

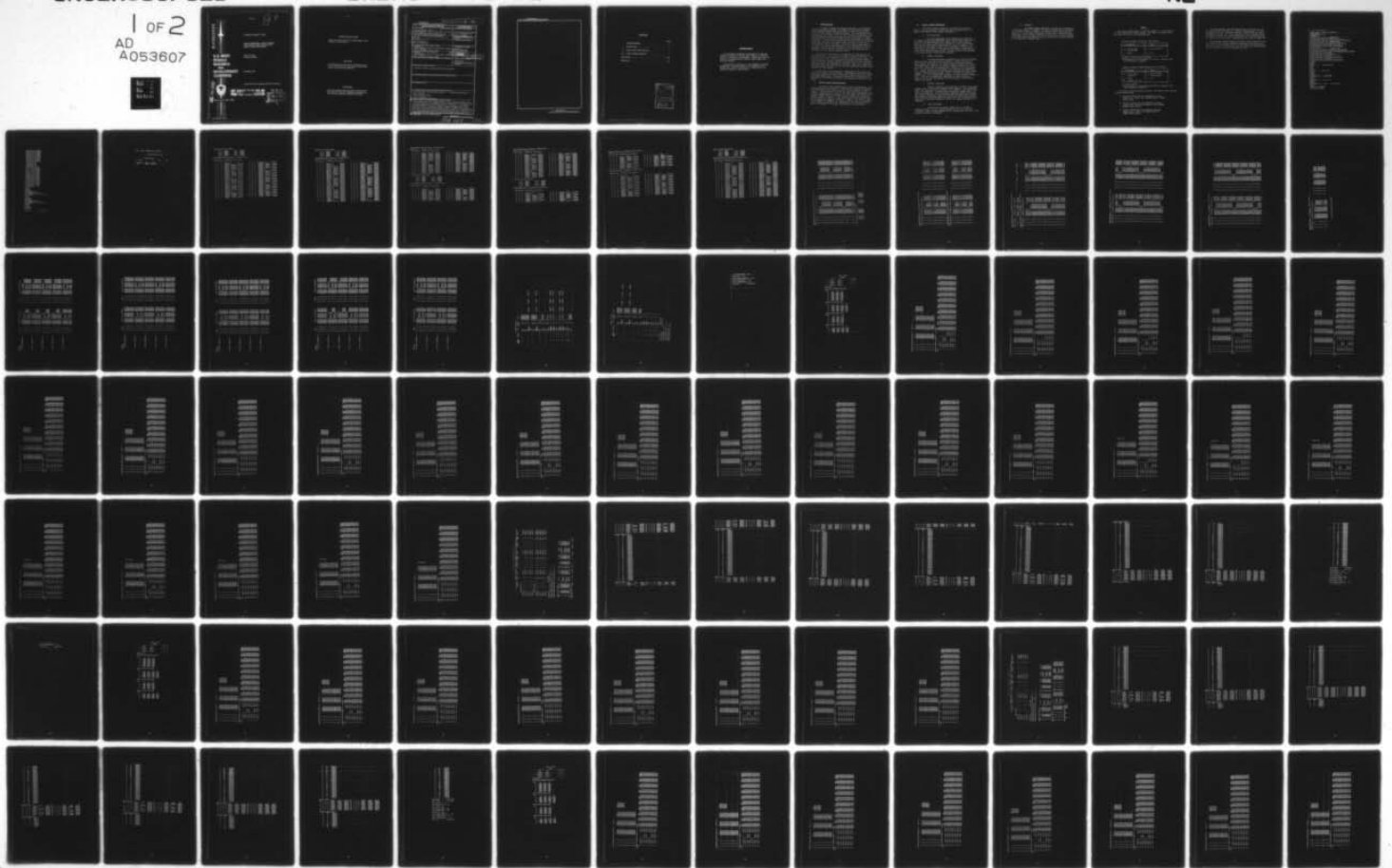
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**U.S. ARMY
MISSILE
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AND
DEVELOPMENT
COMMAND**

TECHNICAL REPORT T-78-18

THREE-DIMENSIONAL FINITE ELEMENT
ANALYSIS OF A SOLID PROPELLANT
GRAIN TRANSITION REGION

Robert M. Hackett
Propulsion Directorate

November 1977

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A three-dimensional finite element analysis of the transition region, from a star cross-section to a cylindrical bore cross-section, for a typical solid propellant rocket motor grain configuration is carried out. The recently developed TEXGAP-3D (Texas Grain Analysis Program, 3-Dimensional) static linear elastic stress analysis computer program is employed in the analysis. Two loading conditions, combustion pressure and thermal, are considered, along with corresponding transition interface displacements obtained from previous two-dimensional finite element analyses of the uniform grain regions.		

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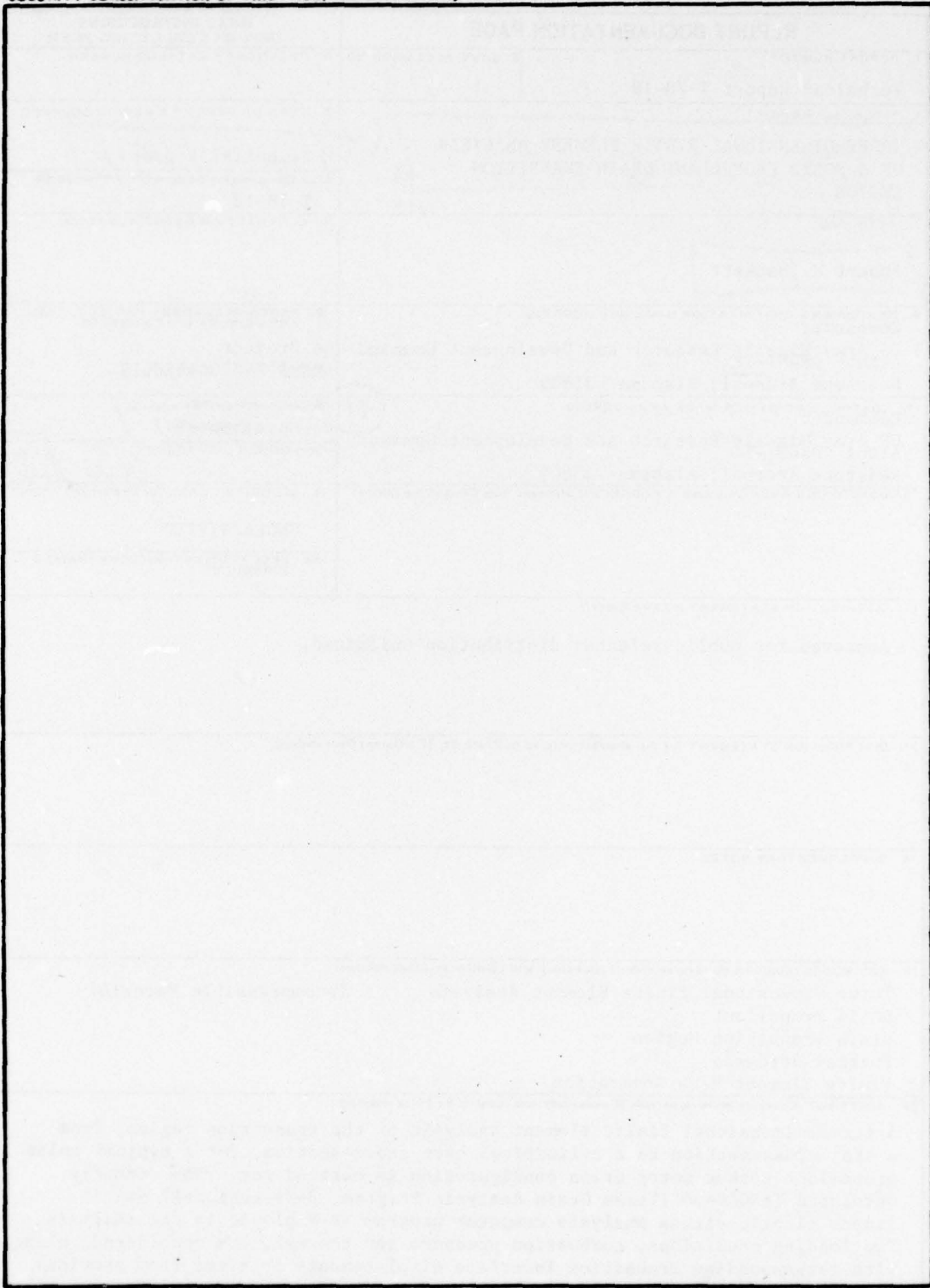
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ACKNOWLEDGMENT

The invaluable assistance of Don Martin in getting TEXGAP-3D operable on the CDC 6600 computer at Redstone Arsenal is gratefully acknowledged. Discussions with him relative to formulating the finite element model were also most helpful.

Appreciation is expressed to the MIRADCOM Propulsion Directorate - Redstone Arsenal, Army Research Office - Durham, and Battelle Laboratories - Durham Office for financial support of this project.

I. INTRODUCTION

In order to extend the analysis capability of the MIRADCOM Propulsion Mechanics Function, the TEXGAP-3D static linear elastic finite element computer code was obtained in July 1977 to be placed on the CDC 6600 computer at Redstone Arsenal. The development of the code evolved from a pilot effort in 1973, funded by Thiokol/Huntsville Division and more recently (the past two and a half years) has been sponsored by the US Air Force Rocket Propulsion Laboratory at Edwards, California. A short course on the TEXGAP-3D code, sponsored by Pacifica Technology, was held in Los Angeles the latter part of June 1977 at which time the code was released. Previous successful employment of the TEXGAP-2D computer code (developed by the same research group) by personnel of the Propulsion Mechanics Function primarily led to the decision to expend the effort necessary to get the TEXGAP-3D code operational on the Redstone computer system.

Once the code was adapted to the Redstone CDC 6600 computer and made operational, a task requiring a number of minor modifications to the obtained version of the code, a check-out procedure was begun. The check-out of the code involved running six classical check problems and two additional example problems and comparing the results obtained (computer output) with the results of computer runs (of the same problems) provided by the developers of TEXGAP-3D. Once these comparisons were made it was concluded that the code was operating correctly on the Redstone CDC 6600 computer.

At this point, the utilization of TEXGAP-3D for the purpose for which it was acquired was undertaken. The TEXGAP-3D analysis to which this report pertains is that of a transition region in a typical solid propellant rocket motor. The specific details of the analysis and a discussion of the results are given in the subsequent sections of this report.

II. ROCKET GRAIN CONFIGURATION

The rocket grain configuration is taken from Reference 1 and reproduced, in part, in Figure 1. Since only the transition region is to be considered, only that portion of the total geometry is shown in Figure 1. The transition is from a four-point star cross-section to a circular cylindrical bore cross-section. The region considered actually extends somewhat beyond (a distance of 0.463 inches) the transition region, as shown in Figure 1. Two slightly different star geometries are considered, as shown on Section A2 in Figure 1 and labeled I and II. Due to geometrical symmetry, as noted in Figure 1, and to the symmetry of the loading conditions to be considered, it was only necessary to model a 45° segment of the grain cross-section in the analysis.

III. FINITE ELEMENT MODELING

The finite element modeling of the transition region of Figure 1 will be discussed in detail and specific reference will be made to the TEXGAP-3D user's manual (Reference 2).

A. Grid Generation

The three-dimensional finite element grid system for the transition region was generated using a BLOCK command (Reference 2) to create a three-dimensional block region, such as that shown in Figure 2, the edges of which may be defined by a cubic interpolation. This permits a high degree of definition of curved boundaries. The eight corner points must be input, as per Reference 2, while points 9 through 32 (see Figure 2) not specified are located automatically by linear interpolation between corners. As many blocks as are necessary to accurately define a region may be generated.

B. Element Generation

The three-dimensional isoparametric 20 node brick element shown in Figure 3 was used in this analysis. As many bricks as are desired may be generated to fill the previously developed block(s). These elements are generated by a BRICK or BRICKH command (Reference 2). The BRICKH command employs a reformulated element (Reference 3) which takes into account near incompressibility (Poisson's ratio approaching 0.5). In this analysis the propellant grain elements were generated with a BRICKH command and the case elements were generated with a BRICK command. For both analysis models I and II, initially 16 propellant elements and 8 case elements were generated, as can be noted in Figures 4 and 5. The result of subsequent "rezoning" can also be noted in Figures 4 and 5, and this subject will be discussed a little further along in the report.

C. Boundary Conditions

Boundary conditions may be applied to element faces and/or element nodes. This is done through various commands, such as PRESSURE, SLOPE, etc. (Reference 2), along with a face number or node number (see Figure 3) designation. Various boundary condition commands were utilized in this analysis, and of particular importance were those displacement boundary conditions, taken from previous two-dimensional analyses (see Figure 6), which were applied at each end of the transition region. These will be mentioned relative to each of the separate analyses to be presented.

D. Post Processing

Various post processing commands may be utilized to compute stresses, strains and displacements at different points in an element. Some of these commands will be demonstrated when each of the separate analyses is presented.

E. Rezoning

The REZONE command (Reference 2) allows one to subdivide a coarse grid region of elements, for which a solution has been obtained, into a region of smaller elements, and thereby obtain a more accurate solution. A REPOS command (Reference 2) allows one to reposition nodal points when a better geometry definition is desired in a rezone analysis. The REZONE command was employed in this analysis and the rezoned regions can be observed in Figures 4 and 5.

MODEL I

The finite element model I is shown in Figure 4. It was analyzed for both pressure and thermal loading. The TEXGAP-3D computer input and output is shown on the following pages.

Pressure Loading - Firing at -53°C (-65°F)

Propellant	Case
$E_P = 1.31 \times 10^7 \text{ Pa}$ (19,000 psi)	$E_C = 2.07 \times 10^{10} \text{ Pa}$
$\nu_P = 0.499$	$\nu_C = 0.3$

pressure = 1425 psi ($9.83 \times 10^5 \text{ Pa}$)

Corresponding end displacements are shown on computer input and referenced to Figure 6.

Thermal Loading (2 Weeks Storage at -53°C (-65°F))

Propellant	Case
$E_P = 4.82 \times 10^5 \text{ Pa}$ (700 psi)	$E_C = 2.07 \times 10^{10} \text{ Pa}$ ($3 \times 10^5 \text{ psi}$)
$\nu_P = 0.499$	$\nu_C = 0.3$
$\alpha_P = 0.00089 \text{ in/in}/^{\circ}\text{F}$	

$T_0 = 60^{\circ}\text{C}$ (140°F)

Corresponding end displacements are shown on computer input and referenced to Figure 6.

The results of three analyses on Model I are shown on the following computer output sheets:

- 1) pressure loading with two sequential rezoning computations, without any repositioning of element nodal points;
- 2) pressure loading with two sequential rezoning computations, with repositioning of some boundary element nodal points;
- 3) thermal loading with two sequential rezoning computations, without any repositioning of element nodal points.

The first analysis, with rezoning near the cylindrical bore end of the transition (see Figure 4), yielded a maximum strain of 0.0231 in element 113 (IJK). The second analysis, with rezoning and repositioning near the star end of the transition, yielded a maximum strain of 0.0594 in element 339. The third analysis, with rezoning near the cylindrical bore end, yielded a maximum strain of 0.200 in element 333.

The following results consist of the full computer output for the first analysis (for element orientation purposes, in the interest of the reader), and abbreviated output for the second and third analyses. The first analysis is contained on pages 8 thru 94, the second on pages 95 thru 102, and the third on pages 103 thru 108.

LINE DIRECT LIST OF INPUT DATA

```

1 SFINOCYL - STAR TO CYLINDRICAL BORE TRANSITION (I)
2 SETUP,4,PRESCRIB
3 ISO,PROPELLANT,1,1.9E4,.499
4 ISO,CASE,2,3.E7,.3
5 END,MATERIALS
6 BLOCK-C,1, 1,1,1, 5,5,3, 7,.5 $ PROPELLANT NODES
7 .94,0,0, 2.447,0,0, 1.730,1.730,0, .665,.665,0/
8 .94,0,.463, 2.447,0,.463, 1.730,1.730,.463, .665,.665,.463/
9 10,2.430,.651,0, 12,.814,.470,0, 18,2.430,.651,.463, 20,.814,.470,.463/
10 22,2.180,1.258,0, 24,.908,.243,0, 30,2.180,1.258,.463, 32,.908,.243,.463/
11 BLOCK-C,1, 1,1,3, 5,5,7, 7,.5 $ PROPELLANT NODES
12 .94,0,.463, 2.447,0,.463, 1.730,1.730,.463, .665,.665,.463/
13 2.145,0,1.942, 2.447,0,1.942, 1.730,1.730,1.942, .665,.665,1.942/
14 10,2.430,.651,.463, 12,.814,.470,.463, 13,1.310,.973/
15 18,2.430,.651,1.942, 20,1.15,.33,1.942, 22,2.180,1.258,.463/
16 24,.907,.243,.463, 25,1.775,0,1.472, 30,2.180,1.258,1.942/
17 32,1.75,.33,1.942/
18 BLOCK-C,1, 1,1,7, 5,5,9, 7,.5 $ PROPELLANT NODES
19 2.145,0,1.942, 2.447,0,1.942, 1.730,1.730,1.942, .665,.665,1.942/
20 2.145,0,2.405, 2.447,0,2.405, 1.730,1.730,2.405, .665,.665,2.405/
21 10,2.430,.651,1.942, 12,1.15,.33,1.942, 18,2.430,.651,2.405, 20,1.15,.33,2.405/
22 22,2.180,1.258,1.942, 24,1.75,.33,1.942, 30,2.180,1.258,2.405, 32,1.75,.33,2.405/
23 BLOCK,2, 5,1,1, 7,5,3 $ CASE NODES
24 2.447,0,0,2.917,0,0,2.917,45,0,2.447,45,0/
25 2.447,0,.463,2.517,0,.463,2.517,45,.463,2.447,45,.463/
26 BLOCK,2, 5,1,3, 7,5,7 $ CASE NODES
27 2.447,0,.463,2.517,0,.463,2.517,45,.463,2.447,45,.463/
28 2.447,0,1.942,2.517,0,1.942,2.517,45,1.942,2.447,45,1.942/
29 BLOCK,2, 5,1,7, 7,5,9 $ CASE NODES
30 2.447,0,1.942,2.517,0,1.942,2.517,45,1.942,2.447,45,1.942/
31 2.447,0,2.405,2.517,0,2.405,2.517,45,2.405,2.447,45,2.405/
32 END,GRID
33 KLOOP,4
34 ILOOP,2
35 JLOOP,2
36 SPICKM,1, 1,1,1 $ PROPELLANT ELEMENTS
37 JEND
38 IEND
39 KEND
40 KLOOP,4
41 JLOOP,2
42 BRICK,2, 5,1,1 $ CASE ELEMENTS
43 JEND
44 KEND
45 KLOOP,4
46 ILOOP,3
47 BC,SLOPE,1,1,1, 5 $ 0 DEGREE FACE
48 BC,SLOPE,1,3,1, 2 $ 45 DEGREE FACE
49 IEND
50 KEND
51 JLOOP,2
52 BC,SLOPE,5,1,1, 6 $ END OF CASE
53 JEND
54 KLOOP,4
55 JLOOP,2
56 BC,PRESSURE, 1,1,1, 4,1.425E3 $ 1425 PSI PRESSURE
57 JEND
58 KEND
59 BC,UZ,1,1,1, 0,-2.184E-2
60 BC,UZ,1,2,1, 0,-2.184E-2
61 BC,UZ,1,3,1, 0,-2.184E-2

```

```

63 BC,UZ,1,5,1,1, 0,-2.184E-2
64 BC,UZ,2,1,1,1, 0,-1.630E-2
65 BC,UZ,2,3,1,1, 0,-1.630E-2
66 BC,UZ,2,5,1,1, 0,-1.630E-2
67 BC,UZ,3,1,1,1, 0,-1.092E-2
68 BC,UZ,3,2,1,1, 0,-1.092E-2
69 BC,UZ,3,3,1,1, 0,-1.092E-2
70 BC,UZ,3,4,1,1, 0,-1.092E-2
71 BC,UZ,3,5,1,1, 0,-1.092E-2
72 BC,UZ,4,1,1,1, 0,-0.546E-2
73 BC,UZ,4,3,1,1, 0,-0.546E-2
74 BC,UZ,4,5,1,1, 0,-0.546E-2
75 BC,UZ,5,1,1,1, 0.0
76 BC,UZ,5,2,1,1, 0.0
77 BC,UZ,5,3,1,1, 0.0
78 BC,UZ,5,4,1,1, 0.0
79 BC,UZ,5,5,1,1, 0.0
80 BC,UZ,1,1,9, 0,-.215E-2
81 BC,UZ,1,2,9, 0,-.266E-2
82 BC,UZ,1,3,9, 0,-.347E-2
83 BC,UZ,1,4,9, 0,-.435E-2
84 BC,UZ,1,5,9, 0,-.462E-2
85 BC,UZ,2,1,9, 0,-.200E-2
86 BC,UZ,2,3,9, 0,-.246E-2
87 BC,UZ,2,5,9, 0,-.304E-2
88 BC,UZ,3,1,9, 0,-.184E-2
89 BC,UZ,3,2,9, 0,-.206E-2
90 BC,UZ,3,3,9, 0,-.257E-2
91 BC,UZ,3,4,9, 0,-.317E-2
92 BC,UZ,3,5,9, 0,-.341E-2
93 BC,UZ,4,1,9, 0,-.160E-2
94 BC,UZ,4,3,9, 0,-.199E-2
95 BC,UZ,4,5,9, 0,-.230E-2
96 BC,UZ,5,1,9, 0,-.153E-2
97 BC,UZ,5,2,9, 0,-.153E-2
98 BC,UZ,5,3,9, 0,-.153E-2
99 BC,UZ,5,4,9, 0,-.153E-2
100 BC,UZ,5,5,9, 0,-.153E-2
101 END,ELEMENTS
102 SOLVE
103 POST
104 BLOCK
105 OPTION,2
106 END,POST
107 REZONE,1,1,3, 3,3,5
108 REFINE,GRADS,1,1,3, 2,2,2
109 BCR,REZONE,1,1,3, 2,2,2,2,2,2, 1,1,3
110 END,CONTROL
111 SOLVE
112 POST
113 BLOCK
114 OPTION,2
115 END,POST
116 REZONE,1,1,3, 3,3,5
117 REFINE,GRADS,1,1,3, 2,2,2
118 BCR,REZONE,1,1,3, 2,2,2,2,2,2, 1,1,3
119 END,CONTROL
120 SOLVE
121 POST
122 BLOCK
123 OPTION,2
124 END,POST
125 STOP

```

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FINOCYL - STAR TO CYLINDRICAL BCRF TRANSITION (II)

MATERIAL PROPERTIES BY TYPES

ISOTROPIC MATERIALS

NO	MATERIAL	E	NU	ALPHA	RHO
1	PROPELLANT	.190E+09	.499E+00	0.	0.
2	CASE	.300E+08	.300E+00	0.	0.

