

ABSTRACT

CV XYZ is a repair, modification and production company for heavy ship operating equipment and mining equipment. As a manufacturing company, CV XYZ is very dependent on production conditions which are very important for carrying out the production process. Based on observations made at CV XYZ has had many incidents where machines were damaged while in operation, so the production process had to be stopped because machine repairs were not carried out preventively. The main cause of this problem is the lack of optimal maintenance of production machines. These machines have been damaged due to not receiving the necessary routine maintenance, and this has had a significant impact on the efficiency and performance of the entire production process. The aim of this research is to design a Standard operating Procedure (SOP) for machine repair and maintenance in accordance with the requirements of ISO 9001:2015 clause 7.1.3 and Maintenance Engineering Theory. The method used in this research is Business Process Management. This design was made based on the ISO 9001:2015 Clause 7.1.3 standard regarding infrastructure, as well as maintenance engineering theory. The result of this design is a Machine Maintenance and Repair SOP which is divided into two, namely preventive and corrective procedures. The results of this design also have a clear and well-structured process flow. With this design, it is hoped that the company can avoid unexpected damage, increase machine life, and ultimately, minimize the risk of production delays in the future.

Keywords: *Maintenance, Preventive, SOP, ISO, 9001:2015, production*