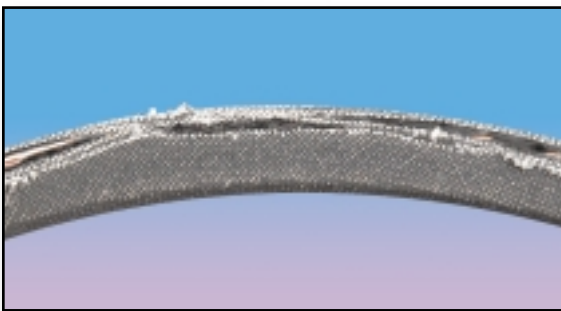


# V-Belt Troubleshooting Guide

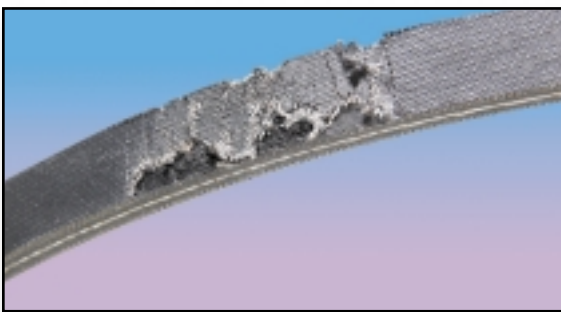
Listed here are some of the more common V-Belt symptoms and causes of belt failure. This is intended to help you troubleshoot so you can address the problem and correct it.

For more information on proper V-Belt maintenance, request Carlisle publication 102163 from your local Carlisle distributor.

## SYMPTOMS



**Rapid Sidewall Wear**



**Worn Cover on Back**

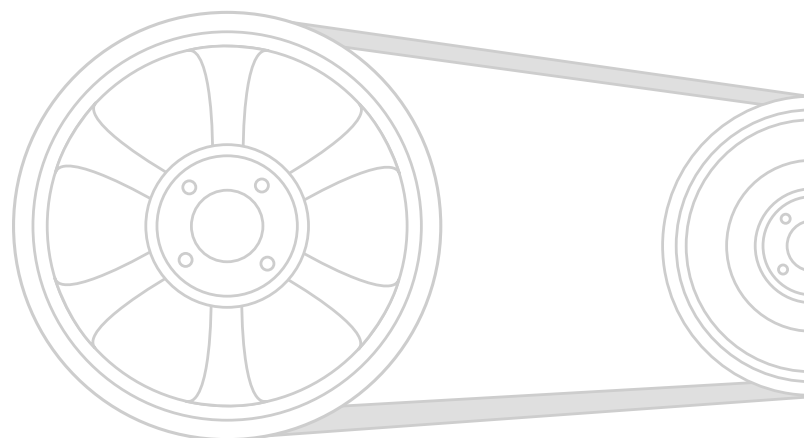
## CAUSES

**\* Worn or Damaged Sheaves**

- Belts Rubbing Guard
- Sheaves Misaligned
- Insufficient Tension
- Wrong Belt Cross-Section or Type
- Improper or Prolonged Storage
- Excessive Heat
- Excessive Oil or Grease
- Use of Belt Dressing
- Abrasive Environment
- Excessive Moisture
- Inappropriate Sheave Material
- Improper Tensioned Idler

