Killer Dowel Pin

Dodge Cummins 5.9L Engine Repair Kit

Installation Manual

Application List	
1040182	Dodge 12 Valve (1994-1998)
1040183	Dodge 24 Valve (1998½-2002)

READ THIS MANUAL COMPLETELY BEFORE INSTALLING THIS PRODUCT.

Printed in Canada

BD Engine Brake Inc.
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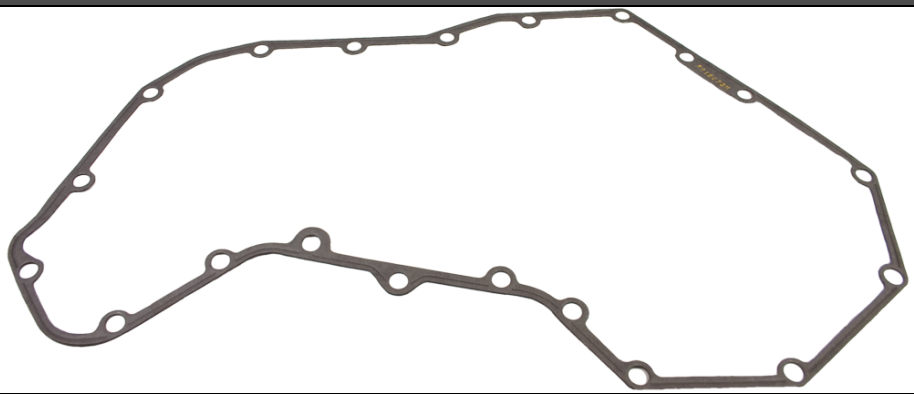
Parts List

1040182 – Dodge Cummins 12V KDP Kit (1994-1998):

1400182		3937111		3900257	
Qty: 1	Pin Retainer	**Qty: 1**	Crankshaft Seal	**Qty: 1**	Dowel Pin

3918673	
	
Qty: 1	Crankshaft Gasket

1040183 – Dodge Cummins 24V KDP Kit (1998½-2002):

1400182		3937111		3900257	
Qty: 1	Pin Retainer	**Qty: 1**	Crankshaft Seal	**Qty: 1**	Dowel Pin

1301059	
Qty: 2	Silicone Sealant

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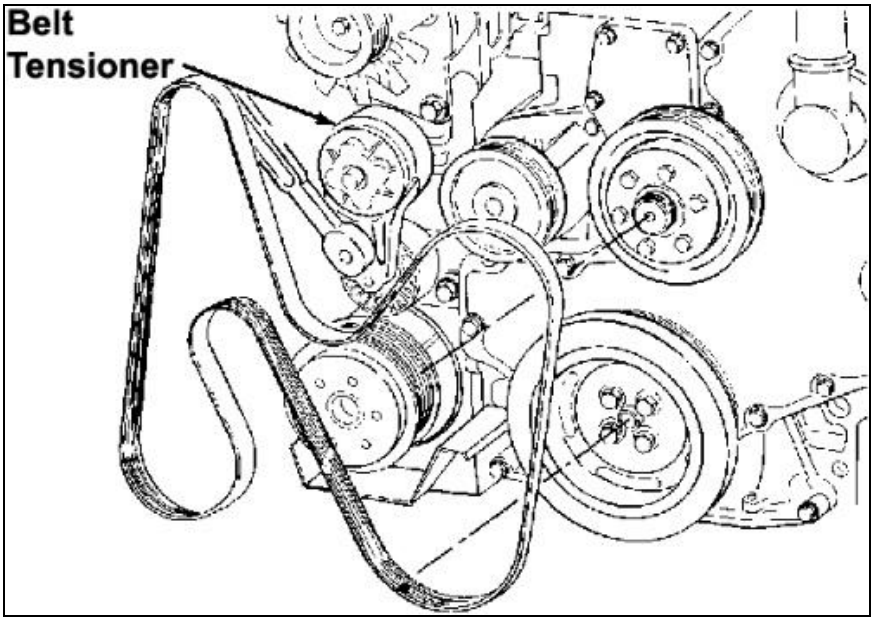
Installation

