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IE 1.8T 20V 06A Crankshaft Girdle Plate Kit Install Guide

PART NUMBER: IEBEVA9 / IEBEVA13

Thank you for purchasing another high-quality Integrated Engineering product! This instruction guide is used for the installation of IE's Crankshaft Girdle Kits for VW and Audi 1.8T 20V 06A engines. A professional or experienced technician is extremely recommended. Permanent grinding modifications are necessary and a quality machine shop is required to complete the installation. Integrated Engineering is not responsible for incorrect installations.

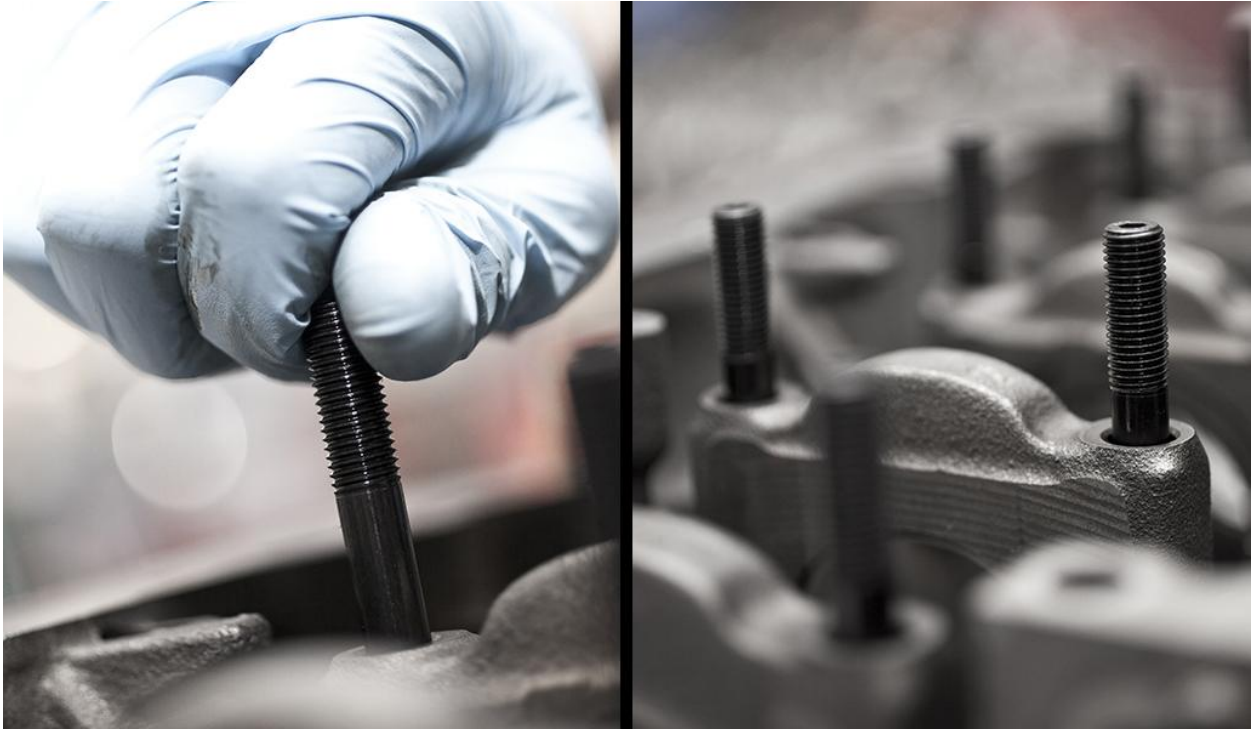


Kit Contents:

- 1X Girdle/bedplate
- 1X Custom length ARP main stud kit
- 1X Extended oil pump chain
- 20X 35mm oil pan bolts
- 3X 60mm oil pump bolts
- 23X Washers for the oil pan and pump bolts
- 10X Girdle spacers
- 2X 110mm transmission bolts for longitudinal engines only
- 2X Washers for transmission bolts

Before you begin, open your IE Girdle Plate Kit, inspect all components, and verify their quantities.