**\* Belts Pried On or Misplaced Slack**

- Defective or Worn Backside Idler

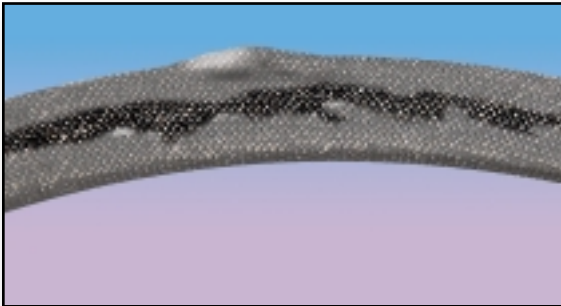


**\* Indicates most common causes**

**• indicates other possible causes**

# V-Belt Troubleshooting Guide

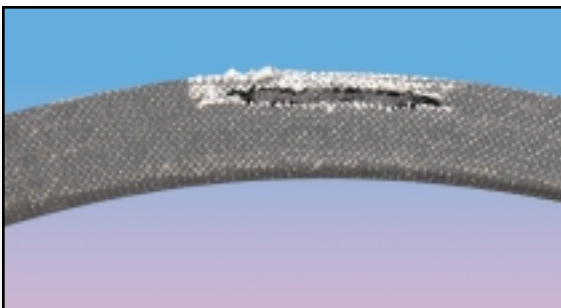
## SYMPTOMS



**Belt Soft, Swollen**



**Belt Slips, Squeals (Spin Burn)**



**Belt Cover Split**

## CAUSES

\* Excessive Exposure to Oil or Grease

• Use of Belt Dressing

\* Worn or Damaged Sheaves

\* Insufficient Tension

• Wrong Belt Cross-Section or Type

• Excessive Oil or Grease

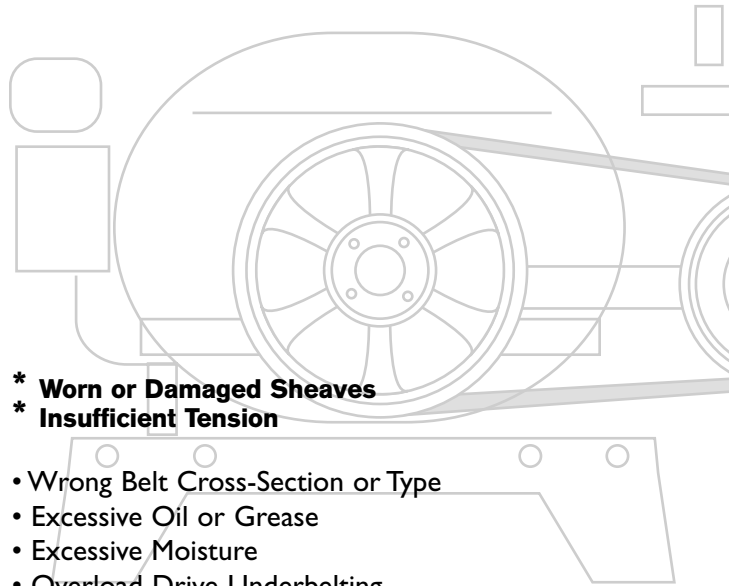
• Excessive Moisture

• Overload Drive-Underbelting

• Insufficient Wrap on Small Sheave

\* Belts Pried On or Misplaced Slack

• Foreign Objects In Grooves



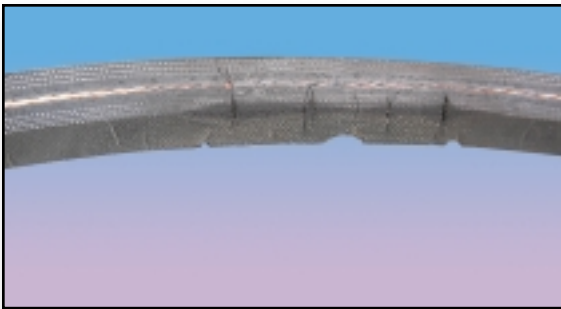
\* Indicates most common causes

• indicates other possible causes

# V-Belt Troubleshooting Guide

## SYMPTOMS

## CAUSES



**Underside Cracked**

- \* Excessive Heat
- \* Sheaves Too Small
- \* Undersized Backside Idler
- \* Improperly Positioned Backside Idler

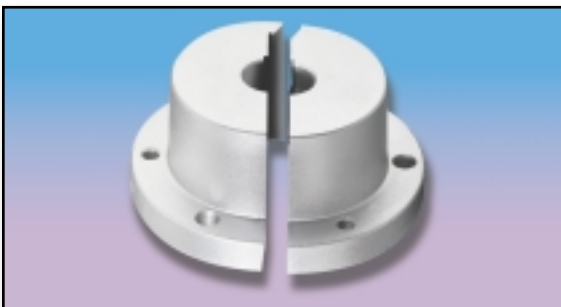
- Sheaves Misaligned
- Improper Or Prolonged Storage



