

ABSTRACT

A company that is able to survive and compete effectively in an era of rapid industrial growth is companies that can produce good quality by optimizing the use of available resources include man, machines, materials, methods, information and work environment.

PT. Indonesia Nippon Seiki is one of the manufacturing industries that produces speedometer. In fulfilling customer satisfaction and desire for good quality speedometer, the company still faces the problem of product quality after used by the second customer. The percentage of defects for the speedometer product is quite high. The company has a target of 0.0050% defective products, however in fact in January 2011 – June 2012 the average percentage of defects that occurred was 0.0064%. The main causes of defect in the speedometer is the foreign material, the number reached 197 units from 1336 units in total number of defects. The company suspected one of cause of the defects that occurred was from the screw tightening process because foreign material was found derived from the process. Machine factor becomes the main focus in the reparation due to man, methods, and materials factor do not affect the defect occurred.

By using the product development process from Ulrich-Eppinger with 4 phases, that are planning, concept development, system level design, and detal design on screw tightening tool, this is expected to create improvements to the machine factor that can reduce product defect caused by foreign material.

Formulation of recommendation is based on data processing, analysis, and brainstorming with the company. It is intended to reduce / prevent foreign material defect caused by the screw tightening process. The recommendation given is design improvements to the screw tightening tool adapted to the existing conditions.

Keyword: the proposal of repairment, speedometer, product development, Ulrich-Eppinger