



Figure 3 : ANSYS modelling of resultant stresses from 10 kA boost coil current. Since the coil is symmetric about two axes, only the upper left quadrant of all sections is shown. Panel a) shows the largest displacement occurs in the center of the support beam with a maximum deflection of 50 microns. Panel b) illustrates that the largest stresses in the copper coil are 95 MPa Tresca stresses due to this coil deflection. Panels c) and d) show that the majority of the stress load is being taken by the cross straps and that it is concentrated at the inner hole with a peak value of 696 MPa.