

# 933C

## Hystat Track-Type Loader



### Cat® 3046 Engine

Gross horsepower	57.4 kW	77 hp
Flywheel horsepower	52.2 kW	70 hp

### Bucket Capacities

GP Bucket	1.00 m <sup>3</sup>	1.30 yd <sup>3</sup>
MP Bucket	.96 m <sup>3</sup>	1.25 yd <sup>3</sup>
LGP	.96 m <sup>3</sup>	1.25 yd <sup>3</sup>

### Operating Weight

Standard arrangement		
GP Bucket	8,485 kg	18,690 lb
MP Bucket	9,010 kg	19,845 lb
LGP arrangement	8,744 kg	19,260 lb

# 933C Hystat Track-Type Loaders

*Offering rugged construction and outstanding reliability to allow you to maximize productivity.*

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## Power Train

A powerful six-cylinder Cat® 3046 engine and the new hydrostatic power train system provide the power you expect from Cat 933C Hystat track-type loaders. You also get the productivity you need to stay competitive.

- ✓ *Hystat system - a dual-path, closed-loop hydrostatic power train provides full powerturn capability, stepless speed range, dynamic braking and smooth modulation for steering and directional shifts.*

pg. 4-6

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## Hystat Control

You'll be amazed with how much dirt you can move with one hand using a

- ✓ *933C loader. A single joystick allows you to control speed, direction and steering, effortlessly. . pg. 7*

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## Operator Station

Superior comfort awaits you day-in and day-out whether you opt for an open canopy or a loader equipped with a cab. Visibility is excellent, controls are ergonomically designed and well positioned, and arm rests are fully adjustable for optimum comfort and productivity. *The 933C is equipped with*

- ✓ *a new dash panel and vandalism protection guard. pg. 8-9*

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## Bucket & Lift Arms

Available general purpose or multi-purpose buckets increase machine versatility. Four-plate loader towers and large, solid-plate lift arms provide maximum strength and resistance to shock loads and loading stresses. Lift arms are reinforced with a crossmember to reduce torsional bending during loading. pg. 10

## ✓ *Outmaneuver every job you tackle.*

*A single lever joystick control is all that is needed to control speed, direction and steering on Cat® 933C Hystat Track-type Loaders. Full powerturn capability is made possible by maintaining power to both tracks at any ground speed or turning radius. You'll find operating a loader of this size has never been easier or as much fun.*

✓ *New feature*



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### Hydraulics

Powerful Caterpillar hydraulics provide exceptional strength for impressive breakout force and lift capacity. Two 7-micron filters keep dirt out to provide long component life. Matched hydraulic valves and loader linkages provide precise and lasting bucket control for superior load handling.

- ✓ *Hydraulic pump capacity has been increased by 17 percent to improve productivity. pg. 4*

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### Undercarriage

With soil conditions changing with each job you tackle, you need an undercarriage built rugged for long wear life and low owning and operating costs. That's why all 933C loaders are built with sealed and lubricated track. Sealed-in lubricant permanently coats the track pin, minimizing metal-to-metal contact and virtually eliminating internal pin and bushing wear.

- ✓ *Undercarriages have thicker recoil guarding for added impact resistance. New bolt-on, rear track guiding guards, standard on all models, further enhance rear guiding and provide extra protection against abrasive wear. pg. 11*

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### Serviceability

- ✓ *Not only does the updated engine enclosure add to the impressive style of the 933C track loader, it also provides easier access to grouped service points. Scheduled Oil Sampling (S•O•S) valves are located on the engine oil filter and hydraulic filter housings for easy oil collection by your Cat dealer. Increased fuel capacity extends time dedicated to the job.*

pg. 12



# Hystat Power Train System

*Quick response and acceleration plus better maneuverability decrease cycle times and increase production*

The Hystat system provides maximum performance everyday, no matter what your job application. The Hystat system features:

- **Full powerturn capability** at any ground speed or turning radius;
- **Stepless speed range** from 0 mph to maximum;
- **Smooth modulation** for steering and directional shifts;
- **Dynamic hydrostatic braking** provides full control of machine speed without using brakes;
- **Superior maneuverability** when working in tight areas;
- **Excellent controllability**, especially while operating in close quarters; and
- **Load sensing**, which automatically adjusts speed and torque to match changing load conditions.

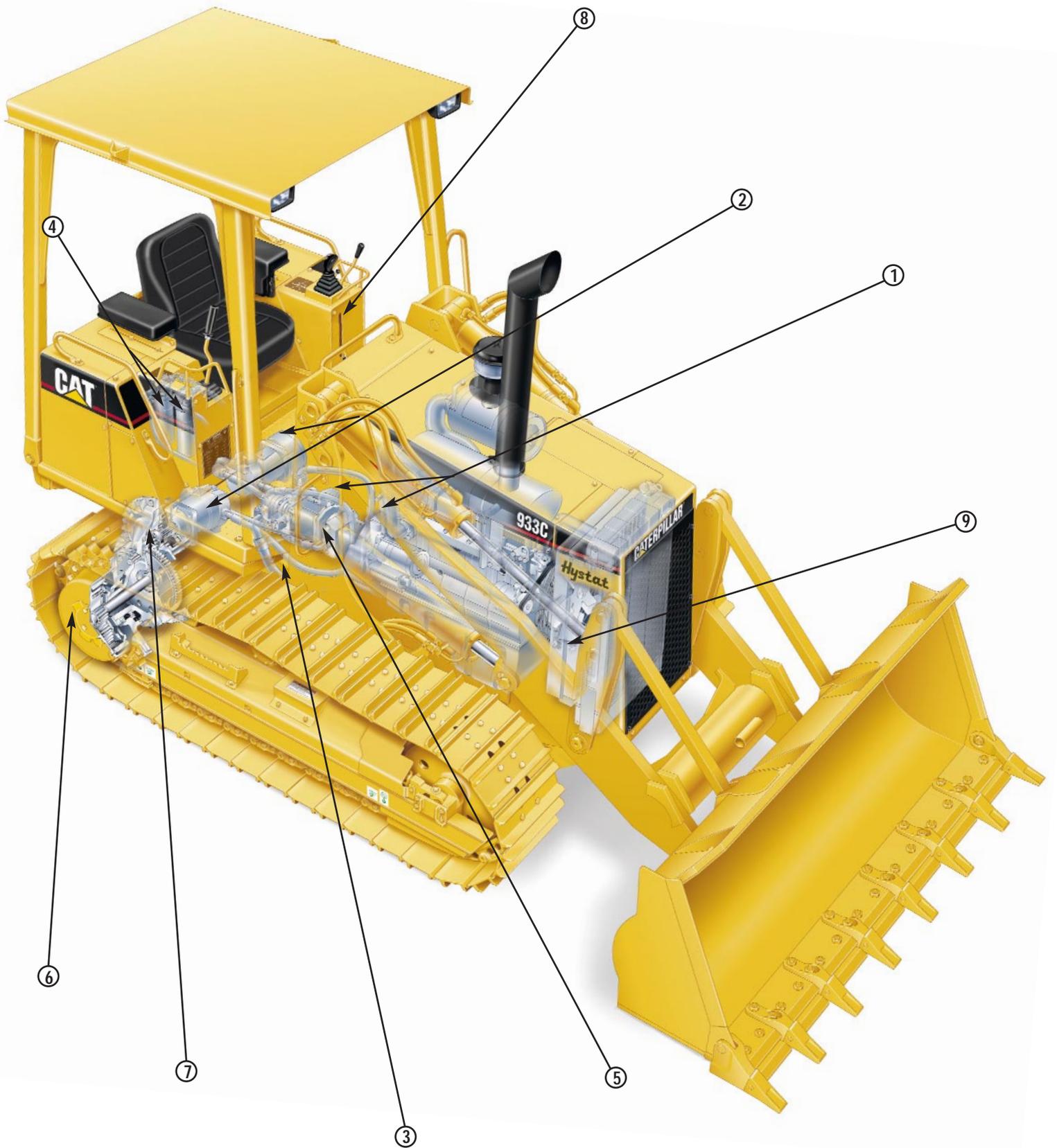
The Hystat system is a high pressure, dual path, closed loop hydrostatic power train system. Each track is driven by a separate hydraulic circuit consisting of one variable-displacement piston-pump, connected by Cat XT-6 hose and coupling to a piston motor.

