



## Troubleshooting Nitta Conveyor Belting

### General Problems

<u>PROBLEM</u>	<u>CAUSES</u>	<u>NOTES</u>
Belt Sag	*Insufficient belt tension *Improper idler placement	
Ply separation	*Pulley diameter too small *Damage by chemicals, heat, oils *Excessive impact on belt and splice *Belt edge contacting structure	
Transverse breaks at belt edge	*belt edges folding up on structure *Improper transition between troughed belt and terminal pulley	
Belt cupping (new belt)	*Severe pulley crowning *Belt construction *Belt too elastic (excessive tension) *Belt misapplication	
Belt cupping (old belt)	*Damage by chemicals, heat, oils *Severe pulley crowning	
Belt folding over on itself	*Severe pulley crowning *Material buildup *Component alignment	

### Tracking Problem

One section runs off line at all conveyor points	*Pulleys not parallel, level, square *Insufficient pulley crowning *Damage by chemicals, heat, mechanical components *Belt camber *Improper splice procedure/technique	
--	--	--



## Troubleshooting Nitta Conveyor Belting

### Tracking Problem continued

#### PROBLEM

#### CAUSES

Erratic tracking- belt runs off-line at intermittent points

- \*Off-center loading
- \*Idlers/pulleys misaligned
- \*Insufficient pulley crowning
- \*Material buildup

Belt miss-tracks at pulley head

- \*Idlers/pulleys misaligned
- \*Pulley lagging worn
- \*Material buildup
- \*Improper idler placement
- \*Off-center loading

Belt miss-tracks at tail pulley

- \*Insufficient belt tension
- \*Idlers/pulley misaligned
- \*Idlers seized
- \*Material build-up
- \*Insufficient pulley crowning

### Belt Slip Problems

Slip while running

- \*Contamination of drive/belt interface
- \*Insufficient belt tension
- \*Pulley lagging worn
- \*Material buildup on slider bed/rollers
- \*Idlers seized

Slip during start-up

- \*Contamination of drive/belt interface
- \*Insufficient tension
- \*Pulley lagging worn
- \*Material buildup on slider bed/rollers
- \*Belt undersized



## Troubleshooting Nitta Conveyor Belting

### Splice Problems

#### PROBLEM

#### CAUSES

Splice separation

- \*Excessive belt tension
- \*Pulley diameter too small
- \*Improper splice procedure/technique
- \*Belt misapplication
- \*Material build-up on conveyor components
- \*Excessive impact on belt & splice
- \*Damage by chemical, heat, mechanical components

Mechanical lacing pulls out

- \*Excessive belt tension
- \*Damage by chemical, heat, mechanical components
- \*Belt mistracking
- \*Wrong lace type
- \*Belt misapplication

### Excessive belt elongation

During start-up

- \*Excessive product load
- \*Belt misapplication
- \*Material build up on conveyor components
- \*Effects of heat/humidity

Permanent elongation

- \*Excessive belt tension
- \*Belt misapplication
- \*Material build up on conveyor components
- \*Damage by chemical, heat, mechanical components
- \*Excessive impact
- \*Excessive product load



## **Troubleshooting Nitta Conveyor Belting**

### **Traction layer and cover problems**

**PROBLEM**

**CAUSES**

Ruptures, gouges,  
cracks, belt is soft in  
some areas

- \*High impact on belt & splice
- \*Material entrapment
- \*Belt misapplication
- \*Damage by chemical, heat,  
mechanical components

Hardening & cracking

- \*Damage by chemicals, heat, oils
- \*Intense infrared light, UV & ozone
- \*Improper storage and/or handling
- \*Pulley diameters too small
- \*Cold or freezing temperatures

Excessive cover wear

- \*Relative movement against product
- \*Localized product loading
- \*Belt misapplication
- \*Material build up on conveyor components
- \*Damage by chemical, mechanical  
components
- \*Excessive impact
- \*Mistracking

Surface scaling

- \*Due to compression (low tension)

Excessive bottom wear

- \*Material build up on conveyor components
- \*Idlers seized
- \*Insufficient traction between belt and drive
- \*Pulley lagging worn
- \*Material entrapment
- \*Slider bed higher than end rollers
- \*Mistracking

Swelling/cover degradation

- \*Damage by chemicals, heat

Longitudinal grooving  
or cracking of bottom  
cover

- \*Sticking idlers
- \*Material build-up
- \*Slippage on drive pulley
- \*Pulley lagging worn
- \*Damage by mechanical components