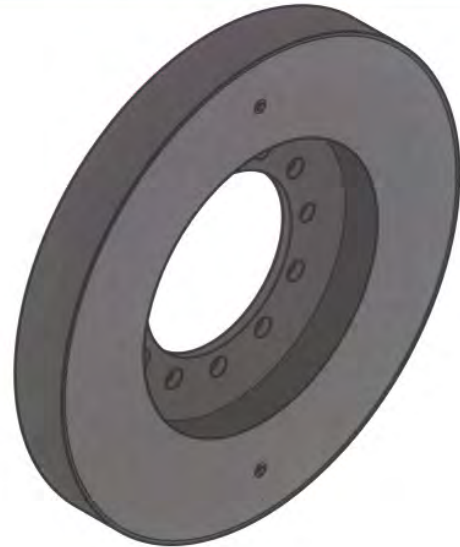




Vibrattech TVD® invented viscous damper technology in 1946. Since then, the design has been imitated but never duplicated. Fluid filled Vibrattech TVD® dampers are used by the largest names in diesel engine manufacturing for the following reasons: Quality, Dependability, and Longevity.

**Features & Benefits**

- Increase horsepower
- Increase fuel efficiency
- Reduce bearing wear
- Quiets slapping belts
- Paintable steel finish



DETROIT DIESEL®				
Reference Number	VibrattechTVD Part Number	Engine Model	O.D.	Wt. / lbs.
V-5107312	708915-000	16V149	18	109
V-5106222	709815-000	16V92 / 16V71	15.1	71
V-8920653	710240-001	12V71	13.5	39
V-8924435	711060-000	16V92	18	109
V-8922492	712935-060	8V92	12.3	33
V-8925437 / V-8928951	712935-300	6-71 / 12V71 / 8.2 L	12.3	33
V-8922491	713393-000	6-71 / 12V71 / 12V149	12.3	33
V-5177763	713398-000	4 CYL. 71	10.8	14
V-5109863	715015-000	8V71 / 8V92 / 12V149	5.5	8
V-23523042	715037-000	20V149	24	220
V-5147600	715458-000	12V71	13.5	41
V-23550030	715885-000	SERIES 55	13.5	40
V-23525990 / V-8929502	716852-000	11.1 / 12.7 L SERIES 60	13.5	40
V-23531040 / V-23522891	717406-000	14 L SERIES 60	13.5	40

**Vibrattech TVD**  
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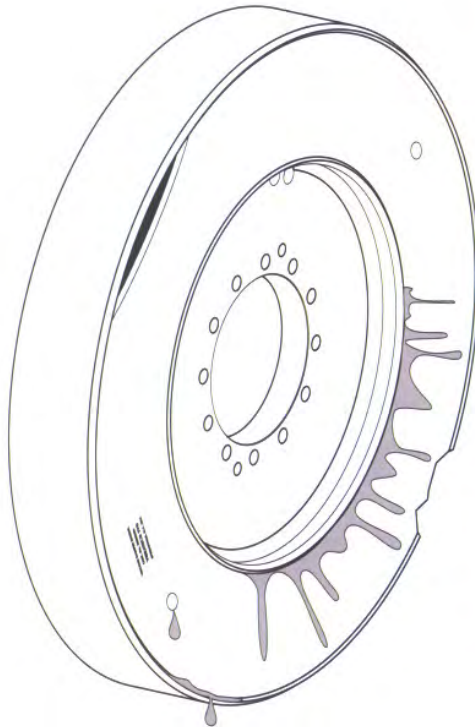


The names Caterpillar®, Cummins®, International / Navistar®, Detroit Diesel®, Waukesha®, Cooper®, General Electric®, and all related descriptions, numbers, and symbols are used for reference only. It is neither inferred nor implied that any Vibrattech TVD aftermarket parts are a product of, authorized by, or in any way connected with the original equipment manufacturer, or that they are original equipment.

