

OVERHAUL (Continued)

CAUTION: The interference angle of the valve and seat should not be lapped out. Remove all grooves or score marks from the end of the valve stem, and chamfer it as necessary. Do not remove more than 0.25mm (0.010 inch) from the end of the valve stem.

If the valve face runout is excessive and/or to remove pits and grooves, reface the valve to a true 44 degree angle. Remove only enough stock to correct the runout or to clean up the pits and grooves. If the edge of the valve head is less than 0.79mm (1/32 inch) thick after grinding, replace the valve as the valve will run too hot in the engine.

If the valve and/or valve seat has been refaced, it will be necessary to check the clearance between the rocker arm pad and the valve stem with the valve train assembly installed in the engine.

Valve Guides, Reaming—3.0L/3.2L SHO

If it becomes necessary to ream a valve guide to install a valve with an oversize stem, a reaming kit is available which contains the following reamer and pilot combinations: 0.38mm (0.015 inch), OS reamer with 0.076mm (0.003 inch) "OS" pilot, and a 0.76mm (0.030 inch) reamer with 0.38mm (0.015 inch) "OS" pilot.

CAUTION: Always reface the valve seat after the valve guide has been reamed, and use a suitable scraper to break the sharp corner (ID) at the top of the valve guide.

When replacing a standard size valve with an oversize valve always use the reamer in sequence (smallest oversize first, and then the next smallest, etc.) so as not to overload the reamers.

Valve Seats, Refacing

Measure the valve seat width. Reface the valve seat(s) if the width is not within specifications. Refer to Section 03-01B for specifications.

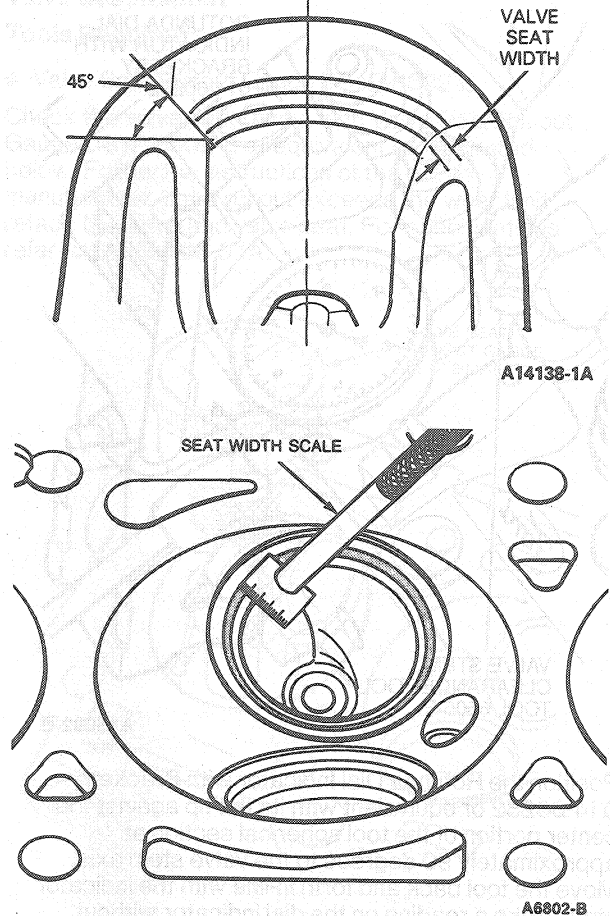
Refer to Engine Service in the Rotunda Tool catalog for a description of the various types of valve seat grinders and cutters available.

Refacing of the valve seat should be closely coordinated with the refacing of the valve face so that the finished seat and valve face will be concentric and the specified interference angle will be maintained. This is important so that the valve and seat will have a compression-tight fit. Ensure refacer grinding wheels are properly dressed.

Grind the valve seats of all engines to a true 45 degree angle. Remove only enough stock to clean up pits and grooves or to correct the valve seat runout. After the seat has been refaced, use a seat width scale or a machinist scale to measure the seat width. Narrow the seat, if necessary, to bring it within specification. Refer to Section 03-01B for specifications.

TO REMOVE STOCK FROM
TOP OF SEAT
USE 30° WHEEL

TO REMOVE STOCK FROM
BOTTOM OF SEAT, USE
THE FOLLOWING WHEEL:
INT — 60°
EXH — 60°



If the valve seat width exceeds the maximum limit, remove enough stock from the top edge and/or bottom edge of seat to reduce the width to specification.

For 3.0L and 3.8L engine intake and exhaust seats, use a 60 degree angle grinding wheel to remove stock from the bottom of the seat (raise the seats). A 30 degree angle wheel is used to remove stock from the top of the seats (lower the seats).

On the intake and exhaust seats, use a 60 degree angle grinding wheel to remove stock from the bottom of the seats (raise the seats). A 30 degree angle wheel to remove stock from the top of the seats (lower the seats).

The finished valve seat should contact the approximate center of the valve face. It is good practice to determine where the valve seat contacts the face.