GRADIENTS FOR NEXT BLOCK GENERATION

G(1) = .100E+01 G(2) = .100E+01
 G(3) = .100E+01 G(4) = .100E+01
 G(5) = .100E+01 G(6) = .100E+01
 G(7) = .900E+00 G(8) = .100E+01
 G(9) = .100E+01 G(10) = .100E+01
 G(11) = .100E+01 G(12) = .100E+01

MESH GENERATION BLOCK-C IN CARTESIAN COORDINATE SYSTEM 1
 FROM I J K 1 1 1 TO I J K 5 5 3

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	X	Y	Z	I	J	K	X	Y	Z
1	1	1	.9400E+00	0.	0.	1	1	2	.9400E+00	0.	.2315E+00
1	1	3	.9400E+00	0.	.4630E+00	1	2	1	.9221E+00	.1831E+00	0.
1	2	2	.9221E+00	.1431E+00	.2315E+00	1	2	3	.9221E+00	.1831E+00	.4630E+00
1	3	1	.8683E+00	.3595E+00	0.	1	3	2	.8683E+00	.3595E+00	.2315E+00
1	3	3	.8683E+00	.3595E+00	.4630E+00	1	4	1	.7816E+00	.5224E+00	0.
1	4	2	.7816E+00	.5224E+00	.2315E+00	1	4	3	.7816E+00	.5224E+00	.4630E+00
1	5	1	.6650E+00	.6650E+00	0.	1	5	2	.6650E+00	.6650E+00	.2315E+00
1	5	3	.6650E+00	.6650E+00	.4630E+00	2	1	1	.1317E+01	0.	0.
2	1	2	.1317E+01	0.	.2315E+00	2	1	3	.1317E+01	0.	.4630E+00
2	2	1	.1306E+01	.2595E+00	0.	2	2	2	.1293E+01	.2569E+00	.2315E+00
2	2	3	.1276E+01	.2535E+00	.4630E+00	2	3	1	.1234E+01	.5110E+00	0.
2	3	2	.1209E+01	.5095E+00	.2315E+00	2	3	3	.1176E+01	.4871E+00	.4630E+00
2	4	1	.1107E+01	.7398E+00	0.	2	4	2	.1074E+01	.7172E+00	.2315E+00
2	4	3	.1030E+01	.6583E+00	.4630E+00	2	5	1	.9312E+00	.9312E+00	0.
2	5	2	.8943E+00	.8943E+00	.2315E+00	2	5	3	.8471E+00	.8471E+00	.4630E+00
3	1	1	.1694E+01	0.	0.	3	1	2	.1694E+01	0.	.2315E+00
3	1	3	.1694E+01	0.	.4630E+00	3	2	1	.1690E+01	.3360E+00	0.
3	2	2	.1671E+01	.3323E+00	.2315E+00	3	2	3	.1646E+01	.3273E+00	.4630E+00
3	3	1	.1600E+01	.6626E+00	0.	3	3	2	.1565E+01	.6481E+00	.2315E+00
3	3	3	.1517E+01	.6242E+00	.4630E+00	3	4	1	.1433E+01	.9573E+00	0.
3	4	2	.1387E+01	.9261E+00	.2315E+00	3	4	3	.1322E+01	.8832E+00	.4630E+00
3	5	1	.1198E+01	.1198E+01	0.	3	5	2	.1147E+01	.1147E+01	.2315E+00
3	5	3	.1077E+01	.1077E+01	.4630E+00	4	1	1	.2070E+01	0.	0.
4	1	2	.2070E+01	0.	.2315E+00	4	1	3	.2070E+01	0.	.4630E+00
4	2	1	.2074E+01	.4124E+00	0.	4	2	2	.2059E+01	.4096E+00	.2315E+00
4	2	3	.2038E+01	.4054E+00	.4630E+00	4	3	1	.1966E+01	.8141E+00	0.
4	3	2	.1939E+01	.8029E+00	.2315E+00	4	3	3	.1899E+01	.7862E+00	.4630E+00
4	4	1	.1759E+01	.1175E+01	0.	4	4	2	.1723E+01	.1151E+01	.2315E+00
4	4	3	.1669E+01	.1115E+01	.4630E+00	4	5	1	.1464E+01	.1464E+01	0.
4	5	2	.1424E+01	.1424E+01	.2315E+00	4	5	3	.1366E+01	.1366E+01	.4630E+00
5	1	1	.2447E+01	0.	0.	5	1	2	.2447E+01	0.	.2315E+00
5	1	3	.2447E+01	0.	.4630E+00	5	2	1	.2457E+01	.4888E+00	0.
5	2	2	.2457E+01	.4888E+00	.2315E+00	5	2	3	.2457E+01	.4888E+00	.4630E+00
5	3	1	.2332E+01	.9657E+00	0.	5	3	2	.2332E+01	.9657E+00	.2315E+00
5	3	3	.2332E+01	.9657E+00	.4630E+00	5	4	1	.2085E+01	.1392E+01	0.
5	4	2	.2085E+01	.1392E+01	.2315E+00	5	4	3	.2085E+01	.1392E+01	.4630E+00
5	5	1	.1730E+01	.1730E+01	0.	5	5	2	.1730E+01	.1730E+01	.2315E+00
5	5	3	.1730E+01	.1730E+01	.4630E+00						

GRADIENTS FOR NEXT BLOCK GENERATION

G(1) = .100E+01 G(2) = .100E+01
 G(3) = .100E+01 G(4) = .100E+01
 G(5) = .100E+01 G(6) = .100E+01
 G(7) = .500E+00 G(8) = .100E+01
 G(9) = .100E+01 G(10) = .100E+01
 G(11) = .100E+01 G(12) = .100E+01

MESH GENERATION BLOCK-C IN CARTESIAN COORDINATE SYSTEM 1
 FROM I J K 1 1 3 TO I J K 5 5 7

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	X	Y	Z	I	J	K	X	Y	Z
1	1	3	.9400E+00	0.	.4630E+00	1	1	4	.1201E+01	0.	.0543E+00
1	1	5	.1543E+01	0.	.1203E+01	1	1	6	.1004E+01	0.	.1551E+01
1	1	7	.2149E+01	0.	.1942E+01	1	2	3	.9210E+00	.1831E+00	.4630E+00
1	2	4	.1131E+01	.2134E+00	.0489E+00	1	2	5	.1401E+01	.2430E+00	.1203E+01
1	2	6	.1671E+01	.2741E+00	.1556E+01	1	2	7	.1000E+01	.8044E+00	.1942E+01
1	3	3	.0677E+00	.3595E+00	.4430E+00	1	3	4	.9947E+00	.3520E+00	.0435E+00
1	3	5	.1162E+01	.3446E+00	.1203E+01	1	3	6	.1329E+01	.3371E+00	.1561E+01
1	3	7	.1456E+01	.3297E+00	.1942E+01	1	4	3	.7810E+00	.5224E+00	.4630E+00
1	4	4	.0277E+00	.4809E+00	.0301E+00	1	4	9	.0937E+00	.4394E+00	.1203E+01
1	4	6	.9596E+00	.3979E+00	.1567E+01	1	4	7	.1005E+01	.3564E+00	.1942E+01
1	5	3	.6650E+00	.6650E+00	.4630E+00	1	5	4	.6650E+00	.6650E+00	.0320E+00
1	5	5	.6650E+00	.6650E+00	.1203E+01	1	5	6	.6650E+00	.6650E+00	.1572E+01
1	5	7	.6650E+00	.6650E+00	.1942E+01	2	1	3	.1317E+01	0.	.4630E+00
2	1	4	.1513E+01	0.	.0489E+00	2	1	5	.1769E+01	0.	.1203E+01
2	1	6	.2029E+01	0.	.1556E+01	2	1	7	.2221E+01	0.	.1942E+01
2	2	3	.1305E+01	.2595E+00	.4630E+00	2	2	4	.1457E+01	.2412E+00	.0449E+00
2	2	5	.1656E+01	.3029E+00	.1203E+00	2	2	6	.1056E+01	.3240E+00	.1560E+01
2	2	7	.2013E+01	.3469E+00	.1942E+01	2	3	3	.1234E+01	.5110E+00	.4630E+00
2	3	4	.1310E+01	.4304E+00	.0409E+00	2	3	5	.1434E+01	.4891E+00	.1203E+01
2	3	6	.1552E+01	.4765E+00	.1564E+01	2	3	7	.1640E+01	.4636E+00	.1942E+01
2	4	3	.1100E+01	.7394E+00	.4630E+00	2	4	4	.1127E+01	.6979E+00	.0309E+00
2	4	5	.1160E+01	.6520E+00	.1203E+01	2	4	6	.1194E+01	.6852E+00	.1560E+01
2	4	7	.1211E+01	.5540E+00	.1942E+01	2	5	3	.9312E+00	.9312E+00	.4630E+00
2	5	4	.9137E+00	.9137E+00	.0327E+00	2	5	5	.0943E+00	.0943E+00	.1203E+01
2	5	6	.0723E+00	.0723E+00	.1572E+01	2	5	7	.0471E+00	.0471E+00	.1942E+01
3	1	3	.1694E+01	0.	.4630E+00	3	1	4	.1824E+01	0.	.0435E+00
3	1	5	.1995E+01	0.	.1203E+01	3	1	6	.2109E+01	0.	.1942E+01
3	1	7	.2296E+01	0.	.1942E+01	3	2	3	.1609E+01	.3360E+00	.4630E+00
3	2	4	.1787E+01	.3496E+00	.0409E+00	3	2	5	.1916E+01	.3634E+00	.1203E+01
3	2	6	.2049E+01	.3773E+00	.1564E+01	3	2	7	.2153E+01	.3914E+00	.1942E+01
3	3	3	.1600E+01	.6626E+00	.4630E+00	3	3	4	.1640E+01	.6520E+00	.0302E+00
3	3	5	.1719E+01	.6403E+00	.1203E+01	3	3	6	.1791E+01	.6270E+00	.1566E+01
3	3	7	.1844E+01	.6116E+00	.1942E+01	3	4	3	.1433E+01	.9573E+00	.4630E+00
3	4	4	.1435E+01	.9213E+00	.0355E+00	3	4	5	.1447E+01	.0416E+00	.1203E+01
3	4	6	.1457E+01	.0371E+00	.1569E+01	3	4	7	.1453E+01	.7861E+00	.1942E+01
3	5	3	.1190E+01	.1190E+01	.4630E+00	3	5	4	.1174E+01	.1174E+01	.0327E+00
3	5	5	.1147E+01	.1147E+01	.1203E+01	3	5	6	.1115E+01	.1115E+01	.1572E+01
3	5	7	.1077E+01	.1077E+01	.1942E+01	4	1	3	.2070E+01	0.	.4630E+00
4	1	4	.2130E+01	0.	.0301E+00	4	1	9	.2221E+01	0.	.1203E+01
4	1	6	.2386E+01	0.	.1567E+01	4	1	7	.2372E+01	0.	.1942E+01
4	2	3	.2073E+01	.4124E+00	.4630E+00	4	2	4	.2120E+01	.4100E+00	.0369E+00

MESH GENERATION BLOCK-C IN CARTESIAN COORDINATE SYSTEM 1
 FROM I J K 1 1 3 TO I J K 5 5 7

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	X	Y	Z	I	J	K	X	Y	Z
4	2	5	.2183E+01	.4293E+00	.1203E+01	4	2	6	.2249E+01	.4310E+00	.1560E+01
4	2	7	.2300E+01	.4305E+00	.1942E+01	4	3	3	.1906E+01	.8141E+00	.4639E+00
4	3	4	.1986E+01	.8071E+00	.6355E+00	4	3	5	.2018E+01	.7989E+00	.1203E+01
4	3	6	.2050E+01	.7992E+00	.1569E+01	4	3	7	.2073E+01	.7774E+00	.1942E+01
4	4	3	.1759E+01	.1175E+01	.4630E+00	4	4	4	.1755E+01	.1153E+01	.8342E+00
4	4	4	.1799E+01	.1125E+01	.1203E+01	4	4	6	.1792E+01	.1090E+01	.1571E+01
4	4	7	.1741E+01	.1062E+01	.1942E+01	4	5	3	.1464E+01	.1464E+01	.4630E+00
4	5	4	.1446E+01	.1446E+01	.6327E+00	4	5	5	.1424E+01	.1424E+01	.1203E+01
4	5	6	.1398E+01	.1398E+01	.1572E+01	4	5	7	.1366E+01	.1366E+01	.1942E+01
5	1	3	.2447E+01	0.	.4630E+00	5	1	4	.2447E+01	0.	.6320E+00
5	1	5	.2447E+01	0.	.1203E+01	5	1	6	.2447E+01	0.	.1572E+01
5	1	7	.2447E+01	0.	.1942E+01	5	2	3	.2457E+01	.4880E+00	.4630E+00
5	2	4	.2457E+01	.4880E+00	.6327E+00	5	2	5	.2457E+01	.4880E+00	.1203E+01
5	2	6	.2457E+01	.4880E+00	.1572E+01	5	2	7	.2457E+01	.4880E+00	.1942E+01
5	3	3	.2332E+01	.9657E+00	.4630E+00	5	3	4	.2332E+01	.9657E+00	.6320E+00
5	3	5	.2332E+01	.9657E+00	.1203E+01	5	3	6	.2332E+01	.9657E+00	.1572E+01
5	3	7	.2332E+01	.9657E+00	.1342E+01	5	4	3	.2085E+01	.1392E+01	.4630E+00
5	4	4	.2085E+01	.1392E+01	.6320E+00	5	4	5	.2085E+01	.1392E+01	.1203E+01
5	4	6	.2085E+01	.1392E+01	.1572E+01	5	4	7	.2085E+01	.1392E+01	.1942E+01
5	5	3	.1730E+01	.1730E+01	.4630E+00	5	5	4	.1730E+01	.1730E+01	.6320E+00
5	5	5	.1730E+01	.1730E+01	.1203E+01	5	5	6	.1730E+01	.1730E+01	.1572E+01
5	5	7	.1730E+01	.1730E+01	.1942E+01						

GRADIENTS FOR NEXT BLOCK GENERATION

G(1) =	.100E+01	G(2) =	.100E+01
G(3) =	.100E+01	G(4) =	.100E+01
G(5) =	.100E+01	G(6) =	.100E+01
G(7) =	.500E+00	G(8) =	.100E+01
G(9) =	.100E+01	G(10) =	.100E+01
G(11) =	.100E+01	G(12) =	.100E+01

MESH GENERATION BLOCK-C IN CARTESIAN COORDINATE SYSTEM 1
 FROM I J K 1 1 7 TO I J K 5 5 9

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	X	Y	Z	I	J	K	X	Y	Z
1	1	7	.2145E+01	0.	.1342E+01	1	1	8	.2145E+01	0.	.2174E+01
1	1	9	.2145E+01	0.	.2405E+01	1	2	7	.1800E+01	.3044E+00	.1942E+01
1	2	8	.1800E+01	.3044E+00	.2174E+01	1	2	9	.1800E+01	.3044E+00	.2405E+01
1	3	7	.1456E+01	.3297E+00	.1942E+01	1	3	8	.1456E+01	.3297E+00	.2174E+01
1	3	9	.1456E+01	.3297E+00	.2405E+01	1	4	7	.1005E+01	.3564E+00	.1942E+01
1	4	8	.1005E+01	.3564E+00	.2174E+01	1	4	9	.1005E+01	.3564E+00	.2405E+01
1	5	7	.6650E+00	.6650E+00	.1942E+01	1	5	8	.6650E+00	.6650E+00	.2174E+01
1	5	9	.6650E+00	.6650E+00	.2405E+01	2	1	7	.2221E+01	0.	.1942E+01
2	1	4	.2221E+01	0.	.2174E+01	2	1	9	.2221E+01	0.	.2405E+01
2	2	7	.2025E+01	.3505E+00	.1942E+01	2	2	8	.2025E+01	.3489E+00	.2174E+01
2	2	9	.2013E+01	.3469E+00	.2405E+01	2	3	7	.1675E+01	.4887E+00	.1942E+01
2	3	8	.1667E+01	.4776E+00	.2174E+01	2	3	9	.1648E+01	.4636E+00	.2405E+01
2	4	7	.1275E+01	.6153E+00	.1942E+01	2	4	8	.1247E+01	.5883E+00	.2174E+01

MESH GENERATION BLOCK-C IN CARTESIAN COORDINATE SYSTEM 1
 FROM I J K 1 1 7 TO I J K 5 5 9

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	X	Y	Z	I	J	K	X	Y	Z
2	4	9	.1211E+01	.5540E+00	.2405E+01	2	5	7	.9312E+00	.9312E+00	.1942E+01
2	5	8	.8943E+00	.8943E+00	.2174E+01	2	5	9	.8471E+00	.8471E+00	.2405E+01
3	1	7	.2296E+01	0.	.1942E+01	3	1	8	.2296E+01	0.	.2174E+01
3	1	9	.2296E+01	0.	.2405E+01	3	2	7	.2169E+01	.5966E+00	.1942E+01
3	2	8	.2162E+01	.3944E+00	.2174E+01	3	2	9	.2153E+01	.3914E+00	.2405E+01
3	3	7	.1899E+01	.8477E+00	.1942E+01	3	3	8	.1873E+01	.6329E+00	.2174E+01
3	3	9	.1844E+01	.6116E+00	.2405E+01	3	4	7	.1945E+01	.8743E+00	.1942E+01
3	4	8	.1587E+01	.8372E+00	.2174E+01	3	4	9	.1453E+01	.7861E+00	.2405E+01
3	5	7	.1198E+01	.1198E+01	.1942E+01	3	5	8	.1147E+01	.1147E+01	.2174E+01
3	5	9	.1877E+01	.1877E+01	.2405E+01	4	1	7	.2372E+01	0.	.1942E+01
4	1	8	.2372E+01	0.	.2174E+01	4	1	9	.2372E+01	0.	.2405E+01
4	2	7	.2313E+01	.4427E+00	.1942E+01	4	2	8	.2308E+01	.4410E+00	.2174E+01
4	2	9	.2300E+01	.4385E+00	.2405E+01	4	3	7	.2113E+01	.8867E+00	.1942E+01
4	3	8	.2897E+01	.7949E+00	.2174E+01	4	3	9	.2073E+01	.7774E+00	.2405E+01
4	4	7	.1815E+01	.1133E+01	.1942E+01	4	4	8	.1785E+01	.1184E+01	.2174E+01
4	4	9	.1741E+01	.1062E+01	.2405E+01	4	5	7	.1464E+01	.1464E+01	.1942E+01
4	5	8	.1424E+01	.1424E+01	.2174E+01	4	5	9	.1366E+01	.1366E+01	.2405E+01
5	1	7	.2447E+01	0.	.1942E+01	5	1	8	.2447E+01	0.	.2174E+01
5	1	9	.2447E+01	0.	.2405E+01	5	2	7	.2457E+01	.4888E+00	.1942E+01
5	2	8	.2457E+01	.4888E+00	.2174E+01	5	2	9	.2457E+01	.4888E+00	.2405E+01
5	3	7	.2332E+01	.9657E+00	.1942E+01	5	3	8	.2332E+01	.9657E+00	.2174E+01
5	3	9	.2332E+01	.9657E+00	.2405E+01	5	4	7	.2085E+01	.1392E+01	.1942E+01
5	4	8	.2085E+01	.1392E+01	.2174E+01	5	4	9	.2085E+01	.1392E+01	.2405E+01
5	5	7	.1730E+01	.1730E+01	.1942E+01	5	5	8	.1730E+01	.1730E+01	.2174E+01
5	5	9	.1730E+01	.1730E+01	.2405E+01						

GRADIENTS FOR NEXT BLOCK GENERATION

G(1)	=	.100E+01	G(2)	=	.100E+01
G(3)	=	.100E+01	G(4)	=	.100E+01
G(5)	=	.100E+01	G(6)	=	.100E+01
G(7)	=	.100E+01	G(8)	=	.100E+01
G(9)	=	.100E+01	G(10)	=	.100E+01
G(11)	=	.100E+01	G(12)	=	.100E+01

MESH GENERATION BLOCK IN CYLINDRICAL COORDINATE SYSTEM 2
 FROM I J K 5 1 1 TO I J K 7 5 3

GLOBAL CYLINDRICAL COORDINATES OF POINTS GENERATED

I	J	K	R	THETA	Z	I	J	K	R	THETA	Z
5	1	1	.2447E+01	0.	0.	5	1	2	.2447E+01	0.	.2315E+00
5	1	3	.2447E+01	0.	.4630E+00	5	2	1	.2447E+01	.1125E+02	0.
5	2	2	.2447E+01	.1125E+02	.2315E+00	5	2	3	.2447E+01	.1125E+02	.4630E+00
5	3	1	.2447E+01	.2250E+02	0.	5	3	2	.2447E+01	.2250E+02	.2315E+00
5	3	3	.2447E+01	.2250E+02	.4630E+00	5	4	1	.2447E+01	.3375E+02	0.
5	4	2	.2447E+01	.3375E+02	.2315E+00	5	4	3	.2447E+01	.3375E+02	.4630E+00
5	5	1	.2447E+01	.4400E+02	0.	5	5	2	.2447E+01	.4400E+02	.2315E+00
5	5	3	.2447E+01	.4400E+02	.4630E+00	6	1	1	.2482E+01	0.	0.
6	1	2	.2482E+01	0.	.2315E+00	6	1	3	.2482E+01	0.	.4630E+00
6	2	1	.2482E+01	.1125E+02	0.	6	2	2	.2482E+01	.1125E+02	.2315E+00

MESH GENERATION BLOCK IN CYLINDRICAL COORDINATE SYSTEM 2
 FROM I J K 5 1 1 TO I J K 7 5 3

GLOBAL CYLINDRICAL COORDINATES OF POINTS GENERATED

I	J	K	R	TWETA	Z	I	J	K	R	TWETA	Z
6	2	3	.2402E+01	.1125E+02	.4630E+00	6	3	1	.2402E+01	.2250E+02	0.
6	3	2	.2402E+01	.2250E+02	.2315E+00	6	3	3	.2402E+01	.2250E+02	.4630E+00
6	4	1	.2402E+01	.3375E+02	0.	6	4	2	.2402E+01	.3375E+02	.2315E+00
6	4	3	.2402E+01	.3375E+02	.4630E+00	6	5	1	.2402E+01	.4500E+02	0.
6	5	2	.2402E+01	.4500E+02	.2315E+00	6	5	3	.2402E+01	.4500E+02	.4630E+00
7	1	1	.2517E+01	0.	0.	7	1	2	.2517E+01	0.	.2315E+00
7	1	3	.2517E+01	0.	.4630E+00	7	2	1	.2517E+01	.1125E+02	0.
7	2	2	.2517E+01	.1125E+02	.2315E+00	7	2	3	.2517E+01	.1125E+02	.4630E+00
7	3	1	.2517E+01	.2250E+02	0.	7	3	2	.2517E+01	.2250E+02	.2315E+00
7	3	3	.2517E+01	.2250E+02	.4630E+00	7	4	1	.2517E+01	.3375E+02	0.
7	4	2	.2517E+01	.3375E+02	.2315E+00	7	4	3	.2517E+01	.3375E+02	.4630E+00
7	5	1	.2517E+01	.4500E+02	0.	7	5	2	.2517E+01	.4500E+02	.2315E+00
7	5	3	.2517E+01	.4500E+02	.4630E+00						

MESH GENERATION BLOCK IN CYLINDRICAL COORDINATE SYSTEM 2
 FROM I J K 5 1 1 TO I J K 7 5 3

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	X	Y	Z	I	J	K	X	Y	Z
5	1	1	.2447E+01	0.	0.	5	1	2	.2447E+01	0.	.2315E+00
5	1	3	.2447E+01	0.	.4630E+00	5	2	1	.2400E+01	.4774E+00	0.
5	2	2	.2400E+01	.4774E+00	.2315E+00	5	2	3	.2400E+01	.4774E+00	.4630E+00
5	3	1	.2261E+01	.9364E+00	0.	5	3	2	.2261E+01	.9364E+00	.2315E+00
5	3	3	.2261E+01	.9364E+00	.4630E+00	5	4	1	.2035E+01	.1359E+01	0.
5	4	2	.2035E+01	.1359E+01	.2315E+00	5	4	3	.2035E+01	.1359E+01	.4630E+00
5	5	1	.1730E+01	.1730E+01	0.	5	5	2	.1730E+01	.1730E+01	.2315E+00
5	5	3	.1730E+01	.1730E+01	.4630E+00	6	1	1	.2482E+01	0.	0.
6	1	2	.2482E+01	0.	.2315E+00	6	1	3	.2482E+01	0.	.4630E+00
6	2	1	.2434E+01	.4842E+00	0.	6	2	2	.2434E+01	.4842E+00	.2315E+00
6	2	3	.2434E+01	.4842E+00	.4630E+00	6	3	1	.2293E+01	.9498E+00	0.
6	3	2	.2293E+01	.9498E+00	.2315E+00	6	3	3	.2293E+01	.9498E+00	.4630E+00
6	4	1	.2064E+01	.1379E+01	0.	6	4	2	.2064E+01	.1379E+01	.2315E+00
6	4	3	.2064E+01	.1379E+01	.4630E+00	6	5	1	.1755E+01	.1755E+01	0.
6	5	2	.1755E+01	.1755E+01	.2315E+00	6	5	3	.1755E+01	.1755E+01	.4630E+00
7	1	1	.2517E+01	0.	0.	7	1	2	.2517E+01	0.	.2315E+00
7	1	3	.2517E+01	0.	.4630E+00	7	2	1	.2469E+01	.4910E+00	0.
7	2	2	.2469E+01	.4910E+00	.2315E+00	7	2	3	.2469E+01	.4910E+00	.4630E+00
7	3	1	.2325E+01	.9632E+00	0.	7	3	2	.2325E+01	.9632E+00	.2315E+00
7	3	3	.2325E+01	.9632E+00	.4630E+00	7	4	1	.2093E+01	.1398E+01	0.
7	4	2	.2093E+01	.1398E+01	.2315E+00	7	4	3	.2093E+01	.1398E+01	.4630E+00
7	5	1	.1780E+01	.1780E+01	0.	7	5	2	.1780E+01	.1780E+01	.2315E+00
7	5	3	.1780E+01	.1780E+01	.4630E+00						

