Table 72 Input file, ***.BEG**, for the "**BEGIN**" processor for an equivalent **"perfect" unstiffened** equivalent ellipsoidal shell in which there is **one load set:**

Load set 1=+mode 1 and +mode 2 axisymmetric imperfections, one at a time
The input file name is "eqellperf.unstiffened.BEG".
Change the case name from "eqellperf.unstiffened" to "eqellperf" before processing. The shell has a very, very small initial imperfection with amplitude, Wimp=0.0001 inch. Only one load set is required because the margins corresponding to –mode 1 and –mode 2 would be identical to those corresponding to +mode 1 and +mode 2 axisymmetric imperfection shapes, since the amplitude of the buckling modal imperfection is so small. Compare with Table 35, for which there are two load sets.

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     n     $ Do you want a tutorial session and tutorial output?
       13  $ number of x-coordinates: npoint
       13  $ Number Ixinpu  of rows in the array  xinput: Ixinpu
  0.000000 $ x-coordinates for ends of segments: xinput( 1)
  2.554500 $ x-coordinates for ends of segments: xinput( 2)
  5.666450 $ x-coordinates for ends of segments: xinput( 3)
  8.753630 $ x-coordinates for ends of segments: xinput( 4)
  11.79770 $ x-coordinates for ends of segments: xinput( 5)
  14.77232 $ x-coordinates for ends of segments: xinput( 6)
  17.63477 $ x-coordinates for ends of segments: xinput( 7)
  19.63631 $ x-coordinates for ends of segments: xinput( 8)
  21.26065 $ x-coordinates for ends of segments: xinput( 9)
  22.70426 $ x-coordinates for ends of segments: xinput(10)
  23.86535 $ x-coordinates for ends of segments: xinput(11)
  24.54286 $ x-coordinates for ends of segments: xinput(12)
  24.75000 $ x-coordinates for ends of segments: xinput(13)
  24.75000 $ length of semi-major axis: ainput
  12.37500 $ length of semi-minor axis of ellipse: binput
       11  $ number of nodal points per segment: nodes
  17.63477 $ max. x-coordinate for x-coordinate callouts: xlimit
 0.4000000 $ skin thickness at xinput: THKSKN( 1)
 0.4000000 $ skin thickness at xinput: THKSKN( 2)
 0.4000000 $ skin thickness at xinput: THKSKN( 3)
 0.4000000 $ skin thickness at xinput: THKSKN( 4)
 0.4000000 $ skin thickness at xinput: THKSKN( 5)
 0.4000000 $ skin thickness at xinput: THKSKN( 6)
 0.4000000 $ skin thickness at xinput: THKSKN( 7)
 0.4000000 $ skin thickness at xinput: THKSKN( 8)
 0.4000000 $ skin thickness at xinput: THKSKN( 9)
 0.4000000 $ skin thickness at xinput: THKSKN(10)
 0.4000000 $ skin thickness at xinput: THKSKN(11)
 0.4000000 $ skin thickness at xinput: THKSKN(12)
 0.4000000 $ skin thickness at xinput: THKSKN(13)
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  0.000001     $ height of an isogrid stiffening member: HIGH1( 1)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 2)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 3)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 4)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 5)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 6)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 7)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 8)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 1)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 2)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 3)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 4)
  0.000001     $ height of an isogrid stiffening member: HIGH1( 5)
  9.000000     $ spacing of the isogrid members: SPACNG
 0.0000100     $ thickness of an isogrid stiffening member: THSTIF
0.2000000 $ thickness of the cylindrical shell: THKCYL
