



ENGINE REBUILD CENTER

REBUILD PROCESS



814-471-1710

www.ClevelandBrothers.com



TAKE A LOOK AT OUR ENGINE REBUILD CENTER

QUALITY, INDUSTRY-LEADING, INNOVATIVE.

Cleveland Brothers is no stranger to expanding capabilities to meet the needs of our customers.

For the gas compression market, a need was identified for a rebuild facility in the northeastern part of the United States. So, what once was a 165,000 sq. ft. windmill blade facility in Ebensburg, Pa., is now a state-of-the-art natural gas engine rebuild facility, serving all Cat® natural gas engines with a focus on the G3500 and G3600 models.

- ▶ **This step-by-step guide will show you exactly what will happen when your engine enters our facility. See for yourself how our Engine Rebuild process is completed!**



STEP 1: Welcome to Cleveland Brothers

We are the largest natural gas compression engine remanufacturing facility in the eastern half of the United States.



STEP 2: Receiving/Pre-Wash Area

The engine is prewashed and prepped for the remanufacturing process. The engine's arrival condition is documented using Cat Inspect.



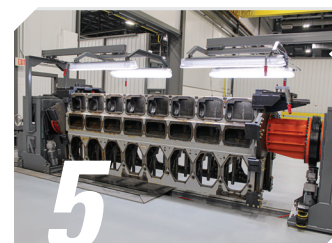
STEP 3: Disassembly Area

The engine is disassembled to the bare block. Engine sub-assemblies are further disassembled to component level, then inspected and prepped for cleaning.



STEP 4: Part/Component Cleaning

The engine block and large components are submersed and washed using high pressure spray technology. Small components and parts are washed in high pressure spray cabinets.



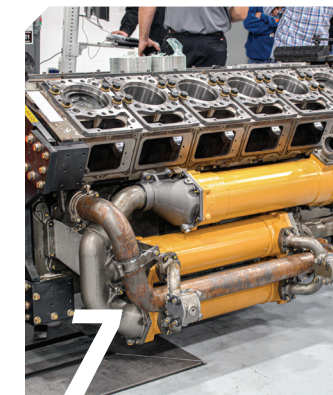
STEP 5: Inspection

The engine block, crankshaft, camshafts, gears, stubshafts, and housings are inspected for reusability based on Cat specifications.



STEP 6: Salvage/Machining

Components are precisely machined and resurfaced using state-of-the-art CAM and Dynamic Balancing capabilities. This allows for maximum engine block and crankshaft reusability on site.



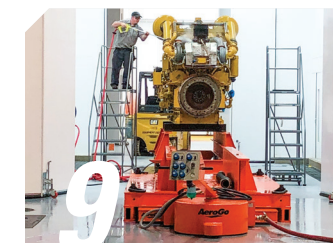
STEP 7: Assembly Bays (25 total)

During this step, the components are reassembled and installed on the engine. Progressive built assembly bays allow for lean manufacturing principles to drive efficiencies for quick turnaround.



STEP 8: Dyno Test (up to 8K HP)

The engine is tested at full load and tuned appropriately. We ensure that your engine meets all emissions standards and OEM specifications.



STEP 9: Wash Booth/ Paint Booth

The engine is final washed and prepped for paint based on the customer's exact specifications.



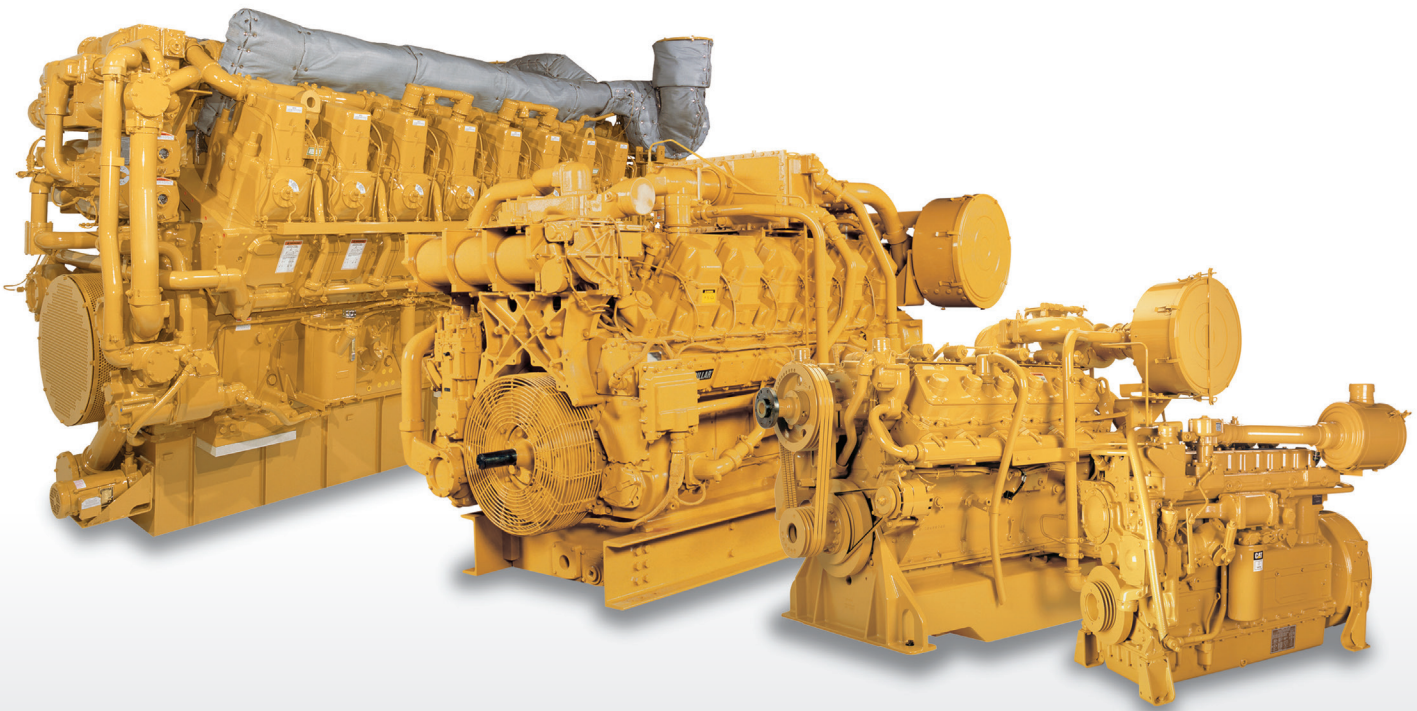
STEP 10: Shipping

The engine and/or components are prepared for shipping, then shrink wrapped and held in a clean and secure location until pickup. Your engine rebuild is now complete!

PERFORMANCE LIKE NEVER BEFORE

We are happy to provide our customers with an even higher level of service excellence.

Come visit us today!



Engine Rebuild Center

100 Commerce Drive
Ebensburg, PA 15931

814-471-1710



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