



## **TT00019**

### **Detroit 60 Series Engine Valves And Guides**

S. B. International, Inc., offers the following technical information regarding Detroit 60 Series engine valves and guides.

Detroit has made yet another change to its 60 Series valves, which interchange to SBI's 01566 exhaust valve and 01567 intake valve. Detroit added chrome plating to the intake and exhaust valves. As always, keeping up with the most current changes on ANY application is a high priority. SBI's chrome-plated version is currently in production, and SBI will add this version as a running change. These chrome-plated valves are currently available from SBI.

The following information was provided in a previous tech bulletin regarding changes to the 60 Series intake and exhaust valves. The dimensions are current.

SBI exhaust valve number 01566 has had some dimension changes. As per OEM, the head diameter has gone from 1.576 inch to 1.556 inch. The stem dimension has gone from 0.3421 inch to 0.3429 inch. However, SBI's 140-8591 valve guide's inside diameter (0.3453 inch) has not changed. The clearance from valve to guide has been decreased due to changes to the valve. The best way to identify the new valve from Detroit is the date code etched on the valve, which can be found under the part number. These valves have been etched with the date code "E7" since year 2000.

Detroit has been using a tool holder groove (above the keeper groove) to identify the new design valve. The reason for using this is to identify correct valve lash setting. However, considering all the other changes to this valve, overall length (8.498 inch) of valve has not changed since inception. The tool holder is there only for manufacturing purposes, but when the tool groove was installed, the material of the valve head was downgraded from a high alloy to a midgrade alloy.

#### **Technical tips for installing SBI valve guide number 140-8591**

We have had complaints about installing valve guides into 60 Series cylinder heads. As with many other cylinder heads similar to the Series 60 in length and width, this head has the potential to twist and bend during normal operation. We recommend before installing replacement guides in the cylinder head to ream the cylinder head's guide bore. Guide bore specification is 0.562 inch. This will help eliminate bending the valve guide upon installation procedures. As with any new guide installation, SBI recommends checking the inside diameter after installation to maintain proper clearances. Refer to your engine's specifications manual for allowable clearances.

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