

CHEVROLET—CENTRAL OFFICE

DIVISION OF GENERAL MOTORS CORPORATION
DETROIT 2, MICHIGAN



TECHNICAL SERVICE BULLETIN

Technical Service Department



SUBJECT: VALVE BURNING - 1960-61 CORVAIR
AND CORVAIR "95"

BULLETIN NO. DR # 486

SECTION VI

TO: ALL CHEVROLET DEALERS

DATE June 22, 1961

Cases of valve burning on 1960-61 Corvair and Corvair "95" engines are generally the result of incorrect valve-to-seat angles, loose valve stem-to-guide fits, and/or sustained high-speed or heavy load operation.

To correct the problem in Production, the valve-to-seat relationship was revised to provide a one-degree interference angle; that is, 44° valve faces and 45° valve seats. This insures contact at or near the head of the valve, thus providing maximum heat transfer.

When valve burning problems are encountered in the field, correction can be made by the following procedure.

PROCEDURE

1. On Corvair models only (not Corvair "95"), test the compression to determine if only one head requires rework. On Corvair "95" models, both heads will be reworked in all cases because of the necessity to lower the powertrain for cylinder head removal.
2. Remove the cylinder head (or heads, as necessary) and remove the valve springs as described in the 1961 Corvair Shop Manual.
3. Check for excessive valve stem-to-guide wear. If excessive clearance is indicated, measure stem clearance as described on page 6A-34 of the 1961 Corvair Shop Manual.
4. If stem-to-guide clearance exceeds .004" on intake valves or .006" on exhaust valves, install .003", .010", or .020" (exhaust only) oversize valves, as required. Reamer, J-5830-5, which is available from the Kent-Moore Organization, is required for the .020" oversize exhaust valve. If guides are worn beyond repair with .020" oversize valves, the cylinder head must be replaced.
5. Inspect the condition of the other valves and seats in the cylinder heads and grind all valve seats in head to 46°.
6. Remove and either reface or replace any valves which are burned. Valves should be refaced to 45°. Do not dress intake valves as these valves have an aluminized face which would be destroyed by such procedure.

7. Reassemble cylinder heads but replace all exhaust valve caps with rotators, 3739412. On Corvairs where only one head required overhaul, also install exhaust valve rotators on the other cylinder head. This can be done with the head installed on the engine.
8. Remove carbon deposits from head and cylinders, then reinstall engine in vehicle (Corvair "95"). Synchronize carburetors and adjust idle as described in the Corvair Shop Manual.

PARTS DATA

<u>Part No.</u>	<u>Description</u>
3739412	Exhaust Valve Rotator
6255750	Exhaust Valve (Standard)
6257445	Exhaust Valve (.003" O.S.)
3779380	Exhaust Valve (.010" O.S.)
3813043	Exhaust Valve (.020" O.S.)
6255749	Intake Valve (Standard)
6257443	Intake Valve (.003" O.S.)
3779378	Intake Valve (.010" O.S.)

FLAT RATE

CORVAIR

Time Allowance

✓ Rework one cylinder head and install exhaust \ valve rotators on other head.....	6.9 Hrs.
Rework both cylinder heads.....	9.1 Hrs.

CORVAIR "95"

Rework both cylinder heads.....	11.5 Hrs.
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Director, Technical Service Department

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