



THE NEW ABSOLUTE



LETOURNEAU 50 SERIES WHEEL LOADERS



LeTourneau, Inc.

MEET THE NEW ABSOLUTE

in **lowest cost per ton**
and **highest return on investment**

THE LETOURNEAU 50 SERIES LOADERS

It's a bold descriptive, The New Absolute. Yet an accurate one. Because there's never been so bold a breakthrough as LeTourneau 50 Series loaders.

Digital marvels. Functionally superb. Truly the ultimate in efficiency, economy, and enduring value.

The LeTourneau 50 Series provides breakthrough advantages in every category that can impact cost per ton or return on investment. From cab comfort and ease of operation to servicing simplicity to component reliability and longevity.

Breakthrough advantages like the capacity of a shovel along with the mobility and versatility only LeTourneau 50 Series loaders can offer. A self-sufficient machine costing considerably less up front and requiring no costly clean-up support while it's working.

Breakthrough advantages like LINCS,[™] the LeTourneau Integrated Network Control System.



LINCS all but automates loader operation, to help make rapid cycle times sustainable throughout the workday. And LINCS conveys more real-time productivity and diagnostic feedback—remotely accessible by management and maintenance staff—than anything you’ve ever seen.



Consider the facts, then decide for yourself. We believe you’ll judge The New Absolute a fitting descriptive for 50 Series loaders.



LeTourneau, Inc.

Built On Experience. Driven By Vision.

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in **operator comfort**

Machine productivity ultimately rests with the operator, which is why LeTourneau gave overriding importance to comfort in designing the 50 Series operating environment. Ergonomic in every detail, the cab of a 50 Series loader will earn “best in class” marks from the toughest critics on your payroll, due to provisions that alleviate physical and mental strains that can cause fatigue and diminish performance.

Rubber-mounted, fully insulated enclosure

The comfort begins with a cab enclosure independently rubber-mounted from the frame. The mounting system isolates the operator from vibration and helps reduce noise transmission. Thick insulation provides temperature protection and additional sound dampening. (50 Series loaders meet or exceed ISO standards for interior decibel levels.)

Eight-way adjustable air ride seat

A generously padded air ride seat meets personal preferences with eight-way adjustability. In addition to suspension tension for optimum shock absorption, the operator can fine-tune degree of lumbar support, cushion angle, fore-aft positioning, swivel, and more.

Joystick steering and bucket control

By far the most distinguishing feature of the 50 Series cab—and the feature most responsible for unrivaled comfort—is the joystick at the end of each armrest.

Unimpaired forward and rearward visibility

Seeing is indeed believing, and when you look through the vast expanse of tinted glass, you'll believe no loader provides a better view than a 50 Series. Equally important, the cab rides directly over the point of articulation to eliminate swing-out during cycling. LeTourneau visibility lets the operator attack the loading face and approach the haul truck with speed, accuracy and consistency.

Filtered and pressurized air supply

The cab's ventilation system provides a steady supply of refreshing, filtered air. Pressurization helps keep particles out even under the dustiest conditions.

Automatic climate regulation

Standard air-conditioning and high-output heating systems maintain interior comfort whether it's sweltering or freezing outside. Set the thermostat for automatic climate regulation or operate it manually with the console keypad. Strategically placed vents and registers—including front and side window defrosters—permit directing airflow where desired.



No steering wheel or hoist-and-bucket lever system could ever be so simple or so effortless to operate.

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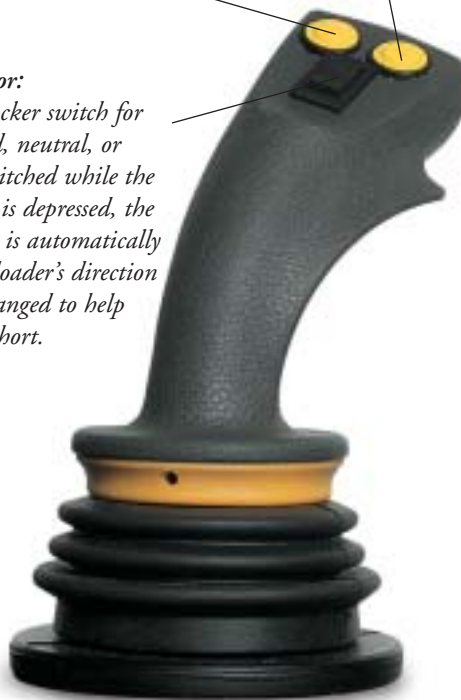
in **operating simplicity**

You may have seen a loader with joystick steering, but you won't see a second joystick for operating the hoist and bucket controls on anything but a LeTourneau 50 Series, or anything approaching the ease and precision these 100-percent proportional controls provide.

