



Stellar Increases Production with Existing Resources

Stellar Industries, headquartered in Garner, Iowa began in 1990 with the first USA made domestic hydraulic hoist. The company is dedicated to being the preferred supplier of quality hydraulic truck equipment and related accessories worldwide. The company was experiencing a large backlog of orders and losing customers to their competition. DB&A read about Stellar's business situation in the Wall Street Journal and reached out to Dave Zroslik, President, to introduce its business model.

DB&A helped Stellar Industries reduce the backlog, increase throughput 30%, increase productivity by 18%, and saved the company \$14 million dollars. When the project began Stellar was limited to manufacturing 12 trucks per week. At the conclusion they were making 22 trucks per week.



DB&A Analysis

During the analysis, DB&A consultants were initially asked to focus on execution in manufacturing on the shop floor. "Figure out how to get more trucks out the door," said Stephen Schneider, Vice President Operations. However, it was discovered that their inefficiencies were much deeper than the shop floor.

Our consultants examined the entire process - from order entry to customer delivery which included evaluating sales, engineering, purchasing, supply chain, welding, painting, assembly, quality, training and maintenance.

Initial observations uncovered an extremely passive supervisory behavior. Supervisors were not utilizing tools made available to them to effectively manage their employees. Performance evaluations, problem identification and problem-solving behaviors were non-existent. A number of inefficiencies were uncovered as indicated below:

- o Sub-optimal Utilization of Systems and Tools
Designed to Streamline Order Management
- o Informal Handoffs and Information Flow Between Disciplines
- o Ineffective Planning Prior to Shift Starts
- o Periodic Work Stoppages on the Production Floor
Due to Operators and Supervisors Not Actively

The DB&A Difference

Analysis Financial Proposal

- Proposed Project Cost: \$1,430,000
- Guaranteed Savings Rate: \$4,290,000
- Guaranteed ROI: 3:1

Actual Financial Results

- Actual Project Cost: \$1,430,000
- Annualized Savings Rate: \$14,000,000
- ROI: 10:1

Project Results

- Leveraged 1.8M in supply chain savings
- 30% increase in throughput across all product lines
- 18% increase in productivity across all product lines
- 80% increase in Utility Trucks productivity
(from 12 trucks per week to 22 per week)

Managing the Work

- o Less-Than-Optimal Training/Sharing of Best Practices Among Employees
- o Unmanaged Expectations to Complete Work Across All Areas
- o Communication Mechanisms Between Groups Structured to "Resolve Issues and Move On" Which Allows Execution Issues to Linger
- o Both "Front End" and Production Groups Do Not Effectively Communicate to Ensure Proper Coordination of Resources to SOLVE Day-to-Day Problems

To be more specific, following is a list of some of the opportunities discovered during the two-week assessment period:

SALES

Order entry inaccuracies were causing multiple change orders throughout the build process. This created a rescheduling of orders and expediting of parts.

PURCHASING

There was a lack of adherence to MRP messages and vendor management leading to parts shortages. Inaccurate lead times created inflated product lead times. Incorrect safety stock levels and inaccurate inventory levels lead to expedited deliveries.

SUPPLY CHAIN

Poor warehouse management and part movement processes created regular shortages across production. The timing between kitting and floor demand was not sufficient given inventory inaccuracies.

ENGINEERING

Response levels from the floor to the Engineering Change Notice process was not meeting 48-hour time commitment. The process-based Engineering partnership with sales and assembly that needed changes were imprecise and created lost time on the floor.

They planned for a static 12 truck per week build vs labor utilization planning. They didn't realize actual capacity available and used bottleneck management. Poor accuracy in short-term and long-term scheduling caused churn as orders were being taken on and off the production floor.

WELDING

Poor daily work assignments were contributing to low productivity. Irregular jig set-ups and welders waiting on parts from material handlers caused idle times at the bottleneck operation.

PAINT

Poor load density and attainment of the 45 min. takt time. Paint errors (dirt, cleanliness) were found in downstream applications. Insufficient quality checks.

ASSEMBLY

There was a lack of clear assignment and follow-up from the leads. Employees often struggled to locate missing parts, creating additional delays.

DRAWER CELLS

A lack of daily expectations and understanding of area capabilities led to inconsistencies in hourly production. DB&A discovered that true capacity was approximately 100 units more per day.

QUALITY

The feedback loop was inconsistent to the department where the defect occurred. Lack of action plan creation and execution for known repeatable defects was not built into process.

