

# D6R

## Track-Type Tractor



### Standard, XR, XL, IG\*, LGP

#### Cat® 3306 Turbocharged Diesel Engine at Net Power

Standard	123 kW	165 hp
XL/XR	130 kW	175 hp
IG/LGP	138 kW	185 hp

#### Operating Weight (Differential Steering)

Standard	18 300 kg	40,400 lb
XR	18 600 kg	41,000 lb
XL	19 200 kg	42,300 lb
IG	19 868 kg	43,800 lb
LGP	20 700 kg	45,600 lb

#### Blade Capacity

Straight: Std/XR	3.89 m <sup>3</sup>	5.09 yd <sup>3</sup>
Straight: LGP	3.70 m <sup>3</sup>	4.83 yd <sup>3</sup>
Semi-Universal: Std/XR/XL	5.61 m <sup>3</sup>	7.34 yd <sup>3</sup>
Semi-Universal: IG	5.62 m <sup>3</sup>	7.40 yd <sup>3</sup>
Angle: Std/XR	3.18 m <sup>3</sup>	4.16 yd <sup>3</sup>
Angle: XL	3.93 m <sup>3</sup>	5.14 yd <sup>3</sup>
Angle: IG	4.30 m <sup>3</sup>	5.63 yd <sup>3</sup>

#### Power, Angle, and Tilt Blade

Capacity: XL, up to:	3.83 m <sup>3</sup>	5.0 yd <sup>3</sup>
Capacity: IG, up to:	4.05 m <sup>3</sup>	5.3 yd <sup>3</sup>

\* IG represents Intermediate Gauge Arrangement

# D6R Track-Type Tractor

*The D6R's power, response and control deliver more production at lower cost-per-yard.*

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## Power Train

The reliable Caterpillar® 3306 turbocharged diesel engine has large displacement and high torque rise. A planetary power shift transmission permits fast speed and direction changes. **pg. 4**

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## Torque Divider

An exclusive Caterpillar designed torque divider allows the engine to respond quickly to varying work loads. **pg. 5**

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## Undercarriage

The elevated sprocket moves the final drives above the work area, isolating them from ground impacts. The different undercarriage configurations allow you to match the tractor to the working conditions. **pg. 6**

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## Cooling System

The Advanced Modular Cooling System (AMOCS) combines a more efficient cooling system with easier servicing. AMOCS allows the machine to be operated in the most demanding environment. **pg. 5**

*Engineered for demanding work. The D6R's durable construction is made for tough working conditions. It keeps material moving with the reliability and low operating costs you expect from Cat machines.*



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**Intermediate Gauge**

The IG configuration increases the versatility and productivity of the D6R line. The D6R XL IG or (Intermediate Gauge) is a Custom Product that has been developed for those operations that need additional flotation.

**pg. 8**

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**Work Tools**

The variety of bulldozer blades, rippers and winches allow you to customize the D6R to match your specific application.

**pg. 9**

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**Operator's Station**

The comfortable operator's station provides excellent viewing area to the blade and rear of the machine for maximum operator productivity. Controls are low-effort and easy to reach. Cat Contour Series Seat provides proper support and automotive comfort. The Caterpillar Monitoring System has easy-to-read gauges, which constantly inform the operator of key machine functions. **pg. 10**

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**Steering**

Choose from differential steering, which directs uninterrupted power to both tracks, or Finger Tip Control. Both systems allow simultaneous, one-hand steering and transmission control for increased operator efficiency.

**pg. 12**

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**Serviceability**

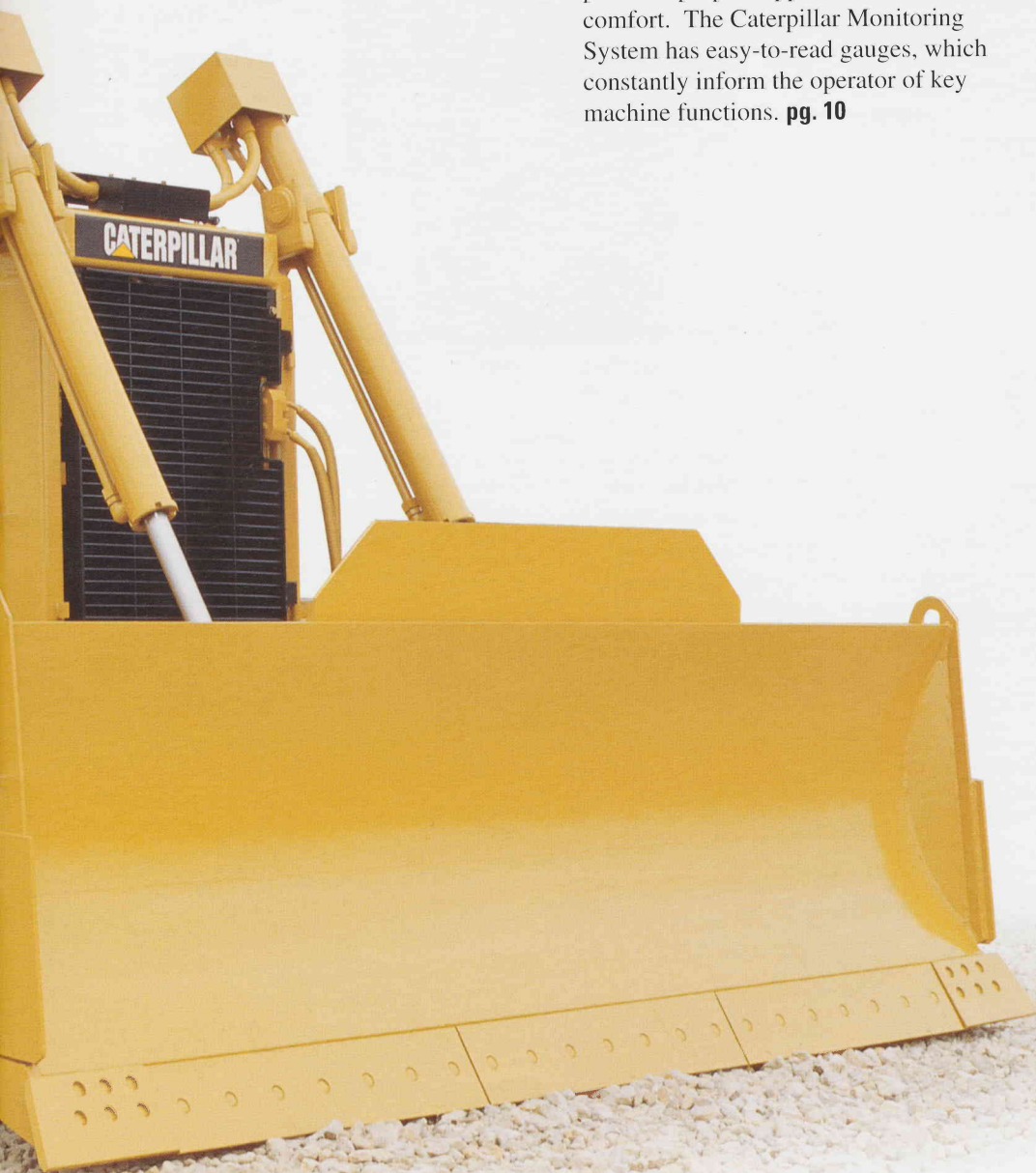
Major modular components are designed for excellent serviceability and allow fast in-field component exchange. **pg. 13**

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**Customer Service**

Superior parts availability and service are unmatched in the industry.

