Refined STAGS model subtending 10 degrees of circumference. BIGBOSOR4 predicts that the maximum effective stress in Region 2 occurs in shell segment no. 11 and equals 115250 psi. (See part 3 of Table 61).

1.162E+05
1.094E+05
1.026E+05
9.585E+04
8.905E+04
8.226E+04

Shell segment 11

1.237E+05
1.162E+05
1.087E+05
1.012E+05
9.373E+04
8.624E+04
7.875E+04
7.125E+04
6.376E+04
5.626E+04
4.877E+04
4.128E+04
3.378E+04
2.629E+04
1.879E+04
1.130E+04

Crude 360-degree STAGS model

Optimized unstiffened equivalent ellipsoidal shell
PA= 1.0: applied external pressure = PA x 460 = 460 psi
step 10 fabrication system, seff, layer 2, inner fiber
nonlinear effective stress in shell skin - layer 2 inner fiber
eqellipse.unstiffened.opm4 with a -mode 1 imperfection, Wimp=-0.2 inch
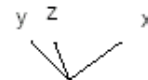
Θ x -35.84
Θ y -13.14
Θ z   35.63

8.118E+00

Fig. 90 STAGS models predicting **inner fiber effective stress, seff (psi),** in the externally pressurized, optimized **imperfect unstiffened** equivalent ellipsoidal shell with a **–mode 1** axisymmetric buckling modal imperfection (BIGBOSOR4 model in Fig. 74 and STAGS model in Fig. 76) with amplitude, Wimp=-0.2 inch. The refined STAGS model shown at the top of this figure presents converged results. The fringe plot of effective stress in the refined STAGS model shown at the top of this figure does not include conditions near the pole.