

1D



## Valve Guide Replacement

Refer to [Valve / Valve Spring Removal and Installation](#)

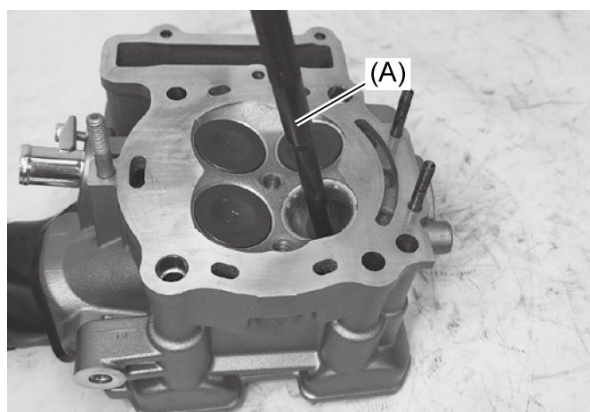
- 1) Using the special tool, drive the valve guide out toward the intake or exhaust camshaft side.

### Special Tool

(A): [09916-44910](#)

#### NOTE:

- Discard the removed valve guide sub assemblies.
- Only oversized valve guides are available as replacement parts. (Part No. 11115-32E70)



- 2) Refinish the valve guide holes in the cylinder head using the special tools.
- 3) Remove the special tools by turning clockwise and raising them at the same time.

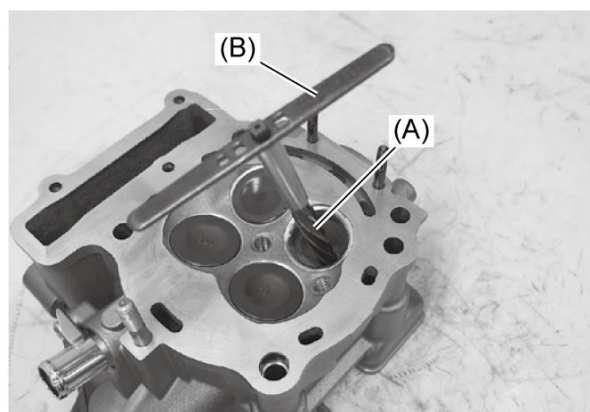
#### NOTICE:

**Never turn the special tools counterclockwise, as this will dull the blades.**

### Special Tool

(A): [09916-34580](#)

(B): [09916-34542](#)



- 4) Cool down the new valve guides in a freezer for about one hour and heat the cylinder head to

100 – 150 °C (212 – 302 °F).

**NOTICE:**

**Do not use a burner to heat the valve guide hole to prevent cylinder head distortion.**

- 5) Apply engine oil to each valve guide and valve guide hole.

**NOTICE:**

**Failure to oil the valve guide hole before driving the new guide into place may result in a damaged guide or head.**

- 6) Drive the guide into the guide hole using the valve guide installer and attachment.

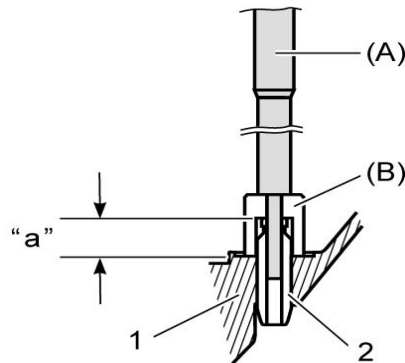
**NOTE:**

**Install the valve guide until the attachment contacts the cylinder head.**

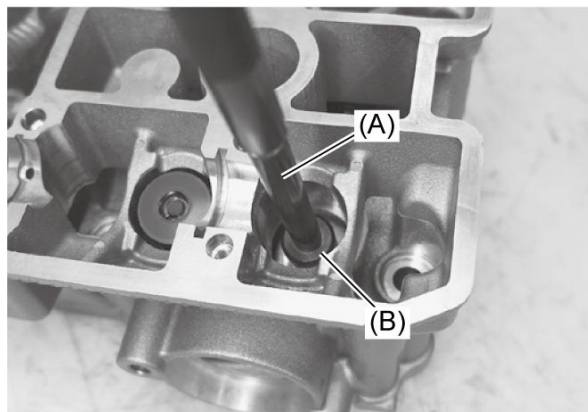
**Special Tool**

(A): [09916-44910](#)

(B): [09916-53340](#)



1.	Cylinder head	"a":	17.0 mm (0.67 in)
2.	Valve guide		



- 7) After installing the valve guides, refinish their guiding bores using the reamer. Be sure to clean

and oil the guides after reaming.

**NOTE:**

- **Cool down the cylinder head to ambient air temperature.**
- **Insert the reamer from the combustion chamber and always turn the reamer handle clockwise.**

**Special Tool**

(A): [09916-34542](#)

(B): [09916-34550](#)

