953D

Track Loader

Engine		
Engine Model	Cat® C6.6 ACERT™	
Flywheel Power	110 kW	148 hp
Buckets		
Capacity – General Purpose	1.85 m^3	2.42 yd^3
Capacity – Multi-Purpose	1.6 m^3	2.09 yd^3
Weights		
Operating Weight	15 517 kg	34,209 lb

953D Track Loader

Engine

✔ The Cat® C6.6 ACERT engine utilizes the Caterpillar® Common Rail fuel delivery system. Designed for performance, durability, serviceability, and fuel economy, it meets EPA Tier 3, EU Stage IIIA and Japan Ministry of Land, Infrastructure & Transport Step 3 emission standards. **pg. 4**

Operator Station

✔ Experience a high level of efficiency, comfort and productivity with the new D-series cab. The cab features a new gauge cluster, a fully air-suspension seat, the new seat mounted controls, an automatic air climate control and provides excellent visibility. **pg. 6**

Monitoring System

✔ The 953D incorporates a new smooth, rounded, molded gauge cluster with integral defroster vents. Together with Cat® Messenger, it displays all necessary information within the operator's normal line of sight. **pg. 8**

SystemOne™ Undercarriage

The revolutionary Cat SystemOne Undercarriage provides maximum undercarriage life and reliability no matter the application, environment or underfoot conditions. Built to last longer and require less maintenance it ensures a dramatic drop in owning and operating costs. **pg. 12**

Versatility

A large choice of buckets, Ground Engaging Tools (GET), and attachments, allow configuration of the 953D for maximum performance in any job. Cat work tools retain the proven shell-tine construction design for unmatched durability. **pg. 14**

Increased horsepower, excellent maneuverability, redesigned operator cab for comfort, the revolutionary SystemOne™ undercarriage and the new implement system increase your productivity, drastically reduce your operating costs and make the new 953D unsurpassed in versatility.

Hydrostatic Drive

✔ The closed loop hydrostatic drive with electronic control provides precise modulation for quick, smooth operation and superior maneuverability. Shorter cycle times, high efficiency, and excellent maneuverability results in increased productivity. **pg. 9**

Implement System

✔ The 953D features a load sensing implement pump which reduces engine power consumption. The new electro-hydraulic implement controls lower the operator's effort. And the new position sensing cylinders allow setting detents at any positions from the cab. **pg. 10**

Structure

✔ The D-series Main Frame and Loader Tower provide durability, resistance to twisting, and a solid base for all components. The Z-bar linkage offers high breakout force and fast dump speed for enhanced productivity. **pg. 11**

Serviceability and Customer Support

✔ The new 953D is equipped with a tiltable cab that allows complete service of the hydraulic system. Most daily maintenance checks are performed from the machine's right side. **pg. 16**

Special Application Arrangements

Special arrangements – Waste Handling, Wide Gauge and more, are available or can be designed on request, to allow the 953D to work in special applications. **pg. 18**

✔ *New Feature*

Engine

Provides power, reliability and acts as a working counterweight in the rear of the machine, for optimum machine balance.

Cat C6.6 ACERT™. The Cat® C6.6 is a 6.6 liter (403 in³) displacement, six-cylinder, in-line configured engine that utilizes the Caterpillar® Common Rail fuel system for fuel delivery. 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 C6.6 with ACERT Technology offers a compact design with big, heavy-duty engine features for outstanding durability, reliability and performance. The C6.6 incorporates a new cross flow cylinder head design, 4 valve head and an ADEM™ A4 electronic controller. The C6.6 also features proven cylinder block, pistons and crankshaft and incorporates the common rail fuel system. ACERT™ Technology enables the C6.6 engine to meet the U.S. EPA Tier 3, European Union Stage IIIA and Japan Ministry of Land, Infrastructure & Transport Step 3 emissions standards, which dramatically reduce nitrogen oxide (NOx) and other emissions.

ACERT™ Technology used on the C6.6 consists of three basic building block systems: electronic control, fuel delivery, and air management. These have been refined to control the combustion process to a higher degree than ever before possible.

Electronic control ADEM™ A4. The Advanced Diesel Engine Management – Electronic Control Module continuously monitors important engine conditions and functions. It uses sensors throughout the engine to regulate fuel delivery and all other engine systems that require input to manage load and performance. ADEM™ A4 is the brain behind engine responsiveness, self-diagnosis, controlling emissions, and fuel economy.

Fuel System. Through multiple injection fuel delivery, fuel is introduced in the combustion chamber in a number of precisely controlled microburst. Injecting fuel in this way allows for precise shaping of the combustion cycle. The ADEM™ A4 module directs the injectors to deliver precise quantities of fuel at exactly the right times during combustion cycle.

This process provides precise control over a range of combustion variables, which can be regulated to produce higher performance with fewer emissions. Fuel is delivered at high pressure to each combustion chamber through a Caterpillar designed injector linked to a high pressure Common Rail.

Air Management. Air management is a key concept in optimizing engine performance and controlling emissions. Engines must breathe clean cool air in order to perform. To aid this, the C6.6 uses a turbocharger fitted with a smart waste gate to give precise and reliable control of the boost pressure. 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.

Fuel pump. The C6.6 uses an oil-lubricated high-pressure fuel pump to feed the common rail. By using an oil-lubricated fuel pump, the C6.6 has been designed to be more tolerant of alternative fuels.

Fuel Priming Pump. An electrical fuel-priming pump, standard, is located between the fuel tank and the combined water separator/primary fuel filter.

Starting System. The Electronic Speed Selector Switch (A), a "rocker" switch located on the right console, sets the engine rpm. The ADEM A4 engine controller will always start the engine in low idle. The engine rpm can be seen on the digital display of the instrument cluster in the gage cluster or in the performance menu in Messenger.

Air-to-Air After cooler (ATAAC). The air-to-air after cooler is a single pass, aluminum, heat exchanger or cooling system for the pressurized air coming from the turbocharger, before it enters the engine intake manifold. Cooling the pressurized air from the turbocharger makes the engine intake air even denser. The increased air volume in the cylinders results in more power, improved combustion, and reduced exhaust emissions.

Servicability. Unit injectors and high pressure fuel lines can be serviced individually, without the need to service the whole fuel system.

Engine Installation. The engine is installed using rubber mounts to reduce the transfer of engine vibration to the frame and cab, lowering operator vibration, sound levels, and fatigue.

Rear Engine Location. Rear engine location allows excellent forward visibility, while serving as a working counterweight. It also helps reduce radiator plugging while providing easy service access to the engine and other major components.