Left Button: Activates the left turn signal.

Right Button: Activates the right turn signal.

Direction Selector: Three-position rocker switch for engaging forward, neutral, or reverse. When switched while the accelerator pedal is depressed, the dynamic braking is automatically applied and the loader's direction is immediately changed to help keep cycle times short.



Left Joystick

The left joystick steers the machine, engages forward and reverse, and controls the turn signals. Moving the stick to the left turns the machine to the left; moving it to the right turns the machine to the right. Steering response is proportional to stick motion.

Thumbwheel: Roll rearward to curl the bucket upward for loading or leveling; roll forward to dump.

Bottom Button: Sounds the air horn and resets the load-weigh counter.

Upper Right Button: Raises the hoist to full or preset height.

Backdrag Button: Allows the bucket to float on the ground as the machine moves backward or forward; facilitates work-area clean-up.

Lower Right Button: With the lift arms above horizontal, causes the hoist to float back down to the ground or to a preset height; with the lift arms below horizontal, levels the bucket when auto-leveling is enabled. Bucket float function is inoperative when the bucket is loaded (joystick provides power down).



Right Joystick

The right joystick controls the hoist and bucket, and lets the operator choose the method or combination of methods that feels just right: stick alone, buttons alone, or stick plus buttons.

Pulling the joystick rearward from the neutral position hoists the bucket; pushing it forward lowers the bucket (power down).

Moving the stick to the left rotates the bucket upward (rollback) for loading and leveling; moving it to the right rotates the bucket downward for dumping.

All hoist and bucket responses are 100-percent proportional to stick motion.



The dual joysticks of a 50 Series loader are integral with the eight-way adjustable air ride seat, described on page 3. The seat and joysticks swivel as a unit, for enhanced ergonomic efficiency.

LINCS helps operators operate more efficiently

The LeTourneau Integrated Network Control System helps operators exceed the proficiency required in today's mining industry.

Continuous protection for man and machine

LINCS protects people and property by helping the operator avoid inappropriate commands. Try starting a 50 Series with the parking brake released, for example, and LINCS will not only not let it happen, but will explain why on its interactive data screen. This enables the operator to take immediate corrective action without any confusion or wasted effort.



Real-time performance feedback

With LINCS, operators never have to wonder how they're doing. They can find out instantly just by glancing at the data screen, and can adjust their performance to meet (or exceed) the day's objective. That's because, during normal operation, the screen displays vital real-time statistics such as bucket height and angle, net bucket weight, cumulative truck load, elapsed time per loading cycle, and total tonnage. And the easy-to-interpret graphic format can be easily configured for personal preference using the dash-mounted keypad.



Color-coded warning lights supplement the system

LINCS monitors and controls all loader functions, and alerts the operator via the data screen whenever attention is required. Three supplementary warning lights adjacent to the keypad provide notification as follows:



RED indicates a condition requiring immediate shutdown and correction. It's accompanied by an audible alert and an "alarm" message on the data screen.



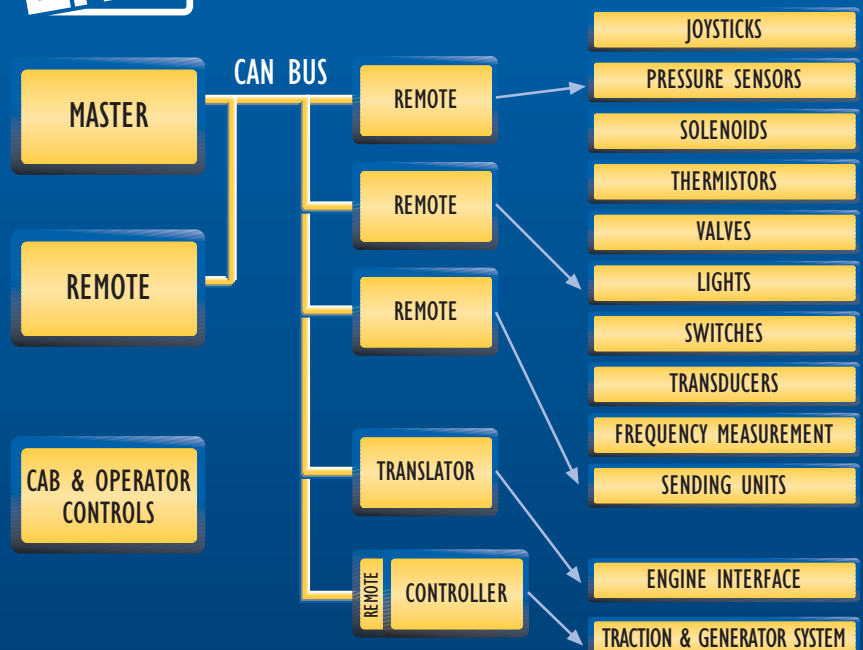
AMBER indicates a less serious condition requiring correction but not immediate shutdown. It's accompanied by an audible alert and a "warning" message on the data screen, along with "what to do" instructions for the operator.



