



VIBROMECH
ENGINEERS & SERVICES LTD.

ISOLATOR - DECOUPLING PULLEY

A Product of Technological Excellence

As the power to weight ratios of modern engines increase, crankshafts are becoming increasingly light. This has now brought about the phenomenon of rigid body vibrations of the crankshaft to the fore. These vibrations are not due to the twisting and un-twisting of the crankshaft, however they are the result of the flywheel and crankshaft nose being in the same phase (direction). These modes are present in the lower harmonics (usually 2nd and 4th). This results in a stop and go effect at the nose of the crankshaft. This overloads the (FEAD) auxiliary drives such as the belt & belt tensioners, power steering pump etc. To mitigate the negative effects of rigid body mode vibrations on front engine accessories, a device called the ISOLATOR is used, which essentially consists of a highly flexible torsional spring that is restrained to the torsional mode of motion. The stresses on the rubber in this product are especially stringent. Vibromech has experience in the design and high volume production of this complicated product that combines the latest in design, production methods and technology.

