



Lycoming Engines Takes on Company-Wide LEAN Training, Realizing Millions in Hard Savings and Winning Shingo Silver Medallion for Operational Excellence

CLIENT PROFILE

Lycoming Engines

A Textron Inc. company
Williamsport, PA

www.lycoming.com
460 employees

Lycoming Engines is the leader in the piston aviation market, producing more piston engines for general aviation manufacturers than any other company in the world. Headquartered in Williamsport, PA, the company has roots dating back to the mid 1800's. Today, Lycoming is a global operating division of Textron's Avco Corporation subsidiary, and an operating unit of Textron Systems, specializing in the engineering, manufacturing, assembly, test and support of piston aircraft engines.

SITUATION

Remaining competitive in today's economy requires more than producing quality, leading-edge products. It requires ongoing innovation, enhanced efficiencies and involvement from all members of an organization to be alert and focused on continuous improvement and opportunity.

In 2004, the Lycoming Engines Director of Operations and management team of Lycoming Engines began what would be the underpinnings of an aggressive initiative to have all levels of the organization—some 500 employees—undergo training in LEAN Manufacturing.

According to Gary Naculich, Manager, Transition to Production, LEAN training was an integral part of the organization's growth strategy. "Identifying ways to remove waste from our processes is a significant component of keeping Lycoming Engines a thriving business. Our approach is always to have an eye on the future and to be prepared. Our hope was that LEAN would help us to cut back on waste, be more efficient and remain optimally productive."

Naculich reached out to IMC to assist in building a strategy to accommodate an aggressive schedule, variety of skill sets and potentially diverse feelings about the initiative.

SOLUTION

IMC business advisors and Lycoming management developed a master plan to engage the entire organization in LEAN over the course of two years. The first step was to send 25 members of Lycoming Engines leadership to IMC LEAN 101 training in order to better



familiarize them with the principles and help them to determine the merits of a full-scale training initiative for Lycoming Engines. Upon completion of the workshop, the team unanimously decided to move forward.

The next critical step was to achieve buy-in—and a sense of ownership—from Lycoming’s union workforce. Management sent 20 U.A.W. Local 787 members to LEAN 101 training to learn about LEAN and evaluate its worth for the company. Management opted to not participate in the training alongside employees so union members could feel completely free to ask questions, offer candid comments and analyze LEAN without any influence. Union members returned from the training enthusiastic about lean and fully engaged.

With “ambassadors” in place from both management and union, the process to train all employees in the principles of LEAN began. The plan involved a variety of training scenarios, including employee participation in scheduled IMC workshops as well as IMC training sessions conducted directly in Lycoming Engines facilities.

Mary Fourney, Manager, Proposals and Contracts, at Lycoming Engines, explained that a key factor in the success of the program was IMC’s ability to work with employees at all levels and build trust. “IMC started by asking employees about *their* pain, *their* challenges—it was a very personal and meaningful approach. Some of our folks had the perception that LEAN meant losing their jobs. Their fears were alleviated, though, due in large part to how IMC engaged them in the process and the obvious positive benefits that LEAN could potentially have for Lycoming Engines.”

Naculich agreed, “Employees felt empowered and truly understood that we wanted to work together for a strong future. LEAN, and the training process itself, energized our employees to take renewed ownership. The ideas that came forward then and continue to surface are testimony to the positive outcome.”

RESULTS

Lycoming Engines remains a thriving Pennsylvania manufacturer and has realized significant progress and change through its improvement initiatives. LEAN training, in particular, has helped the company to capture noteworthy accomplishments since 2005:

- in 2008 won the Shingo Silver Medallion in the Shingo Prize program, recognized as the global premier award process for operational excellence;
- improved safety by 30 percent and twice gone one million hours without a lost time injury;



- improved OEM on-time delivery from 40 percent with a 20-day lead-time to 98 percent with an 8-day lead-time and was recognized as one of Cessna’s “Top Suppliers” by earning their STARS supplier award three consecutive times;
- benchmarked for its Value Stream Improvement Process (VSIP) and Quality Improvement Process (QIP);
- achieved nearly \$50 million in hard savings, which is being effectively reinvested in further improvements and opportunities for the company;
- in-sourced significant manufacturing (i.e. piston manufacturing and machining of rocker arms and pump housings); and,
- implemented new equipment, such as CNC machines, for greater efficiencies.

TESTIMONIAL

Gary Naculich

Manager, Transitions to Production

“Working with the IMC and engaging in LEAN training has helped us to thrive in a time when the economy has wavered. We are outpacing our competition, retaining jobs and continuing to grow and develop as a Pennsylvania manufacturer. We are fully invested in maintaining a well-trained workforce, and partnering with organizations like IMC helps us to bring educational opportunities that we would not easily be able to accommodate on our own. The process has built new momentum throughout our organization, setting new standards and employee participation in efficiency and innovation.”