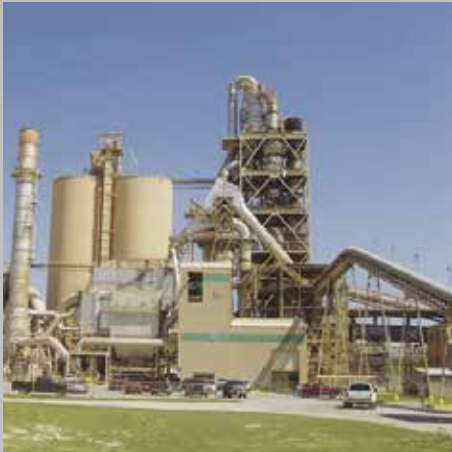
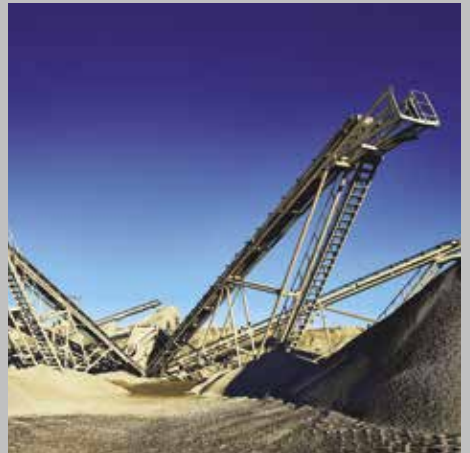




TROUBLESHOOTING GUIDE



A simple, easy-to-follow guide for correcting common complications in the daily workflow.

TROUBLESHOOTING

PROBLEM	CAUSE: in order of probable occurrence.
Conveyor runs to one side at given point on structure.	5 4 1 2 3 44
Particular section of belt runs to one side at all points on conveyor.	6 7
Belt runs to one side for long distance or entire length of conveyor.	39 8 5 1 2 3
Belt runs off at tail pulley.	39 10 1
Belt runs off at head pulley.	33 10 1 3
Belt slip.	34 33 31 10 4
Belt slip on starting.	34 31 33
Excessive belt stretch.	41 42 43 12 32 35
Grooving, gouging, or stripping of top cover.	13 14 15 16
Excessive top cover wear, uniform around belt.	19 20 10 8 36
Severe pulley cover wear.	4 9 10 17 11 27
Longitudinal grooving or cracking of bottom cover.	4 10 9 33
Covers harden or crack.	23 37
Cover swells in spots or streaks.	21
Belt breaks at or behind fasteners; fasteners pull out.	24 22 12 23
Vulcanized splice separation.	38 30 12 17 25
Excessive edge wear, broken edges.	8 10 40 7
Transverse breaks at belt edge.	18 25 26
Short breaks in carcass parallel to belt edge, star breaks in carcass.	16 17
Ply separation.	29 30 23
Carcass fatigue at idler junction.	25 26 27 28 29 36
Cover blisters or sand blisters.	45 21
Belt cupping - new belt.	46
Belt cupping - old belt (was OK when new).	21 23