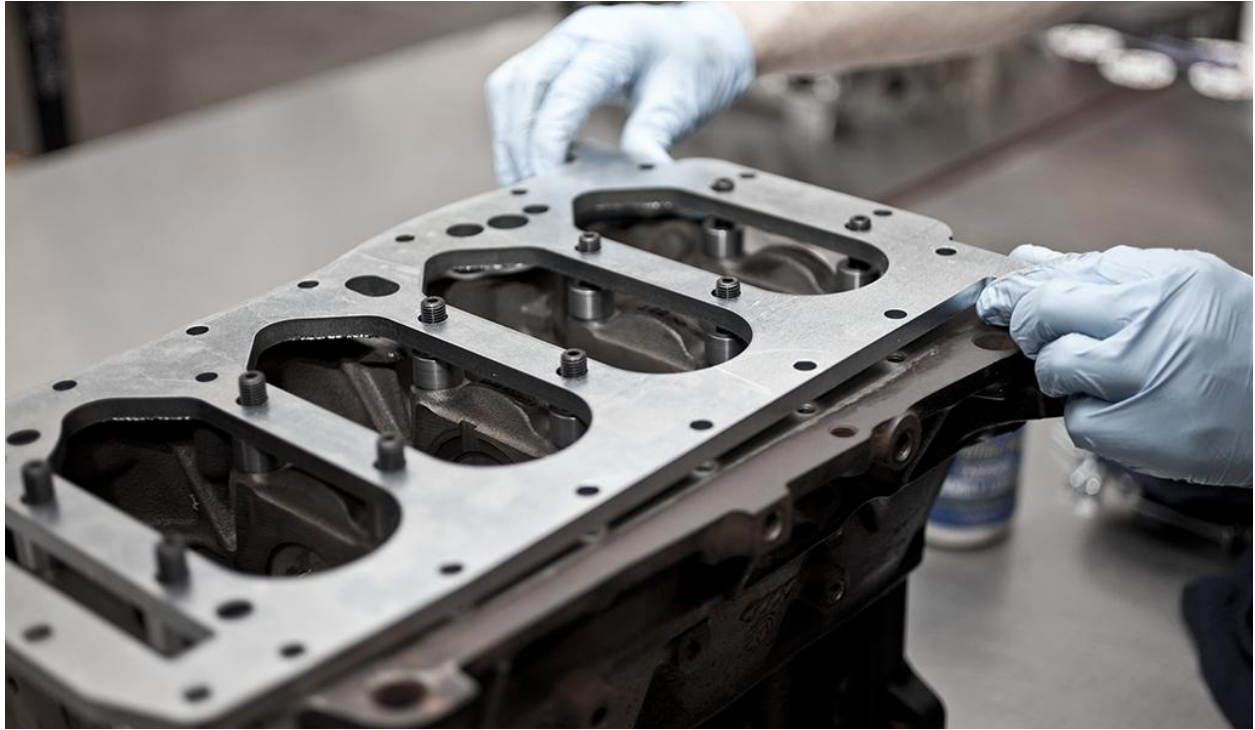
If you are using IE Tallboy Main caps, deliver the full kit and IE main caps to a machine shop to be machined and align-honed, skip to final assembly. Begin with your engine block secured on an engine stand crank side up with access to the main caps. Apply a light coat of oil to the bottom of the ARP main studs and install it into the block.



With the main caps and ARP studs installed, place all 10 girdle spacers over the ARP head studs.