Crankshaft Front Seal

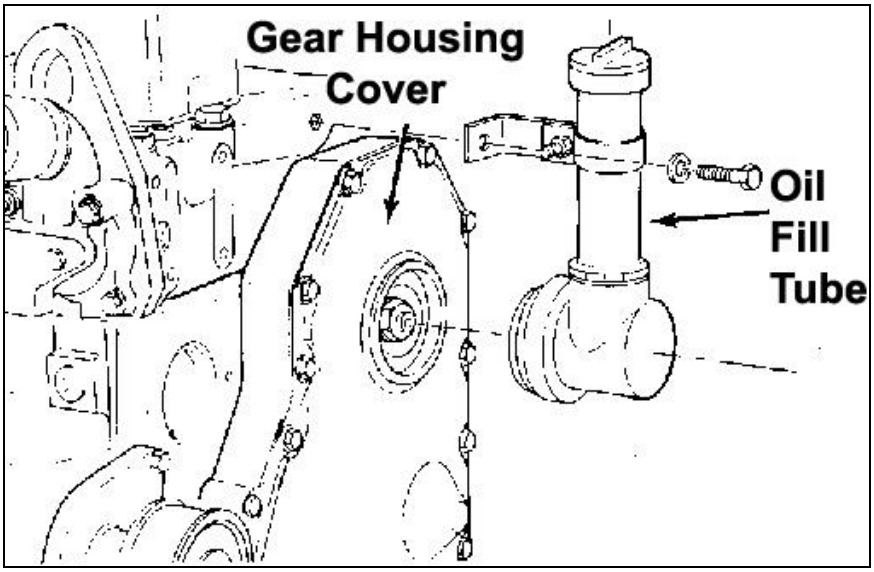
Removal

1. Remove the fan drive assembly.

2. Remove the fan belt and the belt tensioner.



3. Remove the oil fill tube and adapter.

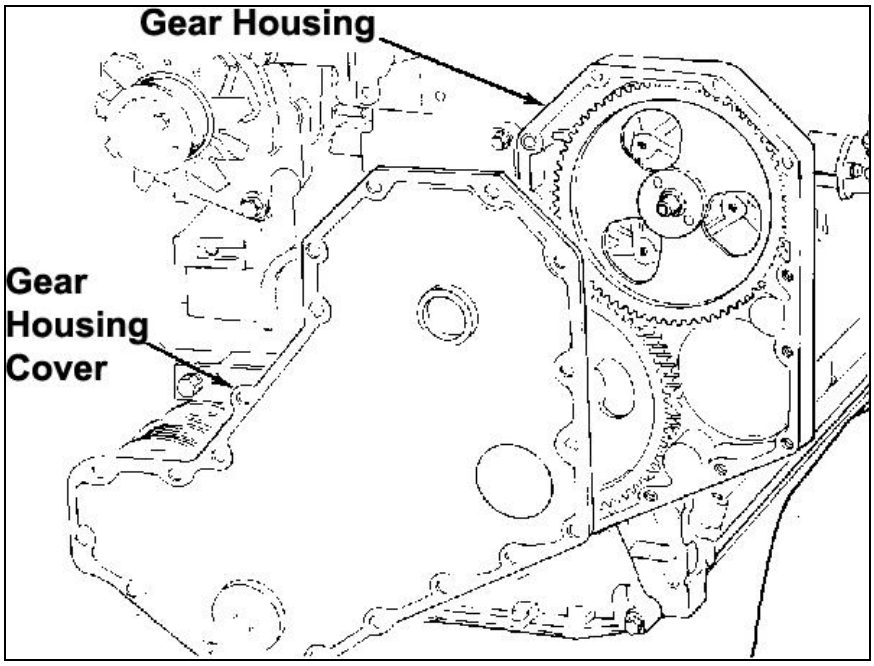


4. Remove the vibration damper.

5. Remove the bolts that hold the gear cover to the gear housing.

6. Gently pry the cover away from the housing, taking care not to mar the gasket surfaces.

7. Clean the old gasket residue from the back of the gear cover and front of the gear housing.



Installation

1. Knock the KDP back into place and install the Tab under the adjacent bolt. If the KDP is missing install the spare one provided in the kit.