**pg. 13**



# Power Train

*Reliable...durable...efficient!*

## Turbocharged 3306 diesel engine

delivers plenty of power for quick response, big loads.

**Large displacement**, high torque rise and low rpm rating for low stress, long life.

**High torque rise** offers superior lugging capabilities—keep moving through tough spots without downshifting.

**Direct fuel injection** precisely meters fuel for maximum productivity per unit of fuel.

**Good weight-to-horsepower ratio**—faster loading, bigger loads, shorter cycle times.

**1 Turbocharger**

**2 Nozzle assemblies**

**3 Cat fuel injection system**

**4 Aluminum alloy piston**

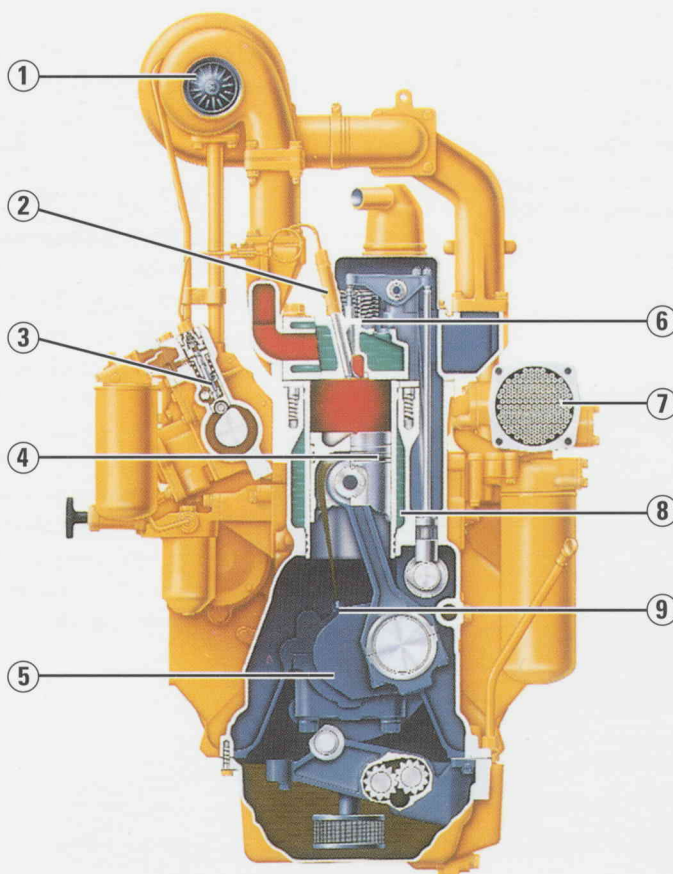
**5 Forged crankshaft**

**6 Valves (intake, exhaust)**

**7 Oil cooler**

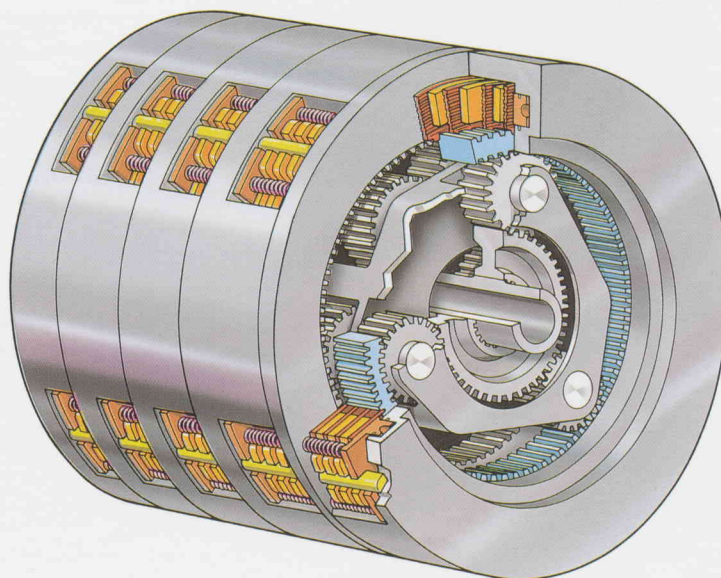
**8 Cylinder, full-length, water-cooled**

**9 Cooling jets**



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

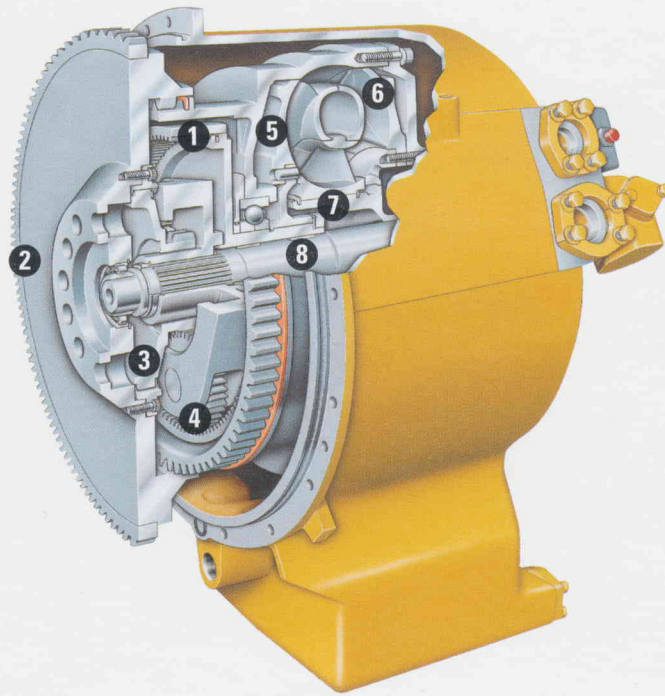
- Modulation system permits fast speed and direction changes.
- Modular transmission and bevel gear slide into rear case for servicing ease, even with ripper installed.
- Oil-to-water cooler for maximum cooling capacity.
- Forced oil flow lubricates and cools clutch packs to provide maximum clutch life.



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

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

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



**Advanced Modular cooling system (AMOCS)** utilizes an exclusive two pass cooling system and increased cooling surface area to provide more efficient heat transfer than conventional systems.