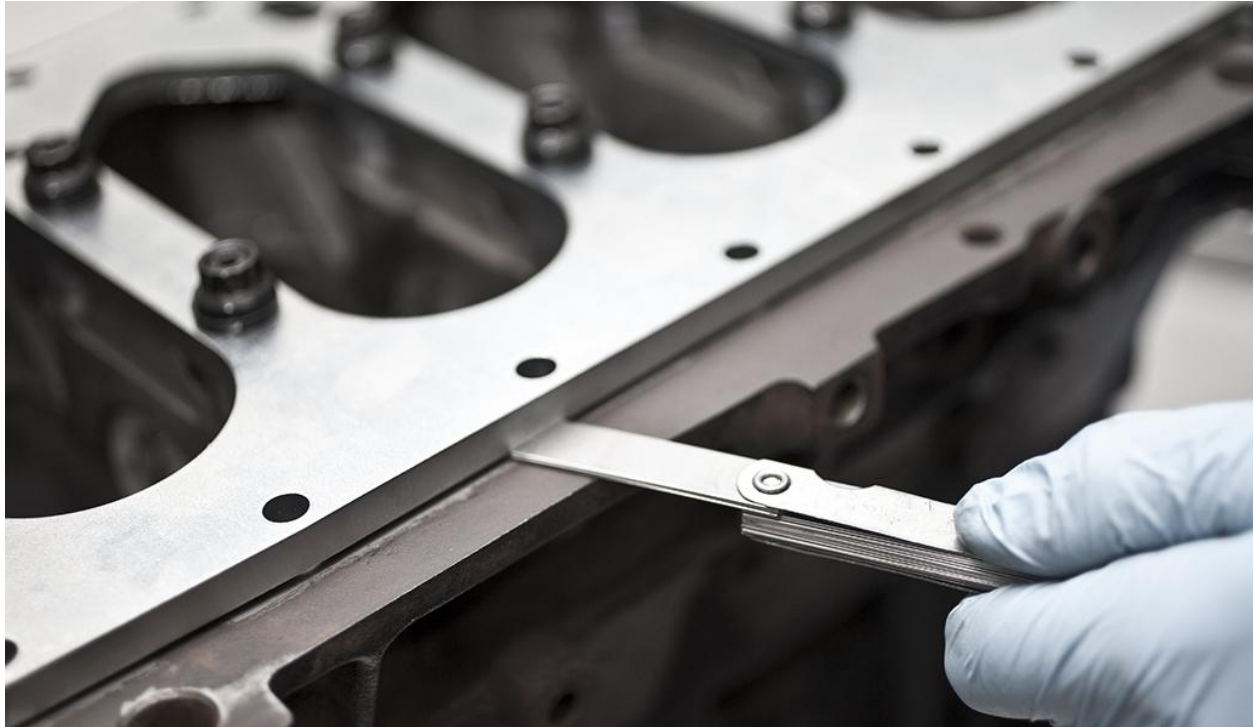
Install the girdle plate over the head studs and spacers onto the block. *Make sure the main caps are installed in the proper orientation and fully seated to ensure proper measuring in the following steps.*



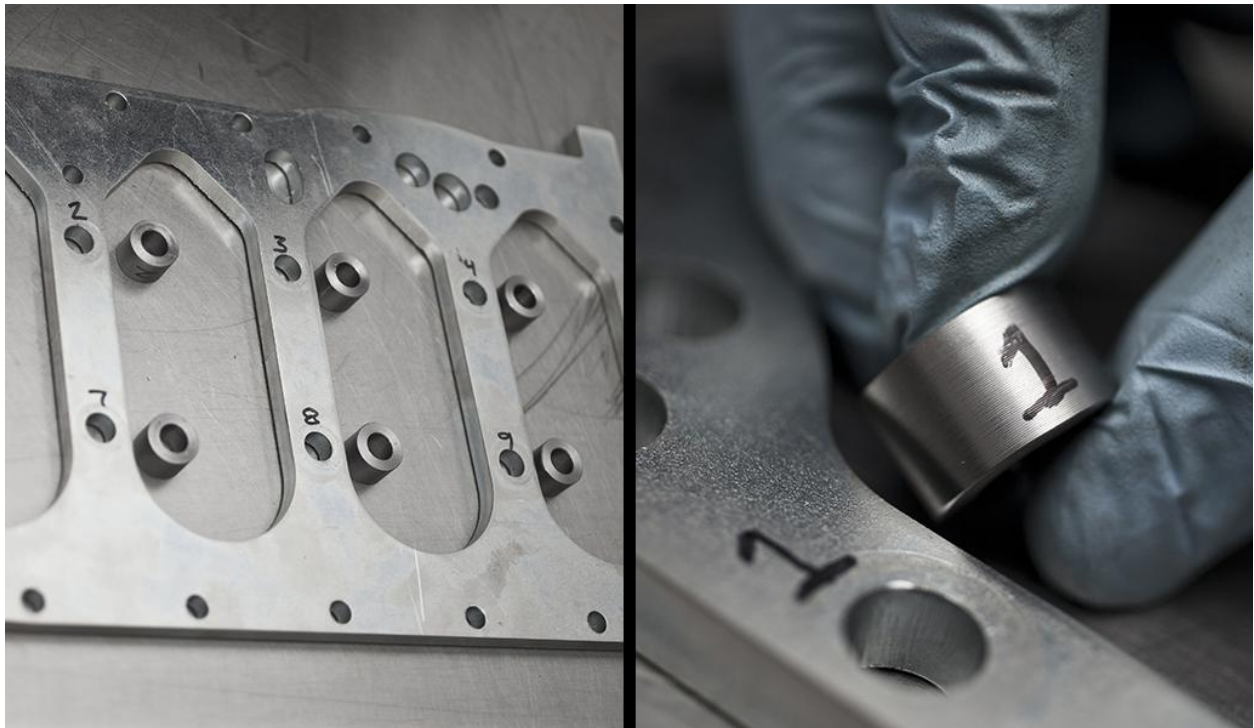
Install the ARP washers and nuts to the head studs with the included ARP assembly lube. Torque to 60ft/lbs using the factory 1.8T torque sequence.



