- □ STAGS; soccerball; plastic strain component epsxx at centroid of element 223; bottom fiber
- STAGS; soccerball; plastic strain component epsxx at centroid of element 223; top fiber
 STAGS; soccerball; plastic strain component epsyy at centroid of element 223; bottom fiber
- STAGS; soccerball; plastic strain component epsyy at centroid of element 223; top fiber

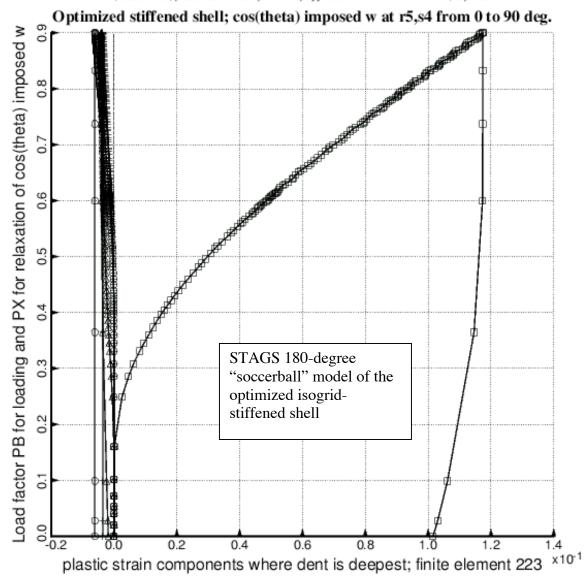


Fig. 274 The optimized isogrid-stiffened equivalent ellipsoidal shell; Wimp=0.2 inch; the optimum design is listed in columns 2 and 3 of Table 33. Extreme fiber meridional and hoop strain components in the stiffened shell during production of the "cos(theta)" residual dent displayed in Fig. 271. The Load Set B (PB,PX) load cycle corresponds to STAGS Run 1 followed by Run 3 followed by Run 4 in Fig. 270. These results are for the shell loaded by a cos(theta) imposed normal inward-directed displacement applied along Row 5 of Shell Segment 4 (Figs. 2. 169. 262, 271) from theta = 0 to 90 degrees. The reason why STAGS requires so many tiny steps during the loading phase (Runs 1 and 3) is unknown as of this writing. The tiny steps do not seem to be necessary when a "cos(theta)" imposed load distribution is used, as can be seen from Fig. 263.