Paper ID: NITETMECH43

ANALYSIS OF MANUAL WELDING PROCESSES ADOPTED IN FABRICATION OF SEATING BENCHES WITH SPECIAL REFERENCE TO SOLAPUR CITY

Nadaf Akabarsaheb Babulal,
Associate Professor and Head,
Bharati Vidyapeeth. University ,Institute of Management , Solapur

V.V. Potdar
Prof. Mechanical Engineering Department,
A.G.P.I.T., Solapur.

ABSTRACT

A lot of research has been carried out for improving the welding processes which can be used to join the two or more surfaces. Hybrid laser arc welding, electron beam welding in air and Nano Foil joining are recent innovations in welding processes which are yet not accepted to the large extent. But still ,the old methods of welding operations has yet not been properly and fully adopted in small or in medium workstations carrying out fabrication work. There is a need for carrying a research in getting higher productivity and better quality with low cost in the welding processes adopted by these workstations. The workstations where manual welding processes are carried out has not been the attraction for the researchers which retains it at low skilled and poor welding operations. It is found that the welding joints used in making seating benches are of poor quality and a lot of dead stock of broken benches is lying on the top of almost all the educational institutes and even schools. The researcher has tried to carry out fault analysis in the welding processes adopted by the welders at the welding workstations for these benches. It has resulted in some surprising outcomes such as improper use of welding rods, current choice, welding joints, unskilled welders and methods of observing welding operations. The study resulted in suggested working methods to be adopted so as to improve the welding operations without increase in the cost.

KEY WORDS: Hybrid laser, arc welding, productivity, workstations, fault analysis