DRIVE the TRANSFORMATION company
Breakthrough
Business Improvement Publication

DRIVE in Japan

In June, we had the pleasure of visiting three manufacturers in Japan, including Toyota and AVEX, a tier two supplier of valves to Toyota. There was a great deal of learning that I would like to share with you.

TAKAOKA PLANT

On our trip to Toyota City, we visited the Takaoka plant that builds, among other products, the RAV4. We had the pleasure of having Hayashida-san, a former Toyota executive, with us. His time with Toyota was spent both as a factory manager and in Toyota's headquarters as the Director of Production Engineering. Some notable accomplishments of Mr. Hayashida:

1) He pioneered the use of robotics in welding at Toyota (working directly with Taichi Ohno).
2) He designed a factory that was used as the basis for future plants built at Toyota.
3) He became the plant manager of the very plant he designed. Exactly why he humorously declares he was always the person to blame no matter what the problem; as he both ran and designed the facility.

As we were walking through the facility, it was amazing to see Hayashida-san in action; quickly pointing out errors in standard work and waste on the assembly line. When the assembly line is built to make abnormalities visual, the problems become much easier to see. However, Mr. Hayashida-san hadn't run a factory in decades, and he didn't run the facility in which we were standing. How could he be so attuned to these details within another factory? We don't see this level of expertise with most executives. So I asked him, "When you were plant manager, how much of your time was spent at the Gemba?" His response astonished me. "Unfortunately, due to many meetings and other items of focus, I could only spend 80% of my time at the Gemba." Really? He's apologizing for 80%?!!! Most plant leaders spend far less than 50% of their time and fewer still apologize for only spending 80% of their time on the floor!

AMAZING IMPLEMENTATION

We learned that Toyota IMPLEMENTED 547,000 improvement ideas last year. That is not a typo. 547,000. It simply amazes me that they can even keep track of so many implemented ideas. The sheer number is simply astounding. It led me to think, "How many ideas did DRIVE implement in the past year? How many did we implement at client locations?" Since this is our core competency, one would think that we would know the answer, but the truth is we don't. We've never even really thought to capture it. Toyota believes that improvement is important enough to measure. Do we? Do you? I asked Hayashida-san how Toyota was able to free-up the time necessary to generate enough ideas to be able to implement 547,000 improvements. He answered, "Rearrangement time and improvement time are built into schedules." We've shared the need for this with so many clients but rarely is this done with any regularity. Hayashida-san also stated that Toyota staffs at a higher level than necessary in order to compensate for absenteeism and vacations. So, when more people show up to work than are necessary, those people are utilized full-time for improvement efforts.

GOOD THINKING, GOOD PRODUCTS

I remember years ago, a discussion with Toyota in which our hosts expressed dissatisfaction with the term "Toyota Production System" because the system is not only about production, but also a

conglomeration of ideas throughout the industry, including Ford. They discussed how they liked the TPS acronym as it stood for, "Thinking People System." While at Toyota this year, I learned that Toyota is still widely proclaiming their motto from 1953: Good Thinking, Good Products. This seems to fit well with the principle of a Learning Organization.

JOB-ROTATION

At DRIVE, we've always touted the importance of cross-training and job-rotation. We have implemented these two practices in many client locations. However, we typically experience push-back in the plants, and we often find that job-rotation erodes over time. This has always been frustrating as job rotation aids in mitigation of soft-tissue injury and limits the mental fatigue caused by doing the same job repetitively. It also forces organizations to create standard work and focus on training and development. It is a real win-win. It seems, however, that in the west, this practice is seen by both management and employees as something to be avoided. At the Takaoka plant, employees rotated every two hours in the morning and every one and a half hours in the afternoon. This is a discipline that is seen as non-negotiable at Toyota and is consistently maintained. At DRIVE, we intend to reinvigorate efforts for effective job rotation in western manufacturing.

100 YEAR CHALLENGE

The key question I posed to Hayashida-san was regarding the change in management mindset since Toyota has become the largest automotive manufacturer. For decades Toyota had the challenge before them to become the largest car company in the world. When this challenge was pitched, Toyota was quite small (especially in North America), and GM was the giant in the industry. It seemed almost laughable to have such a lofty goal. Well, in 2008, Toyota arrived! They hit their mark and passed the giant GM. I asked what Toyota was doing now to ensure that complacency didn't set-in among management and executives. Hayashida-san immediately stated that those at Toyota did see the need to think differently after achieving that goal. Now there is a new challenge, laid out as a 100-year target. The target is to provide transport to everyone (especially those without opportunity today) and to do so in a way that is positive for the environment with no traffic casualties. So, the thought is that everyone drives a Toyota with no negative environmental impact or negative personal impact. In order to do so, modes of transport would need to be affordable to everyone, and it would either need to avoid producing pollution in any form or have the ability to clean the air and water (or whatever else) that is used to propel the transport.

NO TIME FOR COMPLACENCY

The initial focus has been hybrid vehicles. Toyota now has 25 models of hybrid vehicles sold throughout the world. The next step is Fuel Cell Vehicles. They have zero CO_2 emissions, utilize fuel that is unlimited in supply (hydrogen, which can be extracted from numerous sources including the electrolysis of water), and can become convenient to use. We had the opportunity to see a Fuel Cell Vehicle. This isn't just an idea on the drawing board. Toyota is also developing ecological plastic, which is derived from plants to make vehicle parts such as seats and interior surfaces. This too is not simply an idea on paper. The Sai Hybrid (a Toyota vehicle sold in Japan) has 80% of the interior surfaces made with this ecological plastic. They are also working on recycling most car parts to be used in the making of new cars. Here is a quote from Toyota, "Toward the year 2050, Toyota is pursuing a steady initiative that will enable people, automobiles, and the earth to coexist in harmony. Not only is it taking up the challenge of trying to reduce negative factors associated with

automobiles to as close to zero as possible, it is also looking beyond zero, challenging itself in initiatives toward a net positive impact." Here are the environmental challenges set forth for 2050:

1) New vehicle zero CO_2 emissions challenge
2) Life cycle zero CO_2 emissions challenge
3) Plant zero CO_2 emissions challenge
4) Challenge of minimizing and optimizing water usage
5) Challenge of establishing recycling based society and systems
6) Challenge of establishing a future society in harmony with nature

Toyota has also challenged itself to eliminate traffic casualties via technology. So, with the cost challenge, environmental challenge, and human safety challenge ahead, they believe there is absolutely no time for complacency. These extreme challenges are being pursued right now. They are not some lofty vision statements on a wall to be forgotten. I welcome you to take some lessons from Toyota's approach today. I know that I will.

Be looking for next month's newsletter that will detail the focus on people at AVEX, a tier two supplier to Toyota.

DRIVE is pleased to announce that we are hosting Japan study tours to AVEX, Toyota, and other manufacturers in Japan. The next trip is the week of May 7, 2017, with an October 2017 trip following. If you are interested in this facilitated learning event, or for more information click here. You can also contact Paul Eakle at 865-323-3491 or via e-mail at Paul.Eakle@DriveInc.com.

Some members of the DRIVE team in front of Toyota's headquarters building in Toyota City, Japan