ABSTRACT

PT XYZ is one of the manufacturing industries that focuses on producing Steel Pipes and Concrete Pipes. One of the machines used in the Steel Pipe production line is a Cutting Machine with the highest frequency of downtime. To overcome this problem, Total Productive Maintenance (TPM) is a relevant method to be applied. Prior to the implementation of the TPM method, it was necessary to analyze the existing conditions of Cutting Machines using the Overall Equipment Effectiveness (OEE) method which is used as an indicator of the level of machine effectiveness. Based on the calculation results using the OEE method obtained a value of 46.77%, which means that the OEE value on Cutting Machines has not reached the Standard World Class value of 85%. The main factor that most influences the low value of OEE is Reduced Speed Loss with a loss percentage of 75.43% obtained from the calculation of Six Big Losses. The causes of these losses can be identified using fishbone diagrams on Reduced Speed Loss factors by considering four factors, namely man, spare parts, method and machine. After knowing the cause of the damage, efforts can be made to implement Total Productive Maintenance to improve the effectiveness of the Cutting Machine and reduce the losses that occur on the machine by carrying out four stages, namely preparation, introduction, implementation and consolidation & sustaining.

Kata Kunci: *Downtime*, Total *Productive Maintenance* (TPM), *Overall Equipment Effectiveness* (OEE), *Six Big Losses*, Diagram *Fishbone*