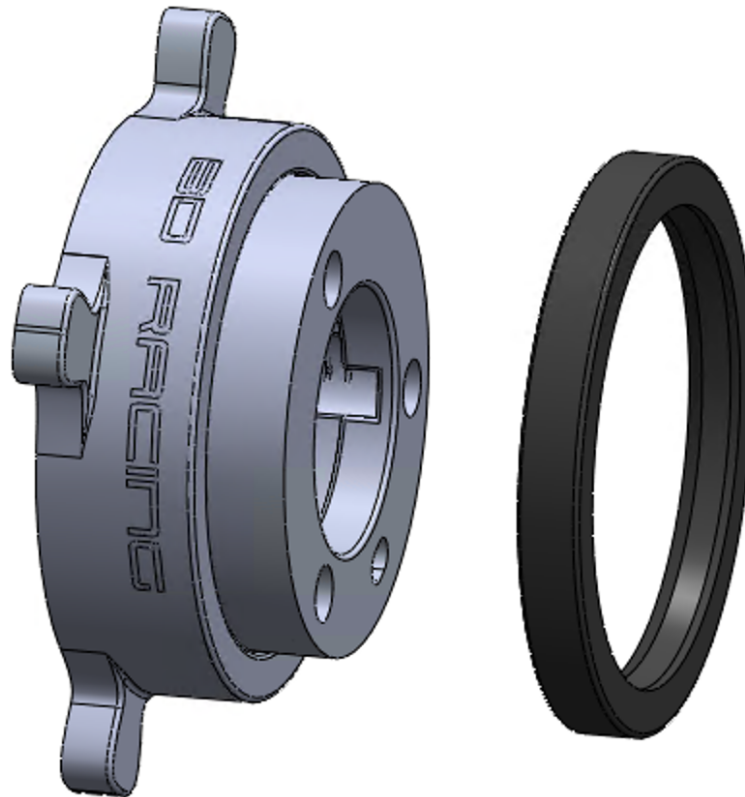




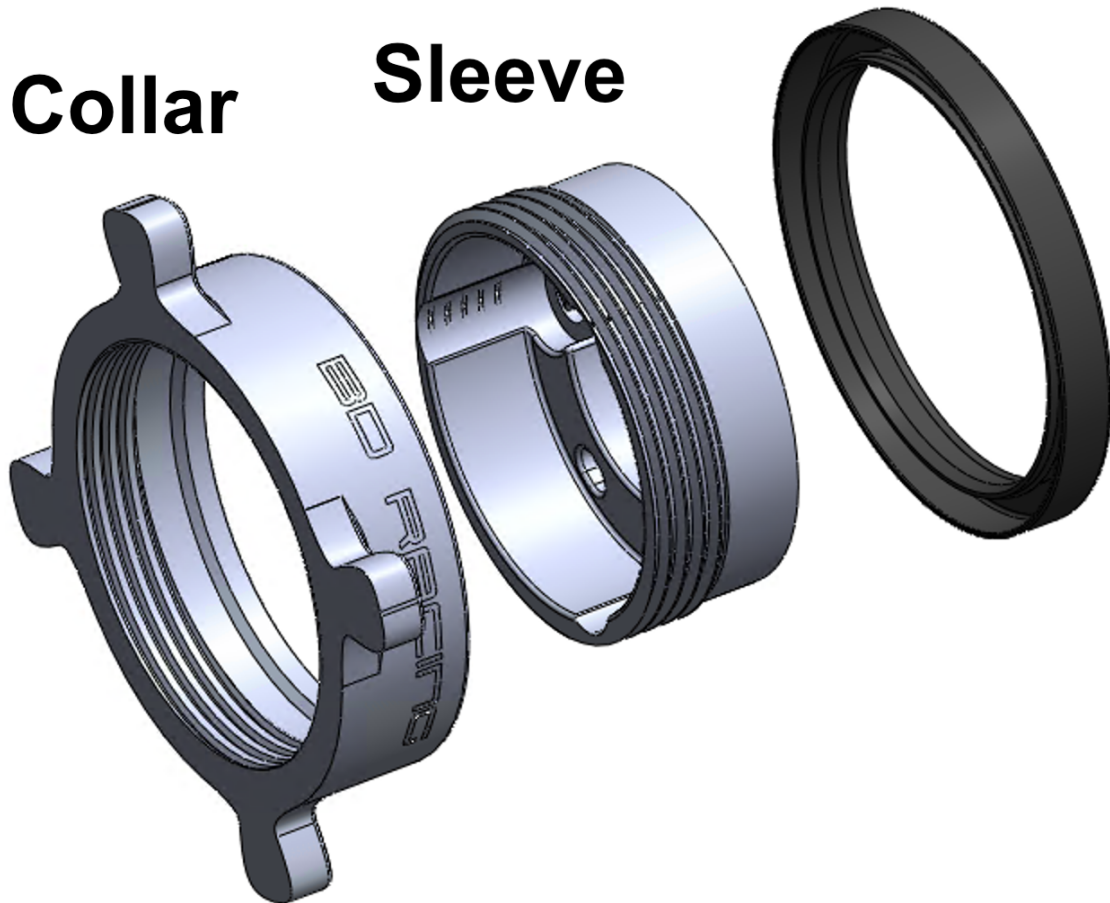
Porsche M44 Series Rear Main Seal Installation Tool Operation Procedure



