

Title: Toyota Heavy Duty – Toyota Lean Management Transformation (So Far...)

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BACKGROUND

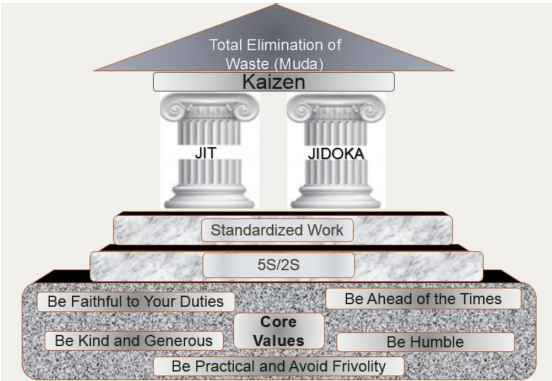
In April 2019, Toyota Industries North America, Inc. acquired Hoist Liftruck Mfg., LLC to expand the offering of the Toyota Heavy Duty (THD) product line of Toyota Material Handling. The integration of Toyota Lean Management (TLM) into the East Chicago, Indiana factory was the primary strategic initiative aimed to integrate the business into the Toyota family and improve business performance.

TOYOTA LEAN MANAGEMENT INTRODUCTION

The Toyota House visually represents the standard for Toyota Lean Management implementation. The implementation of TLM at THD followed this path closely, but it is important to note that maintenance and improvement of even foundational elements must continue to ensure Lean Management is sustainable.

Important milestones:

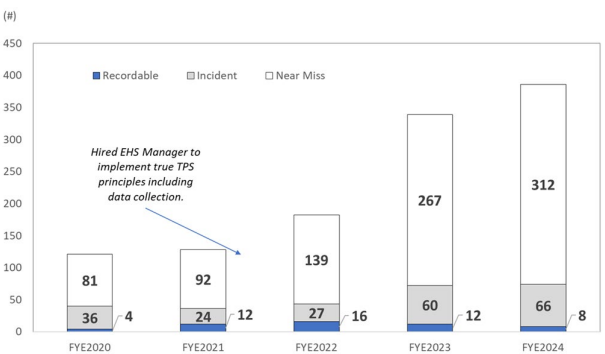
- 1) Toyoda Precepts (Core Values) training was introduced immediately to THD employees after the acquisition was completed to ensure associates understood their importance at Toyota.
- 2) Incorporation of Toyota associates into leadership occurred at the start of the transition. A senior manufacturing leader and a TICO expatriate (TPS mentor) were brought onto the leadership team as TLM champions to ensure coaching was occurring during the integration.
- 3) 5S / 2S concepts were introduced and received on-going prioritization and monthly communications coming from the Japanese coordinator. Lighting and restroom facility improvements were notable focus points early in the journey to highlight the impact of simple improvement on the work environment.
- 4) Process metrics and morning asaichi meetings were implemented to improve communication about process performance, improvement opportunity identification
- 5) Hoshin kanri was introduced to better align improvement efforts with company strategy
- 6) Introduction of flow assembly and standardized work to production lines with consistent demand occurred next. The introduction of production planning was possible once the production process was standardized and flowing.
- 7) A kaizen suggestion program was begun in September 2020 to help identify, prioritize, and successfully implement continuous improvement ideas from associates
- 8) A product engineering team was created and grown to improve manufacturing processes and better align product designs with manufacturability best practices.



RESULTS (SO FAR)

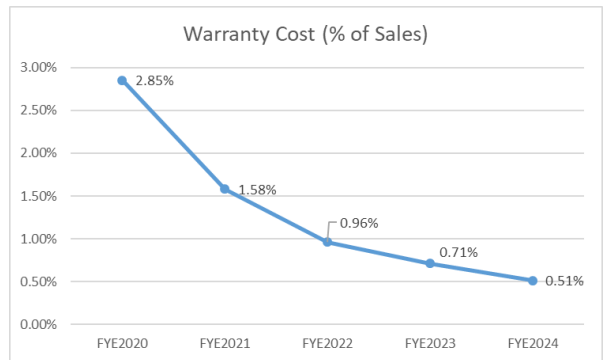
Safety:

- Improved near miss and minor incident reporting 323% in five years.
- Decreased recordable incidents by 50% from FYE22 to FYE24
- Improved TCIR by 38% from FY22 to FY24



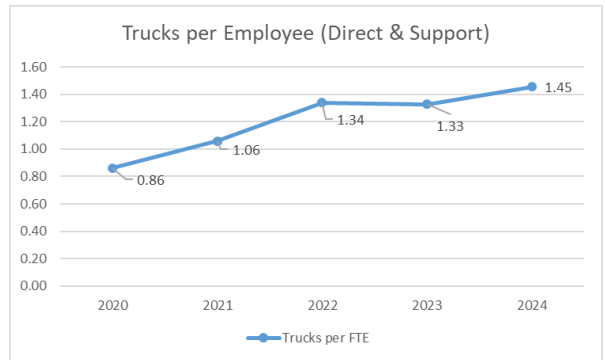
Quality:

- Decreased warranty cost by 82% from FY20 to FY24



Productivity:

- Increased throughput by 75% while reducing headcount by 31% in production from FY19 – FY24.
- Improved productivity per full time employee 168% from FY20 to FY24

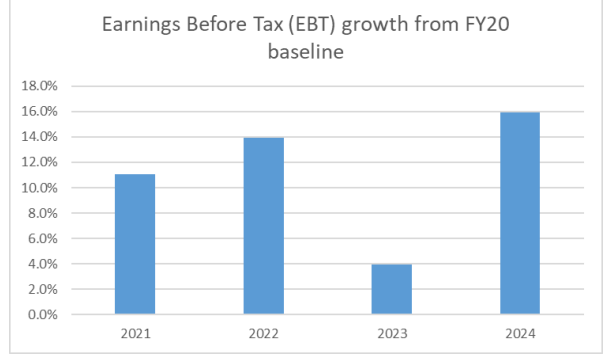


Engagement:

- Improved annual engagement score by 18% from FY23 - FY24. (Not measured previously)
- Decreased turnover by 28% from FY22 - FY24.

Profit:

- EBT trending positive and improved significantly from FY20 baseline. (FY23 deterioration caused by substantial component cost increases after quotation completed.)



NEXT STEPS

Obviously, significant improvements in safety, productivity, and associated profits have been realized. There are still improvement opportunities for safety, quality, productivity, cost, delivery, and morale. Priorities for continued improvement will be pursuit of TLM “True North” to reduce safety incidents to zero, deliver 100% on-time, and zero <40hr warranty claims. THD recently expanded their quality engineering team to ensure that adequate resources are in place to drive customer quality improvements.