**Missing Cogs**

- \* Excessive Heat
- \* Sheaves Too Small
- \* Backside Idler

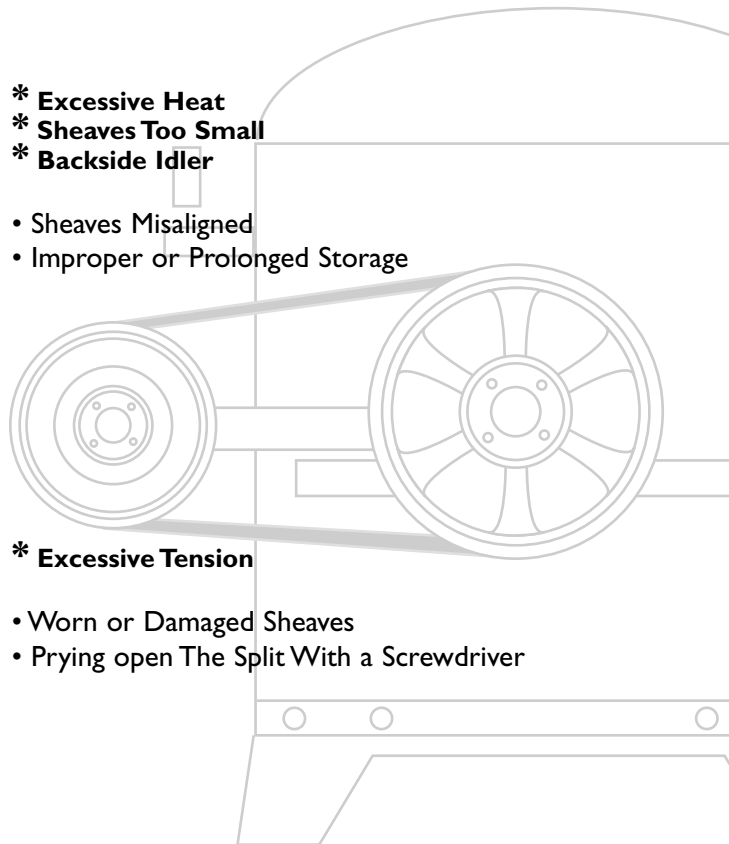
- Sheaves Misaligned
- Improper or Prolonged Storage



**Cracked Bushings**

- \* Excessive Tension

- Worn or Damaged Sheaves
- Prying open The Split With a Screwdriver



\* Indicates most common causes

• indicates other possible causes

# V-Belt Troubleshooting Guide

## SYMPTOMS

## CAUSES

	Belts Pried On Or Misplaced Slack	Belts Rubbing Guard	Pulleys Misaligned	Worn Or Damaged Pulleys	Pulleys Too Far From Bearing	Poor Bearing Or Shaft Condition	Insufficient Tension	Excessive Tension	Improper Pulley Installation	Belts Worn (Normal Service Life)	Wrong Belt Cross-Section Or Type	Mismatched Belts Or Mixed Brands	Machine-Induced Impulse Or Shock	Improper Or Prolonged Storage	Excessive Heat	Excessive Oil Or Grease	Use of Belt Dressing	Abrasive Environment	Foreign Objects In Grooves	Excessive Moisture	Overloaded Drive-Underbelting	Drive Seriously Overbelted	Pulley Too Small	Insufficient Wrap On Small Pulley	Backside Idler
Rapid Sidewall Wear		•	•	*			•				•			•	•	•	•	•		•					
Worn Cover On Back		*																							•
Belt Turns Over Or Jumps Off Pulley	•						•				•		*						•						
Belt Soft, Swollen																*	•								
Belt Slips, Squeals (Spin Burn)				*			*				•					•				•	•			•	
Belt Cover Split	•																		•						
Underside Cracked				•										•	*								*		*
Tie-Band Damaged		•	•	*															*						
Repeated Breakage	•						•						•						•		*				
Belts Ride Too High										*							•								
Belts Bottoming				*					•	•											*				
Repeated Take-Up Necessary				•			•			•												•			
Belts Vibrate Excessively Or Appear Mismatched			•	•			•	•				•	*									•	•		
Bearings Are Hot				•	•	•		*								•						•	•		
Shafts Whip Or Bend				•	•	•		*																	
Cracked Bushings				•					*																
Pulley Wobble				•	•				*																