- 1 Hystat pumps.** Two high pressure, variable displacement piston pumps are attached directly to the engine flywheel housing. No U-joints or splitter box to service.
- 2 Track motors.** Two high pressure, 2-speed piston motors are mounted inboard of the main frame at the final drives.
- 3 Cat's XT hoses** are well respected for their strength and durability and are used to connect the pumps to the motors. O-ring face seals are used throughout the entire Hystat system and provide positive sealing for reliable, leak-free connections.
- 4 Two identical, vertically mounted, spin-on hydraulic filters** are easily accessible and provide filtration for both the Hystat power train and implement systems.
- 5 Service brakes.** Hydrostatic (dynamic) braking through machine drive system using joystick control or center pedal.
- 6 Double reduction planetary final drives** provide high torque multiplication between the hystat motors and the drive sprockets. Drives are mounted independently of the track frames to isolate them from ground-induced shock loads.
- 7 Wet, multi-disc parking brakes** located between each hydraulic track motor and final drive are spring applied and hydraulically released. Automatically applied when the engine stops, or operator applied when the center pedal is fully depressed.
- 8 Neutral-start parking brake lever** disengages transmission and engages the parking brakes to prevent unintended machine movement.
- 9 Hydraulic oil cooler** is an air-to-oil type and provides cooling for the power train and implement oil.

# Hydraulic System

*State of the art hydraulics*

- **17 percent increased pump flow** provides faster cycle times, resulting in more work done per hour.
- **Large lift and tilt cylinders** deliver impressive performance for tough loading applications.
- **Improved bucket control** provides multi-function capabilities for fast truck loading and spreading applications.
- **Reduced bucket control lever efforts** provide lower operator fatigue.



## 3046 Engine

*Smooth, responsive power, excellent fuel economy and lasting reliability.*



### Caterpillar 3046 Diesel Engine.

Designed specifically for small to medium size earthmoving machines. The Cat six-cylinder 3046 engine is inherently balanced, providing low vibration, superior performance, and exceptional responsiveness. Torque rise is 25 percent at 1400 RPM. The result is more lugging force, especially during heavy loads.

- **Direct injection fuel system** is adjustment free for reduced maintenance. High pressure fuel injection results in reduced fuel consumption and emissions.
- **Spin-on oil and fuel filters** are vertically mounted and easily accessible for faster maintenance.
- **In-cylinder glow plugs** deliver dependable starts when operating in cold temperatures. Built-in temperature switch helps ensure lasting reliability.
- **Lubrication system** features an efficient, multiple-plate, water-cooled oil cooler to help prolong engine and lubricant life.
- **Cooling system.** A large diameter fan and full length, water-cooled cylinders, combined with excellent thermal efficiency, minimize heat rejection, prevent overheating and prolong engine life.
- **Cylinder head** uses replaceable valve seat inserts, valve guides and a high quality composition steel laminated head gasket.
- **Aluminum pistons** with a cast iron insert for increased durability under high compression loads. Pistons have two compression rings and an oil ring with a coiled expander.

# Hystat Control

*Steering, machine direction and speed are combined into one control for enhanced operator controllability, comfort and increased productivity.*

The joystick control is simple and easy to understand. With it, you will control the direction, speed, and steering of your 933C Hystat track loader. The joystick is ergonomically designed to fit comfortably in the palm of your hand. Control effort is minimal, so much so that you might find yourself using your fingertips.

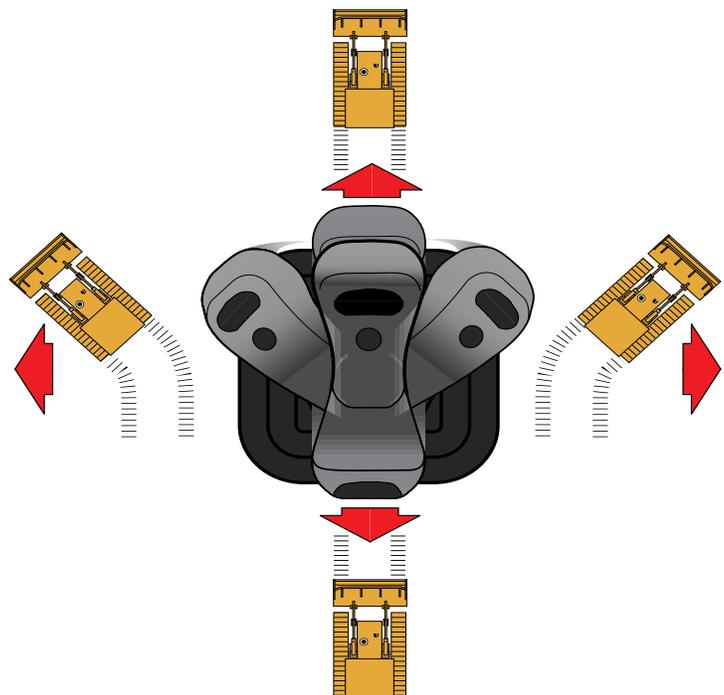
## Direction/speed

- **Forward movement.** As you move the joystick forward, the machine moves forward, traveling faster as the joystick is moved further forward from the center position.
- **Reverse movement.** When you move the joystick back, the machine will move in reverse, again traveling faster the further the joystick is moved back from the center position.
- **Stopping.** The easiest way to stop the machine is to return the joystick to the center position. The joystick is spring-loaded and will return to neutral by itself. You may also stop the loader by pressing the center brake pedal all the way down with your foot.
- **Turtle/rabbit switch.** In turtle mode, the drive motors are fixed in the maximum torque position (working mode). Switching to rabbit mode changes the drive motors to a higher speed setting (roading mode). To activate the turtle/rabbit mode, simply use the toggle switch located on top of the joystick.



