

# A3 Report

Title: DOT and DRC Truck Assembly Kaizen

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Current Date: 05/19/2017

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## P1: Why Change is Needed

**Why are we doing this?** There is not a set, standardized production schedule of vehicles to be worked on. Also, staff shortages and an inefficient stocked materials inventory results in long delays when inmates assemble the trucks.

### What needs to change?

A uniform, consistent number of new trucks needs to be on the production line continuously. A consistent procedure needs established for refurbished trucks to have a complete scope of the work to be completed. Reduce production time.

**Scope** Process begins when the trucks are delivered to CCI. Process ends when the vehicle passes final inspection as 100% complete and outside of CCI gate.

## P4: Analysis

Action plans need to be created to address the following areas: lack of storage space for inventory and tools and equipment, limitations in the CCI facility that cause delays in production, issues around tool control - not enough tools available, not the right tools, inmates can't share tools, etc., purchasing is done quarterly and materials are not available when needed and too much paper used in current process.

## P2: Current State



## P5: Potential Solutions

Brainstormed over 70 potential solutions in the following categories: communication, HR / staffing issues, technology, tools and equipment, technology, inventory and purchasing. Team identified top 3 to 5 ideas in each category and listed what the largest payoffs would be if implemented and also the challenges to implement. Team broke into 3 separate groups and redesigned the process and then reviewed which areas were unique and common between each group. Identify a standard production time on new and refurbished trucks in order to identify bottlenecks and align appropriate resources. Decrease errors made in the refurbished and new truck production process. Reduce % of rejected trucks at final inspection.

## P3: Future State

- Centralized Inventory** - materials in one place
- On-Demand Inventory** - real time inventory better tracking parts/tools/equipment
- Blanket Purchasing** - fewer delays with advance planning using DOT materials contract
- Individual Tool Boxes** - less cost after initial purchase (lifetime warranty), customize tool boxes for job
- Communication** - Daily and monthly communication with staff and DOT results in visibility, transparency and less confusion
- Facility Modification** - more space to work, improved buildings restructure

## D6: Action Plan

Action item:	Assigned to:	Due Date
Daily meeting (manager/staff)	DRC	May-17
Monthly Meeting	DRC/DOT	May-17
Secure Outside Line	DRC	May-17
Facility Modification (discussion)	DRC/DOT	May-17
Standard Policy between Mod Shops	DRC	Jun-17
Individual Tool Box (customized)	DRC	Aug-17
Blanket Purchase Order	DRC/DOT	Aug-17
Centralized Inventory Location	DRC/DOT	Oct-17
Training on New Inventory System	DRC/DOT	Dec-17
Implement New Inventory System	DRC/DOT	Mar-18

## C7: Check Results

	Current	Projected	Change
Decision points	7	3	4
Handoffs	10	7	3
Delays	15	3	12

## C7: Check Results

Less cost of tools after initial purchase (lifetime warranty). Better quality and updated tools to work with. Less wasted inventory by having a centralized and better system to track inventory, less paper in the process with the new inventory tracking. Fewer delays and flow interruptions with advanced planning and prep upfront and using DOT's Blanket PO for materials. Open communication lines to be more visible, transparent and have less confusion.

## A8: Follow-up Action

A standard policy between OPI mod shops. Training in new inventory system. Send notification when MOD shop is closing for day. Combine Machine and Fab shops. Use of radio communication system/secure outside line. Remove wall between Fab and VA shops. Change Weld school location. Consolidate OPI inventory and integrate Global Solutions System. Follow-up with LeanOhio.