

1D



## Crankshaft Journal Bearing Removal and Installation

Refer to [Crankshaft Assembly Removal and Installation](#) and [Transmission Removal and Installation](#).

### Removal

- 1) Set the special tool as shown to remove the crankshaft journal bearings (1) with the special tool.

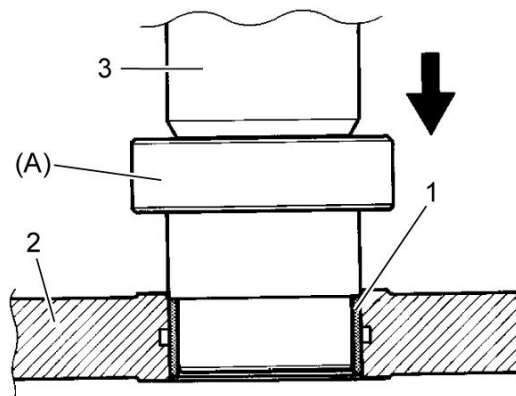
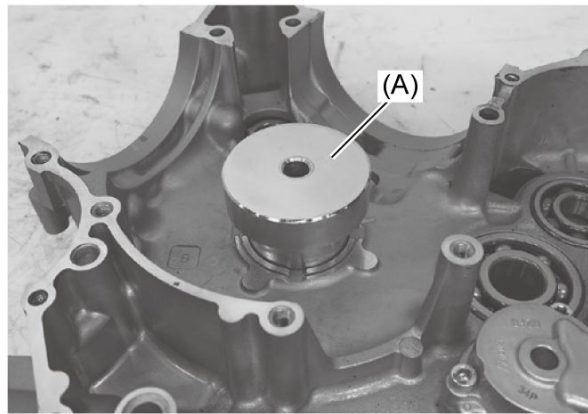
**NOTE:**

**Remove the crankshaft journal bearings in only one direction, from inside to outside of each crankcase half.**

**Special Tool**

**(A): 09913-60230**

- 2) Gradually press out the journal bearings with the special tool by using the hydraulic press.



1.	Journal bearing	3.	Hydraulic press
2.	Crankcase		

**NOTE:**

**Using a hydraulic press is recommended to remove the crankshaft journal**

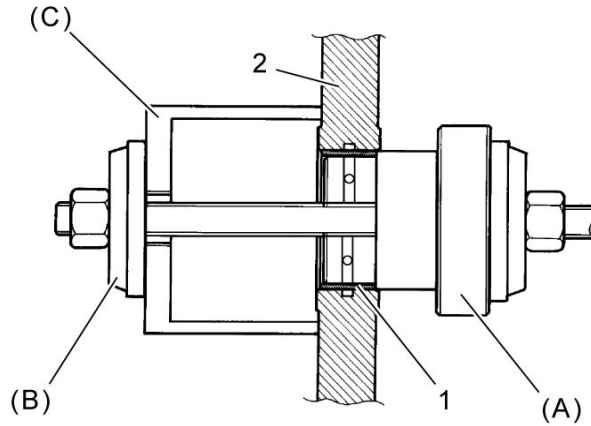
**bearings. However, the crankshaft journal bearings can be removed by using the following special tools.**

### Special Tool

(A): 09913-60230

(B): 09924-84510

(C): 09924-74570



1.	Journal bearing	2.	Crankcase
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**3)** Do the same for the other bearings.

## **Installation**

### Reference: Crankshaft Journal Bearing Inspection and Selection

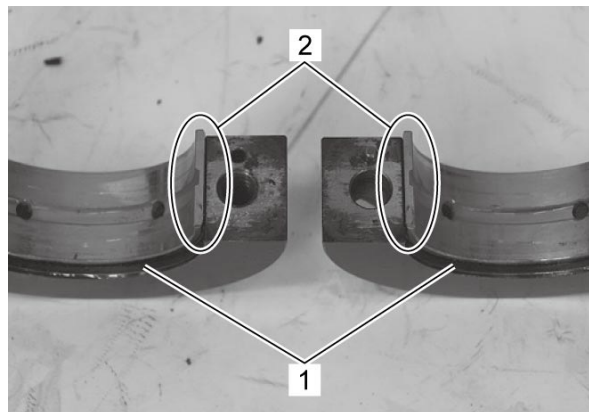
**1)** Apply engine oil to the inside surface of the special tool before fitting the bearing (1) in the special tool.

### Special Tool

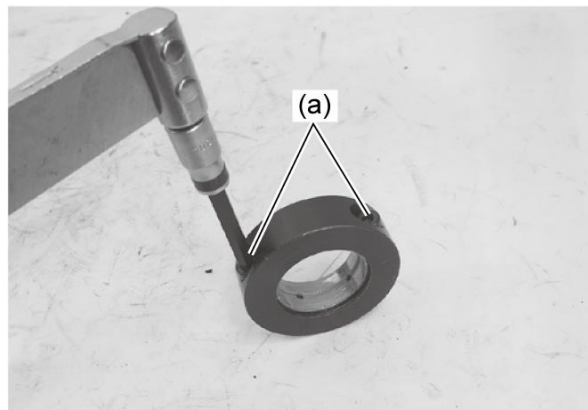
(A): 09913-60241



**2)** When setting the bearing into the special tool, align the side edge of the bearing with the line (1) engraved inside the tool and the end of the bearing with the mating surface (2) of the tool as well.

