

INNOVATION.
NOT DUPLICATION.™



DIESEL ENGINE MACHINE SHOP

H-E PARTS INTERNATIONAL (H-E PARTS) SPECIALIZES IN IMPROVING ENGINE PERFORMANCE FOR OUR CUSTOMERS IN THE MINING 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 places priority on continuously upgrading and investing in the most advanced equipment and systems available to remain a leader in diesel engine supply and repair. The use of separate engine disassembly and assembly facilities eliminates problems related to cross-contamination that can result in premature component failure.

OUR MACHINE SHOP SERVICES INCLUDE:

- Camshaft re-profiling
- Connecting rod re-conditioning
- Cylinder pack assembly
- Crankshaft re-conditioning
- Cylinder block machining
- Head machining
- Crack detection
- General machining
- Cleanroom testing capabilities for millipore testing
- Custom shop services that ensure your engine is reconditioned to the highest standard of quality
- Comprehensive cleaning process prior to and after machining process



Camshaft Reconditioning



Connecting Rod Reconditioning

STATE-OF-THE-ART FACILITIES

NDT INSPECTION

Nondestructive testing (NDT) covers a wide variety of techniques used at H-E Parts. Wet method and dry powder used for crack detection of ferrous components and liquid dye penetrant used for non-ferrous items. Inspection technicians having ASTM level II certifications assuring proper equipment operation and the accurate interpretation of all discontinuities found.

CYLINDER BLOCKS

Cylinder blocks must pass a 95-point inspection. All critical cylinder block areas are Portaflux inspected. Machining is accomplished in one of our CPU controlled workstations with .0001" (0.00254 mm) repeat-ability. Machining is accomplished using the latest cutting technology, eliminating the possibility of heat distortion while re-establishing critical surface finishes. We provide engine block repairs across multiple locations on the block.

CRANKSHAFTS

A signature of H-E Parts Engine Solutions is our crankshaft department. OEMs have often come to Engine Solutions to develop repair and reconditioning strategy for their crankshafts. A multi-part inspection is performed on every crankshaft including magnaflux, rod and main journal diameters, radius size and condition, straightness, hardness, front and rear seal areas, snout and flywheel hub condition, bolt and dowel holes and counterweight pads. Gears and counterweights are also thoroughly inspected.

EQUIPMENT BALANCING

H-E Parts has custom-built balancing equipment designed specifically for high horsepower industrial engines. This equipment allows us to verify the balance of the crankshaft assembly as well as make improvements to optimize engine balance. This extra step provides assurance that StaTerra Power™ engines produced by our assembly facility operate smooth and trouble free. The custom bobweights, computerized technology, and solid base rigidity of these purpose-built machines enable us to balance to the most stringent specifications.

THERMAL COATING PROCESS

Thermal coatings are used to repair engine components, this repair process is authorized by many manufacturers to repair various parts of the engine. The two primary processes we use are twin wire thermal spray arc system, and the powder flame spray process. We have used it to repair various engine components.

- Cylinder block restoration
- Main caps spray-welded to restore interference fit
- Main saddles spray welded to repair damaged bores
- Crankshaft seal areas

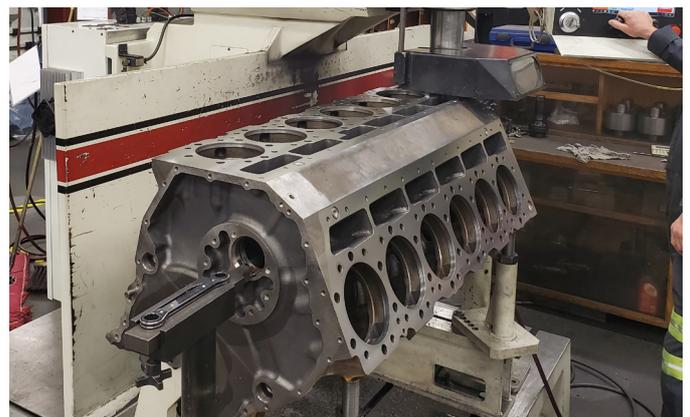
H-E Parts International replacement parts are compatible with the makes and/or models of the third-party equipment described. H-E Parts International is not an authorized repair facility of these third parties and it does not have an affiliation with any manufacturers of these third-party products. All brands, original equipment manufacturer (OEM) part numbers or references are owned by the respective OEM entities or their affiliates. These terms are used by H-E Parts International for identification and cross reference purposes only and are not intended to indicate affiliation with, or approval by the OEM, of H-E Parts International or its products.



Connecting Rod Magnetic Particle Inspection (NDT)



Crankshaft Set Up for Grinding



Machining Cylinder Block Surface



MINING SOLUTIONS

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