

Honestly Better.™



# HONESTLY BETTER.

50 years servicing heavy machinery = insights for innovation

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### A GLOBAL LEADER in field

services and enhanced components for massive equipment in the mining, oil and gas, railroad and other heavy industries, L&H Industrial helps operations teams reduce service costs, extend machine life, and increase productivity fleet-wide. Because our experienced field crews and engineers work shoulder-to-shoulder with yours—troubleshooting, repairing, and rebuilding heavy equipment—we see firsthand what wears, what tears, and what fails. Then we design, engineer, and manufacture parts and assemblies that do the job better. Our innovations, state-of-the-art equipment, above-and-beyond field services, and do-theright-thing approach are why many customers have partnered with us for decades.

### L&H: HONESTLY BETTER.



### HONESTLY BETTER SOLUTIONS

# FOR THE BIGGEST MACHINES ON EARTH

### FIELD SERVICES • DESIGN & ENGINEERING • MANUFACTURING & REPAIR

We earned our stripes responding to the parts and service needs of the mining and oil and gas industries, but our advance design and manufacturing expertise span a wide spectrum of industrial applications and equipment—from railroad machinery to the NASA Crawler Transporter 2. If it's big, heavy, subject to abuse, and requires innovative engineering and precision manufacturing, chances are L&H can make it Honestly Better.



### MINING

# Improving massive mining equipment: bearings to booms

Shovels, draglines, blasthole drills, crushers, grinders, mills, wheel loaders, front loaders, haul trucks, bucket wheels...regardless of make or model, if it's a big machine working hard at a mine, we can improve it. L&H's deep mining expertise—and 50 years of experience—cover field services, design and engineering, manufacturing and rebuilds, so we take a big-picture view of what it means to improve lifetime machine performance, across your entire fleet.

Sometimes it's as simple as using a better alloy in manufacturing an OEM replacement part. Sometimes it's as complex as completely redesigning an undercarriage. We've even gone as far as building our own 350-ton capacity lift system, so our field crews can undeck a shovel faster and more safely.

### OIL & GAS

# Field experts with the best tools for the toughest jobs

The oil economy is built on machines, and our expert technicians—who serve oil and gas operations around the world have been keeping oilfield machines in top condition since the 1960's Wyoming boom. From proactive maintenance and inspections to total rebuilds and equipment relocations, L&H offers turnkey services to keep the machines in your fleet at peak performance.

L&H has an extensive parts inventory, mobile 40- and 60-ton capacity cranes, field welding and machining, plus stateof-the-art manufacturing and repair equipment at every location. These and our expert tradesmen ensure the fastest possible turnaround on timeis-money repairs for your fleet.

### RAILROAD

# Advancing technologies that maintain the rails

L&H launched our services for railroad maintenance-of-way and operations equipment in 1997. At our Sheridan, Wyoming production center, we design, engineer, rebuild, and manufacture improved components and machines for a wide variety of railroad applications.

One of L&H's flagship accomplishments: the L&H Omega SuperSport Tie Knockout Workarm assembly that extracts and inserts ties under existing tracks. Borrowing from our mining expertise, L&H completely redesigned and engineered the machine for greater power, speed, and durability.

The final product—which we also prototyped and manufactured—operates at nearly double the speed of its predecessor, and users report the more robust design extends maintenance intervals by 2-3 times that of previous work arms.

### CUSTOM SOLUTIONS

### Want a better, stronger assembly or a one-ofa-kind machine?

At L&H we love a challenge: developing something that's completely new and Honestly Better. It's part of our company DNA.

When it comes to custom solutions, you benefit tremendously from our cross-industry expertise in the design, engineering, prototyping, testing, manufacturing, and maintenance of heavy-duty machines for different kinds of high-demand conditions.

What's our sweet spot? Mechanical precision, performance, and strength at a massive scale.

L&H can make heavy machines Honestly Better—for any industry, any application.

