-cab display. Plug-in points inside the cab and on the front of the machine make it easy to install electronic components.

**Advantages.** Current earthmoving and fine grading processes are labor intensive, dependent on manpower and instruments. Maintaining consistent grade between stakes is challenging, even for experienced operators. The AccuGrade Laser and GPS Machine Control and Guidance Systems reduce labor requirements and help operators work to the design plan by accurately cutting, filling and reducing material cost.

## **Automatic Blade Control Feature.**

Automatic control of the blade's lift and/or tilt, provides consistent accuracy with higher productivity by reducing blade control demands on the operator. Based on correction signals, a hydraulic control valve automatically raises or lowers the blade to maintain the correct edge elevation.

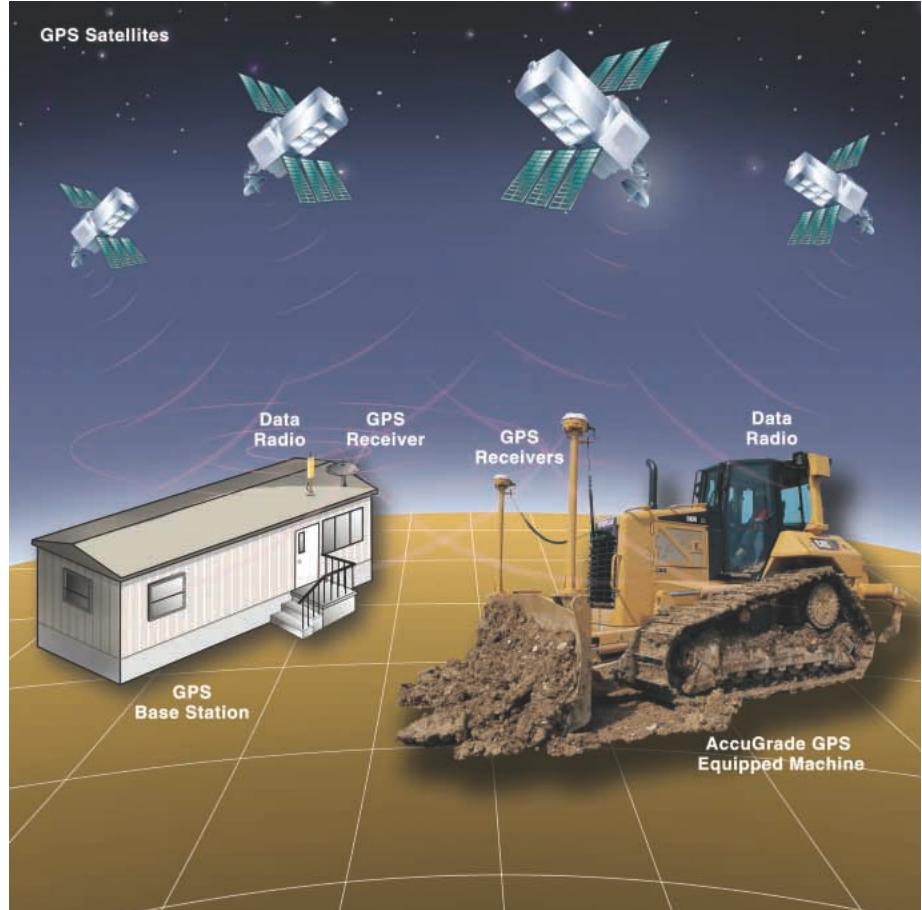
**Applications.** The AccuGrade Laser and the GPS systems are designed for a wide range of construction earthmoving applications requiring tight tolerances and high productivity rates. Choosing whether to use a Laser or GPS system depends on the job site requirements.



**AccuGrade Laser Grade Control System.** The laser system is ideal for fine grading sites with flat, single slope or dual slope surfaces such as industrial, commercial and residential building sites.



**Laser In-Cab Display.** The in-cab display with easy-to-read grade indicator and backlit elevation display shows the operator all AccuGrade system information. The in-cab display arrows show the blade's position relative to grade and indicate cut or fill requirements of the work area. Push button operation allows the operator to easily switch from manual mode for rough grading to automatic mode for fine grading.



