Table 8 The input file, try4.BEG, for the GENOPT processor called “BEGIN”.

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n $ Do you want a tutorial session and tutorial output?

6000.000 $ length of the cylindrical shell: LENGTH

120.0000 $ inner radius of the cylindrical balloon: RADIUS

15 $ number of modules over 90 degrees: NMODUL

3 $ Number IEMOD1 of rows in the array EMOD1: IEMOD1

435100. $ elastic modulus, meridional direction: EMOD1( 1)

435100. $ elastic modulus, meridional direction: EMOD1( 2)

435100. $ elastic modulus, meridional direction: EMOD1( 3)

435100. $ elastic modulus, circumferential direction: EMOD2( 1)

435100. $ elastic modulus, circumferential direction: EMOD2( 2)

435100. $ elastic modulus, circumferential direction: EMOD2( 3)

167346. $ in-plane shear modulus: G12( 1)

167346. $ in-plane shear modulus: G12( 2)

167346. $ in-plane shear modulus: G12( 3)

167346. $ out-of-plane (s,z) shear modulus: G13( 1)

167346. $ out-of-plane (s,z) shear modulus: G13( 2)

167346. $ out-of-plane (s,z) shear modulus: G13( 3)

167346. $ out-of-plane (y,z) shear modulus: G23( 1)

167346. $ out-of-plane (y,z) shear modulus: G23( 2)

167346. $ out-of-plane (y,z) shear modulus: G23( 3)

0.3000000 $ Poisson ratio: NU( 1)

0.3000000 $ Poisson ratio: NU( 2)

0.3000000 $ Poisson ratio: NU( 3)

0.1000000E-09 $ meridional coef. thermal expansion: ALPHA1( 1)

0.1000000E-09 $ meridional coef. thermal expansion: ALPHA1( 2)

0.1000000E-09 $ meridional coef. thermal expansion: ALPHA1( 3)

0.1000000E-03 $ circumf.coef.thermal expansion: ALPHA2( 1)

0.1000000E-03 $ circumf.coef.thermal expansion: ALPHA2( 2)

0.1000000E-03 $ circumf.coef.thermal expansion: ALPHA2( 3)

-000.0000 $ delta-T from fabrication temperature: TEMPER( 1)

-000.0000 $ delta-T from fabrication temperature: TEMPER( 2)

-000.0000 $ delta-T from fabrication temperature: TEMPER( 3)

0.1000000 $ weight density of material: DENSTY( 1)

0.1000000 $ weight density of material: DENSTY( 2)

0.1000000 $ weight density of material: DENSTY( 3)

90.00000 $ height from inner to outer membranes: HEIGHT

8.000000 $ radius of curvature of inner membrane: RINNER

15.00000 $ radius of curvature of outer membrane: ROUTER

0.1000000 $ thickness of the inner curved membrane: TINNER

0.1000000 $ thickness of the outer curved membrane: TOUTER

0.1000000 $ thickness of inner truss-core segment: TFINNR

0.1000000 $ thickness of the outer truss segment: TFOUTR

0.1000000 $ thickness of each truss-core web: TFWEBS

1 $ Number NCASES of load cases (environments): NCASES

0.000000 $ pressure inside the inner membrane: PINNER( 1)

60.00000 $ pressure between inner and outer membranes: PMIDDL( 1)

5.00000 $ pressure outside the outer membrane: POUTER( 1)

1.000000 $ allowable for general buckling load factor: GENBUKA( 1)

3.000000 $ general buckling factor of safety: GENBUKF( 1)

5 $ Number JSTRM1 of columns in the array, STRM1: JSTRM1

10000.0 $ allowable stress in material 1: STRM1A( 1, 1)

10000.0 $ allowable stress in material 1: STRM1A( 1, 2)

10000.0 $ allowable stress in material 1: STRM1A( 1, 3)

10000.0 $ allowable stress in material 1: STRM1A( 1, 4)

10000.0 $ allowable stress in material 1: STRM1A( 1, 5)

1.000000 $ factor of safety for stress in material 1: STRM1F( 1, 1)

1.000000 $ factor of safety for stress in material 1: STRM1F( 1, 2)

1.000000 $ factor of safety for stress in material 1: STRM1F( 1, 3)

1.000000 $ factor of safety for stress in material 1: STRM1F( 1, 4)

1.000000 $ factor of safety for stress in material 1: STRM1F( 1, 5)

10000.0 $ allowable for stress in material 2: STRM2A( 1, 1)

10000.0 $ allowable for stress in material 2: STRM2A( 1, 2)

10000.0 $ allowable for stress in material 2: STRM2A( 1, 3)

10000.0 $ allowable for stress in material 2: STRM2A( 1, 4)

10000.0 $ allowable for stress in material 2: STRM2A( 1, 5)

1.000000 $ factor of safety for stress in material 2: STRM2F( 1, 1)

1.000000 $ factor of safety for stress in material 2: STRM2F( 1, 2)

1.000000 $ factor of safety for stress in material 2: STRM2F( 1, 3)

1.000000 $ factor of safety for stress in material 2: STRM2F( 1, 4)

1.000000 $ factor of safety for stress in material 2: STRM2F( 1, 5)

10000.0 $ allowable for stress in material 3: STRM3A( 1, 1)

10000.0 $ allowable for stress in material 3: STRM3A( 1, 2)

10000.0 $ allowable for stress in material 3: STRM3A( 1, 3)

10000.0 $ allowable for stress in material 3: STRM3A( 1, 4)

10000.0 $ allowable for stress in material 3: STRM3A( 1, 5)

1.000000 $ factor of safety for stress in material 3: STRM3F( 1, 1)

1.000000 $ factor of safety for stress in material 3: STRM3F( 1, 2)

1.000000 $ factor of safety for stress in material 3: STRM3F( 1, 3)

1.000000 $ factor of safety for stress in material 3: STRM3F( 1, 4)

1.000000 $ factor of safety for stress in material 3: STRM3F( 1, 5)

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