 24.75000 $ radius of the cylindrical shell: RADCYL
 0.000000 $ length of the cylindrical segment: LENCYL
0.0001000 $ amplitude of the axisymmetric imperfection: WIMP
0.160E+08 $ elastic modulus: EMATL
0.2500000 $ Poisson ratio of material: NUMATL
0.4155E-03 $ mass density of material: DNMATL
       2  $ strategy control for imperfection shapes: IMODE
       1  $ Number NCASES  of load cases (environments): NCASES
 460.0000 $ uniform external pressure: PRESS( 1)
 550.0000 $ allowable pressure for axisymmetric collapse:CLAPS1A(1)
 1.000000 $ factor of safety for axisymmetric collapse: CLAPS1F( 1)
 1.000000 $ allowable general buckling load factor: GENBK1A( 1)
 1.000000 $ factor of safety for general buckling: GENBK1F( 1)
       2  $ Number JSKNBK1 of columns in the array, SKNBK1: JSKNBK1
 1.000000 $ allowable buckling load factor: SKNBK1A( 1, 1)
 1.000000 $ allowable buckling load factor: SKNBK1A( 1, 2)
       1  $ factor of safety for skin buckling: SKNBK1F( 1, 1)
       1  $ factor of safety for skin buckling: SKNBK1F( 1, 2)
 1.000000 $ allowable for isogrid stiffener buckling: STFBK1A( 1, 1)
 1.000000 $ allowable for isogrid stiffener buckling: STFBK1A( 1, 2)
 1.000000 $ factor of safety, isogrid stiffner buckling:STFBK1F(1,1)
 1.000000 $ factor of safety, isogrid stiffner buckling:STFBK1F(1,2)
 120000.0 $ allowable stress for the shell skin: SKNST1A( 1, 1)
 120000.0 $ allowable stress for the shell skin: SKNST1A( 1, 2)
 1.000000 $ factor of safety for skin stress: SKNST1F( 1, 1)
 1.000000 $ factor of safety for skin stress: SKNST1F( 1, 2)
 120000.0 $ allowable stress in isogrid stiffeners: STFST1A( 1, 1)
 120000.0 $ allowable stress in isogrid stiffeners: STFST1A( 1, 2)
 1.000000 $ factor of safety, stress in isogrid member:STFST1F(1,1)
 1.000000 $ factor of safety, stress in isogrid member:STFST1F(1,2)
 0.700000 $ allowable normal displacement at apex: WAPEX1A(1)
 1.000000 $ factor of safety for WAPEX: WAPEX1F( 1)
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  550.0000 $ allowable pressure for axisymmetric collapse:CLAPS2A(1)
  1.000000 $ factor of safety for axisymmetric collapse: CLAPS2F( 1)
  1.000000 $ allowable general buckling load factor): GENBK2A( 1)
  1.000000 $ factor of safety for general buckling: GENBK2F( 1)
         2  $ Number JSKNBK2 of columns in the array, SKNBK2: JSKNBK2
  1.000000 $ allowable skin buckling load factor: SKNBK2A( 1, 1)
  1.000000 $ allowable skin buckling load factor: SKNBK2A( 1, 2)
         1  $ factor of safety for local skin buckling: SKNBK2F( 1, 1)
         1  $ factor of safety for local skin buckling: SKNBK2F( 1, 2)
  1.000000 $ allowable for isogrid stiffener buckling: STFBK2A( 1, 1)
  1.000000 $ allowable for isogrid stiffener buckling: STFBK2A( 1, 2)
  1.000000 $ factor of safety, isogrid stiffner buckling:STFBK2F(1,1)
  1.000000 $ factor of safety, isogrid stiffner buckling:STFBK2F(1,2)
  120000.0 $ allowable stress for the shell skin: SKNST2A( 1, 1)
  120000.0 $ allowable stress for the shell skin: SKNST2A( 1, 2)
  1.000000 $ factor of safety for skin stress: SKNST2F( 1, 1)
  1.000000 $ factor of safety for skin stress: SKNST2F( 1, 2)
  120000.0 $ allowable stress in isogrid stiffeners: STFST2A( 1, 1)
  120000.0 $ allowable stress in isogrid stiffeners: STFST2A( 1, 2)
  1.000000 $ factor of safety, stress in isogrid member:STFST2F(1,1)
  1.000000 $ factor of safety, stress in isogrid member:STFST2F(1,2)
 0.7000000 $ allowable normal displacement at apex: WAPEX2A(1)
  1.000000 $ factor of safety for WAPEX: WAPEX2F( 1)
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