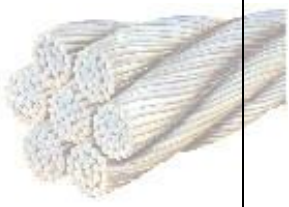
"Haggie Hints"



by George Delorme

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Addendum 2014

Haggie North America - Meeting your hoisting needs!

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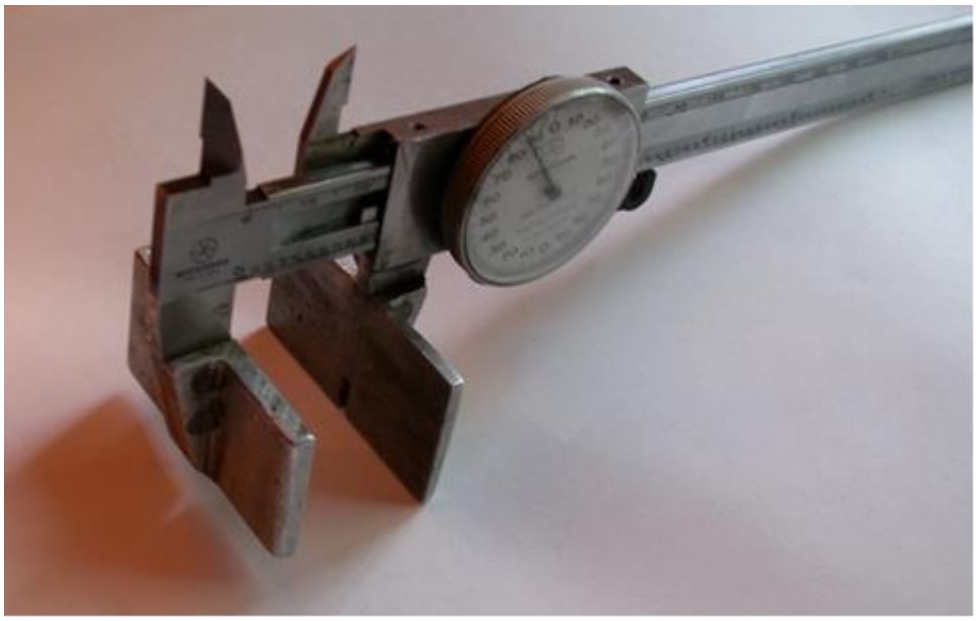
Measuring Rope Diameters

Since writing the original technical bulletin Issue #7 in 2004, we have improved the caliper to make it easier to obtain more consistent readings.

We thought it might be of interest to anyone responsible for acquiring these readings. The original caliper is shown below.

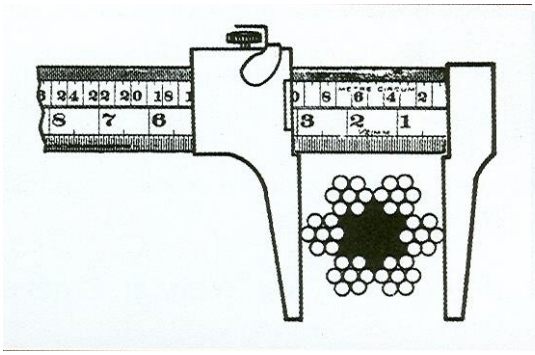


Our new caliper is an electronic digital version with a set of jaws that will extend over at least two adjacent strands and in our case, we have design it to measure the currently largest Underground Mining rope i.e. 2-1/2" diameter. The jaw length can be adjusted to suit the largest rope diameter being measured.

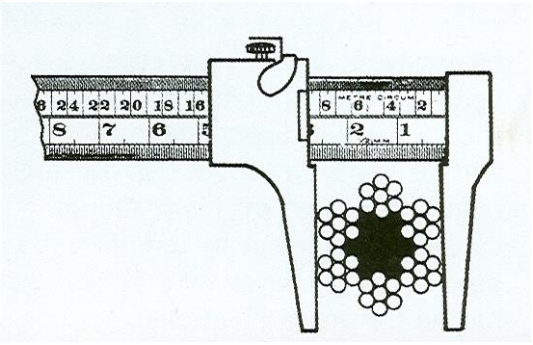
The realization that we required a modification came about when reviewing the CSA G4-09 standard that states:-

12.7.2
The actual diameter of the rope shall be measured over the extreme outer wires with a suitable calliper fitted with jaws of sufficient size to cover not less than two adjacent strands. The measurement shall be taken on a straight portion of the rope, which shall be under no load and under a load representing 15% of the minimum breaking load. Two measurements shall be taken at points spaced at least 0.91 m (3 ft) apart, and at each point two diameters, at right angles to the other, shall be measured. The average value of the four measurements at 15% of the minimum breaking load shall comply with the diameter requirements specified in Clause 7.1.2.

