SUMMARY

Renata Adrian Fatkhul, Department of Mechanical Engineering, Faculty of Engineering, Universitas Brawijaya, december 2015, *Effect of Electricity Current and Time Press at spot weld Toward Shear Strength for ST37 Steel*, Supervisor: Prof. Dr. Ir. Rudy Soenoko. M. Eng., Sc and Bayu Satriya Wardana. ST., M., Eng.

ST37 Steel is a metal alloy that is often used as the material of the car body manufacture in the automotive world. ease of use and the materials are easy to find is a better value steel of ST37. to apply, welded joints methods is often used to unify the material.

In this research, using a weld connecting two points on the steel plate st37 which aims to determine the shear strength of the connection by using variable as electricity current and pressure time during the welding process. currents used in this study was 100 A. 150 A and 200 A. and as press time is 2 s. 4 s. and 6 s. the pressure used on welding machines at 34.55 N / mm2.

Results from this study on different variables are stronger the electric current used to show the greatest shear strength are in a welding with highest currents. The shear strength values to the variable current strength of 221.42N / mm2 with current of 200 A. for emphasis time variable greatest shear strength contained in greatest emphasis time welding. The shear strength value on the time variable suppression of 226,95N / mm2 with a time of 6 s emphasis.

Keywords: Spot Weld. currents strength. PressTime. shear strength.