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Abstract:

In the present work, maintenance planning based on computer-aided preventive maintenance policy are introduced. The focus of this paper is on preventive maintenance activities. Preventive maintenance involves the repair, replacement, and maintenance of equipment in order to avoid unexpected failure during use. The aim of this study is to build the preventive maintenance program and is to improve system availability and maintenance resources. The preventive maintenance program results indicate that the availability and reliability have increased for three specifications M/C under investigation. For first Longitudinal Seaming machine, the result shows that the machine availability increases from ٧٥.٦ % to ٩٠.٣٤ %. While, machine reliability improves around ٣.٩٧ % for the proposed preventive maintenance. In case of second Longitudinal Seaming machine, as global results, about ١٤.٤% and ٤.٣١% of the machine availability and reliability are increased for the proposed preventive maintenance, respectively. In addition, the Rotary machine availability improves from ٨٦.٢٨٧ to ٩٢.٢١ % and the machine reliability improves from ٣.٩٥% for the proposed preventive maintenance. Moreover, obtained results showed that using such preventive maintenance program will eliminate the six big losses; time losses, setup and adjustment losses, idling and minor stoppages losses, lowering machine operational speed losses, scrap & rework losses and production startup losses.