



# Performance Diesel Installation

## Step 1 – Tools & Procedures

- Proper key if required
- Anti-seize compound
- Removal & installation tool if required (Damage from improper installation will void your warranty)
- Do not use hammers/pry bars or heat to install or remove Fluidampr. (This will void your warranty and may cause engine damage)
- Honing or machining Fluidampr bore is not recommended (on applicable applications). A diametrical press fit (on press fit only dampers) of .0005" - .0015" is recommended for proper damper function. Using a micrometer, make sure to measure the crank snout and inner bore of Fluidampr to assure a proper fit.
- Sufficient torque wrench (see torque specs on page 2), fan removal tools, flywheel holding tool (if required).

**CAUTION: For high horsepower applications we recommend the following**

Engine	Engine Power / RPM	Recommended Kit	Part Number
All Cummins 5.9L/6.7L	3,500+ RPM	Fluidampr Drill Pin Kit	P/N - 300002
All Cummins 5.9L/6.7L	Above 700 HP / 1,250 Ft. Lbs. Torque	Fluidampr Full Power Kit	P/N - 300008
		Fluidampr Drill Pin Kit	P/N - 300002
All Cummins 5.9L/6.7L	Under 700 HP / 1,250 Ft. Lbs. Torque	Fluidampr High Strength Bolt Kit	P/N - 300007
1989-2002 Cummins 5.9L Fluidampr w/.350" Flange Thickness*	Under 700 HP / 1,250 Ft. Lbs. Torque	Fluidampr High Strength Bolt Kit	P/N - 300009
Duramax 6.6L	500 HP & Above	Fluidampr High Strength Bolt Kit	P/N - 300010
2003 - 2007 Power Stroke 6.0L	Under 700 HP / 1,250 Ft. Lbs. Torque	Fluidampr High Strength Bolt Kit	P/N - 300014
2008 - 2010 Power Stroke 6.4L	Under 700 HP / 1,250 Ft. Lbs. Torque	Fluidampr High Strength Bolt Kit	P/N - 300015
2011+ Power Stroke 6.7L	Under 700 HP / 1,250 Ft. Lbs. Torque	Fluidampr High Strength Bolt Kit	P/N - 300016
Fluidampr recommends 750+ HP applications to recheck bolt torque after every run/pull			
*If you need assistance determining which flange type you have, please contact Fluidampr tech support.			

## Step 2 – Balancing - Internally and Externally Balanced Engines

### 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. (see page 2 for whether your Fluidampr is internally or externally balanced)

### BALANCING OR MATCH BALANCING

- Each Fluidampr component is precision balanced during manufacturing. NO additional balancing is required.
- DO NOT ATTEMPT TO BALANCE THE CRANKSHAFT WITH FLUIDAMPR INSTALLED. The inertia ring inside a Fluidampr is balanced to a close tolerance at the factory. It rotates inside the damper.
- DO NOT DRILL FLUIDAMPR – The inertia ring and silicone fluid are in a hermetically sealed housing. Drilling may cause the damper to leak and lead to damper failure, voiding the warranty.
- 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 5.9L (1992 to 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 per factory/service manual instructions.

## 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. Replace or modify the key if it is too tight or too loose. For bolt-on dampers, clean crankshaft threads, crankshaft mating surface and center pilot thoroughly before installation.
- **Cummins installation notes:**
  - Fluidampr P/N 920301 includes tone wheel. Remove OEM tone wheel prior to Fluidampr installation.
  - Fluidampr P/N 920301/920321/980301 – Install damper w/ the smaller of the (2) pin holes on the crankshaft pin. Check crankshaft thread depth to ensure proper bolt length prior to installation.
  - Thread bolts into crankshaft fully with washer installed. Space between washer and crankshaft should be less than 0.495” (Fluidampr flange thickness with integrated tone wheel). If the length is over 0.495”, contact Fluidampr Tech Service. Minimum thread engagement = .750”
- Coat crankshaft snout and damper bore with anti-seize compound or moly grease to prevent galling during installation.
- **Fluidampr P/N's 760131, 830111, 830121, 830141, 830151, 890101** come with a hardened crankshaft washer with clearance for the GM 3.200” bolt circle pattern, this replaces the factory crankshaft bolt washer.
- **For Ford Power Stroke 6.0L: 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. Consult a dealer to determine if your application is torque to yield, see below chart for torque specs.
- Fluidampr recommends that crank bolt(s) always be replaced with new OEM or Fluidampr bolt kits.
- Install the accessory drive belt, fan and shroud as per manufacturer’s instructions. Re-torque crankshaft bolt(s) after engine warm-up cycle.