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

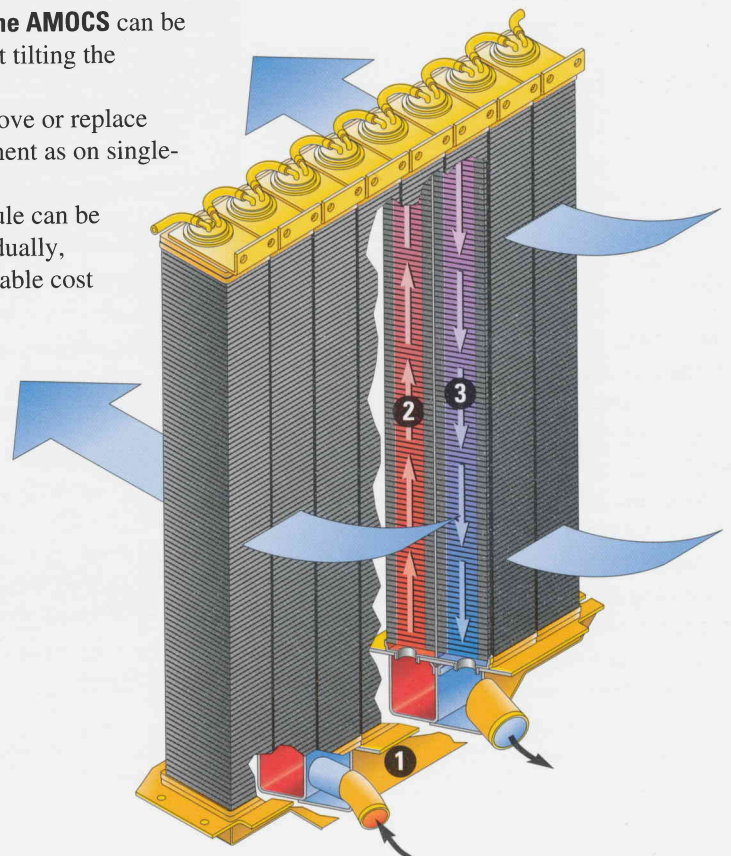
**Caterpillar Extended Life Coolant** is now standard in all D6R tractors. This coolant can double the Cat engine coolant life and allow for longer intervals between coolant changes when Cat extender solution is used at 3000 hours.

**The cooling elements** are individual core modules that are connected to a sectioned bottom tank.

- 9 steel fins per inch.
- Brass tube construction within each core.
- No top tank to remove.

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

- No need to remove or replace a major component as on single-core radiators.
- Each core module can be replaced individually, saving considerable cost and repair time.



## Elevated Sprocket Undercarriage

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



**Final drives and associated power train components** raised above the work area—isolating them from ground-induced impact loads, as well as implement and roller frame alignment loads—extending power train component life.

**Sprocket position** keeps sprocket teeth, bushings and final drives away from the abrasive materials and moisture—resulting in longer final drive gear and seal life.

**The heavy-duty sealed and lubricated track** is designed for superior track life.

A wider bushing strap provides improved bushing retention and resistance to bore stretching and cracking. Other improvements include:

- improved sealability and link rail wear life.
- wider pin boss and longer pin improves pin-to-link retention.
- more rail material increases link and roller system wear life.
- extends undercarriage maintenance intervals.
- reduces overall undercarriage operating costs.



**High flange improved track rollers**

(optional) combined with center or full length roller guard attachments greatly improve track guiding for demanding side slope or impact conditions.

**Rotating bushing track** (optional) is a sealed and lubricated system which includes four track seals per joint, non-restrained floating bushings, longer track pins, redesigned track links (wider pin boss and bushing strap, and taller rail) and a unique pin retention system.

Because the bushings rotate, relative motion between the bushings and the sprocket teeth is virtually eliminated. The minimal wear that does occur is evenly distributed around the bushings. Therefore, no bushing turn is required, and sprocket segment wear is dramatically reduced. In effect, the rotating bushing track does an ongoing bushing turn as the machine works.

### Standard arrangement

- A general purpose undercarriage that performs well in many applications with firm underfoot conditions.

### XL arrangement

- Delivers unmatched performance in general dozing applications.
- More track to the front provides a balanced platform for superior traction, blade control and stability for finish grading.
- Carrier roller for improved fine dozing performance.
- Longer roller frame also improves flotation in soft underfoot conditions.

### IG arrangement

- Wider track gauge extends working season of tractor.
- Ideal for very wet, but not swampy conditions.
- Tractor should be used in low to medium impact underfoot conditions.

### XR arrangement

- XR undercarriage is built to excel in drawbar, skidding, and ripping applications.
- With more track to the rear, the tractor's weight is positioned forward, which increases traction and stability for drawbar applications.

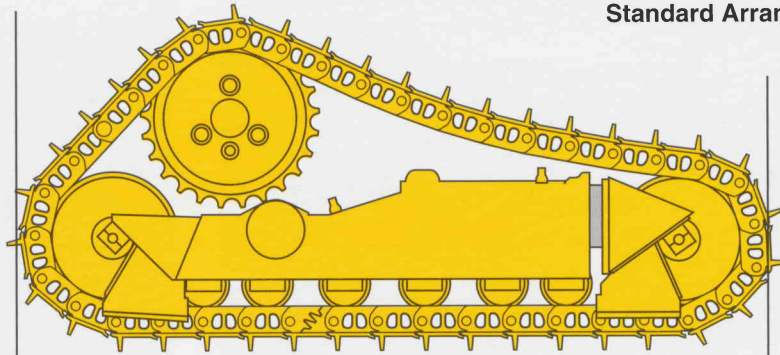
### LGP arrangement

- LGP undercarriage is designed to work in soft and spongy conditions.
- Wide track shoes and long track frame increases track contact area, reducing ground pressure for excellent flotation in swampy conditions.

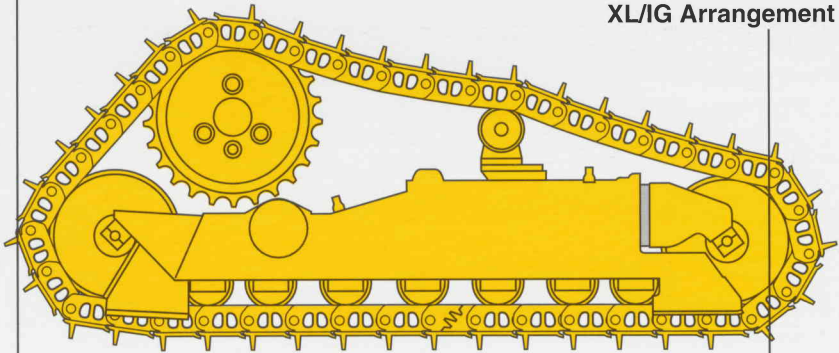
### Heavy-duty track link

- Standard on all D6R configurations.
- Increased durability of link assembly.
  - Improved sealability.
  - Increased link and roller system wear life.
- A wide variety of widths and track shoe configurations are available to tailor your tractor to specific application needs.

