

ERGONOMIC ANALYSIS OF MACHINE SHOP OPERATOR

1B S MHETRE.,

2P M KULKARNI.,

3P S MHETRE.,

4T P BELLE.,

5M A SAYEED,

6B D IRABATTI

1,2,3,4 Students, N B Navale Sinhgad College of Engineering, Department of Mechanical Engineering
Solapur,

5,6Professor, N B Navale Sinhgad College of Engineering, Department of Mechanical Engineering Solapur

ABSTRACT

It was noticed from the study and findings that in the small scale industries and the unorganized sector there is very little awareness about safety and ergonomics aspects, workers are unaware of musculoskeletal disorders. Present study is based on workers working in slotting section. Among the various work postures, restricted (awkward) postures were found to be associated with occupational risk injuries. A simplified procedure for discomfort identification through standard ergonomic tools and suitable working environment with necessary guidelines is proposed and demonstrated. Postures adopted during slotting operation are observed through photographs and manikin model in ergonomic design and analysis workbench module of CATIA V5 is developed with slotting machine. RULA analyses for various postures were evaluated and by modifying, improvements in result (postures of operator) were observed.

KEYWORDS: Ergonomics, ergonomic analysis, industrial workstation, ergonomic tools, musculoskeletal disorder, RULA Analysis, WMSD, Posture, CATIA