Cooling module architecture. The cooling system is a single cooling unit, which includes Radiator, ATAAC, Oil cooler and Fan installation. The cooling module is located at the rear of the loader, away from dust and debris stirred up by the bucket while the machine is working.

Hydraulic on-demand fan. The fan is a hydraulic demand type one with optional reversible function, operating in sucker mode. It gives the best efficiency and avoids also sucking the dust and debris coming from the outside into the cooling package.

The complete cooling package has been designed for a very easy maintenance with a complete accessibility to the cores for cleaning (fan door swing out opening, latches), and a very high safety level.

Operator Station

Designed for operator comfort, convenience, and ease of operation throughout the workday.

Heating and Air Conditioning.
Air conditioning is standard on 953D. Both the air conditioning and the heater deliver filtered, pressurized, temperature-controlled air to the operator and windows through 10 louvered vents.

Caterpillar Air-suspension Seat.
The Caterpillar air-suspension seat, with side-to-side isolator, is ergonomically designed and fully adjustable for maximum operator comfort and control. Retractable seat belt is 75 mm (3 in) wide for positive, comfortable restraint.

Seat mounted controls. Seat mounted controls provide less vibration for the operator and a combined seat and controls adjustment.

Armrests. The right hand side console features an adjustable armrest, wrist rest and joystick mount. The left armrest height is adjustable.

Total adjustability lets the operator customize the armrests to the most comfortable position.

Messenger. Messenger is a new electronic monitoring system with real-time, visual feedback on engine and machine operating conditions. It provides information on diagnostic data, maintenance, and allows operating settings such as implement reactions.

Electro-hydraulic implements controls.
The new electro hydraulic implement controls on the 953D provide the operator with responsive, smooth and precise control of bucket and lift arms. Choice of joystick or two-lever control is available for bucket lift and dump.

Kickout settings. Automatic kickouts are part of the electro-hydraulic controls; adjust from inside the cab with a simple rocker switch. Kickout stops are hydraulically cushioned for greater operator comfort and less material spillage.

Viewing Area. Large windows use tinted glass to reduce glare and provide an excellent view to the bucket, tracks, and around the engine enclosure to the rear. Side windows slide top down to allow the operator to let fresh air into the cab and communicate.

Rearview Mirror. The rearview mirror is located above the front windshield, maximizing the operator's visibility.

Dome Light. A dome light is located in the cab headliner.

Radio Installation Arrangement.
A standard feature in the cab is a Radio Installation, which includes a 24-volt to 12-volt converter and speakers.

A Caterpillar heavy-duty (AM/FM) radio/CD player and satellite radios are available from dealers.

Storage spaces. Storage spaces include a removable lunch box, a beverage holder and storage and a coat holder.

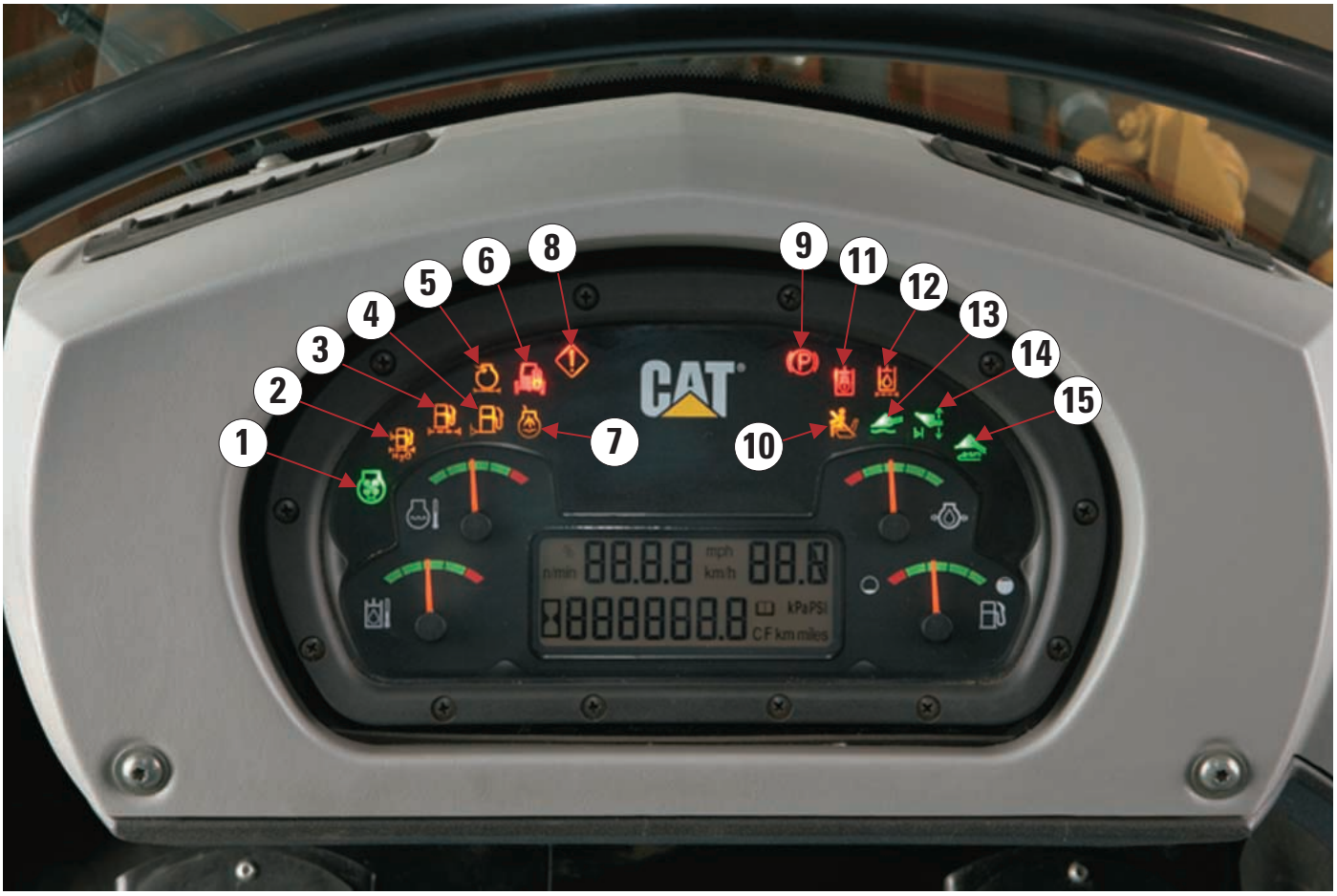
Working lights. Up to eight working lights are available on the 953D.

Door release lever. The door's release lever is accessible from the ground and the seat to unlock the door conveniently.

