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# **BD Ford 1999½-2003 7.3L Power Stroke *CRANKCASE VENTILATION KIT***









**P/N#: 1032170**

**PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION**

## KIT CONTENTS:

*Please check to make sure that you have all the parts listed in this kit **before** you start the disassembly of your truck.*

<b>1302170</b>		<b>1302175</b>	
			
<i>CCV Unit</i> <b>Qty: 1</b>		<i>CCV Bracket</i> <b>Qty: 1</b>	
<b>1302176</b>	<b>1302177</b>	<b>1302178-A</b>	<b>1302172</b>
			
<i>Plated Bolt</i> <b>Qty: 2</b>	<i>Outlet Hose</i> <b>Qty: 1</b>	<i>Inlet Hose</i> <b>Qty: 1</b>	<i>CCV Catch Can</i> <b>Qty: 1</b>
<b>1400104</b>	<b>1604054</b>	<b>1130056</b>	<b>1401556</b>
			
<i>Barb Fitting</i> <i>1/2" hose – 1/4 NPT</i> <b>Qty: 1</b>	<i>1/2" Drain Hose</i> <b>Qty: 16"</b>	<i>Nyloc Nut (8mm)</i> <b>Qty: 2</b>	<i>Washer (8mm)</i> <b>Qty: 2</b>

<b>1302195</b>	<b>1302196</b>	<b>1302197</b>	<b>1302184</b>
			
<i>Oil Drain Spring Clamp #19</i>	<i>CCV Piping Spring Clamp #24</i>	<i>CCV Piping Spring Clamp #32</i>	<i>CCV Catch Can Bracket</i>
<b>Qty: 2</b>	<b>Qty: 2</b>	<b>Qty: 2</b>	<b>Qty: 1</b>
<b>1604104</b>	<b>1110033</b>	<b>1110032</b>	<b>1110031</b>
			
<i>5/16x1 NC Bolt</i>	<i>5/16 NC Nut</i>	<i>Lock Washer 5/16"</i>	<i>Flat Washer 5/16"</i>
<b>Qty: 3</b>	<b>Qty: 3</b>	<b>Qty: 3</b>	<b>Qty: 6</b>
<b>1302186</b>	<b>1302187</b>	<b>1100111</b>	<b>1604124</b>
			
<i>O-Ring 5/16 x 7/16</i>	<i>O-Ring 1.5 x 1.25"</i>	<i>Flat Washer – 1/4"</i>	<i>1/4NCx5/8 Bolt</i>
<b>Qty: 2</b>	<b>Qty: 2</b>	<b>Qty: 2</b>	<b>Qty: 2</b>

<b>1100112</b>

<i>Lock Washer – 1/4"</i>
<b>Qty: 2</b>

## Welcome

Thank you for purchasing the Ford 7.3L Power Stroke CCV kit. This manual is divided into different areas to assist you with your installation and maintenance of your CCV system.

This product is designed specifically for the 7.3L Power Stroke to aid in reducing the amount of oil found in the Charge Air Cooler, and the chance of having a boot blow off. The system will help to increase boot life and charge air cooler effectiveness. Better filtration of the crankcase gas reduces the amount of oil that will be returned to the intake system, which in turn will reduce emissions.

Installation should occur on a vehicle properly secured to prevent rolling. Draining of the oil retention canister at regular oil change intervals will help to optimize the oil removal ability of the system.

## Required Tools

- 1/4" wrench
- 7/16" wrench
- 1/2" wrench
- 9/16" wrench
- #2 Phillips screw driver bit.

## Maintenance

- Drain oil retention canister at regular oil change intervals.
- Change the filter (**#1302171**) every 30,000 miles or 1 year.



To change the filter unscrew the cap off of the canister, grasp the handle on the filter & pull it out of the canister. It should come out with a firm tug.

BD Engine Brake Inc.

Plant Address: 33541 MacLure Rd. Abbotsford, BC, Canada V2S 7W2

U.S. Shipping Address: 88-446 Harrison St, Sumas, WA 98295 U.S. Mailing Address: P.O. Box 231, Sumas, WA 98295

Phone: 604-853-6096 | Fax: 604-853-8749 | Internet: [www.bd-power.com](http://www.bd-power.com)

## INSTALLATION

1. Remove the Air Intake Hose, and the Air Box lid.



2. Remove the Turbo Inlet hose and snorkel.

Disconnect the breather hose at the breather box.