BLUE indicates that preventive maintenance is due for some system or component and should be performed at the next scheduled interval.



LeTourneau Integrated Network Control System



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in *sustained productivity*

An ergonomically exceptional cab. Outstanding visibility. The simplicity and efficiency of dual joystick controls augmented by LINCS real-time feedback. These advantages only partly explain why LeTourneau 50 Series loaders can turn faster cycle times from the beginning of the workday to the end, and load more material in the process. The rest of the story lies in the inherent superiority of proven LeTourneau all-wheel electric drive, combined with other exclusive features.

No gears to shift

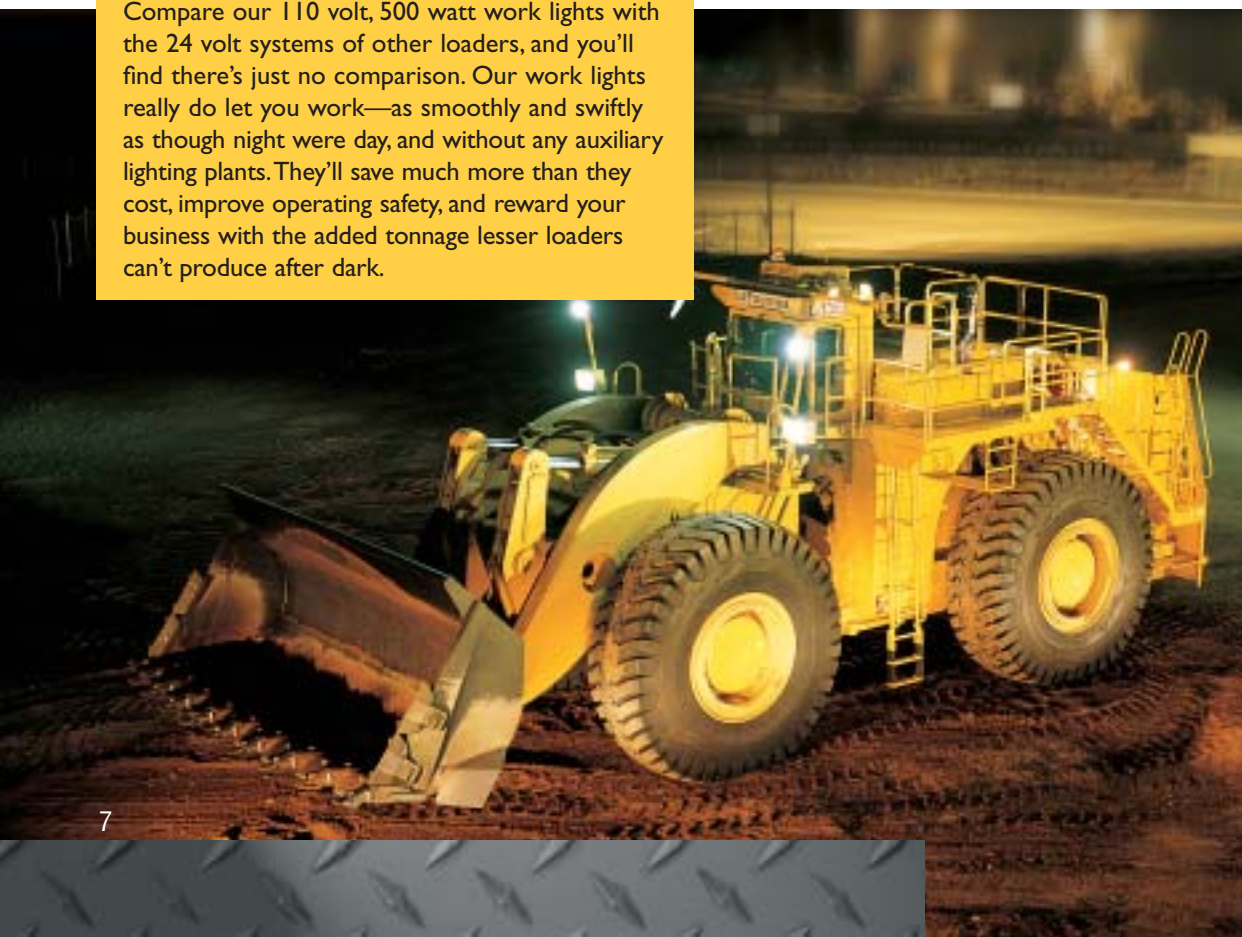
LeTourneau 50 Series loaders save precious seconds during every loading cycle. Independent all-wheel electric drive eliminates shifting gears, letting the operator concentrate on loading the haul truck. This important difference can help maintain high productivity throughout the workday by significantly reducing fatigue.