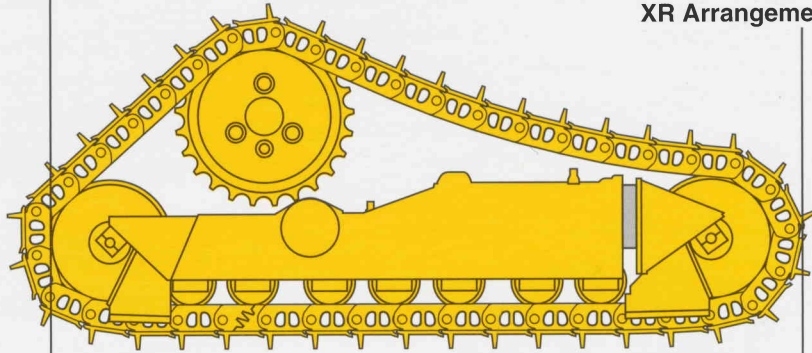
Standard Arrangement



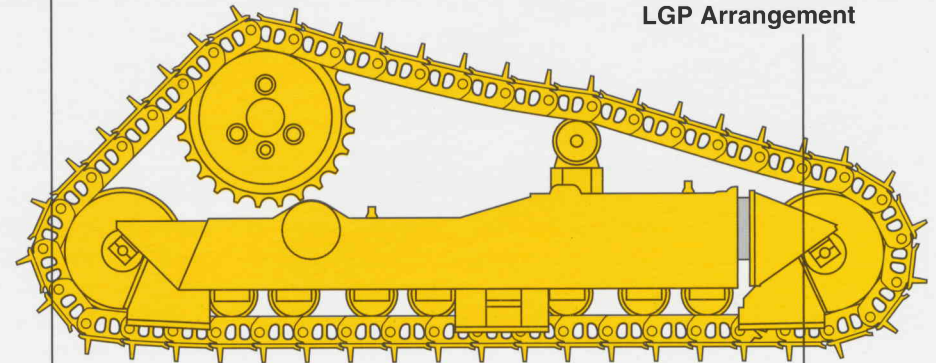
XL/IG Arrangement



XR Arrangement



LGP Arrangement



## Intermediate Gauge, Waste Arrangements and Power, Angle, and Tilt Blade Arrangements

*These optional arrangements provide added versatility and stand up to the most demanding applications.*



**Intermediate Gauge (IG) Arrangement.** Improved flotation helps to extend the working season of tractor.

- IG Tractor Configuration uses a D6R XL as a base and widens the track gauge from 1880 mm (74 in) to 2030 mm (80 in).
- 762 mm (30 in) track shoes provide increased flotation.
  - Ideal for very wet, but not swampy conditions.
  - Excels in low to medium impact ground conditions.
- Increased power 185 hp (138 kW).
- Improved performance and versatility.
  - Better finish grading.
  - Increased productivity.
- Semi-Universal (SU) 7.4 yd<sup>3</sup> (5.62 m<sup>3</sup>) and Angle (A) 5.63 yd<sup>3</sup> (4.30 m<sup>3</sup>) blades available.



**Waste Arrangement.** Minimizing build-up helps prevent component damage.

- Elevated sprocket keeps final drives out of trash and eliminates impact loading for increased power train life.
- Extra guarding on final drives and idler seals prevents trash wrap-around from damaging final drive components.
- Larger capacity landfill blade for increased trash handling capacity.
- Quick release radiator guard doors and engine enclosure doors allow quick access to engine compartment for cleaning.
- Front and rear striker bars stop trash from damaging fenders, fuel tanks and hydraulic tanks.
- Additional waste handling arrangement items are available from the Caterpillar Custom Product Group. [Refer to AEHQ5239 (3/97)].

## Power Angle and Tilt Blade Arrangement (PAT)

The inside mounted PAT Blade is now a factory installed option for both the XL and IG undercarriage arrangements. Both units are an excellent match for angle dozing work, finish and rough grading, medium duty dozing, windrowing, backfilling, V-ditching, and side slope applications.

For applications such as rock, stumping, pioneering, and heavy duty dozing, the SU Blade should be used.

### Track

To accommodate the C-frame push arms, the following track shoes are offered.

- XL
  - 22" MS (41 sec) Offset
  - 22" MS (41 sec) Offset Trapezoidal
  - 22" MS (41 sec) Offset RBT
- IG
  - 26" MS (41 sec)
  - 26" MS (41 sec) Trapezoidal
  - 28" MS (41 sec) Offset



Rear-mounted attachments are required to ensure optimum balance and performance.

- Ripper
- Winch
- Counterweights



## Work Tools

*Caterpillar work tools include a choice of dozers, rippers and winches designed for efficient, high production.*



### Blades

- Choice of S, SU, A and PAT (XL and IG only) blades for optimum production.
- High blade heel clearance and sharp cutting edge angle (S, SU blades)—penetrates tough material easily.
- Cat moldboard profile on SU blades loads easily, retains load.
- L-shaped push arms (S, SU) allow blades to be mounted closer to front of unit...higher penetration forces for larger blade loads and excellent maneuverability.
- The A blade is mounted to a C-frame, using a pinned connection—permits blade angling and tilting, left or right.
- The PAT blade is inside mounted to a C-frame and provides power angle and tilt.



### Ripper

- Multi-shank parallelogram ripper lets you choose up to three curved or straight shanks, depending on job conditions.
- Caterpillar design allows the operator to see the ripper tip—provides ample throat clearance, high penetration and pryout forces.
- Some application restrictions apply on LGP machines equipped with a ripper.

### Winch

- Single lever control actuates both clutch and brake functions to improve operator efficiency.
- Input clutches on PTO shaft reduce engine horsepower losses, provide fuel efficiency and economy.
- Clutch engagement and brake release are automatically synchronized for smooth operation.
- Winch components can be serviced with winch mounted on tractor.

## Load Sensing Hydraulics

*Adjusts attachment and hydraulic power to increase both operator and machine efficiency.*

**Load-sensing hydraulics** utilize a feedback loop from the control valve to the hydraulic pump to continually monitor the hydraulic power requirements of attachments.

**Lower pump requirements** reduce engine power requirements for the hydraulics, making more drawbar power available for increased machine production, higher operator efficiency and increased fuel efficiency.

## Operator's Station

*Comfort and convenience designed into the control station for a more efficient and productive operator.*





**Operator's station** provides excellent viewing area to blade and rear of machine for maximum operator productivity. Several enhancements have been added to the cab to improve operator comfort, reduce fatigue, increase productivity, and reduce interior sound levels.