Machine Security System.
Eliminate machine theft and unauthorized usage with the Cat Machine Security System (MSS). It is integrated into the machine's electronic system and can protect your equipment by requiring a uniquely coded key to start the machine.

Monitoring System

The gauge cluster provides all necessary functions and information within the operator's normal line of sight.



The 953D gauge cluster display. The gauge cluster provides all necessary information within the operator's normal line of sight.

The 953D gauge cluster display includes:

- Four direct reading gauges
- Fifteen alert indicators
- A numeric message display
- Gauge Cluster

Alert indicators. The fifteen alert indicators used on the 953D are:

1. Reversible fan
2. Water separator
3. Fuel filters plugging
4. Fuel level
5. Engine air filter plugging
6. Machine security system
7. Ether starting aid
8. Warning lamp
9. Parking brake
10. Operator presence
11. Hydraulic lockout
12. Hydraulic oil filter
13. Bucket float
14. Lift kickout/lower kickout
15. Bucket leveler

Gage cluster-self test. The gauge cluster self-test verifies that the main display module is operating properly every time the key start switch is turned from the "off" to the "on" position.

NOTE – If the machine is not equipped with Messenger, the numeric display will show fault codes.

Hydrostatic Drive

The electronically controlled hydrostatic drive helps provide quick response for shorter cycle times and increased productivity.

The electronically controlled hydrostatic drive system automatically matches machine travel speed to the combined travel and implement loads on the machine, enabling maximum travel speed, up to the speed selected by the operator.

Electronic Hydrostatic Control (EHC). Hydrostatic system has integrated electro-hydraulic controls, sized for optimum performance and efficiency.

Position in the machine provides ease of access for serviceability.

Variable Displacement Pumps and Drive Motors. Variable displacement pumps and drive motors are electronically controlled by the EHC, offering high efficiency and precise travel. Each track is independently driven by a separate hydraulic circuit consisting of one pump, connected by Cat XT-6™ hydraulic hose and couplings to a piston motor.

Fuel Management System. This system allows the operator to select a lower RPM setting for reverse. Three selections are available in Messenger to match the engine speed in reverse to the application. Full speed is achievable in all settings.

Travel Speeds. Travel speeds are infinitely variable between zero and top speed. Two speed modes "work" and "travel", provide two different speed ranges to best match machine speed and torque to the job conditions for maximum productivity. Maximum travel speed is 10 kph (6.2 mph) when the switch is set in the travel position.

Hydrostatic Drive System Controls. The control systems allow quick speed and directional changes. Two power train contol options are available:

1. The V-lever system includes a single speed direction control lever and steering pedals that can be adjusted from 35° to 50° depending on operator preference and allow precise control of each track independently and on-demand counter rotation. An emergency brake pedal is located between the two steering pedals.
2. The joystick system features an S-lever pattern steering including a single joystick handle for speed, direction and steering functions, foot rests and an emergency brake pedal. Counter rotation is possible from moving or immobile machine. This power train control system is comparable to the drive system known from the Cat Multi Terrain and Skid Steer Loaders. A black button is located on the top to activate the horn.

Speed Switches. Both systems include speed mode switches.

For the V-lever system a "work mode" and "travel mode" switch allows to best match the machine speed to various job conditions. Switching between travel and work mode takes effect immediately.

The joystick includes two yellow buttons for maximum transmission speed setting. It features three machine travel speed limits, to best match application and controllability requirements. Limit increase and decrease take effect immediately.

Steering. Steering is accomplished by changing relative pump flows and/or motor displacements, which causes one track to rotate slower than the other track.

Maneuverability. The hydrostatic drive train also offers independent power and control of each track, with fast acceleration, infinitely variable speeds, and automatic, on-the-go, direction changes for each track. The operator can command smooth "power turns" or even counter-rotation of the tracks by simply pushing one of the steering pedals, if the machine is equipped with the V-lever, or moving the joystick in the right/left axis while the machine is stationary. The Caterpillar hydrostatic drive system manages itself, freeing the operator to concentrate on using the Cat track loader's superb agility, speed, and maneuverability to do more productive work.

Implement System

Work smart and move more.

Electro-hydraulic Implement Controls. Electro hydraulic implement controls on the 953D provide the operator with responsive, smooth and precise control of bucket and lift arms. They also allow the operator to set personal parameters through the optional Messenger such as implement reactions.

Automatic kick-outs. The standard programmable automatic kick-outs provide flexibility and productivity for precise load and dump target heights. Tilt and lift kickouts are set by positioning the bucket or work tool and setting a rocker switch in the cab.

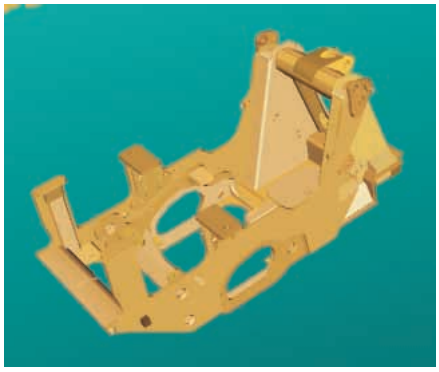
Load sensing hydraulics. The 953D features a load sensing hydraulic system that automatically adjusts to operating conditions to provide only the hydraulic flow required by the implement for improved fuel efficiency.

Position sensing cylinder.
Position sensing cylinders allows to:

- Set detents at any positions according to the applications without operator leaving the cab
- Advanced automatic features as drop catch (accelerate and stop smoothly) and snubbing (smooths start and stop cylinder motion)
- Set tilt and lift kickouts
- Sensing of the cylinder end of stroke
- Prevent unintended motion.

Structure

Durable slab section frame and loader tower with increased space for larger components.



Mainframe and Loader Tower. The 953D Main Frame and Loader Tower is a single, slab rails with reinforced crossings, with castings and forgings incorporated at points of high stress, to distribute those stresses over wider areas for long structural life.

Design. The part of the frame below the engine and operator's station consists of two slab-section side-frame rails, which are joined at the rear by a box-section cross member. The Slab-section 953D frame resists twisting and impact forces to provide a solid foundation for all the components it supports. Mounting points for the final drives, pivot shafts, and platform are built into each mainframe side rail.

Frame side plates. The frame side plates are made of mild steel, which provides strength and resists shock and bending stresses. "Deep penetrating", "Backed up" welds are used for maximum strength.