\* Indicates Most Common Causes.

• Indicates Other Possible Causes.

# V-Belt Selection Guide

Dayco Carlisle Brand	Generic Belt Type (Cross-Sections)	Normal HP Range	Maximum Belt Speed (FT/Min) <sup>(1)</sup>	Normal Temp. Range (°F) <sup>(2)</sup>		Oil/Heat Resistance	Static Dissipating	General Application
				Min.	Max.			
<b>Super Blue Ribbon</b>	Classical Multiple (A, B, C, D)	1-500	6000	-35	120	Good	✓	General-Purpose Heavy Duty Industrial Drives.
<b>Gold Label Cog-Belt</b>	Classical Cogged Multiple (AX, BX, CX, DX)	1-500	6000	-35	130	Excellent	✓	Longer Life, High Efficiency, Small Diameters.
<b>Super Power-Wedge</b>	Narrow Multiple (3V, 5V, 8V)	1-1000	6500	-35	130	Very Good	✓	High-Performance, Compact Industrial Drives, Long C.D.
<b>Power-Wedge Cog-Belt</b>	Narrow Cogged Multiple (3VX, 5VX)	1-600	6500	-35	130	Excellent	✓	High-Performance, Compact Industrial Drives, Short C.D.
<b>Super Vee-Band</b>	Classical Banded (RB, RC, RD)	1-500	6000	-35	120	Good	✓	Reduces Belt Whip, Turnover on Pulsating, Surge Loads.
<b>Gold Label Cog-Band</b>	Classical Cogged Banded (Premium HP) (RBX, RCX, RDX)	1-500	6000	-35	130	Excellent	✓	Longer Life, High Efficiency, Reduces Belt Whip, Turnover on Pulsating, Surge Loads
<b>Wedge-Band</b>	Narrow Banded (R3V, R5V, R8V)	1-1000	6500	-35	130	Very Good	✓	Reduces Belt Whip, Turnover on Pulsating, Surge Loads
<b>Double Angle</b>	Double-V Belts (AA, BB, CC, DD)	1-200	5000	-35	120	Good	Special Order	Serpentine Drives
<b>Variable Speed Cog-Belt</b>	Variable Speed (1228V-6136V)	21-100	6000	-35	130	Excellent	✓	Wide-Range Variable Sheaves
<b>Poly-Rib</b>	V-Ribbed (J, L, M)	4-500	6000	-35	130	Very Good	Special Order	Small Diameters, High Speed Ratios, Compact
<b>Connector</b>	Open End ) (A, B, C, D)	1-200	4000	-35	120	Fair	Special Order	Emergency Replacement
<b>Thoro-Twist</b>	Link (Segmented) (O, A, B, C)	1-300	5000 (1000 min.)	-35	130	Excellent	No	Emergency Replacement Fixed Center Distance
<b>Durapower II FHP</b>	FHP (2L, 3L, 4L, 5L)	Light Duty	6000	-35	120	Fair	Special Order	Light Duty Drives Using a Single Belt
<b>XDV</b>	Premium FHP (L3, L4, L5)	Light Duty	6000	-35	130	Very Good	No	Longer Life on FHP Drives, Clutching Lawn/Garden Drives

Notes: (1) Normally limited by sheave materials.  
(2) Expect little or no life loss due to heat.

(3) Ratings apply to rubber belts only. Available in **checkmate** construction