

# CHEVROLET—CENTRAL OFFICE

DIVISION OF GENERAL MOTORS CORPORATION  
DETROIT 2, MICHIGAN

## TECHNICAL SERVICE BULLETIN

Technical Service Department



SUBJECT: CYLINDER HEAD RECONDITIONING -  
1960-1963 CORVAIR 5-7-900  
(EXCEPT TURBOCHARGED) AND  
1961-1963 CORVAIR "95"

BULLETIN NO. DR #585

SECTION VI

TO: ALL CHEVROLET DEALERS

DATE April 17, 1963

In the event unsatisfactory exhaust valve life or oil burning at low mileages is experienced on 1960-63 80-84-102 H.P. engines, valve life may be improved by using the Turbocharged Corvair exhaust valve and key unit for service replacement. 1963 Stellite exhaust valves with rotators are available for use on 1961-1962 Corvair "95" models.

In cases where the production valve guides become worn to the extent that available service replacement oversize valves are not adequate, replaceable service valve guides are now available in three different sizes for use when servicing cylinder heads.

Valve guide installation instructions and special tools needed are listed beginning on Page 2 of this bulletin.

Director, Technical Service Department

ADJ/afm

INSTALLATION INSTRUCTIONSExhaust Valve Replacement

Refer to the 1961 Corvair Shop Manual Section 6A for cylinder head removal, disassembly and assembly procedures. Inspect cylinder head cooling fins for dirt build-up or casting flash and remove, if necessary, with J-21308 Cleaning Tool.

1960-1963 Corvair 500-700-900 Series

For service replacement of the exhaust valves use:

Exhaust valve and key unit -

3826492	Std. Size
3826493	.003" O.S.
3826494	.010" O.S.

1961-1963 Corvair "95"

For service replacement of the exhaust valves use:

Exhaust valve -

3829105	Std. Size
3829106	.003" O.S.
3829107	.010" O.S.
3829108	.020" O.S.
3817362	Exhaust Valve Rotator Assembly (must be installed in place of standard cap on 1961 and some early 1962 units).

VALVE GUIDE REPLACEMENT

1. Inspect valve guides for excessive wear, cracking or scoring. If guides are worn or damaged beyond repair with the service oversize valves, valve guide replacement will be necessary.
2. Remove worn guide with J-21280 Remover (See illustration). Drive valve guide from the spring seat side out through the combustion chamber side of the cylinder head.
3. Wipe out valve guide bore in cylinder head and closely inspect for scoring or damage sustained during removal. Replace guide as follows:
  - a) If bore appears smooth and free from scoring, select a standard guide.
  - b) If some damage in bore is evident, clean bore with .010" oversize J-21282 Reamer and Tap handle and inspect. Finished bore diameter should be .524" - .525". If bore is smooth and free of scoring after reaming, select a .010" oversize valve guide.

- c) CAUTION: Ream valve guide bore starting at combustion chamber side, flushing with cutting oil to avoid scoring. Do not force or remove reamer during reaming operation and pass reamer completely through bore and remove from valve spring side.

If reaming with .010" oversize reamer does not clean bore, use .020" oversize J-21283 Reamer and select a .020" oversize valve guide. Finished bore diameter should be .534" - .535".

4. Wipe valve guide bore to remove cutting oil and chips.

#### Installation

1. Lightly coat outer diameter of valve guide with oil and drive in place with J-21281 Installer from combustion chamber side, tapered end first. Correct installed height of guide may be determined by lining up groove on driver with top of valve seat (top of guide should be 1" from top of valve seat insert). See illustration.
2. Liberally oil valve stem bore and ream with J-21318 Reamer.
3. Recondition valve seat to obtain correct seat angles and valve stem run-out as shown in the 1961 Corvair Shop Manual, Page 6A-35.
4. Inspect cylinder head cooling fins for dirt build-up or casting flash and remove if necessary with J-21308 Cleaning Tool.

#### Assembly

Assemble cylinder head with standard valves as outlined in the 1961 Corvair Shop Manual, Page 6A-36. NOTE: Cylinder head bolt torques have been increased to 35 lb./ft.

#### PARTS DATA

<u>Part No.</u>	<u>Description</u>
3840811	Valve Guide - All 1960-63 Corvair and Corvair "95" Except Turbo. - Std. Size O. D.
3840812	Valve Guide - All 1960-63 Corvair and Corvair "95" Except Turbo. - .010" O. S. O. D.
3840813	Valve Guide - All 1960-63 Corvair and Corvair "95" Except Turbo. - .020" O. S. O. D.

#### Flat Rate

6.1 Hrs.	Replace Valves - One Head - All Except Corvair "95"
10.0 Hrs.	Replace Valves - Both Heads - All Except Corvair "95"
8.0 Hrs.	Replace Valves - One Head - Corvair "95"
11.7 Hrs.	Replace Valves - Both Heads - Corvair "95"

## Combinations:

Ream existing guide I. D. and install O. S. valve

One Valve - .2  
Three Valves - .3  
Six Valves - .4

Remove guide and install standard guide

One Valve - .2  
Three Valves - .5  
Six Valves - .8

Remove guide, ream cylinder head, install O. S. guide

One Valve - .3  
Three Valves - .6  
Six Valves - 1.3