## Steering

- **Right/left movement.** With the machine moving in forward or reverse, moving the joystick to the right results in the machine turning to the right; moving the joystick to the left causes the machine to move to the left. The more the joystick is moved to the left or right, the tighter the turn.

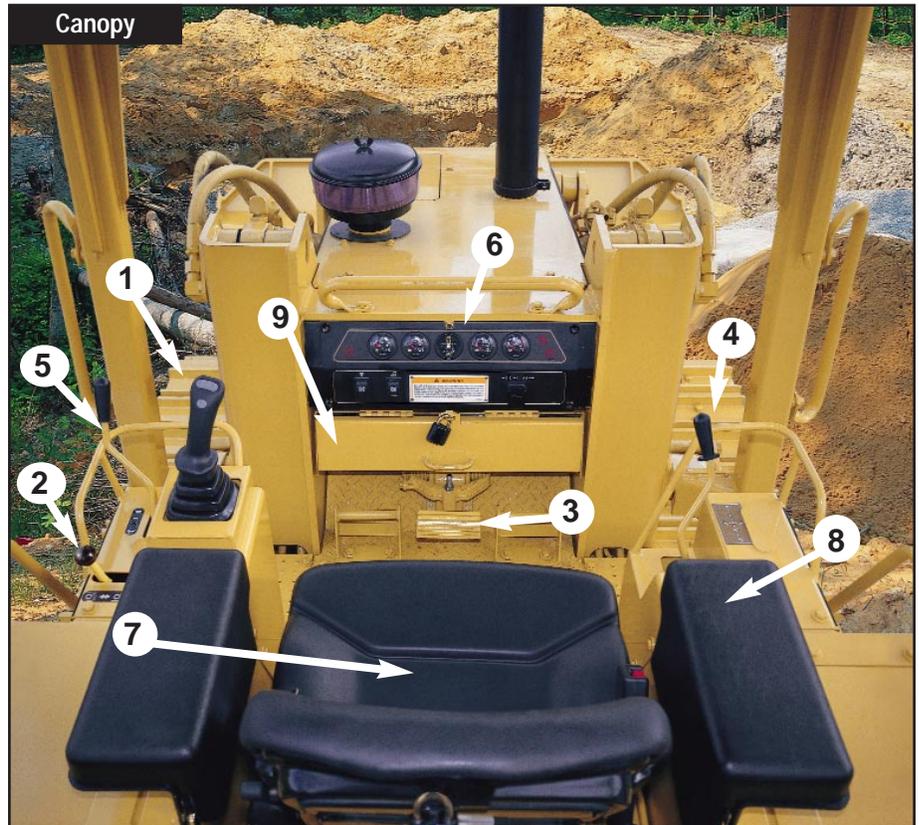


# Operator Station

*Ergonomically designed for your maximum comfort and productivity.*

Take the opportunity to work comfortably and productively, day-in and day-out. Whether you equip your loader with an open canopy or an optional cab, you'll find thoughtfully positioned controls and a variety of other convenience features.

- 1 **Hystat joystick control** gives you the power to control steering, direction and speed all with your left hand. Easily switch from turtle/rabbit mode with the toggle switch located on top of the joystick. Activate the horn by pressing the button beneath the turtle/rabbit toggle switch.
- 2 **Joystick hold control** holds the joystick in any forward/reverse position, freeing the operator's left hand.
- 3 **Hystat center pedal** may be used to either slow down or stop the machine. Adjustable foot rests provide a great place for your feet to relax while working.
- 4 **Single lever lift and tilt control** improves efficiency. Needle bearings on all major pivot points and valve spools with precision metering help ensure precise, lasting control.
- 5 **Governor control.** High to low setting allows you to set engine speed at the desired RPM. Hystat loaders can be operated at any RPM.

