

Procedure for a Shoe Pin Break When Bearing Cannot be Found

(Initiate this process if bearing is not recovered
in first **30 minutes** of event)

(ABSOLUTE LAST RESORT)

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Amazon Confidential

Ensure you have FULLY Completed the Following:

Notify Operations the search and mitigation SOP can take as long as 2.75 hours.

Begin Inspections:

1. Divert Tracks (15 Minutes)
 - Open a window and side panel at the Divert directly upstream of the faulted divert and inspect BEFORE jogging. Then check the divert fault occurred at as well as the divert after.
 - Any pieces of pin left in divert path can cause more damage if sorter is jogged
 - Check this first to avoid further pin breaks or damage
2. Sorter Belly (60 minutes)
 - Open ALL side panels, perform thorough inspection
 - Check Return slats at bottom
 - Check Chain Track
 - Check Support framing
3. Sorter Under-belly (30 minutes)
 - With all panels open after checking entire belly, jog an open slat window from the last divert, over the discharge, then across the entire length of the bottom of sorter and check the space between bottom slat and foam padding.
4. Charge End Belly/Brushed (15 minutes)
 - As the open slat window approached charge end perform this thorough check of charge end.

If Bearing is Still not found:

- Stage someone at charge end, at various sections down length of Sorter to look/listen inside sorter belly, & at least 1 person to walk open slat window and look from top down/divert tracks. Move a shoe to the divert side of the sorter at the window and watch while jogging to ensure divert side track is clear.
 - Perform 1 full revolution of the sorter manually in slow jog (bump jog button) (15 Minutes)
 - Perform 1 full revolution of sorter manually in fast jog (hold down jog button) (15 Minutes)
- Re-install slats & side panels (10 Minutes)
- Set Sorter to Run and run 1 full revolution without product while team continues to monitor down length of sorter (5 minutes)
- While sorter is in run Test all diverts prior to inducting totes (15 min)
 - Starting from discharge end activate all 3 divert motors for each divert.
 - Watch/listen for signs of mis-divert and obstructions in divert track.
 - Have technicians at the discharge and at the return sweep watching/listening from for broken pins/debris.

Get RMM Approval & Get Operations to Update the Ticket!

- RMM MUST BE NOTIFIED to ensure mitigation process has been followed!
RMM can only approve if all steps with estimated ETA's are listed on the TT
- BEFORE turning over sorter to operations, ensure Operations is made aware of the risk of running sorter having not found the bearing and the mitigation steps taken to test sorter functionality. If they accept risk of running until next downtime window to get back in and search for bearing have them enter that on TT.
- Once Ops TT correspondence is added, enable induct and keep the team staged at sorter to monitor at least 1 full revolution and verify good diverts.
- Continue to utilize every future downtime windows until bearing is found!!

Record Keeping

Be Sure the Event is Appropriately Documented on TT & In EAM

Shoe Pin Fault Tracker

- Given the amount of shoe pin failures SL2's experience – it is CRITICAL that each site maintains good data for EVERY Pin Fault Event following the 2 steps below:

1. Capture all Shoe Pin Faults in EAM using new closing code strings below:

Equipment Group:	MHE Equipment	SHOE PIN BREAK	Equipment Group:	MHE Equipment	FALSE PIN FAULT
Problem Group:	Mechanical Issue		Problem Group:	Mechanical Issue	
Component Group:	SHOE - shoe and or shoe cap on a shoe sorter		Component Group:	SHOE - shoe and or shoe cap on a shoe sorter	
Failure Mode:	FRACTURE - cracked, separated		Failure Mode:	--Select Failure Mode-- --Select Failure Mode-- MISALIGNMENT - item not aligned DEFORM - deformation DIRTY - item in need of cleaning and cleaning was solution to issue FALSE - false indication FRACTURE - cracked, separated JAM - use for conveyor flow issues, stuck labels, etc. LOOSE - item not tight or tight to spec if applicable MISSING - item not in correct location WEAR - worn, normal wear and tear,	
Divert #:	4		Close Comment:		
Slat #:	976				
Sensor Fault:	--Select Sensor Fault-- --Select Sensor Fault-- Pin Divert Out Sensor Pin In Sensor Pin Out Sensor Return Pin Sensor				

2. Pull Log Files for every event where root cause is unknown – Reference these guides >



Pulling LOG Files
SOP



False Pin Break
Data to Capture