

CASE STUDY

ENGINE REBUILD INCREASES ENGINE LIFE BY 6,000 HOURS

H-E PARTS INTERNATIONAL (H-E PARTS) SPECIALIZES IN IMPROVING ENGINE PERFORMANCE FOR OUR CUSTOMERS IN THE COMMODITY AND ENERGY MARKETS. UTILIZING OUR STATERRA POWER™ ENGINE TECHNOLOGY AND STATE-OF-THE-ART REMANUFACTURING FACILITIES, WE PROVIDE OUR CUSTOMERS TAILORED SOLUTIONS AND SUPERIOR, LONGER LASTING ENGINES.

H-E Parts is consistently sought out by customers for machining and engineering solutions. What sets our team apart is the ability to rebuild and recondition an engine and all major components at one single location to run like new.

H-E PARTS PROVIDES INNOVATIONS THAT IMPROVE UPON:

- Overall Engine Balancing
- Connecting Rods
- Crankshafts
- Cylinder Head Reconditioning
- Honing
- Magnaflux/Crack Testing
- High Performance Engine Testing

These capabilities are what originally attracted a thermal coal customer in Columbia, South America to H-E Parts. The customer was having repeated engine issues on CAT 793 haul trucks. They were hoping to increase fleet operating hours while lowering overall cost per hour.

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| PREVIOUS SUPPLIER | 14,000 - 16,000 |
| H-E PARTS REBUILD | 18,500+ |

The customer indicated that engine life decreased by 20 to 30% after first rebuild with previous supplier. A third rebuild routinely only provided a third of the hours experienced with a brand new engine.

Our customer is an innovator and leader in equipment maintenance. By collaborating with H-E Parts, they have achieved consistently longer life from their engines.

Our team provided key solutions to the customer, such as, advanced machining processes and balancing services to drastically reduce the torsional vibration. By decreasing vibration, operator's comfort increased and downtime decreased.

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The customer also noted major components are no longer seeing fretting wear that results in costly replacement parts.

These improvements have allowed our customer to keep the engine running longer with a significant decrease in cost per hour of operation. The customer also appreciates the ability to stage and review engine components during disassembly and discuss in depth wear and tolerances. H-E Parts is committed to extending component life and lowering costs. We are proud to work with reputable miners and to lead in providing innovative solutions that improve mine and industrial maintenance.

SINCE 2013, H-E PARTS HAS PROUDLY REBUILT 50 ENGINES FOR THIS GLOBAL CUSTOMER WITH THE 51ST ENGINE CURRENTLY IN THE WORKS.

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| LOCATION / DIVISION | Colombia, South America |
| MINE TYPE | Thermal Coal Mine |
| APPLICATION | CAT 793 Haul Truck |
| PRODUCT | CAT 3516 Engine Rebuild |



ENGINE SOLUTIONS

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