GRADIENTS FOR NEXT BLOCK GENERATION

G(1) = .100E+01	G(2) = .100E+01
G(3) = .100E+01	G(4) = .100E+01
G(5) = .100E+01	G(6) = .100E+01
G(7) = .100E+01	G(8) = .100E+01
G(9) = .100E+01	G(10) = .100E+01
G(11) = .100E+01	G(12) = .100E+01

MESH GENERATION BLOCK IN CYLINDRICAL COORDINATE SYSTEM Z
FROM I J K 5 1 3 TO I J K 7 5 7

GLOBAL CYLINDRICAL COORDINATES OF POINTS GENERATED

I	J	K	R	THETA	Z	I	J	K	R	THETA	Z
5	1	3	.2447E+01	0.	.4630E+00	5	1	4	.2447E+01	0.	.8320E+00
5	1	5	.2447E+01	0.	.1203E+01	5	1	6	.2447E+01	0.	.1572E+01
5	1	7	.2447E+01	0.	.1942E+01	5	2	3	.2447E+01	.1125E+02	.4630E+00
5	2	4	.2447E+01	.1125E+02	.8320E+00	5	2	5	.2447E+01	.1125E+02	.1203E+01
5	2	6	.2447E+01	.1125E+02	.1572E+01	5	2	7	.2447E+01	.1125E+02	.1942E+01
5	3	3	.2447E+01	.2250E+02	.4630E+00	5	3	4	.2447E+01	.2250E+02	.8320E+00
5	3	5	.2447E+01	.2250E+02	.1203E+01	5	3	6	.2447E+01	.2250E+02	.1572E+01
5	3	7	.2447E+01	.2250E+02	.1942E+01	5	4	3	.2447E+01	.3375E+02	.4630E+00
5	4	4	.2447E+01	.3375E+02	.8320E+00	5	4	9	.2447E+01	.3375E+02	.1203E+01
5	4	6	.2447E+01	.3375E+02	.1572E+01	5	4	7	.2447E+01	.3375E+02	.1942E+01
5	5	3	.2447E+01	.4500E+02	.4630E+00	5	5	4	.2447E+01	.4500E+02	.8320E+00
5	5	5	.2447E+01	.4500E+02	.1203E+01	5	5	6	.2447E+01	.4500E+02	.1572E+01
5	5	7	.2447E+01	.4500E+02	.1942E+01	6	1	3	.2402E+01	0.	.4630E+00
6	1	4	.2402E+01	0.	.8320E+00	6	1	5	.2402E+01	0.	.1203E+01
6	1	6	.2402E+01	0.	.1572E+01	6	1	7	.2402E+01	0.	.1942E+01
6	2	3	.2402E+01	.1125E+02	.4630E+00	6	2	4	.2402E+01	.1125E+02	.8320E+00
6	2	5	.2402E+01	.1125E+02	.1203E+01	6	2	6	.2402E+01	.1125E+02	.1572E+01
6	2	7	.2402E+01	.1125E+02	.1942E+01	6	3	3	.2402E+01	.2250E+02	.4630E+00
6	3	4	.2402E+01	.2250E+02	.8320E+00	6	3	5	.2402E+01	.2250E+02	.1203E+01
6	3	6	.2402E+01	.2250E+02	.1572E+01	6	3	7	.2402E+01	.2250E+02	.1942E+01
6	4	3	.2402E+01	.3375E+02	.4630E+00	6	4	4	.2402E+01	.3375E+02	.8320E+00
6	4	5	.2402E+01	.3375E+02	.1203E+01	6	4	6	.2402E+01	.3375E+02	.1572E+01
6	4	7	.2402E+01	.3375E+02	.1942E+01	6	5	3	.2402E+01	.4500E+02	.4630E+00
6	5	4	.2402E+01	.4500E+02	.8320E+00	6	5	5	.2402E+01	.4500E+02	.1203E+01
6	5	6	.2402E+01	.4500E+02	.1572E+01	6	5	7	.2402E+01	.4500E+02	.1942E+01
7	1	3	.2517E+01	0.	.4630E+00	7	1	4	.2517E+01	0.	.8320E+00
7	1	5	.2517E+01	0.	.1203E+01	7	1	6	.2517E+01	0.	.1572E+01
7	1	7	.2517E+01	0.	.1942E+01	7	2	3	.2517E+01	.1125E+02	.4630E+00
7	2	4	.2517E+01	.1125E+02	.8320E+00	7	2	5	.2517E+01	.1125E+02	.1203E+01
7	2	6	.2517E+01	.1125E+02	.1572E+01	7	2	7	.2517E+01	.1125E+02	.1942E+01
7	3	3	.2517E+01	.2250E+02	.4630E+00	7	3	4	.2517E+01	.2250E+02	.8320E+00
7	3	5	.2517E+01	.2250E+02	.1203E+01	7	3	6	.2517E+01	.2250E+02	.1572E+01
7	3	7	.2517E+01	.2250E+02	.1942E+01	7	4	3	.2517E+01	.3375E+02	.4630E+00
7	4	4	.2517E+01	.3375E+02	.8320E+00	7	4	5	.2517E+01	.3375E+02	.1203E+01
7	4	6	.2517E+01	.3375E+02	.1572E+01	7	4	7	.2517E+01	.3375E+02	.1942E+01
7	5	3	.2517E+01	.4500E+02	.4630E+00	7	5	4	.2517E+01	.4500E+02	.8320E+00
7	5	5	.2517E+01	.4500E+02	.1203E+01	7	5	6	.2517E+01	.4500E+02	.1572E+01
7	5	7	.2517E+01	.4500E+02	.1942E+01						

MESH GENERATION BLOCK IN CYLINDRICAL COORDINATE SYSTEM 2
FROM I J K 5 1 3 TO I J K 7 5 7

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	X	Y	Z	I	J	K	X	Y	Z
5	1	3	.2447E+01	0.	.4630E+00	5	1	4	.2447E+01	0.	.8329E+00
5	1	5	.2447E+01	0.	.1203E+01	5	1	6	.2447E+01	0.	.1572E+01
5	1	7	.2447E+01	0.	.1942E+01	5	1	8	.2447E+01	0.	.2647E+01
5	2	4	.2400E+01	.4774E+00	.6326E+00	5	2	5	.2400E+01	.4774E+00	.6630E+00
5	2	6	.2400E+01	.4774E+00	.1572E+01	5	2	7	.2400E+01	.4774E+00	.1942E+01
5	3	3	.2261E+01	.9364E+00	.4630E+00	5	3	4	.2261E+01	.9364E+00	.8329E+00
5	3	5	.2261E+01	.9364E+00	.1203E+01	5	3	6	.2261E+01	.9364E+00	.1572E+01
5	3	7	.2261E+01	.9364E+00	.1942E+01	5	3	8	.2261E+01	.9364E+00	.2647E+01
5	4	4	.2035E+01	.1359E+01	.6326E+00	5	4	5	.2035E+01	.1359E+01	.6630E+00
5	4	6	.2035E+01	.1359E+01	.1572E+01	5	4	7	.2035E+01	.1359E+01	.1942E+01
5	5	3	.1730E+01	.1730E+01	.4630E+00	5	5	4	.1730E+01	.1730E+01	.8329E+00
5	5	5	.1730E+01	.1730E+01	.1203E+01	5	5	6	.1730E+01	.1730E+01	.1572E+01
5	5	7	.1730E+01	.1730E+01	.1942E+01	5	5	8	.1730E+01	.1730E+01	.2647E+01
6	1	4	.2482E+01	0.	.6326E+00	6	1	5	.2482E+01	0.	.6630E+00
6	1	6	.2482E+01	0.	.1572E+01	6	1	7	.2482E+01	0.	.1942E+01
6	2	3	.2434E+01	.4842E+00	.4630E+00	6	2	4	.2434E+01	.4842E+00	.4910E+00
6	2	5	.2434E+01	.4842E+00	.1203E+01	6	2	6	.2434E+01	.4842E+00	.1572E+01
6	2	7	.2434E+01	.4842E+00	.1942E+01	6	2	8	.2434E+01	.4842E+00	.2647E+01
6	3	4	.2293E+01	.9498E+00	.6326E+00	6	3	5	.2293E+01	.9498E+00	.6630E+00
6	3	6	.2293E+01	.9498E+00	.1572E+01	6	3	7	.2293E+01	.9498E+00	.1942E+01
6	4	3	.2064E+01	.1379E+01	.4630E+00	6	4	4	.2064E+01	.1379E+01	.4910E+00
6	4	5	.2064E+01	.1379E+01	.1203E+01	6	4	6	.2064E+01	.1379E+01	.1572E+01
6	4	7	.2064E+01	.1379E+01	.1942E+01	6	4	8	.2064E+01	.1379E+01	.2647E+01
6	5	4	.1755E+01	.1755E+01	.6326E+00	6	5	5	.1755E+01	.1755E+01	.6630E+00
6	5	6	.1755E+01	.1755E+01	.1572E+01	6	5	7	.1755E+01	.1755E+01	.1942E+01
6	5	8	.1755E+01	.1755E+01	.2647E+01	6	5	9	.1755E+01	.1755E+01	.4630E+00
7	1	3	.2517E+01	0.	.4630E+00	7	1	4	.2517E+01	0.	.4910E+00
7	1	5	.2517E+01	0.	.1203E+01	7	1	6	.2517E+01	0.	.1572E+01
7	1	7	.2517E+01	0.	.1942E+01	7	1	8	.2517E+01	0.	.2647E+01
7	2	4	.2469E+01	.4910E+00	.6326E+00	7	2	5	.2469E+01	.4910E+00	.6630E+00
7	2	6	.2469E+01	.4910E+00	.1572E+01	7	2	7	.2469E+01	.4910E+00	.1942E+01
7	3	3	.2325E+01	.9632E+00	.4630E+00	7	3	4	.2325E+01	.9632E+00	.4910E+00
7	3	5	.2325E+01	.9632E+00	.1203E+01	7	3	6	.2325E+01	.9632E+00	.1572E+01
7	3	7	.2325E+01	.9632E+00	.1942E+01	7	3	8	.2325E+01	.9632E+00	.2647E+01
7	4	4	.2093E+01	.1394E+01	.6326E+00	7	4	5	.2093E+01	.1394E+01	.6630E+00
7	4	6	.2093E+01	.1394E+01	.1572E+01	7	4	7	.2093E+01	.1394E+01	.1942E+01
7	5	3	.1784E+01	.1784E+01	.4630E+00	7	5	4	.1784E+01	.1784E+01	.4910E+00
7	5	5	.1784E+01	.1784E+01	.1203E+01	7	5	6	.1784E+01	.1784E+01	.1572E+01
7	5	7	.1784E+01	.1784E+01	.1942E+01	7	5	8	.1784E+01	.1784E+01	.2647E+01
7	5	9	.1784E+01	.1784E+01	.4630E+00	7	5	10	.1784E+01	.1784E+01	.4910E+00

GRADIENTS FOR NEXT BLOCK GENERATION

G(1) =	.180E+01
G(2) =	.100E+01
G(3) =	.100E+01
G(4) =	.100E+01
G(5) =	.100E+01
G(6) =	.100E+01
G(7) =	.100E+01
G(8) =	.100E+01
G(9) =	.100E+01
G(10) =	.100E+01
G(11) =	.100E+01
G(12) =	.100E+01

MESH GENERATION BLOCK IN CYLINDRICAL COORDINATE SYSTEM 2
FROM I J K 5 1 7 TO I J K 7 5 9

GLOBAL CYLINDRICAL COORDINATES OF POINTS GENERATED

I	J	K	P	THETA	Z	I	J	K	P	THETA	Z
5	1	7	0	.2447E+01	.1942E+01	5	1	0	0	.2447E+01	.2174E+01
5	1	9	0	.2447E+01	.2405E+01	5	2	7	0	.2447E+01	.1942E+01
5	2	0	0	.1125E+02	.2174E+01	5	2	9	0	.1125E+02	.2405E+01
5	3	7	0	.2447E+01	.2405E+01	5	3	0	0	.2447E+01	.2174E+01
5	3	9	0	.2447E+01	.2405E+01	5	4	7	0	.2447E+01	.1942E+01
5	4	0	0	.3375E+02	.2174E+01	5	4	9	0	.3375E+02	.2405E+01
5	5	7	0	.4500E+02	.1942E+01	5	5	0	0	.4500E+02	.2174E+01
5	5	9	0	.4500E+02	.2405E+01	5	6	7	0	.4500E+02	.1942E+01
6	1	7	0	.1125E+02	.2174E+01	6	1	9	0	.1125E+02	.2405E+01
6	2	0	0	.2447E+01	.2405E+01	6	2	7	0	.2447E+01	.1942E+01
6	2	9	0	.2447E+01	.2405E+01	6	3	0	0	.2447E+01	.2174E+01
6	3	7	0	.2447E+01	.2405E+01	6	3	9	0	.2447E+01	.1942E+01
6	4	0	0	.3375E+02	.2174E+01	6	4	7	0	.3375E+02	.2405E+01
6	4	9	0	.3375E+02	.2405E+01	6	5	0	0	.3375E+02	.2174E+01
6	5	0	0	.4500E+02	.1942E+01	6	5	7	0	.4500E+02	.2405E+01
7	1	7	0	.2517E+01	.1942E+01	7	1	9	0	.2517E+01	.2405E+01
7	1	9	0	.2517E+01	.2405E+01	7	2	7	0	.2517E+01	.1942E+01
7	2	0	0	.1125E+02	.2174E+01	7	2	9	0	.1125E+02	.2405E+01
7	3	7	0	.2517E+01	.2405E+01	7	3	0	0	.2517E+01	.2174E+01
7	3	9	0	.2517E+01	.2405E+01	7	4	7	0	.2517E+01	.1942E+01
7	4	0	0	.3375E+02	.2174E+01	7	4	9	0	.3375E+02	.2405E+01
7	5	7	0	.4500E+02	.1942E+01	7	5	0	0	.4500E+02	.2174E+01
7	5	9	0	.4500E+02	.2405E+01	7	6	7	0	.4500E+02	.1942E+01

MESH GENERATION BLOCK IN CYLINDRICAL COORDINATE SYSTEM 2
FROM I J K 5 1 7 TO I J K 7 5 9

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	P	THETA	Z	I	J	K	P	THETA	Z
5	1	7	0	.2447E+01	.1942E+01	5	1	0	0	.2447E+01	.2174E+01
5	1	9	0	.2447E+01	.2405E+01	5	2	7	0	.2447E+01	.1942E+01
5	2	0	0	.4774E+01	.2174E+01	5	2	9	0	.4774E+01	.2405E+01
5	3	7	0	.2261E+01	.1942E+01	5	3	0	0	.2261E+01	.2174E+01
5	3	9	0	.9364E+00	.2405E+01	5	4	7	0	.9364E+00	.1942E+01
5	4	0	0	.1359E+01	.2174E+01	5	4	9	0	.1359E+01	.2405E+01
5	5	7	0	.1730E+01	.1942E+01	5	5	0	0	.1730E+01	.2174E+01
5	5	9	0	.1730E+01	.2405E+01	5	6	7	0	.1730E+01	.1942E+01
6	1	7	0	.4342E+01	.2174E+01	6	1	9	0	.4342E+01	.2405E+01
6	2	0	0	.2405E+01	.1942E+01	6	2	7	0	.2405E+01	.2174E+01
6	2	9	0	.2405E+01	.2405E+01	6	3	0	0	.2405E+01	.1942E+01
6	3	7	0	.2033E+01	.1942E+01	6	3	9	0	.2033E+01	.2405E+01
6	4	0	0	.1755E+01	.2174E+01	6	4	7	0	.1755E+01	.1942E+01
6	4	9	0	.1755E+01	.2405E+01	6	5	0	0	.1755E+01	.2174E+01
6	5	7	0	.2517E+01	.1942E+01	6	5	9	0	.2517E+01	.2405E+01
6	5	9	0	.2517E+01	.2405E+01	6	6	7	0	.2517E+01	.1942E+01
7	1	7	0	.4910E+00	.2174E+01	7	1	9	0	.4910E+00	.2405E+01
7	2	0	0	.4910E+00	.1942E+01	7	2	7	0	.4910E+00	.2174E+01
7	3	7	0	.9632E+00	.2405E+01	7	3	9	0	.9632E+00	.1942E+01
7	4	0	0	.1398E+01	.2174E+01	7	4	7	0	.1398E+01	.2405E+01
7	4	9	0	.1398E+01	.2405E+01	7	5	0	0	.1398E+01	.2174E+01
7	5	7	0	.2033E+01	.1942E+01	7	5	9	0	.2033E+01	.2405E+01
7	6	7	0	.2033E+01	.2405E+01	7	6	9	0	.2033E+01	.1942E+01

MESH GENERATION BLOCK IN CYLINDRICAL COORDINATE SYSTEM 2
FROM I J K 5 1 7 TO I J K 7 5 9

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	X	Y	Z	I	J	K	X	Y	Z
7	5	7	.1780E+01	.1780E+01	.1942E+01	7	5	8	.1780E+01	.1780E+01	.2174E+01
7	5	9	.1780E+01	.1780E+01	.2485E+01						

MESH GENERATION EMO IN CARTESIAN COORDINATE SYSTEM 1
FROM I J K 1 1 1 TO I J K 13 13 21

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	X	Y	Z	I	J	K	X	Y	Z
1	1	1	.9480E+00	0.	0.	1	1	2	.9480E+00	0.	.4630E+00
1	1	3	.9480E+00	0.	.1203E+01	1	1	4	.9480E+00	0.	.853E+00
1	1	5	.9480E+00	0.	.1543E+01	1	1	6	.9480E+00	0.	.1551E+01
1	1	7	.9480E+00	0.	.1842E+01	1	1	8	.9480E+00	0.	.2174E+01
1	1	9	.9480E+00	0.	.2145E+01	1	2	1	.8221E+00	.1831E+00	0.
1	2	2	.9221E+00	.1331E+00	.2315E+00	1	2	3	.9210E+00	.1031E+00	.4630E+00
1	2	4	.9221E+00	.2134E+00	.2497E+00	1	2	5	.9402E+00	.2835E+00	.1203E+01
1	2	6	.9221E+00	.2781E+00	.2556E+00	1	2	7	.1888E+00	.3844E+00	.1942E+01
1	2	8	.1888E+00	.3044E+00	.2174E+01	1	2	9	.1888E+00	.3844E+00	.2485E+01
1	3	1	.8683E+00	.3595E+00	0.	1	3	2	.8683E+00	.3595E+00	.4630E+00
1	3	3	.8677E+00	.3595E+00	.4630E+00	1	3	4	.9947E+00	.9947E+00	.4630E+00
1	3	5	.1162E+01	.3446E+00	.1203E+01	1	3	6	.1329E+01	.3520E+00	.8435E+00
1	3	7	.1456E+01	.3297E+00	.1942E+01	1	3	8	.1456E+01	.3571E+00	.1551E+01
1	3	9	.1456E+01	.3297E+00	.2495E+01	1	4	1	.7816E+00	.5224E+00	0.
1	4	2	.7816E+00	.5224E+00	.2315E+00	1	4	3	.7816E+00	.5224E+00	.4630E+00
1	4	4	.8277E+00	.4889E+00	.8381E+00	1	4	5	.8937E+00	.4394E+00	.1203E+01
1	4	6	.9596E+00	.3979E+00	.1567E+01	1	4	7	.1005E+01	.3564E+00	.1942E+01
1	4	8	.1005E+01	.3564E+00	.2174E+01	1	4	9	.1005E+01	.3564E+00	.2485E+01
1	5	1	.6650E+00	.6650E+00	0.	1	5	2	.6650E+00	.6650E+00	.4630E+00
1	5	3	.6650E+00	.6650E+00	.4630E+00	1	5	4	.6650E+00	.6650E+00	.8435E+00
1	5	5	.6650E+00	.6650E+00	.1203E+01	1	5	6	.6650E+00	.6650E+00	.1572E+01
1	5	7	.6650E+00	.6650E+00	.1942E+01	1	5	8	.6650E+00	.6650E+00	.2174E+01
1	5	9	.6650E+00	.6650E+00	.2495E+01	2	1	1	.1317E+01	0.	0.
2	1	2	.1317E+01	0.	.2315E+00	2	1	3	.1317E+01	0.	.4630E+00
2	1	4	.1313E+01	0.	.8435E+00	2	1	5	.1769E+01	0.	.1203E+01
2	1	6	.2825E+01	0.	.1556E+01	2	1	7	.2221E+01	0.	.1942E+01
2	1	8	.2221E+01	0.	.2174E+01	2	1	9	.2221E+01	0.	.2485E+01
2	2	1	.1305E+01	.2595E+00	0.	2	2	2	.1293E+01	.2565E+00	0.
2	2	3	.1305E+01	.2595E+00	.4630E+00	2	2	4	.1457E+01	.2812E+00	.4630E+00
2	2	5	.1456E+01	.3029E+00	.1203E+01	2	2	6	.1856E+01	.3248E+00	.8435E+00
2	2	7	.2225E+01	.3595E+00	.1942E+01	2	2	8	.2120E+01	.3469E+00	.1561E+01
2	2	9	.2113E+01	.3469E+00	.2407E+01	2	3	1	.1234E+01	.5113E+00	0.
2	3	2	.1409E+01	.5385E+00	.2315E+00	2	3	3	.1234E+01	.5110E+00	.4630E+00
2	3	4	.1318E+01	.5385E+00	.4630E+00	2	3	5	.1434E+01	.4891E+00	.1203E+01
2	3	6	.1552E+01	.5084E+00	.8435E+00	2	3	7	.1675E+01	.4887E+00	.1942E+01
2	3	8	.1660E+01	.4769E+00	.1564E+01	2	3	9	.1644E+01	.4636E+00	.2485E+01
2	4	1	.1107E+01	.7398E+00	0.	2	4	2	.1074E+01	.7172E+00	.2315E+00
2	4	3	.1108E+01	.7398E+00	.4630E+00	2	4	4	.1127E+01	.6975E+00	.8435E+00
2	4	5	.1160E+01	.6528E+00	.1203E+01	2	4	6	.1194E+01	.6052E+00	.1564E+01
2	4	7	.1275E+01	.6153E+00	.1942E+01	2	4	8	.1247E+01	.5883E+00	.2174E+01
2	4	9	.1211E+01	.5540E+00	.2405E+01	2	5	1	.9312E+00	.9312E+00	0.
2	5	2	.8943E+00	.8943E+00	.2315E+00	2	5	3	.9312E+00	.9312E+00	.4630E+00

