



Aviation Technical Bulletin

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86-12

CHAMPION FS109-1A IGNITER

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CLEANING

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

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

INSPECTION

Reject igniter for the following:

FIRING END

1. Center electrode worn flush with the insulator nose; Figure #1.
2. Loose or broken parts.
3. Cracked, chipped, or broken ceramic insulator; Figure #2.
4. Burned or melted shell; Figure #3.

NOTE: If firing end shell is deeply grooved from combustor "floating" more than .030, scrap igniter.

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.

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

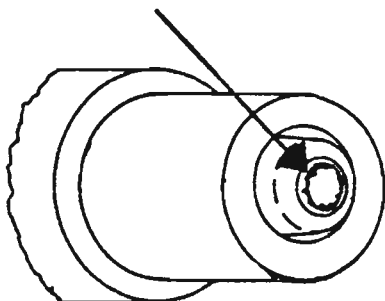


Fig. #1

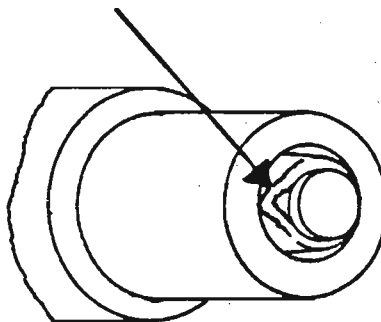


Fig. #2

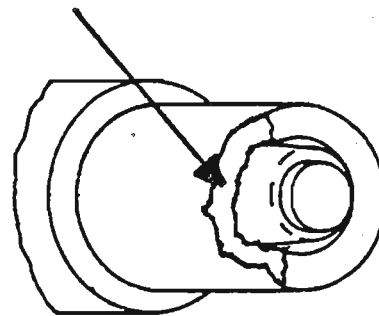


Fig. #3

Champion Aviation Products: Your Blueprint for Performance