

Sustaining Continuous Improvements in a High Performance Work Setting At



How does an organization improve its competitiveness and performance? How does an organization that is known for its quality continue to create and improve? How does an organization that works in teams strengthen its collaboration across units and with the customer? These are challenges facing Cummins Engine. In particular, these were the tasks that Atlas Crankshaft, Inc., a division within the corporation, attempted to address with its variable compensation program. Cummins Engine is the world's biggest maker of large diesel engines and power generators. They are used to power trucks, buses, and equipment for mining and construction. The company has annual sales of more than \$5 billion and more than 26,000 employees worldwide. Atlas Crankshaft is a components manufacturing division with a specialty in crankshafts and related equipment. Most of Atlas's outputs are provided to other Cummins plants to be assembled and sold to major vehicle and equipment manufacturers.

Organizational Context

Many employees at Cummins have participated in a companywide profit-sharing program. This program has sought to establish a stake in the success of the business for each employee. However, management felt that the program did not offer a strong line-of-sight relationship between individual actions and results. Therefore, they encouraged the divisions to create their own approach to reward systems that would provide a better focus on performance. In 1993 Atlas Crankshaft decided to develop a variable compensation program for implementation in 1994. It needed to create a connection between its employees and the requirements to improve the performance of the division. Atlas understood that it needed to continually improve its performance and capabilities.

Atlas Crankshaft, Inc., is located in Fostoria, Ohio, and has just under 300 employees. Many of the employees are represented by the United Auto Workers (UAW). Since 1993, the company has maintained a team-based work system where all employees are in teams and manage a strong process flow from rough manufacturing of products through to finished goods and shipping. The plant operates in a comfortable environment; in addition, there is continuous emphasis on safety and creating an attractive workplace. Although there are significant material fabrications, movement of large pieces around the plant, and a great deal of work in process, the plant's environment places a high degree of importance on safety and professionalism. People take a great deal of pride in their products, their workplace, and each other.

The Variable Compensation Program

The variable compensation program was developed to encourage and reward members of the plant for improving the performance of Atlas. It was developed by the plant operating team that now includes the local UAW president, but over time it has evolved to include more people to improve the program. They have realized like any good system, the compensation program needs to continually change and be upgraded. However, the program has not changed fundamentally since its inception.

The program includes all members of the Atlas organization, including union and non-union employees. Because the measures are set based on plant wide performance, they continue to struggle with bringing the line-of-sight closer to what the individual has control over. The number of measures ranges from four to six; the importance weighting and performance levels change each year. This is important so that people can see the continuity of the program over time and learn how each person affects the results.

The core measures of the program include the following:

- Safety incidence rate
- On-time delivery
- Productivity (i.e., number of pieces per person per day)
- Managed expenses (i.e., managed expenses as a percent of the budget)

The purpose of the safety incident rate is to reinforce a clean and healthy workplace environment. This is important to ensure employees work in a safe workplace that enhances their ability to produce high-quality products at the lowest possible cost. When an employee is injured, there are costs related to both healthcare and lost productivity, not to mention the impact in human terms. This is measured by calculating the number of recorded safety incidents as a percentage of the total hours worked by all employees. They establish a range of performance for this measure and control the process through frequent safety inspections and training. On-time delivery is measured by meeting the delivery date of their customers, usually other plants within Cummins. Atlas uses the receipt of the order as opposed to the shipment date because the most important consideration for customers is when they receive the product, not when it was shipped. This means that Atlas needs to consider the delivery vendor it uses for products and the extent to which they are reliable.

Although delivery is less in one's control than the shipment dates, the receipt is critical to other plants that operate with a just-in-time materials management function. Productivity of the plant is measured by determining the number of plant hours needed to produce a product.

The ratio is the number of pieces per person per day. This factor perhaps has the greatest impact on the performance of the plant. All employees either work directly at producing the products or supporting those who do. This causes people to reflect on whether or not an individual needs to be replaced or added to the staff. This also gives credit to the plant if the employees are able to grow the volume without adding concomitantly to staff.