MESH GENERATION END IM CARTESIAN COORDINATE SYSTEM 1
FROM I J K I I I TO I J K I I I

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	X	Y	Z	I	J	K	X	Y	Z	I	J	K	X	Y	Z
2	5	4	.9137E+00	.9137E+00	.8327E+00	2	5	4	.8943E+00	.8943E+00	.8943E+00	2	5	4	.8943E+00	.8943E+00	.8943E+00
2	5	6	.8923E+00	.8723E+00	.1572E+01	2	5	7	.9312E+00	.9312E+00	.9312E+00	2	5	7	.9312E+00	.9312E+00	.9312E+00
2	5	8	.8943E+00	.8943E+00	.2174E+01	2	5	9	.8471E+00	.8471E+00	.8471E+00	2	5	9	.8471E+00	.8471E+00	.8471E+00
3	1	1	.1694E+01	0.	0.	3	1	2	.1694E+01	0.	0.	3	1	2	.1694E+01	0.	0.
3	1	3	.1694E+01	0.	.4630E+00	3	1	4	.1824E+01	0.	0.	3	1	4	.1824E+01	0.	0.
3	1	9	.1939E+01	0.	.1203E+01	3	1	6	.2193E+01	0.	.1501E+01	3	1	6	.2193E+01	0.	.1501E+01
3	1	7	.2296E+01	0.	.1942E+01	3	1	8	.2296E+01	0.	.2362E+01	3	1	8	.2296E+01	0.	.2362E+01
3	1	9	.2296E+01	0.	.2405E+01	3	2	1	.1690E+01	.1690E+01	.3360E+00	3	2	1	.1690E+01	.1690E+01	.3360E+00
3	2	2	.1671E+01	.3323E+00	.2315E+00	3	2	3	.1690E+01	.1690E+01	.3360E+00	3	2	3	.1690E+01	.1690E+01	.3360E+00
3	2	4	.1787E+01	.3496E+00	.8409E+00	3	2	5	.1916E+01	.1916E+01	.3634E+00	3	2	5	.1916E+01	.1916E+01	.3634E+00
3	2	4	.2049E+01	.3773E+00	.1564E+01	3	2	7	.2169E+01	.2169E+01	.3966E+00	3	2	7	.2169E+01	.2169E+01	.3966E+00
3	2	9	.2162E+01	.3984E+00	.2174E+01	3	2	9	.2153E+01	.2153E+01	.3914E+00	3	2	9	.2153E+01	.2153E+01	.3914E+00
3	3	1	.1600E+01	.6626E+00	0.	3	3	2	.1565E+01	.1565E+01	.6681E+00	3	3	2	.1565E+01	.1565E+01	.6681E+00
3	3	3	.1600E+01	.6626E+00	.4630E+00	3	3	4	.1600E+01	.1600E+01	.6928E+00	3	3	4	.1600E+01	.1600E+01	.6928E+00
3	3	5	.1719E+01	.6403E+00	.1203E+01	3	3	6	.1791E+01	.1791E+01	.6270E+00	3	3	6	.1791E+01	.1791E+01	.6270E+00
3	3	7	.1894E+01	.6477E+00	.1942E+01	3	3	8	.1873E+01	.1873E+01	.6329E+00	3	3	8	.1873E+01	.1873E+01	.6329E+00
3	3	9	.1844E+01	.6116E+00	.2405E+01	3	3	4	.1473E+01	.1473E+01	.9573E+00	3	3	4	.1473E+01	.1473E+01	.9573E+00
3	4	2	.1387E+01	.9201E+00	.2349E+00	3	4	3	.1433E+01	.1433E+01	.9573E+00	3	4	3	.1433E+01	.1433E+01	.9573E+00
3	4	4	.1435E+01	.9213E+00	.8395E+00	3	4	5	.1447E+01	.1447E+01	.8016E+00	3	4	5	.1447E+01	.1447E+01	.8016E+00
3	4	6	.1437E+01	.8371E+00	.1599E+01	3	4	7	.1545E+01	.1545E+01	.8743E+00	3	4	7	.1545E+01	.1545E+01	.8743E+00
3	4	8	.1507E+01	.8372E+00	.2405E+01	3	4	9	.1453E+01	.1453E+01	.7861E+00	3	4	9	.1453E+01	.1453E+01	.7861E+00
3	5	1	.1196E+01	.1196E+01	0.	3	5	2	.1147E+01	.1147E+01	.1147E+01	3	5	2	.1147E+01	.1147E+01	.1147E+01
3	5	3	.1196E+01	.1196E+01	.4630E+00	3	5	4	.1174E+01	.1174E+01	.1174E+01	3	5	4	.1174E+01	.1174E+01	.1174E+01
3	5	9	.1147E+01	.1147E+01	.1203E+01	3	5	6	.1115E+01	.1115E+01	.1115E+01	3	5	6	.1115E+01	.1115E+01	.1115E+01
3	5	7	.1196E+01	.1196E+01	.1942E+01	3	5	8	.1147E+01	.1147E+01	.1147E+01	3	5	8	.1147E+01	.1147E+01	.1147E+01
3	5	9	.1877E+01	.1077E+01	.2405E+01	3	5	1	.2078E+01	.2078E+01	0.	3	5	1	.2078E+01	.2078E+01	0.
4	1	2	.2870E+01	0.	.2315E+00	4	1	3	.2221E+01	.2221E+01	0.	4	1	3	.2221E+01	.2221E+01	0.
4	1	4	.2366E+01	0.	.831E+00	4	1	5	.2372E+01	.2372E+01	0.	4	1	5	.2372E+01	.2372E+01	0.
4	1	6	.2366E+01	0.	.1577E+01	4	1	7	.1577E+01	.1577E+01	0.	4	1	7	.1577E+01	.1577E+01	0.
4	1	8	.2372E+01	0.	.2174E+01	4	1	9	.2372E+01	.2372E+01	0.	4	1	9	.2372E+01	.2372E+01	0.
4	2	1	.2074E+01	.4124E+00	0.	4	2	2	.2059E+01	.2059E+01	.4096E+00	4	2	2	.2059E+01	.2059E+01	.4096E+00
4	2	3	.2073E+01	.4124E+00	.4630E+00	4	2	4	.2128E+01	.2128E+01	.4188E+00	4	2	4	.2128E+01	.2128E+01	.4188E+00
4	2	5	.2103E+01	.4233E+00	.1203E+01	4	2	6	.2249E+01	.2249E+01	.318E+00	4	2	6	.2249E+01	.2249E+01	.318E+00
4	2	7	.2313E+01	.4427E+00	.1942E+01	4	2	8	.2368E+01	.2368E+01	.4410E+00	4	2	8	.2368E+01	.2368E+01	.4410E+00
4	2	9	.2300E+01	.4385E+00	.2405E+01	4	2	1	.1966E+01	.1966E+01	.8161E+00	4	2	1	.1966E+01	.1966E+01	.8161E+00
4	3	2	.1939E+01	.8029E+00	.2349E+00	4	3	3	.1966E+01	.1966E+01	.8161E+00	4	3	3	.1966E+01	.1966E+01	.8161E+00
4	3	4	.1566E+01	.8712E+00	.3355E+00	4	3	5	.2018E+01	.2018E+01	.7995E+00	4	3	5	.2018E+01	.2018E+01	.7995E+00
4	3	6	.2897E+01	.7949E+00	.1599E+01	4	3	7	.2113E+01	.2113E+01	.8887E+00	4	3	7	.2113E+01	.2113E+01	.8887E+00
4	3	8	.2897E+01	.7949E+00	.2405E+01	4	3	9	.2073E+01	.2073E+01	.7774E+00	4	3	9	.2073E+01	.2073E+01	.7774E+00
4	4	1	.1759E+01	.1175E+01	.2174E+01	4	4	2	.1723E+01	.1723E+01	.1153E+01	4	4	2	.1723E+01	.1723E+01	.1153E+01
4	4	4	.1759E+01	.1175E+01	.4630E+00	4	4	4	.1755E+01	.1755E+01	.1090E+01	4	4	4	.1755E+01	.1755E+01	.1090E+01
4	4	5	.1854E+01	.1189E+01	.1203E+01	4	4	6	.1785E+01	.1785E+01	.1184E+01	4	4	6	.1785E+01	.1785E+01	.1184E+01
4	4	7	.1815E+01	.1133E+01	.1942E+01	4	4	8	.1464E+01	.1464E+01	.1464E+01	4	4	8	.1464E+01	.1464E+01	.1464E+01
4	4	9	.1741E+01	.1026E+01	.2405E+01	4	5	1	.1464E+01	.1464E+01	.1464E+01	4	5	1	.1464E+01	.1464E+01	.1464E+01
4	5	2	.1424E+01	.1424E+01	.2315E+00	4	5	3	.1464E+01	.1464E+01	.1464E+01	4	5	3	.1464E+01	.1464E+01	.1464E+01
4	5	4	.1446E+01	.1446E+01	.3377E+00	4	5	5	.1424E+01	.1424E+01	.1424E+01	4	5	5	.1424E+01	.1424E+01	.1424E+01
4	5	6	.1398E+01	.1398E+01	.1572E+01	4	5	7	.1464E+01	.1464E+01	.1464E+01	4	5	7	.1464E+01	.1464E+01	.1464E+01
4	5	8	.1424E+01	.1424E+01	.2174E+01	4	5	9	.1306E+01	.1306E+01	0.	4	5	9	.1306E+01	.1306E+01	0.
5	1	1	.2447E+01	0.	.4630E+00	5	1	2	.2447E+01	.2447E+01	0.	5	1	2	.2447E+01	.2447E+01	0.
5	1	3	.2447E+01	0.	.1203E+01	5	1	4	.2447E+01	.2447E+01	0.	5	1	4	.2447E+01	.2447E+01	0.
5	1	5	.2447E+01	0.	.1203E+01	5	1	6	.2447E+01	.2447E+01	0.	5	1	6	.2447E+01	.2447E+01	0.
5	1	7	.2447E+01	0.	.1577E+01	5	1	8	.2447E+01	.2447E+01	0.	5	1	8	.2447E+01	.2447E+01	0.
5	1	9	.2447E+01	0.	.1577E+01	5	1	1	.2447E+01	.2447E+01	0.	5	1	1	.2447E+01	.2447E+01	0.

MESH GENERATION END IN CARTESIAN COORDINATE SYSTEM 1
 FROM I J K L I I TO I J K L I 3 13 21

GLOBAL CARTESIAN COORDINATES OF POINTS GENERATED

I	J	K	L	X	Y	Z	I	J	K	L	X	Y	Z
5	1	7	0	.2447E+01	0.	.1942E+01	5	1	8	0	.2447E+01	0.	.2174E+01
5	1	9	0	.2447E+01	0.	.2405E+01	5	2	1	0	.2405E+01	0.	.4630E+00
5	2	2	0	.2405E+01	.4774E+00	.2315E+00	5	2	3	0	.2405E+01	.4774E+00	.1203E+01
5	2	4	0	.2405E+01	.4774E+00	.6324E+00	5	2	5	0	.2405E+01	.4774E+00	.1942E+01
5	2	6	0	.2405E+01	.4774E+00	.1572E+01	5	2	7	0	.2405E+01	.4774E+00	.2174E+01
5	2	8	0	.2405E+01	.4774E+00	0.	5	2	9	0	.2405E+01	.4774E+00	0.
5	3	1	0	.2261E+01	.9364E+00	.4431E+00	5	3	4	0	.2261E+01	.9364E+00	.1359E+01
5	3	3	0	.2261E+01	.9364E+00	.1203E+01	5	3	6	0	.2261E+01	.9364E+00	.1942E+01
5	3	7	0	.2261E+01	.9364E+00	.1942E+01	5	3	8	0	.2261E+01	.9364E+00	.2174E+01
5	3	9	0	.2261E+01	.9364E+00	0.	5	4	1	0	.2035E+01	.1359E+01	.6020E+00
5	4	2	0	.2035E+01	.1359E+01	.2315E+00	5	4	3	0	.2035E+01	.1359E+01	.1203E+01
5	4	4	0	.2035E+01	.1359E+01	.6324E+00	5	4	5	0	.2035E+01	.1359E+01	.1942E+01
5	4	6	0	.2035E+01	.1359E+01	.1572E+01	5	4	7	0	.2035E+01	.1359E+01	.2174E+01
5	4	8	0	.2035E+01	.1359E+01	0.	5	4	9	0	.2035E+01	.1359E+01	0.
5	5	1	0	.1730E+01	.1730E+01	.4630E+00	5	5	2	0	.1730E+01	.1730E+01	.6020E+00
5	5	3	0	.1730E+01	.1730E+01	.1203E+01	5	5	4	0	.1730E+01	.1730E+01	.1203E+01
5	5	7	0	.1730E+01	.1730E+01	.1942E+01	5	5	6	0	.1730E+01	.1730E+01	.1942E+01
5	5	9	0	.1730E+01	.1730E+01	0.	5	5	8	0	.1730E+01	.1730E+01	0.
6	1	2	0	.2482E+01	0.	.2315E+00	6	1	3	0	.2482E+01	0.	.4630E+00
6	1	4	0	.2482E+01	0.	.6324E+00	6	1	5	0	.2482E+01	0.	.1203E+01
6	1	6	0	.2482E+01	0.	.1572E+01	6	1	7	0	.2482E+01	0.	.1942E+01
6	1	8	0	.2482E+01	0.	0.	6	1	9	0	.2482E+01	0.	0.
6	2	1	0	.2434E+01	.4442E+00	.2174E+01	6	2	2	0	.2434E+01	.4442E+00	.4630E+00
6	2	3	0	.2434E+01	.4442E+00	.630E+00	6	2	4	0	.2434E+01	.4442E+00	.1203E+01
6	2	7	0	.2434E+01	.4442E+00	.1203E+01	6	2	6	0	.2434E+01	.4442E+00	.1942E+01
6	2	9	0	.2434E+01	.4442E+00	.1942E+01	6	2	8	0	.2434E+01	.4442E+00	.2174E+01
6	3	2	0	.2434E+01	.4442E+00	0.	6	3	1	0	.2293E+01	.2293E+01	.6020E+00
6	3	4	0	.2293E+01	.9498E+00	.2315E+00	6	3	3	0	.2293E+01	.9498E+00	.1203E+01
6	3	6	0	.2293E+01	.9498E+00	.6324E+00	6	3	5	0	.2293E+01	.9498E+00	.1942E+01
6	3	8	0	.2293E+01	.9498E+00	.1572E+01	6	3	7	0	.2293E+01	.9498E+00	.2174E+01
6	3	9	0	.2293E+01	.9498E+00	0.	6	3	9	0	.2293E+01	.9498E+00	0.
6	4	1	0	.2064E+01	.1370E+01	.4630E+00	6	4	2	0	.2064E+01	.1370E+01	.6020E+00
6	4	3	0	.2064E+01	.1370E+01	.1203E+01	6	4	4	0	.2064E+01	.1370E+01	.1203E+01
6	4	7	0	.2064E+01	.1370E+01	.1942E+01	6	4	6	0	.2064E+01	.1370E+01	.1942E+01
6	4	9	0	.2064E+01	.1370E+01	0.	6	4	8	0	.2064E+01	.1370E+01	0.
6	5	2	0	.1755E+01	.1755E+01	.2315E+00	6	5	1	0	.1755E+01	.1755E+01	.4630E+00
6	5	4	0	.1755E+01	.1755E+01	.6324E+00	6	5	3	0	.1755E+01	.1755E+01	.1203E+01
6	5	6	0	.1755E+01	.1755E+01	.1572E+01	6	5	5	0	.1755E+01	.1755E+01	.1942E+01
6	5	8	0	.1755E+01	.1755E+01	0.	6	5	7	0	.1755E+01	.1755E+01	.2174E+01
6	5	9	0	.1755E+01	.1755E+01	0.	6	5	9	0	.1755E+01	.1755E+01	0.
7	1	1	0	.2517E+01	0.	.4630E+00	7	1	2	0	.2517E+01	0.	.6020E+00
7	1	3	0	.2517E+01	0.	.1203E+01	7	1	4	0	.2517E+01	0.	.1203E+01
7	1	5	0	.2517E+01	0.	.1942E+01	7	1	6	0	.2517E+01	0.	.1942E+01
7	1	7	0	.2517E+01	0.	0.	7	1	8	0	.2517E+01	0.	0.
7	1	9	0	.2517E+01	0.	0.	7	1	9	0	.2517E+01	0.	0.
7	2	2	0	.2486E+01	.4910E+00	.2315E+00	7	2	3	0	.2486E+01	.4910E+00	.4630E+00
7	2	4	0	.2486E+01	.4910E+00	.6324E+00	7	2	5	0	.2486E+01	.4910E+00	.1203E+01
7	2	6	0	.2486E+01	.4910E+00	.1572E+01	7	2	7	0	.2486E+01	.4910E+00	.1942E+01
7	2	8	0	.2486E+01	.4910E+00	0.	7	2	9	0	.2486E+01	.4910E+00	.2174E+01

MESH GENERATION END IN CARTESIAN COORDINATE SYSTEM 1
 FROM I J K L I I Y U I J K I J I J Z I

GLOBAL CARTESIAN		COORDINATES OF POINTS GENERATED		GLOBAL CARTESIAN		COORDINATES OF POINTS GENERATED	
I	J	K	L	I	J	K	L
7	1	1	1	9632E+00	0.	0.	0.
7	1	2	2	2325E+01	9632E+00	0.	0.
7	1	3	3	2325E+01	9632E+00	0.	0.
7	1	4	4	2325E+01	9632E+00	0.	0.
7	1	5	5	2325E+01	9632E+00	0.	0.
7	1	6	6	2325E+01	9632E+00	0.	0.
7	1	7	7	2325E+01	9632E+00	0.	0.
7	1	8	8	2325E+01	9632E+00	0.	0.
7	1	9	9	2325E+01	9632E+00	0.	0.
7	2	1	1	2093E+01	1390E+01	1390E+01	0.
7	2	2	2	2093E+01	1390E+01	1390E+01	0.
7	2	3	3	2093E+01	1390E+01	1390E+01	0.
7	2	4	4	2093E+01	1390E+01	1390E+01	0.
7	2	5	5	2093E+01	1390E+01	1390E+01	0.
7	2	6	6	2093E+01	1390E+01	1390E+01	0.
7	2	7	7	2093E+01	1390E+01	1390E+01	0.
7	2	8	8	2093E+01	1390E+01	1390E+01	0.
7	2	9	9	2093E+01	1390E+01	1390E+01	0.
7	3	1	1	1700E+01	1700E+01	1700E+01	0.
7	3	2	2	1700E+01	1700E+01	1700E+01	0.
7	3	3	3	1700E+01	1700E+01	1700E+01	0.
7	3	4	4	1700E+01	1700E+01	1700E+01	0.
7	3	5	5	1700E+01	1700E+01	1700E+01	0.
7	3	6	6	1700E+01	1700E+01	1700E+01	0.
7	3	7	7	1700E+01	1700E+01	1700E+01	0.
7	3	8	8	1700E+01	1700E+01	1700E+01	0.
7	3	9	9	1700E+01	1700E+01	1700E+01	0.
7	4	1	1	1700E+01	1700E+01	1700E+01	0.
7	4	2	2	1700E+01	1700E+01	1700E+01	0.
7	4	3	3	1700E+01	1700E+01	1700E+01	0.
7	4	4	4	1700E+01	1700E+01	1700E+01	0.
7	4	5	5	1700E+01	1700E+01	1700E+01	0.
7	4	6	6	1700E+01	1700E+01	1700E+01	0.
7	4	7	7	1700E+01	1700E+01	1700E+01	0.
7	4	8	8	1700E+01	1700E+01	1700E+01	0.
7	4	9	9	1700E+01	1700E+01	1700E+01	0.
7	5	1	1	1700E+01	1700E+01	1700E+01	0.
7	5	2	2	1700E+01	1700E+01	1700E+01	0.
7	5	3	3	1700E+01	1700E+01	1700E+01	0.
7	5	4	4	1700E+01	1700E+01	1700E+01	0.
7	5	5	5	1700E+01	1700E+01	1700E+01	0.
7	5	6	6	1700E+01	1700E+01	1700E+01	0.
7	5	7	7	1700E+01	1700E+01	1700E+01	0.
7	5	8	8	1700E+01	1700E+01	1700E+01	0.
7	5	9	9	1700E+01	1700E+01	1700E+01	0.

DATA FOR 24 ELEMENTS HAVE BEEN READ

ELEMENT NO.	TYPE	NODES			LOCAL POINT COORDINATES			GLOBAL POINT COORDINATES			
		1	2	3	X	Y	Z	X	Y	Z	
1	BRICK	MATERIAL NO. 1	1	1	1	1.788E+01	1.511E+00	0.0	1.788E+01	1.511E+00	0.0
			1	1	2	1.788E+01	1.511E+00	0.0	1.788E+01	1.511E+00	0.0
			1	1	3	1.788E+01	1.511E+00	0.0	1.788E+01	1.511E+00	0.0
			1	2	1	1.788E+01	1.511E+00	0.0	1.788E+01	1.511E+00	0.0
			1	2	2	1.788E+01	1.511E+00	0.0	1.788E+01	1.511E+00	0.0
			1	2	3	1.788E+01	1.511E+00	0.0	1.788E+01	1.511E+00	0.0
			1	3	1	1.788E+01	1.511E+00	0.0	1.788E+01	1.511E+00	0.0
			1	3	2	1.788E+01	1.511E+00	0.0	1.788E+01	1.511E+00	0.0
			1	3	3	1.788E+01	1.511E+00	0.0	1.788E+01	1.511E+00	0.0
			1	3	4	1.788E+01	1.511E+00	0.0	1.788E+01	1.511E+00	0.0
2	BRICK	MATERIAL NO. 1	1	1	1	1.598E+01	1.338E+00	0.0	1.598E+01	1.338E+00	0.0
			1	1	2	1.598E+01	1.338E+00	0.0	1.598E+01	1.338E+00	0.0
			1	1	3	1.598E+01	1.338E+00	0.0	1.598E+01	1.338E+00	0.0
			1	2	1	1.598E+01	1.338E+00	0.0	1.598E+01	1.338E+00	0.0
			1	2	2	1.598E+01	1.338E+00	0.0	1.598E+01	1.338E+00	0.0
			1	2	3	1.598E+01	1.338E+00	0.0	1.598E+01	1.338E+00	0.0
			1	3	1	1.598E+01	1.338E+00	0.0	1.598E+01	1.338E+00	0.0
			1	3	2	1.598E+01	1.338E+00	0.0	1.598E+01	1.338E+00	0.0
			1	3	3	1.598E+01	1.338E+00	0.0	1.598E+01	1.338E+00	0.0
			1	3	4	1.598E+01	1.338E+00	0.0	1.598E+01	1.338E+00	0.0
3	BRICK	MATERIAL NO. 1	1	1	1	1.585E+01	1.325E+00	0.0	1.585E+01	1.325E+00	0.0
			1	1	2	1.585E+01	1.325E+00	0.0	1.585E+01	1.325E+00	0.0
			1	1	3	1.585E+01	1.325E+00	0.0	1.585E+01	1.325E+00	0.0
			1	2	1	1.585E+01	1.325E+00	0.0	1.585E+01	1.325E+00	0.0
			1	2	2	1.585E+01	1.325E+00	0.0	1.585E+01	1.325E+00	0.0
			1	2	3	1.585E+01	1.325E+00	0.0	1.585E+01	1.325E+00	0.0
			1	3	1	1.585E+01	1.325E+00	0.0	1.585E+01	1.325E+00	0.0
			1	3	2	1.585E+01	1.325E+00	0.0	1.585E+01	1.325E+00	0.0
			1	3	3	1.585E+01	1.325E+00	0.0	1.585E+01	1.325E+00	0.0
			1	3	4	1.585E+01	1.325E+00	0.0	1.585E+01	1.325E+00	0.0
4	BRICK	MATERIAL NO. 1	1	1	1	1.582E+01	1.322E+00	0.0	1.582E+01	1.322E+00	0.0
			1	1	2	1.582E+01	1.322E+00	0.0	1.582E+01	1.322E+00	0.0
			1	1	3	1.582E+01	1.322E+00	0.0	1.582E+01	1.322E+00	0.0
			1	2	1	1.582E+01	1.322E+00	0.0	1.582E+01	1.322E+00	0.0
			1	2	2	1.582E+01	1.322E+00	0.0	1.582E+01	1.322E+00	0.0
			1	2	3	1.582E+01	1.322E+00	0.0	1.582E+01	1.322E+00	0.0
			1	3	1	1.582E+01	1.322E+00	0.0	1.582E+01	1.322E+00	0.0
			1	3	2	1.582E+01	1.322E+00	0.0	1.582E+01	1.322E+00	0.0
			1	3	3	1.582E+01	1.322E+00	0.0	1.582E+01	1.322E+00	0.0
			1	3	4	1.582E+01	1.322E+00	0.0	1.582E+01	1.322E+00	0.0
5	BRICK	MATERIAL NO. 1	1	1	1	1.580E+01	1.320E+00	0.0	1.580E+01	1.320E+00	0.0
			1	1	2	1.580E+01	1.320E+00	0.0	1.580E+01	1.320E+00	0.0
			1	1	3	1.580E+01	1.320E+00	0.0	1.580E+01	1.320E+00	0.0
			1	2	1	1.580E+01	1.320E+00	0.0	1.580E+01	1.320E+00	0.0
			1	2	2	1.580E+01	1.320E+00	0.0	1.580E+01	1.320E+00	0.0
			1	2	3	1.580E+01	1.320E+00	0.0	1.580E+01	1.320E+00	0.0
			1	3	1	1.580E+01	1.320E+00	0.0	1.580E+01	1.320E+00	0.0
			1	3	2	1.580E+01	1.320E+00	0.0	1.580E+01	1.320E+00	0.0
			1	3	3	1.580E+01	1.320E+00	0.0	1.580E+01	1.320E+00	0.0
			1	3	4	1.580E+01	1.320E+00	0.0	1.580E+01	1.320E+00	0.0

