

Curved panel, yes edge warping, no axial bending, input data for STAGSUNIT listed in Table 12

PA= 1.00000E+01 PB= 0.00000E+00 PX= 0.00000E+00

step 22 fabrication system ,seff, layer 1, outer fiber

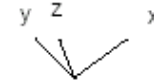
Fig.42 nonlinear effective stress-outer fiber; case=allennrgs4

Minimum value = 2.00361E+03, Maximum value = 8.19206E+04

Θ x -35.84

Θ y -13.14

Θ z 35.63



— 2.905E+00 —

Fig. 42 STAGS prediction of outer fiber effective stress at the design load, PA = 10.0 (Nx = -1000 lb/in) for a STAGS model in which in-plane warping of the panel skin along the four edges of the panel is permitted in the STAGS model. Overall axial bending is NOT permitted. (IBCX0XL = 1 in the *.STG file that, via execution of the PANDA2 processor, STAGSUNIT, generates the *.bin and *.inp input files for STAGS.) This figure is analogous to Fig. 36. Notice that the rather high maximum effective stress is partly caused by an apparent interaction of in-plane warping of the panel skin with the stress concentration along the stringer in the panel skin near the panel edge at x = 9.7793 inches.