

WE DARE TO COMPARE...

CATERPILLAR

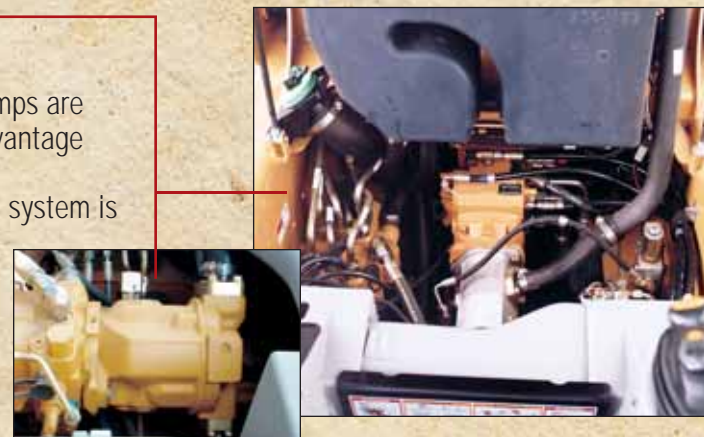
HYDRAULIC MOTOR/BRAKE SYSTEM

- The hydraulic parking brake is incorporated into the motor and features a spring-applied, hydraulically released wet multiple disc brake pack for maximum braking performance and component life.



HYDRAULIC ASSEMBLIES

- Caterpillar's large variable displacement, axial piston drive pumps are run directly off of the engine for max efficiency and torque advantage (no belts, no hp loss).
- Because Caterpillar actuates these pumps with hydraulics, the system is able to compensate the load without operator intervention; this allows the operator to maximize usable torque to the ground with maximum aggressiveness and concentration on the work tool.
- The XPS™ (Extreme Performance high flow) system features a 4,200 psi axial piston pump that is load-sensing pressure compensating for maximum performance in high-production complex hydromechanical work tool operation.
- O-ring connections on all hydraulic connections.



CONTROL SYSTEM

- Caterpillar's short-stroke, low effort pilot controls allow for more comfortable operation to help reduce late-shift fatigue and provide enhanced control.
- All direction control is accomplished with the left hand only; this simplifies operation and improves control. (Alternate controls are available as an option.)
- The standard foot throttle allows for smoother/faster operation while reducing fuel consumption and noise.
- The machine's exclusive anti-stall system allows operators to aggressively concentrate on loading the bucket while the machine automatically maximizes drawbar power and prevents killing the engine.



HIGH-PERFORMANCE COOLING SYSTEM

- Caterpillar's hydraulically driven fan provides for maximum efficiency and cooling power as the fan continues to cool even in low rpm.
- In addition to being very efficient, the hydraulically driven fan allows for unmatched serviceability as the radiator/hydraulic cooler tilts up and out of the way.
- The hydraulic tank holds 9.2 gallons of oil and features a baffle-style design that forces air out of the oil and maximizes air-to-tank contact for maximum cooling.
- The hydraulic oil cooler and radiator have a side by side design allowing cool air to flow through each for maximum cooling performance.



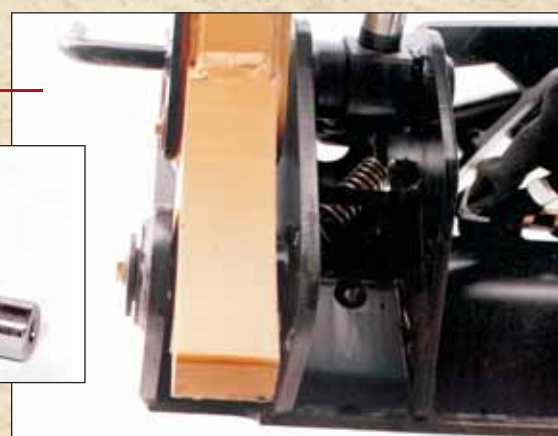
AXLES/CHAINS

- Caterpillar protects the large axle bearings with a high-tech triple lip wheel seal in order to keep out dirt, twine and wire.
- The axle flange penetrates deep into the hub in order to block harmful material from reaching the seal.
- The maintenance-free axle is permanently sealed and lubricated.
- Each axle housing is bolted to the mainframe allowing for unmatched service and easy chain adjustment.



LOADER LINKAGE

- Caterpillar's loader arms are designed to minimize the linkage bend in order to ensure maximum strength and optimum visibility.
- Caterpillar's vertical lift models feature a shorter vertical link for lower torque loads on the pin and also disperse the stress through a spherical ball joint that holds much tighter than traditional cantilevered vertical pins.
- The loader arms fully protect the bucket cylinders from damage.