Without KDP installed

With retainer and bolt installed

2. Lubricate the front gear train with clean engine oil.

3. Thoroughly clean the front seal area of the crankshaft. The seal lip and the sealing surface on the crankshaft must be free from any oil residue to prevent seal leaks.

4. Install the seal into the front cover using a plastic hammer and the install tool (the metal ring that comes in the seal box). Place the tool so that the groove on it is pushing the seal down into the cover. This will set the seal in slightly further than the original; this is so the new seal is not riding on the groove left in the crank by the old seal. Hit the alignment/installation tool alternately at the 12,3,6 and 9 o'clock positions to drive the seal in evenly. Sometimes it helps to file a slight chamfer on the edge of the seal bore in the timing cover to get the seal started.

NOTE: *The plastic install sleeve must remain in the seal during this process. Removing & reinstalling it could damage the seal.*

5. Reinstall the timing cover with the new gasket, using the nylon sleeve to guide the seal over the end of the crank and over the groove from the old seal.

6. Install the cover bolts. The bolts should be snugged first then torque evenly to **24 N·m** (18 lbs-ft). If sealer is being used, bolts should be snugged then left for 20-30 min to allow the sealer to cure and then torque. Once this is done, remove the nylon sleeve.

7. Install the oil fill tube and mounting bolts. Tighten the bolts to **43 N·m** (32 lbs-ft) of torque.

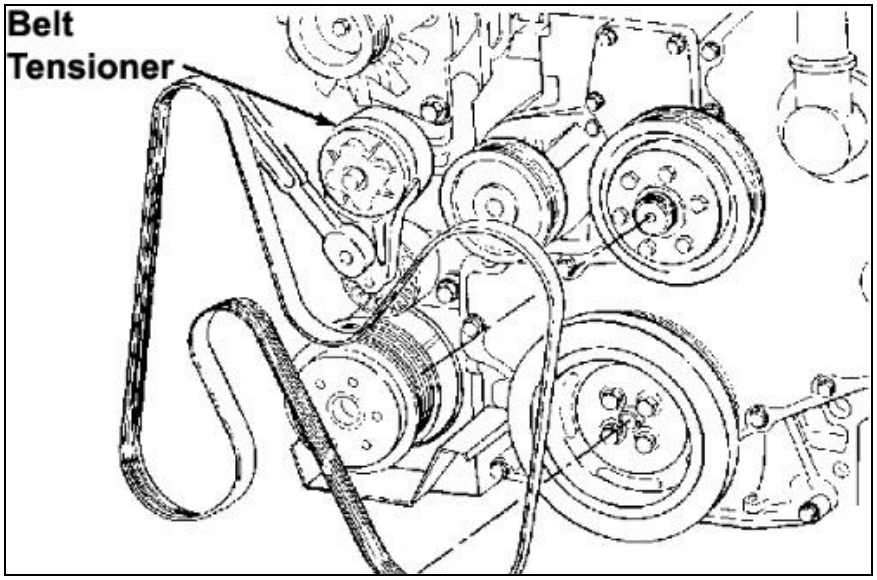
8. Install the vibration damper. **DO NOT** torque the bolts at this time.

9. Install the belt tensioner. Tighten the mounting bolts to **43 N·m** (32 lbs-ft) of torque.

10. Raise the belt tensioner to install the belt.

11. Tighten the vibration damper bolts to **125 N·m** (92 lbs-ft) of torque. Use an engine barring tool to keep the engine from rotating during tightening operation.

12. Install the fan drive assembly.



Questions?

If you have any technical comments, questions, or problems with this kit, then please call our technical hotline at (800) 887-5030 between 8:30am-5:00pm, Monday to Friday, 8:30am to 5:30pm Pacific Standard Time (PST). As an alternative, you can also log into our technical support forums and post a question. The forum is located at http://www.bd-power.com/forum/.

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