

Installation Instructions



INDUSTRIAL I N J E C T I O N



Torque Lock Injector Cup Kit

Cummins ISX15/QSX15 SOHC

Kit Includes:

- 1 - Factory Injector Cup Tap
- 1- Centering Sleeve
- 1- Cylinder Head Tap
- 1 - Factory Injector Cup Removal Tool
- 1 - Torque Lock Tool
- 6 - Nozzle Bore Plugs
- 12 - Nozzle Bore Plug O-Rings
- 1 - Bore Plug Tool
- 12 - Injector Cup O-Rings

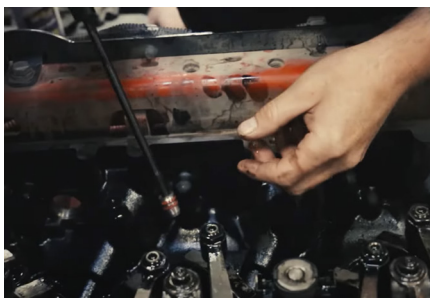
Note: before you begin the process of these instructions, the cylinder head needs to be ready to have these cups installed. The injectors must be removed from the head before the installation of the injector cups begin. It may give you more room if you also remove the rocker arm assemblies.



STEP 1

Install the supplied 12 small o-rings onto the 6 nozzle bore plugs. Then install the plugs into the nozzle bores in the cylinder head using the supplied installation tool.

You may need to clean the carbon out of the nozzle bore in the cylinder head to allow the plug to fit.



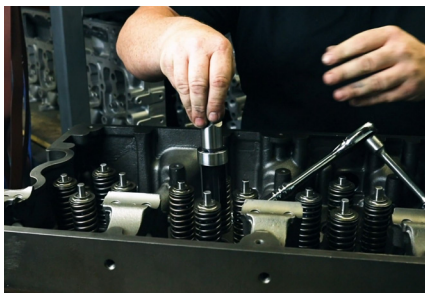


STEP 2

Using the supplied injector cup tap and centering sleeve, begin to tap the first factory injector cup. Make sure you use the supplied Tap Magic on the threads of the tap before you begin. Tap the factory injector cup until the tap stops turning, or roughly $\frac{1}{2}$ inch into the factory cup. Once the first factory injector cup is tapped, clean the tap, and repeat the process for all 6 factory injector cups.



- A. Injector Cup Tap
- B. Cylinder Head Tap
- C. Centering Sleeve





STEP 3

Using the supplied factory injector cup removal tool, thread the main stud of the removal tool into the first factory injector cup that has been tapped. Once the tool has been completely threaded into the factory cup, then you will slowly tighten the larger nut at the top of the tool until the cup pops out. You can then remove the tool and the factory cup will be threaded onto the bottom of the tool. Remove the stock cup from the tool and repeat the process for all 6 stock injector cups.





STEP 4

Now that all of the stock injector cups are removed from the head you will need to thoroughly clean the injector bores before you tap the head. We recommend using power brush or other cleaning tool.

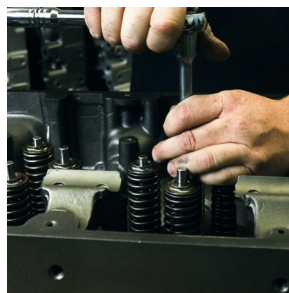
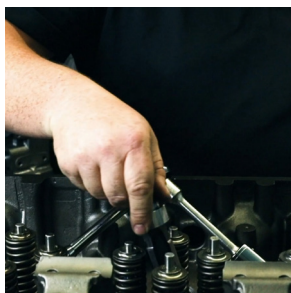
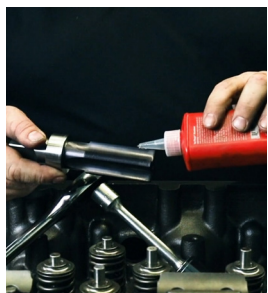
Note: Be sure to leave the nozzle bore plugs installed.



STEP 5

Using the supplied cylinder head tap and centering ring you previously used, you can now begin to tap the first injector bore. Make sure you use the supplied Tap Magic on the threads of the tap before you begin. Tap it all the way until it stops and bottoms out. Repeat the process on all 6 injector holes. Make sure you clean and blow off the tap between each injector bore.

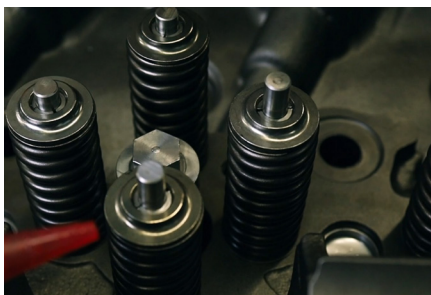
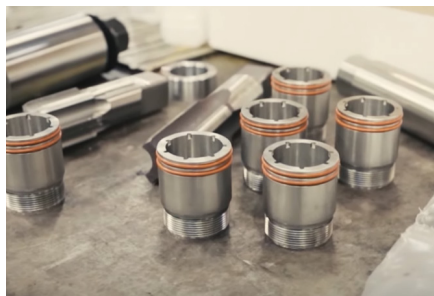
Once you have all 6 injector bores tapped it is very important that you clean all thread shavings out of the injector bore very thoroughly. We recommend using a vacuum.





STEP 5

Now you are ready to install the Torque lock cups. Install two of the provided o-rings onto each Torque Lock Cup. Then using the supplied Torque Lock Cup tool, you can install the Torque Lock Cups into each injector bore of the cylinder head. We recommend using an anaerobic sealer on the threads of the torque lock injector cup. You may also want to lube the o-rings before installation. Once you snug the Torque lock injector cup into the cylinder head you will then torque it down to 55 ft. lbs. Repeat the process on all 6 injector bores.





STEP 5

Double check that all debris and shavings are thoroughly cleaned out of each injector bore, then using the supplied plug tool, remove all of the injector nozzle bore plugs.



Your Industrial Injection Torque Lock Injector Cups are now installed. You can proceed to re-install the injectors and get the head re-assembled.

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800-955-0476

2858 South 300 West

Salt Lake City, Utah 84115

www.industrialinjection.com

