

Team 1 Work and Material Planning and Shop Floor Control

Executive Summary

The purpose of this project was to study the process at Workcenter 710 of the Q400 assembly process and to identify the critical parts involved with devise methods to manage these parts in such a manner that promotes speedy delivery to the line. This process motivated us to do research in different departments like Receiving, Inspection, Put-away, Stores, Bay 6, Fabrication Shop and Buyers on which WorkCenter 710 was dependent for the timely delivery of the critical path parts. The entire supply chain process had to be understood and analyzed. Using tools like Value Stream Mapping and the data collected from each department, several solutions were devised. These solutions were shown using Kaizen Bursts in the Current State Diagram of Value stream map. Apart from that, some other solutions have been provided which are out of scope. One of the solutions provided by the team is the tool to foresee possible delays in the arrival of parts from suppliers much before the production date. Also, a Plan for Every Part was designed to accurately track the movement of parts with the supplier performance. Other changes in the ERP system, labelling, invoice formats, parts management in the Stores has been recommended with few changes in the Receiving, Inspection, Put-away and Picking departments. These solutions were prepared after extensive discussions both among the team members and Bombardier team. Employees working in the Receiving, Inspection, Put-away, Stores, Picking and WorkCentre planners were approached repeatedly for data and even personal comments on how to improve the system. All the data and feedback provided by the employees were taken into account while preparing the final set of solutions. The prioritization of the solutions was made after consulting Bombardier on the basis of current potential for change and need in the short term.