Remove the breather hose from the snorkel.

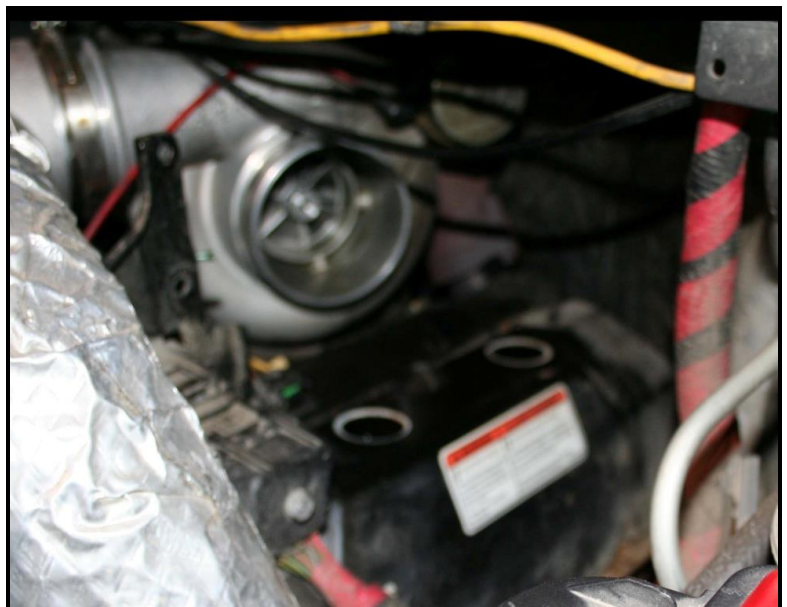


3. Remove two Phillips screws on the top of the driver side valve cover.

Lift off the breather vent and replace large O-rings.

Rotate breather vent box 180° and reinstall.

Install new hex bolts with ½ socket. Be sure to install the two O rings over the base of the bolts.



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Do not over tighten bolts, or you will crush the breather box. Snug is fine.



4. Install inlet hose (#1302178) onto breather vent. Use the #24 spring clamp (#1302196) to secure this connection.



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5. Assemble the CCV onto the large stainless bracket with drain hose. You may have to undo the latch on the plastic canister holder and clock the canister to match what is shown in fig 1.1

You will utilize the two 5/16" bolts, washers, lock washers and nuts to secure the CCV canister to the bracket.

Install the 1/2" hose to the bottom of the CCV canister. Secure this connection with the #19 spring clamp (#1302195).



Fig. 1.1

6. Install complete assembly onto the two hex breather studs.

Use the two Nyloc nuts and washers to secure it.

Connect rubber breather hose to upper port on bottle. Secure this connection with the #32 spring clamp (#1302197).



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6. Install second hose (#1302177) onto snorkel. Secure this connection with spring clamp #24.

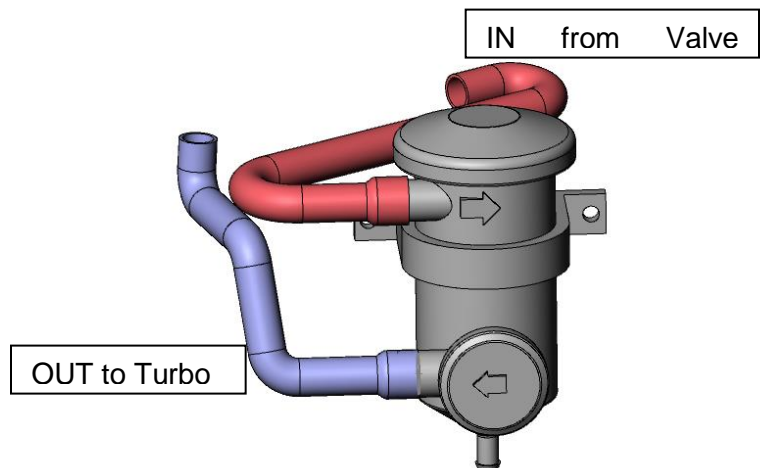


Install other end of hose onto the lower port of CCV canister. Secure this connection with spring clamp #32.