ELEMENT NO.	TYPE	MODES			MODAL POINT COORDINATES			MODES			MODAL POINT COORDINATES			
		I	J	K	X	Y	Z	I	J	K	X	Y	Z	
6	BRICK	MATERIAL NO. 1	1	1	1	.958E+00	.303E+00	.603E+00	2	5	3	.931E+00	.781E+00	.803E+00
			1	1	1	.158E+01	.643E+00	.643E+00	1	4	3	.802E+00	.522E+00	.643E+00
			1	1	1	.128E+01	.128E+01	.643E+00	1	3	4	.995E+00	.152E+00	.844E+00
			1	1	1	.655E+00	.643E+00	.643E+00	3	3	4	.655E+01	.652E+00	.838E+00
			1	1	1	.118E+01	.345E+00	.128E+01	3	5	4	.117E+01	.137E+01	.833E+00
			1	1	1	.172E+01	.643E+00	.128E+01	1	5	4	.655E+00	.655E+00	.833E+00
			1	1	1	.119E+01	.119E+01	.128E+01	2	3	5	.480E+01	.689E+00	.120E+01
			1	1	1	.665E+00	.665E+00	.128E+01	3	4	5	.451E+01	.802E+00	.120E+01
			1	1	1	.123E+01	.511E+00	.643E+00	2	3	3	.894E+00	.804E+00	.120E+01
			1	1	1	.143E+01	.957E+00	.643E+00	1	4	5	.899E+00	.643E+00	.120E+01
			1	1	1	.169E+01	. .	.643E+00	4	3	3	.169E+01	.866E+00	.643E+00
			1	1	1	.249E+01	. .	.643E+00	3	2	3	.189E+01	.395E+00	.643E+00
			1	1	1	.226E+01	.935E+00	.643E+00	3	1	4	.182E+01	. .	.844E+00
			1	1	1	.168E+01	.663E+00	.643E+00	5	1	4	.245E+01	. .	.833E+00
			1	1	1	.191E+01	. .	.128E+01	3	4	4	.226E+01	.935E+00	.833E+00
7	BRICK	MATERIAL NO. 1	1	1	1	.169E+01	. .	.643E+00	4	3	3	.169E+01	.866E+00	.643E+00
			1	1	1	.249E+01	. .	.643E+00	3	2	3	.189E+01	.395E+00	.643E+00
			1	1	1	.226E+01	.935E+00	.643E+00	3	1	4	.182E+01	. .	.844E+00
			1	1	1	.168E+01	.663E+00	.643E+00	5	1	4	.245E+01	. .	.833E+00
			1	1	1	.191E+01	. .	.128E+01	3	4	4	.226E+01	.935E+00	.833E+00
			1	1	1	.253E+01	. .	.128E+01	3	3	3	.183E+01	.652E+00	.833E+00
			1	1	1	.226E+01	.935E+00	.128E+01	4	1	5	.222E+01	. .	.120E+01
			1	1	1	.172E+01	.643E+00	.128E+01	5	2	5	.248E+01	.777E+00	.120E+01
			1	1	1	.207E+01	. .	.643E+00	4	3	5	.288E+01	.798E+00	.120E+01
			1	1	1	.246E+01	.877E+00	.643E+00	3	2	5	.192E+01	.363E+00	.120E+01
			1	1	1	.188E+01	.883E+00	.833E+00	4	3	3	.148E+01	.148E+01	.833E+00
			1	1	1	.226E+01	.935E+00	.643E+00	4	3	3	.148E+01	.957E+00	.643E+00
			1	1	1	.173E+01	.173E+01	.643E+00	3	4	3	.185E+01	.652E+00	.833E+00
			1	1	1	.128E+01	.128E+01	.128E+01	5	3	4	.225E+01	.173E+01	.866E+00
			8	BRICK	MATERIAL NO. 1	1	1	1	.172E+01	.643E+00	.128E+01	3	5	4
1	1	1				.226E+01	.935E+00	.128E+01	3	5	4	.117E+01	.117E+01	.833E+00
1	1	1				.173E+01	.173E+01	.128E+01	4	3	5	.208E+01	.788E+00	.120E+01
1	1	1				.115E+01	.115E+01	.128E+01	5	4	5	.243E+01	.186E+01	.120E+01
1	1	1				.195E+01	.865E+00	.643E+00	4	5	5	.182E+01	.182E+01	.120E+01
1	1	1				.203E+01	.135E+01	.643E+00	3	4	5	.165E+01	.802E+00	.120E+01
1	1	1				.154E+01	. .	.128E+01	2	3	5	.148E+01	.643E+00	.120E+01
1	1	1				.199E+01	. .	.128E+01	1	2	5	.183E+01	.245E+00	.120E+01
1	1	1				.172E+01	.643E+00	.128E+01	1	1	6	.198E+01	. .	.156E+01
1	1	1				.116E+01	.345E+00	.128E+01	3	1	6	.217E+01	. .	.156E+01
1	1	1				.215E+01	. .	.194E+01	3	3	6	.179E+01	.627E+00	.157E+01
1	1	1				.238E+01	. .	.194E+01	1	3	6	.133E+01	.187E+00	.156E+01
1	1	1				.195E+01	.643E+00	.194E+01	2	1	7	.222E+01	. .	.194E+01
1	1	1				.185E+01	.395E+00	.194E+01	3	2	7	.217E+01	.395E+00	.194E+01
1	1	1				.177E+01	. .	.128E+01	2	3	7	.157E+01	.643E+00	.194E+01
9	BRICK	MATERIAL NO. 1	1	1	1	.192E+01	.363E+00	.120E+01	1	2	7	.198E+01	.363E+00	.194E+01
			1	1	1	.115E+01	.345E+00	.128E+01	2	5	5	.894E+00	.894E+00	.120E+01
			1	1	1	.172E+01	.643E+00	.128E+01	1	4	5	.809E+00	.643E+00	.120E+01
			1	1	1	.119E+01	.119E+01	.128E+01	3	3	6	.179E+01	.397E+00	.194E+01
			1	1	1	.665E+00	.665E+00	.128E+01	3	3	6	.179E+01	.627E+00	.157E+01
			1	1	1	.146E+01	.338E+00	.194E+01	3	5	6	.113E+01	.113E+01	.157E+01
			1	1	1	.195E+01	.643E+00	.194E+01	1	5	6	.655E+00	.655E+00	.157E+01
			1	1	1	.128E+01	.128E+01	.194E+01	2	3	7	.187E+01	.689E+00	.194E+01
			1	1	1	.665E+00	.665E+00	.194E+01	3	4	7	.154E+01	.888E+00	.194E+01
			1	1	1	.143E+01	.957E+00	.120E+01	2	4	7	.895E+00	.895E+00	.194E+01
			1	1	1	.145E+01	.882E+00	.128E+01	1	4	7	.141E+01	.355E+00	.194E+01

ELEMENT NO.	TYPE	MODAL POINT COORDINATES			MODAL POINT COORDINATES									
		X	Y	Z	X	Y	Z							
11	BRICK	MATERIAL NO. 1	1	1	5	.199E+01	0.	.129E+01	1	1	5	.270E+01	.798E+00	.129E+01
			5	1	5	.245E+01	0.	.120E+01	4	3	5	.192E+01	.363E+00	.120E+01
			5	3	5	.226E+01	.935E+00	.120E+01	5	1	6	.217E+01	0.	.156E+01
			3	3	5	.172E+01	.643E+00	.120E+01	5	1	6	.245E+01	0.	.157E+01
			3	1	7	.239E+01	0.	.194E+01	3	3	6	.226E+01	.935E+00	.157E+01
			5	1	7	.245E+01	0.	.194E+01	3	3	6	.179E+01	.627E+00	.157E+01
			5	3	7	.226E+01	.935E+00	.194E+01	4	1	7	.239E+01	0.	.194E+01
			3	3	7	.189E+01	.643E+00	.194E+01	5	2	7	.245E+01	.935E+00	.194E+01
			4	1	5	.222E+01	0.	.120E+01	4	3	7	.209E+01	.709E+00	.194E+01
			5	2	5	.249E+01	.477E+00	.120E+01	3	2	7	.217E+01	.398E+00	.194E+01
			12	BRICK	MATERIAL NO. 1	3	3	5	.172E+01	.643E+00	.120E+01	4	5	5
5	3	5				.226E+01	.935E+00	.120E+01	3	4	5	.145E+01	.802E+00	.120E+01
5	5	5				.173E+01	.173E+01	.120E+01	3	3	6	.179E+01	.627E+00	.157E+01
3	3	5				.145E+01	.145E+01	.120E+01	5	3	6	.226E+01	.935E+00	.157E+01
3	3	7				.189E+01	.643E+00	.194E+01	5	5	6	.172E+01	.172E+01	.157E+01
5	3	7				.226E+01	.935E+00	.194E+01	3	5	6	.142E+01	.142E+01	.194E+01
5	5	7				.173E+01	.173E+01	.194E+01	4	3	7	.209E+01	.709E+00	.194E+01
3	5	7				.128E+01	.128E+01	.194E+01	5	4	7	.209E+01	.709E+00	.194E+01
4	3	5				.200E+01	.790E+00	.120E+01	4	5	7	.145E+01	.802E+00	.194E+01
5	4	5				.208E+01	.135E+01	.120E+01	3	4	7	.145E+01	.802E+00	.194E+01
13	BRICK	MATERIAL NO. 1				1	1	7	.219E+01	0.	.194E+01	2	3	7
			3	1	7	.239E+01	0.	.194E+01	1	2	7	.108E+01	.304E+00	.194E+01
			3	3	7	.189E+01	.643E+00	.194E+01	1	1	8	.215E+01	0.	.217E+01
			1	3	7	.146E+01	.330E+00	.194E+01	2	3E+01	0.	.239E+01	0.	.217E+01
			3	1	9	.230E+01	0.	.241E+01	3	3	8	.187E+01	.892E+00	.217E+01
			3	1	9	.230E+01	0.	.241E+01	1	3	8	.146E+01	.330E+00	.217E+01
			3	3	9	.189E+01	.643E+00	.241E+01	2	1	9	.208E+01	0.	.241E+01
			1	3	9	.146E+01	.330E+00	.241E+01	3	2	9	.215E+01	.391E+00	.241E+01
			2	1	7	.222E+01	0.	.194E+01	2	3	9	.146E+01	.330E+00	.241E+01
			3	2	7	.217E+01	.390E+00	.194E+01	1	2	9	.108E+01	.304E+00	.241E+01
			14	BRICK	MATERIAL NO. 1	1	3	7	.146E+01	.330E+00	.194E+01	2	5	7
3	3	7				.189E+01	.643E+00	.194E+01	1	4	7	.101E+01	.391E+00	.194E+01
3	5	7				.120E+01	.120E+01	.194E+01	1	3	8	.146E+01	.330E+00	.217E+01
1	5	7				.665E+00	.665E+00	.194E+01	3	3	8	.107E+01	.682E+00	.217E+01
3	3	9				.146E+01	.330E+00	.241E+01	1	5	8	.135E+01	.135E+01	.217E+01
3	5	9				.189E+01	.643E+00	.241E+01	1	5	8	.615E+00	.665E+00	.217E+01
3	5	9				.108E+01	.108E+01	.241E+01	2	3	9	.164E+01	.665E+00	.241E+01
4	5	9				.665E+00	.665E+00	.241E+01	3	4	9	.146E+01	.330E+00	.241E+01
2	3	7				.187E+01	.892E+00	.194E+01	2	5	9	.615E+00	.665E+00	.241E+01
3	4	7				.154E+01	.802E+00	.194E+01	1	4	9	.101E+01	.391E+00	.241E+01
15	BRICK	MATERIAL NO. 1				3	1	7	.239E+01	0.	.194E+01	4	3	7
			5	1	7	.245E+01	0.	.194E+01	3	2	7	.217E+01	.398E+00	.194E+01
			3	3	7	.226E+01	.935E+00	.194E+01	3	1	8	.245E+01	0.	.217E+01
			3	1	9	.239E+01	0.	.241E+01	5	1	8	.208E+01	0.	.217E+01
			5	1	9	.239E+01	0.	.241E+01	3	3	8	.208E+01	0.	.217E+01
			5	3	9	.226E+01	.935E+00	.241E+01	4	1	9	.239E+01	0.	.241E+01
			3	3	9	.189E+01	.643E+00	.241E+01	5	2	9	.245E+01	0.	.241E+01
			4	1	7	.232E+01	0.	.194E+01	4	3	9	.208E+01	.709E+00	.241E+01
			5	2	7	.245E+01	.477E+00	.194E+01	3	2	9	.215E+01	.391E+00	.241E+01

BOUNDARY CONDITIONS.

ELEMENT NUMBER	I	J	K	ELEMENT TYPE	MODE NO.	VALUE
1	1	1	1	UZ	3	-.1192E-01
				UZ	10	-.1192E-01
				UZ	2	-.1192E-01
				UZ	11	-.1030E-01
				UZ	9	-.1030E-01
				UZ	4	-.2106E-01
				UZ	12	-.2106E-01
				UZ	1	-.2106E-01
				UZ	7	-.2106E-01
				UZ	8	-.2106E-01
				UZ	5	-.2106E-01
				UZ	6	-.2106E-01
				UZ	13	-.2106E-01
				UZ	14	-.2106E-01
				UZ	15	-.2106E-01
				UZ	16	-.2106E-01
				UZ	17	-.2106E-01
				UZ	18	-.2106E-01
				UZ	19	-.2106E-01
				UZ	20	-.2106E-01
				UZ	21	-.2106E-01
				UZ	22	-.2106E-01
				UZ	23	-.2106E-01
				UZ	24	-.2106E-01
				UZ	25	-.2106E-01
				UZ	26	-.2106E-01
				UZ	27	-.2106E-01
				UZ	28	-.2106E-01
				UZ	29	-.2106E-01
				UZ	30	-.2106E-01
				UZ	31	-.2106E-01
				UZ	32	-.2106E-01
				UZ	33	-.2106E-01
				UZ	34	-.2106E-01
				UZ	35	-.2106E-01
				UZ	36	-.2106E-01
				UZ	37	-.2106E-01
				UZ	38	-.2106E-01
				UZ	39	-.2106E-01
				UZ	40	-.2106E-01
				UZ	41	-.2106E-01
				UZ	42	-.2106E-01
				UZ	43	-.2106E-01
				UZ	44	-.2106E-01
				UZ	45	-.2106E-01
				UZ	46	-.2106E-01
				UZ	47	-.2106E-01
				UZ	48	-.2106E-01
				UZ	49	-.2106E-01
				UZ	50	-.2106E-01
				UZ	51	-.2106E-01
				UZ	52	-.2106E-01
				UZ	53	-.2106E-01
				UZ	54	-.2106E-01
				UZ	55	-.2106E-01
				UZ	56	-.2106E-01
				UZ	57	-.2106E-01
				UZ	58	-.2106E-01
				UZ	59	-.2106E-01
				UZ	60	-.2106E-01
				UZ	61	-.2106E-01
				UZ	62	-.2106E-01
				UZ	63	-.2106E-01
				UZ	64	-.2106E-01
				UZ	65	-.2106E-01
				UZ	66	-.2106E-01
				UZ	67	-.2106E-01
				UZ	68	-.2106E-01
				UZ	69	-.2106E-01
				UZ	70	-.2106E-01
				UZ	71	-.2106E-01
				UZ	72	-.2106E-01
				UZ	73	-.2106E-01
				UZ	74	-.2106E-01
				UZ	75	-.2106E-01
				UZ	76	-.2106E-01
				UZ	77	-.2106E-01
				UZ	78	-.2106E-01
				UZ	79	-.2106E-01
				UZ	80	-.2106E-01
				UZ	81	-.2106E-01
				UZ	82	-.2106E-01
				UZ	83	-.2106E-01
				UZ	84	-.2106E-01
				UZ	85	-.2106E-01
				UZ	86	-.2106E-01
				UZ	87	-.2106E-01
				UZ	88	-.2106E-01
				UZ	89	-.2106E-01
				UZ	90	-.2106E-01
				UZ	91	-.2106E-01
				UZ	92	-.2106E-01
				UZ	93	-.2106E-01
				UZ	94	-.2106E-01
				UZ	95	-.2106E-01
				UZ	96	-.2106E-01
				UZ	97	-.2106E-01
				UZ	98	-.2106E-01
				UZ	99	-.2106E-01
				UZ	100	-.2106E-01
				UZ	101	-.2106E-01
				UZ	102	-.2106E-01
				UZ	103	-.2106E-01
				UZ	104	-.2106E-01
				UZ	105	-.2106E-01
				UZ	106	-.2106E-01
				UZ	107	-.2106E-01
				UZ	108	-.2106E-01
				UZ	109	-.2106E-01
				UZ	110	-.2106E-01
				UZ	111	-.2106E-01
				UZ	112	-.2106E-01
				UZ	113	-.2106E-01
				UZ	114	-.2106E-01
				UZ	115	-.2106E-01
				UZ	116	-.2106E-01
				UZ	117	-.2106E-01
				UZ	118	-.2106E-01
				UZ	119	-.2106E-01
				UZ	120	-.2106E-01
				UZ	121	-.2106E-01
				UZ	122	-.2106E-01
				UZ	123	-.2106E-01
				UZ	124	-.2106E-01
				UZ	125	-.2106E-01
				UZ	126	-.2106E-01
				UZ	127	-.2106E-01
				UZ	128	-.2106E-01
				UZ	129	-.2106E-01
				UZ	130	-.2106E-01
				UZ	131	-.2106E-01
				UZ	132	-.2106E-01
				UZ	133	-.2106E-01
				UZ	134	-.2106E-01
				UZ	135	-.2106E-01
				UZ	136	-.2106E-01
				UZ	137	-.2106E-01
				UZ	138	-.2106E-01
				UZ	139	-.2106E-01
				UZ	140	-.2106E-01
				UZ	141	-.2106E-01
				UZ	142	-.2106E-01
				UZ	143	-.2106E-01
				UZ	144	-.2106E-01
				UZ	145	-.2106E-01
				UZ	146	-.2106E-01
				UZ	147	-.2106E-01
				UZ	148	-.2106E-01
				UZ	149	-.2106E-01
				UZ	150	-.2106E-01
				UZ	151	-.2106E-01
				UZ	152	-.2106E-01
				UZ	153	-.2106E-01
				UZ	154	-.2106E-01
				UZ	155	-.2106E-01
				UZ	156	-.2106E-01
				UZ	157	-.2106E-01
				UZ	158	-.2106E-01
				UZ	159	-.2106E-01
				UZ	160	-.2106E-01
				UZ	161	-.2106E-01
				UZ	162	-.2106E-01
				UZ	163	-.2106E-01
				UZ	164	-.2106E-01
				UZ	165	-.2106E-01
				UZ	166	-.2106E-01
				UZ	167	-.2106E-01
				UZ	168	-.2106E-01
				UZ	169	-.2106E-01
				UZ	170	-.2106E-01
				UZ	171	-.2106E-01
				UZ	172	-.2106E-01
				UZ	173	-.2106E-01
				UZ	174	-.2106E-01
				UZ	175	-.2106E-01
				UZ	176	-.2106E-01
				UZ	177	-.2106E-01
				UZ	178	-.2106E-01
				UZ	179	-.2106E-01
				UZ	180	-.2106E-01
				UZ	181	-.2106E-01
				UZ	182	-.2106E-01
				UZ	183	-.2106E-01
				UZ	184	-.2106E-01
				UZ	185	-.2106E-01
				UZ	186	-.2106E-01
				UZ	187	-.2106E-01
				UZ	188	-.2106E-01
				UZ	189	-.2106E-01
				UZ	190	-.2106E-01
				UZ	191	-.2106E-01
				UZ	192	-.2106E-01
				UZ	193	-.2106E-01
				UZ	194	-.2106E-01
				UZ	195	-.2106E-01
				UZ	196	-.2106E-01
				UZ	197	-.2106E-01
				UZ	198	-.2106E-01
				UZ	199	-.2106E-01
				UZ	200	-.2106E-01

BOUNDARY CONDITIONS.

ELEMENT NUMBER	ELEMENT I	ELEMENT J	ELEMENT K	TYPE	NODE OR FACE	VALUE
13	1	1	7	UZ	19	--.2968E-02
				UZ	17	--.2999E-02
				UZ	8	--.3470E-02
				UZ	20	--.2658E-02
				UZ	5	--.2154E-02
14	1	3	7	PRESSURE	4	.1425E+04
				SLOPE	5	0.
				UZ	7	--.3410E-02
				UZ	18	--.3178E-02
				UZ	19	--.3040E-02
15	3	1	7	UZ	8	--.4628E-02
				UZ	6	--.4350E-02
				PRESSURE	4	.1425E+04
				SLOPE	2	0.
				UZ	7	--.1530E-02
16	3	3	7	UZ	18	--.1530E-02
				UZ	16	--.1530E-02
				UZ	19	--.1500E-02
				UZ	17	--.1500E-02
				SLOPE	5	0.
17	5	1	1	UZ	7	--.1530E-02
				UZ	18	--.1530E-02
				UZ	19	--.1530E-02
				SLOPE	2	0.
				SLOPE	5	0.
18	5	3	1	SLOPE	6	0.
				SLOPE	2	0.
19	5	1	3	SLOPE	5	0.
				SLOPE	2	0.
20	5	3	3	SLOPE	5	0.
				SLOPE	2	0.
21	5	1	5	SLOPE	5	0.
				SLOPE	2	0.
22	5	3	5	SLOPE	2	0.
				SLOPE	5	0.
23	5	1	7	SLOPE	5	0.
				SLOPE	2	0.
24	5	3	7	SLOPE	2	0.
				SLOPE	5	0.
TIME IN SETUP =				3.438 SECONDS		
TIME IN FORMF =				10.951 SECONDS		
TIME IN PREFRONT =				1.282		
TOTAL NUMBER OF D.O.F.'S =				624		
D.O.F. IN FRONT =				144		
MAXIMUM ACTIVE STORAGE =				19802		

TOTAL NICKNAME STORAGE =	688
BUFFER LENGTH =	7197
TIME IN FORWARD ELIMINATION =	33.827
NUMBER OF SECTORS (PRUS) =	1452
TIME IN BACKSUBSTITUTION =	2.785
TIME IN ZIPP =	37.898 SECONDS

BLOCK OPTION

BOUNDS

	MIN	MAX	MIN	MAX
X	-.1000E+21	.1000E+21	I	0 0
Y	-.1000E+21	.1000E+21	J	0 0
Z	-.1000E+21	.1000E+21	K	0 0

PRINT LEVEL = 4

STRESS POINTS FOR BRICK (DEGEN) ELEMENTS

POINT	S1	S2	S3
1	-1.000	-1.000	-1.000
2	1.000	-1.000	-1.000
3	1.000	1.000	-1.000
4	-1.000	1.000	-1.000
5	-1.000	-1.000	1.000
6	1.000	-1.000	1.000
7	1.000	1.000	1.000
8	-1.000	1.000	1.000
9	0.000	0.000	1.000

STRESS POINTS FOR PRISM ELEMENTS

POINT	S1	S2	S3	S4
1	1.000	0.000	0.000	-1.000
2	0.000	1.000	0.000	-1.000
3	0.000	0.000	1.000	-1.000
4	1.000	0.000	0.000	1.000
5	0.000	1.000	0.000	1.000
6	0.000	0.000	1.000	1.000
7	.333	.333	.333	0.000

STRESS POINTS FOR WEDGE ELEMENTS

POINT	S1	S2	S3
1	.050	0.000	-1.000
2	1.000	0.000	-1.000
3	1.000	1.000	-1.000
4	.050	0.000	1.000
5	1.000	0.000	1.000
6	1.000	1.000	1.000
7	.667	.500	0.000

STRESS POINTS FOR TETRA ELEMENTS

POINT	S1	S2	S3	S4
1	1.000	0.000	0.000	0.000
2	0.000	1.000	0.000	0.000
3	0.000	0.000	1.000	0.000
4	0.000	0.000	0.000	1.000
5	.250	.250	.250	.250

