

Client Reference

Integrating the Pragma Way into Client Business to Improve AM Maturity



Background

Our client is a leading automotive manufacturer in South Africa. The client embarked on a journey to implement an asset management system based on the Pragma Way. One part of that system is Focused Improvement and structured problem solving.

A focused improvement forum was established where a dedicated team would meet weekly in order to identify and prioritise possible focused improvement opportunities. One of the most frequently recurring issues in the area which contributed the most to downtime per week, on average, was identified through analysing downtime data from the year to end of March 2017.

The issue was largely related to e-stops on the pendant for the hangers used to transport the Rear Axle from the spray booth to the marriage station.



The process we followed was excellent. It helped us identify problems and potential root causes through a structured process facilitated by Pragma. It was also a good learning experience which we were able to use in other areas to reduce unnecessary downtime.

Mark Botha | TSS Assembly Maintenance Manager

Key Challenges

- A big challenge was data. Once the issue was attributed to frequent e-stops, it was very difficult to determine why the e-stops occurred. It involved brainstorming sessions and subsequent testing of theories in order to finally narrow the focus down to four likely root causes which could be addressed.
- The root causes addressed included the incorrect e-stop position, causing it to be in the way and easy to accidentally press; the pendant cable routing, causing the pendant to drag in places and swing excessively; carbon build-up on the communication rails and operator error.
- The role out of the solutions were challenging as it was staggered over weekends when the e-stop could be moved. During this change a loose connection was found on the pendants which could also have triggered the e-stop.



Value Add

- Involvement of cell technicians, artisans and specialists in the problem solving team gave them experience to run similar focused improvement projects independently
- Improved working relationship between Production and Maintenance departments
- Reduction of downtime by 10.8 min per week on average amounting to potential for increase in production of 4.2 cars per week
- This translates to potential for R 1.68 million increase in sales volumes.

Tools and Technology

- AMIP
- Assessor
- AC Pack
- Client resources
- Training material

Pragma Intervention

- Data had to be processed, cleaned up and analysed in order to be able to determine the focus of the project on the e-stops. Further information gathering was facilitated and advised on by Pragma to ensure sufficient quality data was available for the root cause analysis.
- The brainstorming process was facilitated by Pragma and the four likely root causes identified.
- Another brainstorming session to discuss possible solutions to the probable root causes was held and the most feasible solutions rolled out.
- Pragma monitored the performance of the equipment and identified that it wasn't effective on some hangers where after it was found that some connections were not secure. This allowed the issue to be corrected and downtime to be reduced by 10.8 min per week on average, compared to the average downtime four weeks prior to the intervention.