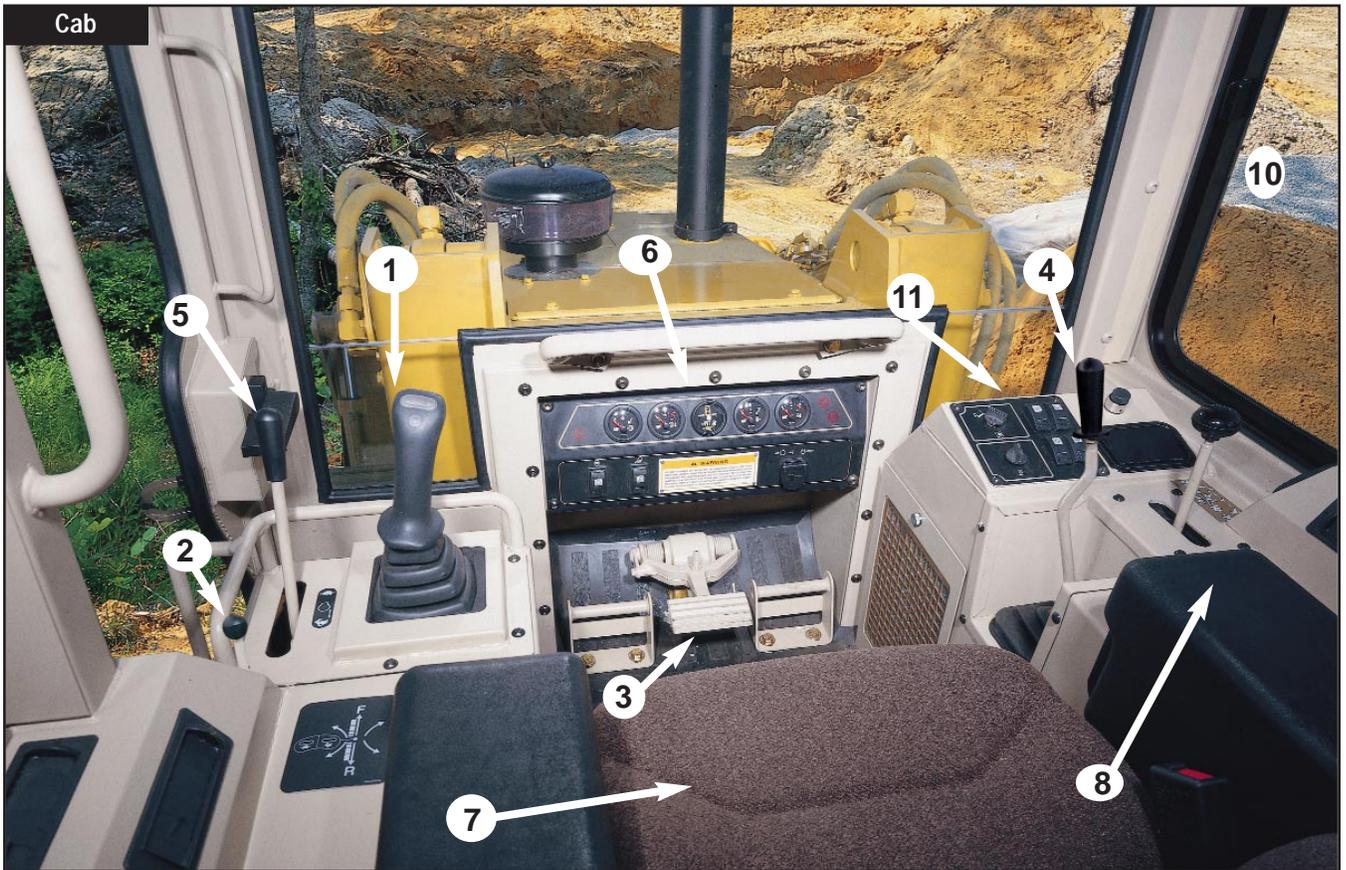


- 6 **Dash panel** has five individual, analog gauges, providing fluid level and temperature information at a glance. All gauges are back-lighted.
- 7 **A suspension seat** is standard on all 933C track loaders and is equipped with a seat belt and an adjustable backrest.
- 8 **Arm rests are adjustable** fore and aft, as well as up and down to best suit your preferred operating position.
- 9 **Vandalism protection guarding** on canopy models folds down under the dash for storage, and is raised over the dash and padlocked when needed.



**Ease of Operation** - All major machine work functions can be accomplished with just two hands.

**Reduced Operator Fatigue** - Low control lever efforts help increase operator productivity each day. Day after day.



The pressurized cab is sealed to keep dust out and sound to a minimum, resulting in a quiet working environment. Nine adjustable vents keep air circulating and improve the cab's heating, optional air conditioning, and defrost/defog capabilities.

**10 Tinted windows.** A continuous, three-piece glass windshield and a large, single-piece door glass provide excellent visibility to the work site. Large, sliding right and rear side windows provide excellent flow-through ventilation.

**11 Control console** is back-lighted and contains controls for cab temperature, fan speed, the front/rear window washers, and two-speed wipers. A cigarette lighter and ashtray are also included.

**12 An optional Caterpillar Contour Series seat,** with a retractable seat belt, is the premium seat option and is designed for maximum comfort and fully-adjustable support. Ergonomically shaped seat cushions reduce pressure on the lower back and thighs, while allowing unrestricted arm and leg movement. Contour Series seats are available in cloth for use in cab, or vinyl when used in open canopy.

**Other cab conveniences include:**

- Radio ready factory installed components, including speakers, an antenna, and all wiring/brackets
- Tie-downs for secure lunch box storage
- Sun visor
- Rearview mirror
- Dome light
- Coat hook



# Buckets and Lift Arms

*Designed and built for unmatched versatility, durability, and strength.*

Rugged construction along with powerful, matched hydraulics provide excellent breakout force and lift capacities for maximum production capabilities and load handling.

**1 General-purpose bucket.** Designed for excavating, loading and general purpose work. Wide, large capacity means excellent track coverage and increased production potential.

**2 Multi-purpose bucket.** Designed for excavating, loading, stripping, dozing, and cleaning up debris. Provides maximum versatility and strength to handle the toughest jobs.

**3 Bolt-on cutting edge** segments are reversible and extend the wear life of the bucket.

**4 Bolt-on Corner Guard System** protects the edges for long term wear.

**5 Backdrag edge** adds grading capability to extend machine versatility.

**6 Solid-plate lift arms** provide strength and durability for excellent lift and breakout capacities.

**Replaceable bottom plates** increase the buckets' service life.

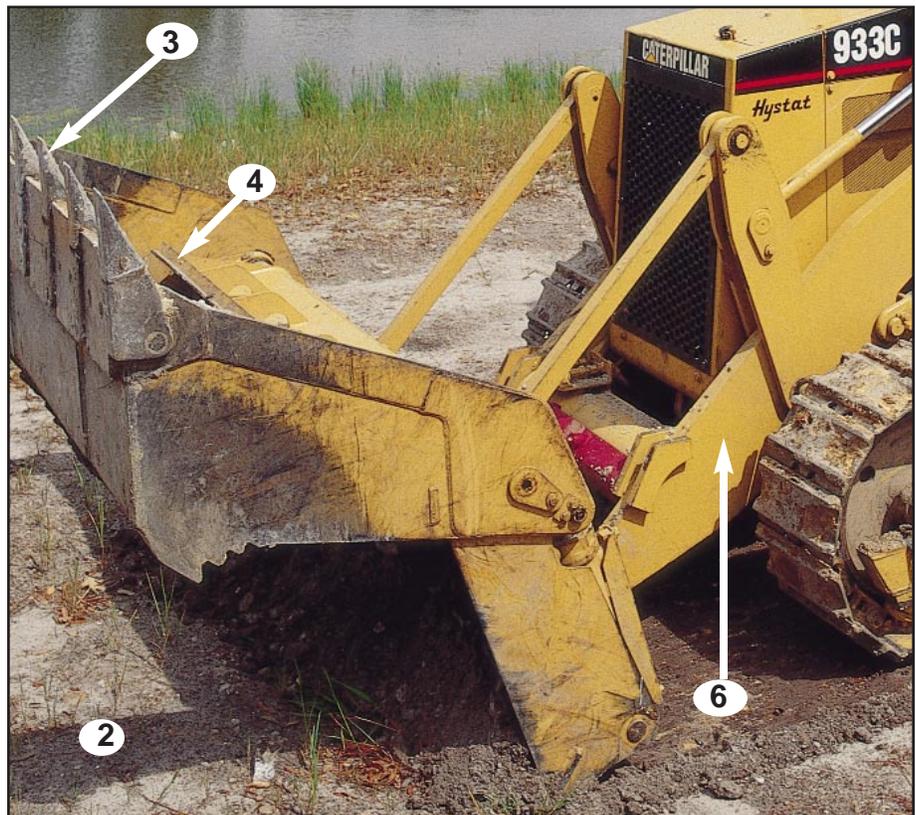
**High bucket rackback angle** retains material for increased efficiency.