DISPLACEMENTS FOR BRICKM ELEMENT NO. 1 MATERIAL = 1

I	J	K	U	V	M	M
1	1	1	.2181E-01	.3775E-09	-.1774E+00	
1	1	1	.4821E-01	.3927E-09	-.1892E-01	
1	1	1	.1874E-02	.3927E-02	-.1911E+00	
1	1	1	.1219E-01	.8162E-02	-.1772E+00	
1	1	1	.6429E-01	.3490E-09	-.1823E+00	
1	1	1	.6244E-02	.2747E-02	-.1945E+00	
1	1	1	.1241E-01	.7230E-02	-.2051E-01	
1	1	1	.4897E-02	-.1820E-06	-.1638E-01	
1	1	1	.7937E-02	.2931E-02	-.1972E-01	
1	1	1	.1343E-01	.5765E-02	-.1630E-01	
1	1	1	.2857E-01	.5110E-02	-.2194E-01	
1	1	1	.1883E-01	-.7195E-09	-.2130E-01	
1	1	1	.7813E-02	-.0473E-09	-.1822E-01	
1	1	1	.7293E-02	.3862E-02	-.1893E-01	
1	1	1	.1873E-01	.7671E-02	-.2493E-01	
1	1	1	.9539E-02	-.1042E-09	-.1538E-01	
1	1	1	.6298E-02	.1348E-02	-.1901E-02	
1	1	1	.8376E-02	.3978E-02	-.1518E-01	
1	1	1	.1873E-01	.3947E-02	-.22130E-01	

STRESSES FOR BRICKM ELEMENT NO. 1 MATERIAL = 1

POINT	X	Y	Z	SIGMX	SIGMY	SIGMZ	TAUXY	TAUYZ	TAUZX	SIGMXX	SIGMYY	SIGMZZ	SIGMXY	SIGMYZ	SIGMZ	SIGMXX	SIGMYY	SIGMZZ	SIGMXY	SIGMYZ	SIGMZ	TAUMAX	TAUMIN	
1	.94E+00	0.	0.	-.11E+04	.08E+03	.11E+04	.08E+03	.78E-02	.82E-01	.98E+08	.98E+08	.98E+08	.98E+08	.98E+08	.98E+08	.98E+08	.98E+08	.98E+08	.98E+08	.98E+08	.98E+08	.98E+08	.98E+08	.98E+08
2	.17E+01	0.	0.	-.19E-01	.25E-01	.08E-03	-.16E-03	-.12E-05	.13E-02	.22E-01	.22E-01	.22E-01	.22E-01	.22E-01	.22E-01	.22E-01	.22E-01	.22E-01	.22E-01	.22E-01	.22E-01	.22E-01	.22E-01	.22E-01
3	.16E+01	.66E+00	0.	-.92E-02	.62E-02	.48E-02	.48E-02	-.17E-02	-.15E-02	.64E-02	.64E-02	.64E-02	.64E-02	.64E-02	.64E-02	.64E-02	.64E-02	.64E-02	.64E-02	.64E-02	.64E-02	.64E-02	.64E-02	.64E-02
4	.97E+00	.36E+00	0.	-.67E-02	.34E-02	.49E-02	.49E-02	-.94E-02	-.82E-03	.17E-02	.52E-02	.52E-02	.52E-02	.52E-02	.52E-02	.52E-02	.52E-02	.52E-02	.52E-02	.52E-02	.52E-02	.52E-02	.52E-02	.52E-02
5	.94E+00	0.	.46E+03	-.12E-01	.17E-01	.67E-03	-.29E-01	.12E-02	.18E-02	.23E-02	.23E-02	.23E-02	.23E-02	.23E-02	.23E-02	.23E-02	.23E-02	.23E-02	.23E-02	.23E-02	.23E-02	.23E-02	.23E-02	.23E-02
6	.17E+01	0.	.46E+00	-.18E-01	.23E-01	.76E-04	-.22E-02	.34E-02	.79E-02	.28E-01	.28E-01	.28E-01	.28E-01	.28E-01	.28E-01	.28E-01	.28E-01	.28E-01	.28E-01	.28E-01	.28E-01	.28E-01	.28E-01	.28E-01
7	.16E+01	.96E+00	.46E+03	-.68E-02	.39E-02	.86E-04	-.86E-04	.28E-05	.63E-03	.12E-01	.42E-02	.42E-02	.42E-02	.42E-02	.42E-02	.42E-02	.42E-02	.42E-02	.42E-02	.42E-02	.42E-02	.42E-02	.42E-02	.42E-02
8	.97E+00	.36E+00	.46E+00	-.36E-02	.37E-02	.79E-03	-.39E-02	.49E-02	.12E-01	.53E-02	.53E-02	.53E-02	.53E-02	.53E-02	.53E-02	.53E-02	.53E-02	.53E-02	.53E-02	.53E-02	.53E-02	.53E-02	.53E-02	.53E-02
9	.13E+01	.26E+00	.23E+00	-.13E+04	.11E+04	.11E+04	.11E+04	-.59E+02	.44E+01	.26E+02	.26E+02	.26E+02	.26E+02	.26E+02	.26E+02	.26E+02	.26E+02	.26E+02	.26E+02	.26E+02	.26E+02	.26E+02	.26E+02	.26E+02
				-.13E-01	.82E-02	.28E-02	-.86E-02	.74E-03	.45E-02	.91E-02	.91E-02	.91E-02	.91E-02	.91E-02	.91E-02	.91E-02	.91E-02	.91E-02	.91E-02	.91E-02	.91E-02	.91E-02	.91E-02	.91E-02

DISPLACEMENTS FOR BRICKM ELEMENT NO. 2 MATERIAL = 1

POINT	X	Y	Z	U	V	M	M
1	3	1	1	.1935E-01	.6182E-02	-.2184E-01	-.1792E+00
2	3	1	1	.9492E-02	.9827E-02	-.1092E-01	-.1811E+00
3	3	1	1	.7777E-02	.7777E-02	-.1092E-01	-.1811E+00
4	3	1	1	.1496E-01	.1496E-01	-.2184E-01	-.1792E+00
5	3	1	1	.1411E-01	.2305E-02	-.2815E-01	-.1403E+00
6	3	3	3	.6244E-02	.2767E-02	-.9745E-02	-.1995E+00
7	3	3	3	.5321E-02	.5321E-02	-.1021E-01	-.1995E+00
8	3	3	3	.1131E-01	.1131E-01	-.1995E-01	-.1861E+00
9	3	3	3	.1345E-01	.5765E-02	-.1610E-01	-.1861E+00
10	3	3	3	.6062E-02	.5756E-02	-.1092E-01	-.1861E+00
11	3	3	3	.1065E-01	.1065E-01	-.1610E-01	-.1861E+00
12	3	3	3	.1733E-01	.1185E-01	-.2184E-01	-.1792E+00
13	3	3	3	.1673E-01	.7871E-02	-.2184E-01	-.1792E+00
14	3	3	3	.7295E-02	.3002E-02	-.1935E-01	-.1861E+00
15	3	3	3	.6214E-02	.6214E-02	-.1102E-01	-.1861E+00
16	3	3	3	.1303E-01	.1303E-01	-.2899E-01	-.1510E+00
17	3	3	3	.6976E-02	.3976E-02	-.6510E-01	-.1510E+00
18	3	3	3	.6828E-02	.3945E-02	-.6985E-02	-.1510E+00
19	3	3	3	.7435E-02	.7435E-02	-.1551E-01	-.1510E+00
20	3	3	3	.1332E-01	.9364E-02	-.1997E-01	-.1510E+00

STRESSES FOR BRICKM ELEMENT NO. 2 MATERIAL = 1

POINT	X	Y	Z	SIGMAX EPSX	SIGMAX EPSY	SIGMAX EPSZ	TAUXX GAMMAX	TAUYY GAMMAX	TAUZZ GAMMAX	TAUXY GAMMAX	TAUXZ GAMMAX	TAUYZ GAMMAX	SIGMA1 EPS1	SIGMA2 EPS2	SIGMA3 EPS3	TAUMAX GAMMAX
10	.67E+00	.36E+00	0.	-.13E+04	-.92E+03	-.11E+04	-.19E+03	-.10E+03	-.10E+03	-.11E+04	-.11E+04	-.11E+04	-.92E+03	-.11E+04	-.11E+04	-.11E+04
11	.16E+01	.66E+00	6.	-.12E+04	-.11E+04	-.11E+04	-.10E+03	-.10E+03	-.10E+03	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04
12	.12E+01	.12E+01	0.	-.15E+02	-.12E+02	-.11E+02	-.07E+02	-.07E+02	-.07E+02	-.11E+02	-.11E+02	-.11E+02	-.11E+02	-.11E+02	-.11E+02	-.11E+02
13	.67E+00	.67E+00	0.	-.64E+03	-.11E+04	-.11E+04	-.15E+03	-.15E+03	-.15E+03	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04
14	.97E+00	.36E+00	.46E+00	-.13E+04	-.11E+02	-.11E+02	-.10E+03	-.10E+03	-.10E+03	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04
15	.16E+01	.66E+00	.66E+00	-.11E+04	-.11E+02	-.11E+02	-.10E+03	-.10E+03	-.10E+03	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04
16	.12E+01	.12E+01	.66E+00	-.11E+04	-.11E+04	-.11E+04	-.10E+03	-.10E+03	-.10E+03	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04
17	.67E+00	.67E+00	.46E+00	-.12E+04	-.11E+04	-.11E+04	-.10E+03	-.10E+03	-.10E+03	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04
18	.11E+01	.72E+00	.23E+00	-.13E+04	-.11E+04	-.11E+04	-.10E+03	-.10E+03	-.10E+03	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04	-.11E+04

DISPLACEMENTS FOR BRICKEN ELEMENT NO. 3 MATERIAL = 1

I	J	K	U	V	M	H
3	1	1	.1021E-01	.3581E-09	-.1192E-01	-.1043E+00
3	1	1	.3097E-02	-.1101E-12	.1830E-21	-.2463E+00
5	3	1	.3668E-02	.1921E-02	.3366E-21	-.2432E+00
3	3	1	.9492E-02	.1927E-02	-.1892E-01	-.1811E+00
3	1	3	.6448E-02	.1615E-09	-.9979E-02	-.1970E+00
5	1	3	.3629E-02	-.1099E-12	-.3287E-03	-.1936E+00
3	3	3	.3661E-02	.1731E-02	-.1231E-03	-.1931E+00
3	3	3	.0248E-02	.2787E-02	-.9749E-02	-.1993E+00
4	1	1	.6178E-02	-.9561E-09	-.5460E-02	
5	2	1	.3789E-02	.8701E-03	-.8619E-21	
4	3	1	.6009E-02	.2571E-02	-.5460E-02	
3	2	1	.9839E-02	.2031E-02	-.1892E-01	
3	1	2	.7413E-02	-.6473E-09	-.1222E-11	
3	1	2	.3613E-02	.0691E-12	-.1846E-03	
5	3	2	.3799E-02	.1760E-02	-.1652E-03	
3	3	2	.7299E-02	.2082E-02	-.1633E-01	
4	1	3	.4538E-02	-.9542E-09	-.3977E-02	
5	2	3	.3518E-02	.8296E-03	-.3207E-03	
4	3	3	.4502E-02	.1998E-02	-.3920E-02	
3	2	3	.0298E-02	.1348E-02	-.9613E-02	

STRESSES FOR BRICKEN ELEMENT NO. 3 MATERIAL = 1

POINT	X	Y	Z	SIGMAX	SIGMY	SIGMZ	SIGMAX	SIGMY	SIGMZ	GAMMAX	GAMMAX	GAMMAX	TAUMAX	TAUMAX	TAUMAX
				EPSX	EPSY	EPSZ	EPS1	EPS2	EPS3	EPS4	EPS5	EPS6	EPS7	EPS8	EPS9
19	.17E+01	0.	0.	.13E+04	.12E+04	.11E+04	.11E+04	.11E+04	.11E+04	.11E+04	.11E+04	.11E+04	.11E+04	.11E+04	.11E+04
20	.24E+01	0.	0.	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04
21	.23E+01	.94E+00	0.	.16E+04	.17E+02	.73E-03	.58E-04	.27E-04	.15E-01	.48E-02	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04
22	.18E+01	.99E+00	0.	.13E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04
23	.17E+01	0.	.46E+00	.13E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04
24	.24E+01	0.	.46E+00	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04
25	.23E+01	.94E+00	.66E+00	.16E+04	.17E+02	.73E-03	.58E-04	.27E-04	.15E-01	.48E-02	.15E+04	.15E+04	.15E+04	.15E+04	.15E+04
26	.16E+01	.66E+00	.46E+00	.13E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04
27	.20E+01	.41E+00	.23E+00	.14E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04

DISPLACEMENTS FOR BRICKM ELEMENT NO. 7 MATERIAL = 1

I	J	K	U	V	M	M
3	1	3	.6440E-02	.3616E-09	-.9979E-02	-.1978E+08
3	1	3	.3429E-02	-.1039E-12	-.3297E-03	-.1939E+08
5	1	3	.3661E-02	-.1733E-02	-.3231E-03	-.1931E+08
3	3	3	.6244E-02	.2747E-02	-.9745E-02	-.1995E+08
3	1	5	.3448E-02	.2910E-09	-.5014E-02	-.1945E+08
3	1	5	.3076E-02	-.1167E-12	-.7247E-03	-.1993E+08
5	3	5	.3467E-02	.1717E-02	-.7340E-03	-.2075E+08
3	3	3	.8763E-02	.2505E-02	-.6878E-02	-.1989E+08
4	1	3	.4538E-02	-.9542E-06	-.3997E-02	
4	2	3	.3901E-02	.4296E-03	-.3207E-03	
4	3	3	.4542E-02	.1998E-02	-.3928E-02	
3	2	3	.6298E-02	.1348E-02	-.9813E-02	
3	1	4	.4497E-02	-.1037E-06	-.7208E-02	
3	1	4	.3169E-02	.5381E-12	-.5255E-03	
5	3	4	.3491E-02	.1688E-02	-.5324E-03	
3	3	4	.5328E-02	.2283E-02	-.8284E-02	
4	1	5	.3295E-02	-.5087E-09	-.2822E-02	
5	2	5	.3208E-02	.0847E-03	-.7251E-03	
4	3	5	.3927E-02	.1678E-02	-.3776E-02	
3	2	5	.3999E-02	.7988E-03	-.5489E-02	

STRESSES FOR BRICKM ELEMENT NO. 7 MATERIAL = 1

POINT	X	Y	Z	SIGMAX EPSX	SIGMAX EPSY	SIGMAX EPSZ	TAUZY GAMMAZ	TAUZY GAMMAZ	TAUZY GAMMAZ	TAUZY GAMMAZ	TAUZY GAMMAZ	TAUZY GAMMAZ	SIGMAX EPS1	SIGMAX EPS2	SIGMAX EPS3	TAUZY GAMMAZ
55	.17E+01	0.	.48E+00	-.19E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08
56	.24E+01	0.	.46E+00	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08
57	.23E+01	.94E+00	.46E+00	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08
58	.18E+01	.98E+00	.48E+00	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08
59	.28E+01	0.	.12E+01	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08
60	.24E+01	0.	.12E+01	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08
61	.23E+01	.94E+00	.12E+01	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08
62	.17E+01	.64E+00	.12E+01	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08
63	.21E+01	.42E+00	.64E+00	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08	-.12E+08

DISPLACEMENTS FOR BRICKM ELEMENT NO. 8 MATERIAL = 1

I	J	K	U	V	M	M
3	3	3	.6244E-02	.2763E-02	-.9745E-02	-.1995E+00
3	3	3	.3661E-02	.1731E-02	-.3231E-03	-.1791E+00
3	3	3	.3041E-02	.3304E-02	-.3249E-03	-.1791E+00
3	3	3	.3321E-02	.5241E-02	-.4011E-03	-.1995E+00
3	3	3	.4763E-02	.2591E-02	-.4901E-03	-.1995E+00
3	3	3	.3487E-02	.1715E-02	-.7531E-03	-.2805E+00
3	3	3	.3302E-02	.3302E-02	-.7431E-03	-.2805E+00
3	3	3	.3596E-02	.3596E-02	-.6917E-02	-.6917E-02
3	3	3	.4582E-02	.1988E-02	-.3582E-02	-.3582E-02
3	3	3	.3668E-02	.2695E-02	-.3294E-03	-.3294E-03
3	3	3	.3964E-02	.3864E-02	-.4385E-02	-.4385E-02
3	3	3	.6628E-02	.5985E-02	-.9305E-02	-.9305E-02
3	3	3	.5328E-02	.2243E-02	-.6244E-02	-.6244E-02
3	3	3	.3491E-02	.1595E-02	-.5384E-03	-.5384E-03
3	3	3	.3234E-02	.3234E-02	-.5384E-03	-.5384E-03
3	3	3	.5162E-02	.5162E-02	-.3949E-02	-.3949E-02
3	3	3	.3927E-02	.1878E-02	-.3776E-02	-.3776E-02
3	3	3	.3613E-02	.2612E-02	-.7414E-03	-.7414E-03
3	3	3	.3993E-02	.3993E-02	-.5255E-02	-.5255E-02
3	3	3	.5592E-02	.4081E-02	-.8378E-02	-.8378E-02

STRESSES FOR BRICKM ELEMENT NO. 8 MATERIAL = 1

POINT	X	Y	Z	SIGMAX	EPST	SIGMAY	EPSTY	SIGMAZ	EPSTZ	TAUXY	GAMMAXY	TAUYZ	GAMMAXZ	TAUXZ	GAMMAXZ	SIGMA1	EPST1	SIGMA2	EPST2	SIGMA3	EPST3	TAUMAX	GAMMAX	
64	.16E+01	.66E+00	.46E+00	-.13E+04	-.46E-02	-.12E+04	-.21E-02	-.12E+04	-.21E-02	-.36E+02	-.36E+02	-.36E+02	-.36E+02	-.14E+01	-.14E+01	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04
65	.23E+01	.94E+00	.46E+00	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.69E+01	-.69E+01	-.69E+01	-.69E+01	-.64E+02	-.64E+02	-.28E-02	-.28E-02	-.28E-02	-.28E-02	-.28E-02	-.28E-02	-.28E-02	-.28E-02	-.28E-02
66	.17E+01	.17E+01	.46E+00	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.18E+02	-.18E+02	-.18E+02	-.18E+02	-.34E+02	-.34E+02	-.38E-02	-.38E-02	-.38E-02	-.38E-02	-.38E-02	-.38E-02	-.38E-02	-.38E-02	-.38E-02
67	.12E+01	.12E+01	.46E+00	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.71E+02	-.71E+02	-.71E+02	-.71E+02	-.67E+02	-.67E+02	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04
68	.17E+01	.64E+00	.12E+01	-.13E+04	-.13E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.11E+01	-.11E+01	-.11E+01	-.11E+01	-.11E+01	-.11E+01	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04
69	.23E+01	.94E+00	.12E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.43E+01	-.43E+01	-.43E+01	-.43E+01	-.43E+01	-.43E+01	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04
70	.17E+01	.17E+01	.12E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.54E+02	-.54E+02	-.54E+02	-.54E+02	-.52E+02	-.52E+02	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04
71	.11E+01	.11E+01	.12E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04
72	.17E+01	.11E+01	.63E+00	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.39E+02	-.39E+02	-.39E+02	-.39E+02	-.61E+02	-.61E+02	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04

DISPLACEMENTS FOR BRICKM ELEMENT NO. 9 MATERIAL = 1

	I	J	K	U	V	M	H
1	1	5		-.5896E-02	.2674E-09	-.1288E-01	-.1733E+00
2	1	5		-.7498E-02	.2918E-09	-.1288E-01	-.1733E+00
3	1	5		-.6763E-02	.2595E-02	-.6878E-02	-.1905E+00
4	1	5		-.6622E-02	.6099E-02	-.1287E-01	-.2812E+00
5	1	7		-.4961E-02	.1085E-09	-.3282E-02	-.1759E+00
6	1	7		-.3332E-02	.1165E-09	-.2157E-02	-.1994E+00
7	3	7		-.6643E-02	.3501E-02	-.6823E-02	-.2897E+00
8	3	7		-.8778E-02	.7892E-02	-.8911E-02	-.2229E+00
9	1	5		-.4216E-02	-.4505E-09	-.7780E-02	
10	3	2		-.3898E-02	.7938E-03	-.9489E-02	
11	3	5		-.6145E-02	.1939E-02	-.1862E-01	
12	1	2		-.6878E-02	.4182E-02	-.1278E-01	
13	1	6		-.6997E-02	-.3217E-09	-.7319E-02	
14	1	6		-.3268E-02	-.6917E-09	-.3311E-02	
15	3	6		-.6801E-02	.3210E-02	-.5761E-02	
16	3	6		-.5387E-02	.7685E-02	-.9842E-02	
17	1	7		-.3766E-02	-.1294E-09	-.2696E-02	
18	3	2		-.3988E-02	.1872E-02	-.2821E-02	
19	3	7		-.5097E-02	-.5246E-02	-.5286E-02	
20	1	2		-.6798E-02	.6198E-02	-.6973E-02	

STRESSES FOR BRICKM ELEMENT NO. 9 MATERIAL = 1

POINT	X	Y	Z	SIGMAX EPDZ	SIGMAX EPDZ	SIGMAX EPDZ	TAUYX GAMMAX	TAUYZ GAMMAX	TAUYZ GAMMAX	TAUYZ GAMMAX	SIGMAX EPDZ	SIGMAX EPDZ	SIGMAX EPDZ	TAUYX GAMMAX	TAUYZ GAMMAX	TAUYZ GAMMAX
73	.19E+01	0.	.12E+01	-.12E+01	-.52E+03	-.13E+04	-.29E+02	-.61E+02	-.61E+02	-.61E+02	-.19E+01	-.19E+01	-.19E+01	-.29E+02	-.61E+02	-.61E+02
74	.28E+01	0.	.12E+01	-.12E+01	-.12E+04	-.12E+04	-.39E+01	-.39E+01	-.39E+01	-.39E+01	-.19E+01	-.19E+01	-.19E+01	-.39E+01	-.39E+01	-.39E+01
75	.17E+01	.64E+00	.12E+01	-.13E+01	-.12E+04	-.12E+04	-.39E+01	-.39E+01	-.39E+01	-.39E+01	-.19E+01	-.19E+01	-.19E+01	-.39E+01	-.39E+01	-.39E+01
76	.12E+01	.39E+00	.12E+01	-.13E+01	-.12E+04	-.12E+04	-.39E+01	-.39E+01	-.39E+01	-.39E+01	-.19E+01	-.19E+01	-.19E+01	-.39E+01	-.39E+01	-.39E+01
77	.21E+01	0.	.19E+01	-.19E+01	-.19E+04	-.19E+04	-.39E+01	-.39E+01	-.39E+01	-.39E+01	-.19E+01	-.19E+01	-.19E+01	-.39E+01	-.39E+01	-.39E+01
78	.23E+01	0.	.19E+01	-.19E+01	-.19E+04	-.19E+04	-.39E+01	-.39E+01	-.39E+01	-.39E+01	-.19E+01	-.19E+01	-.19E+01	-.39E+01	-.39E+01	-.39E+01
79	.19E+01	.69E+00	.19E+01	-.19E+01	-.19E+04	-.19E+04	-.39E+01	-.39E+01	-.39E+01	-.39E+01	-.19E+01	-.19E+01	-.19E+01	-.39E+01	-.39E+01	-.39E+01
80	.19E+01	.33E+00	.19E+01	-.19E+01	-.19E+04	-.19E+04	-.39E+01	-.39E+01	-.39E+01	-.39E+01	-.19E+01	-.19E+01	-.19E+01	-.39E+01	-.39E+01	-.39E+01
81	.19E+01	.32E+00	.16E+01	-.16E+01	-.16E+04	-.16E+04	-.39E+01	-.39E+01	-.39E+01	-.39E+01	-.16E+01	-.16E+01	-.16E+01	-.39E+01	-.39E+01	-.39E+01

