

Strain gauge to measure bandsaw tension

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How do you make a strain gauge device that measures the strain (change in length) of a metal band by clamping the gauge device onto the metal band. The gauge would be an analog bridge strain gauge that would have to have pads that allow them to be clamped on the metal band, but the material that the gauge device was made of would have to have little effect on the total resistance to elongation of the band, since the band strain vs. force is what is being measured.

I know I could glue a strain gauge on the band itself to do the measurement, but I want to be able to mount and unmount the strain gauge on different bands.

The actual thing I am measuring is the tension in a bandsaw blade. I found I could buy a mechanical strain gauge to do the measurement, but find that I can buy a used strain gauge meter for much less and if I can make a gauge, I will have a strain gauge meter for use in other applications. Also, I believe it could potentially be more accurate also.

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