**AccuGrade GPS Control System.** The AccuGrade Global Positioning System (GPS) is the best solution when the construction site involves contours, rather than single or dual slope planes. A GPS system compares the blade position to a three-dimensional computerized job site plan and signals the operator or hydraulic system to raise or lower the blade to achieve the design requirements.

**GPS In-Cab Display.** The in-cab display provides real-time operating information to the operator. Designed for simple operation, the 140 mm (5.5 in) color LCD daylight readable display with keypad allows operators to easily interface with the system. Settings and views can be easily configured according to operator preference. The display is designed for reliable performance in extreme operating conditions including shock, dust and moisture.

## Structure

*Engineered and built to give solid support in the most demanding applications.*

*Designed to last throughout the extended service life of the D6N.*



**Frame and Castings.** The D6N case and frames are built to absorb high impact shock loads and torsional forces. Castings are strategically located within the frame to add additional strength. Caterpillar uses robotic welding techniques in the assembly of the case and frames. This ensures quality and reliability throughout the structure.

- High strength steel mainframe resists impact shock loads.
- Computer-aided finite element analysis is used to evaluate and ensure durability.
- Full scale structural testing to test integrity of the structures.
- Robotic welding provides deep penetration and consistency for long life.

- Precision top level machining for perfect alignment of bores and surfaces.
- Pivot shaft and pinned equalizer bar to maintain track roller frame alignment.

**Equalizer Bar.** The pinned equalizer bar gives the roller frames the ability to oscillate up or down to better match ground contours while providing maximum traction and operator comfort.



**Roll Over Protection.** N-Series cab supports have been stiffened. Stiffer cab supports result in lower noise and vibration in the cab, providing the operator increased comfort.

### Quality and Reliability.

- 4 mm (0.16 in) sheet metal on the side service access panels and rear guard.
- Stamped, rounded sheet metal corners add strength.
- Rubber isolation mounted fuel tank eliminates tank vibration and reduces potential stress fractures.
- Heavy-duty reinforced radiator guard is now standard.
- Heavy-duty rear guard for ripper.
- Clipped seals provide protection from dust and moisture for rear enclosure, door openings, and between ROPS post and rear enclosure.

**Styling.** Rounded machine shapes offer excellent visibility, accessibility and serviceability.

- Durable, heavy steel door panel covers.
- Pre-cleaner is below the hood for good visibility.
- Engine enclosure is tapered as it reaches the cab.
- Large glass area.
- Controls are ergonomic for easier operation and better efficiency.

## **SystemOne™ Undercarriage**

*Exclusively for Caterpillar machines the SystemOne™ Undercarriage is a revolutionary new undercarriage system – from the ground up.*



### **SystemOne™ Undercarriage.**

Exclusively for Caterpillar machines the design extends system life and reduces operating costs.

- Long-life Sprocket. Extended life sprockets will outlast two or more tracks. The rotating bushing technology extends life.
- Guiding System. The guiding system contacts link rails instead of pin ends and helps keep the track within the roller system. The result is improved track guiding.
- Rollers. The increased flange diameter on the rollers provide optimum guiding and longer life.
- Carrier Rollers. Redesigned carrier rollers are factory sealed and serviced as a unit. The larger diameter provides extended wear to better match undercarriage system life.
- Idlers. The center tread idlers contact only the bushing – not the links – eliminating scalloping and providing more guiding to the link assembly. The idlers last longer because it contacts a rotating bushing instead of a link rail.

- Cartridge Joints. Factory-sealed cartridge joints are laser welded to control end play. They offer improved seal integrity through an innovative new sealing system and do not depend on the link interface to remain sealed. As with all Cat undercarriage products, they are filled with special oils.

- May be used in any application
- The track roller frames are welded and have a box section design, which provides strength and resistance to bending without adding extra weight
- The track adjuster and mechanical recoil spring and grease filled adjustment cylinder which allows the idler to move forward and back to maintain proper track tension as it absorbs undercarriage shock

### **Undercarriage Arrangements.**

#### **XL (Extra Long) arrangement**

- Forward idler position provides more track on the ground and to the front of the tractor. It provides optimal balance, superior traction and blade control for finish grading.
- Long roller frame provides good flotation in soft underfoot conditions.

