



# Problem Solving

## Overview

High levels of downtime and low OPR on an Engine Installation process in an automotive Assembly Shop, comprising a bottleneck affecting the throughput of the whole Shop.

Request from senior management to study, analyse and resolve the problem.

## Project Solution

- Spent time to observe the process and document my findings.
- Broke down the types of downtime problems into 4 main issues.
- Generated KPI to track the issues, such that measurable improvements could be determined.
- Engaged the production supervisor, team leaders and team members from the process area on both shifts.
- Set up a local information board to provide visualisation of the problems and actions.
- Formed a small team comprising two maintenance technicians to work on the equipment issues identified by my analysis and an engineer to support the technicians with procurement of materials and fabrications / modifications.
- Worked with production to strengthen Standardised Work documentation and to retrain the team to follow the new elements.
- Reset all equipment variables to standard default settings to give a valid starting point for adjustments.
- Introduced colour coding of jigs to eliminate use of incorrect jigs per engine type.
- Implemented paint marks for easy identification of loosening fasteners, flow valve positions & standard pressures on gauges plus wear indicators for pads, liners, etc.
- Set up TPM to enable Production to easily identify wear & tear issues before problems ensued, using the visual indicators implemented and allocated a maintenance member to take ongoing ownership of the process to respond to Production concerns raised as a result of the TPM.

## Results

Daily track of downtime and OPR on both shifts:

- Downtime: avg 67 to 15 mins per week = 78% reduction
- OPR: avg 92.3 to 98.2% = 6% improvement

First Time Correct:

- 1st Time Correct: 50% Improvement
- All severe and critical issues eliminated