110v lighting turns night into day

Compare our 110 volt, 500 watt work lights with the 24 volt systems of other loaders, and you'll find there's just no comparison. Our work lights really do let you work—as smoothly and swiftly as though night were day, and without any auxiliary lighting plants. They'll save much more than they cost, improve operating safety, and reward your business with the added tonnage lesser loaders can't produce after dark.

Automatic bucket positioning

50 Series loaders allow presetting bucket lift height—at the flip of a rocker switch—to a value below maximum height for faster performance with haul trucks of uniform size. Another handy rocker switch enables automatic bucket leveling, or lets the operator select a bucket digging angle within plus or minus 10 degrees of level; it also allows presetting the bucket's "float to" distance from the ground. Again, less for the operator to think about, less to do...and less time consumed during every loading cycle.



Real-time production monitoring for mine managers

Only LeTourneau 50 Series loaders let you track the productivity of a working machine without stepping out of the office. With our RF modem option for LINCS, managers can view what's going on—tons per bucket, seconds per cycle, net truck weight, total tons removed—in real time, as though they were riding along in the cab. And the month's worth of data (or more) that LINCS holds in memory can likewise be downloaded remotely at will for simplified trending and reporting. With a 50 Series loader and LINCS, managing loader productivity enters a new era of precision and convenience.



The result: Consistently rapid cycle times, all shift long

A machine that fatigues the operator as the workday wears on can only inflate your cost per ton. Therefore, you need a machine that will help the operator perform at peak efficiency from the first pass to the last, a machine capable of not only achieving the faster cycle times you desire, but maintaining them the entire shift. And that narrows the choices to one: a LeTourneau 50 Series loader.

Superior traction and braking performance

LeTourneau electric drive delivers immediate torque and positive traction. It puts more force into the bank, while minimizing wheel slip and tire wear.