#### **LGP (Low Ground Pressure) arrangement**

- Specially designed to work in soft and spongy conditions.

- Wide track shoes, a longer track frame and a wider gauge increase track contact area and reduce ground pressure for excellent flotation.
- Wide track shoes, long track frames and a wider gauge increase track contact area and reduce ground pressure for excellent flotation.

**Complete Guarding.** Caterpillar undercarriages are designed with full length guarding on top of the track roller frame. This prevents abrasive materials from falling down on moving parts.

**Roller Frames.** Roller frames are tubular, to resist bending and twisting.

- Roller frames attach to the tractor by a pivot shaft and pinned equalizer bar.

**Recoil System.** The recoil system is superior because it is protected from the elements and maintained in a sealed, oil-filled cavity for years of reliable service.

**Oscillating Undercarriage.** The pinned equalizer bar is saddle-mounted beneath the mainframe, allowing the roller frames and track to oscillate. The oscillation provides a steady working platform and smooth ride for the operator.

## Work Tools

Cat Work Tools and Ground Engaging Tools (G.E.T.) are designed to provide strength and flexibility to match the machine to the job, maximizing performance.



**Caterpillar Blades.** With superior moldboard and 4-cell structure design, Cat bulldozer blades hold up to the toughest job conditions. Our high-tensile strength blades resist torsional bending and deflection in tough applications.

- High-tensile strength, Cat DH-2™ steel, cutting edges resist bending.
- DH-3™ steel end bits maximize service life.

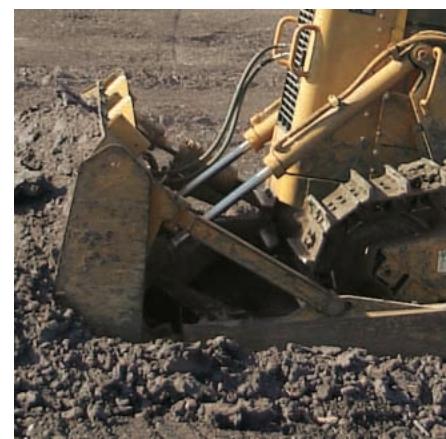


**Variable Pitch Power Angle and Tilt Blade (VPAT).** The VPAT blade gives the operator the ability to hydraulically adjust the blade lift, angle and tilt from the operator's station.

- Manually adjustable blade pitch for optimum performance.
- Top corners of the blade are clipped for better operator viewing area. (XL arrangement only).
- C-Frame is solidly pinned to the mainframe for good blade control and eliminates blade motion due to track oscillation or side forces.
- C-Frame to tractor joint is sealed and lubricated with remote lines for extended service life and quiet operation.
- Large C-Frame tower bearings have been added to improve durability.
- Lubrication points are located at all pin joints to reduce wear.

### VPAT Position – Blade Pitch.

- 54° – maximum blade loads and best finish grading.
- 57.5° – good blade loads and general dozing.
- 60-62° – maximum blade penetration and reduced material retention on blade.



**Semi-Universal Blade (XL Arrangement Only).** Built for tough applications where penetration and blade side loading are important. The design of the SU blade makes it excellent for aggressive dirt penetration and loading materials. The blade wings are designed for superior load retention.

**Foldable Blade.** Designed to conform to the 3 m (9.8 ft) width transportation limit without blade removal. Allows a section on the left end of the blade to fold forward into transportation position.



**Multi-Shank Ripper.** The multi-shank parallelogram ripper lets you choose one, two or three shanks depending on job conditions.

- Curved or straight ripper shanks are available.
- Excellent chassis durability in severe drawbar applications.

**Drawbar.** The D6N can be equipped with a drawbar for pulling work tools such as:

- Disks
- Compactors
- Chopper wheels
- Retrieval of other equipment



#### Winch.

- Single joystick electronically controls both clutch and brake functions to improve operator efficiency.
- Input clutches on PTO shaft reduce engine horsepower loss for fuel efficiency.
- Clutch engagement and brake release are automatically synchronized for smooth operation.
- Winch components can be serviced with winch mounted on tractor.

