



Aviation Technical Bulletin

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Bringing Power to Flight

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CHAMPION CH31824 IGNITER

The CH31824 is an extended life, high voltage series igniter used in Garrett GTCF 85 APU's. It differs from the standard duty CH31723 in that the lower shell (ground electrode) is made of hastelloy X instead of stainless steel. Following are the cleaning, inspection and testing instructions for this unit.

CLEANING

The igniter may be cleaned with a stiff bristle brush or an abrasive cabinet plug cleaner, then wipe off with solvent.

Note: Igniter shall be cleaned just enough to remove carbon deposits.

INSPECTION

Reject igniter for the following:

Wiring End

1. Loose or broken parts.
2. Cracked, chipped, or broken ceramic insulator.
3. Center electrode must have an outside diameter of 0.10 inch or greater at the narrowest cross-section and must protrude beyond the ceramic insulator at least 0.04 inch.
4. Gap between electrode and outer shell must not exceed 0.25 inch at the farthest point.

Terminal End

1. Cracked, chipped, or broken ceramic.
2. Terminal pin badly bent or broken.

TESTING

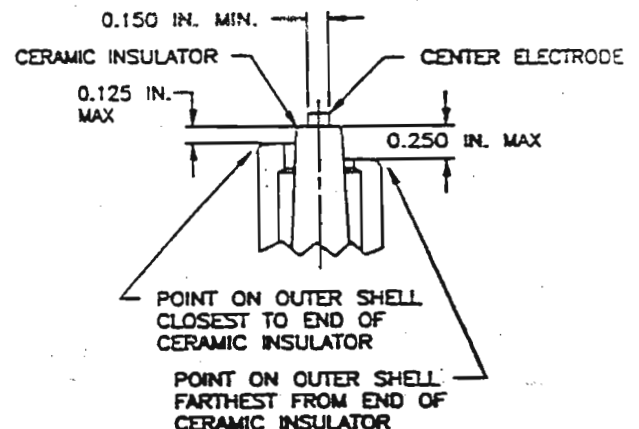
Spark test at normal open air pressure using the standard ignition unit, including the shielded lead and terminal fittings.

1. Connect a 14 Volt DC power source to the ignition unit.
2. Connect igniter and lead to ignition unit.
3. A minimum spark rate of one spark per second and spark consistently.

WARNING: THE OUTPUT OF THIS IGNITION SYSTEM IS SUFFICIENT TO CAUSE A LETHAL ELECTRICAL SHOCK.

Do not touch or place hand near base of plug while the ignition is on. Always disconnect leads from input power source and wait at least one minute to permit stored energy to dissipate before working with ignition unit.

1. Disconnect ignition unit from DC power source.
2. Wait at least one minute, disconnect the igniter from the ignition unit.



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