**Easy-to-reach, low-effort controls** provide sure, precise steering and dozer control for less operator fatigue.

**1 Differential Steering's** twist grip tiller provides excellent maneuverability and one-handed control.

**2 Finger Tip Controls** are easily accessible, and allow exceptional one-handed maneuverability.

**3 Instrument panel** includes standard gauge group with fuel gauge and computerized Caterpillar Monitoring System for monitoring critical machine functions. The Caterpillar Monitoring System includes a switchable digital display which allows the operator to scroll through displays for gear selection, hour meter, diagnostic codes and other vital information.



**Isolation-mounted cab** (optional) with air pressurizer and heater reduces noise and vibration for shift-long comfort.

**4 Caterpillar Contour Series Seat**—ergonomically designed and fully adjustable for maximum comfort.

- Fully adjustable seat allows the operator to position for maximum comfort.
- Retractable 75 mm (3 in) wide seat belt for positive, comfortable restraint.

**Radio installation group**

- Includes mounting brackets, AM/FM antenna and speakers.
- Standard with cab.

**Sound levels** have been reduced by:

- Incorporating acoustical materials to cab interior trim components to absorb and block sound transmission and improve appearance and comfort.
- Redesigning the cab mount system to reduce structurally transmitted noise.
- Modifying Heating/Ventilating/Air Conditioning system to significantly reduce interior sound levels.

**Other features** include:

- Storage compartment for personal items.
- Cupholder.
- Adjustable armrests.
- Kneepads for side slope operations.
- Window slides provide better sealing.

## Steering Systems

*Choice of Differential Steering or Finger Tip Control create an efficient work platform.*

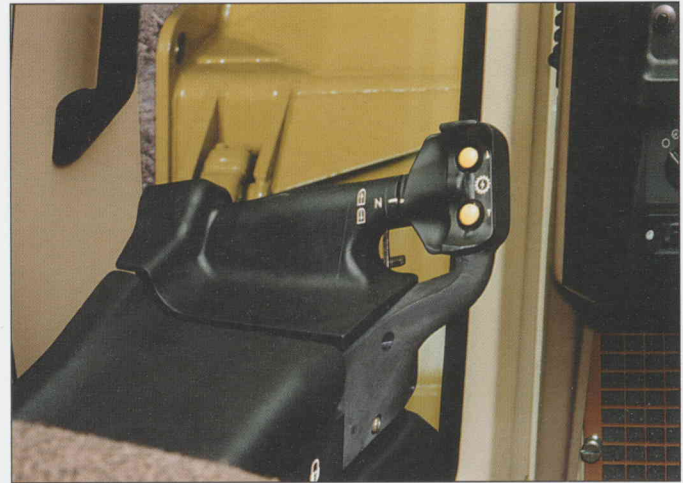
**Differential Steering** maintains uninterrupted power to both tracks during turns through a hydraulically actuated planetary differential, and allows simultaneous one-hand steering and transmission control.

- Turns accomplished by speeding up one track while equally slowing the other—speed difference turns tractor.
- Operator maintains smooth, precise turning with one lever.
- Provides excellent steering control in tight areas, near structures, or when following grade stakes.
- Greater load, power and speed control where the underfooting is soft or sloppy, because both tracks drive to maintain traction.
- Faster cycles due to quick forward/reverse response, steering/directional control.



**Finger Tip Control** allows simultaneous, one-hand steering and transmission control.

- Padded armrest and ergonomic, molded hand grip.
- Low-effort finger tip levers for steering.
- Touch-shift buttons for upshift and downshift.
- Rotational directional control for forward, neutral and reverse.
- Horizontal and vertical adjustments for operator comfort.
- Optional electric armrest adjustment for frequent operator changes.
- Parking brake switch electronically locks clutch and brake steering.



### Automatic Shifting

**1 Auto Shift** allows the operator to preset a forward and reverse gear for frequent directional changes. Auto Shift settings include first forward to second reverse and second forward to second reverse.

**2 Auto-Kickdown** automatically downshifts the transmission from second forward to first forward when a significant increase in load is detected. This is especially useful for rough applications and can improve the productivity of a less skilled operator.

**Automatic shifting** features and easier upshifts and downshifts increase operator productivity, reduce fatigue, and shorten cycle times.

Operators can choose between manual shifting or the Automatic features, depending on the application and/or operator's preference.



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## Service

*The Cat elevated sprocket tractor's modular design concept moves a generation ahead in simplified service and repair.*

**Major components** are easily accessible and removable as single units.

**Modular design** permits fast removal and installation.

**Pre-testing of modular components** before installation or after repair assures quality.

**Grouped service points allow** easy access to service areas make routine checks fast, convenient.

**Diagnostic connector** for special dealer tool enables fast troubleshooting of tractor systems.

**Quick, easy service access** and inspection.

**Ecology drains** provide an environmentally safer method to drain fluids. They are included on the radiator, engine, hydraulic tank, fuel tank and bevel gear case: optional for the transmission and torque divider.



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## Total Customer Support

*Unmatched in the industry!*

**Services.** 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, to help you get the best return on your investment.

**Product support.** You will find nearly all parts at our dealer parts counter. Cat Dealers utilize a world-wide computer network to find in-stock parts to minimize machine down time. Save money with remanufactured parts. You receive the same warranty and reliability as new products at 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 precise answers to these questions.

**Purchase.** Look past initial price. 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.

**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 you purchase your machine. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as Scheduled Oil Sampling and Technical Analysis help you avoid unscheduled repairs.

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

# Engine

Four-stroke cycle, six cylinder 3306 turbocharged diesel engine. The power ratings below apply at 1900 rpm when tested under the specific conditions for the specified standard.

	Standard arrangement			XL and XR arrangements			IG/LGP arrangements		
	kW	hp		kW	hp		kW	hp	
Gross power	133	179		141	189		148	199	
<b>NET POWER</b>	<b>kW</b>	<b>hp</b>	<b>PS</b>	<b>kW</b>	<b>hp</b>	<b>PS</b>	<b>kW</b>	<b>hp</b>	<b>PS</b>
Caterpillar	123	165	—	130	175	—	138	185	—
ISO 9249	123	165	—	130	175	—	138	185	—
EEC 80/1269	123	165	—	130	175	—	138	185	—
SAE J1349	122	163	—	129	173	—	137	183	—
DIN 70020	—	—	171	—	—	181	—	—	191

## Dimensions for all arrangements

Bore	121 mm	4.75 in
Stroke	152 mm	6.0 in
Displacement	10.5 liters	638 in <sup>3</sup>

## \*Power rating conditions

- based on standard air conditions of 25°C (77°F) and 99 kPa (29.32 in Hg) dry barometer
- used 35° API gravity fuel having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 30°C (86°F) [ref. a fuel density of 838.9 g/L (7.001 lb/U.S. gal)]
- net power advertised is the power available at the flywheel when engine is equipped with fan, air cleaner, muffler and alternator
- no derating required up to:
  - 2300 m (7500 ft) altitude
- meets all current CARB and US EPA Tier 1, JMOC and EU Stage I emissions requirements.