Install turbo inlet and snorkel back onto the engine.

**The flow of air should travel out of the valve cover into the top port of the CCV canister. The clean air should leave the lower port of the CCV canister and return into the intake system.**



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7. Reinstall the intake hose and air box lid.

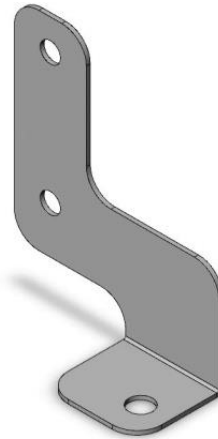


8. Install barbed fitting into the top of the catch bottle. The fitting will thread itself into the bottle. You will have to use a 9/16" wrench for this. You should bottom the fitting into bottle.



9. Mount the catch bottle on the bracket to the driver's side frame rail. Use the existing hole in the frame just towards the rear of the vehicle from the cross member.

You will use the 1/4" bolts, washers, and lock washers to secure the catch can to the bracket.



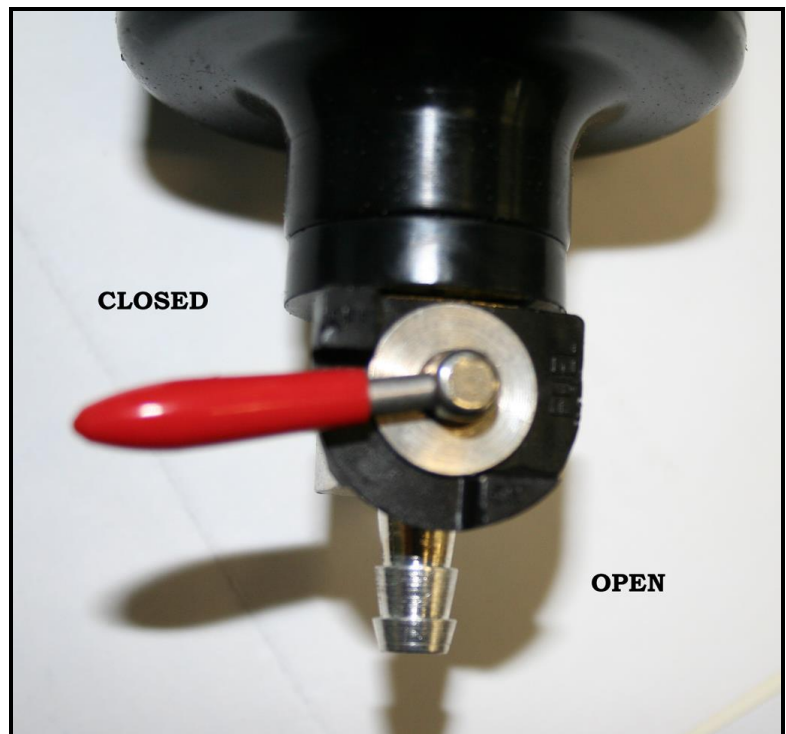
Use a 5/16" bolt, lock washer, nut and two flat washers to secure the catch can assembly to the frame rail.

Connect the 1/2" drain hose from above to the top of the catch can barb fitting. Be sure to cut to length. Secure the connection with a #19 spring clamp.



To drain the oil catch can turn the lever to the open position.

This catch can, should be drained ever oil change.



***NOTE THAT IF THERE ARE ANY KINKS IN THE HOSES OR THE FILTER BECOMES PLUGGED, YOU MAY DEVELOP THE FOLLOWING SYMPTOMS: BLOWN OIL GASKETS, INCREASED CONSUMPTION OF OIL OR TURBOCHARGER OIL LEAKS.***

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## ***Troubleshooting***

If you have any technical difficulties, concerns, comments, or complaints, please phone our Technical Support hotline at (800) 887-5030 between 8:30am-5:00pm PST (Pacific Standard Time) Monday to Friday, or post a message on the BD Discussion Forums located at:

<http://forum.bd-power.com/>



Visit our Internet forums at <http://www.dieselperformance.com> and share your comments or technical support questions with some of the industry's leading experts in the diesel field.

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