Loader tower. The loader tower is integral with the basic main frame. The one slab plate continues forward to become one side of the loader tower in order to provide smooth transition to loads from linkages to the mainframe rails. The loader tower provides a solid mount for lift arms, lift cylinders, and Z-bar tilt cylinder. A box-section cross member is welded below the two inboard loader tower plates to add strength. The equalizer bar, which connects the track roller frames to the main frame, is mounted below the loader tower. The result is an integrated main frame and loader tower assembly which will accommodate maximum loads capability. The engine is at the rear, where its weight serves as a "working counterweight" to balance the machine for full bucket loads without adding inefficient "dead" weight.

Z-Bar linkage. Breakout force is exceptionally high due to mechanical advantage of Z-bar linkage design, and hydraulic pressure applied to the head end of the tilt cylinder. Using a single tilt cylinder and linkage provides the operator a better view of the work area, bucket, and cutting edge.

Sealed Loader Linkage. The 953D linkage has fewer grease points compared to other linkage designs because every pin joint is sealed to keep grease in and dirt out. Fewer grease points and sealed pins means less downtime for maintenance allowing more working hours between servicing.

Lift Arms. The two arms are welded into a single unit, using a weld-fabricated cross-tube.

The tilt link (Dog Bone) is a single forging. The 953D linkage design combines the advantages of strength and durability with minimum structural weight, so that productivity is not penalized by excess weight in the linkage.

SystemOne™ Undercarriage

The SystemOne undercarriage was designed exclusively for Caterpillar machines to reduce customers' operating costs, downtime and maintenance intervals.

Revolutionary Undercarriage. SystemOne™ is the latest innovation in a century of undercarriage leadership. Nearly every major undercarriage improvement over the last 100 years has come from Caterpillar. It was designed to reduce customers' operating costs and maintenance intervals.

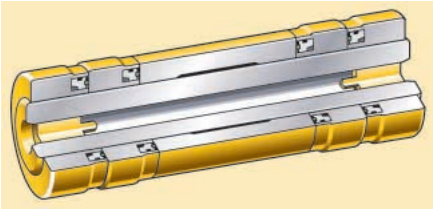
The revolutionary Cat SystemOne™ Undercarriage provides maximum undercarriage life and reliability no matter the application, environment or underfoot conditions. Built to last longer and require less maintenance it ensures a dramatic drop in operating costs.

Track Roller Frames. The track roller frames are a welded, box section design, which provides strength and resistance to bending without adding extra weight. The track roller frames are pinned at the rear to the loader main frame with pivot shafts, which allow the front of the track roller frames to swing or oscillate about the pivot shafts at the rear.

Guiding System. Better, more rigid guiding. The guiding system contacts link rails instead of pin ends and helps keep the track within the roller system.

Rollers. The 953D has six track rollers, which spread machine weight over a large area and a single upper carrier roller on each side mounts to the machine mainframe.

The rollers and carrier rollers have been redesigned to run with the system. This will lead directly to better guiding. All rollers in this new system are all single flange rollers with increased flange diameter. This will also increase your guiding capability.



Cartridge Joints. Factory-sealed cartridge joints are 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 new Cat undercarriage products, they are filled with special oils.

Track Shoes. The shoes for SystemOne™ are unique to this system. Several track shoe types tailor your machine for work in all underfoot conditions. The SystemOne links have a straight rather than offset bolt hole pattern.

Double grouser standard or narrow track shoes are available. The standard shoe can be fitted with center hole to reduce material packing.

Long-life Sprockets. The sprockets, thanks to the rotating bushing design track, will be able to be reused over the life of a couple of undercarriages. This helps to cut down on replacement cost.

Idlers. New redesigned idlers, specifically optimized for the track type loaders to maximize performance and comfort.

Oscillating Undercarriage. The undercarriage on the 953D features an "oscillating track roller frame design" which decreases ground shock to the machine, increases machine stability, and provides a smoother, more comfortable ride for the operator. Oscillating track roller frames keep more of the track on the ground when operating on uneven terrain, which increases machine stability, felt by the operator, allowing faster machine operation, increased machine productivity and reduced operator fatigue.

Track Adjuster. The track adjuster and mechanical recoil system uses a large 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 loads.

Equalizer Bar. The equalizer bar is pinned in its center to the machine mainframe and at the ends to each track roller frame. This allows the forward ends of the track roller frames to oscillate, or move vertically, to keep more track on the ground in uneven underfoot conditions. The equalizer bar also provides a more stable work platform for the operator, who will be comfortable working at faster speeds for increased productivity.

Versatility

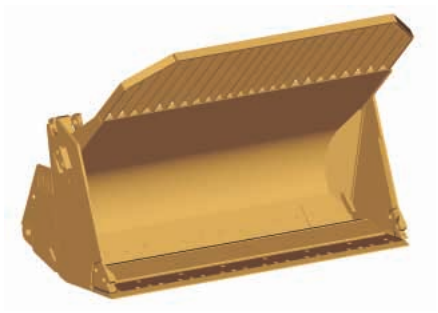
The large variety of tasks an operator can perform with the standard machine and Work Tools has lead to the Caterpillar Track Loader's reputation for versatility.

General Purpose Bucket. The General Purpose (GP) bucket is designed for excellent loadability and long life in a broad range of applications such as hard bank excavating, stripping and stockpile loading. High-strength, low-alloy steel helps the bucket resist dents and abrasions.

The bucket is made of high-strength, low-alloy steel plate for resistance to dents and abrasions. The shell-tine design in the bucket back and floor offers increased structural strength.

Multi-Purpose Bucket. The Multi-Purpose (MP) bucket combines the performances of a standard bucket, dozer blade and clamp. The bucket provides maximum versatility combined with strength to handle a broad range of applications, such as loading, stripping topsoil, clearing, bulldozing, picking up debris and fine grading.

General Purpose Landfill Bucket. With the integrated trash-rack, the General Purpose Landfill (GP Landfill) bucket becomes ideal for digging, loading and carrying as well as dozing and spreading material at landfills, or loading refuse at a transfer station.



Multi-Purpose Landfill Bucket. The Multi-Purpose Landfill (MP Landfill) bucket combines the versatility of a Multi-Purpose bucket with the performance of a landfill design. Constructed with a trash-rack for increased capacity, extra strength and better load retention. Ideal for applications in the harsh refuse market, whether digging or spreading material at the landfill or grasping and loading refuse at a transfer station.

Bucket Protection Options. Caterpillar offers several types of adapters, tips, and cutting edges, which increase bucket life and maximize performance.

K Series™ Tooth System. The K-Series tooth system provides longer tip and adapter life, faster cycle time with greater bucket fills and reduced machine strain. Therefore, it contributes to the reduction of operating costs.

Easy and convenient during the installation, this new system provides a very good response to the need of reliability and durability of such components.

