



OLIVER WIGHT CASE STUDY SERIES

Two Division-Wide Programs Over a Decade Enable Caterpillar Inc. to Repair Culture, Perfect Processes and Refine Operations

“With Class A, we started to doggedly attack problems. We started to force ourselves to look in the mirror to say, ‘Hey there’s a piece of bad data. Here’s a problem,’ instead of just shuffling it to the side and saying ‘we’ve got other more important things to do, like build tractors.’”

Al Dremann

Order Fulfillment Division Manager - Caterpillar Track-Type Tractors Division

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Caterpillar Track-Type Tractors Division

Highlights:

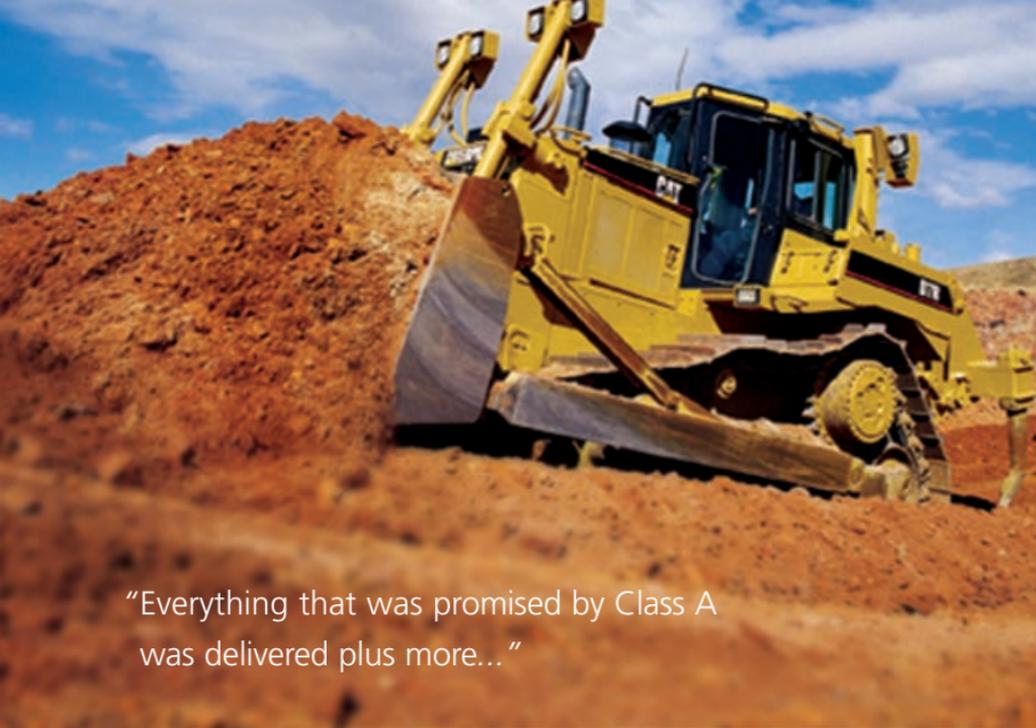
- Caterpillar's Track-Type Tractors Division manufactures a line of heavy equipment including the world's largest bulldozers. The business unit, based in East Peoria, Illinois, serves all regions of the world, offering products in a variety of configurations.
- The division spent years implementing a Common Values program to turn the workplace culture around. Trust, mutual respect, and teamwork became watchwords.
- The division then looked to improve coordination among its manufacturing managers and with a separate marketing division. Sales & Operations Planning was implemented to address difficulties with inventory and on-time delivery.
- TTTD ensured every shop floor person and supervisor understood the basics of inventory record accuracy and bill of material accuracy, and took key people through formal classes on topics such as S&OP and Valid Schedules.
- Caterpillar's TTTD improved total supply chain inventory and on-time delivery, and reduced costs dramatically as it achieved Class A in both chapters 2 and 5 of *The Oliver Wight ABCD Checklist*.

With more than \$20 Billion in sales and revenues, Fortune 100 company Caterpillar Inc. is the world's largest manufacturer of construction and mining equipment. Located in East Peoria, Illinois, just across the river from corporate headquarters, and contributing significantly to Caterpillar's revenues, is Caterpillar's Track-Type Tractors Division (TTTD). Because the big earthmovers were the first in Caterpillar's product line, TTTD has been called 'the soul of Caterpillar.'

When Jim Despain took over the division as Vice President and General Manager, TTTD was hamstrung by conflicts between management and its hourly workforce. One of the longest strikes in history dogged the company through the early 90's. And newly introduced business-unit accounting showed that TTTD was not making a profit.

'Common Values' Cure the Culture

A key in the transition to a more engaged work force and accountable profitability was a major division-wide implementation of a Common Values program and subsequent revolution in TTTD's culture. Trust, respect and teamwork were emphasized. Despain told his workers, "Don't check your brains at the door," and meant it. The results were dramatic. Organized labor was working with, not against management. A.J. Rassi, Despain's successor as General Manager, observed that, "people actually began to enjoy coming to work."



“Everything that was promised by Class A was delivered plus more...”

This is the point at which our story began. Jim Despain and the Common Values program had revolutionized TTTD's culture and profit contribution, but the bottom line had to continue to improve. People were working together better but often lacked the processes to work efficiently. For example, one person in the Fabrications Building went through three cell phone batteries each day handling emergency calls. In another case, an Operations Supervisor was spending most of his time as a parts chaser, leaving him little opportunity for needed supervisory roles. TTTD was working together better because of Common Values, but harried because of antiquated processes.

