Case Study

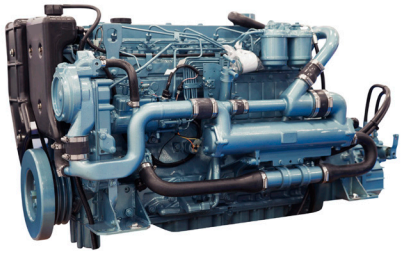
HEAVY DUTY DIESEL / LINER INSERT SEAL

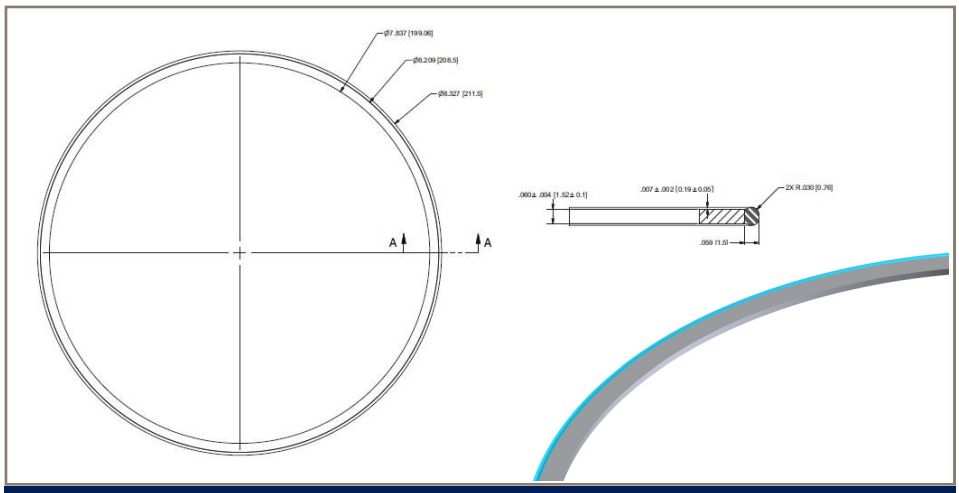
HEAVY DUTY DIESEL

Application

Large diesel engine used in mining equipment and power generation.

Application:	Block to Liner Insert Seal
Temperature:	0 to 160 C, 110C nominal
Pressure:	0-103kPa, 70kPa nominal
Fluid:	Coolant



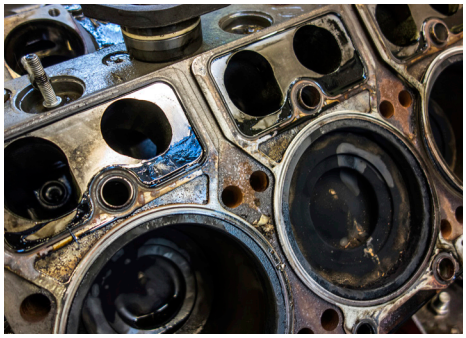


FEATURED PRODUCT: Liner Insert Seal

Problem

The application currently uses an industrial adhesive to seal between the pressed-in cylinder liner and engine block. Under high temperatures and vibration the adhesive in this application was found to destabilize and allow minor component separation and a provide a leak path.

Coolant leaks in large diesel engines can cause corrosive damage to engine block and cost operators thousands. Standard elastomer, rubber coated metal and fiber gasket options could not provide adequate sealing while maintaining a proper load transfer in the joint.



Parker Solution

Parker CSS developed a Parker Integral Seal comprised of a plated steel carrier over-molded with a high performance EPDM rubber. This design is not only self centering to eliminate installation issues but successfully carries the high load transposed from the cylinder liner to the engine block. This will ensure no separation of these components when subjected to severe engine vibration or increased operating temperatures. The Parker solution eliminated costly engine coolant leaks onto the block and head assemblies.

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Parker

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