

CUMMINS CELECT INJECTOR INSTALLATION INFORMATION

Thank you for purchasing **ProDiesel** Product. Here are some informative tips to help you have the best replacement experience.

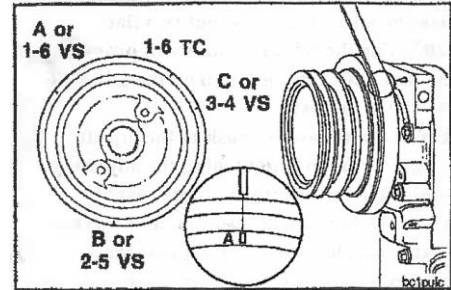
Remember the 5 F's

1. **Follow the manufacturer's instructions.**
2. **Flush the fuel system.**
3. **Filter - Replace the filter.**
4. **Free - Keep area Free from dirt and debris.**
5. **Failure to do these things will result in a poor result.**

KEY INFORMATION

1. Injector hold-down clamp cap screw torque: **N14→30 FT LBS & LI0 & MII→55 FT LBS**
2. Celect injector nozzles can be easily damaged when contacted against any hard surface. Any tip damage (dings, dents, etc.) which results in spray holes deformation may lead to cracks and/or blown nozzles. Please use caution whenever handling or installing Celect injectors to ensure that no damage occurs.
3. When replacing Celect injectors always remove battery cables for a minimum of five minutes to allow the computer to reset.
4. After installation allow the engine to run for **50 miles** to allow the computer to recalibrate the new injector.
5. Never replace an injector for a misfire unless it fails **TWO SUCCESSIVE** Compulink Automatic Cylinder Performance Tests.
6. Never replace an injector for rough idle or a misfire complaint if there is not a low power complaint.
7. Never replace an injector without referring to the CELECT Troubleshooting Procedures.
8. Never replace an injector if the complaint cannot be verified.
9. Never replace injectors in full sets without a specific identified cause.
10. Check fuel inlet restriction on all low power complaints **BEFORE** any other diagnostic work.
11. Never replace injectors at the same time other components are replaced.
12. When it is necessary to replace 2 or more injectors to correct rough idle/misfire **ALWAYS** check the filters and tanks for water. Drain water **BEFORE** restarting the engine.
13. Never replace an injector for 5% or less lube oil fuel dilution
14. Always use fluorescent dye or the air pressure test when troubleshooting lube oil fuel dilution. Refer to Service Parts Topic 91T6-l2 for leakage limits and reject criteria.
15. Never replace a full set of injectors for fuel dilution of the lube oil.
16. Never replace an injector for external O-rings leaking fuel. (Replace the O-rings)
17. Never replace an injector for any fault code if the injector solenoid checks OK.
18. Never replace an injector with a faulty or broken pigtail/connector. (Replace the pigtail.)
19. Never turn or adjust the Solenoid/Control Valve. Warranty is void if seal is broken.

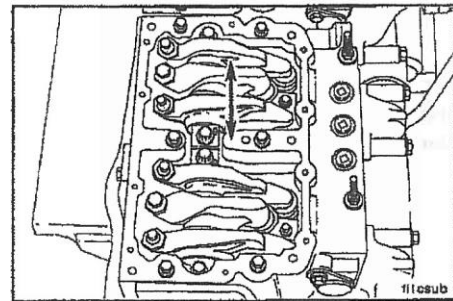
Rotate the crankshaft in the direction of engine rotation. The crankshaft will rotate clockwise, on a "right hand" engine, when looking at the front of the engine. Align the "A" or "1-6 VS" mark on the accessory drive pulley with the pointer on the gear cover.