TRAINING

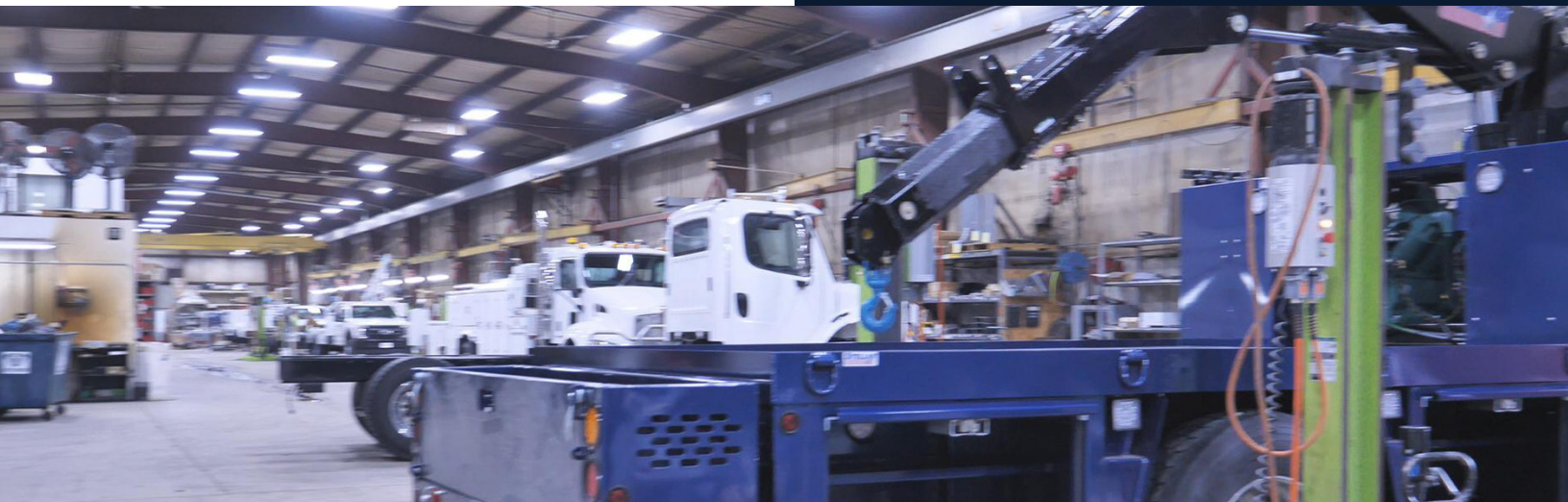
Training plans were not mapped out on a weekly basis. Evaluation of what skills were needed in order to plan accurate staffing between departments was nonexistent. In addition, training tools were not standardized between plants.

MAINTENANCE

Supervisors were not loading technicians with a full workday. Focus was on emergent tasks instead of on preventative and planned work.

“The culture has changed for the positive. There are measurements and they are being recorded. We have tools to generate actions to get results to make improvements. We have better planning tools. Playbooks work.”

~ Steven Schnieders, VP Operations



Implementation Actions

- Designed and co-implemented a Management Operating System (MOS), including Continuous Improvement Process.
- Developed Key Performance Indicators to measure actual performance versus specific goals for each area.
- Barrier Identification/Resolutions controls (Short Interval Follow-ups (SIF), Observations, Lost Time Pareto's, Action Plans, etc.).
- One-on-One Coaching with Managers/ Supervisors.
- Daily Scheduling Control (Plan) to allow for short interval follow-up and barrier identification (Short Interval Follow-up Tours, DWOR, etc.).
- Management Development Workshops: Roles



“The whole process with DB&A has been really foundational to our company. Revolutionary, to be honest.”

~ David Zrostlik, President

- and Responsibilities, Planning & Follow-up, Problem Solving, Lost Time, Management Operating System, etc.
- Resource Loading based on Capacity, Goals and Performance vs. History.
- Weekly/Daily Communication Meeting with Management (Management and Supervisors) to drive Accountability.
- An Assessment Process to monitor Overall Continuous Improvement and Utilization (MOS Checklist).

Management Culture Transformation Results

- 18% increase in productivity across all product lines
- 30% increase in throughput across all product lines
- 80% increase in Utility Trucks production (from 12 per week to 22 per week)
- 13% decrease in contractor hours
- 8.8% decrease in production payroll
- 15.2% increase in production clearances
- 26.3% increase in clearance labor dollars
- Leveraged 1.8M in supply chain savings due to increased purchase volumes
- Actual supervising/floor time improved from 9% to 49%
- 32% decrease in administrative time
- 73% decrease in “available time” or time not utilized
- 79% reduction in maintenance work order backlog
- 89% on time Preventative Maintenance completion rate versus a target of 80%

Since 1987 DB&A has provided cross-industry management consulting delivering 15-20% in operational and financial improvements to our clients with a financial guarantee. We deliver customized solutions that maximize existing resources to increase efficiency, capacity, and productivity. Our approach is to work with all levels of management to transform management culture in order to drive accountability where it matters most: the front-lines. For more information visit www.dbaresults.com or email contact@dbaresults.com