Longer Tooth Life. Tips are installed with a slight twist and secured with a one-piece retainer, providing less tip movement and nose wear.

Stable System Geometry. Opposing, sloped rails on the adapter provide full length stabilization with minimal movement. The tip bears directly on the end of the adapter nose to absorb thrust loads, leading to better tip retention and a longer adapter life.

Easy Installation and Removal. Opposing sloped side rails and flanks keep the tip on the nose as the retainer is being installed and removed. The one-piece vertical retainer requires low force and no special tools, allowing faster and easier removal and installation, amounting to less machine down time for tip changes.

Sharper Digging Profile. Lower height at the front and the back of the nose provides a sharper profile. This provides more production, less machine strain and lower cost of machine operation.

Reversible Tips. Each tip ear has a retainer groove with a locking recess. Tips can be run in one direction, then "flipped," or reversed, to get the maximum use of wear material from the tip.

Tip Options. Caterpillar GET offers a variety of tips to better accommodate your needs in any working environment, whether that is high impact or general-purpose applications.

These and other GET options are available from your Caterpillar Dealer.

Penetration Tips. Pentration tips are extremely strong and are for use in high impact and pry-out work such as rock.

General Duty Tips. General duty tips are for use in most general applications where breakage is not a concern.

Extra-duty Tips. Extra-duty tips are for use in general loading and excavation work. They have thirty-six percent more wear material than on general duty tips. Provides increased strength, extended service life, and low cost-per-hour.

Ripper-Scarifier. A radial ripper-scarifier is available for the 953D as an attachment. It is mounted with two pins pressed into each side of the main frame. Two cylinders raise and lower the ripper. The ripper beam has three pockets for holding ripper shanks. The six pins in the linkage do not require lubrication.

The 953D ripper-scarifier is intended for ripping frozen ground, asphalt and easily ripped rock. It is not designed for hard rock.

Additional Work Tools. Beyond the GP and MP buckets and the Ripper-scarifier your Cat dealer offers: Side-Dump Buckets, Landfill Buckets, Straight Trim Blades, Pallet Forks, Extendible Material Handling Arms, and Quick Couplers.

Serviceability and Customer Support

Grouped service points and excellent accessibility make the 953D easy to maintain.

Tiltable Cab. The 953D is equipped with a tiltable cab. This feature makes the maintenance and the repairs easier. By tilting the cab, you can access to the drive train and perform complete service of the hydraulic system.

Right side compartments.

- The fuel tank and the optional quick fill port are located on the right side compartment, below the cab access.
- The two maintenance-free batteries, the machine ECM and the window washer reservoir are located on the right side compartment, accessible from the ground.
- The engine compartment has large hinged openings with latches. On the door, you can clip a grease gun.

You can access to the following maintenance and service points:

Primary and secondary engine air filter

Engine air pre-cleaner

Water in fuel separator

Fuel filter

Engine crankcase breather filter

Engine oil filter

The sediment pump (option)

The electric fuel-priming pump

The dipstick for the oil level in the engine crankcase and the fill tube

The electrical disconnect switch

Cooling System. The fan and the grill swing open, providing excellent access for clean-out and maintenance. The heavy duty latched grill minimizes debris build-up.

Ground Level Shutdown. The Engine Control ECM monitors the status of a switch that is mounted behind a cover at the rear of the machine, allowing the machine to be shut down from ground level in emergency situations.

Left side compartments. Left engine compartment includes two spin-on hydraulic oil filters that provide filtration for the hydrostatic system.

The lower part of the compartment door can be used as a step to access the shunt tank fill, the air pre-cleaner (if equipped) and allows easy cleaning of the rear window.

Cab Air Filter. The cab air filter, the grouped pressure taps, the cab tilt locking bar, the optional tilt cylinder and the tool box are conveniently located below the left-side cab window.

Hydraulic Tank. The hydraulic tank is located in the front of the machine. It is accessible without raising the lift arms. A site gauge allows oil level check from the ground.

Fuse Panel. The fuse panel is located to the inside of the cab, on the rear right side console. It includes the ET port.

Easy Diagnosis. The gauge cluster and self-diagnosing Electronic Hydraulic Control (EHC) work together to warn against faults to reduce downtime.

S•O•S Fluid Taps. Simplifies drawing fluid samples for Scheduled Oil Sampling and reduces sample contamination.

Quick-Connect Fittings. The quick-connect hydraulic grouped pressure taps allow quick diagnosis of the hydrostatic drive and the implement hydraulic systems.

Product Link. This attachment allows the customer or dealer to remotely obtain machine diagnostics. Product Link provides updates on service meter hours, machine condition, machine location, and integrated mapping/route planning.

Complete Customer Support. Cat field service technicians have the experience and tools necessary to service your loader on site. Technical experts at the dealership and Caterpillar can provide additional assistance to field service technicians as needed. When on-site repair isn't enough, Cat dealerships are fully equipped to service your loader quickly.

Shovel Holder. As an optional attachment, a shovel holder, located on the rear right side of the machine, is available for undercarriage cleaning.

SAFETY.CAT.COM™.

Special Application Arrangements

Special arrangements improve the 953D's performance in special applications.

With the addition of certain special modifications, the capabilities of the 953D can be further expanded to handle some very harsh working conditions.

Waste Handling Arrangements. Waste Handling arrangements provide added protection and are designed to make the 953D perform well in landfills, or any waste handling applications where the machine spreads, compacts, sorts, shreds and crushes materials.

Shiphold Arrangement. The 953D with its low ground pressure and excellent stability works well on top of loose materials, cleaning the cargo from the sides of the holds and moving it into position for the unloading system. Lifting eyes are included so that the 953D can be lifted from the dock to the hold.

Wide Gauge. For underfoot conditions that require even lower ground pressure than the standard 953D undercarriage the gauge of the machine can be widened by 300 mm (11.8 inches) and the track shoe width increased to 800 mm (31.5 inches). The ground pressure is decreased to 43.3 kPa (6.3 psi).

Custom Products Arrangements. Other arrangements beyond those shown here are available. For other custom-designed arrangements for specific applications, contact your Caterpillar Dealer.

Engine

Engine Model	Cat® C6.6 ACERT™	
Flywheel Power	110 kW	148 hp
Net Power – Caterpillar	110 kW	148 hp
Net Power – ISO 9249	110 kW	148 hp
Net Power – SAE J1349	110 kW	148 hp
Net Power – EEC 80/1269	110 kW	148 hp
Bore	105 mm	4.13 in
Stroke	127 mm	5 in
Displacement	6.6 L	402.76 in^3

- Engine ratings at 2,000 rpm.
- Meets the U.S. EPA Tier 3, European Union Stage III A and Japan MOC exhaust emission regulations.
- Net flywheel 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 (9,842 ft) altitude.

