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TO STUDY OF SPOT WELDING AND CHARACTERISTIC

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STUDY ON SPOT WELDING AND CHARACTERISTIC

CHAPTER 4

CHAPTER 5

RESISTANCE SPOT WELDING (RSW)

1.Ø INTRODUCTION

Resistance spot welding, Fig. 1-19, passes an electric current through the metal. Resistance to the electrical flow heats the metal to welding temperature. The process is used to weld together two or more overlapping pieces. It is well suited to automatic welding. Spot welding is commonly used to join auto body sections, cabinets, and other sheet metal assemblies.

A step-down transformer converts fairly high voltage low amperage current to a low voltage high amperage current. The weld is made between two electrodes which preee the metals together. A large electrical current flows from one electrode through the metals to be welded together to the second elctrode.

These electrodes are special copper alloys which can carry the high current and still have Physical strength to operate under high pressures. The electrodes on small spot welders, used to weld thin materials, may be air cooled. Electrodes for welding thicker metals are water-cooled.

Resistance spot welding is controlled by the amperage, the electrode pressure, and the length of time the current flows. In an automatic spot welder, the operator sets the