The final measure examines how well expenses are managed according to the company budget. These expenses do not include wages, as this is captured in the productivity measure. The expenses include controllable items such as maintenance supplies, operating supplies, scrap, utilities, freight, medical costs, and general expenses. Once the budget is set, the plant needs to produce expenditures that are less than the budget in order to achieve a payout. Specifically, they need to be 2% under budget to achieve their target performance. If expenses were 10% below budget, they would receive a high level of payouts.

How Payouts Are Determined

The payouts are determined by combining the performance in all measured areas. For each measure there is a payout schedule that ranges from minimum to target to high performance. Based on performance level achieved, a certain number of points are earned. The range of points reflects the performance of the measure. Each measure is capped differently based on its performance factors. The points are totaled and averaged by the number of measures. The payout range then is applied to determine the percent of total earnings one receives. The calculated payout factor for each quarter is multiplied by the participation level of the employee, which ranges from 4% to 6%. The demonstrated performance payout has been from 0% to 11%, but the potential is there for that to be greater based on improved performance in the various categories.

Everyone's payout is based on the same factor; payouts are not adjusted for individual performance. The payout is paid quarterly and payouts are typically made within 10 days of the end of the quarter. The target percent is between 4% and 6%, depending on your position. The payout factors can range from 0.25 to greater than 3.00—which, in turn, could lead to a payout greater than 18%. In addition to these performance measures, the program has two "hurdles" that need to be met before the payouts are made available. This is important to ensure that the plan is self-funded—that is, the gains in performance would more than pay for the financial awards. The first hurdle is that sufficient savings need to be generated from the performance to fund the plan.

Although managed expenses and productivity are the two measures clearly tied to financial performance, the delivery and safety incident rates can clearly be translated into financial impact gains. The second hurdle is that the customer acceptance rate must equal or exceed 99.5% for each quarter.

Customers have the ability to review the quality of the products and if they are not acceptable, they can return them to the company. If these returns exceed 0.5% of the products shipped, there will be no payout for the quarter. Fortunately, and reflective of the Atlas quality management process, in only one quarter in the history of the program has this threshold not been met.

At the end of each quarter, the Atlas plant operating team reviews the performance results and recommends the payout factor. The business unit that Atlas is part of is responsible for final approval. This Atlas leadership team is heavily invested in achieving the desired

performance and making the associated payouts. As they make payouts, they realize that the company is improving its productivity, quality, and use of resources.

The Costs and the Return on Investments

Since the implementation of the program in 1994, Atlas has made a payout in all but one quarter (this was due to the quality of customer acceptance).

The average payouts have ranged as follows:

| Year | Payout % | Payout \$ |
|------|----------|-----------|
| 1994 | 1.34% | \$686,556 |
| 1995 | 1.53% | \$800,776 |
| 1996 | 0.78% | \$418,880 |
| 1997 | 1.40% | \$850,244 |

Total payouts over four years \$2,756,456

But the payouts need to be measured against the gains that have been achieved by Atlas Crankshaft. The savings generated from this program have exceeded \$5 million. That is over a 2:1 savings ratio. Furthermore, the program has encouraged continual improvements in performance because the performance levels are increased or adjusted each year based on corporate requirements. Over time many skeptics about the program have become supporters. Managers actively seek ways to encourage change that improves the performance of the plant. They see a direct relationship between the plant's performance and the individual variable compensation payout.

Continuing the Improvements

In 1997 the managers actively sought the involvement of the labor union leadership to improve the program. This has had a very positive impact. One of the most critical issues is educating people in how their actions impact the performance factors. Even though Atlas is a relatively cohesive organization, people need to see a line-of sight between actions and results.

The union leadership has been instrumental in building this educational process and encouraging people to find ways to improve the performance of the company. This partnership has led to strong improvements in safety and delivery performance.

The program will continue to develop in the future. It is not likely that the program's fundamental structure will change, but the measures and the process that supports the reinforcement of everyday activities will. Managers understand how the program has affected behavior and have seen the potential of what it can truly do. Personal involvement, collaboration across teams, implementation of process improvements and reinforcement of individual performance will be key drivers for the future.

Atlas has learned that the program cannot exist in a vacuum of leadership; managers and team leaders need to be involved. Union leadership support is critical as well. By working together, Atlas expects to continue to improve performance by linking individual performance to the plants. They have the spirit to continue to make changes and learn new approaches that will enhance the ability to meet customer needs. In many ways, people feel that they have just begun.