Undercarriage

Track Shoe Type	Double Grouser	
Track Shoe Width – Standard	480 mm	18.9 in
Track Shoe Width – Optional	380 mm	15 in
Track Rollers – Each Side	6.0	
Number of Shoes – Each Side	37.0	
Track on Ground	2320 mm	91.3 in
Ground Contact Area – Standard Shoe	1.8 m^2	2,790 in^2
Ground Contact Area – Optional Shoe	2.2 m^2	3,410 in^2
Ground Pressure – Standard Shoe	65.8 kPa	9.5 psi
Ground Pressure – Optional Shoe	84.1 kPa	12.3 psi
Grouser Height – Double Grouser	35 mm	1.4 in
Track Gauge	1800 mm	71 in
Link Pitch	190 mm	7.48 in
Bushing Type	SystemOne	

- Wide Gauge Arrangement available for lower ground pressure applications.
- Ground pressure is calculated using operating weight of machine with GP bucket, teeth and segments.

Drive System

Type	Hydrostatic drive with infinite machine speeds to 10.0 km/h (6.2 mph)	
Drive Pump	Two variable-displacement, slipper-type axial piston pumps	
Track Motor	Two variable-displacement, bend axis motors	
Relief Valve Setting	47 500 kPa	6,890 psi

Service Refill Capacities

Fuel Tank	316 L	83.5 gal
Cooling System	31 L	8 gal
Crankcase (with Filter)	16.5 L	4.4 gal
Final Drives (each)	10.8 L	2.8 gal
Hydraulic Tank	70 L	18.5 gal
Pivot Shaft	0.7 L	0.18 gal

Electrical System

Type	24V DC
Battery Capacity	950 CCA
Battery Voltage	12
Battery Quantity	2
Alternator	95 Amps, Heavy-Duty Brushless

Weights

Operating Weight	15 517 kg	34,209 lb
Shipping Weight	14 217 kg	31,343 lb

- Operating Weight: Includes coolant, lubricants, 100% fuel tank, ROPS/FOPS cab, General Purpose Bucket with long bolt-on teeth and segments and 75 kg (165 lb) operator.
- Shipping Weight: Includes coolant, lubricants, 10% fuel tank, ROPS/FOPS cab and no bucket.

Buckets

Capacity – General Purpose	1.85 m^3	2.42 yd^3
Capacity – Multi-Purpose	1.6 m^3	2.09 yd^3
Bucket Width – General Purpose	2485 mm	97.8 in
Bucket Width – Multi-Purpose	2471 mm	97.3 in

- Bucket widths are based on a bare bucket.
- Bucket capacities are with long bolt-on teeth and segments.

Operating Specifications

Max. Travel Speed	10 km/h	6.2 mph

Ripper Specifications

Type	Radial	
Number of Pockets	3	
Overall Width/Beam	1952 mm	76.9 in
Shank cross section	50 × 109 mm	50 × 4.2 in
Ground Clearance	507 mm	20 in
Penetration	290 mm	11.4 in
Ripping Width	1800 mm	70.9 in
Cylinders – Bore	101.6 mm	4 in
Cylinders – Stroke	270 mm	10.63 in
Addition to Machine Length due to Ripper (in Transportation Position)	247 mm	9.7 in

Standards

ROPS/FOPS	ROPS/FOPS
Brakes	Brakes
Cab	Cab

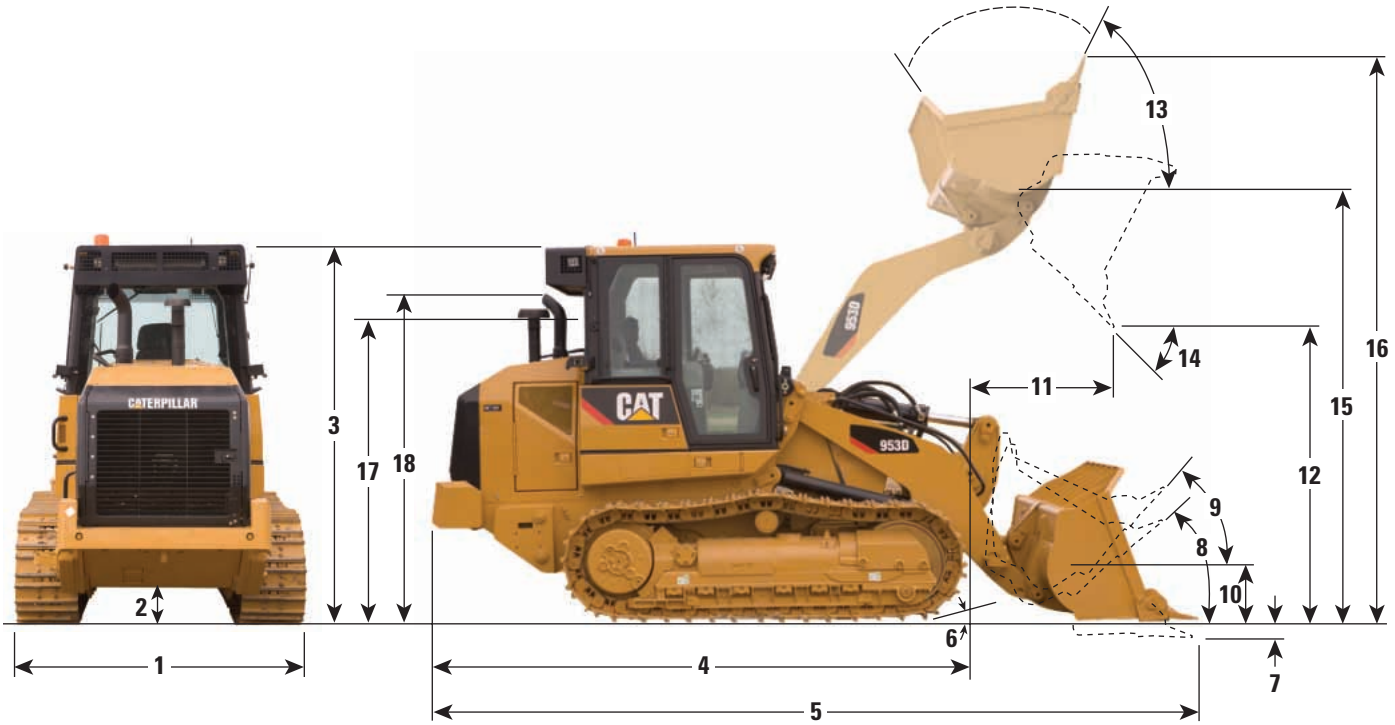
- ROPS (Rollover Protective Structure) offered by Caterpillar for the machine meets ROPS criteria SAE J1040 MAY94, ISO 3471:1994 DLV criteria SAE J397B, ISO 3164:1995.
- FOPS (Falling Object Protective Structure) meets SAE J/ISO 3449 APR98 Level II, ISO 3449:1992 Level II, DLV criteria SAE J397B, ISO 3164:1995.
- Brakes meet 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 79 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 6396:1992 is 74 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 76 dB(A).
- The labeled sound power level is 109 dB(A) measured according to the test procedure and conditions specified in 2000/14/EC.

