Lean Maintenance: A Practical, Step-By-Step Guide for Increasing Efficiency

Introducing the new book by Javier Girón Blanco and Torsten Dederichs

The idea for Lean Maintenance: A Practical, Step-By-Step Guide for Increasing Efficiency came to us after years of conducting improvement projects in factories. These projects typically included a 'production' and 'maintenance' workstream, with the maintenance workstream covering productivity improvement, backlog management and organizational effectiveness. We always used Lean principles in our projects to achieve results, and, during the projects, we regularly noticed that people in the maintenance departments had little or no exposure to Lean manufacturing methods. So, one afternoon, we asked ourselves, "Wouldn't it be nice if there were a hands-on book, written in down-to-earth language, that explained how to apply Lean principles to maintenance?" We did some research and found that, while there were many books about implementing Lean manufacturing principles in different business processes, there were not many that showed how to apply them to industrial – or plant – maintenance.

We realized that the maintenance work carried out every day in factories around the world is typically inefficient – at least from a Lean perspective. Time is wasted, different tasks are not properly coordinated, job durations are overestimated, and job plans (when they exist) are 'inflated' to cover up the inefficiency. In addition, an ever-growing maintenance backlog makes people believe they need more resources, while inefficient processes use up those scarce resources. To top it off, maintenance seems to be a 'black box'. Although some key performance indicators (KPIs) exist, they typically only track the maintenance budget, and there is no systematic way to track the efficiency and effectiveness of the maintenance process.

Maintenance tends to be an area that is forgotten about when it comes to efficiency within industrial companies, as many of the improvements are carried out within the (literally) productive areas of the factories. When companies set out to improve maintenance, they typically do this through budget cuts. If the budget for maintenance is reduced significantly, this can reduce the reliability of the assets.

This book aims to provide maintenance managers and practitioners with the Lean tools and methods they need to quickly improve efficiency.

We show the reader how to:

- Get more work done with the same number of resources, or fewer (helping you save money)
- Improve the working atmosphere by simplifying work
- Improve communication between production and maintenance
- Introduce tools to measure performance
- Get started with improvement: it is a pragmatic, step-by-step process
- Achieve results in a matter of weeks, without monetary investments

The book is written like a workbook (hence the words 'step-by-step guide' in the title) that is to be used when conducting an improvement program. It has the following structure:

- We introduce the concepts of Lean and their application to maintenance, before describing how the ideal Lean maintenance process covers the following six steps: (1) writing good maintenance notifications; (2) selecting and prioritizing work; (3) planning; (4) scheduling; (5) executing jobs productively; and (6) providing feedback and managing performance. The productive job execution chapter introduces 'wrench time' and two measurement methods – activity sampling and detailed observation.
- We show the reader how to conduct a facts-based diagnosis of their maintenance process. The diagnosis covers both analytical work and shop floor observations.
- Important topics for planning the improvement program are covered – e.g. developing a communication plan and involving the workers' council.
- Across six chapters, we outline how to improve each of the six steps of the ideal maintenance process.
- In the final chapter, we discuss sustaining the results.
- In the appendix, we provide a detailed description of selected Lean tools for maintenance, covering what it is, when to use it, how to use it, and dos and don'ts.

If you're thinking "Why should I buy this book over others?", then here are just a few reasons:

- Reading our practical book is like going through a case study of improvement for your own business, with exercises and pragmatic, results-oriented improvement steps.
- You can immediately start applying the concepts and get results in a matter of weeks. No monetary investments are needed, and no new IT systems are required.
- The book uses conversational, down-to-earth language, so it's designed to be as clear as possible. We wanted it to be like receiving expert advice from a friend. We have made a special effort to present the concepts in the simplest and most effective way to engage you and get you started with the improvement journey straight away.

The book is available in hardback, paperback and Kindle formats on amazon here.