Class A Builds on the New Culture to Refine the Processes

In 1999, the Chairman of Caterpillar, Glen Barton, challenged all divisions of Caterpillar to achieve Class A certification in Planning and Control. With their Common Values firmly in place, TTTD aggressively tackled the challenge.

One of the TTTD's primary hurdles resulted from the marketing function residing in a different division from manufacturing. This split and associated divergent metrics combined with inaccurate sales forecasts occasionally resulted in inventory surpluses.

According to TTTD's Order Fulfillment Division Manager Al Dremann, “At times we were at odds [with the marketing division] or didn't believe the numbers. We didn't always behave as if we were working for the same company with respect to a forecast and planning to meet future demand.”

The company also looked to improve its on-time delivery performance. Several dealers carried extra inventory to protect themselves against not receiving parts or equipment on time.

When Oliver Wight consultants were brought in to help the Class A implementation, Caterpillar managers and supervisors were skeptical about their ability to make improvements. According to Dremann, he and the other managers didn't want to make many changes. “The first time they came here we thought, ‘We know how to do that, we've done that before, so tell us something new’. We were defensive and didn't want to make a lot of changes.”



But, in reality, TTTD was not doing all the things it knew how to do, and Oliver Wight helped them get moving. “The biggest thing that they did was to serve as a change agent,” Dremann commented. “They acted as independent, objective observers to point out things that needed correction - that needed best practices implementation - so that we could work at them.”

The core of the Class A implementation was the creation and management of Sales & Operations Planning, a process led by senior management that, on a monthly basis, evaluates revised, time-phased projections for supply, demand and the resulting financials.

“One of the best practices mentioned throughout *The Oliver Wight ABCD Checklist* for Operational Excellence is the need for a rigorous process,” Dremann said. “Our group now goes through well defined steps and a specific agenda so we are talking about the right things and we are talking about it face to face instead of on the phone and leaving messages. A key to success was establishing agreements to get people from different divisions working together. It was also very helpful to make sure that everybody understood what the schedule was, that it could be accomplished, and where the potential problems were. That way the group could start to attack the things that they could deal with 2-12 months in the future.”

One of the elements of success - and eventual Class A certification - at Caterpillar's TTT Division was the Oliver Wight classes. They started by putting all second and third level managers through the Class A Overview. Then, key managers and supervisors attended a hands-on Sales & Operations Planning workshop. Additionally, materials planners, shop floor supervisors, key scheduling people, and process planners learned the basics of Valid Schedules through a formal class. But the company went farther. Having established a corporate culture of mutual respect and teamwork, TTTD made sure that every shop floor person attended 2 hours of education on Inventory Record Accuracy and Bill of Material Accuracy based on Oliver Wight material.

Dremann credits the S&OP workshop with pointing the group in the right direction and starting the process of collaboration with the marketing company. In addition, enrolling such a wide range of people in the Oliver Wight Valid Schedules class helped the group form more effective teams by getting all of their people together for regular, weekly meetings to discuss capacity, scheduling and demand issues.

Dremann points to inventory record accuracy as a significant driver of benefits inside the plant, “Now we have the right materials in the right place at the right time. There is much less non-value added activity looking for material, and it shows up in the cost picture. Plus, people are a lot more content without the stress and pressure of frequent schedule changes caused by missing parts.” The Fabrication Building employee recently said, “It's 1 PM and I still have three quarters of the charge on my first cell phone battery.” By delivering on time to Assembly, life became easier. And the parts chaser? Now he has the time to spend on other responsibilities of an Operations Supervisor including safety and quality. Dremann notes that, “Completion, delivery, on-time performance and



manpower planning are all under much better control. For a variety of reasons, including the greater attention that supervisors are able to pay to safety training, our plant achieved its best safety record ever in July 2002.”

Following one major business improvement program (Common Values) with a second (Class A) may sound like a ‘flavor-of-the-month’ approach, but that is not how it worked. Each was given the time and resources required to do it right. And each had vigorous and consistent senior-management support. The Common Values program got the people aligned in support of the company, and the Oliver Wight Class A implementation gave them the processes they needed to excel. Both programs were essential to the resulting success.

Synergy Across the Two Initiatives

For the combination of these two programs in TTTD, the whole is indeed greater than the sum of the parts. “I can’t imagine going through the challenging Class A certification without the great foundation of trust, respect and cooperation that we achieved through the Common Values program,” said Marv Rosser, TTTD’s Operations Manager. “We really benefited from the continuity and synergy.”

One example of continuity and synergy can be found in the evolving role of Consensus Teams. They were created as part of the Class A journey to ensure valid schedules were in place by improving teamwork, trust and commitment - three of the Common Values. As one worker put it, “When our customers trust us to deliver on time, they don’t call to see where the parts are.”

Trust Makes the Difference

According to one originally skeptical TTTD employee, “Everything that was promised by Class A was delivered plus more. Just not being past due anymore and having a good schedule to run to - having something that’s believable builds trust between workers and the people who are setting the schedules.”

Working with Oliver Wight, the Caterpillar Track-Type Tractors Division achieved Class A Business Excellence with some impressive results.

- On-time delivery increased to more than 98%.
- Total chain inventory dropped in two years by \$45 million.
- Unplanned overtime dropped significantly.
- Premium airfreight costs were cut.
- Redeployed staff as a result of a reduction in non-value-added expediting.

Caterpillar’s TTTD continues to strengthen their Common Values today. The division has been certified Class A in both Chapter 2 (People/Team Processes) and Chapter 5 (Planning and Control Processes) and is now working on recertification against the updated criteria in the Fifth Edition of the *ABCD Checklist*.



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