

# **Performance Diesel Installation**

#### Step 1 – Tools & Procedures

- Proper key if required
- Anti-seize Compound
- Do not use hammers or pry bars to install or remove Fluidampr
- Sufficient torque wrench (see torque specs on page 2), fan removal tools.

### Step 2 – Balancing

#### Internally and Externally balanced Engines

Part Numbers

890101 External Balanced Chevy DuraMax 6.6 Liter2004 & Up920301 Internal Balanced Dodge Cummins 5.9 Liter2003 & Up960301 Internal Balanced Dodge Cummins 5.9 LiterLate 1998 - 2002960311 Internal Balanced Dodge Cummins 5.9 Liter1992 - early 1998720211 External Balanced Ford PowerStroke 7.3 Liter1994 - 2003870201 External Balanced Ford PowerStroke 6.0 Liter2003 - Up

#### REPLACING THE DAMPER

Fluidampr counterweights for external balanced engines have been designed to OEM specifications. If the damper being replaced has never been altered, Fluidampr can be installed with no additional balancing.

BALANCING OR MATCH BALANCING

- Each Fluidampr component is precision balanced during manufacturing, so NO additional balancing is required.
- DO NOT ATTEMPT TO BALANCE THE CRANKSHAFT WITH FLUIDAMPR INSTALLED The inertia ring inside Fluidampr is balanced to a close tolerance at the factory and it rotates inside Fluidampr.
- DO NOT DRILL FLUIDAMPR The inertia ring and silicone fluid are in a hermetically sealed housing.
- If balancing the crankshaft is required, install the stock damper while balancing.

### Step 3 – Removal

- Remove fan and shroud as per manufacturer's instructions, draw sketch of belt routing if required and remove the accessory drive belt.
- Dodge Cummins 5.9 (1992 to early 1998). BEFORE REMOVING THE STOCK DAMPER, rotate the engine so that the magnetic pick up is not on one of the notches in the outside diameter of the stock damper. If you do not have access to the gap spec, use a feeler gage to measure and record the gap between the magnetic pick up and the stock damper.
- Remove the stock damper



## Step 4 – Fluidampr Installation

- On engines that the damper **slides or presses** onto the crankshaft, carefully remove burrs, scratches, or nicks on the crank snout by filing or polishing the snout so that it is smooth and free of surface irregularities. Remove any sharp keyway corners. The key should fit snugly in the keyway on the crank. A heavy press fit creates high stress on the slot and should be avoided. If you use a hammer for anything other than a light tap, the key is too wide. Replace or modify the key if it is too tight or too loose.
- Coat the crankshaft snout and damper inside diameter with anti-seize compound or moly grease to prevent galling during installation.
- Dodge Cummins 5.9 (1992 to early 1998). BEFORE INSTALLING THE FLUIDAMPR, loosen the magnetic pick up and move it outward to clear the larger Fluidampr. Install the Fluidampr, torque the bolts to the proper torque, and readjust the magnetic pick up to the previously measured gap or to the manufacturers spec.
- Dodge Cummins 5.9 (2003 and up) Ford Power Stroke 6.0.
  The belt must be routed between the Fluidampr and the water pump pulley before the Fluidampr is installed.
- Install the Fluidampr and torque the bolt or bolts properly as per the original manufacturers' torque or torque to yield requirements.
- Install the accessory drive belt, fan and shroud as per manufacturer's instructions.

Part No.	Engine
890101	Chevy DuraMax 6.6 L 2004 Up
920301	Dodge Cummins 5.9 2003 & up
960301	Dodge Cummins 5.9 1998 to 2002
960311	Dodge Cummins 5.9 1992 to 1998
720211	Ford Power Stroke 7.3
870201	Ford Power Stroke 6.0

#### **Bolt Torque**

74 ft-lbs plus an additional 90 degrees 30 ft-lbs plus an additional 60 degrees 30 ft-lbs plus an additional 60 degrees 30 ft-lbs plus an additional 60 degrees 212 ft-lbs

50 ft-lbs plus and additional 90 deg

## WARNING: FAILURE TO USE PROPERLY TORQUED BOLTS WILL VOID WARRANTY AND COULD RESULT IN DAMPER, KEY, OR CRANK DAMAGE.

#### LIMITED WARRANTY

LIMITED WARRANTY: All Fluidamprs are warranted to be free from defects in workmanship and materials for a period of ninety (90) days from the DATE OF PURCHASE. We recommend that you keep a copy of your sales invoice of receipt showing DATE OF PURCHASE during this warranty period. In the unlikely event you need to make a claim for warranty consideration, you must contact Horschel Motorsports for a returned goods authorization number. During the warranty period, Horschel Motorsports will repair or replace, at our discretion, any part or parts that are determined by Horschel Motorsports to be defective due to workmanship or materials. Transportation charges for return of defective parts must be prepaid by the purchaser. THIS WARRANTY DOES NOT INCLUDE AND IS NOT LIMITED TO THE FOLLOWING: Failure due to improper installation or maintenance. Loss or injury incurred from use or operation of Horschel Motorsports products. Misuse, abuse, or unauthorized repairs. Removal or replacement cost. Cost incurred due to downtime of vehicle. Damage to other engine or vehicle components. Normal wear and tear.

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