Robert Fitzhugh

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Manufacturing Engineer

Manufacturing / Quality Engineer with over 21 years supporting successful assembly line operations for the world leader in heavy equipment manufacturing. Certified Manufacturing Engineer, well versed in all aspects of continuous improvement, quality, and safety. Record of accomplishment in reducing costs, increasing productivity and solving complex manufacturing problems.

Additional Strengths and Competencies

Manufacturing Engineering | Continuous Improvement | Lean Manufacturing
Value Stream Mapping | Root Cause Analysis | Kaizen | 5S | Six Sigma

Career History

Quality Engineer -- TBDN *(9/2019 – 4/2021)*

- Responsible for maintaining quality standards for cabin air filters, air cleaners, HC air elements, and injection molded engine manifolds. My customers include Toyota, Subaru, Ford, Chrysler, General Motors, and Honda.
- Recommend corrective or preventive actions to improve product quality or reliability
- PPAP and Process Change activities for new and existing product
- Create and update quality inspection standards for new and existing product
- Create and update control plans for new and existing product
- Create gage work instructions for new product
- Work with production and engineering on root cause investigations
- Conduct monthly layered audits

Manufacturing Engineer -- Caterpillar *(2018 – 05/2019)*

- Enhanced manufacturing quality, reliability, or cost-effectiveness through the application of continuous Improvement methods including lean manufacturing, Kaizen, 5S, and Lean Six Sigma. Determined root causes of failures and recommend changes in designs, tolerances, or processing methods.
- Incorporated new methods and processes to improve existing operations or implement changes using knowledge of assembly methods, or quality control standards. Troubleshoot new or existing product problems involving designs, materials, or processes.
    - Introduced a method and associated technology to detect the presence of an internal spacer before final assembly. The new measuring device determines the presence of the spacer and permits the torque gun to finish the operation. The new solution eliminated the failure of an expensive transmission and has been adopted throughout the facility as a best practice.

- Conducted monthly 5S to audits to identify opportunities to improve product quality or reduce costs.
- Prepared documentation for new manufacturing processes or engineering procedures.
- Install or troubleshoot manufacturing equipment.
- Designed the layout of equipment or workspaces to achieve maximum efficiency and safety.
    - Devised a method and tools to introduce kitting into the value stream. Designed a 2-shelf cart with a liftable top shelf and a means to hold parts securely and in order of assembly. This new process helped to decrease the footprint of the line by reducing the number of double stackers from 35 to 9 or 67 half tubs to 20 and increased efficiency by eliminating approximately 15 minutes of non-value added time per transmission according to ODS.
- Communicated manufacturing capabilities to facilitate production processes.

Manufacturing Engineer Technician -- Caterpillar *(04/2009 – 01/2018)*

- Identified and implemented new manufacturing technologies, processes, or equipment. Analyzed manufacturing processes to identify ways to reduce losses, decrease time requirements, or improve quality.
    - **Asset Tracking** -- Reorganized the process to track and inventory transmission mules. Redesigned the color scheme and location of the mule serial numbers to prevent damage to the numbers during use and improving the visibility of the numbers. The new tracking process ensured the mules were inspected and maintained on a regular schedule.
    - **Reduce waste** -- Implemented a program to reuse plastic covers used to cover a plastic plug during the pressurization of a transmission in the dunk process.
- Recommended corrective or preventive actions to improve product quality or reliability.
- Installed and evaluate manufacturing equipment.
- Ensured adherence to safety rules and practices.

Team Leader -- Caterpillar *(03/2008 – 04/2009)*

- Facilitated the morning kickoff meeting. Assigned employee work stations.
    - Created an employee cross-train process to keep the line going during the absence of team members.
- Rotated through all the tasks required in a particular assembly process.
- Managed the continuous improvement process.
- Conducted daily standard work audits and safety observations.

Associate -- Caterpillar *(1998 – 2008)*

- Align and secure holding fixtures, cutting tools, attachments, accessories, or materials onto machines. Monitor the feed and speed of machines during the machining process.
- Machine parts to specifications, using machine tools, such as lathes, milling machines, shapers, or grinders.
- Verify conformance of parts to stock lists or blueprints, using measuring instruments, such as calipers, gauges, or micrometers.

Education and Professional Development

Bachelor of Science, Organizational Leadership Project Management, magna cum laude

Union University Jackson, TN

Certified Manufacturing Engineer (CMfgE)

ACSD Behavior Based Safety Auditor | 6 Sigma Green Belt