



A Tomkins Company

# HEAVY-DUTY

## Problem\Solution for Top Engines

Below is a list of very popular fleet and heavy duty engines that have been known to have design problems and flaws. Gates has identified solutions on these problem drives. By using Gates line of FleetRunner® belts and heavy duty DriveAlign® tensioners your engines will run more efficiently for longer periods of times, reduce your downtime and save you money.

### Caterpillar C-15

#### The Problem

- Belt fray on the edge cord leads to premature belt failure
- Belt jumping off drive pulleys due to misalignment

#### Solution

- Replace the alternator strap per Service Bulletin SEBE9011-01 due to misalignment. The OE strap is weak and of inferior design. Anytime a strap is replaced, replacement of the tensioner and belt should be done at the same time. Use Gates tensioner 38508 and Gates FleetRunner Micro-V® K080842HD.

### Detroit Diesel Series 60

#### Problem # 1

- The Alternator\Air Conditioner drive is short (30" belt length) with very high power loads, which can cause belt slippage. The drive should have been designed with a longer belt to handle the high power loads and heat. The high heat and load is hard on belts and causes premature failure of the belt.

#### Solution

- Use Gates FleetRunner and PowerBand® products. Each PowerBand belt is constructed with a unique tie band to give the belt added strength. A tie band joins the belts together to ensure stability, causing less belt slippage and failure. The heavy-duty FleetRunner belt handles higher shock loads and higher temperatures, causing less downtime. Use part numbers: Assembly of two 9305HD, 9313HD, or one of each 2/9305PB and 2/9313PB.

#### Problem # 2

- The crankshaft to the fan drive has inherent misalignment due to the engine configuration and therefore it is difficult to obtain and maintain the proper tension on belts.

#### Solution

- Replace the 3 OEM belts with Gates PowerBand belts. Each PowerBand belt is constructed with a unique tie band; the tie band joins the belts together to ensure stability, causing less belt slippage and failure. Use part numbers: 3/9500PB, 3/9525PB, 3/9530PB.

### Cummins N-14

#### Problem

- Misalignment on the fan hub causes the belt to turn over and to flip out of the pulley grooves.

#### Solution

- Replace with Gates Truck and Bus PowerBands; PowerBands feature a tie-band that joins the belts together, helping them to work in unison, making them more robust and providing superior stability on the misaligned drive. Use part number in the 2/TR28 series belts.

### Mack ASET and E-Tech

#### Problem

- Poor performance of the automatic belt tensioner. Premature failure of tensioner due to low damping.

#### Solution

- Use Gates DriveAlign® Tensioners 38589 & 38523. Gates patented damper reduces vibrations and provides maximum stability. Gates tensioner uses a patented design system that maximizes the tensioner and belt life.



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