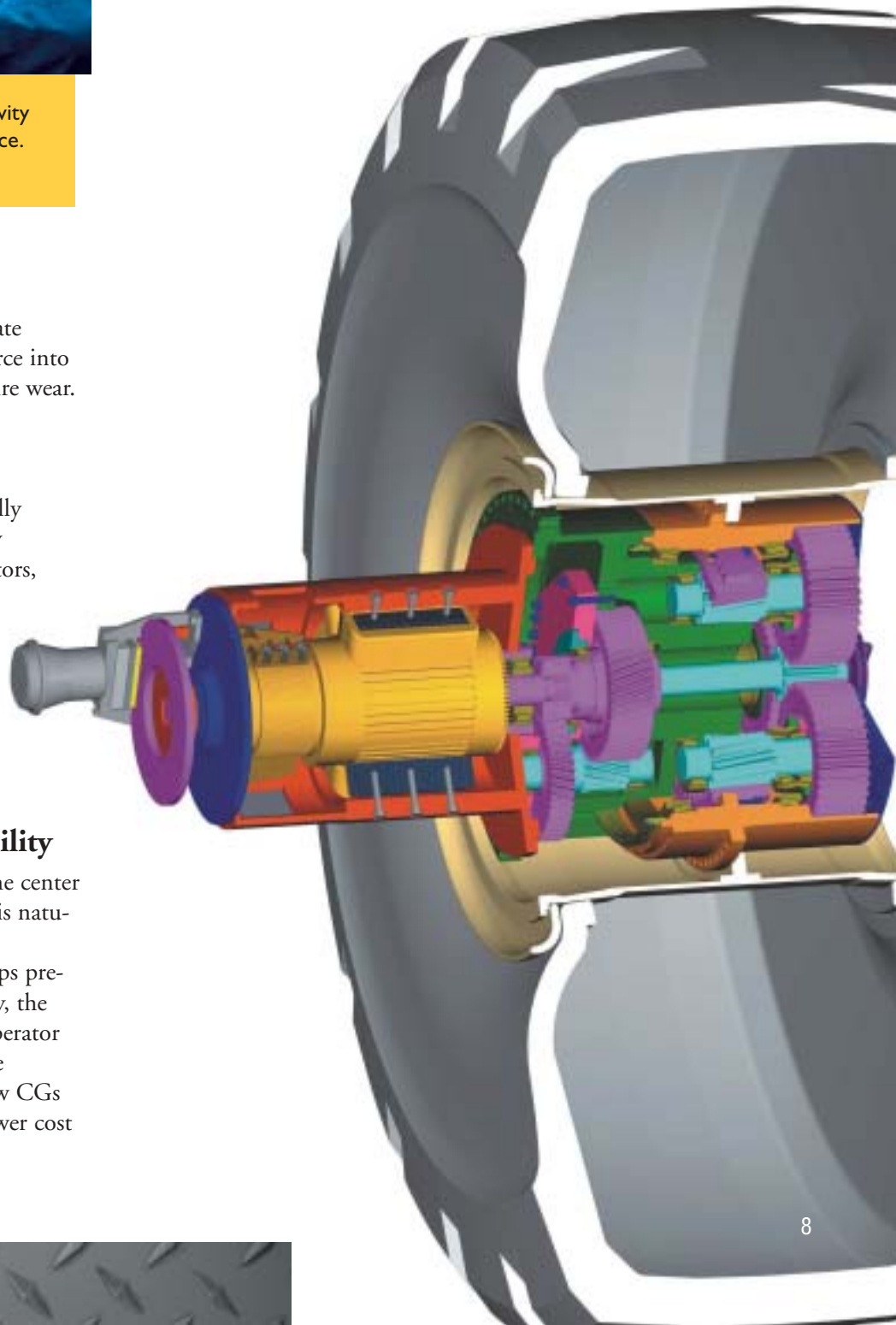
And an additional advantage you will not find with mechanical drive is dynamic and regenerative braking.

The disc brakes of a 50 Series loader actually perform supplementary service only. Primary braking comes from the electric traction motors, which act as powerful retarders as the accelerator is released.

Electric braking can bring the machine to a complete stop. It improves performance, reduces wear and tear, and can even save fuel, because the traction motors function as generators.

Low-Center of Gravity (CG) stability

An added benefit of electric drive is that the center of gravity on a LeTourneau 50 Series loader is naturally and substantially lower than that of a mechanically driven machine. A low CG helps prevent tipping—and perhaps more importantly, the perception of instability that can make an operator feel less confident about putting the machine through its paces. With 50 Series loaders, low CGs inspire the confident operation that helps lower cost per ton and maximize return on investment.



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in *minimizing fuel* and *maintenance costs*

If a machine that works harder than other loaders, saves fuel, and costs less to maintain appeals to your sense of bottom-line value, then you'll find the sensible choice for your next acquisition in the LeTourneau 50 Series.

The money-saving benefits of LeTourneau electric drive

The diesel engine provides electric and hydraulic power at a constant rpm. No lugging or overspeeding, just steady, comfortable operation using around 25 percent less fuel than mechanical loaders.

LeTourneau electric drive will also free you from the greater engine wear and maintenance requirements of mechanical drive. And by minimizing wheel slip with positive traction, it can vastly extend tire life.

Less fuel, less maintenance, less tire wear. Imagine the favorable impact on cost per ton.

Easily replaced modular components

Modularity is the recurring theme of 50 Series serviceability—and a big contributor to high availability. Interchangeable traction-motor and driver modules. A modular wet-spline hydraulic pump drive gearbox. Even self-programming LINC'S remote control units offering interchangeability (swap them out as a quick and easy troubleshooting technique).

All this emphasis on quick-change helps 50 Series loaders spend as little time as possible out of service.