SERVICEABILITY

- Caterpillar's rear serviceability is unmatched due to the flip-up cooler/radiator package, giving full access to all sides of the engine.
- The major maintenance intervals on the machine are double those of most competitors (e.g. 500 hour engine oil service interval).
- The slotted axle housing makes chain adjustment much easier.
- There is no parking brake assembly or mechanical levers to work around underneath the cab: simply remove two bolts from the front of the cab and tilt for unparallelled access.
- The Caterpillar pump stack features very easy access as the pumps are run directly off of the engine.



TRACK SYSTEM

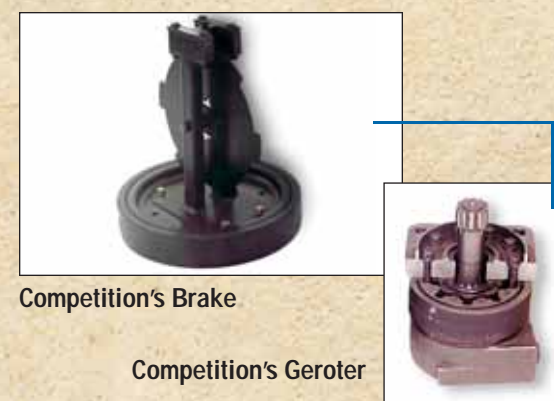
- The Caterpillar track system is a suspended undercarriage that was designed specifically for high speed operation over rough terrain, significantly reduced impact loads on machine/track components, and more usable flotation.
- There is no steel in the track. A steel inserted bearing in the rubber-faced idlers ensures unmatched track life and reduced noise.
- Caterpillar Multi Terrain Loaders also feature up to 98" of track length for maximized grade ability, stability and flotation.
- The track system runs off of an internal drive which has proven to be much easier on the track than other direct-drive steel sprocket options.



COMPETITION

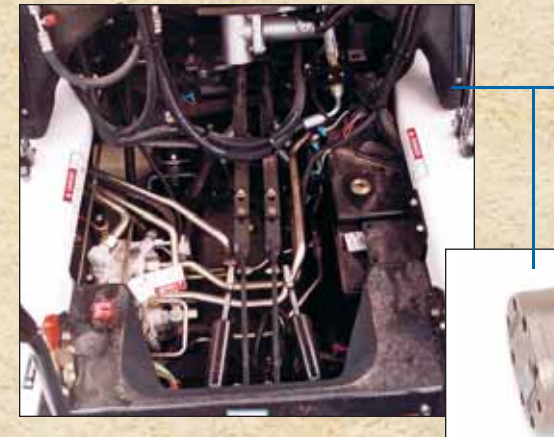
HYDRAULIC MOTOR/BRAKE SYSTEM

- The competition's gerotor style motor, though much less expensive to use in manufacturing, requires a lot more hp to deliver an equal amount of torque to the ground.
- The gerotor style motor utilizes a deep-splined center shaft that gyrates inside of a larger cavity; the system is much less efficient and much noisier than that of a radial piston motor.
- Their parking brake assembly consists of an electronically actuated solenoid valve that drops a plunger down into a moving cog (located in the central mounted chain case) to brake the machine.



PUMP ASSEMBLIES

- The competition uses smaller axial piston pumps and an inefficient belt-drive for the pumps/cooling system.
- Because they use mechanical levers to actuate the pumps, the operator must back off of the controls in a load situation or he/she will kill the machine. This forces the operator to take his concentration away from the work and doesn't allow him to maximize the machine's capabilities.
- Their high flow system will increase flow to the foot but doesn't have extra pressure or load-sensing ability for tougher applications.



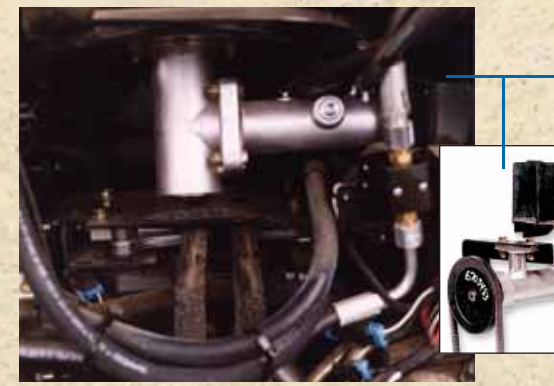
CONTROL SYSTEM

- The competition still utilizes long stroke levers for direction control which can get tiring toward the end of a long shift.
- Standard controls also require the use of two foot pedals which are hard for beginners to modulate, introduce extra fatigue, and require operators to coordinate the actions of four different limbs.
- Their skid steers are typically run at full throttle which introduces extra noise, fuel consumption and "bucking".
- Since the pumps are actuated mechanically, no anti-stall feature is available.



