HIGH VALUE MANUFACTURING

CASE STUDY

Reduction of Scrap Rates for Vehicle Build: Root Cause Analysis & Issue Resolution

RESULTS

- ✓ Implemented rework process that resulted in significant reduction of scrap rates over 20-month engagement:
  - *Rear Rail Scrap improvement: 57.7%
  - *Sub-Frame Scrap improvement: 68.7%
  - *Sub-Frame & Torque Box Scrap improvement: 46.4%
- ✓ Developed guideline for dimensional needs for coining operation success
- ✓ Established detailed scrap data tracking tool for monitoring success of process improvements

Engagement Start: Mar. 2022

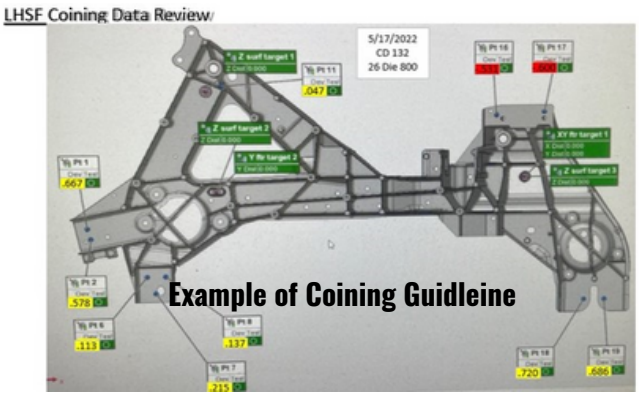
Engagement End: Nov. 2023

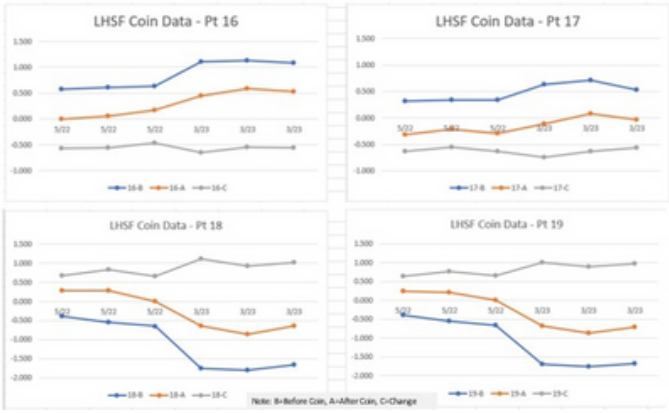
	Rear Rail Total Scrap Rate	Sub-Frame Scrap Rate*	Sub-Frame & Torque Box Scrap Rate**
2021	1.8%	2.45%	2.45%
2022	1.7%	7.34%	1.88%
2023	0.74%	1.53%	1.16%

*Porosity Improvements **Coining Improvements

ASSIGNMENT

Improve third party performance; identify root causes of defects and reduce scrap in vehicle assembly by major North American automotive manufacturer.





See further supporting data under Case Studies at www.highvaluemanufacturingconsulting.com

CHALLENGES

> Managing technical issues at the processor and identifying root causes of defects.
> Assessing processor capability, quality, and practices; conducted gap analysis, and recommended solutions.
> Regular and consistent feedback to the plant regarding casting and machining information.
> Improving the defect specification call-outs process to standardize part acceptability by experienced inspectors as well as new inspectors.
> Coining operation needed a more thorough understanding of the overall process.
> This assignment required experience and knowledge in engineering, quality, and manufacturing best practices; required skills in collaboration and communication among team members.