Check with your Caterpillar Dealer for details.

**Forestry Sweeps.** In forestry and land clearing applications where limbs and debris can damage a machine, optional sweeps are available for the D6N. Sweeps help to shield critical components on the tractor such as hydraulic lines, exhaust stacks, cab windows and lights from damage.

**Custom Products.** The Special Product Group can help you with answers to your specific requirements by building the machine you need: Waste, Forestry and Shiphold applications.

# Serviceability

*Modular design moves Caterpillar a generation ahead in simplifying service and maintenance.*

**Built-in Serviceability.** Less service time means more working time. Major components are designed as modules and most can be removed without disturbing or removing other components.

**Diagnostic Connector.** Diagnostic connector allows Caterpillar dealers to quickly troubleshoot the D6N or access stored data with the use of Electronic Technician (Cat ET).

**Diagnostics.** Cat D6N diagnostic and troubleshooting capabilities are among the best. Competitors monitoring systems offer limited diagnostic capabilities. The machine dashboard allows for quick identification of problems and its cause, utilizing a three level warning system.

## Grouped Service Points and

**Accessibility.** D6N machines have been designed with ease and simplicity of service in mind.

- Grouped pressure taps allow you to measure and troubleshoot the hydraulic system. Two groups of remote taps are available, one in the right hand fender and the second behind the transmission guard on the rear of the machine.
- Hinged engine doors with mechanical stops provide easy access to secondary fuel filters, oil filters, engine oil filler tube, engine air filter, and the A/C compressor.
- Left side enclosure access doors provide easy access to the batteries, transmission fill tube, fuse box, washer bottle, disconnect switch, transmission oil level, and machine security system (optional).
- Right side enclosure access door provides easy access to the hydraulic oil filter and remote pressure taps.

**Product Link.** This system streamlines diagnostic efforts, downtime and maintenance scheduling and costs by providing communication flow of vital machine data and location information between the dealer and the customer. Product Link provides updates on service meter hours, machine condition and machine location.

## Cat Machine Security System (MSS).

MSS uses electronically coded keys selected by the customer to limit usage by individuals or time parameters. MSS deters theft, vandalism and unauthorized usage. Each machine system can store up to 255 keys and each key can be used on as many machines as desired. MSS can be controlled by a Personal Data Assistant. Field installation is available.



**Electronic Monitoring System.** The D6N features a flexible monitoring system that is easily upgraded by flashing software rather than replacing the module, reducing parts cost. As technology changes and new electronics and software become available, the monitoring system will allow the machine to be easily updated.

**Ecology Drains.** Ecology drains provide an environmentally safer method to drain fluids. They are included on the radiator (coolant) and the hydraulic tank, and for the engine oil change.



**Easy Engine Maintenance.** Many parts can be rebuilt and are available as remanufactured components.

- Parent-metal block can be rebored twice and dry-sleeved.
- Connecting rods can be removed through cylinder tops.
- Camshaft followers and push rods can be replaced without removing camshaft.
- Extended oil and engine filter change intervals up to 500 hours.

## Accessibility.

- Hinged engine doors to increase engine and service access.
- Filters located within easy reach during PM service.
- Air filter conditions are monitored electronically.
- Fast fuel tank provision available (attachment).
- Larger service panel doors.
- Diagnostic test ports added for quick troubleshooting.

## Total Customer Support

Your Cat Dealer offers a wide range of services that can be set up with a Customer Support Agreement. The dealer can customize a plan for you, from PM service to total machine maintenance, allowing you to optimize your return on investment.

**Product Support.** Nearly all D6N parts can be found at Cat dealer parts counters. Cat dealers utilize a worldwide computer network to find in-stock parts to minimize machine downtime. An exchange program for major components may be available. This will shorten repair time and lower costs.

### Remanufactured Components.

Save money with remanufactured parts. You receive the same warranty and reliability as new products at a cost savings of 40 to 70 percent.