Use feeler gauges to measure and record any gaps between the girdle plate and the block. Be sure to measure in several spots on both sides of the block and record accurate measurements. You can now remove the main stud nuts, washers, and girdle plate.



Remove the girdle spacers one at a time. Number each spacer and the girdle plate in the same location as you removed them for machining and final assembly.



Measure each spacer and subtract your gap measurements to get the final size required. Professionally machine each spacer accordingly to remove excess material and close the gap. The tolerance for the gap between the girdle plate and block is 0.001”.



The spacers and main journals (or IE Tallboy Main Caps) will need to be machined and align honed by a professional engine machine shop. Align hone the main journals with the ARP main studs installed and torqued to 60ft/lbs to ensure journal circularity.

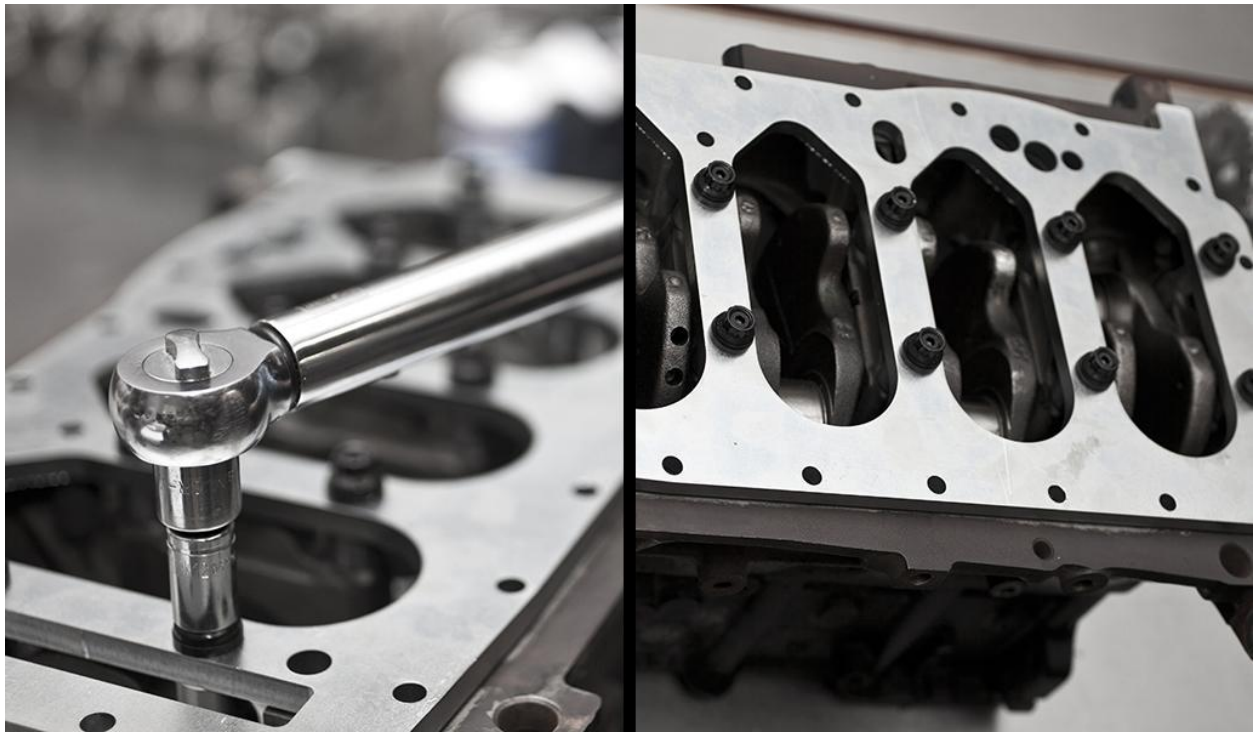
Before starting assembly, clean the girdle plate and all parts thoroughly to remove any machining residue, oil, or coolant.

