

When it comes to aircraft maintenance and replacement parts, ensuring that the correct components are used is essential for safety and reliability.

That's why we want to highlight that our Champion igniters for the T700 engine on UH60 Black Hawk aircraft come stamped with GE part numbers. This ensures that our customers can have confidence that they are purchasing a product that is in line with the manufacturer's manual and specifications.



## **EXCLUSIVE AUTHORIZED DISTRIBUTOR**

By choosing our Champion igniters with the GE part number stamp, customers can trust that they are getting a high-quality product that will perform as intended and maintain the safety and reliability of their aircraft.



Figure 1: Igniter with both Champion and GE part numbers stamped



Figure 2: Certificate of Conformance

In a comparative test and analysis to benchmark functional and durability performance, Champion completed 2.9 times the number of sparks under pressure, demonstrating superior semiconductor performance.



Figure 1: Champion - 550K Sparks



Figure 2: Competitor - 550K Sparks

The Champion design completed 2.9 times the number of sparks under pressure (448k vs 155k) which demonstrates superior semiconductor performance. See Figure 3. The Champion igniter onset voltage was significantly more stable throughout the life test which leads to lower delivered energy for each spark thus providing increased service life capability and assured ignition during normal starts, under fuel wetted or other fouled conditions and continuous ignition demands. See Figure 4.

**GE P/N** 5044T67P07 **NSN** 2925-01-150-7160 **CHAMPION P/N** CH34419

**COMPETITION P/N** 9044295-1

After 550,000 sparks at 0.70J minimum delivered energy discharge the Champion igniter design, CH34419, outperformed the competitive design due to the Champion competitive advantage in the semiconductor material selection and design. The tip condition results in Figure 1 and 2 at 550k sparks were similar; however, the electrical performance, quench pressure and durability of the Champion design was found to be superior.

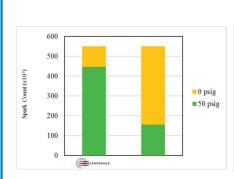


Figure 3: Sparking Life at Pressure and 500°

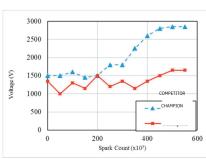


Figure 4: Onset Voltage Performance

Microscopic examinations of the competitive semiconductor component provide firm evidence for the lower onset voltage and quench pressure performance. The competitive design has insufficient Silicon Carbide content to provide a high performing semiconductor component. It includes other doping agents to increase durability, but at a cost to electrical performance.