

# Assembly Instructions for D23487-PPK Piston Kit

**Please read through complete directions before installing the new Stainless Steel Piston Plungers in your D23415 Piston Blocks.**

The D23487-PPK Piston Plunger Kit is designed to replace the OEM Ceramic Plungers in the D23486 and D23487 Piston Assemblies and comes with 2 new stainless steel piston plungers that must be installed as a matching set.

## Installation Instructions:

- 1 The use of safety glasses is highly recommended for the disassembly and reassembly of the D23487-PPK Kit. Please do not perform this repair without proper safety glasses.
- 2 Remove the 4 5/16 grade 8 bolts holding the upper and lower drive straps to the piston assemblies.  
This will require either a T40 Torx Bit or a ½ 6 Point Socket.
- 3 Remove both pistons from the pump journal bodies by pulling straight out from the pump.
- 4 Remove the journal body screws using a T40 Torx Bit.  
Now remove both of the journal bodies from the pump and inspect for any partials of the broken ceramic plunger or any damage caused by the broken ceramic plunger. Remove the O-Ring from the journal housing and clean any debris from the journal housing.
- 5 Apply a light coat of grease to the Journal O-rings and install the O-rings back into machined groove in the journal housing.  
Reassemble the journal housing to the pump with the two 5/16 – 18 x 1.5 bolts that were removed using a T40 Torx Bit and torque to 22-24 ft. – lbs and a small amount of Blue Loctite.
- 6 You will now need to remove both of the original Ceramic plungers from the D23415 Piston Bodies.

**NOTE: Safety Glasses and Gloves are required for this next procedure.**

- 7 Place the Piston assembly in a vise or similar device that allows the ceramic plunger to be driven out from the top on the D23415 Piston body using a 7/18 punch.  
With the D23415 Piston in your device drive out the ceramic plunger from the top using the 2 small holes in the top of D23415 Piston body using a 7/64 punch to drive the original ceramic plungers from the piston body.

- 8 Clean both the piston bodies and the new stainless steel pistons of any grease or oils using Brakleen Non-Chlorinated, Low VOC Brake Parts Cleaner or similar cleaner.  
**Note: The retention groove that is cut into the new piston plunger is the end that will be installed into the piston body WITH LOCTITE.**
- 9 Coat the inside of the D23415 Piston body with Loctite271 included with your kit.
- 10 Now coat **ONLY** the ½ inch of the new piston from the top of the retention groove and below on the new stainless steel piston with Loctite 271 that was included with your D23487-PPK Kit.
- 11 Press the new stainless steel piston plunger into the old D23415 piston housing using a press or similar device to drive the piston into the piston housing until the new piston pin has completely seated into the old piston housing. Be extremely careful not to damage the shaft of the new stainless steel piston pin during installation or damage may occur to the journal water seal during reassembly. The measurement remaining exposed piston pin should be 1.880 + or - .030
- 12 After both new piston plunger pins have been installed into the old D23415 piston housings using the Loctite 271 you will need to allow the piston assemblies to set for 24 hours for the Loctite 271 to cure and bond the piston housing and the piston pin together before you reassemble the pump.
- 13 After allowing the piston assembly to set and cure for 24 hours you can install your piston assemblies back into the piston journals.
- 14 Carefully push the piston assemblies back into the piston journals while slightly turning the piston assembly back and forth to allow the piston to move past the piston seal without causing damage to the seal.
- 15 Align the four 5/16 – 18 x 3/8 Grade 8 retaining screws and torque the screws to 24-26 ft.-lbs.
- 16 Install the protective cover back over the pump and attach.

For questions, comments or concerns please contact our customer service department at: 1-877-475-5660 or email them at: [customerservice@allpartsinc.com](mailto:customerservice@allpartsinc.com)