**NOTE:****The upper and lower bearings are same.**

- 3)** Combine the special tool and tighten the bolts to the specified torque.

**Tightening torque****Special tool bolt (a): 23 N·m (2.3 kgf-m, 17.0 lbf-ft)**

- 4)** Before installing the bearings, lightly shave off the sharp edge part (1) of the crankcase chamfer by using an oilstone.



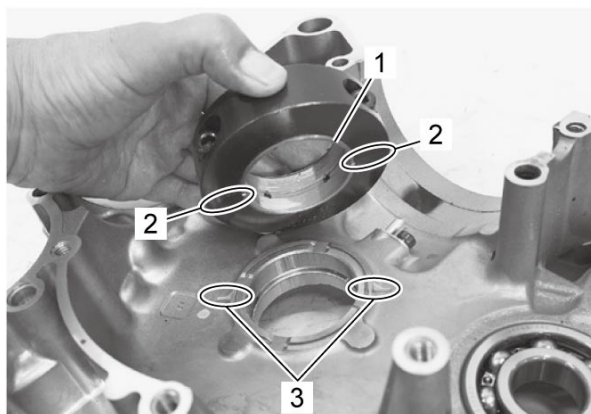
- 5) Apply engine oil to the inside surface of the crankcase.
- 6) Set the bearings installed in the special tool to the crankcase half as shown.

**NOTICE:**

- Be sure the bearing protruded side (1) faces the crankcase bore.
- Align the bearing/special tool mating surface (2) with the line (3) on the crankcase.

**NOTE:**

Install the bearing from inside to outside of each crankcase half.



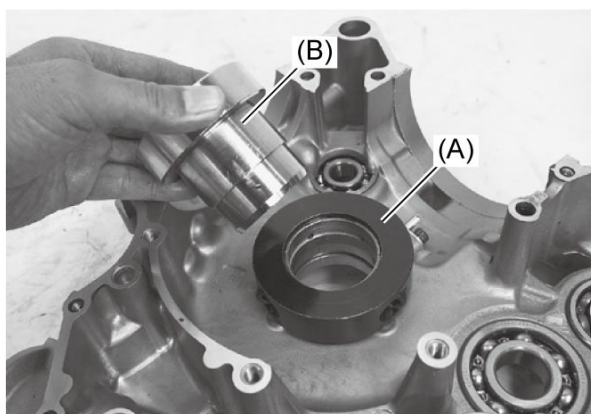
- 7) Apply enough engine oil to the special tool and the bearings and then set the special tool carefully.

**Special Tool**

(A): **09913-60241**

(B): **09913-60230**

- 8) Press fit the bearing gradually using a hydraulic press.





1.	Journal bearing	3.	Hydraulic press
2.	Crankcase	"a":	2.2 mm (0.087 in)

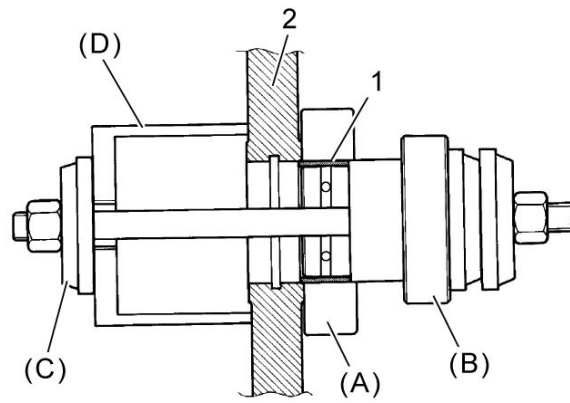
**NOTICE:**

**Using a hydraulic press is recommended to install the crankshaft journal bearings. However, the crankshaft journal bearings can be installed by using the following special tools.**

**Special Tool**

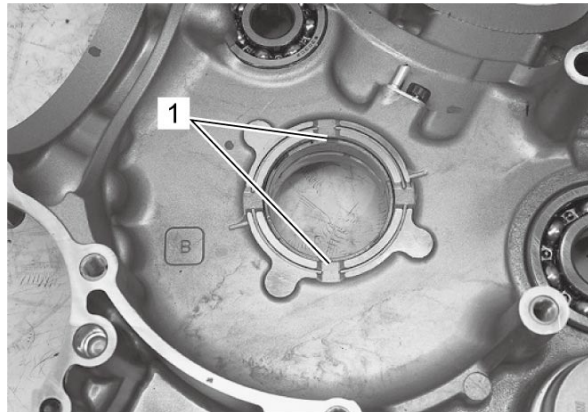
**(C): 09941-34513**

**(D): 09924-74570**



1.	Journal bearing	2.	Crankcase
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**9)** After installing the bearings (1), check the bearing surface for any scratch or damage.



**10)** Do the same for the other bearings.