LINC'S Master Control Module

- Digital
- Software driven
- Field upgradeable
- Complete machine control and monitoring

Power Control System

- Each wheel individually controlled
- Limited slip
- Extended tire life

LINC'S Remote Control Monitor (RCM)

- Ruggedized software, configurable
- Universal input/output module

Electric Braking Grids

- No maintenance
- No pads
- No wear
- No discs

Variable Speed Traction Motors

- Long life
- No differentials
- No drive shaft

Long-Life AC Generator

- No gears
- No transmission
- No torque converter

Planetary Drivers

- Long life
- Synthetic lubrication
- Continuous onboard filtration

Real-time status monitoring

Just as production managers can monitor the productivity of a 50 Series loader from afar, so too can maintenance managers monitor its physical condition without bringing it in from the pit. Up to 64 conditions can be tracked simultaneously via the optional RF modem for LINC'S. Problems can be diagnosed remotely—even transmitted electronically to the distributor or the factory for diagnostic assistance. Required repair parts can be ordered and on hand when the loader comes in for scheduled PM. It's the ultimate in maximizing resources and minimizing downtime.

Robust LINC'S™ hardware

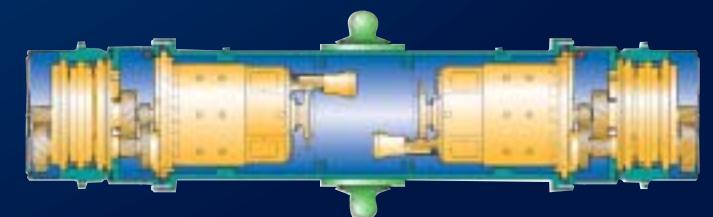
Engineered to be tough enough for the world's largest loaders, LINC'S is an industrial quality CAN-bus (Controller Area Network) system featuring gold-to-gold military grade connections immune to short circuits and reverse polarity. Its contaminant-proof remote control modules withstand the toughest working environments.



Typical of LeTourneau 50 Series serviceability, the hinged grill and braking grids swing out of the way for easy radiator access.

Pressurized axle housings

Our pressurized axle housings enhance reliability by maintaining an air cooled, dust free environment for the traction motors and disc service brakes. Electric drive eliminates the possibility of downtime from the differentials, universal joints, and drive shafts found in mechanical drive systems.



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in **loader reliability**

We pioneered rubber-tired earthmoving equipment in the 1930s, patented our ball-and-socket joint concept in the 1940s and our diesel-electric propulsion system in the 1950s. That's why no machines on the market today offer more reliability than LeTourneau 50 Series loaders. Because no other machines on the market can claim the same heritage of designs proven and improved over so many decades.



High-strength, low-weight frame and lift arms

Cast steel components reduce weight, minimize stress risers, and require fewer welded joints—while increasing strength and durability. Box beam lift arms weigh less than other designs. The loader operates more efficiently by devoting more of its energy to lifting the payload instead of moving its own structural weight.

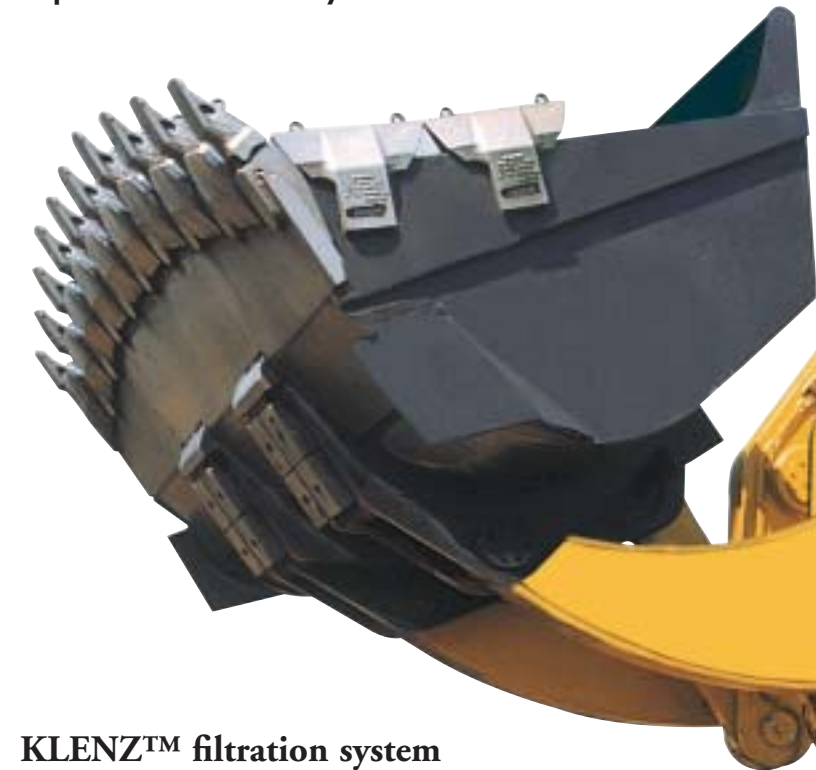
Hydraulics designed for maximum efficiency and dependability