After machine work is finalized and verified the installation of crankshaft, pistons, and rods can now be finalized. Once this has been completed, you are ready for the final installation of your IE Girdle Plate Kit.

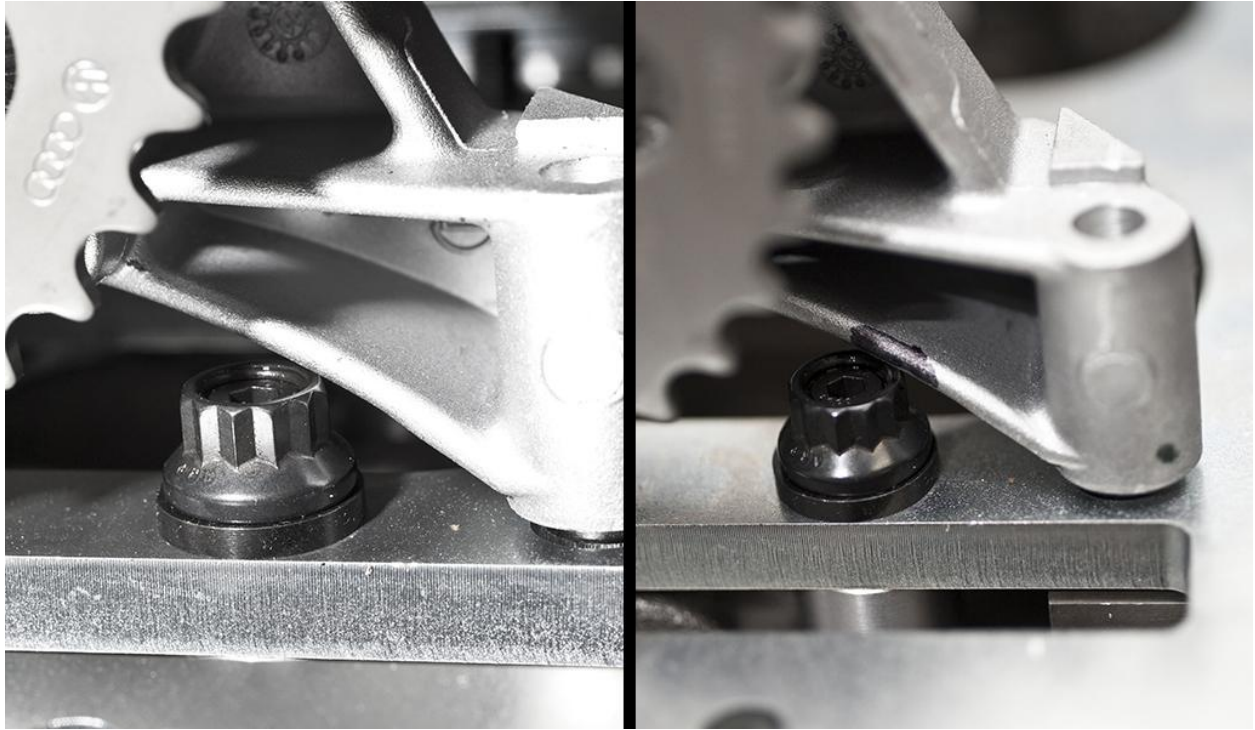
Reinstall machined spacers onto the ARP main studs in the same position as numbered before the machine work. Install the front main seal housing, extended oil pump chain, and chain tensioner onto the engine block. Apply a bead of silicone sealant to the outer perimeter of the block.