**Service Capability.** Whether in the dealer's fully equipped shop or in the field, you will get trained service technicians using the latest technology and tools.

**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 questions.

**Purchase.** Consider the financing options available as well as 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.

**Operation.** Improving operating techniques can boost your profits. Your Cat Dealer has training videotapes, literature and other ideas to help you increase productivity.



**Replacement.** Repair, rebuild or replace? Your Cat Dealer can help evaluate the cost involved so you can make the right choice.

**Maintenance.** More and more equipment buyers are planning for effective maintenance before buying equipment. Choose from your dealer's wide range of maintenance services at the time of your purchase. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as Scheduled Oil Sampling and Technical Analysis help avoid unscheduled repairs.

**SAFETY.CAT.COM™.**

## Engine

Engine Model	Cat® C6.6 ACERT™	
Flywheel Power	111.8 kW	150 hp
Net Power – Caterpillar	111.8 kW	150 hp
Net Power – ISO 9249	111.8 kW	150 hp
Net Power – SAE J1349	110.4 kW	148 hp
Net Power – EU 80/1269	111.8 kW	150 hp
Bore	105 mm	4.13 in
Stroke	127 mm	4.99 in
Displacement	6.6 L	402.75 in <sup>3</sup>

- Engine Ratings at 2,200 rpm.
- 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 3000 m (9,840 ft) altitude, beyond 3000 m (9,840 ft) automatic derating occurs.

## Transmission

1.5 Forward	3.1 km/h	1.93 mph
2.0 Forward	4.6 km/h	2.86 mph
2.5 Forward	5.7 km/h	3.54 mph
3.0 Forward	7.5 km/h	4.66 mph
3.5 Forward	10 km/h	6.21 mph
1.5 Reverse	3.1 km/h	1.93 mph
2.0 Reverse	5.1 km/h	3.17 mph
2.5 Reverse	6.4 km/h	4 mph
3.0 Reverse	8.6 km/h	5.34 mph
3.5 Reverse	11.6 km/h	7.21 mph
1.5 Forward – Drawbar Pull	320 kN	71,939 lb
2.0 Forward – Drawbar Pull	175 kN	39,341.6 lb
3.0 Forward – Drawbar Pull	97 kN	21,806.5 lb

## Service Refill Capacities

Fuel Tank	299 L	79 gal
Cooling System	35 L	9.24 gal
Final Drives (each)	7 L	1.84 gal
Hydraulic Tank	29.5 L	7.79 gal

## Weights

Operating Weight – XL with SU Blade	16 404 kg	36,166 lb
Operating Weight – XL with VPAT Blade	16 605 kg	36,610 lb
Operating Weight – LGP with VPAT Blade	17 791 kg	39,222 lb
Shipping Weight – XL with SU Blade	16 099 kg	35,492 lb
Shipping Weight – XL with VPAT Blade	16 300 kg	35,935 lb
Shipping Weight – LGP with VPAT Blade	17 486 kg	38,550 lb
• Operating Weight: Includes EROPS, A/C lights, transmission, drawbar, engine enclosure, 3-valve hydraulics, 100% fuel, C500 Comfort Seat and operator.		
• Shipping Weight: Includes EROPS, A/C lights, transmission, drawbar, engine enclosure, 3-valve hydraulics, 5% fuel and C500 Comfort Seat.		

## Dimensions

Overall Length Basic Tractor (with Drawbar)	3.74 m	12 ft 4 in
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## Undercarriage

Width of Shoe – XL	610 mm	24.01 in
Width of Shoe – LGP	840 mm	33.07 in
Shoes/Side – XL	40	
Shoes/Side – LGP	46	
Track Gauge – XL	1890 mm	74.4 in
Track Gauge – LGP	2160 mm	85.03 in
Track on Ground – XL	2581 mm	101.6 in
Track on Ground – LGP	3117 mm	122.7 in
Ground Contact Area – XL	3.15 m <sup>2</sup>	4,882 in <sup>2</sup>
Ground Contact Area – LGP	5.24 m <sup>2</sup>	8,122 in <sup>2</sup>
Ground Pressure – XL	51.6 kPa	7.48 psi
Ground Pressure – LGP	33.2 kPa	4.8 psi
Track Rollers/Side – XL	7	
Track Rollers/Side – LGP	8	