Hydraulics make everything happen on a loader, and the hydraulics on a 50 Series happen to be the industry's best. The system includes variable output axial piston pumps, flow and pressure

compensated for optimum performance, economical operation, and high reliability. The wet-spline hydraulic pump drive gearbox is shaft-driven and self lubricating; inline filtration removes particulates to 10 microns absolute. A conservative pressure rating for the entire system promotes extended, trouble-free service life.

Easy component access

Another strong emphasis in the LeTourneau hydraulic system is component accessibility. Take the main hydraulic valves, for instance; they're all on the loader's front frame for convenient access and easy maintenance.

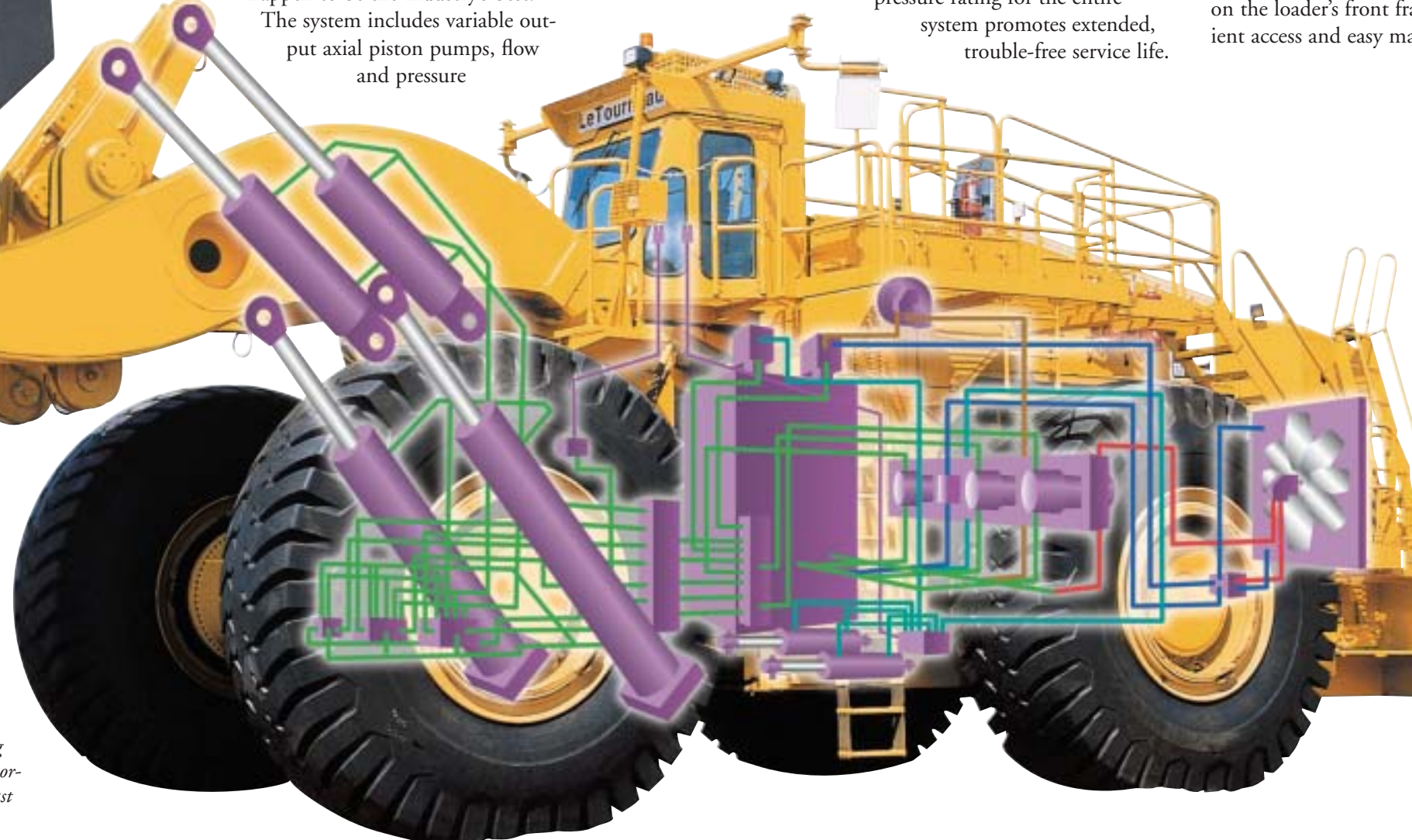


KLENZ™ filtration system

The world's most efficient and money-saving air filtration system for front-end loaders, KLENZ extends uptime and cuts costs with a self-purging design that can stretch filter life to 5,000 hours and beyond. It's 99.999% effective in removing particles as small as 0.5 microns from the air used for engine intake and cooling the loader's electrical components.



During the purge cycle, KLENZ forces high-pressure air pulses through the filtration unit to dislodge accumulated dust. The dust falls to the bottom of the housing for expulsion by an ejector valve. Under normal conditions, the filter cartridges will last upwards of 5,000 hours.



Ball-and-socket joints in all critical areas

Found at the base of the hoist cylinders, at the lift-arm and rear-axle attaching points, and at the top and bottom of the articulation area, precision-forged ball-and-socket joints are a LeTourneau exclusive. These joints absorb and distribute multidirectional stresses better than conventional pin systems, providing greater load-bearing capacity and durability. Continuous automatic lubrication dramatically reduces wear and carburized ball surfaces and replaceable bronze liners ensure long life.



Offering **absolute advantages** in every category that can influence cost per ton and return on investment...

Advantages in operator comfort

Rubber-mounted, fully insulated enclosure • eight-way adjustable air ride seat • unequalled forward and rearward visibility • filtered and pressurized air supply • automatic climate control

Advantages in operating simplicity

Joystick steering • joystick hoist and bucket control • LINCS real-time performance feedback and loader monitoring

Advantages in sustained productivity

