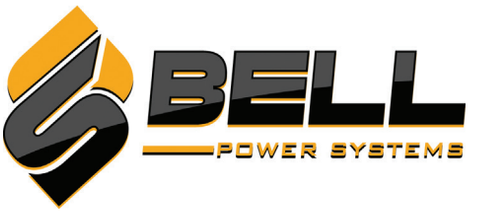
Continuous Improvement Training Facilitates Flow Line Adjustments for Higher Volume Builds



Background

Bell Power Systems (BPS) was founded in 1967 as Bell Detroit Diesel and in 2012 became part of the Superior Diesel family of companies. They specialize in providing value-added diesel engine packages, service parts, and drivetrain components to original equipment manufacturers and dealers for off highway equipment applications for a territory covering the eastern United States.

The company maintains an inventory of 700 to 900 engines ranging from 4 to 600 horsepower at their 60,000 square foot manufacturing and warehousing facility in Essex, Connecticut. BPS serves industries that include pumps, aircraft ground support, agriculture, marine propulsion, railroads, oil and gas.

Situation

Executive management at Bell Power Systems had previous exposure to lean manufacturing and wanted to expand the continuous improvement (CI) focus at their facility. BPS had recently promoted shop floor employee Bob Green to Production Supervisor to advance their lean operations.

To take advantage of Green's previous shop floor experience and leverage continuous improvement practices, BPS sought out lean training opportunities for Green with the intent of improving both production line efficiencies and lead times. BPS reached out to CONNSTEP who recommended its Continuous Improvement Champion Certification (CICC) training program for Green to attend.

Results for Bell Power Systems:

- Cost Savings: $100K
- Product Investments: $5K
- Workforce Skills Investments: $10K
- New Jobs: 2

The continuous improvement lessons learned from CONNSTEP really helped our shop. Just moving 85-90% of our inventory and grouping parts closer to employee work areas has saved hours of work.

– Bob Green
Production Supervisor
Emery Winslow Scale Company, Seymour CT

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Solution

During the CICC course and subsequent to its completion, Green began employing Lean manufacturing tools and techniques at BPS. Referencing their production line current state value stream map and future state material flow, he cross-trained many employees and shared the benefits of Lean manufacturing principles and processes.

To help gain production line efficiencies and shorten lead times, spaghetti diagrams were drafted to provide a visual representation of the continuous flow line showing the path and locations of parts and inventory for optimum access and use within the manufacturing facility and warehouse. Additional changes were made to other areas to streamline efficiencies.

Results

The implementation of Lean manufacturing practices resulted in improved flow line for production with higher volume builds. Parts, racking, and engines were moved closer to employee workstations reducing feet traveled from 4131 to 2314. 5S auditing sessions were conducted to continually update work instructions and evaluate inventory locations. Total cycle time was reduced by 18% with an ultimate goal of a 20% reduction.

Ergonomic workbenches were created to make them more accessible and efficient to use. Work instructions were updated and improved, with pictures added to help in cross training load leveling to better meet customer demands and expectations. On-time delivery improved from 92% to 100%. Over a 17-month period, the BPS Essex location improved their efficiency tracking rate (sales/hours) from 75% to 185%.

- Cost savings: $100,000
- Jobs created: 2
- Investment in New Products: $5,000
- Investment in Workforce Skills: $10,000