



# ***Killer Dowel Pin***

**Dodge Cummins 5.9L Engine Repair Kit**

**I n s t a l l a t i o n   M a n u a l**

Application List	
<b>1040182</b>	Dodge 12 Valve (1994-1998)
<b>1040183</b>	Dodge 24 Valve (1998½-2002)

**READ THIS MANUAL COMPLETELY BEFORE INSTALLING THIS PRODUCT.**

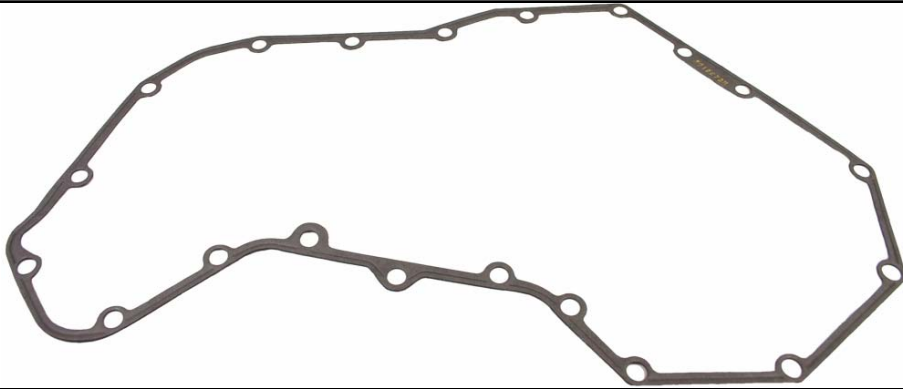
Printed in Canada

## Parts List

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

1400182		3904353		3900257	
					
<b>Qty: 1</b>	Pin Retainer	<b>Qty: 1</b>	Crankshaft Seal	<b>Qty: 1</b>	Dowel Pin

### **3918673**

					
<b>Qty: 1</b>		Crankshaft Gasket			

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

1400182		3904353		3900257	
					
<b>Qty: 1</b>	Pin Retainer	<b>Qty: 1</b>	Crankshaft Seal	<b>Qty: 1</b>	Dowel Pin

### **3823494**

					
<b>Qty: 1</b>		Silicone Sealant			

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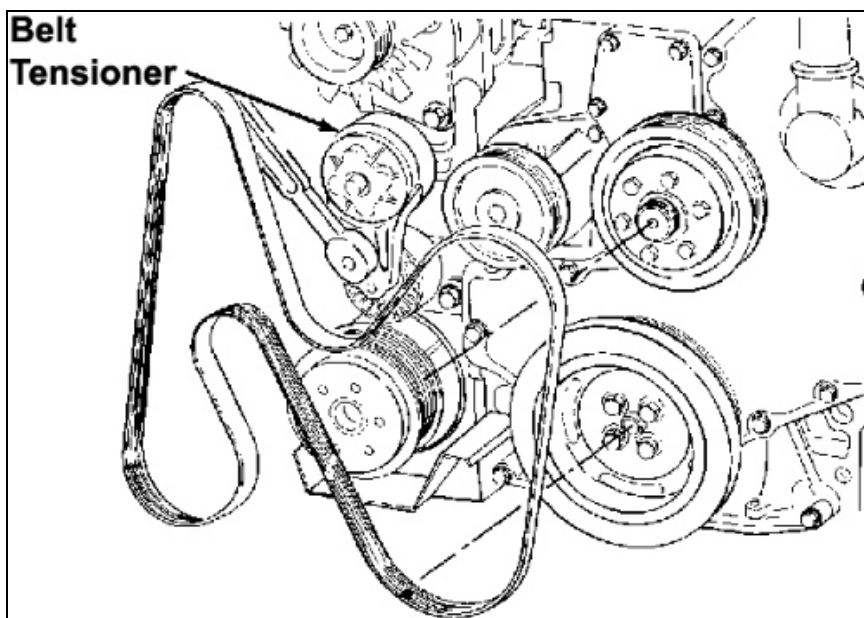
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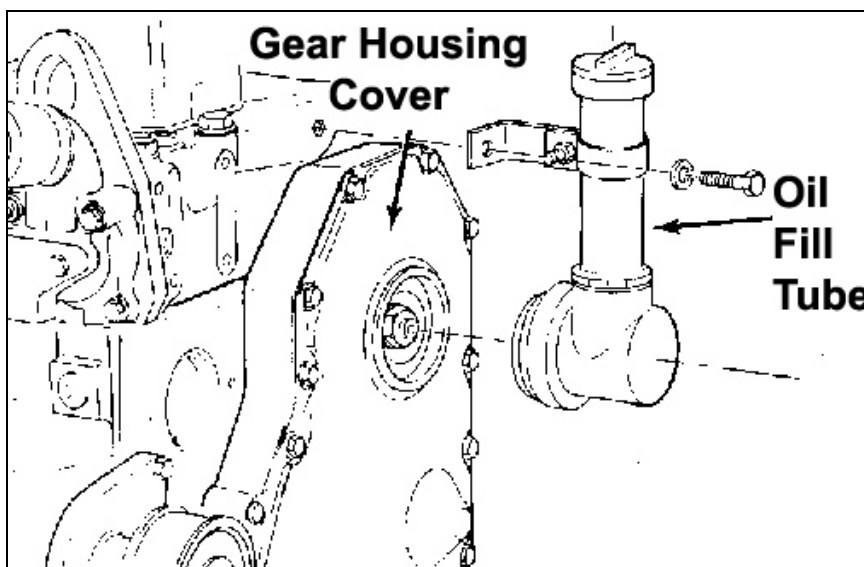
## Installation