### THE TACONITE BUCKET WHEEL

### A total machine upgrade—from design improvement to custom manufacturing and the rebuild

One of our largest custom projects, for BNSF Railway, L&H upgraded every major assembly ladder boom, mast, gantry, discharge booms, side frames, carbody — on a 1960's bucket wheel excavator used for loading taconite at an inland port.

The L&H team used advanced re-engineering, custom manufacturing, and the latest technology to restore and upgrade the machine to better-than-new condition—in this case, more cost-effective than replacing the classic earth mover with a new machine. Bring us your biggest whole-machine challenges: whether it's a vintage machine rebuild, customizing a recent model, or building you an entirely new machine, we're ready to take them on.



### THE NASA CRAWLER-TRANSPORTER 2

### Retrofitting the largest land-transport vehicle on earth

Our upgrade of the NASA Crawler-Transporter 2 required removing, manufacturing, machining, and installing more than 1,300 parts with absolute precision. Retrofit upgrades increased the Crawler-Transporter payload by 6 million pounds, enabling it to carry larger spacecraft for traveling farther into space. The crawler doesn't move dirt; it carries space vehicles from assembly to launch pad. But NASA chose L&H for the job because of our demonstrated ability to improve massive machines. The project exemplifies how L&H expertise and capabilities transcend industry. We were up to the NASA challenge, and if we can upgrade the largest land transport vehicle on earth, you can be sure we'll tackle your next project successfully.



# INNOVATIONS BORN IN THE FIELD

### The road to Honestly Better heavy machines



Our field crews keep our design, engineering, and manufacturing teams informed about what really works—or doesn't—in the field. That's led us to develop technology improvements both great and small that collectively can make a big difference for your fleet.

### Field insights for innovation

Anything and everything is open for consideration:

- Challenges unique to a geographic region
- Modifications that could reduce
  maintenance times
- Wear patterns on an assembly
- Efficiencies to be gained from a better process
- Technologies to update or adapt from other heavy industries
- A better tool or machine for the job

We frequently collaborate with our customers and partners both to innovate and to develop the best long-term solution.

L&H has the right people and manufacturing capabilities to bring heavy machinery innovations into the real world.







### FIELD SERVICES



### Innovative, safe, skilled and efficient

At L&H, Honestly Better means doing a lot more than just keeping your machines up and running. It means making them better machines and making it easier and safer — to service them faster.

L&H field services for heavy equipment, available 24/7 worldwide, include inspections, routine maintenance, machining, welding, assembly installation, alignments, structural modifications, teardowns, and even equipment relocation. We make sure that our experienced, safety-conscious, certified field crews always have the best tools for the job.

Another advantage of working with L&H: we can service your entire fleet. L&H works on all brands of heavy equipment: Cat<sup>®</sup> / Bucyrus<sup>®</sup>, P&H<sup>®</sup>, Atlas Copco<sup>®</sup>, LeTourneau<sup>®</sup>, Komatsu<sup>®</sup>, Liebherr<sup>®</sup>, Hitachi<sup>®</sup> even modified, custom, or vintage machines.

If it's a massive machine doing highdemand work, we can maintain it, fix it, rebuild it, improve it, make it safer. No matter the machine, no matter the brand.

L&H: Honestly Better field support for your entire fleet.





DESIGN & ENGINEERING

### The big picture of machine improvement

There's no part or assembly too big, too small, or too complicated for L&H Industrial to handle. We have veteran in-house designers and engineers specialized in mechanical systems for heavy equipment.

Sure, we can design and engineer a standard replacement part to OEM or—more often better-than-OEM standards. But where L&H really excels is improving major and minor assemblies not just for better lifetime performance under harsh conditions but also for ease and speed of maintenance. That pays off in lower total cost of ownership for you. Because L&H integrated services extend all the way to installation, repair, and longterm maintenance for all major equipment brands, our team has exceptional long-range insights for improving designs with the big picture of machine maintenance in mind.

*Here's just one example:* L&H developed a highdrive propel modification for shovels that reduces the time to access the final drive shaft and tumbler by half. That can mean up to 18 hours of recovered production time; huge gains for a huge machine, with a big payoff for your operation.

