ABSTRACT

In the world of industrial measuring instrument is always required to carry out any work activities, heavy gauge one. Given this heavy gauge the weight of the material or material which could be known later processed weight. But so far the weight measuring devices that already exist and are used is relatively expensive. Thus, in this study is made of heavy gauge design using the load cell capacity of 300 kg, which have lower economic value.

To use this tool should be installed on the crane, which works using the principle of the forces acting on the wire ropes due to bear the load, so there is tension on the wire ropes. This results in pulling on the load cell through the active pulley. And of this attractive force will be processed by the load cell into an electrical signal, which will be forwarded to the display to be read as a weight scale.

From the test data showed that the maximum capacity due modifikasi reached 670 kg load cell exceeds the capacity of 300 kg previously. Then display that used to have limitations in reading. Expenses that can be read only have a range of 10 kg, so the burden does not berkelipatan 10 kg results will be rounded. And measuring the deflection of the changes that occurred in the load cell can not be seen because of the character of microns.

Key words : range; load; angle; load cell; wire ropes