## Blades

Blade Type	VPAT, SU	
XL SU – Blade Capacity	4.28 m <sup>3</sup>	5.6 yd <sup>3</sup>
XL SU – Blade Width	3154 mm	10.35 ft
XL VPAT – Blade Capacity	3.18 m <sup>3</sup>	4.16 yd <sup>3</sup>
XL VPAT – Blade Width	3272 mm	10 ft 9 in
LGP VPAT – Blade Capacity	3.16 m <sup>3</sup>	4.13 yd <sup>3</sup>
LGP VPAT – Blade Width	4080 mm	13 ft 5 in

## Ripper

Type	Fixed Parallelogram	
Number of Pockets	3	
Overall Beam Width	2202 mm	86.7 in
Beam Cross Section	216 × 254 mm	8.5 × 10.0 in
Maximum Penetration – XL	473.5 mm	18.6 in
Maximum Penetration – LGP	359.5 mm	14.2 in
Each Additional Shank	78 kg	172 lb

## Winch

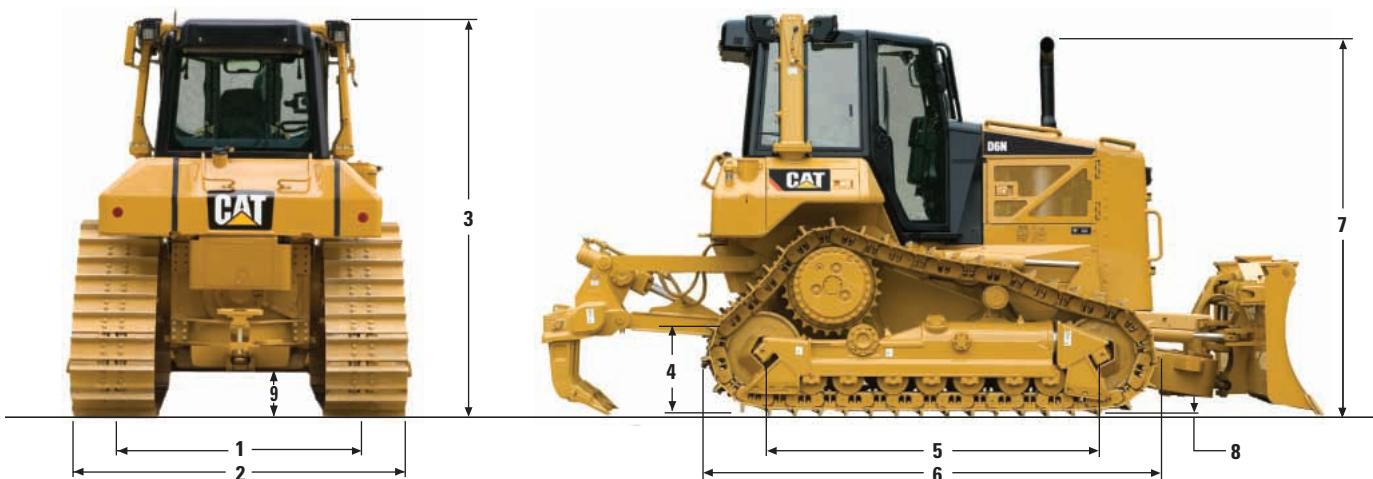
Winch Model	PA55	
Weight*	1276.5 kg	2,814 lb
Oil Capacity	74 L	19.55 gal
Winch and Bracket Length	1145 mm	45.1 in
Winch Case Width	975 mm	38.4 in
Drum Diameter	254 mm	10 in
Drum Width	315 mm	12.4 in
Flange Diameter	504 mm	19.8 in
Recommended Cable Size	19 mm	0.75 in
Optional Cable Size	22 mm	0.87 in
Drum capacity – Recommended cable	122 m	400 ft
Drum capacity – Optional cable	88 m	289 ft
Cable Ferrule Sizes – Outside Diameter	54 mm	2.13 in
Cable Ferrule Sizes – Length	65 mm	2.56 in

\* Weight: Includes pump, operator controls, oil, mounting brackets and spacers.