## Features

- direct injection fuel system with individual adjustment-free unit injectors
- 3-ring aluminum alloy pistons
- heat resistant sil-chrome steel intake and stellite-faced exhaust valves
- one-piece cylinder head designed with cast intake manifold
- direct electric 24-volt starting and charging system
- two 12-volt, 100 amp-hour, 750 CCA, maintenance-free batteries
- 70-amp alternator
- dry-type, radial-seal air cleaner with primary and secondary elements

## Transmission

Three-speed planetary power shift, speeds apply to both steering systems.

		km/h	mph
Forward	1	3.9	2.4
	2	6.8	4.2
	3	11.2	7.3
Reverse	1	4.8	3.0
	2	8.5	5.3
	3	14.7	9.1

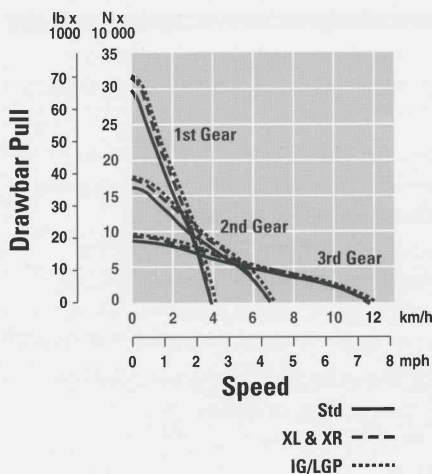
## Final Drive

Single reduction final drives.

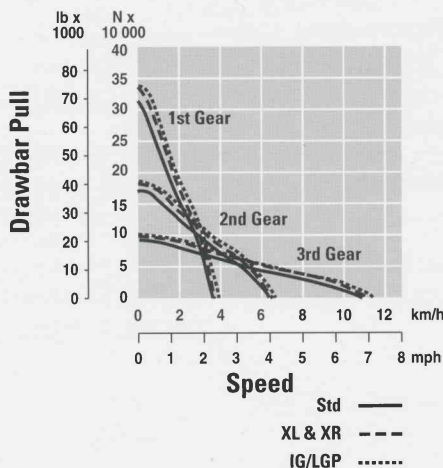
## Features

- isolated from ground-impact and blade-induced loads
- modular design reduces removal and installation time
- segmented sprocket simplifies replacement

### Finger Tip Control (steering clutches and brakes)



### Differential Steering



## Hydraulic Controls

Load-sensing, variable displacement piston pump.

### Pump capacity at 6895 kPa/69 bar /1000 psi

rpm at rated engine speed	2019	
Steering clutches and brakes model	190 liters/min	50.2 gpm
Differential steer model	196 liters/min	51.8 gpm
Tilt cylinder flow	80 liters/min	21.1 gpm

### Main relief valve settings

Differential steer model	42 000 kPa/420 bar	6090 psi
Steering clutches and brakes model	19 305 kPa/193 bar	2800 psi
Implement circuit pressures		
Bulldozer lift	19 305 kPa/193 bar	2800 psi
Bulldozer tilt	19 305 kPa/193 bar	2800 psi
Ripper	19 305 kPa/193 bar	2800 psi

Drive geared from engine flywheel

### Control positions

- lift cylinders—raise, hold, lower, float
- tilt cylinder—left, right, hold
- angle cylinders—left, right, hold
- ripper cylinder—raise, hold, lower

## Cab

Caterpillar cab and Rollover Protective Structure (ROPS). ROPS canopy required in U.S.A.

### Features

- meets OSHA and MSHA limits for operator and sound exposure with doors and windows closed (according to ANSI/SAE J1166 JUL87)
- ROPS meets the following criteria:
  - SAE J395
  - SAE J1040 APR88
  - ISO 3471-1 1986
  - ISO 3471-1 1994
- also meets the following criteria for Falling Objects Protective Structure:
  - SAE J231 JAN81
  - ISO 3449 1992 Level II

### Note:

When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 MAY90, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture. The operator sound pressure level is 79 dB(A) when measured per ISO 6394 and 81 dB(A) when measured per ISO 6396.

## Steering and Braking

Choice of Finger Tip Control or Differential Steering  
System meets SAE J1026 APR90.

### Finger Tip Control

- Finger Tip Control of transmission and steering clutches and brakes
- oil-cooled, hydraulically actuated multiple-disc steering clutches and brakes
- single brake pedal controls both tracks without disengaging steering clutches
- hydraulically actuated, spring applied parking brake

### Differential Steering

- twist-grip tiller bar controls transmission and steering
- hydraulically actuated planetary differential delivers uninterrupted power to both tracks while turning
- ability to counter-rotate tracks with transmission in neutral
- single brake pedal controls both tracks
- hydraulically actuated, spring applied parking brake

## Track Roller Frame

Tubular design resists torsional loads.

### Features

- lifetime lubricated rollers and idlers are directly mounted to roller frame
- oscillating roller frames attach to tractor by pivot shaft and pinned equalizer bar
- pivot shaft transmits ground impact loads directly to main frame
- pinned equalizer bar keeps track roller frame in proper alignment
- large pivot bushings operate in an oil reservoir
- equalizer bar saddle connection is low-friction bushing with remote lube line
- recoil system fully sealed and lubricated

## Service Refill Capacities

	L	Gallons
Fuel tank	383	101
Crankcase	27.5	7.3
Transmission, bevel gear and steering clutch (includes torque converter)		
	155	41
Final drives (each side)	13.5	3.6
Cooling system	74	19.5
Hydraulic System (tank only)	76	20

## Weight (approximate)

### Shipping

Includes lubricants, coolant, ROPS canopy, hydraulic controls and 10% fuel.

	Std		XR		XL		IG		LGP	
	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb
Finger Tip Control	14 800	32,600	15 000	33,100	15 500	34,200	16 200	35,800	17 200	37,900
Differential Steering	15 100	33,200	15 200	33,560	15 700	34,600	16 400	36,100	17 400	38,300

### Operating

Includes lubricants, coolant, hydraulic controls, full fuel tank, SU blade with tilt cylinder, standard shoes and operator.

