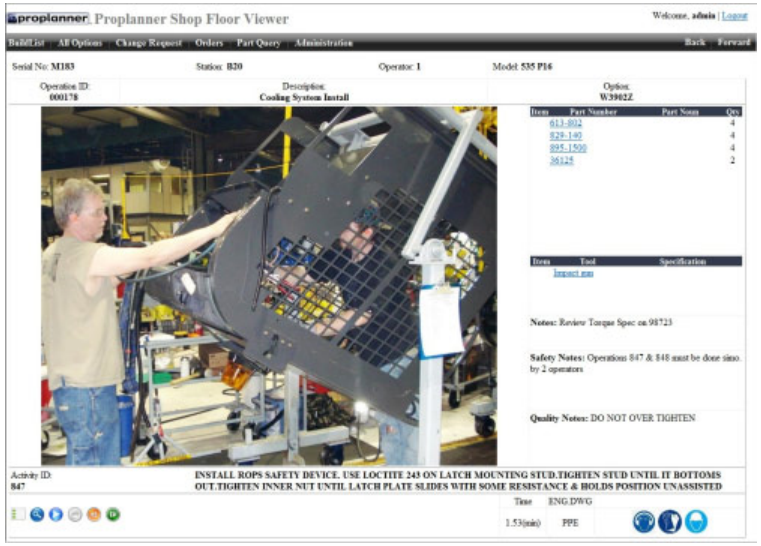
Case Study – Heavy Duty Vehicle Mfg Plant

- Purpose/Scope:
  - A major heavy equipment manufacturer was implementing Lean Transformation principles to:
    - Improve Safety
    - Improve Work Environment
    - Improve Quality
    - Expand Process Flexibility
    - Eliminate Waste in Every Area
    - Upgrade the Skills and Knowledge of the Workforce
    - Change the Manufacturing Culture
- Results:
  - The project was specifically focused on assembly- increased capacity and efficiency. It provided the opportunity to integrate other improvements as the new equipment/systems were put in place.
  - Systems included: Assembly Planner (process planning), Shop Floor Viewer (process execution and tracking), ToolsNet (MES), PFMEA (Quality) and associated facility improvements (lighting, overhead rail, new paint, new tools, ergo mats, lift devices, Andons, etc.)
  - Certified shop floor workers on elements of safety, quality and productivity for four phases: from Fundamental Skills, Elemental Skills and Standardized Work Introduction to Production Line Readiness (One Cycle at Takt Time), as well as manufacturing engineering staff on new process and engineering change systems.
  - Integrated product, process and enterprise systems to facilitate change quickly and accurately.
- Recommendations/Benefits:
  - Safety/Ergonomic: ***31% reduction in Incident Rate***, 5 Million hours without an incident and counting……
  - Quality: ***93% defect reduction***
  - Cycles within Takt Time: ***36% Increase*** (60% to 96%)
  - Operator Utilization: ***39% Increase*** (43% to 82%)
  - Workforce Efficiency: ***18.3% improvement***
  - Hard Cost impact: $30.4M in savings
  - Anticipated ***7 month payback***

Facility Improvements:

Work Instructions:



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