## Standards

- ROPS (Rollover Protective Structure) offered by Caterpillar for the machine meets ROPS criteria SAE J1040 MAY94, ISO 3471:1994 and DLV criteria SAE J397B, ISO 3164:1995.
- FOPS (Falling Object Protective Structure) meets SAE J/ISO 3449 APR98 Level II, ISO 3449:1992 Level II and DLV criteria SAE J397B, ISO 3164:1995.
- Brakes meet the standard SAE J/ISO 10265 MARCH99, ISO 10265:1998.
- The operator sound exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 OCT 98 is 81.5 dB(A), for cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.
- The operator sound pressure level measured according to the procedures specified in ISO 6394:1998 is 75 dB(A) for the cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.
- Hearing protection is recommended when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environment.
- The exterior sound pressure level for the standard machine measured at a distance of 15 meters according to the test procedures specified in SAE J88 APR 95, mid-gear-moving operation, is 80 dB(A).
- The labeled sound power level is 110 dB(A) measured according to the test procedure and conditions specified in 2000/14/EC.

## Dimensions (approximate)



### Tractor Dimensions

		XL	LGP
<b>1</b>	Track gauge	1890 mm 74.4 in	2160 mm 85 in
<b>2</b>	Width of tractor  With the following attachments:		
	Standard shoes without blade	2500 mm 98.4 in	3000 mm 118 in
	Narrow shoes without blade	2450 mm 96.5 in	2870 mm 113 in
	Standard shoes with VPAT blade fully angled	2972 mm 117 in	3706 mm 146 in
<b>3</b>	Machine height from tip of grouser:  With the following equipment:		
	ROPS canopy	3040 mm 119.7 in	3144 mm 123.8 in
	ROPS cab	3095 mm 121.9 in	3200 mm 126 in
<b>4</b>	Drawbar height (center of clevis)  From ground face of shoes	565 mm 22.2 in	669 mm 26.3 in
<b>5</b>	Length of track on ground	2581 mm 101.6 in	3117 mm 122.7 in
<b>6</b>	Length of basic tractor (with drawbar)  With the following attachments, add to basic tractor length:	3740 mm 147.2 in	4165 mm 164 in
	Ripper	1026 mm 40.4 in	1026 mm 40.4 in
	PA55 winch	381 mm 15 in	381 mm 15 in
	VPAT blades, straight	1163 mm 45.8 in	1204 mm 47.4 in
	VPAT blade, angled 25°	1787 mm 70.4 in	2125 mm 83.7 in
	SU blade	1417 mm 55.8 in	—
<b>7</b>	Height over stack from tip of grouser	2979 mm 117.3 in	3083 mm 121.4 in
<b>8</b>	Height of grouser	66 mm 2.6 in	57 mm 2.2 in
<b>9</b>	Ground clearance from ground face of shoe (per SAE J1234)	394 mm 15.5 in	507 mm 20.0 in

# Standard Equipment

*Standard equipment may vary. Consult your Caterpillar dealer for details.*

## ELECTRICAL

- Horn
- Hour meter
- Back-up alarm
- 12-volt converter, 10-amp
- Diagnostic connector
- 950 CCA class 31 batteries
- Integrated front lights
- 95 amp HD brushless alternator (24 volt)
- Starter (24 volt)

## OPERATOR ENVIRONMENT

- ROPS/FOPS cab with integrated A/C
- Seat, air suspension, cloth for cab
- Adjustable armrest
- Seat belt, retractable 76 mm (3 in)
- Foot rests for slope work
- Four gauge cluster (engine coolant, transmission oil temp, hydraulic oil temp, fuel level)
- Electronic Monitoring System (EMS III)
- Electronically programmable gear limiter
- Power points, two 12-volt
- Radio ready, 12-volt, plug and play
- Storage compartment
- Cup holder (LH)
- Coat hook
- Electronic engine air cleaner service indicator
- Electronic water-in-fuel sensor service indicator
- Mirror, rearview
- Transmission shift points selection function on dash

