

INNOVATION.  
NOT DUPLICATION.™



ENGINE SOLUTIONS

## ENGINE DYNAMOMETER

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

H-E Parts provides world class industrial diesel engine re-manufacturing services to the mining, stationary power, and oil and gas industries. Our dedication to quality and precision ensures that every one of our engine re-builds runs like new. To ensure H-E Parts diesel engines provide our customers the lowest total cost of ownership, all engine rebuilds and service exchange units undergo extensive commissioning, testing, and analysis. This ensures our customers not only receive significant cost savings over a new engine, but also a high-quality product that can be relied upon. All testing is conducted by trade qualified and highly trained dynamometer technicians who ensure consistency with work flows to meet client demand.

### TESTING BENEFITS

H-E Parts engine dynamometer testing offers our customers the following benefits:

- Efficiently troubleshoot low horsepower, insufficient torque, boost issues, leaks, and identification of any other engine issues requiring attention while under test or simulated machine load
- Any required repairs or adjustments can be carried out so a 'before and after' test report can be compiled and sent to the customer upon completion



# ENGINE DYNAMOMETER TESTING

## TESTING CAPABILITIES

Testing is available on a wide range of late model engines, with complete test reports available that document all outputs, ensuring complete transparency.

H-E Parts engine dynamometers are capable of testing, diagnosing, and reporting on the following parameters:

- Checking individual cylinder temperatures on all engines to ensure optimum performance is achieved
- Determine correct levels of fuel burn are measured to meet approved performance specifications and that these are achieved for each engine tested
- Ensure all engines are running at optimum coolant temperature and correct oil pressures are achieved

## DYNAMOMETER TEST COVERAGE

H-E Parts' ability to conduct testing in-house means service delivery and engine rebuild time frames are reduced with no reliance on third-party suppliers for testing. H-E Parts has the capability to dyno test engines up to 4200 HP and are predominantly used for Caterpillar C27, C32 and the full range of 3500 series engines.

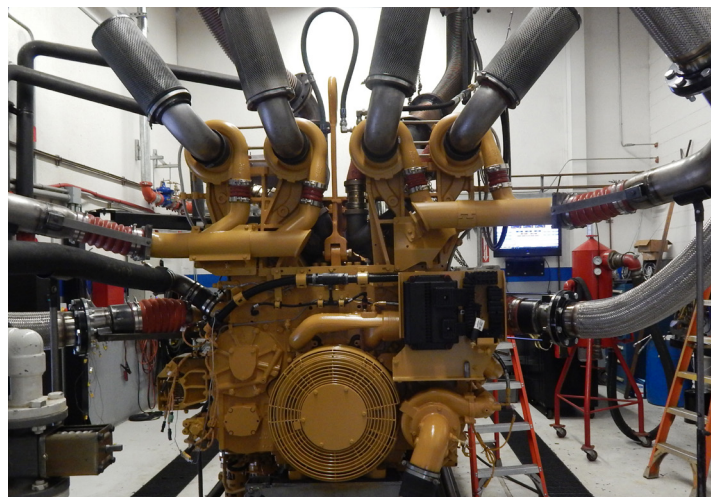
## VIBRATION ANALYSIS

H-E Parts fully balances engine rotating assemblies in every build. A vibration analysis test is conducted during full dyno run to record and verify that no vibration abnormalities are present. H-E's balancing technique is proprietary, minimizes fretting, and improves engine service life.

## COMPLETE POWERTRAIN SOLUTIONS

In addition to H-E Parts Engine Solutions service offering, our Mining Solutions division provides our customers a full drivetrain solution with Birrana™ enhanced wheel groups offering extended component life, maintenance efficiencies, and increased performance. Similarly, H-E Parts COR Cooling™ radiators and coolers incorporate innovative aluminum fin designs that aid air flow and heat transfer while remaining more resistant to corrosion.

This ensures our Mining and Engine Solutions divisions work collaboratively to certify that major components operating in the complete drivetrain perform as expected and to the best standards possible through shared technology, information, and innovations.



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.



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HEPI18JUL2019

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