Hydraulic system – Implement

Type	Close center load sensing/piston	
Output	140 L/min	30.8 gal/min
Main Relief Valve Setting	27 500 kPa	3.99 psi
Cycle Time – Raise	5.9 Seconds	
Cycle Time – Dump	1.3 Seconds	
Cycle Time – Float Down	2 Seconds	

Dimensions

All dimensions are subject to change without notice.



1	Overall machine width without bucket:	
	with standard tracks – 480 mm (19.7 in shoes)	2280 mm (89.7 in)
	with narrow tracks – 380 mm (14.9 in shoes)	2180 mm (85.8 in)
2	Ground clearance	416 mm (16.3 in)
3	Machine height to top of cab	3105 mm (122.2 in)
4	Length to front of track	4363 mm (171.7 in)
5	Overall machine length*	6252 mm (246.1)
6	Carry position approach angle	15°
7	Digging depth*	140 mm (5.5 in)
8	Maximum rollback at ground	41°
9	Maximum rollback at carry position	48°
10	Bucket height in carry position	548 mm (21.6 in)
11	Reach at full lift height and 45° dump*	1195 mm (47 in)
12	Clearance at full lift height and 45° dump*	2694 mm (106 in)
13	Maximum rollback, fully raised	56°
14	Maximum dump, fully raised	55°
	Grading angle	74°
15	Height to bucket hinge pin	3610 mm (142.1 in)
16	Overall machine height, bucket fully raised	4882 mm (192.2 in)
17	Height to top of seat with headrest	2560 mm (100.7 in)
18	Height to top of stack	2783.5 mm (109.6 in)

* With general purpose bucket and extra duty teeth.

Dimensions vary with bucket. Refer to Operating Specifications chart.

Operating Specifications

		General purpose bucket			Multi purpose bucket			Flush mounted teeth
Attachments on bucket cutting edge		**None**	**Long teeth & segments**	**Bolt-on edge**	**None**	**Long teeth & segments**	**Bolt-on edge**	**Long teeth**
Bucket weight	kg lb	976 2,151.7	1254 2,764.5	1097 2,418.4	1483 3,269.4	1762 3,884.5	1604 3,536.2	1093 2,409.6
Rated load nominal heaped	kg lb	3010 6,635.9	3182 7,015.1	3182 7,015.1	2580 5,687.9	2752 6,067.1	2752 6,067.1	3182 7,015.1
Rated capacity nominal heaped (actual)	m^3 yd^3	1.72 2.24	1.82 2.38	1.82 2.38	1.50 1.96	1.60 2.09	1.60 2.09	1.82 2.38
Rated capacity nominal heaped (advertised)	m^3 yd^3	1.75 2.28	1.85 2.41	1.85 2.41	1.50 1.96	1.60 2.09	1.60 2.09	1.85 2.41
Struck capacity (actual)	m^3 yd^3	1.48 1.93	1.57 2.05	1.57 2.05	1.27 1.66	1.35 1.76	1.35 1.76	1.48 1.93
Struck capacity (advertised)	m^3 yd^3	1.45 1.89	1.55 2.02	1.55 2.02	1.25 1.63	1.35 1.76	1.35 1.76	1.45 1.89
Bucket width overall	mm in	2392 94.2	2485 97.8	2395 94.3	2378 93.6	2471 97.3	2395 94.3	2438 95.9
Cutting edge type		straight	straight	straight	straight	straight	straight	—
Teeth		none	8 bolt-on with replaceable tips	none	none	8 bolt-on with replaceable tips	none	8 bolt-on with replaceable tips
Dimensions and weights								
Overall height	mm in	3105 122.2	3105 122.2	3105 122.2	3105 122.2	3105 122.2	3105 122.2	3105 122.2
Overall operating height	mm in	4882 192.2	4882 192.2	4882 192.2	4871 191.7	4871 191.7	4871 191.7	4882 192.2
Clearance at 45° dump max lift	mm in	2909 114.5	2688 105.8	2844 112.0	2738 107.7	2499 98.3	2669 105	2733 107.6
Reach at 45° dump max lift	mm in	1002 39.4	1197 47.1	1042 41	973 38.3	1144 45	1006 39.6	1197 47.1
Clearance at 45° dump max lift	mm in	2854 112.4	2615 103	2785 109.6	—	—	—	2659 104.7
Reach at 45° dump max lift	mm in	928 36.5	1099 43.3	961 37.8	—	—	—	1104 43.5
Reach at 45° dump 2133 mm (84 in) clearance	mm in	1550 61.1	1630 64.2	1559 61.4	1434 56.5	1457 57.4	1428 56.2	1656 65.2
Bottom dump clearance at 45° dump max lift	mm in	—	—	—	3182 125.3	3182 125.3	3182 125.3	—
Bottom dump reach at 45° dump max lift	mm in	—	—	—	559 22	559 22	559 22	—
Reach with lift arm horizontal and bucket level	mm in	2099 87	2389 94	2171 85.5	2213 87.1	2503 98.5	2285 89.9	2361 93
Overall length – bucket level on ground	mm in	5926 233.3	6252 246.1	6017 236.9	6077 239.3	6401 252	6167 242.8	6198 244
Digging depth	mm in	92 3.6	140 5.5	117 4.6	142 5.6	190 7.5	167 6.6	105 4.1
Full dump at max lift	Deg	55	55	55	49	49	49	55
Full dump at max lift	Deg	49	49	49	—	—	—	49
Carry height	mm in	421 16.6	421 16.6	421 16.6	508 20	508 20	508 20	421 16.6
Rackback at carry	Deg	47	47	47	50	50	50	47
Rackback at ground	Deg	41	41	41	42	42	42	41
Grading angle max	Deg	74	74	74	74	74	74	74
Static tipping load min	kg lb	11 413 25,162	11 089 26,035	11 252 24,806	10 831 23,878	10 492 23,131	10 663 23,508	11 255 24,813
Breakout with tilt cylinders level at ground	N lbf	160 549 36,093	157 873 35,491	159 375 35,829	137 216 30,847.4	134 377 30,209.1	135 936 30,559.6	162 579 36,549.2
Lift capacity to full lift – bucket racked	kg lb	5897 13,000.6	5684 12,531	5789 12,762.5	5414 11,935.8	5208 11,477.2	5310 11,702.1	5793 12,769.1
Lift capacity at ground line – bucket racked	kg lb	16 039 35,359.9	15 364 33,871.7	15 694 34,599.3	15 077 33,239	14 429 31,810.5	14 744 32,515.9	15 769 34,765
Shipping weight without bucket	kg lb	14 217 31,343	14 217 31,343	14 217 31,343	14 254 31,425	14 254 31,425	14 254 31,425	14 217 31,343
Operating weight with bucket	kg lb	15 577 34,341	15 758 34,740	15 638 34,476	16 302 35,939.7	16 302 35,939.7	16 183 35,677.4	15 635 34,469.3