	Std		XR		XL		IG		LGP - S Blade	
	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb
Finger Tip Control	18 100	40,000	18 400	40,600	19 000	41,900			20 500	45,200
Differential Steering	18 300	40,400	18 600	41,000	19 200	42,300	19 900	43,800	20 700	45,600

## Bulldozers

		S	S	SU	SU	SU	A	A	A	XL	IG
		Std / XR	LGP	Std / XR	XL	IG	Std / XR	XL	IG	PAT	PAT
<b>Blade Capacity</b>	m <sup>3</sup>	3.89	3.70	5.61	5.61	5.62	3.18	3.93	4.30	3.83	4.05
	yd <sup>3</sup>	5.09	4.83	7.34	7.34	7.40	4.16	5.14	5.63	5.00	5.30
<b>Width</b>	mm	3360	3990	3260	3260	3556	4166	4165	4200	3620	3794
	ft/in	11' 0"	13' 1"	10' 8"	10' 8"	11' 8"	13' 8"	13' 8"	13' 9"	11' 11"	12' 5"
<b>Height</b>	mm	1257	1101	1412	1412	1412	1034	1155	1169	1207	1207
	ft/in	4' 2"	3' 8"	4' 8"	4' 8"	4' 8"	3' 5"	3' 9"	3' 10"	4' 0"	4' 0"
<b>Digging Depth</b>	mm	473	655	473	459	459	506	524	500	732	732
	in	18.6"	25.8"	18.6"	18.1"	18.1"	19.9"	20.6"	19.7"	29"	29"
<b>Ground Clearance</b>	mm	1104	1083	1104	1195	1195	1142	1205	1242	383	383
	ft/in	3' 8"	3' 7"	3' 8"	3' 11"	3' 11"	3' 9"	3' 11"	4' 1"	1' 3"	1' 3"
<b>Maximum Tilt</b>	mm	765	701	743	743	743	408	408	408	440	460
	ft/in	2' 6"	2' 4"	2' 5"	2' 5"	2' 5"	1' 4"	1' 4"	1' 4"	1' 5"	1' 6"
<b>Weight *</b>	kg	2599	2801	2699	2973	2949	2727	3109	3257	3246	3314
	lb	5731	6176	5951	6555	6500	6013	6855	7180	7150	7300
<b>Weight **</b>	kg									1343	1385
	lb									2960	3050

### Features

- cutting edges are DH-2 steel and end bits are DH-3 steel for maximum durability
- dozer lift cylinders mount to top corners of radiator guard to improve mechanical advantage
- single lever controls all blade movements
- angle dozers available with two tilt cylinders, which replace the two tilt braces

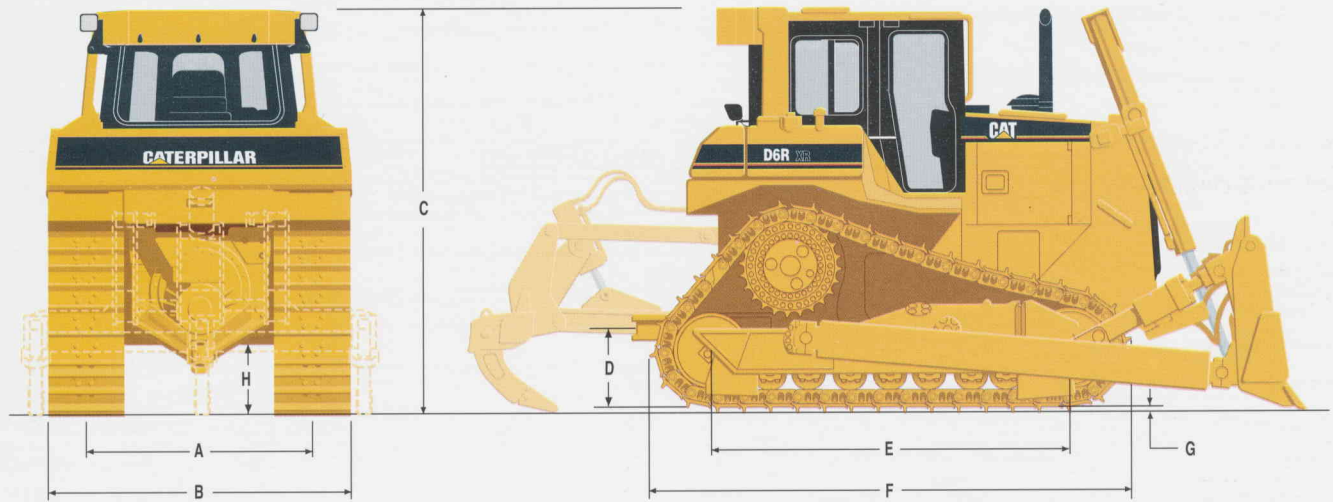
\* Includes push arms, blade, blade tilt cylinder(s), cutting edges and miscellaneous hardware components

\*\* PAT blade only



# Dimensions

(approximate)



## Tractor Dimensions

	STD		XR		XL		IG		LGP	
	mm	ft/in	mm	ft/in	mm	ft/in	mm	ft/in	mm	ft/in
A. Track gauge	1880	74"	1880	74"	1880	74"	2030	80"	2225	88"
B. Width of tractor										
Over trunnions	2640	8' 8"	2640	8' 8"	2640	8' 8"	2950	9' 8"	3428	8' 8"
Without trunnions (std. shoe)	2440	8' 0"	2440	8' 0"	2440	8' 0"	2740	9' 0"	140	10' 4"
C. Machine height from tip of grouser:										
Stack	3094	10' 2"	3094	10' 2"	3094	10' 2"	3094	10' 2"	3144	10' 4"
ROPS	3195	10' 6"	3195	10' 6"	3195	10' 6"	3195	10' 6"	3245	10' 8"
D. Drawbar height	576	23"	576	23"	576	23"	576	23"	576	23"
from ground face of shoe	511	20.1"	511	20.1"	511	20.1"	511	20.1"	561	22.1"
E. Length of track on ground	2610	103"	2754	108"	2821	111"	2821	111"	3243	128"
F. Length of basic tractor	3860	12' 8"	4005	13' 2"	3860	12' 8"	3860	12' 8"	4247	13' 11"
With following attachments add:										
Drawbar	217	8.5"	217	8.5"	217	8.5"	217	8.5"	251	9.9"
Ripper Multi-Shank (tip at ground line)	1403	55.2"	1255	49.4"	1403	55.2"	1403	55.2"	—	—
Winch	517	20.4"	363	14.3"	517	20.4"	517	20.4"	397	15.6"
S Blade	1043	41.1"	1043	41.1"	—	—	—	—	1218	48.0"
SU Blade	1235	48.6"	1235	48.6"	1472	58.0"	1472	58.0"	—	—
A Blade	1147	45.2"	1147	45.2"	1349	53.1"	1349	53.1"	—	—
PAT Blade	—	—	—	—	1412	55.5"	1412	55.5"	—	—
G. Height of grouser	65	2.6"	65	2.6"	65	2.6"	65	2.6"	65	2.6"
H. Ground clearance	383	14.8"	383	14.8"	383	14.8"	383	14.8"	433	17.1"
Track pitch	203	8.0"	203	8.0"	203	8.0"	203	8.0"	203	8.0"
Number of shoes per side	39		40		41		41		45	
Number of rollers per side	6		7		7		7		8	
Standard shoe	560 mm	22"	560 mm	22"	560 mm	22"	762 mm	30"	915 mm	36"
Ground contact area (std. shoe)	2.92 m <sup>2</sup>	4531 in <sup>2</sup>	3.08 m <sup>2</sup>	4781 in <sup>2</sup>	3.16 m <sup>2</sup>	4897 in <sup>2</sup>	4.30 m <sup>2</sup>	6664 in <sup>2</sup>	5.93 m <sup>2</sup>	9199 in <sup>2</sup>
Ground pressure (psi)	8.92		8.58		8.64		6.57		4.96	
(kg/cm <sup>2</sup> )	(0.627)		(0.603)		(0.607)		(0.462)		(0.349)	

