# Solving a Hidden Labelling Problem Through Observation

ReThink Manufacturing · Evidence-led manufacturing improvement

**Summary:** A bedding manufacturer was experiencing customer returns because some finished quilts were leaving the factory without their product labels.

The labels appeared to be stitched onto the quilts correctly, but somewhere during production they were disappearing. The problem was not being identified before the products were packed and shipped, resulting in customer returns.

I was asked to investigate the labelling machine because it was believed the fault was occurring there.

**Problem:** The root cause was a conveyor guide arrangement that allowed the drive belt to contact the label during product transfer. The symptom appeared at the labelling machine, but the actual cause was further down the production line.

**Approach:** Rather than focusing only on the labelling machine, I observed the complete production process from the point where the label was sewn onto the quilt through to the end of the production line. During observation, I confirmed that the labelling machine was working correctly and that every label was being stitched onto the product. By following the product through the entire process, I discovered the real cause. As the quilt transferred onto the conveyor, a toothed drive belt was running approximately 3 mm beyond the edge of its pulley. The belt was catching the sewn-in label and tearing it from the quilt before the product reached the end of the production line. The labelling machine was not the problem.

I designed and implemented a simple modification to the conveyor guide, preventing the drive belt from contacting the labels during transfer. The modification required only a minor engineering change and was completed with minimal disruption to production.

**Outcome:** Following the modification, the labels remained securely attached throughout the production process. Finished quilts left the production line correctly labelled, eliminating the issue that had been causing customer returns and restoring confidence in the quality of the finished product.