**Sealed loader linkage** increases all linkage lube points to 50 Service Meter Hours.

**Cat XT-3 hoses** meet critical strength and flexibility demands for increased reliability.

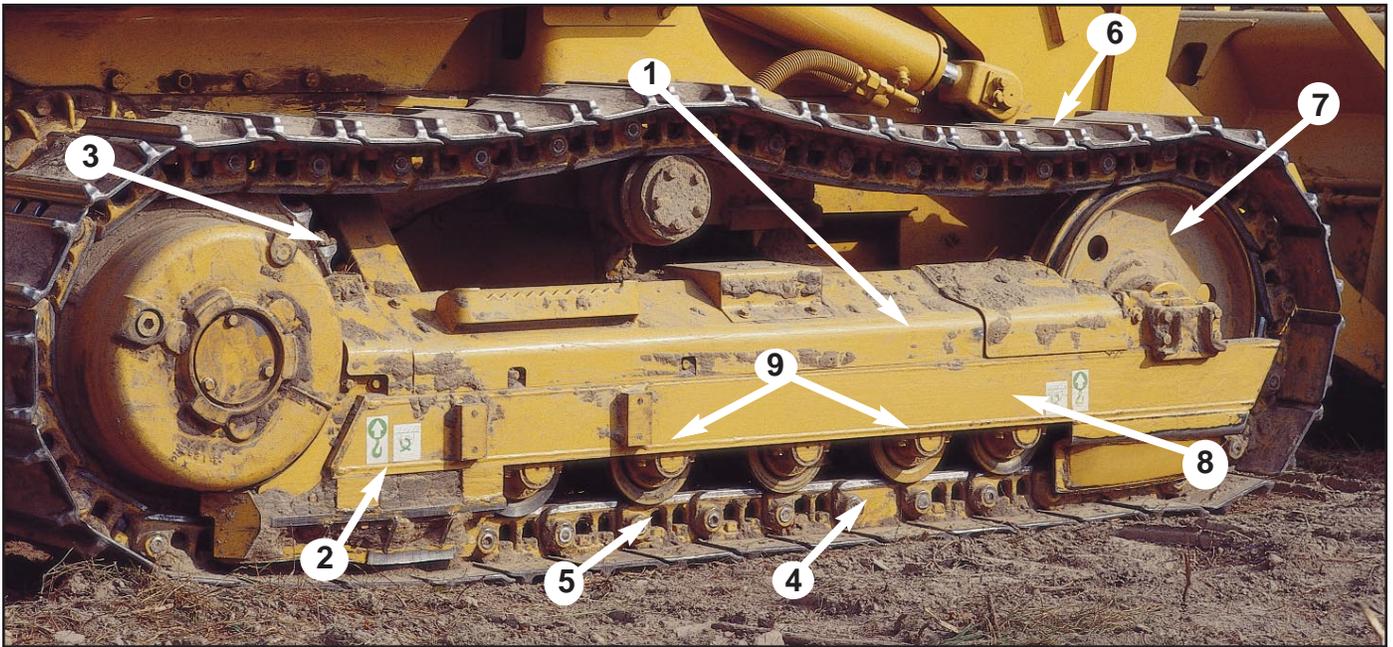
**Cylinders.** Large diameter hydraulic cylinders provide powerful force. Precision finished rods for minimal seal wear

**Four-plate loader tower** resists shocks and loading stresses.



# Undercarriage

*Components designed to provide you with maximum performance and wear life.*



Undercarriages are designed and built by Caterpillar for long wear life and low owning and operating costs. Two different undercarriage configurations are available, allowing you to spec the loader to best meet your job needs:

## Standard undercarriage

- A general purpose undercarriage that performs well in applications with firm underfoot conditions.
- Shoe width: 356 mm (14") triple grouser.  
Optional shoe width: 356 mm (14") double grouser.

## LGP undercarriage

- Low ground pressure (LGP) undercarriage offers a wider track, increasing ground contact area for optimum flotation, and greater stability.
- Double grouser shoe width: 635 mm (25").
- Optional self-cleaning shoe width: 635 mm (25").

- 1 Full length recoil guarding** with sprocket guards and wipers assists in reducing material buildup and helps prevent material from entering the undercarriage system for maximum component wear life.
- 2 Front and rear track guiding guards** provide additional protection from abrasive material. Rear guards are a bolt-on design making installation and removal easy.
- 3 Segmented sprocket** allows replacement of sprocket teeth without splitting the track, reducing downtime and lowering maintenance costs.
- 4 Split master link** features strong, serrated two half links for easy track removal. No driving pin is needed.
- 5 Sealed and Lubricated Track** eliminates internal pin and bushing wear for longer wear life. Strong, strutted links provide increased strength and service life.

- 6 Track shoes** are made from heat-treated steel for strength and durability.
- 7 Idlers.** Heat treated idlers are sealed and lubricated to provide long life.
- 8 Box-section track roller frame** provides maximum structural integrity for increased roller frame alignment, and reduces relative motion.
- 9 Track rollers.** Sealed and lubricated rollers eliminate internal wear for longer service life. Sequenced single and double flange rollers provide superior track link alignment.

## Serviceability

*More access and fewer maintenance requirements add up to unparalleled ease of service.*

**Zerk lube fittings** allow easy lubrication of loader linkage pivot pins to provide long life and maintain tight linkage.

**Removable engine enclosure** has a built-in grip handle and provides access to vertically mounted, spin-on engine oil and fuel filters, S•O•S valve, and fuel priming pump.

**Increased fuel tank capacity** provides you with more work time between refueling

**Engine oil dipstick, oil fill and radiator fill is easily accessed** through a hinged and lockable panel on top of the hood.

**Combined power train and hydraulic oil filters** are vertically mounted for cleaner changes and are easily accessible by removing the rear panel. An S•O•S valve is conveniently installed on the filter base for sampling power train oil.

**Ground level sight gauge** allows easy check of hydraulic oil level.

**Fuel/water separator** is accessed easily through a hinged door located at the rear of the machine.



## Total Customer Support

*When you purchase Cat equipment, you also get Caterpillar's and your Cat dealer's total commitment to customer support.*



Your Cat dealer offers a wide range of services that can be set up under a customer support agreement when you acquire a 933C Hystat loader or any other Caterpillar equipment. The dealer will help you choose a plan that can cover everything from machine and attachment selection to replacement intervals. The bottom line is you get the best return on your machine investment.

**Selection.** Your Cat dealer can help you make detailed comparisons of machines you are considering before you buy. You can compare things like expected component life, the cost of preventive maintenance and the true cost of lost production. You can get precise answers to these questions from your Cat dealer.

**Easy financing.** Consider all the flexible financing options your Cat dealer offers as well as day-to-day operating costs. Whether it's rental, leasing, or purchase, your Cat dealer can meet your needs.

**Maintenance.** Choose from your Cat dealer's wide range of maintenance services at the time you acquire your 933C Hystat loader. Repair option programs guarantee the cost of repairs up-front. Diagnostic programs such as S•O•S Oil Analysis and Technical Analysis help you avoid unscheduled repairs that can cost you unnecessary time and money.

**A Customer Support Agreement** can enhance the value of your 933C Hystat loader by lowering your costs per unit of production and puts your Cat dealer's superior support capabilities to work for you. They are flexible and customized to your individual needs, whether for a single machine or a whole fleet. Ask your Cat dealer for details.

**Product support.** Nearly all the parts needed to support the 933C Hystat loader are already available at your dealer's parts counter. Cat dealers use a world-wide computer network to find in-stock parts to minimize downtime.

**Replacement.** Throughout the life of your 933C Hystat loader, your Cat dealer can help you evaluate the cost involved with repairing, rebuilding or replacing. You can be assured that the choice you make will be the right one.

