

1961 Corvette: Chevrolet Product Engineering Technical Information: Spark Plug Electrode Interference With Piston

Subject: Spark Plug Electrode Interference With Piston

Model and Year: 1961 Corvette Models Equipped with Fuel Injection

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Product Data Book

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An interference condition between the spark plug ground electrode and piston dome may occur on 1961 Corvette Models equipped with fuel injection. This interference results in a bent electrode which causes insufficient spark plug gap, engine miss and subsequent poor performance.

PRODUCTION

The condition was corrected in Production effective 5-15-61 (engine date stamp F-0515) by removing 1/16" of the piston dome at the contact area as shown in the following sketch. The size of the area to be removed is approximately 1/16" thick, 1/8" wide and 1-1/2" long machined at a 50° angle. Only the top half of the dome chamfer should be removed with the lower portion remaining at the existing 30° angle.

SERVICE

To correct this condition on vehicles built before the Production change, proceed as follows:

1. Remove spark plugs and check for bent ground electrodes.
2. If the ground electrode has been bent, clean and regap the plug to .035"/
3. Install two spark plug gaskets on each spark plug.

NOTE: use spark plug gasket Part No. 5612328 which is a Corvair spin-on type.

4. Install spark plugs with double gaskets and tighten to 25 ft. lbs. to minimize the possibility of piston burning.

REBUILD INFORMATION

In the event an 11:0-1 compression ratio engine equipped with fuel injection is being overhauled or if the cylinder heads are removed, each piston dome should be filed or ground off approximately 1/16" to prevent spark plug electrode interference. if only the heads are removed,

the pistons should be at TDC and grease applied to the top of the pistons to insure complete remove of filings.

Online URL: <https://www.corvetteactioncenter.com/tech/knowledgebase/article.php?id=1066>