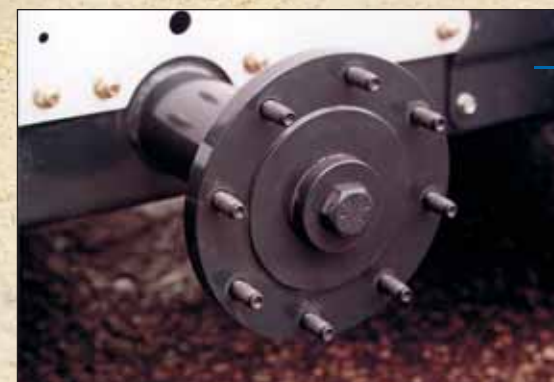
COOLING SYSTEM

- The competition drives the cooling fan mechanically through a system of belts, idlers and shafts (the engine drives a belt, which drives the pump idler, which drives another belt, which drives the fan idler, which turns the shaft, which drives the bevel gear to shift the power to the fan).
- With the hydraulic oil cooler stacked directly on top of the static radiator, their serviceability and cooling performance is inhibited.
- They also use a much smaller and simpler hydraulic tank which puts the machine at a greater risk of over-heating and/or cavitation.



AXLES/CHAINS

- The competition uses a simple, single lip seal for the protection of the outer bearing and has no inner seal.
- Bearings are lubricated with the central chain case oil making side hill operation harmful to the machine. And, if a bearing does fail, the other seven bearings are more prone to failure as bearing parts can enter the central chain case.
- Their long axles are more susceptible to bending.
- Chains are not adjustable and take significantly more time to service since the axle housing is welded to the main frame and the chains are located in the center of the unit.



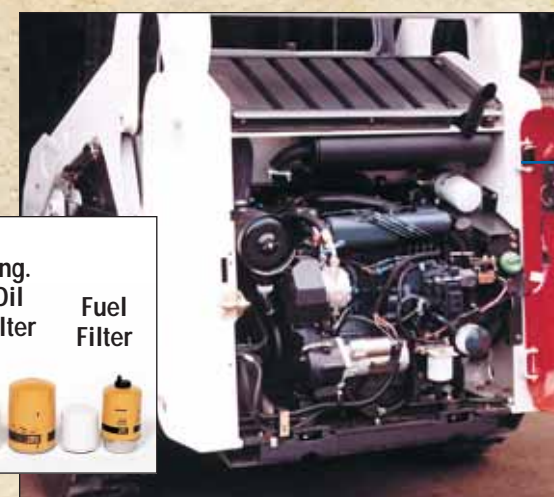
LOADER LINKAGE

- The competition's loader arms have nearly a 90 degree bend around the frame which creates a weak point in the arm structure.
- The competition's smaller machines have high stress areas around the centrally mounted tilt cylinder, while their larger models have highly exposed dual tilt cylinders.
- Their vertical lift models are not ideally built for tough applications as the loader arm link is very long and cantilevered.
- The competition's smaller machines also have a bucket pin that is sucked into a tapered bore with a bolt vs. a flagged and supported pin.



SERVICEABILITY

- The competition features excellent access to one side of the engine; however, the engine must be pulled to do any major work as the muffler, cooler and radiator are all statically stacked on top of the engine.
- With the axles welded directly to the mainframe, chain adjustment is impossible and chain replacement is a much more difficult job.
- Once you remove the parking brake assembly and the mechanical steering assembly, it is still incredibly difficult to access the pump stack for any major repairs as the pumps are recessed far behind the engine, driven by a short v-belt.



TRACK SYSTEM

- The competition's track design is very similar to that of the low-speed mini hydraulic excavators. The steel wheels are mounted directly to the roller frame which is bolted to the main frame with no suspension. The steel wheels impact on the rubber coated, steel inserted track resulting in greatly increased impact loads for shorter machine/track life and a much rougher ride.
- Steel rollers riding on a rubber coated, steel inserted track cause track delamination, resulting in a very rough ride.