# Engine

Four-stroke cycle, in-line six cylinder Cat 3046 diesel engine.

Ratings at 2400 RPM*	kW	HP
Gross power	58.2	78
Net power	52.9	70

The following ratings apply at 2400 RPM when tested under the specific standard conditions for the specified standard:

Net Power	kW	HP	PS
Caterpillar	52.9	71	—
ISO 9249	52.9	71	—
EEC 80/1269	52.9	71	—
SAE J1349	52.2	70	—
DIN 70020	54.4	73	74

## Dimensions

Bore	94 mm	3.7 in
Stroke	120 mm	4.72 in
Displacement	5 liters	305 in <sup>3</sup>

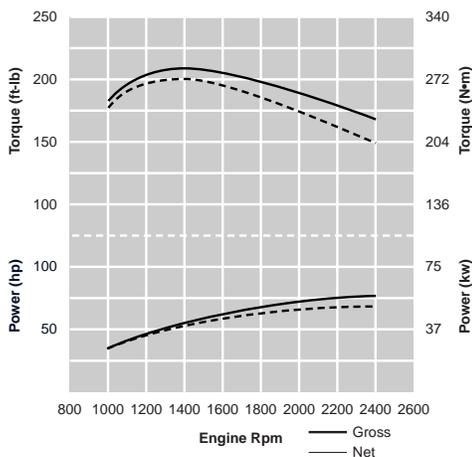
### \*Power rating conditions

- 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

## Features

- direct-injection fuel system with individual adjustment free injection pumps and valves
- electric fuel shutoff solenoid
- one-piece head with two valves per cylinder
- composition steel laminated head gasket
- aluminum pistons with cast iron insert, two compression rings and one oil ring
- high carbon steel forged iron connecting rods
- steel-backed aluminum bearings with lead-tin overlay
- seven main bearing forged crankshaft, fully counterweighted and hardened
- oil pump, gear driven from the crankshaft
- piston cooling jets
- multi-plate, water-cooled oil cooler
- belt-driven water pump
- conventional core radiator with 533 mm (21") fan
- dry-type air cleaner with primary and secondary elements and a restriction indicator
- 12-volt direct-electric, gear reduction starter with terminal shielding
- 55-amp alternator standard with ROPS canopy; 90-amp alternator standard with optional cab
- 12-volt, 900 cca, group 31, maintenance free battery with disconnect switch
- in-cylinder glow plugs with built-in temperature switch
- vertically mounted, spin-on oil and fuel filters

## Engine Performance Curve



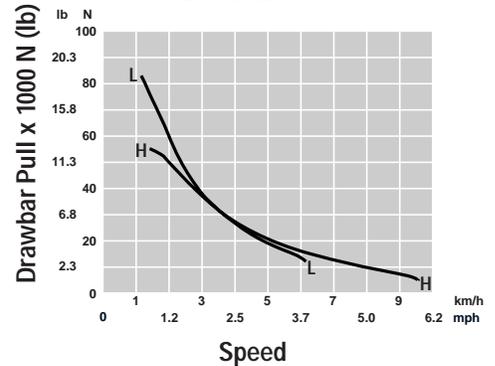
# Hystat Transmission

Dual-path, hydrostatic drive provides infinitely variable speeds up to 9.0 km/h (5.6 mph), forward or reverse.

## Features

- each track is driven by a separate variable-displacement piston pump and motor combination
- drive pumps: two variable-displacement, slipper-axial piston pumps mounted tandem-style to engine flywheel housing
- track motors: two 2-speed, link-type piston motors mounted inboard of main frame at the final drives
- full flow filtering of hydrostatic charge system oil
- relief valve settings: 42 000 kPa/420 bar/6100 psi
- charging pumps: two gear-type, one per drive circuit

## Drawbar Pull



# Implement Hydraulics

Open-centered, parallel system. System is completely sealed.

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## Implement system, gear-type pump

Output at rated engine RPM and 6895 kPa (1000 psi)	103 liters/min	27 gpm
Relief valve setting	19,820 kPa	2875 psi
Cylinders, Lift, double acting: bore and stroke	102 x 607 mm	4.0 x 23.88 in.
Tilt, double acting: bore and stroke	89 x 551 mm	3.5 x 24.5 in.

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## Hydraulic cycle time

Raise	5.8 sec
Dump	1.7 sec
Lower, empty, float down	2.0 sec
Total	9.5 sec

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## Bucket controls

Lift circuit (raise, hold, lower, float) automatic kickout in raise  
can be switched on/off by switch

Tilt circuit (tilt-back, hold, dump, regen dump) automatic bucket positioner-  
adjustable to desired digging angle

## Features

- large-capacity single section gear pump
- lines are steel tubing and high pressure XT-3 hose with O-ring face seals at connections
- system sealed to keep out wear-causing dirt
- protected by two 7 micron filters which help prevent foreign material from entering reservoir
- standard two-valve hydraulics for lift and tilt
- optional three-valve hydraulics for lift, tilt and MP bucket
- optional four-valve hydraulics for lift, tilt, MP bucket and rear implement
- spring-centered, double acting valves with precision metering
- needle bearing yokes on all major pivot points
- single lever control for lift and tilt
- automatic bucket positioner and lift kick out
- multi-function capability for fast truck loading and material spreading applications

## Final Drives

### Hystat System Features

- double-reduction, with outboard planetary gear set
- mounted independently of track frames to isolate them from machine weight and ground-induced shock loads
- externally mounted for easy maintenance and service

## Weights

(Approximate)\*

	kg	lb
GP	8,485	18,690
MP	9,010	19,845
LGP	8,744	19,260

\* Operating with OROPS, bucket, recommended counterweight, operator, no teeth/segments, fully fueled.

## Steering and Braking

### Hystat System Steering Features

- single lever steering and direction control
- moving control lever left or right slows that track, causing machine to turn smoothly in that direction with full power to both tracks
- full lever movement left or right causes that track to stop
- hydrostatic steering eliminates steering clutches and brakes, eliminates adjustments too

### Hystat Service Brake Features

- hydrostatic (dynamic) braking through machine drive system using transmission control lever or center brake pedal

### Hystat Parking Brake Features

- wet, multi-disc brakes located between each hydraulic track motor and final drive
- spring applied, hydraulically released by oil pressure from hydrostatic charge circuit
- automatically applied when the engine stops, or in the event of transmission hydraulic oil pressure loss
- operator applied when the center pedal is fully depressed, or when the parking brake lever is in the “park” position
- Hystat control system meets SAE J1026-APR90.

## Service Refill Capacities

### Hystat System Capacities

	Liters	Gallons
Fuel tank	157	41.4
Crankcase and filter	13	3.4
Final drives, Standard (each side)	13.8	3.6
Final drives, LGP (each side)	20.5	5.4
Cooling system	21	5.5
Hydraulic tank	56.8	15

## Cab

Caterpillar cab and Rollover Protective Structure (ROPS).