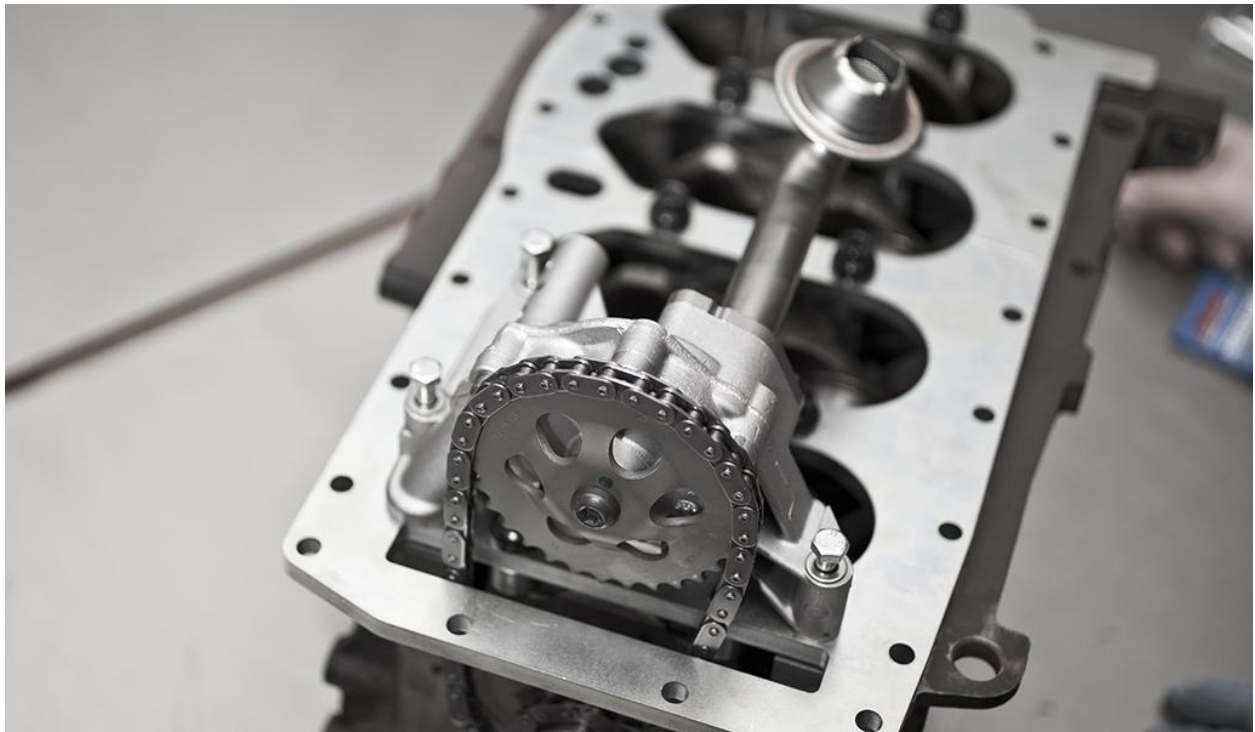
Install the girdle, washers, and nuts with ARP assembly lube onto the main studs. Torque to 60ft/lbs.



Test fit your oil pump. If it interferes with the main stud, mark the spot and grind down the pump body to allow for enough clearance to install.



Install the oil pump with the included 60mm bolts and washers. Install your IE extended oil pump chain onto pump sprocket.



Your oil pan will have to be modified to clear the taller main studs. Test fit the oil pan and mark the areas you will need to grind for clearance. In rare cases, it may be necessary to weld the outer side of the pan to allow for enough grinding for adequate clearance. Clean the oil pan before installing.



Install the oil pump baffle. Apply a layer of silicone to the block and install the oil pan with the included 35mm bolts and washers. The girdle plate install is now complete and ready for long block assembly.



Important Notes:

In longitudinal applications, use the two supplied 10X110mm bolts and washers to bolt the transmission to the block.

With a girdle plate installed, the lower bolts from the transmission to the oil pan will no longer line up and can not be used unless the oil pan is modified.

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