## UNDERCARRIAGE

- SystemOne™ Undercarriage
- Center tread idler
- Lifetime lubricated track rollers (7 XL & 8 LGP) and idlers
- Carrier rollers
- Replaceable sound suppressed/undercut sprocket rim segments
- Tracks 40 section – 610 mm Extreme Service (24") for XL
- Tracks 46 section – 840 mm (33") Medium Service for LGP (for 3m transport compliance)
- Hydraulic track adjusters
- End track guiding guards
- Center track guiding guard for improved side slope work (LGP only)

## POWER TRAIN

- Cat® C6.6 with ACERT™ Technology, Caterpillar Common Rail fuel system, ADEM™ A4 Electronic Control Module and air-to-air aftercooling
- Single poly-vee belt with automatic belt tensioner
- Ether starting aid
- Direct drive fan
- Aluminum bar plate cooling system (radiator, power train, aftercooler)
- Steel tube-fin oil cooler (differential steering)
- Air cleaner with integrated Precleaner and automatic dust ejector and under hood air intake
- Electrical fuel priming pump with integrated fuel/water separator
- Decelerating function (toggle switch & pedal engine speed control)
- Planetary powershift transmission with torque converter
- Controlled throttle shifting with automated load compensation
- Automatic down-shift and kick-down transmission control
- Auto-shift (1.5F-2.5R, 2.5F-2.5R, 2.5F-1.5R)
- System MVP: Multiple speed functionality providing 5 discrete ground speed selections
- Steering system: Differential steering with pilot control tiller bar

## OTHER STANDARD EQUIPMENT

- Crankcase guard
- Ecology drains (engine, power train, hydraulic oil)
- S•O•S™ tabs for engine, power train, transmission oil
- Coolant sampling port
- Centralized remote mounted pressure tabs for easy access and diagnostic
- Front pull device
- Hinged radiator louvered grill
- Hinged engine doors
- Lockable engine enclosures
- Rigid drawbar
- Three valve hydraulics for VPAT dozer
- Load sensing hydraulics
- Implement oil filter

## Optional Equipment

*Optional equipment may vary. Consult your Caterpillar dealer for details.*

AccuGrade ARO (Laser/GPS)

Bulldozers – See Bulldozer Specifications Chart for Weights

Canopy

Heater, dash mounted for OROPS

Fan, reversible

Fast fill fuel tank

Lighting system, 4 lights

Rotating beacon

Machine Security System (MSS)

Guards:

Crankcase, heavy duty

Fuel tank

Front lines

Lift cylinders

Final drives

Guard, rear, heavy duty

Guiding Track MS

Guiding Guarding Track HD

Guard, track guiding, center XL

Radiator, heavy duty, hinged grill

Striker bars

Sand blast grid

Rear screen for EROPS cab

Rear screen for OROPS canopy

Sweeps, EROPS

Sweeps OROPS

Hydraulics and Ripper:

Four valve for either SU blade (XL) and ripper or VPAT  
blade and ripper

Two valves for SU blade

Ripper, parallelogram (with three straight teeth)

Each optional curved tooth, replacing straight tooth

Cover, console, ripper

Starting aids:

Engine coolant heater

Heavy-duty batteries

Track pair; SystemOne:

XL arrangement, 40-sections:

560 mm (22 in) ES

610 mm (24 in) MS

610 mm (24 in) ES Center Hole

LGP arrangement, 46-sections:

840 mm (33 in) ES

840 mm (33 in) ES Center Hole

865 mm (34 in) Self Cleaning

Winch and fairleads:

Tractor, winch preparation

Tractor, winch ready

Cover, console, winch

Winch (standard or low speed)

Fairlead, 3 rollers

Fairlead, 4 rollers

Oil change, high speed

Radiator, trash resistant

Turbine air precleaner

Forestry Arrangement

Waste Handling Arrangement

Fine Grading Arrangement

Caterpillar Product Link

## Notes

# D6N Track-Type Tractor

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AEHQ5742-01 (10-07)