### Features

- modular design
- tinted windows
- sliding right and rear windows
- electric wiper/washer controls
- nine adjustable ventilation ducts with three-speed fan
- front and rear wipers and washers
- sun visor
- dome light
- speakers, antenna, wiring and radio bracket
- cigarette lighter and ashtray
- cloth suspension seat and headrest
- 3" seat belt
- coat hook
- key lock
- insulated rubber floormat
- meets Falling Object Protective Structure (FOPS) criteria SAE J395a, SAE J231-JAN81, and ISO 3449-1992.

## Canopy

Rollover Protective Structure (ROPS). ROPS canopy is required in U.S.A.

### Features

- vinyl suspension seat
- 3" seat belt
- sound suppression headliner
- wide angle rearview mirror
- meets ROPS criteria SAE J1040-MAY94 and ISO 3471-1994
- meets Falling Object Protective Structure (FOPS) criteria SAE J395a, SAE J231-JAN81, and ISO 3449-1992

## Undercarriage\*

Rebuildable, deep hardened steel components.

	Standard	LGP
Shoe width	356 mm (14")	635 mm (25")
Length of track on ground	2055 mm (80.9")	2055 mm (80.9")
Track gauge	1448 mm (57")	1676 mm (66")
Ground contact area	15,420 cm <sup>2</sup> (2390 in <sup>2</sup> )	26,100 cm <sup>2</sup> (4045 in <sup>2</sup> )
Ground pressure	54 kPa (7.82 psi)	32.8 kPa (4.76 psi)
Number of rollers (each side)	6	6
Number of shoes (each side)	39	39

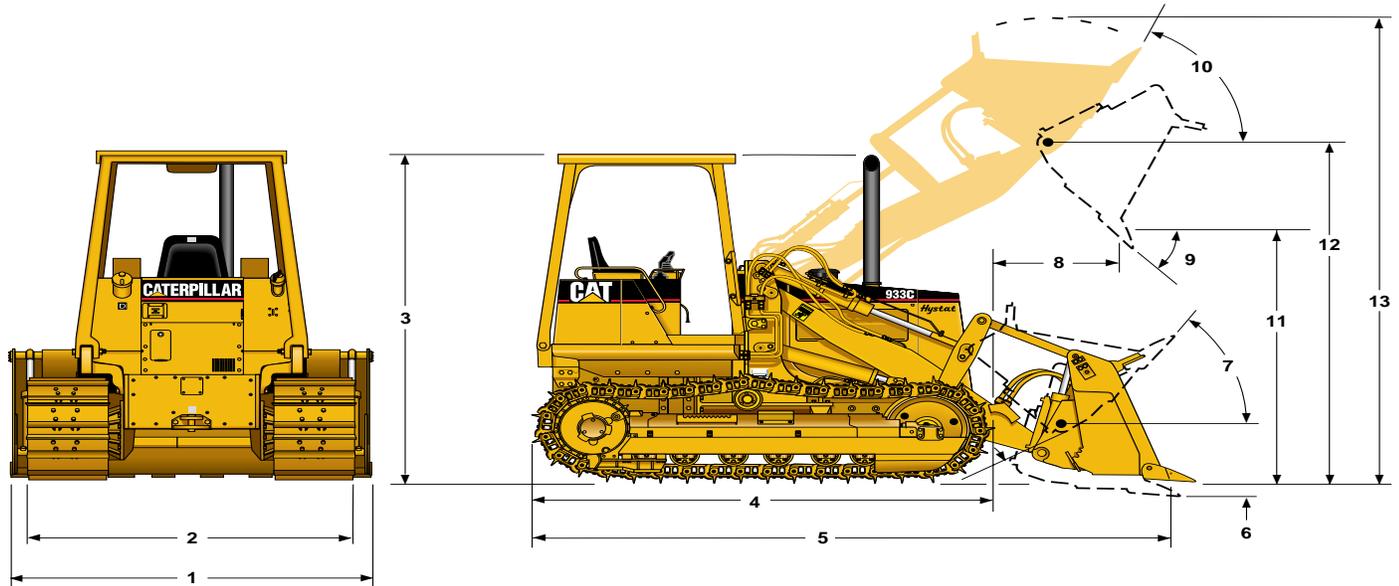
\*Equipped with general purpose bucket.

### Features

- Sealed and Lubricated Track
- hydraulic track adjusters
- box section track roller frames
- bolt-on rear track guiding guards
- full length recoil guarding with sprocket guards and wipers
- serrated, two-piece split master link
- segmented sprocket
- sealed and lubricated rollers and idle

# Loader Dimensions

Approximate dimensions are applicable to all 933C Hystat Track-Type Loaders.



Dimensions (equipped with GP bucket)	Standard		LGP	
1 Overall machine width with bucket	1969 mm	77 in	2330 mm	92 in
2 Overall machine width without bucket	1803 mm	71 in	2311 mm	91 in
3 Machine height to top of cab	2735 mm	108 in	2748 mm	108 in
4 Length to front of track	2955 mm	116 in	2955 mm	116 in
5 Overall machine length	4352 mm	171 in	4301 mm	169 in
6 Digging depth	148 mm	5.8 in	148 mm	5.8 in
7 Maximum rollback at carry position	50.2°		50.2°	
8 Reach at full lift height	839 mm	33 in	803 mm	31.6 in
9 S.A.E. specified dump angle	45°		45°	
10 Maximum rollback, fully raised	64.9°		64.9°	
11 Dump clearance at full height and 45° discharge	2692 mm	106 in	2728 mm	107 in
12 Height to bucket hinge pin	3315 mm	130.5 in	3315 mm	130.5 in
13 Overall machine height, bucket fully raised	4426 mm	174 in	4203 mm	165 in
Ground clearance	393 mm	15.5 in	406 mm	16 in
Grouser height	16 mm	0.63 in	29 mm	1.15 in

# Operation Specifications

		<b>GP Bucket Bare</b>	<b>MP Bucket Bare</b>	<b>LGP Bucket Bare</b>
Rated Bucket capacity <sup>β</sup> (Nominal Heaped)	m <sup>3</sup>	1.0	0.96	0.96
	yd <sup>3</sup>	1.3	1.25	1.25
Struck Capacity <sup>β</sup>	m <sup>3</sup>	0.84	0.79	0.96
	yd <sup>3</sup>	1.1	1.03	1.25
Bucket Width	mm	1969	1969	2330
	in	77	77	92
Dump Clearance at full lift and 45 discharge <sup>β</sup>	mm	2692	2642	2728
	in	106	104	107
Reach at full lift and 45 discharge <sup>β</sup>	mm	839	859	803
	in	33.0	33.8	31.6
Digging depth <sup>β</sup>	mm	148	160	148
	in	5.8	6.3	5.8
Overall machine length	mm	4352	4352	4301
	in	171	171	169
Overall machine height with bucket at full raise	mm	4426	4426	4203
	in	174	174	165
Static tipping load *	kg	5827	5626	5630
	lb	12,834	12,392	12,400
Breakout force	kN	77.4	71.3	83.6
	lb	17,390	16,016	18,792
Operating weight **	kg	8485	9010	8744
	lb	18,690	19,845	19,260

<sup>β</sup> Specifications and ratings conform to all applicable standards recommended by the Society of Automotive Engineers. SAE Standard J732 FEB80 and SAE Standard J742 OCT79 govern loader ratings.

