

## TECHNICAL BULLETIN

TB NO. 1043  
Rev. 1

**Subject:** Improved Pump Drive Damper on Superior “VEE” Series Engines

**Problem:** It is not uncommon for the spring dampers in the front drive assembly to have premature failure. Often the springs fail within 5000-7000 hours of operation.

Based on the reported number of field failures and high number of “shutdowns” associated with the front drive unit, EnDyn has developed an improved front drive system for the Superior “VEE” series engines.

In the “VEE” engine series, the damper springs located in the drive unit are prone to early failure. When this failure occurs, all shock loads are transmitted to the drive chain and associated components. If the unit continues to operate, secondary damage may develop in the driven components. It is our opinion that the original drive assembly is not capable of controlling the high crankshaft torsional loads that are inherent to the Superior “VEE” engines. When the units are heavily loaded the problem is magnified to the point of causing early failure.

Engine analyzer field testing has shown that EnDyn’s improved drive system has a more stable operating pattern. Extended run data from field operations has shown a decrease in “shutdowns” associated with this new assembly.

The new drive system, part number P-028-169-1, is a direct replacement unit that does not require any type of modification to any other mating parts. These assemblies and associated repair kits are now available from your local PowerParts<sup>®</sup> distributor.

If you need additional copies, have any questions or require additional information, please contact **EnDyn's** Technical Service Department or your local **PowerParts<sup>®</sup>** Distributor or **EnDyn** Field Sales Representative.

2-10-05

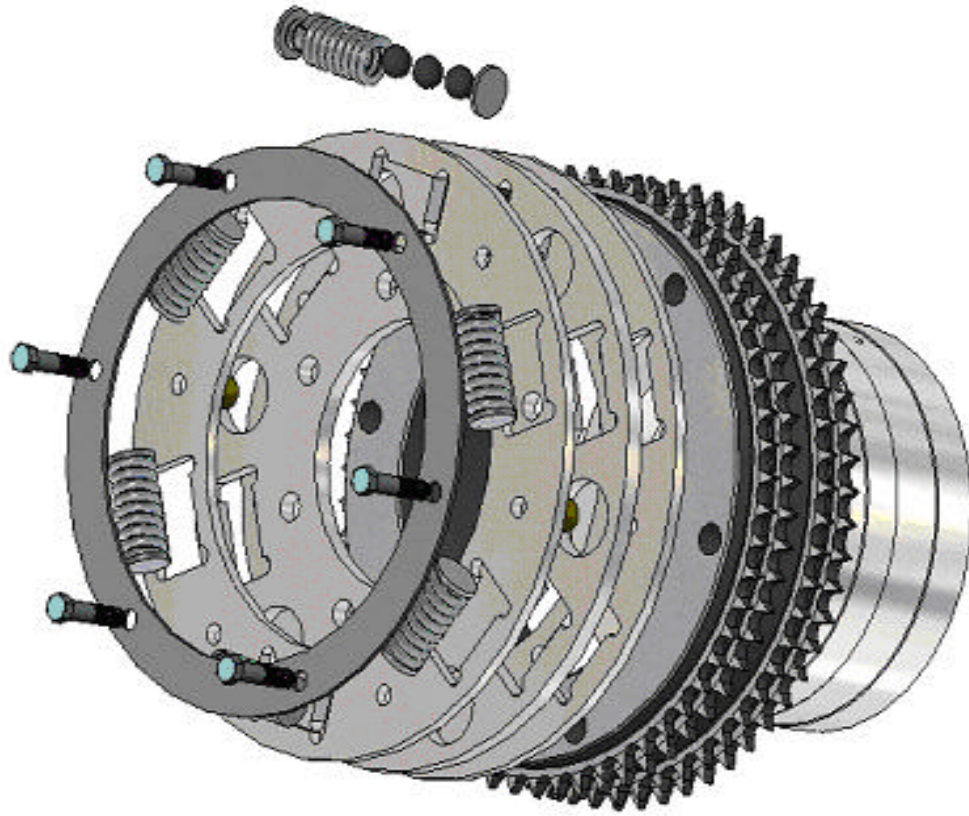
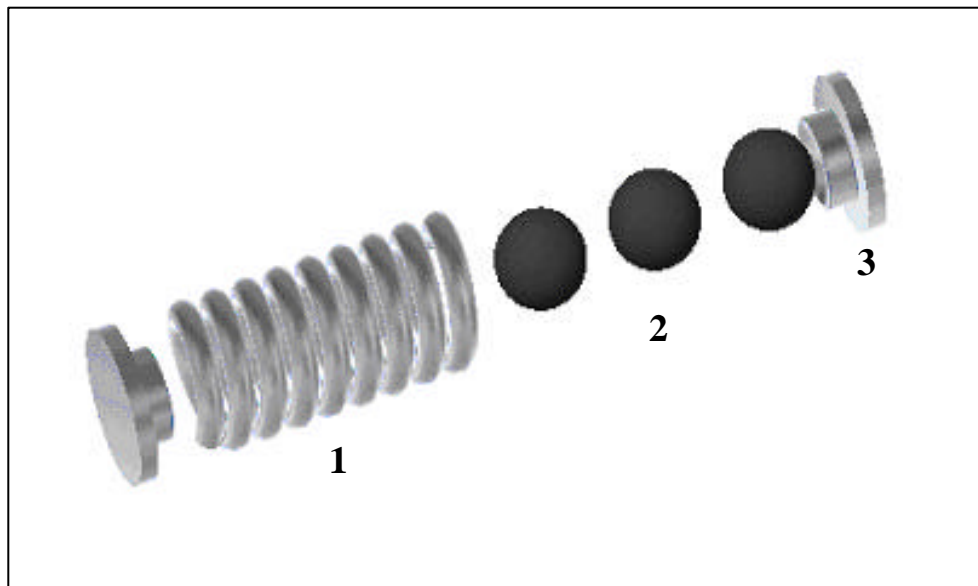


Figure 1



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**Figure 2**

**Installation Instructions**

The installation for EnDyn's revised pump drive system is the same as the standard pump drive. There is, however a change in the spring damping system. EnDyn's system utilizes two (2) spring pads and three (3) rubber balls per spring (fig. 1). The spring pads and balls are assembled in the order shown in figure 2. It may be necessary to slightly compress the spring assembly to ease installation into the drive plates. The assembly from this point on is exactly the same as the standard drive assembly.

**Bill of Materials (P-028-169-1)**

<b>Qty.</b>	<b>Part Number</b>	<b>Description</b>	<b>Item#</b>
(6)	P-01CS0614PC	Capscrews	
(6)	P-01HN0600PC	Nut-Hex Full	
(6)	P-026-806	Spacer-Pump Drive	
(6)	P-026-818	Spring-Drive Assy	<b>1</b>
(12)	P-026-818-B	Button-Spring	<b>2</b>
(18)	P-026-818-D	Ball-Pump Drive	<b>3</b>
(1)	P-027-249	Retainer-Pump Drive	
(1)	P-028-166-X	Plate-Center	
(2)	P-028-168-X	Plate-Outer	

**Repair Kit (P-YKIT-028-169-1)**

Bill of Materials

(6)	P-026-818	Spring-Drive Assy
(12)	P-026-818-B	Button-Spring
(18)	P-026-818-D	Ball-Pump Drive

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