

were calculated to be around 1,400 psi, with a strain of 0.2%. The failure criteria for the material are 9,000 psi or 2.4%, whichever comes first.

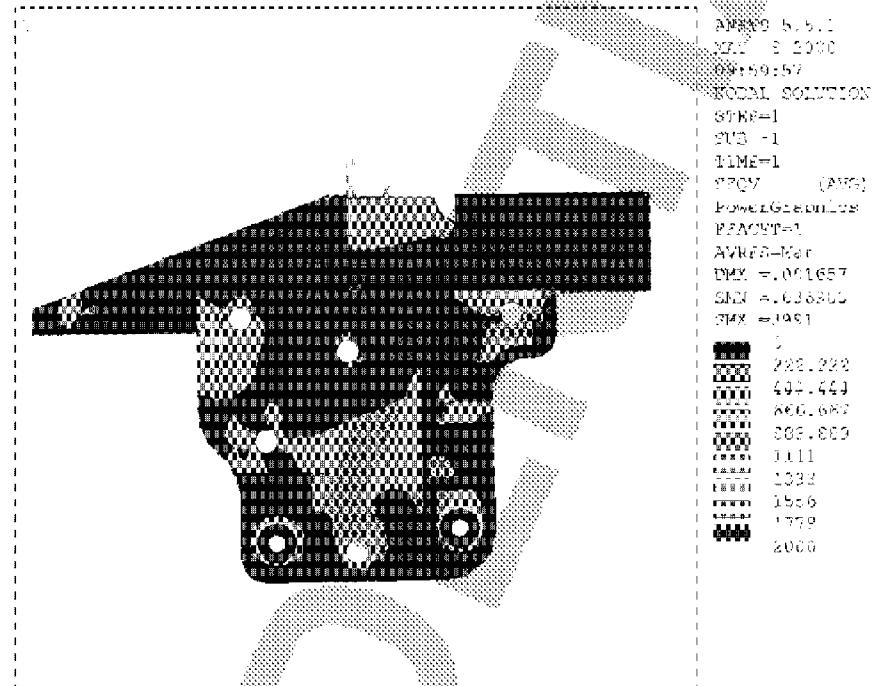


Figure 5. Von Mises stress distribution through receiver insert. (stress in psi)

Creep test. Figure 6 contains a graph of firing pin protrusion measured during the duration of the creep test. The firing pin protrusion dropped from 0.691 inches to 0.682 inches after the fixture had been in the chamber three hours. After that, the measurements fluctuated in a band between 0.684 inches and 0.6815 inches.