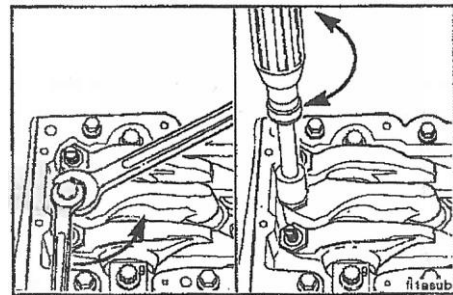
The valves and the injectors on the same cylinder are adjusted at the same index mark on the accessory drive pulley. One pair of valves and one injector are adjusted at each pulley index mark before rotating the accessory drive to the next index mark. Two crankshaft revolutions are required to adjust all the valves and the injectors.

INJECTOR AND VALVE ADJUSTMENT SEQUENCE		
Bar Engine in Direction Rotation	Pulley Position	Set Cly Inj and values
Start	A	1
Advance to	B	5
Advance to	C	3
Advance to	A	6
Advance to	B	2
Advance to	D	4
Firing Order	1-5-3-6-2-4	

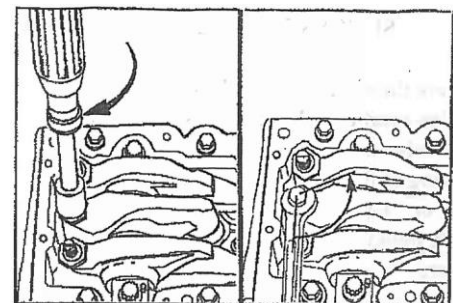
When the "A" or "1-6" mark is aligned with the pointer, the intake and exhaust valves for cylinder No. 1 must be closed. The injector plunger for cylinder No. 1 must be at the bottom of the stroke. If these conditions are not correct, cylinder No. 6 must be ready to set, i.e., set the injector and valves on the cylinder so that both the intake and exhaust valve rocker levers can be moved from side-to-side.



Start at cylinder No. 1 if the intake and exhaust valves are closed. Loosen the injector adjusting screw lock nut. Bottom the injector plunger three or four times to remove the fuel.

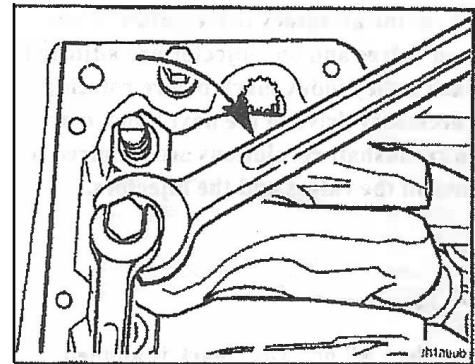


Tighten the injector adjusting screw until the injector plunger just touches bottom. Back the adjusting screw out two flats (120°). For the N14, two flats will provide 0.56 mm [0.022 in] lash and on the L10 0.66 mm [0.026 in] lash.

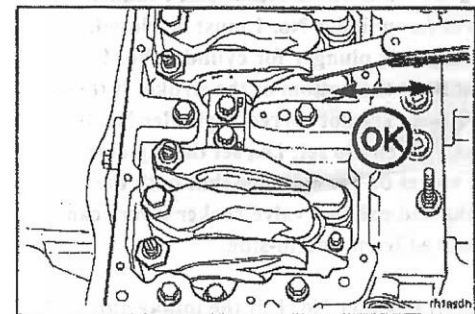


NOTE: Do not apply crush to the injector plunger by further tightening the adjusting screw after the injector plunger reaches bottom. Doing so will result in an incorrect injector overhead lash setting and can cause excessive injection train wear.

On L10 engines, hold the adjusting screw and torque the lock nut to 61 N.M [45 ft-lb]. On N14 engines, hold the adjusting screw and torque the lock nut to 68 N.M (50 ft-lb).



After setting the injector on a given cylinder, set the valves on the same cylinder.



Continue through all the cylinders in the sequence given in the preceding table.

INJECTOR AND VALVE LASH SETTINGS			
Engine	Int Valve mm (in)	Exh Valve mm (in)	Injector mm (in)
L10	.36 (.014)	.68 (.027)	.66 (.026)
N14	.36 (.014)	.68 (.027)	.66 (.026)

Please refer to the OEM Guides and Manuals for the Manufacturer's specifications and procedures.

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