ONE-PIECE PRE-CHAMBER – P.N. PC-1782

Application: Caterpillar G3600 Series
Caterpillar® Cross Reference: 330-1782

SCAN ME

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ABOUT OUR ONE-PIECE PRE-CHAMBER

1. Investment Casting vs. Sand Casting

Our pre-chambers are manufactured using a state-of-the-art Investment Casting Process that results in superior dimensional tolerances, ideal surface finishes and improved grain structure of the metal throughout the casting. The Investment Casting Process consistently provides dimensional tolerances of +/- .002 inches. The O.E.M./Caterpillar® casting uses a Sand-Casting Process which is considered to be a lower quality process than the Investment Casting Process.

2. Fuel Delivery Ports and Channels machined to perfection

The fuel port in the body assembly of our Pre-Chamber is machined in a 5 axis CNC machine to insure exact dimensions and repeatability on every casting. This process assures consistent fuel flow delivery to the check valve and ease of setting the Air-Fuel ratio.

3. Tip Material is Advanced and Hardness Improved vs. O.E.M.

To provide longer life our Pre-Chamber tip is manufactured using a 625 Inconel material to prevent premature metal erosion caused by the extreme high temperatures while also being corrosion resistant. Our tip is polished to a higher luster using the Drag Finishing Process with Ceramic Pins. This process results in a product that has a better surface finish with a surface grain structure that is “polished over,” thus creating a surface that is resilient to oxidation and more resistant to the formation carbon buildup.

4. Mid Flange Diameter Design

This dimension of the Mid Flange has been increased by .060” to create a better sealing surface where the tip seals at the entry area to the combustion chamber.

5. Improved Tip Machining/Ceramic Pin Polishing

The inside of the tips are machined for an improved surface finish and resistance to corrosion and carbon build up. Ceramic pin polishing laps the metal to help prevent carbon tracking.

6. Pressure Testing and Quality Control Checks

Hydrostatic and pressure testing on all tips to insure against leakage.
Every Pre-Chamber is subject to an extensive Quality Checks for size, finish, and consistency before they are submitted for the hydrostatic pressure.

BENEFITS OVER CATERPILLAR®:

- Advanced tip material and hardness over Caterpillar®
- Polished inside tip with better surface finish resistant to corrosion. Inside tip is polished using the same ceramic pin technology as the outside. This helps prevent carbon tracking.
- Alignment dowel for consistent indexing of spark plug hole.
- Improved fuel delivery ports done on a 5 axis CNC machine for smoother inside bore causing less build-up and achieving longer run times.
- Investment casing is superior to the sand-casting Caterpillar® uses because it supports tighter tolerances.
- We can package our pre-chamber, check valve, and gaskets as a kit.
- **OUR PRE-CHAMBERS ARE BRAND NEW. NO CORE.**