

Table 83 Input file, **egellipse.bin**, for STAGS for a nonlinear run in which a shell is being UNLOADED immediately following a run in which the shell was loaded into an elastic-plastic state by Load Set B with maximum load factor, PB=72966.9. Note that STEP(2) is negative, that FACM(2) is zero (indicating that we want to unload the shell completely), that NSTRAT = 0 (meaning "load control" rather than "path" (Riks) method), and that NSOL = 1 (solution is discontinuous from last run). STAGS will automatically and gradually resume solution extrapolation strategy as nonlinear solutions accrue. This file, in connection with the egellipse.inp file listed in Table 84, produced a residual deformed state such as that displayed in Fig. 165.

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optimized imperfect shell, nonlinear theory (INDIC=3)
3, $ INDIC=1 is bifur.buckling; INDIC=3 is nonlinear BEGIN B-1
1, $ IPOST=1 means save displacements every IPOSTth step
0, $ ILIST =0 means normal batch-oriented output
0, $ ICOR  =0 means projection in; 1 means not in.
1, $ IMPTHE=index for imperfection theory.
0, $ IOPTIM=0 means bandwidth optimization will be performed
0, $ IFLU  =0 means no fluid interaction.
-1 $ ISOLVR= 0 means original solver; -1 new solver.END B-1 rec
0.000E-02, $ STLD(1) = starting load factor, System A. BEGIN C-1 rec.
0.000E-02, $ STEP(1) = load factor increment, System A
0.000E+00, $ FACM(1) = maximum load factor, System A
72966.9, $ STLD(2) = starting load factor, System B
-200.0, $ STEP(2) = load factor increment, System B
0.0, $ FACM(2) = maximum load factor, System B
0 $ ITEMP =0 means no thermal loads. END C-1 rec.
26, $ ISTART=restart from ISTARTth load step. BEGIN D-1 rec.
500,$ NSEC= number of CPU seconds before run termination
12,$ NCUT = number of times step size may be cut
-20, $ NEWT = number of refactorings allowed
0,$ NSTRAT=-1 means path length used as independent parameter
0.00010,$ DELX=convergence tolerance
0. $ WUND = 0 means initial relaxation factor =1.END D-1 rec.
0, 0, 1 $ NPATH=0: Riks, NEIGS=no.of eigs, NSOL=1 = discontin.ET-1
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