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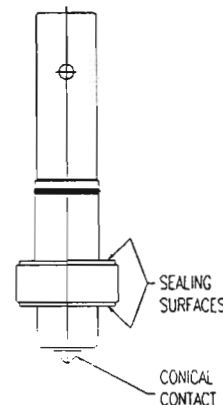
No. 94-1

CHAMPION CH34803 (SERIES 21™) IGNITER

The CH34803 is a low voltage igniter used in the AlliedSignal GTCP131-9D engine. To achieve the low voltage operating requirements, the igniter utilizes a solid semiconductor pellet at the spark gap (between the center and ground electrodes). When servicing this type of igniter, care must be taken not to disturb the semiconductor material, as well as any combustion deposits that may be in the spark gap area.

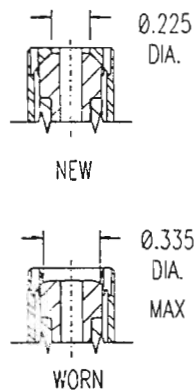
Cleaning

1. Wipe combustion deposits from igniter O.D. with a lint free cloth.
2. DO NOT DISTURB THE COMBUSTION DEPOSITS IN THE SPARK GAP AREA. The deposits aid igniter operation. The semiconductor may show signs of uneven erosion. This is normal and not a cause for rejection.
3. The (upper) conical contact (see illustration) and the sealing surfaces may be cleaned with a felt swab saturated with alcohol or mineral spirits.



Inspection

1. Visually inspect for mechanical damage. Reject if it shows impact damage.
2. Check firing end shell for chafing or fretting wear. This wear is not to exceed 0.015 from original igniter surface. If this wear is more than half the circumference of the shell, reject.
3. Check conical contact and sealing surfaces for signs of electrical erosion. If any signs of electrical erosion are present, reject.
4. Check the amount of electrical erosion at the spark gap (see illustration). If erosion is equal to or exceeds measurement shown, reject.



Testing

1. Spark test the igniter at sea level ambient conditions using the standard engine exciter, the standard ignition lead, and the standard engine mounting boss.
2. Assemble the units together with sufficient torque to assure proper contact of electrical connections.
3. Switch on the ignition signal and spark for 15 seconds. If misfiring more than five (5) consecutive times, firing at a location other than the spark gap, or irregularity in spark occurs, reject.
4. Turn off the ignition unit.

WARNING: THE OUTPUT OF THIS IGNITION SYSTEM IS SUFFICIENT TO CAUSE A LETHAL ELECTRICAL SHOCK. DO NOT TOUCH ANY EXPOSED OR LIVE PORTION. ALWAYS DISCONNECT LEADS FROM INPUT POWER SOURCE AND WAIT AT LEAST ONE MINUTE TO PERMIT STORED ENERGY TO DISSIPATE BEFORE WORKING WITH THE IGNITION UNIT.

5. Wait for at least one minute to elapse; disconnect igniter from exciter, then unclamp the igniter.

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