No gears to shift • automatic bucket positioning • superior traction and braking performance • low-CG stability • 110v lighting system for night operation • remote, real-time production monitoring via RF modem • consistently rapid cycle times, all shift long

Advantages in minimizing fuel and maintenance costs

LeTourneau all-wheel electric drive featuring constant engine rpm, for reduced fuel consumption and wear, and positive traction for longer tire life

- easy-to-replace modular components
- interchangeable LINCS remote control modules
- easy service access for major systems and components
- remote status monitoring via RF modem
- exclusive KLENZ air filtration system

Advantages in loader reliability

Ball-and-socket joints • high-strength, low-weight box beam lift arms • robust LINCS hardware • conservatively rated, inline-filtered hydraulic systems • pressurized axle housings

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AN ABSOLUTE COMMITMENT

to **after-sale support**

At LeTourneau, "mining equipment" means loaders. Not loaders plus a hundred other product lines and models.

Therefore, LeTourneau customers receive the undivided attention and worldwide after-sale support of people who specialize in loaders. Genuine experts who fully appreciate that our company's reputation and success ride on the operating availability of each and every machine we sell.

When service parts are needed, they're in stock in one of our dealers' comprehensive inventories. If not, we'll move heaven and earth to get you the part you need with the utmost speed and efficiency.

Factory-trained product support technicians in addition to our dealer service personnel are available 24/7.

As for authoritative technical support, try picking up the telephone and talking one-on-one with the factory design engineer at any company other than LeTourneau, Inc.



LeTourneau training programs

In addition to comprehensive parts and service support, LeTourneau offers comprehensive training for loader operators and maintenance personnel. Technical training is available on-site and at our fully equipped instructional facility in Longview, Texas.

Our training programs help the employees of LeTourneau customers maximize productivity and return on investment.



LinkOne® electronic publications

Rounding out our extensive after-sale support is a library of LinkOne technical publications available on CD/DVD. The LeTourneau Electronic Publishing System includes illustrated, in-depth, easy to navigate manuals on operating, servicing, and repairing LeTourneau loaders; plus a linked parts catalog for added convenience. LinkOne from LeTourneau, Inc.: It's The New Absolute in information presentation and acquisition.



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