L&H: Honestly Better design and engineering-the data shows the difference.





MANUFACTURING & REPAIR

### Unmatched expertise, state-of-the-art equipment

We can repair, rebuild, or newly manufacture any heavy equipment assembly or component that you have in your operation.

With advanced in-house engineering capabilities supporting our state-of-theart manufacturing centers, L&H routinely takes on the biggest and most challenging industrial manufacturing projects. Machining, welding, gear grinding, fabrication, hard chrome plating, heat treating, testing... our in-house capabilities allow us to control every aspect of the manufacturing process and produce the highest quality, longest lasting premium components.

L&H: Honestly Better assemblies mean lower total operations costs.



# PRODUCT LINF



### SHOVELS

L&H engineers, manufactures, troubleshoots and rebuilds major assemblies for electric rope shovels and hydraulic excavators: systems for propel, swing, hoist and crowd, as well as dippers and attachments.

### Honestly Better results

Our innovative L&H Omega shovel undercarriages last 30% longer than OEM undercarriages, radically reducing maintenance costs and delivering the lowest total cost of ownership around.

### DRAGLINES

From designing better assemblies to on-site welding of structural booms, L&H provides complete services and components for dragline maintenance and performance improvement.

### Honestly Better results

An industry first, the self-adjusting L&H Omega R3 Dragline Swing System moves and flexes with your dragline, extending the life of your system.

### DRILLS

L&H supplies premium-quality mechanical parts for blasthole drills and offers full field services and rebuilds for everything from drill steel to masts.

### Honestly Better results

L&H Omega Trackpads for blasthole drills, designed for hard rock conditions, reduce steering loads with a beveled contact face and counter bores; they also improve flotation by reducing chain link stress and ground-bearing pressure.

### MINERAL PROCESSING EQUIPMENT

We repair all major mineral processing equipment components used in crushing, milling, screening, concentration and dewatering. We also offer full gearbox rebuilds.

### Honestly Better results

Our massive Höfler Rapid 6000 gear grinder—one of only four in North America—enables L&H to do the most sophisticated, precise large gear and pinion manufacturing in the world, grinding gears up to six meters in diameter.

### HEAVY MOBILE EQUIPMENT

We offer full electrical, hydraulic and mechanical troubleshooting and on-site repair for haul trucks, wheel loaders, and other heavy mobile equipment. We also provide complete repairs, rebuilds, and manufacturing of heavy structural components.

### Honestly Better results

L&H has an advanced R&D program in place to develop technology advancements that improve the safety, performance, and ease-of-maintenance of heavy mobile equipment, with a special emphasis on innovations for wheel loaders.

### OIL & GAS EQUIPMENT

From gearbox rebuilds to brake repairs to unit teardowns, L&H responds right away to your in-field repair needs with experienced crews ready with the right talent, equipment, and parts.

### Honestly Better results

For unbeatable precision and quality, L&H has master tradesmen operating today's most advanced technologies, including state-of-the-art field machining equipment and the largest-scale CNC machining for precision components.

### RAILROAD EQUIPMENT

Our custom engineered and manufactured railroad maintenance support products, such as auto-pregaugers and our L&H Omega SuperSport Tie Knockout Workarm assembly, provide safer, more robust technologies for difficult tasks.

### Honestly Better results

L&H developed—from design to manufacture—a track-riding pregauger that automates the process of lining up plates for more efficient rail threading. The machine also increases worker safety by reducing human error in the process.



# EXPERT ENGINEERS, TRADESMEN, AND FIELD CREWS

Highly skilled. Well equipped. 100% invested.

We believe top-quality services and products depend, first and foremost, on hiring the right people and giving them the right tools for the job. We hire experts, masters at their craft. We hire people who love taking on new challenges, learning every day, and doing exceptional work.

Our designers, engineers, machinists, mechanics, welders, project managers, logistics specialists, administrators, managers...everyone at L&H pulls together to do work that's Honestly Better, because at the end of the day we want to feel genuinely proud of the work we do for you.