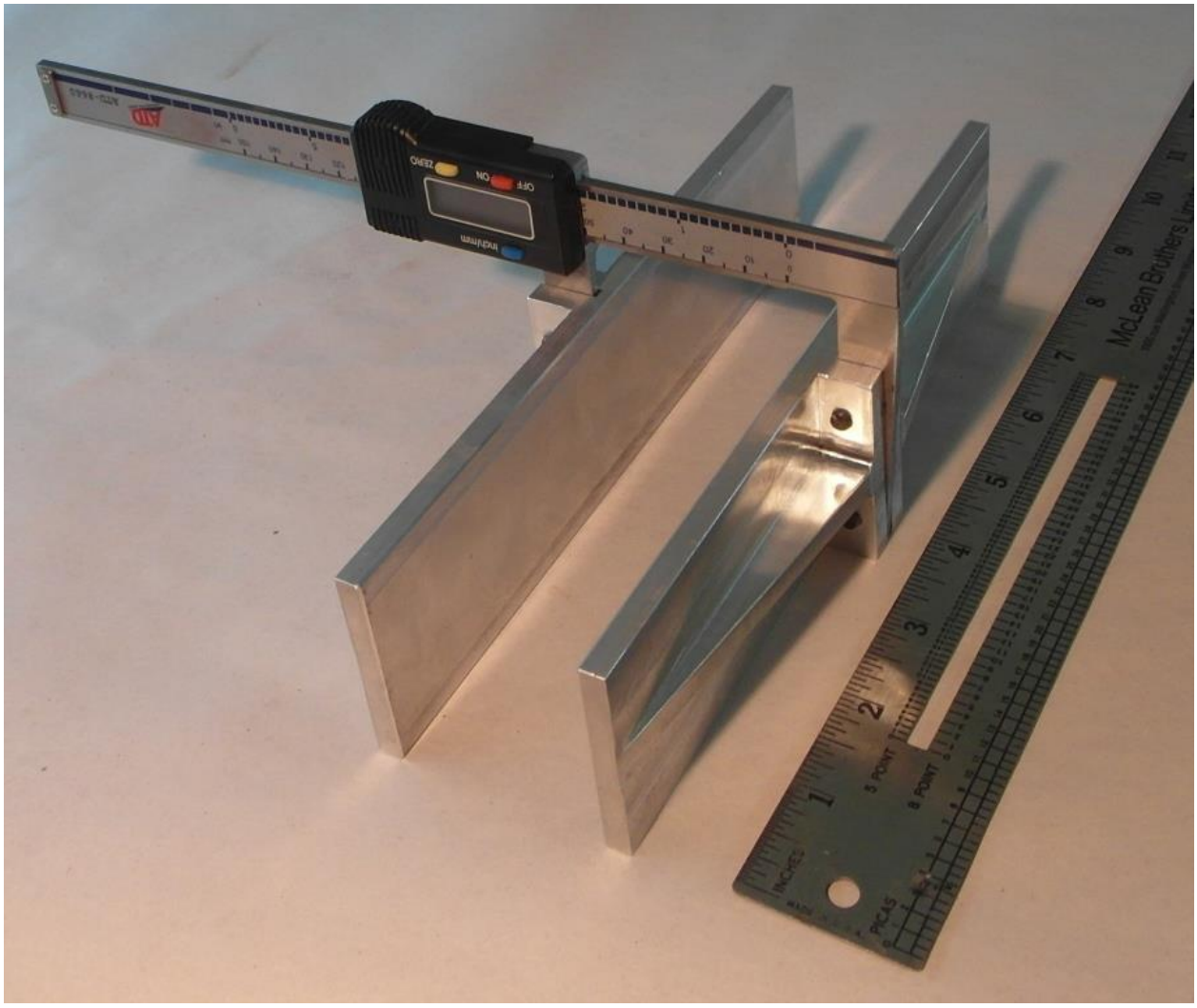
With the ability to measure over two adjacent strands, the common practice of recording a false minimum diameter is eliminated.



Correct Method



Incorrect Method



If there are any questions please feel free to contact us at any time.