1. Remove the fan drive assembly.

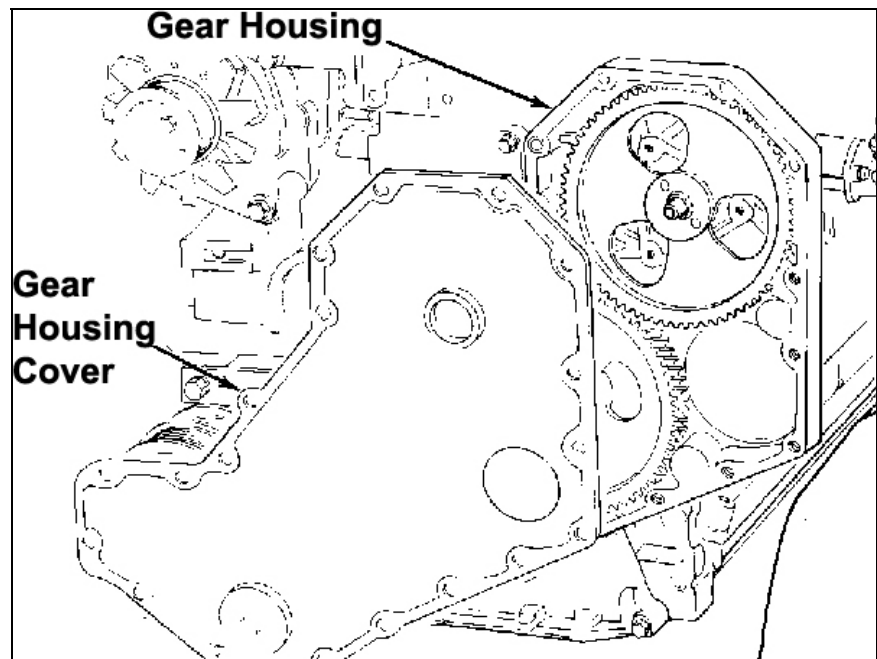
2. Remove the fan belt and the belt tensioner.



3. Remove the oil fill tube and adapter (**12V only**).



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.