### WE MAKE IT SAFER

### It's our top priority in the shop and in the field

Manufacturing, servicing, repairing and operating heavy machinery leaves no room for error. We take safety seriously, not because it's regulated, but because it's right. Keeping our employees and our customers' employees safe on the job is our #1 priority. Our exceptional safety record—for more than 500 employees worldwide proves the strength of our commitment and the quality of our safety program.



### WE BUILD IT BETTER

### Quality comes from knowing what you're doing and caring that it's done right

"Good enough" just isn't good enough for L&H. Our quality assurance testing ranges from laser tracking and vibration and thermal analysis to spectrographic examination and destructive tests for impact, hardness, and tensile strength. And nothing leaves the shop until it passes every L&H test with high marks.



### WE GO THE EXTRA MILE

### Thinking ahead. Taking Action. Doing what's right.

If there's a way to make it better, stronger more durable or more functional, we do. If it means working double shifts to get it to you fast, we do. The things that matter most to us are people, integrity, and a job well done, so you can count on L&H to go above and beyond.

# 24/7 SERVICE, FACILITIES WORLDWIDE

Keeping your fleet at peak performance

We have expert field crews ready to deploy anywhere, anytime—when you need heavy equipment troubleshooting, repairs, rebuilds, or relocations. Our cutting-edge manufacturing and repair facilities also operate 24/7 to ensure the fastest possible turnaround on any repairs that can't be done in the field. Additionally, we keep a full inventory of new, rebuilt, and return-and-exchange components to keep your machines in operation.

Thanks to L&H teams and facilities around the world, a close partnership with Vulcan Industrial, and our extensive international network of field service, manufacturing, and distribution partners, you're never far from L&H parts and services.



# FAMILY. INTEGRITY. INNOVATION.

**FIVE DECADES & COUNTING** 

### The foundation of L&H: family business values

Founded in 1964, L&H Industrial is a third-generation family business that has grown from a 6-person shop into a global enterprise by thinking big picture and long term. We think generations ahead, asking "What kind of business do we want to be, both in today's business world and in 50 years? What will be our legacy for the sixth generation of people working at L&H?"

The answer is simple: one that is honestly better.

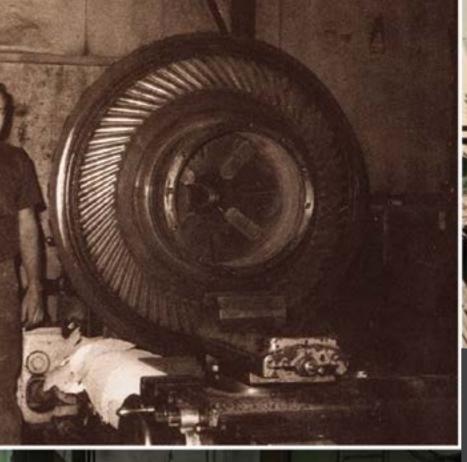
So that's how we approach our business: grounded in integrity, focused on quality, driven by innovation.

And that's the culture of our company: honest, hard-working, proactive.

And that's why we always, always do what's right and go above-and-beyond for our customers—because we believe relationships transcend transactions.









### MISSION

Taking care of our people and our customers

VISION

Be a world-class company

### VALUES

Honesty, integrity, loyalty and respect

Safety, productivity, innovation and accountability

Our employees and their families

Going the extra mile and giving people more than they expect



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Visit **www.LNH.net** to learn more about how L&H Industrial can help you improve your field services, machines, and fleet performance.

### **HEADQUARTERS**

### Gillette, Wyoming

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www.LNH.net

### L&H AND PARTNER FACILITIES WORLDWIDE

- North America
- South America
- Africa
- Asia
- Australia

### PARTNERS

### **Vulcan Industrial**

### Anand, Gujarat, India



Through our strategic alliance with Vulcan Industrial, L&H expands the global reach of our field services and custom manufacturing capabilities. Vulcan, which shares our path as a third-generation family business that has grown into an international enterprise, serves the mining, cement, steel, energy, and other industries.

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