DISPLACEMENTS FOR BRICKM ELEMENT NO. 10 MATERIAL = 1

I	J	K	U	V	W	H
1	3	5	.6622E-02	.8095E-02	-.1267E-01	-.2012E+00
1	3	5	.8765E-02	.8295E-02	-.5979E-02	-.1903E+00
1	3	5	.5505E-02	.5505E-02	-.8917E-02	-.2033E+00
1	3	5	.9039E-02	.9039E-02	-.1359E-01	-.2161E+00
1	3	7	.4776E-02	.7092E-02	-.6011E-02	-.2295E+00
1	3	7	.6643E-02	.3581E-02	-.8821E-02	-.2057E+00
1	5	7	.5638E-02	.5638E-02	-.5313E-02	-.2127E+00
2	3	5	.8395E-02	.8395E-02	-.1052E-01	-.2189E+00
2	3	5	.5145E-02	.3939E-02	-.1052E-01	
2	3	5	.5592E-02	.4090E-02	-.8376E-02	
2	3	5	.7561E-02	.7561E-02	-.1212E-01	
2	3	5	.9711E-02	.9711E-02	-.1358E-01	
1	3	6	.7405E-02	.7405E-02	-.9042E-02	
1	3	6	.8405E-02	.8405E-02	-.5793E-02	
1	3	6	.6037E-02	.6037E-02	-.7824E-02	
1	5	6	.8826E-02	.8826E-02	-.1050E-01	
2	3	6	.5258E-02	.5258E-02	-.5258E-02	
2	3	7	.5810E-02	.5810E-02	-.5810E-02	
2	5	7	.7231E-02	.7231E-02	-.6465E-02	
2	5	7	.9256E-02	.9256E-02	-.7335E-02	

STRESSES FOR BRICKM ELEMENT NO. 10 MATERIAL = 1

POINT	X	Y	Z	SIGMAX EPSX	SIGMAY EPSY	SIGMAZ EPSZ	TAUXZ GAMMA7Z	TAUYZ GAMMA7Y	TAUXY GAMMA7X	TAUZX GAMMA7X	TAUYZ GAMMA7Z	TAUXY GAMMA7Y	SIGMA1 EPS1	SIGMA2 EPS2	SIGMA3 EPS3	TAUMAX GAMMA7X	TAUMAY GAMMA7Y	TAUMAZ GAMMA7Z	
82	.12E+01	.34E+00	.12E+01	-.14E+04	-.15E+04	-.12E+04	.12E+02	.54E+01	.54E+01	.12E+02	.41E+02	.54E+01	-.12E+04	-.14E+04	-.12E+04	-.12E+02	-.14E+04	-.12E+02	-.12E+02
83	.17E+01	.54E+00	.12E+01	-.17E+02	-.12E+04	-.12E+04	.12E+02	.23E+02	.23E+02	.12E+02	.57E+02	.23E+02	-.12E+04	-.12E+04	-.12E+04	.08E+02	.08E+02	.12E+02	-.12E+02
84	.11E+01	.11E+01	.12E+01	-.12E+02	-.12E+04	-.12E+04	.12E+02	.35E+02	.35E+02	.12E+02	.54E+02	.35E+02	-.12E+04	-.12E+04	-.12E+04	.12E+02	.12E+02	.12E+02	-.12E+02
85	.67E+00	.57E+00	.12E+01	-.12E+02	-.12E+04	-.12E+04	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	-.12E+04	-.12E+04	-.12E+04	.12E+02	.12E+02	.12E+02	-.12E+02
86	.15E+01	.33E+00	.19E+01	-.15E+02	-.14E+04	-.14E+04	.12E+02	.27E+02	.27E+02	.12E+02	.17E+02	.27E+02	-.12E+04	-.12E+04	-.12E+04	.12E+02	.12E+02	.12E+02	-.12E+02
87	.19E+01	.65E+00	.19E+01	-.19E+02	-.19E+04	-.19E+04	.12E+02	.45E+02	.45E+02	.12E+02	.35E+02	.45E+02	-.12E+04	-.12E+04	-.12E+04	.12E+02	.12E+02	.12E+02	-.12E+02
88	.12E+01	.12E+01	.19E+01	-.12E+02	-.12E+04	-.12E+04	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	-.12E+04	-.12E+04	-.12E+04	.12E+02	.12E+02	.12E+02	-.12E+02
89	.67E+00	.67E+00	.19E+01	-.12E+02	-.12E+04	-.12E+04	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	-.12E+04	-.12E+04	-.12E+04	.12E+02	.12E+02	.12E+02	-.12E+02
90	.12E+01	.62E+00	.16E+01	-.12E+02	-.12E+04	-.12E+04	.12E+02	.35E+02	.35E+02	.12E+02	.20E+02	.35E+02	-.12E+04	-.12E+04	-.12E+04	.12E+02	.12E+02	.12E+02	-.12E+02

DISPLACEMENTS FOR BRICKM ELEMENT NO. 11 MATERIAL = 1

I	J	K	U	V	W	M
3	1	5	.3648E-02	.2915E-09	-.5814E-02	-.1945E+00
3	1	5	.3075E-02	-.1575E-12	-.7257E-03	-.1903E+00
3	3	5	.2768E-02	.1771E-02	-.7340E-03	-.2075E+00
3	3	5	.4768E-02	.2905E-02	-.6978E-02	-.1980E+00
3	1	7	.3332E-02	.1555E-05	-.2157E-02	-.1971E+00
3	1	7	.3024E-02	-.1204E-12	-.1158E-02	-.1918E+00
3	1	7	.3624E-02	.1530E-02	-.1171E-02	-.2078E+00
3	3	7	.3292E-02	.3931E-02	-.8223E-02	-.2897E+00
4	1	5	.3292E-02	-.5057E-05	-.2622E-02	
4	1	5	.3292E-02	.8071E-03	-.7254E-03	
4	3	5	.3927E-02	.6375E-02	-.3765E-02	
4	3	5	.3893E-02	.7918E-05	-.8468E-02	
3	1	6	.3266E-02	-.4937E-05	-.3311E-02	
3	1	6	.3074E-02	.6579E-12	-.9382E-03	
3	3	6	.3522E-02	.1718E-02	-.9805E-03	
3	3	6	.4801E-02	.3245E-02	-.8763E-02	
4	1	7	.3266E-02	-.1220E-03	-.1653E-02	
5	2	7	.3268E-02	.9439E-03	-.1162E-02	
4	3	7	.3947E-02	.2193E-02	-.2584E-02	
3	2	7	.3988E-02	.1872E-02	-.2621E-02	

STRESSES FOR BRICKM ELEMENT NO. 11 MATERIAL = 1

PCINT	X	Y	Z	SIGMX	EPGX	SIGMY	EPGY	SIGMZ	EPGZ	TAUXZ	GAMMAZ	TAUYZ	GAMMAZ	TAUYZ	GAMMAZ	TAUXZ	GAMMAZ	SIGM1	EPG1	SIGM2	EPG2	SIGM3	EPG3	TANMAX	GAMMAX
91	.20E+01	0.	.12E+01	-.12E+04	-.12E+04	-.12E+04	-.12E+04	.12E+04	.12E+04	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.32E+01	.32E+01
92	.24E+01	0.	.15E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.13E+04	.13E+04	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.32E+01	.32E+01
93	.23E+01	.94E+00	.15E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.13E+04	.13E+04	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.32E+01	.32E+01
94	.17E+01	.84E+00	.12E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.13E+04	.13E+04	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.32E+01	.32E+01
95	.23E+01	0.	.19E+01	-.12E+04	-.12E+04	-.12E+04	-.12E+04	.12E+04	.12E+04	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.32E+01	.32E+01
96	.24E+01	0.	.19E+01	-.12E+04	-.12E+04	-.12E+04	-.12E+04	.12E+04	.12E+04	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.12E+04	.32E+01	.32E+01
97	.23E+01	.94E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.13E+04	.13E+04	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.32E+01	.32E+01
98	.19E+01	.65E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.13E+04	.13E+04	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.32E+01	.32E+01
99	.22E+01	.42E+00	.16E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.13E+04	.13E+04	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.13E+04	.32E+01	.32E+01
				-.22E-02	-.22E-02	-.22E-02	-.22E-02	.22E-02	.22E-02	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.32E+01	.22E-02	.22E-02	.22E-02	.22E-02	.22E-02	.22E-02	.32E+01	.32E+01

DISPLACEMENTS FOR BRICKM ELEMENT NO. 12 MATERIAL = 1

I	J	K	U	V	W	H
3	3	5	.4763E-02	.2505E-02	-.5878E-02	-.1980E+00
5	3	5	.3497E-05	.1712E-02	-.7340E+03	-.2079E+00
5	5	5	.1302E-02	.302E-02	-.7423E-03	-.2090E+00
3	5	5	.4506E-02	.5908E-02	-.8917E-02	-.2093E+00
5	3	7	.2694E-02	.3501E-02	-.8023E-02	-.2097E+00
5	5	7	.3624E-02	.1870E-02	-.1171E-02	-.2078E+00
5	5	7	.3524E-02	.3242E-02	-.1184E-02	-.2068E+00
3	5	7	.2537E-02	.9039E-02	-.5313E-02	-.2127E+00
4	3	5	.3473E-02	.1672E-02	-.3776E-02	
4	5	5	.3943E-02	.2612E-02	-.8184E-03	
3	5	5	.2592E-02	.3553E-02	-.5255E-02	
3	3	6	.4591E-02	.4064E-02	-.8379E-02	
5	3	6	.3580E-02	.3218E-02	-.5753E-02	
5	3	6	.3580E-02	.1770E-02	-.9589E-03	
3	5	6	.3453E-02	.3825E-02	-.9626E-03	
5	3	6	.4837E-02	.6837E-02	-.7824E-02	
5	3	7	.3537E-02	.2193E-02	-.2588E-02	
4	5	7	.3625E-02	.2792E-02	-.1131E-02	
5	5	7	.4290E-02	.8290E-02	-.3401E-02	
5	5	7	.5425E-02	.5018E-02	-.5895E-02	

STRESSES FOR BRICKM ELEMENT NO. 12 MATERIAL = 1

POINT	K	Y	Z	SIGMAX	SIGMAY	SIGMAZ	TAUXX	TAUZY	TAUZX	SIGM1	SIGM2	SIGM3	TAUMAX
100	.17E+01	.54E+00	.12E+01	-.13E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	-.12E+04	.09E+02
101	.23E+01	.94E+00	.12E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.75E+02
102	.17E+01	.17E+01	.12E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.73E+02
103	.11E+01	.11E+01	.12E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.97E+02
104	.19E+01	.65E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.80E+02
105	.23E+01	.94E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.69E+02
106	.17E+01	.17E+01	.19E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.77E+02
107	.12E+01	.12E+01	.19E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.67E+02
108	.17E+01	.11E+01	.16E+01	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	-.13E+04	.13E+01
				-.22E-02	-.17E-04	.16E-02	.72E-02	.57E-02	.67E-02	.42E-02	.17E-02	-.65E-02	.11E-01

DISPLACEMENTS FOR BRICK ELEMENT NO. 14 MATERIAL = 1

POINT	X	Y	Z	U	V	W	H
11	.15E+01	.33E+00	.19E+01	.477E-02	.709E+02	-.601E-02	-.222E+00
12	.15E+01	.33E+00	.19E+01	.483E-02	.701E+02	-.602E-02	-.208E+00
13	.15E+01	.33E+00	.19E+01	.531E-02	.637E+02	-.531E-02	-.212E+00
14	.15E+01	.33E+00	.19E+01	.534E-02	.634E+02	-.534E-02	-.218E+00
15	.15E+01	.33E+00	.19E+01	.421E-02	.719E+02	-.421E-02	-.217E+00
16	.15E+01	.33E+00	.19E+01	.410E-02	.730E+02	-.410E-02	-.219E+00
17	.15E+01	.33E+00	.19E+01	.527E-02	.592E+02	-.527E-02	-.216E+00
18	.15E+01	.33E+00	.19E+01	.788E-02	.331E+02	-.788E-02	-.220E+00
19	.15E+01	.33E+00	.19E+01	.509E-02	.625E+02	-.509E-02	-.205E+00
20	.15E+01	.33E+00	.19E+01	.723E-02	.411E+02	-.723E-02	-.209E+00
21	.15E+01	.33E+00	.19E+01	.624E-02	.526E+02	-.624E-02	-.213E+00
22	.15E+01	.33E+00	.19E+01	.452E-02	.732E+02	-.452E-02	-.213E+00
23	.15E+01	.33E+00	.19E+01	.443E-02	.743E+02	-.443E-02	-.214E+00
24	.15E+01	.33E+00	.19E+01	.580E-02	.605E+02	-.580E-02	-.214E+00
25	.15E+01	.33E+00	.19E+01	.605E-02	.580E+02	-.605E-02	-.214E+00
26	.15E+01	.33E+00	.19E+01	.442E-02	.742E+02	-.442E-02	-.214E+00
27	.15E+01	.33E+00	.19E+01	.575E-02	.647E+02	-.575E-02	-.214E+00
28	.15E+01	.33E+00	.19E+01	.518E-02	.704E+02	-.518E-02	-.214E+00
29	.15E+01	.33E+00	.19E+01	.703E-02	.519E+02	-.703E-02	-.214E+00
30	.15E+01	.33E+00	.19E+01	.565E-02	.657E+02	-.565E-02	-.214E+00

STRESSES FOR BRICK ELEMENT NO. 14 MATERIAL = 1

POINT	X	Y	Z	SIGMAX EPSX	SIGMAX EPSY	SIGMAX EPSZ	TAUXX GAMMAX	TAUYY GAMMAY	TAUZZ GAMMAZ	TAUZX GAMMAX	SIGMA1 EPS1	SIGMA2 EPS2	SIGMA3 EPS3	TANMAX GAMMAX	TANMAX GAMMAX
11	.15E+01	.33E+00	.19E+01	-.15E+04	-.14E+04	-.14E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
12	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
13	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
14	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
15	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
16	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
17	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
18	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
19	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
20	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
21	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
22	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
23	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
24	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
25	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
26	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
27	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
28	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
29	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04
30	.15E+01	.33E+00	.19E+01	-.13E+04	-.13E+04	-.13E+04	.23E+02	.23E+02	.23E+02	.23E+02	-.19E+04	-.19E+04	-.19E+04	-.19E+04	-.19E+04

DISPLACEMENTS FOR BRICK ELEMENT NO. 17 MATERIAL = 2

I	J	K	U	V	M
5	1	1	.3687E-02	-.1161E-12	.1436E-21
5	1	1	.3654E-02	-.1761E-12	.6543E-13
7	3	1	.3857E-02	.1721E-02	.5275E-13
5	3	1	.3866E-02	.1801E-02	.3344E-21
5	1	3	.3409E-02	-.1099E-12	-.3207E-03
7	1	3	.3398E-02	-.1782E-12	-.2965E-03
7	3	3	.3663E-02	.1648E-02	-.2729E-03
5	3	3	.3881E-02	.1739E-02	.3231E-03
6	1	1	.3671E-02	.2151E-12	-.3873E-13
7	2	1	.3719E-02	.9297E-03	-.6204E-13
6	3	1	.3859E-02	.1761E-02	-.6474E-13
5	2	1	.3748E-02	.8701E-03	-.8519E-21
5	1	2	.3613E-02	.5065E-12	-.1646E-03
7	1	2	.3591E-02	.6921E-12	-.1244E-03
7	3	2	.3798E-02	.1699E-02	-.1332E-03
5	3	2	.3798E-02	.1786E-02	-.1662E-03
6	1	3	.3413E-02	.2831E-12	-.2883E-03
7	2	3	.3478E-02	.7824E-03	-.2681E-03
6	3	3	.3611E-02	.1698E-02	-.2979E-03
5	2	3	.3591E-02	.8298E-03	-.3207E-03

STRESSES FOR BRICK ELEMENT NO. 17 MATERIAL = 2

PCINT	X	Y	Z	SIGMX	EPGX	SIGMY	EPGY	SIGMZ	EPGZ	TAUXY	GAMMAX	TAUYZ	GAMMAX	TAUZX	GAMMAX	SIGM1	EPS1	SIGM2	EPS2	SIGM3	EPS3	TAUMAX	GAMMAX
149	.24E+01	0.	0.	-.19E+04	.59E+05	-.79E+04	.79E+04	-.79E+04	.79E+04	.59E+05	.59E+05	.52E+04	.52E+04	-.96E+03	-.96E+03	.59E+05	.17E-02	-.10E+04	-.10E+04	-.88E+04	-.88E+04	.28E+05	.28E+05
146	.25E+01	0.	0.	-.83E+03	.67E+05	-.19E+04	.19E+04	-.19E+04	.19E+04	.67E+05	.67E+05	.78E+04	.78E+04	-.87E+03	-.87E+03	.67E+05	.17E-02	-.36E+03	-.36E+03	-.74E+03	-.74E+03	.24E+05	.24E+05
147	.23E+01	.96E+00	0.	.49E+04	.39E+05	.39E+05	.39E+05	-.37E+04	-.37E+04	-.17E+05	-.17E+05	-.37E+03	-.37E+03	-.11E+04	-.11E+04	.66E+05	.16E-02	-.85E+03	-.85E+03	-.54E+03	-.54E+03	.21E+05	.21E+05
148	.23E+01	.96E+00	0.	.56E+04	.51E+05	.51E+05	.51E+05	-.74E+03	-.74E+03	-.18E+05	-.18E+05	-.32E+04	-.32E+04	-.32E+04	-.32E+04	.65E+05	.16E-02	-.67E+03	-.67E+03	-.59E+03	-.59E+03	.22E+05	.22E+05
149	.24E+01	0.	.66E+00	-.30E+04	.65E+05	.65E+05	.65E+05	-.64E+03	-.64E+03	.67E+05	.67E+05	.90E+02	.90E+02	-.13E+04	-.13E+04	.66E+05	.16E-02	-.27E+04	-.27E+04	-.72E+04	-.72E+04	.27E+05	.27E+05
150	.25E+01	0.	.66E+00	.83E+03	.63E+05	.63E+05	.63E+05	-.64E+03	-.64E+03	.60E+05	.60E+05	.29E+02	.29E+02	-.13E+04	-.13E+04	.63E+05	.16E-02	-.60E+03	-.60E+03	-.67E+03	-.67E+03	.23E+05	.23E+05
151	.23E+01	.96E+00	.66E+00	.33E+04	.38E+05	.38E+05	.38E+05	-.58E+03	-.58E+03	.58E+05	.58E+05	.52E+03	.52E+03	-.47E+03	-.47E+03	.53E+05	.15E-02	-.38E+03	-.38E+03	-.68E+03	-.68E+03	.21E+05	.21E+05
152	.23E+01	.94E+00	.66E+00	.44E+04	.39E+05	.39E+05	.39E+05	-.66E+03	-.66E+03	.67E+05	.67E+05	.36E+02	.36E+02	-.11E+04	-.11E+04	.66E+05	.16E-02	-.25E+04	-.25E+04	-.78E+04	-.78E+04	.24E+05	.24E+05
153	.24E+01	.68E+00	.23E+00	.15E+04	.64E+05	.64E+05	.64E+05	-.94E+03	-.94E+03	.64E+05	.64E+05	.13E+03	.13E+03	-.66E+03	-.66E+03	.59E+05	.17E-02	-.66E+03	-.66E+03	-.30E+04	-.30E+04	.27E+05	.27E+05

DISPLACEMENTS FOR BRICK ELEMENT NO. 18 MATERIAL = 2

I	J	K	U	V	M
5	3	1	.3860E-02	.1801E-02	.3344E-21
7	3	1	.3897E-02	.1721E-02	0.
7	5	1	.3390E-02	.1512E-02	0.
5	5	1	.3822E-02	.1560E-02	0.
5	3	3	.3661E-02	.1733E-02	0.
7	3	3	.3663E-02	.1648E-02	0.
7	5	3	.3282E-02	.1282E-02	0.
9	5	3	.3308E-02	.1304E-02	0.
6	3	1	.3859E-02	.1761E-02	.4474E-13
7	6	1	.3816E-02	.1651E-02	.9582E-13
6	5	1	.3411E-02	.1411E-02	.5036E-13
5	6	1	.3821E-02	.1702E-02	.8996E-21
5	3	2	.3799E-02	.1741E-02	.1652E-03
7	3	2	.3790E-02	.1698E-02	.1332E-03
7	5	2	.3359E-02	.1359E-02	.1406E-03
5	5	2	.3383E-02	.1383E-02	.1669E-03
6	3	3	.3661E-02	.1691E-02	.2979E-03
7	4	3	.3667E-02	.1697E-02	.2850E-03
6	5	3	.3293E-02	.1293E-02	.3051E-03
5	6	3	.3668E-02	.1688E-02	.3294E-03

STRESSES FOR BRICK ELEMENT NO. 18 MATERIAL = 2

POINT	X	Y	Z	SIGMAX	EPSX	SIGMAY	EPSY	SIGMAZ	EPSZ	TAUXX	GAMMAX	TAUYY	GAMMAY	TAUZX	GAMMAX	TAUYZ	GAMMAYZ	TAUZY	GAMMAXZ	TAUZY	GAMMAXZ	SIGMA1	EPS1	SIGMA2	EPS2	SIGMA3	EPS3	TAUMAX	GAMMAX		
154	.23E+01	.94E+00	0.	.66E+04	.14E-03	.43E+05	.14E-02	.72E+04	.72E-03	.19E+05	.19E-02	.39E+03	.39E-04	.11E+04	.11E-04	.97E-04	.97E-04	.97E-04	.97E-04	.97E-04	.97E-04	.51E+05	.18E-02	.66E+03	.66E-03	.74E+04	.74E-03	.69E+03	.69E-03	.25E+02	.25E+02
155	.23E+01	.96E+00	0.	.66E+04	.14E-03	.46E+05	.14E-02	.54E+03	.54E-03	.18E+05	.18E-02	.37E+03	.37E-04	.11E+04	.11E-04	.92E-04	.92E-04	.92E-04	.92E-04	.92E-04	.92E-04	.53E+05	.18E-02	.66E+03	.66E-03	.74E+04	.74E-03	.69E+03	.69E-03	.27E+02	.27E+02
156	.18E+01	.18E+01	0.	.68E+03	.57E-03	.25E+05	.25E-02	.20E+04	.20E-04	.26E+05	.26E-02	.97E+03	.97E-04	.97E+03	.97E-04	.84E-04	.84E-04	.84E-04	.84E-04	.84E-04	.84E-04	.53E+05	.18E-02	.66E+03	.66E-03	.74E+04	.74E-03	.69E+03	.69E-03	.28E+02	.28E+02
157	.17E+01	.17E+01	6.	.24E+05	.69E-03	.24E+05	.24E-02	.73E+04	.73E-03	.22E+05	.22E-02	.18E+04	.18E-04	.18E+04	.18E-04	.86E-04	.86E-04	.86E-04	.86E-04	.86E-04	.86E-04	.52E+05	.18E-02	.66E+03	.66E-03	.74E+04	.74E-03	.69E+03	.69E-03	.28E+02	.28E+02
158	.23E+01	.94E+00	.44E+00	.56E+04	.17E-03	.41E+05	.14E-02	.58E+04	.58E-03	.18E+05	.18E-02	.68E+02	.68E-05	.11E+04	.11E-04	.95E-04	.95E-04	.95E-04	.95E-04	.95E-04	.95E-04	.49E+05	.17E-02	.66E+03	.66E-03	.74E+04	.74E-03	.69E+03	.69E-03	.27E+02	.27E+02
159	.23E+01	.96E+00	.44E+00	.94E+04	.14E-02	.44E+05	.14E-02	.26E+04	.26E-03	.17E+05	.17E-02	.59E+03	.59E-05	.95E+03	.95E-04	.80E+03	.80E-03	.80E+03	.80E+03	.80E+03	.80E+03	.51E+05	.17E-02	.66E+03	.66E-03	.74E+04	.74E-03	.69E+03	.69E-03	.27E+02	.27E+02
160	.18E+01	.18E+01	.44E+01	.22E+05	.97E-04	.22E+05	.22E-02	.62E+03	.62E-03	.15E+05	.15E-02	.43E+04	.43E-04	.43E+04	.43E-04	.76E-04	.76E-04	.76E-04	.76E-04	.76E-04	.76E-04	.52E+05	.18E-02	.66E+03	.66E-03	.74E+04	.74E-03	.69E+03	.69E-03	.28E+02	.28E+02
161	.17E+01	.17E+01	.44E+01	.68E+03	.68E-03	.68E+03	.68E-03	.59E+03	.59E-03	.21E+05	.21E-02	.38E+04	.38E-04	.38E+04	.38E-04	.49E+03	.49E+03	.49E+03	.49E+03	.49E+03	.49E+03	.45E+05	.17E-02	.66E+03	.66E-03	.74E+04	.74E-03	.69E+03	.69E-03	.27E+02	.27E+02
162	.21E+01	.14E+01	.23E+01	.14E+05	.32E+03	.32E+05	.32E-02	.65E+03	.65E-03	.32E+05	.32E-02	.22E+05	.22E-02	.18E+04	.18E-03	.74E+02	.74E+02	.74E+02	.74E+02	.74E+02	.74E+02	.47E+05	.17E-02	.66E+03	.66E-03	.74E+04	.74E-03	.69E+03	.69E-03	.27E+02	.27E+02
				.10E-02	.10E-03	.10E-02	.10E-02	.66E-03	.66E-03	.19E-02	.19E-02	.15E-04	.15E-04	.15E-04	.15E-04	.66E-03	.66E-03	.66E-03	.66E-03	.66E-03	.66E-03	.16E-02	.16E-02	.44E-03	.44E-03	.66E-03	.66E-03	.21E-02	.21E-02		

