

Technical Bulletin

DP02	TB0003-2006	Elan Motorsports Technologies	
From:	Chip Lewis		
Subject:	Alternator Belt Idler Pulley	Date:	September 14th, 2006

Attention all Elan DP02 2006 teams

Elan Power Products has identified an issue with the alternator belt on the DP02 engine. Under certain circumstances the belt fails, resulting in a loss of voltage, and more importantly, a loss of water flow. If the belt fails and the driver fails to acknowledge the rising water temperature, the engine can be damaged due to overheating.

To resolve this belt failure issue, Elan Power Products has designed a new idler pulley and bracket installation that prevents unwanted belt oscillations.

Elan Power Products has created an upgrade kit, part number DP02-60-067. This kit is available, free of charge, to existing customers. All new cars and engines, starting with Chassis 011, will be delivered with this kit installed.

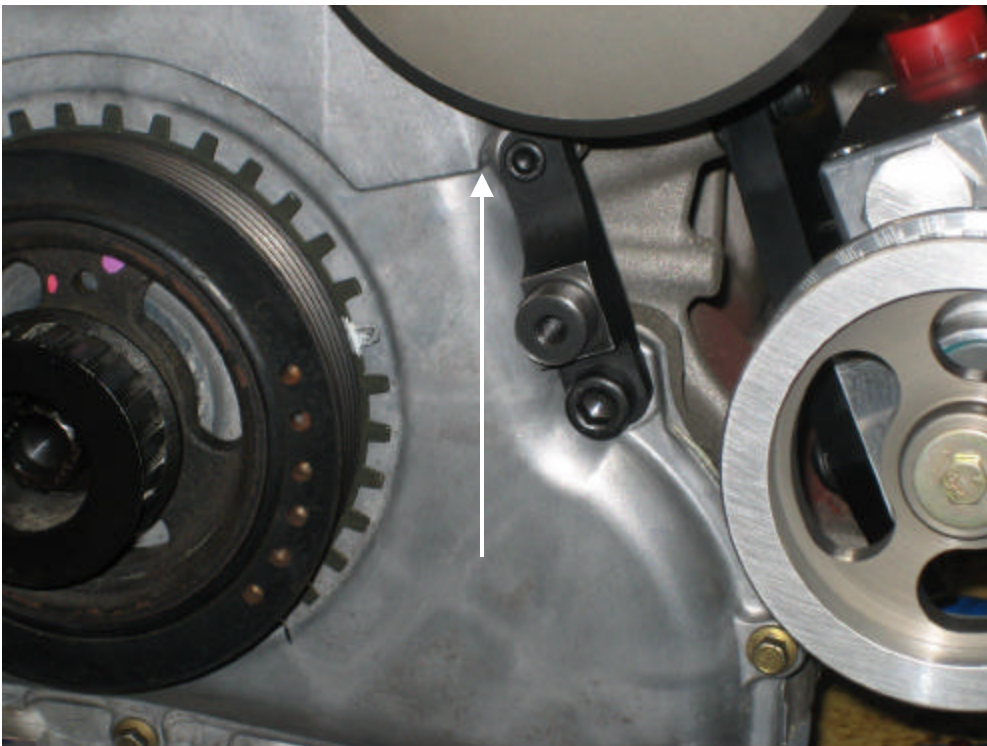
Installation

The idler kit installs on the front of the front cover of the engine. It will be necessary to remove the engine and back half of the car from the chassis, in order to gain access to the front of the engine.

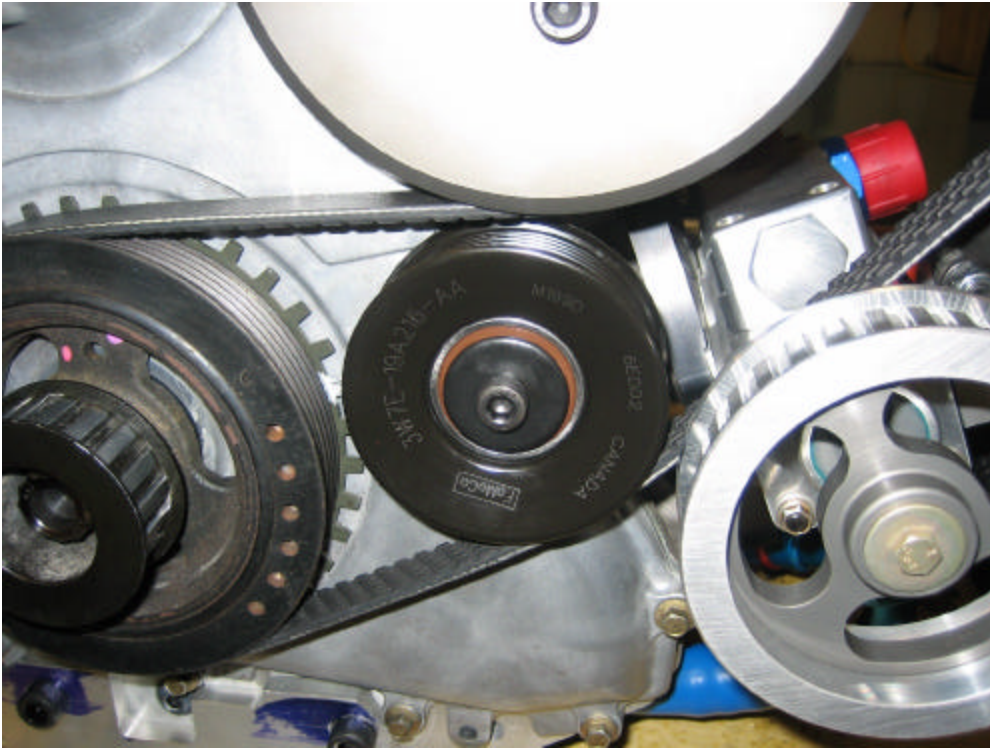
- 1) Once the front of the engine is accessible, you must remove the oil pump belt and the alternator belt.
- 2) The two lower bolts in the below picture must be removed, and the corner above them ground away, slightly (Shown in Picture #1). Do not remove front cover to grind corner.
- 3) The new bracket installs, with the provided M6 and M10 bolts, where the two front cover bolts were removed. Please use a thread-locking compound (Medium strength) to retain the two new bolts (Shown in Picture #2).
- 4) The new pulley mounts on the new bracket, and is retained by the provided M8 bolt and washer. Please use a thread-locking compound (Medium strength) to retain the new bolt.
- 5) The alternator belt should be re-installed so that it runs as before, with the exception that it runs underneath the new pulley (Shown in Picture #3).
- 6) Re-install oil pump belt
- 7) Belt adjustment process
 - a) Install belt on crank pulley in the forward position. The drive pulley is a 6 rib pulley and the belt is 5 rib.
 - b) Assemble alternator mounting, including the mount on oil pump, with lightly tightened loads on the fasteners.
 - c) Rotate alternator up to apply light tension on the belt and tighten lightly.
 - d) Loosen the alternator mount on oil pump to allow any misalignment load to be removed.
 - e) Tighten lower mount to pump.
 - f) Tension belt fairly tight without causing alternator to twist. Tighten nut and bolt.
 - g) Tighten alternator pivot bolt.
- 8) Re-install rear of car onto back of chassis.



Picture 1 - Front Cover (Corner Ground)



Picture 2 - Bracket Installed (Corner not ground yet)



Picture 3 - Pulley Installed with Belt

All questions regarding this technical bulletin should be directed to Elan Power Products

Elan assumes no liability for engine damage resulting from this issue