\* Measured at operating weight with ROPS canopy.

\*\* Includes coolant, lubricants, full fuel tank, ROPS cab, bucket, 75 kg/165 lb operator and recommended counterweight.

Machine stability can be affected by the addition of other attachments. Add or subtract the following to/from machine operating weight and static tipping load:

	Change in Operating Weight		Change In Static Tipping Load	
Cab, ROPS	+204 kg	+450 lb	+266 kg	+586 lb
Bucket teeth (long) & segments	+118 kg	+260 lb	-150 kg	-330 lb
Air Conditioner	+77 kg	+170 lb	+88 kg	+194 lb
Ripper with 3 teeth (includes removal of 650 lb. rear counterweight)	+17 kg	+37 lb	+49 kg	+108 lb
Rear counterweight (per plate)	+115 kg	+255 lb	+203 kg	+448 lb

## Standard Equipment

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

Air-to-oil transmission cooler	Indicator lights:	Seat, vinyl, suspension with adjustable backrest and 3" seat belt
Air cleaner, dry-type with restriction indicator	Low alternator voltage	Segmented sprockets
Alternator, 55-amp	Transmission/hydraulic oil filter restriction	Service hour meter
Arm rests, four-way adjustable	Parking brake	Tool box with hinged lid
Automatic bucket positioner and lift kick out	Rabbit speed selection	
Battery, 12-volt, maintenance free, 900 cca with disconnect switch	Glow plugs	Track:
Blower fan	Guards, bottom	Adjusters, hydraulic
Cat 3046, 6 cylinder diesel engine with 12-volt direct electric key start/stop	Guards, recoil, full length with sprocket guards and wipers	Front/rear guiding guards
Engine enclosures, with grip handle	Horn	Roller frames:
Fuel/water separator	Hydraulic controls, two-valve, single-lever bucket control	Standard — six roller
Fuel priming pump	Hydraulic implement pump	LGP — six roller
Fuel/water separator	Hydrostatic transmission, dual path, closed loop	Sealed and Lubricated, two-piece master links
Foot rests, adjustable	Joystick control lever	Track shoes:
Gauges, illuminated, dash mounted showing engine coolant temperature, engine oil pressure, transmission oil temperature, and fuel level	Lifetime lubricated rollers and idlers	Standard — Sealed and lubricated, 39-section, 356 mm (14"), triple grouser
	Muffler	LGP — Sealed and lubricated, 39-section, 635 mm (25"), double grouser
	Parking brake - automatic	Vandalism protection
	Pre-cleaner	
	Pull hook, front	
	Retrieval hitch, rear	

## Optional Equipment

Optional equipment may vary. Consult your Caterpillar dealer for specifics. Approximate changes in operating weights.

	kg	lb
Air conditioning, cab	66	146
Back up alarm (required in U.S.A.)	*	*
Batteries, 12-volt, heavy duty, maintenance free, two 900 cca with disconnect switch	30	65
<b>Buckets:</b>		
General Purpose: 1.00 m <sup>3</sup> (1.3 yd <sup>3</sup> )	*	*
Multi-purpose: 0.96 m <sup>3</sup> (1.25 yd <sup>3</sup> )	*	*
LGP: 0.96 m <sup>3</sup> (1.25 yd <sup>3</sup> )	*	*
<b>Bucket cutting edge, bolt-on:</b>		
3-piece for GP and MP buckets	71	157
7-piece for use with bucket teeth	52	114
<b>Bucket teeth, short, bolt-on:</b>		
Set of 8 for GP and MP buckets	66	146
<b>Bucket teeth, long, bolt-on:</b>		
Set of 8 for GP and MP buckets	70	154
Cab, ROPS and mounting, includes 90-amp alternator, air pressurizer, air filter, heater, front and rear windshield wipers and washers, rearview mirror, sun visor, speakers and antenna, ashtray, cigarette lighter, coat hook and key lock	204	450
Canopy, ROPS and mounting, includes rearview mirror and headliner (required in U.S.A.)	*	*
Ether start aid	4	9

\* Included in operating weight.

	kg	lb
<b>Guards:</b>		
Bottom, heavy duty	58	128
Rock, idler	45	110
Roller, full length	67	148
Heater, open canopy	36	80
<b>Hydraulic arrangement:</b>		
3-valve, 1-lever bucket control MP bucket	16	36
3-valve, 1-lever bucket control, ripper	10	21
4-valve, 1-lever bucket control MP bucket, ripper	25	56
Lights, ROPS mounted, two front, one rear	15	32
Pre-cleaner with pre-screener	1	2
Ripper, includes three teeth and hydraulic cylinder	249	549
Ripper teeth, additional	12	26
<b>Screens:</b>		
Rear, for use w/ROPS canopy	30	66
Rear, for use w/ROPS cab w/o air conditioning	31	69
Rear, for use w/ROPS cab with air conditioning	24	53
Side	50	111
Seat, Caterpillar Contour Series with adjustable backrest and 3" retractable seat belt	28	62
Sweeps, logging	78	172
<b>Tracks:</b>		
Standard - double grouser, sealed and lubricated, 39-section, 356 mm (14") shoes	37	81
LGP - self-cleaning, sealed and lubricated, 39-section, 635 mm (25") shoes	-74	-163

## Available Rear Counterweights

To provide optimum performance for each machine configuration, 6 counterweight options are available ranging from 217 lbs (99 kg) to 1370 lbs (621 kg).

## Complete Versatility

From the beginning of a job straight through to the end, the 933C Hystat Track-Type Loader is a versatile tool.



### One machine for all jobs!

Most of the first steps on any job can be accomplished easily with the help of the 933C, beginning with clearing the job site by loading and carrying debris, as shown above. Excavating and carrying/spreading material, above right, are also crucial elements to any job. The 933C is the perfect tool to perform them. Rounding out the job, below right, the 933C greatly facilitates trash cleanup, loading, and finish grading work.



# 933C Hystat Track-Type Loaders



## Your Cat Dealer

There is one very important component included with every Caterpillar 933C Hystat Track-Type Loader that no one else can offer: your Cat dealer.

Whether you have questions about performance, service or financing, your Cat dealer has the answers. He is dedicated to helping you make the right equipment choice for your requirements.

Plus, your Cat dealer has most parts you will ever need for your Cat equipment right on the shelf. If not, the dealer's worldwide computerized network will immediately find the closest location of the part you need, minimizing your downtime.

When you need more details about the 933C, contact your Cat dealer. You'll find he's easy to talk to. And he's genuinely interested in talking with you.

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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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