TROUBLESHOOTING

- ① Idlers or pulleys out-of-square with center line of belt: readjust idlers in affected area.
- ② Conveyor frame or structure crooked: straighten in affected area.
- ③ Idler stands not centered on belt: readjust idlers in affected area.
- ④ Sticking idlers: free idlers and improve maintenance and lubrication.
- ⑤ Buildup of material on idlers: remove accumulation; improve maintenance, install scraper or other cleaning devices.
- ⑥ Belt not joined squarely: remove affected splice and resplice.
- ⑦ Bowed belt: for new belt this condition should disappear during break-in; in rare instances belt must be straightened or replaced; check storage and handling of belt rolls.
- ⑧ Off-center loading or poor loading: adjust chute to place load on center of belt; discharge material in direction of belt travel at or near belt speed.
- ⑨ Slippage on drive pulley: increase tension through screw take-up or add counterweight; lag drive pulley; increase arc of contact.
- ⑩ Material spillage and buildup: improve loading and transfer conditions; install cleaning devices; improve maintenance.
- ⑪ Bolt heads protruding above lagging: tighten bolts; replace lagging; use vulcanized-on lagging.
- ⑫ Tension too high: increase speed, same tonnage; reduce tonnage, same speed; reduce friction with better maintenance and replacement of damaged idlers; decrease tension by increasing arc of contact or go to lagged pulley; reduce counterweight to minimum amount.
- ⑬ Skirt boards improperly adjusted or of wrong material: adjust skirt board supports to minimum 1" between metal and belt with gap increasing in direction of belt travel; use skirt board rubber (NOT OLD BELT)!
- ⑭ Belt spanking down under load impact: install cushion idlers.
- ⑮ Material hanging up in or under chute: improve loading to reduce spillage; install baffles; widen chute.
- ⑯ Impact of material on belt: reduce impact by improving chute design; install impact idlers.
- ⑰ Material trapped between belt and pulley: install plows or scrapers on return run ahead of tail pulley.
- ⑱ Belt edges folding up on structure: same corrections as for 1, 2, 3; install limit switches; provide more clearance.
- ⑲ Dirty, stuck, or misaligned return rolls: remove accumulations; install cleaning devices, use self-cleaning return rolls, improve maintenance and lubrication.
- ⑳ Cover quality too low : replace with belt of heavier cover gauge or higher quality rubber.
- ㉑ Spilled oil or grease, over-lubrication of idlers: improve housekeeping; reduce quantity of grease used; check grease seals.
- ㉒ Wrong type of fastener, fastener too tight or too loose: use proper fastener and splice technique; set up schedule for regular fastener inspection.
- ㉓ Heat or chemical damage: use belt designed for specific condition.

TROUBLESHOOTING

- 24 Fastener plates too long for pulley size: replace with smaller fastener; increase pulley size.
- 25 Improper transition between troughed belt and terminal pulleys: adjust transition.
- 26 Severe convex (hump) vertical curve: decrease idler spacing in curve; increase curve radius.
- 27 Excessive forward tilt of trough rolls: reduce forward tilt of idlers to no more than 2 degrees from vertical.
- 28 Excess gap between idler rolls: replace idlers; replace with heavier belt.
- 29 Insufficient transverse stiffness: replace with the proper belt.
- 30 Pulleys too small: use larger diameter pulleys.
- 31 Counterweight too light: add counterweight or increase screw take-up tension to value determined from calculations.
- 32 Counterweight too heavy: lighten counterweight to value required by calculations.
- 33 Pulley lagging worn: replace pulley lagging.
- 34 Insufficient traction between belt and pulley: lag drive pulley; increase belt wrap; install belt cleaning devices.
- 35 System underbelted: recalculate belt tensions and select proper belt.
- 36 Excessive sag between idlers causing load to work and shuffle on belt as it passes over idlers: increase tension if unnecessarily low; reduce idler spacing.
- 37 Improper storage or handling: check with belting supplier on proper storage and handling guidelines.
- 38 Belt improperly spliced: resplice using proper method.
- 39 Belt running off-center around the tail pulley and through the loading area: install training idlers on the return run prior to tail pulley.
- 40 Belt hitting structure: install training idlers on carrying and return run.
- 41 Improper belt installation causing apparent excessive belt stretch: pull belt through counterweight with a tension equal to at least empty running tension; run belt in with mechanical fasteners.
- 42 Improper initial positioning of counterweight in its carriage causing apparent excessive belt stretch: check position and repair.
- 43 Insufficient counterweight travel: recalculate counterweight travel and adjust accordingly.
- 44 Structure not level: level structure in affected area.
- 45 Cover cuts or very small cover away from carcass: make spot repair with vulcanizer or self-curing repair material.
- 46 Excessive cover gauge ratio: use a belt with a lower gauge ratio and/or a thicker carcass.

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OUR MISSION STATEMENT

We keep industry running and employees working to enrich our communities by providing superior technical products, solutions, and services.