













Shown here is the expander head that I bolted onto my electromagnetic shaker.

In the COMSOL file you will see that I have attempted to approximate said shaking of my expander head by applying a 2kN harmonic (sinusoidal) force on the bottom surface of the expander. I chose 2kN because it is a round number well within the sinusoidal force capability of the shaker.

I then held fixed all the ring-like surfaces where the bolts clamp down on the expander

You will see that I am getting answers that jibe with reality, but I am new to this and appreciate any advice or critiques as proper methods. I feel I am missing something.