Part Number	Balance	Engine	Fitment Years	OEM Bolt Torque*
720211	External	Ford Power Stroke 7.3L	1999 – 2003	212 Ft-Lbs.
720221	External	Ford Power Stroke 7.3L	1994 – 1997	212 Ft-Lbs.
(See #4NFJ for fan spacer installation instructions)				
870201	External	Ford Power Stroke 6.0L	2003 – 2007	50 Ft-Lbs. plus an additional 90 degrees*
870211	External	Ford Power Stroke 6.0L	2003 – 2007	50 Ft-Lbs. plus an additional 90 degrees*
800211	External	Ford Power Stroke 6.4L	2008 – 2010	50 Ft-Lbs. plus an additional 90 degrees*
800221	External	Ford Power Stroke 6.7L	2011 – Present	22 Ft-Lbs. plus an additional 90 degrees*
800141	External	GM / Hummer 6.2L/6.5L	1994 – 2000	See Owners Manual
800191	External	GM 6.2L/6.5L	1982 – 1993	See Owners Manual (Must use included spacer)
830111	External	GM Duramax 6.6L LBZ/LMM	2006 – 2010	74 Ft-Lbs. plus an additional 105 degrees*
830121	External	GM Duramax 6.6L LML/LGH	2010.5 – 2016	74 Ft-Lbs. plus an additional 90 degrees*
830141	External	GM Duramax 6.6L L5P	2017-2019	74 Ft-Lbs. plus an additional 90 degrees*
830151	External	GM Duramax 6.6L L5P	2020+ Dual Belt	74 Ft-Lbs. plus an additional 90 degrees*
890101	External	GM Duramax 6.6L LLY/LB7	2001 – 2005	74 Ft-Lbs. plus an additional 105 degrees*
760131	Internal	GM Duramax 6.6L	2001 – Present	74 Ft-Lbs. plus an additional 105 degrees*
(P/N 760131 is a press fit onto the internally balanced crankshaft, comes w/ 2 keyways 5mm & 1/4")				
920301	Internal	Dodge Cummins 5.9L	2003 – 2009	92 Ft-Lbs.
920321	Internal	Dodge Cummins 6.7L	2007.5 – Present	92 Ft-Lbs.
960301	Internal	Dodge Cummins 5.9L	1998.5 – 2002	92 Ft-Lbs.
960311	Internal	Dodge Cummins 5.9L	1989 – 1998	92 Ft-Lbs.
(See #4NFH for sensor relocation kit installation instructions)				
960341	Internal	Dodge Cummins 5.9L/6.7L	Competition Series	92 Ft-Lbs.
980301	Internal	Dodge Cummins 5.9L/6.7L	Competition Series	92 Ft-Lbs.

**WARNING: FAILURE TO USE PROPERLY TORQUED BOLTS WILL VOID WARRANTY AND COULD RESULT IN DAMPER, KEY, OR CRANK DAMAGE. ONLY USE THESE TORQUE VALUES WHEN INSTALLING DAMPER WITH OEM BOLTS. \*BOLTS ARE TORQUE TO YIELD AND NEW BOLTS MUST BE USED EVERYTIME**

### **LIMITED WARRANTY**

WARRANTY: All warranty claims must be made with your point of purchase. LIMITED WARRANTY: Fluidampr warranty extends to the original purchaser only and a copy of sales receipt must be provided. Keep your receipt. Fluidampr recommends to our customers that they have their Fluidampr products installed by a certified technician or engine builder as warranty does not cover installation errors. Fluidampr offers a 1 year warranty for defects in material and workmanship. Repair or replacement will be at Fluidampr’s discretion. If purchased from Fluidampr: To obtain warranty service, call customer service to receive a return authorization number. Returns must include the RMA#, description of the problem and a copy of the purchase invoice/receipt. Returns without an RMA# will not be processed. Customers are responsible for freight charges to Fluidampr. If product is found to be faulty, Fluidampr will pay UPS Ground Freight when returning the product to customer. 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 Vibratech/Fluidampr products. • Misuse, abuse, modifications, 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. • Use in racing applications or competitive purposes. Fluidampr limited warranty coverage is subject to change due to uncontrolled circumstances with or without notice.

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**IMPORTANT: Please read before installing Fluidampr p/n 720221**

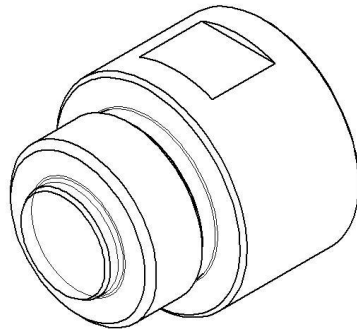
**Ford Powerstroke 7.3L (1994-1997)**

**BEFORE INSTALLING THE FLUIDAMPR,** You must install the fan spacer.

**Install fan spacer:**

Step 1: Remove fan and shroud as per manufacturers instructions, draw a sketch of belt routing if required and remove the accessory drive belt.

Step 2: Install the fan spacer by threading it on to the end of the water pump shaft.



Step 3: Refer to Step 4 – Fluidampr installation of the attached instruction sheet.

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