

ABSTRACT

One of PT XXX's products is the Air Brake System for trains. Furthermore, in this study, if it is mentioned Air Brake System, what is meant is a wind braking system for trains. Not all components of the Air Brake Sytem are made by PT XXX. According to data on the production of air brake system components produced by the Forging and Cast Division in 2018, the coupling head products ranked first in the highest number of defects, namely 26.49 products or as many as 1245 products from 24079 products produced. Therefore, this study focuses on improving the coupling head production process. This research is also more focused on improving the smelting process, because it is the source of the most defects, namely three types of defects in the form of freezing (BD), blow holes (BH) and slag inclusion (IT). To determine the proposed improvement of this study using the six sigma method. In the preliminary stage to determine the root permasation using Define, Measure, and Analyze. As already known above, at the define stage it was found that the smelting process was the most problematic process. Then in the measure phase, DPMO is 6639 with a sigma level of 3.97. So that at the analayze stage, it is found out that the root of the perimeter using the fishbone diagram is then made a priority using FMEA. Next is the improve phase. Starting from the RPN value obtained in FMEA. So that the proposal is in the form of providing a temperature gauge (infrared thermometer) and making an experiment on how long the heating time is needed until the ladle reaches 800 ° C, melting the liquid metal to the maximum point (1550 ° C) and increasing the led temperature to 900 ° C, provides a small ladle that is in accordance with the one time casting mold coupling head, making a buffer for the ladle during pouring. provides safety glasses with black glass.

Keywords : XXX, Coupling head, Defect, improvement , Six sigma.