A01	Draft Copy	M. O'Donnell	03-April-2022
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General Arrangement



The RMS installation tool is a 2-piece design, featuring a threaded collar which travels along the sleeve as it is revolved. The seal is staged on the sleeve, and after the sleeve has been fixed to the crankshaft, is pushed home squarely by the collar.

Rear Main Seal: Part Number 999-113-426-41 / Elring 311898



Compatibility

- Porsche 924S
- Porsche 944 – 2.5, 2.7, 3.0 liter
- Porsche 968

Required Tools and Shop Supplies

- Ratchet
- 12mm Socket – 12-point / Triplesquare
- 3-off original flywheel bolts
- Lubricant (Motor oil, assembly lube, etc, that is safe for rubber)

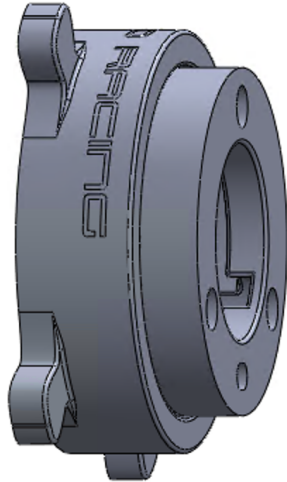
Preparation Activities

- Thoroughly clean the bore where the seal will go.
- Assess for any sharp edges or ridges that the seal may touch as it is pressed in, for example at the seam between the block and girdle. Smooth any sharp edges.
- Apply a light film of motor oil or assembly lube on the crankshaft journal.
- Optional: pack the cavity of the new seal with thick assembly lube. This will help cool the seal during the first start. Clean the outside of the seal afterward.
- On the installation tool, lightly lubricate the smooth section of the sleeve.
- Lubricate the face of the collar that will bear against the seal. This will help with the collar to spin without causing the seal to spin as well.
- If the collar is not spinning smoothly on the sleeve, you may wish to lubricate the threads and work them back and forth. A slight amount of force is normal.



Installation

1. Back the collar off of the sleeve to expose the smooth section, slightly more than the thickness of the seal:



2. Carefully stage the seal on the sleeve, with the open cavity pointing away from the collar. Push the seal against the collar to align it:





3. Align the sleeve with the end of the crankshaft, noting that there is a small cutout for the alignment pin.
4. Insert the 3 flywheel bolts and run them down loosely. Before tightening them fully, fine-tune the position of the sleeve to align it as closely as possible with the crankshaft, so there is not a large step for the seal to slide over.
5. Snug down the bolts – hand tight should be sufficient.
6. Slowly advance the collar along the sleeve until the seal begins to contact the block. At this point, check that everything is square and as expected.
7. Slowly advance the collar to press in the seal. The seal may want to spin with the collar. This should stop as the seal enters the block, however if it persists, back off the collar and use motor oil to reduce the friction on the contact face.
8. Drive the seal in until the edge is just about flush with the back of the block. It is acceptable to go slightly deeper. It is not recommended to drive the seal as far as it will go, bottoming it out.
9. Remove tool from crank and inspect.

Please don't hesitate to provide feedback if you are experiencing any difficulties with this part, or have any suggestions for improvements. It'll be sorted as soon as possible.

We work hard to provide engineered solutions for the 944 platform - thanks again for giving us a shot!