***Without KDP installed***

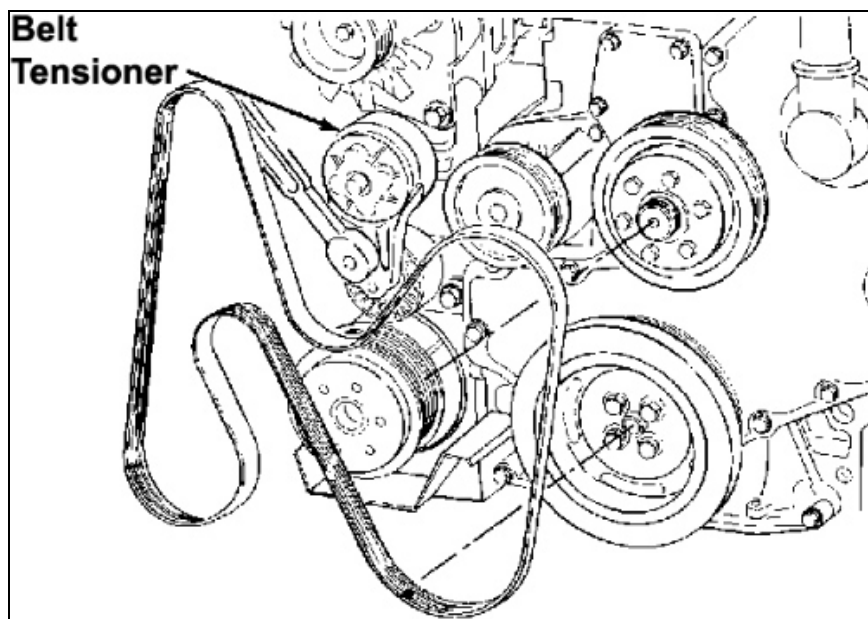


***With retainer and bolt installed***

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 rear of the cover using a plastic hammer and the alignment/installation tool provided in the seal kit to prevent damage to the seal carrier. Hit the alignment/installation tool alternately at the 12, 3, 6 and 9 o'clock positions.
5. Install the pilot from the seal kit onto the crankshaft.
6. Using the pilot as an alignment tool, install the cover and a new gasket **(12v)** or use sealant **(24v)**.
7. Install the cover bolts and tighten to **24 N·m** (18 lbs-ft) of torque. Remove pilot tool.
8. Install the oil fill tube and mounting bolts. Tighten the bolts to **43 N·m** (32 lbs-ft) of torque.
9. Install the vibration damper. **DO NOT** torque the bolts at this time.
10. Install the belt tensioner. Tighten the mounting bolts to **43 N·m** (32 lbs-ft) of torque.
11. Raise the belt tensioner to install the belt.
12. 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.
13. 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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## BD ENGINE BRAKE, INC. *LIMITED WARRANTY STATEMENT*

THE INSTALLATION OF THIS PRODUCT INDICATES THAT THE BUYER HAS READ AND UNDERSTANDS THIS AGREEMENT AND ACCEPTS ITS TERMS AND CONDITIONS.

### DISCLAIMER OF LIABILITY

BD Engine Brake Inc., its successors, distributors, jobbers, and dealers (hereafter "**BD**") shall in no way be responsible for the product's proper use and service. THE BUYER HEREBY WAIVES ALL LIABILITY CLAIMS.

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This warranty shall not apply to any unit that has been improperly stored or installed, or to misapplication, improper operation conditions, accidents, neglect, or which has been improperly repaired or altered or otherwise mistreated by the **BUYER** or his agent. **BD** also assumes no liability regarding the improper installation or misapplication of its products. It is the installer's responsibility to check for proper installation and if in doubt, contact the manufacturer.

### LIMITATION OF WARRANTY

BD Engine Brake Inc. (hereafter "**BD**") warrants to the **BUYER** that any parts purchased shall be free from defects in material workmanship. A defect is defined as a condition within the product that would render the product inoperable. **BD** gives Limited Warranty as to description, quality, merchantability, fitness for any product's purpose, productiveness, or any other matter of **BD's** product sold herewith. **BD** shall be in no way responsible for the product's open use and service and the **BUYER** hereby waives all rights other than those expressly written herein. This Warranty shall not be extended or varied except by a written instrument signed by **BD** and the **BUYER**.

**The Warranty is Limited to one (1) year from the date of sale and labor costs incurred by the removal and replacement of the BD product, while performing warranty work, will be covered for 1 (one) year, payable at BD rates, at authorized centers and with prior approval. Until BD has approved the claim, the consumer may be responsible for these costs.**

A Return Authorization (WA) number, obtained in advance from **BD**, must accompany all products returned for warranty consideration. All products must be returned, shipping prepaid, to **BD** and must be accompanied by a dated proof of purchase receipt. All Warranty claims are subject to approval by **BD** and repaired or replaced product will be returned to the customer freight collect. Accepted warranty units, which have been replaced, become the sole property of **BD**.

This warranty is in lieu of all other warranties or guaranties, either expressed or implied, and shall not extend to any consumer or to any person other than the original purchaser residing within the boundaries of the continental U.S. or Canada.

IN THE EVENT THAT THE BUYER DOES NOT AGREE WITH THIS AGREEMENT, THE BUYER MAY PROMPTLY RETURN THIS PRODUCT, IN A NEW AND UNUSED CONDITION, WITH A DATED PROOF OF PURCHASE, TO THE PLACE OF PURCHASE WITHIN THIRTY (30) DAYS FROM DATE OF PURCHASE FOR A FULL REFUND.

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