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**KAIZENSPEED** works hard to deliver quality products that increase performance. As with any racing part the liability of this product is with the end user.

## H22A4 Balance Shaft Eliminator Installation Instructions

### Contents:

- (1) Big Aluminum Plug (Plug "A")
- (1) Small Aluminum Plug (Plug "B")
- (1) Big Steel Plug (Plug "C")
- (3) Small Steel Plugs (Plugs "D")
- (1) 1/4 NPT threaded plug
- (1) Billet aluminum blockoff plate

### Installation Tools Needed:

- (1) 1/4-18 NPT Tap (**included**)
- (1) Vise Grips
- Cutting oil

Note: Other tools required for disassembly

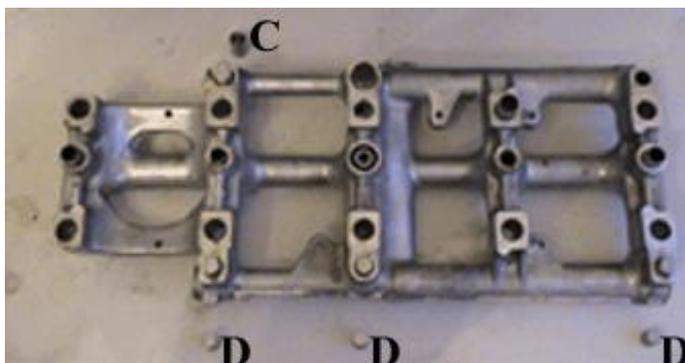
Engine should be supported on an engine stand with the block deck down.

Note: These instructions assume the engine is disassembled, only specific instructions relating to the installation of the balance shaft eliminator kit are described.

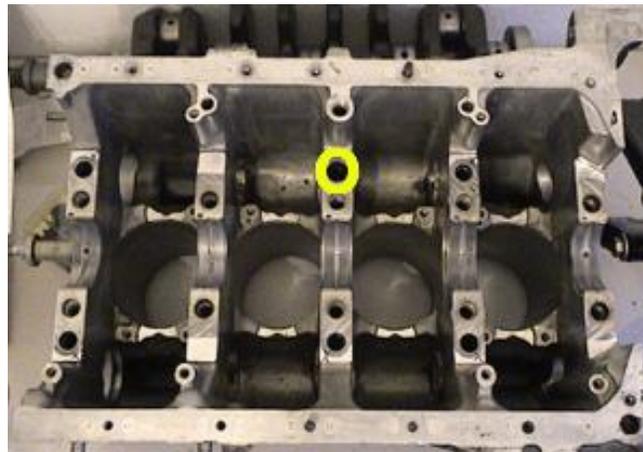
**1-** Remove the aluminum bearing cap bridge (pictured below) from the main caps and place it face up as pictured. Note where plug "C" and plugs "D" are located. There are hollow dowel pins in these locations that must first be removed before the plugs can be installed.

**2-** Using vise grips lock firmly on one of the four specified dowel pins. The dowel pin will be crushed as you tighten the vise grips on it. Rotate back and forth and pull as you are rotating. You will need to readjust the vise grips and re-lock on the dowel pin a few times to get the pins out. They may be stubborn but they always come out. Do this to remove the other three dowel pins (**A total of FOUR dowel pins need to be removed.**)

**3-** After all four dowel pins are removed you will need to press in the plugs. **Remember, the dowel pins go between the girdle and the main caps NOT between the main caps and the block.** Using a small press, press in plug "C" and plugs "D" where shown. Be sure to press the plugs in deep enough to allow the bearing cap bridge to seat on the main caps without a gap. You will be able to feel the resistance from the press when the dowel pin is deep enough.



**4-** Once the four plugs are in the bearing cap bridge you must plug a hole in the block with the supplied pipe plug. Locate the hole under the middle main cap #3 as pictured below.



**5-** Locate your supplied tap and cutting oil. Being careful to insert the tap perfectly straight into the block, tap the hole using a 12 pt. 10mm socket and ratchet. You will want to rotate the tap backwards about half of a rotation every few rotations, you will feel a “break” when you have rotated the tap backwards far enough. Tap deep enough to snugly fit the supplied pipe plug. Clean the metal threads and drill shavings out of the block using compressed air and a rag.

**6-** Locate the supplied pipe plug, apply your favorite thread sealant to the threads of the plug and thread it in.

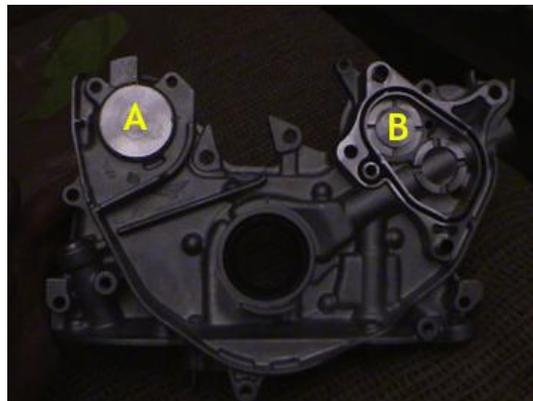
**7-** Next locate your oil pump housing and the two aluminum plugs (Plugs “A” and “B”).

**8-** Remove the oil seal located on the front balancer shaft opening (the big hole in the top left of the pump housing).

**9-** Now simply press plug “A” into this large hole. We recommend using silicone sealer such as Hondabond or “Right Stuff” to seal this hole.

Note: If you are installing the kit into a used oil pump we recommend using loctite 609 sleeve retainer to ensure a leak-proof seal. Contact KAIZENSPEED to purchase.

**10-** Press plug “B” into the smaller hole in the upper right of the pump housing.



**11-** The billet aluminum blockoff plate installs over the top right of the oil pump housing On top of the smaller aluminum plug you just pressed in. Simply place it on and bolt it down.

These installation instructions assume that the installer is competent in engine assembly. Customer is encouraged to contact us with any questions, we love to be involved in any high-performance engine building process and would much rather answer questions than hear of a bad experience. –KAIZENSPEED.com