## When to replace your stock damper...

The tell-tale signs your stock damper is going bad.

- Bulged or Raised Cover (Protruding Sealant)
- Heat build-up due to other components rubbing on damper.
- Fluid Leakage from the damper around the cover seams or filler plugs.
- Failure or excessive wear of crank, bearings or other rotating components
- Thrown or slapping belts.
- Rattling sound coming from damper
- Dents or damage anywhere on the damper.



### The Problem

#### Torsional Vibration

Each time the air fuel mixture inside a cylinder is ignited, the combustion that results creates a torque spike – an extremely rapid rise in cylinder pressure. This pressure is applied to the top of the piston, which becomes the force that is applied to the crankshaft through the connecting rod. Each torque spike is like a hammer blow. It hits with enough intensity that it not only causes the crankshaft to turn, it actually deflects, or twists the crankshaft ahead of its rotation. This twisting action and rebound is known as torsional vibration.

#### Unchecked torsional vibrations can cause:

- Crankshaft Cracking or Failure
- Excessive Bearing Wear
- Excessive Gear Wear or Failure
- Broken Accessory Drives
- Throwing or Slapping of Belts

#### Vibrattech TVD's Viscous Torsional Vibration Damper

The Vibrattech TVD viscous damper is a simple design consisting of a free rotating inertia ring surrounded by a high viscosity silicone fluid enclosed in a totally sealed, leakproof housing.

When crankshaft torsional vibrations occur, the outer housing of the damper reacts with the crankshaft, twisting while it rotates, while the inertia ring inside moves out of phase with the housing. This relative motion between the inertia ring and the housing causes the inertia ring to shear the silicone fluid, which reduces the vibration.

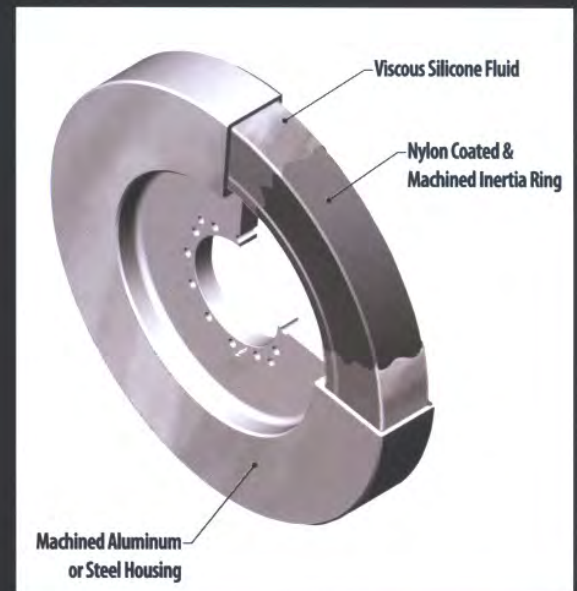
#### Viscous Damper Inspection and Replacement

The nature of silicone fluid results in a high energy dissipation, which makes it an excellent damping medium. However, over extended periods of time under heavy duty operation, the damper may wear out, resulting in the need to replace it.

A worn out viscous damper leaves crankshaft torsional vibration unchecked and can cause costly engine damage. That's why regular damper replacement is critical to longer engine life. While recommended replacement intervals vary depending on engine manufacturer, the average is about **500,000 miles (15,000 hours)** or at major engine overhauls and in-frame rebuilds, regardless of condition.



Dampers that utilize rubber or elastomeric rings to dampen vibrations are prone to deterioration that may destroy engine components in as little as 1 to 3 years. Rubber damper rings dry out and crack over time, reducing the effectiveness of the damper. Exposure to oils and solvents can cause rubber damper rings to swell and quickly breakdown. These changes in durometer, over time, will cause damper failure and damage to costly engine components.



Don't let your mechanic install a no-name, inferior aftermarket copy. It's your engine so always specify the best...Vibrattech TVD, made in the USA since 1946.