



GMC 50 and 60 Series Injector Sleeve Removal & installation Tooling Instructions



The Complete GMC 50 / 60 Series Kit with Toolbox - 451-6471-00

ID#	DESCRIPTION	PART #
1	Tip Protrusion Gauge	433-6474-60
2	Sleeve Remover	427-6462-10
3	Tip Reamer Driver	429-6463-55
4	Driving Arbor	414-6114-10
5	Flaring Stud	427-6463-10
6	Tip Reamer	429-6463-55
7	Complete Installation Tool (includes Pilot PN: 427-6462-60)	433-6472-50
8	Seat Cutter	433-6474-50
9	Gauge Finger Assembly	433-6991-00
10	Guide Bushing Assembly	433-6474-30
11	Sleeve End Facer	427-6464-10
12	Carbon Steel Cleaning Brush	450-6951-01
13	Seat Cutter Gauge	433-6476-55
14	Gauge Handle	414-6111-30
15	Medium Toolbox with Tray	467-1950-50

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REPLACING A WORN INJECTOR SLEEVE

1 - REMOVING THE WORN INJECTOR SLEEVE

With the sleeve remover (427-6462-10) knock the worn injector sleeve out of the injector sleeve hole and carefully clean out the injector hole before installing the new sleeve.

2 - INSTALLING THE NEW INJECTOR SLEEVE IN THE INJECTOR HOLE

With the O-Ring in place on the sleeve, place the sleeve over the pilot (427-6462-60) onto the end of the installation tool (433-6472-50). Install the installation tool down into the injector hole and tap it to make sure that the sleeve has bottomed in the injector hole.

Remove the pilot at the end of the installation tool and install the flaring stud (427-6463-10) in the end of the tool. The tip of the sleeve may be tight and it may be necessary to thread the flaring stud up through the tip of the sleeve. Continue torquing the flaring stud up, using about 30 foot/pounds of torque, until the end of the sleeve is fully flared. Greas or anti-seize on the threads of the flaring stud may be helpful in flaring out the end of the sleeve.

When the sleeve has been fully flared out, remove the flaring stud and then remove the installation tool to prepare the sleeve for cutting the seat.

3 - PREPARING THE SLEEVE FOR CUTTING THE SEAT

Install the guide bushing (433-6474-30) in the injector hole and hold it in position with the guide bushing clamp locking the position clamp tightly with the locking bolt, using, if necessary, as much as 8 to 10 foot/pounds of torque on the clamp locking bolt. With the reamer driver assembly (433-6474-40 includes reamer 429-6463-55) down in the guide bushing, ream out the bottom end of the injector sleeve.

Now face off the bottom end of the sleeve with the sleeve end facer (427-6464-10)

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GMC Diesel 50 & 60 Engines

4 - Cutting the Seat in the New Injector Sleeve

First install the gauge finger (433-6991-00) on the head with the smooth face of the gauge finger directly below the injector hole. Then position the seat cutter gauge (433-6476-55) on the smooth face of the gauge finger directly below the injector hole.

Using the seat cutter (433-6474-50) with the driving arbor (414-6114-10) down through the guide bushing into the injector hole, cut the seat in the bottom of the sleeve until the pilot of the end of the seat cutter stops on the top surface of the cutter gauge (433-6476-55). When cutting the seat, run the cutter at about 200 RPM. As a further check on the depth of the seat in the sleeve, remove the seat cutter from the guide bushing and place the tip protrusion gauge (433-6474-60) down into the injector seat. The tip of the protrusion gauge should be short of the surface of the head by ".000 to .008".

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