## Winch

Rugged PA56 winch with freespool.\*

### Features

- hydraulically actuated multiple-disc wet clutch and brake
- single lever control of clutch and brake functions
- separate lever for freespool operation

Weight	1135 kg	2503 lb
Increased tractor length	1200 mm	47.2"
Winch case width	975 mm	38.3"
Flange diameter	330 mm	13.0"
Drum width	254 mm	10.0"
Drum diameter	260 mm	10.25"
Cable size:		
Recommended	22 mm	0.88"
Optional	25 mm	1.0"
Drum capacity:		
Recommended cable	88 m	290'
Optional cable	67 m	220'
Oil capacity	67 L	17.7 gal
Maximum/ferrule size (OD x length)		
	54 mm x 67 mm	2.10" x 2.63"

\*PA56 winch is manufactured for Caterpillar by PACCAR Inc.

## Ripper

Multi-shank parallelogram design lets you choose one, two or three shanks to match the job conditions. Straight or curved shanks are available.

Beam width	2202 mm	86.7"
Beam cross section	216 mm x 254 mm	8.5" x 10"
Maximum penetration	500 mm	19.7"
Maximum clearance raised (shank tip)	511 mm	20.1"
Number of pockets		3
Maximum penetration force	6603 kg	14,557 lb
Maximum pryout force	9134 kg	20,137 lb
Weight		
With one shank	1606 kg	3,541 lb
Each additional shank	74 kg	163 lb

## Standard Equipment

Note: Standard and optional equipment may vary. For specific tractor applications, additional guarding may be required. Consult your Caterpillar Dealer for specifics.

Advanced Modular Cooling System (AMOCS)	Ecology drains (engine oil & coolant, hydraulic oil, fuel tank sediment)	ROPS canopy
Air cleaner with precleaner	End guiding guards	Seat belt
Alternator, 70-amp	3306 DIT low emissions engine	Steering system:
Armrests, adjustable	Ether starting aid	Differential Steering or
Automatic shifting features:	Electronic power shift transmission	Finger Tip Control
Auto-Kickdown (auto-downshift)	Front pull device	Seat, vinyl, suspension, with adjustable armrest and (contour series)
Auto Shift (1F-2R, 2F-2R)	Gauge package, temperature	Track, heavy-duty, sealed and lubricated:
Back up alarm	Coolant	Standard arrangement
Blower fan	Transmission oil	560 mm (22"), 39-section
Caplocks	Hinged radiator grill	XL arrangement
Carrier Roller (XL and LGP models)	Horn	560 mm (22"), 41-section
Caterpillar Monitoring System	Hydraulic track adjusters	XR arrangement
Center track guiding guards (LGP)	Hydraulic, two-valve, lift and tilt	560 mm (22"), 40-section
Cooler, hydraulic oil (differential steer models)	Instrument panel guard	LGP arrangement,
Crankcase guard	Lifetime lubricated track rollers and idlers	915 mm (36"), 45-section
Decelerator	Load-sensing hydraulic system	Vandalism covers and locks
Direct electric starting, 24-volt	Muffler	
Dust ejector	Rearview mirror	

## Optional Equipment

(with approximate change in operating weights\*)

	kg	lb		kg	lb
Air conditioner	57	125	High-flange track roller guiding arrangement		
AM/FM stereo cassette radio	—	—	Standard	34	75
Armrest adjustment, electric (for Finger Tip Control models)	0	0	XL and XR	38	84
Batteries, heavy-duty	60	132	LGP	43	95
Bulldozers (see page 16 for weights)			Hook, heavy-duty, front pull	12	26
Cab, ROPS (Sound suppressed, includes air pressurizer, heater, cloth contour series seat, seat belt, radio mounting and speakers, front and rear windshield wipers and washers, air filter, rearview mirror and key locks)	363	800	Hydraulic controls, third valve (additional valve for ripper)	37	81
Canopy, ROPS, removed (standard in U.S.A.)	-383	-845	Lighting system, four Halogen lights	13	29
Differential Steering System (listed for weight)	401	884	Prescreener	3	6
Drawbar:			Radiator core protector grid	22	49
Rigid, for use with Std/XL	106	234	Ripper, includes one tooth	1564	3449
Rigid, for use with XR/LGP	116	256	Screen, rear, for cab or canopy	59	130
Ecology drains (transmission, torque divider, main case)	3	7	Seat, vinyl, suspension-low back	-6	-13
Engine coolant heater	1	3	Sweeps, logging, canopy or cab	354	779
Engine enclosure (with perforated side panels)			Tilt cylinders, dual hydraulic, for angle dozers	152	335
Normal duty	44	97	Tracks, pair, heavy-duty, sealed and lubricated:		
Heavy-duty	63	139	Standard roller frame only		
Fan, reversible	7	15	560 mm (22") MS/RBT	-61	-136
Guards:			610 mm (24") MS/RBT	64	142
Bottom, heavy-duty	64	140	510 mm (20") ES/HD	201	444
Bottom, extreme duty	142	312	560 mm (22") ES/HD	358	790
Fuel tank	129	284	610 mm (24") MS/HD	125	275
Precleaner	10	22	XL roller frame only		
Grill, heavy-duty, louver	30	66	560 mm (22") MS/RBT	-64	-142
Grill, heavy-duty, punched hole	24	53	610 mm (24") MS/RBT	67	147
Radiator chin, heavy-duty	13	29	510 mm (20") ES/HD	212	467
Rear, heavy-duty	43	95	560 mm (22") ES/HD	377	830
Track guiding, center only:			610 mm (24") MS/HD	131	289
Standard, XL and XR	52	114	XR roller frame only		
Track roller guards, full length:			510 mm (20") ES/HD	207	455
Standard	156	343	560 mm (22") ES/HD	367	810
XL	183	404	610 mm (24") MS/HD	128	282
XR	172	380	LGP roller frame only		
LGP	154	339	760 mm (30") MS/HD	-446	-984
			760 mm (30") MS/RBT	-518	-1143
			915 mm (36") MS/RBT	-72	-159
			1000 mm (39") self cleaning/HD	-43	-95
			Winch	1135	2503
			Winch fairlead—three roller	293	645
			Winch fairlead—four roller	320	705

**ES**=Extreme service shoes      **MS**=Moderate service shoes

**HD**=Heavy-duty link track      **RBT**=Rotating bushing track

\*Specifications are converted from British to metric measure and rounded.

# D6R Track-Type Tractor



AEHQ5148-04 (6-00)  
(Replaces AEHQ5148-03)

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