Standard Equipment

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

ELECTRICAL
- Alternator, 24 volt, heavy duty brushless.
- Alarm, backup
- Horn, electric
- 2 heavy duty batteries, high output, maintenance free, 950 CCA
- Switch, Main disconnect
- Starter, Electric (heavy duty, 24 volt)
- Four halogen lights, two forward facing, roof mounted; two facing rearward integrated in A/C unit

OPERATOR ENVIRONMENT
- Cat Messenger
- Side sliding windows
- Pressurized, sound suppressed, ROPS/FOPS cab with tinted glass and sliding side windows
- Air conditioning and heating
- Heater/defroster with automatic temperature control
- Seat, air suspended adjustable, with side-to-side isolator
- Electro Hydraulic seat mounted control levers
- Seat belt, retractable
- Electronic Monitoring System with gauges for:
  - Engine coolant temperature
  - Hydraulic oil temperature
  - Pump drive box oil temperature
  - Fuel level
- Mirror, rearview, inside
- Radio ready. Includes 24 to 12 volt converter, speakers, antenna and one 12 volt power outlets
- Coat hook
- Transmission control, V-lever
  or Transmission control, Joystick
- Control, joystick, bucket gp
- Storage compartments under left armrest
- Document holder on right console
- Floor mat, rubber, heavy duty
- Windshield washers and wipers, front and rear
- Cab window, front glued
- Durable metal roof
- Parking brake switch and “brake-on” indicator light

POWERTRAIN
- Cat® C6.6 ACERT™ engine diesel engine, turbo charged with ATAAC
- Modular cooling system for engine air intake, oil and water
- Fan, demand, hydraulically driven
- Tank fuel
- Electro Hydrostatic Control (EHC) for transmission with travel and work modes
- Fuel priming pump, electric
- Water separator
- Air inlet, pre-cleaner
- Air cleaner dry-type, axial seal with integral pre-cleaner and dust ejection system, electronic filter condition indicator
- Muffler, under hood
- Starting aid ether injection
- Caterpillar extended-life coolant
- Load sensing variable displacement implement pump

UNDERCARRIAGE
- Caterpillar SystemOne™ track (38 sec.) 1850 mm (72.8 in) track gauge
- Track, 480 mm (18.9 in), double grouser
- Final drive, standard
- Track guiding guards, end section
- Track adjuster, hydraulic
- Sprocket rims, with replaceable bolt-on tough steel segments
- Guards, sprocket
- 7 single flange track rollers per side, with one upper carrier rollers, lifetime lubricated
- Center tread track idlers, lifetime lubricated
- Idler, scrapper
- Oscillating track roller frames

HYDRAULIC
- Oil change
- Hydraulic, GP bucket

OTHER STANDARD EQUIPMENT
- Caterpillar Product Link 321 (for selected territories)
- Tilt cab, locking bar
- Sound suppression, exterior
- Z-bar loader linkage
- Implement cylinders with integrated positioning sensors
- Operator programmable lift and tilt kickouts
- Engine enclosure with lockable doors
- Radiator core 6.5 fpi, debris resistant
- Hinged Radiator Guard and swing out fan
- Guards, full bottom
- Bumper
- Ecology drains on hydraulic tank
- Product link ready
- Oil sampling valves
- Hoses, Caterpillar XT
- Warning decals
- Hydraulic Oil, HYDO Advanced 10

Optional Equipment

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

ELECTRICAL
- Lights, 4, extra
- Beacon, rotating

OPERATOR ENVIRONMENT
- Control, joystick, MP bucket
- Control, two levers, GP bucket
- Comfort seat, air suspended, heated
- Cab window, front sealed
- Messenger, full text diagnostics and monitoring system

POWER TRAIN
- Fan, demand, reversible
- Tank fuel, fast fill
- Air inlet, pre-cleaner, turbine

HYDRAULICS
- Hydraulic oil, bio
- Oil change, high speed
- Hydraulics MP Bucket, lines front
- Hydraulics RIPPER, control, lines rear
- Hydraulics MP + RIPPER, lines front and rear

REAR ATTACHMENT
- Striker bar, rear
- Ripper, multi-Shank
- Hitch, standard
- Hitch, extended
- Counterweight, light
- Counterweight, additional

BUCKETS
- General Purpose, for bolt-on GET
- General Purpose, flush mounted adapt
- Multi-Purpose
- Multi-Purpose, landfill
- General Purpose, landfill, flush mounted adapt
- General Purpose, landfill and demolition

BUCKET ATTACHMENTS
- Teeth, Extra Duty
- Teeth, General Duty
- Teeth, Penetration
- Bolt On, Cutting Edge
- Bolt On Segments, Cutting Edge
- Cutting Edge Segment
- Tips, Extra Duty

GUARDS
- Guard, track roller
- Guard, idler
- Guard, cab lights
- Guard, lift lines
- Screen, windshield

UNDERCARRIAGE
- Track shoes, 380 mm (15 in), double grouser
- Track shoes, 380 mm (15 in), triple grouser
- Track shoes, 480 mm (18.9 in), center hole
- Final drive, waste

OTHER ATTACHMENTS
- Shovel holder
- Cab, tilt jack, hydraulic
- Radio, AM/FM, CD
- Heather, engine coolant, 120V
- Heather, engine coolant, 240V
- Re-fueling pump
- Sediment pump, fuel tank
- Antifreeze, –50° C (–58° F)

Notes

Notes

Notes

953D Track Loader

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

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

AEHQ5826-02 (9-08)

Replaces AEHQ5826-01

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