DISPLACEMENTS FOR BRICK ELEMENT NO. 21 MATERIAL = 2

POINT	X	Y	Z	U	V	W
181	.28E+01	0.	.12E+11	.1167E-02	-.7267E-03	0.
182	.28E+01	0.	.12E+11	.1088E-12	-.7218E-03	0.
183	.28E+01	0.	.12E+11	.1613E-02	-.7515E-03	0.
184	.28E+01	0.	.12E+11	.1717E-02	-.7348E-03	0.
185	.28E+01	0.	.12E+11	.1244E-12	-.1158E-02	0.
186	.28E+01	0.	.12E+11	.1088E-02	-.1158E-02	0.
187	.28E+01	0.	.12E+11	.1613E-02	-.1158E-02	0.
188	.28E+01	0.	.12E+11	.1717E-02	-.1171E-02	0.
189	.28E+01	0.	.12E+11	.1244E-12	-.7218E-03	0.
190	.28E+01	0.	.12E+11	.1088E-02	-.7218E-03	0.
191	.28E+01	0.	.12E+11	.1613E-02	-.7515E-03	0.
192	.28E+01	0.	.12E+11	.1717E-02	-.7348E-03	0.
193	.28E+01	0.	.12E+11	.1244E-12	-.1158E-02	0.
194	.28E+01	0.	.12E+11	.1088E-02	-.1158E-02	0.
195	.28E+01	0.	.12E+11	.1613E-02	-.1158E-02	0.
196	.28E+01	0.	.12E+11	.1717E-02	-.1171E-02	0.
197	.28E+01	0.	.12E+11	.1244E-12	-.7218E-03	0.
198	.28E+01	0.	.12E+11	.1088E-02	-.7218E-03	0.
199	.28E+01	0.	.12E+11	.1613E-02	-.7515E-03	0.
200	.28E+01	0.	.12E+11	.1717E-02	-.7348E-03	0.
201	.28E+01	0.	.12E+11	.1244E-12	-.1158E-02	0.
202	.28E+01	0.	.12E+11	.1088E-02	-.1158E-02	0.
203	.28E+01	0.	.12E+11	.1613E-02	-.1158E-02	0.
204	.28E+01	0.	.12E+11	.1717E-02	-.1171E-02	0.
205	.28E+01	0.	.12E+11	.1244E-12	-.7218E-03	0.
206	.28E+01	0.	.12E+11	.1088E-02	-.7218E-03	0.
207	.28E+01	0.	.12E+11	.1613E-02	-.7515E-03	0.
208	.28E+01	0.	.12E+11	.1717E-02	-.7348E-03	0.
209	.28E+01	0.	.12E+11	.1244E-12	-.1158E-02	0.
210	.28E+01	0.	.12E+11	.1088E-02	-.1158E-02	0.
211	.28E+01	0.	.12E+11	.1613E-02	-.1158E-02	0.
212	.28E+01	0.	.12E+11	.1717E-02	-.1171E-02	0.
213	.28E+01	0.	.12E+11	.1244E-12	-.7218E-03	0.
214	.28E+01	0.	.12E+11	.1088E-02	-.7218E-03	0.
215	.28E+01	0.	.12E+11	.1613E-02	-.7515E-03	0.
216	.28E+01	0.	.12E+11	.1717E-02	-.7348E-03	0.
217	.28E+01	0.	.12E+11	.1244E-12	-.1158E-02	0.
218	.28E+01	0.	.12E+11	.1088E-02	-.1158E-02	0.
219	.28E+01	0.	.12E+11	.1613E-02	-.1158E-02	0.
220	.28E+01	0.	.12E+11	.1717E-02	-.1171E-02	0.

STRESSES FOR BRICK ELEMENT NO. 21 MATERIAL = 2

POINT	X	Y	Z	SIGMAX	SIGMY	SIGMZ	TAUXX	TAUYY	TAUZZ	GAMMAX	GAMMAY	GAMMAZ	SIGM1	SIGM2	SIGM3	TAUM1X	TAUM1Y	TAUM1Z	GAMM1X	GAMM1Y	GAMM1Z
181	.28E+01	0.	.12E+11	.21E+04	.88E+03	.88E+03	.10E+04	.57E+02	.67E+02	.26E+03	.10E+04	.10E+04	.44E+05	.31E+04	.40E+04	.24E+09	.24E+09	.24E+09	.24E+09	.24E+09	.24E+09
182	.28E+01	0.	.12E+11	.19E+03	.39E+03	.39E+03	.86E+04	.61E+05	.61E+05	.23E+04	.86E+04	.86E+04	.19E+02	.69E+03	.57E+03	.57E+03	.57E+03	.57E+03	.57E+03	.57E+03	.57E+03
183	.28E+01	0.	.12E+11	.32E+03	.14E+02	.59E+03	.80E+04	.66E+06	.66E+06	.76E+05	.80E+04	.80E+04	.14E+02	.32E+03	.32E+03	.32E+03	.32E+03	.32E+03	.32E+03	.32E+03	.32E+03
184	.28E+01	0.	.12E+11	.13E+03	.12E+02	.59E+03	.14E+04	.77E+02	.77E+02	.18E+03	.14E+04	.14E+04	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02
185	.28E+01	0.	.12E+11	.13E+03	.13E+02	.59E+03	.14E+04	.72E+03	.72E+03	.59E+02	.14E+04	.14E+04	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02
186	.28E+01	0.	.12E+11	.12E+04	.15E+02	.60E+03	.11E+03	.22E+02	.22E+02	.28E+03	.11E+03	.11E+03	.15E+02	.60E+03	.60E+03	.60E+03	.60E+03	.60E+03	.60E+03	.60E+03	.60E+03
187	.28E+01	0.	.12E+11	.33E+03	.14E+02	.59E+03	.80E+04	.66E+06	.66E+06	.76E+05	.80E+04	.80E+04	.14E+02	.32E+03	.32E+03	.32E+03	.32E+03	.32E+03	.32E+03	.32E+03	.32E+03
188	.28E+01	0.	.12E+11	.13E+03	.12E+02	.59E+03	.14E+04	.77E+02	.77E+02	.18E+03	.14E+04	.14E+04	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02	.12E+02
189	.28E+01	0.	.12E+11	.13E+03	.13E+02	.59E+03	.14E+04	.72E+03	.72E+03	.59E+02	.14E+04	.14E+04	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02

DISPLACEMENTS FOR BRICK ELEMENT NO. 23 MATERIAL = 2

POINT	X	Y	Z	SIGMAX EPSX	SIGMAY EPSY	SIGMAZ EPSZ	TAUXX GAMMAX	TAUYX GAMMAX	TAUZZ GAMMAX	TAUZY GAMMAX	TAUZX GAMMAX	SIGM1 EPS1	SIGM2 EPS2	SIGM3 EPS3	TAUMAX GAMMAX
199	.28E+01	0.	.19E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
200	.29E+01	0.	.19E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
201	.23E+01	.96E+00	.19E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
202	.23E+01	.94E+00	.19E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
203	.24E+01	0.	.24E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
204	.25E+01	0.	.24E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
205	.23E+01	.96E+00	.28E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
206	.23E+01	.94E+00	.24E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
207	.24E+01	.95E+00	.22E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01

STRESSES FOR BRICK ELEMENT NO. 23 MATERIAL = 2

POINT	X	Y	Z	SIGMAX EPSX	SIGMAY EPSY	SIGMAZ EPSZ	TAUXX GAMMAX	TAUYX GAMMAX	TAUZZ GAMMAX	TAUZY GAMMAX	TAUZX GAMMAX	SIGM1 EPS1	SIGM2 EPS2	SIGM3 EPS3	TAUMAX GAMMAX
199	.28E+01	0.	.19E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
200	.29E+01	0.	.19E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
201	.23E+01	.96E+00	.19E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
202	.23E+01	.94E+00	.19E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
203	.24E+01	0.	.24E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
204	.25E+01	0.	.24E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
205	.23E+01	.96E+00	.28E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
206	.23E+01	.94E+00	.24E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01
207	.24E+01	.95E+00	.22E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01	-.17E+01

ELEMENT SUMMARY REPORT

THREE MOST HIGHLY STRESSED ELEMENTS

FIRST STRESS		SECOND STRESS		THIRD STRESS	
ELEMENT NO.	I J K	ELEMENT NO.	I J K	ELEMENT NO.	I J K
MATERIAL NUMBER = 1					
SIGMA MAX	1 1 1 4	-0.87E+03	1 1 1 1	-0.841E+03	1 3 1 10
SIGMA MIN	3 1 1 20	-0.169E+04	3 1 1 21	-0.160E+04	3 3 1 29
TAU MAX	1 1 5 73	0.276E+03	1 1 3 41	0.276E+03	1 1 3 37
EPS MAX	1 1 1 4	0.234E-01	1 1 1 5	0.231E-01	1 3 1 18
EPS MIN	1 1 5 73	-0.292E-11	1 1 3 41	-0.292E-01	1 1 5 77
GAMMA MAX	1 1 5 73	0.366E-01	1 1 3 41	0.35E-01	1 1 3 87
MATERIAL NUMBER = 2					
SIGMA MAX	5 3 7 209	0.551E+05	5 3 7 210	0.547E+05	5 3 1 155
SIGMA MIN	5 1 7 203	-0.142E+05	5 1 7 206	-0.127E+05	5 1 7 199
TAU MAX	5 3 1 154	0.298E+05	5 3 1 157	0.209E+05	5 3 7 200
EPS MAX	5 3 1 156	0.178E-02	5 3 7 210	0.177E-02	5 3 5 196
EPS MIN	5 1 7 203	-0.832E-03	5 1 7 199	-0.803E-03	5 3 7 212
GAMMA MAX	5 3 1 154	0.252E-02	5 3 1 157	0.251E-02	5 3 7 200

TIME IN SECS 3.897 SECONDS

MAXIMUM NUMBER OF COARSE GRID ELEMENTS POSSIBLE = 16

MAXIMUM DIMENSION OF REFINED GRID = 1331

MAXIMUM NUMBER OF GRID POINTS IN ANY ONE DIRECTION = 15

COARSE GRID ELEMENT = 5		Y-COORD		Z-COORD		MODE		K J I		X-COORD		Y-COORD		Z-COORD	
MODE	K J I	X-COORD	Y-COORD	Z-COORD	MODE	K J I	X-COORD	Y-COORD	Z-COORD	X-COORD	Y-COORD	Z-COORD	X-COORD	Y-COORD	Z-COORD
1	30101	0.948E+00	0.	0.	11	30302	0.123E+01	0.511E+00	0.	0.463E+00	0.	0.463E+00	0.	0.463E+00	0.
2	30103	0.169E+01	0.	0.	12	30201	0.921E+09	0.103E+00	0.	0.63E+00	0.	0.63E+00	0.	0.63E+00	0.
3	30303	0.166E+01	0.	0.	13	40101	0.120E+01	0.	0.	0.84E+00	0.	0.84E+00	0.	0.84E+00	0.
4	30301	0.948E+00	0.	0.	14	40103	0.102E+01	0.	0.	0.84E+00	0.	0.84E+00	0.	0.84E+00	0.
5	50101	0.154E+01	0.	0.	15	40303	0.155E+01	0.	0.	0.83E+00	0.	0.83E+00	0.	0.83E+00	0.
6	50103	0.154E+01	0.	0.	16	40201	0.177E+01	0.	0.	0.84E+00	0.	0.84E+00	0.	0.84E+00	0.
7	50303	0.172E+01	0.	0.	17	50102	0.177E+01	0.	0.	0.363E+00	0.	0.363E+00	0.	0.363E+00	0.
8	50301	0.166E+01	0.	0.	18	50203	0.192E+01	0.	0.	0.89E+00	0.	0.89E+00	0.	0.89E+00	0.
9	30102	0.112E+01	0.	0.	19	50202	0.143E+01	0.	0.	0.120E+01	0.	0.120E+01	0.	0.120E+01	0.
10	30203	0.169E+01	0.	0.	20	50201	0.140E+01	0.	0.	0.246E+00	0.	0.246E+00	0.	0.246E+00	0.

FINE GRID ELEMENT = 1

4	4	4	J	0.790E+00	0.	0.790E+00	11	4	3	3	0.111E+00	0.221E+00	0.403E+00
2	3	1	3	.132E+01	0.	.463E+00	12	1	2	3	.939E+00	.926E-01	.463E+00
3	3	3	3	.131E+01	.260E+00	.463E+00	13	1	1	4	.106E+01	0.	.668E+00
4	1	3	3	.921E+00	.183E+00	.463E+00	14	3	1	4	.141E+01	0.	.668E+00
5	1	1	5	.120E+01	0.	.854E+00	15	3	3	4	.138E+01	.270E+00	.657E+00
6	3	1	5	.151E+01	0.	.849E+00	16	1	3	4	.102E+01	.198E+00	.668E+00
7	3	3	5	.146E+01	.281E+00	.849E+00	17	2	1	5	.136E+01	0.	.892E+00
8	1	3	5	.113E+01	.213E+00	.849E+00	18	3	2	5	.150E+01	.168E+00	.847E+00
9	2	1	3	.113E+01	0.	.463E+00	19	2	3	5	.129E+01	.247E+00	.847E+00
10	3	2	3	.132E+01	.131E+00	.463E+00	20	1	2	5	.117E+01	.116E+00	.852E+00

POINT, CLAMP, AND SLOPE TYPE BC.

TYPE	NODE	VALUE
1	4	.1473E-01
2	4	.3947E-02
3	4	-.2136E-01
1	1	.1519E-01
2	1	.3898E-09
3	1	-.2204E-01
1	5	.9150E-02
2	5	-.1826E-00
3	5	-.1810E-01
1	8	.9240E-02
2	8	.3908E-02
3	8	-.1756E-01
1	12	.1498E-01
2	12	.2896E-02
3	12	-.2172E-01
1	13	.1182E-01
2	13	-.6569E-09
3	13	-.2023E-01
1	20	.9150E-02
2	20	.2014E-02
3	20	-.1783E-01
1	16	.1172E-01
2	16	.3892E-02
3	16	-.1959E-01
1	2	.9539E-02
2	2	-.1842E-00
3	2	-.1530E-01
1	6	.5956E-02
2	6	-.2135E-00
3	6	-.1171E-01
1	9	.1205E-01
2	9	-.6807E-09
3	9	-.1849E-01
1	14	.7517E-02
2	14	-.1936E-00
3	14	-.1355E-01
1	17	.7336E-02
2	17	-.1849E-00
3	17	-.1467E-01
1	3	.9279E-02
2	3	.2137E-02
3	3	-.1511E-01
1	11	.1170E-01
2	11	.2914E-02
3	11	-.1815E-01
1	10	.9414E-02
2	10	.1106E-02
3	10	-.1518E-01

FINE GRID ELEMENT = 2

NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	1	1	5	.120E+01	0.	.854E+00	11	2	3	5	.129E+01	.247E+00	.847E+00
2	3	1	5	.151E+01	0.	.849E+00	12	1	2	5	.117E+01	.116E+00	.852E+00

NO	POINT	CLAMP	AND	SLOPE	TYPE	BC	VALUE	NO	POINT	CLAMP	AND	SLOPE	TYPE	BC	VALUE
4	1	3	5	.113E+01	.213E+00	.064E+00	14	3	1	6	.163E+01	0.	.103E+01		
5	1	1	7	.194E+01	0.	.120E+01	15	3	3	6	.195E+01	.291E+00	.103E+01		
6	3	1	7	.177E+01	0.	.120E+01	16	1	3	6	.126E+01	.229E+00	.103E+01		
7	3	3	7	.166E+01	.302E+00	.120E+01	17	2	1	7	.166E+01	0.	.120E+01		
8	1	3	7	.140E+01	.244E+00	.120E+01	18	3	2	7	.173E+01	.165E+00	.120E+01		
9	2	1	5	.136E+01	0.	.052E+00	19	2	3	7	.193E+01	.272E+00	.120E+01		
10	3	2	5	.150E+01	.146E+00	.064E+00	20	1	2	7	.140E+01	.140E+00	.120E+01		

POINT, CLAMP, AND SLOPE TYPE BC.

TYPE	NODE	VALUE
1	4	.9240E-02
2	4	.3900E-02
3	4	-.1756E-01
1	1	-.9190E-02
2	1	-.1026E-00
3	1	-.1010E-01
1	5	.5096E-02
2	5	.2074E-09
3	5	-.1200E-01
1	8	.5079E-02
2	8	.4150E-02
3	8	-.1270E-01
1	12	.9150E-02
2	12	.2914E-02
3	12	-.1703E-01
1	13	.7174E-02
2	13	-.7101E-09
3	13	-.1909E-01
1	20	.5790E-02
2	20	.2111E-02
3	20	-.1277E-01
1	16	.7292E-02
2	16	.3994E-02
3	16	-.1920E-01
1	2	.5956E-02
2	2	-.2139E-00
3	2	-.1171E-01
1	6	.4214E-02
2	6	-.4505E-09
3	6	-.7702E-02
1	9	.7336E-02
2	9	-.1049E-00
3	9	-.1467E-01
1	14	.4855E-02
2	14	-.1640E-00
3	14	-.9790E-02
1	17	.4940E-02
2	17	-.2740E-09
3	17	-.1004E-01
1	7	.4802E-02
2	7	.1813E-02
3	7	-.8429E-02
1	18	.4474E-02
2	18	.0672E-03
3	18	-.0204E-02
1	19	.5370E-02
2	19	.2016E-02
3	19	-.1077E-01

FINE GRID ELEMENT * 3

NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	1	3	3	.921E+00	.183E+00	.463E+00	11	2	5	3	.105E+01	.435E+00	.463E+00
2	3	3	3	.131E+01	.200E+00	.463E+00	12	1	4	3	.099E+00	.272E+00	.463E+00
3	3	5	3	.123E+01	.511E+00	.463E+00	13	1	3	4	.102E+01	.198E+00	.660E+00
4	1	5	3	.060E+00	.360E+00	.463E+00	14	3	3	4	.136E+01	.270E+00	.657E+00

J	K	L	M	VALUE	VALUE	VALUE	VALUE	VALUE	VALUE	VALUE
6	3	3	5	.146E+01	.281E+01	.845E+00	16	1	5	4
7	3	5	5	.132E+01	.500E+00	.841E+00	17	2	3	5
8	1	5	5	.995E+00	.352E+00	.844E+00	18	3	4	5
9	2	3	3	.111E+01	.221E+00	.463E+00	19	2	5	5
10	3	4	3	.120E+01	.306E+00	.463E+00	20	1	4	5

POINT, CLAMP, AND SLOPE TYPE BC.

POINT TYPE	CLAMP	AND SLOPE	TYPE BC.	VALUE
1	4			.1411E-01
2	4			.7230E-02
3	4			-.2851E-01
1	1			.1473E-01
2	1			.3947E-02
3	1			-.2136E-01
1	5			.9240E-02
2	5			.3980E-02
3	5			-.1756E-01
1	8			.9629E-02
2	8			.7339E-02
3	8			-.1701E-01
1	12			.1444E-01
2	12			.5671E-02
3	12			-.2096E-01
1	13			.1172E-01
2	13			.3892E-02
3	13			-.1959E-01
1	20			.9397E-02
2	20			.5683E-02
3	20			-.1729E-01
1	16			.1160E-01
2	16			.7214E-02
3	16			-.1887E-01
1	3			.8976E-02
2	3			.3970E-02
3	3			-.1510E-01
1	7			.7101E-02
2	7			.3642E-02
3	7			-.1363E-01
1	11			.1124E-01
2	11			.5349E-02
3	11			-.1780E-01
1	19			.8272E-02
2	19			.5198E-02
3	19			-.1512E-01
1	15			.7924E-02
2	15			.3734E-02
3	15			-.1411E-01
1	2			.9279E-02
2	2			.2137E-02
3	2			-.1511E-01
1	10			.9133E-02
2	10			.3895E-02
3	10			-.1508E-01
1	9			.1170E-01
2	9			.2914E-02
3	9			-.1815E-01

FINE GRID ELEMENT = 4

NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	1	3	5	.113E+01	.213E+01	.849E+00	11	2	5	5	.116E+01	.426E+00	.942E+00
2	3	3	5	.146E+01	.281E+01	.845E+00	12	1	4	5	.107E+01	.292E+00	.946E+00
3	3	5	5	.132E+01	.500E+00	.841E+00	13	1	3	6	.126E+01	.229E+00	.103E+01
4	1	5	5	.995E+00	.352E+00	.844E+00	14	3	3	6	.155E+01	.291E+00	.103E+01
5	1	3	7	.140E+01	.244E+00	.120E+01	15	3	5	6	.137E+01	.495E+00	.102E+01
6	3	3	7	.166E+01	.302E+00	.120E+01	16	1	5	6	.107E+01	.348E+00	.103E+01

I	J	K	L	U	V	W	X	Y	Z	U	V	W	X	Y	Z
8	1	5	7	.116E+01	.345E+00	.127E+01	18	3	4	7	.156E+01	.410E+00	.128E+01		
9	2	3	5	.129E+01	.247E+00	.847E+00	19	2	5	7	.130E+01	.416E+00	.128E+01		
10	3	4	5	.140E+01	.390E+00	.843E+00	20	1	4	7	.129E+01	.312E+00	.128E+01		

POINT, CLAMP, AND SLOPE TYPE BC.

TYPE	NODE	VALUE
1	4	.9629E-02
2	4	.7339E-02
3	4	-.1701E-01
1	1	.9240E-02
2	1	.3980E-02
3	1	-.1796E-01
1	5	.5075E-02
2	5	.4150E-01
3	5	-.1270E-01
1	8	.8022E-02
2	8	.8089E-02
3	8	-.1267E-01
1	12	.9397E-02
2	12	.5683E-02
3	12	-.1729E-01
1	13	.7292E-02
2	13	.3994E-02
3	13	-.1926E-01
1	20	.6153E-02
2	20	.6116E-02
3	20	-.1267E-01
1	10	.7941E-02
2	16	.7604E-02
3	16	-.1494E-01
1	3	.7101E-02
2	3	.3642E-02
3	3	-.1303E-01
1	7	.6149E-02
2	7	.3939E-02
3	7	-.1862E-01
1	11	.8272E-02
2	11	.5198E-02
3	11	-.1512E-01
1	19	.8497E-02
2	19	.5644E-02
3	19	-.1185E-01
1	15	.6508E-02
2	15	.3711E-02
3	15	-.1187E-01
1	6	.4882E-02
2	6	.1813E-02
3	6	-.8925E-02
1	18	.5440E-02
2	18	.2837E-02
3	18	-.9703E-02
1	17	.5370E-02
2	17	.2816E-02
3	17	-.1077E-01

FINE GRID ELEMENT = 5				X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	3	1	3	.132E+01	0.	.463E+00	11	4	3	3	.159E+01	.250E+00	.483E+00
2	3	1	3	.169E+01	0.	.463E+00	12	3	2	3	.132E+01	.131E+00	.463E+00
3	5	3	3	.169E+01	.336E+00	.463E+00	13	3	1	4	.141E+01	0.	.600E+00
4	3	3	3	.131E+01	.260E+00	.463E+00	14	5	1	4	.175E+01	0.	.656E+00
5	3	1	5	.151E+01	0.	.849E+00	15	5	3	4	.173E+01	.343E+00	.654E+00
6	3	1	5	.182E+01	0.	.844E+00	16	3	3	4	.139E+01	.270E+00	.697E+00
7	3	3	5	.179E+01	.350E+00	.841E+00	17	4	1	5	.167E+01	0.	.846E+00
8	3	3	5	.146E+01	.281E+00	.845E+00	18	5	2	5	.182E+01	.181E+00	.842E+00

POINT, CLAMP, AND SLOPE TYPE BC.

TYPE	NODE	VALUE
1	2	.4497E-02
2	2	-.1097E-00
3	2	-.7200E-02
1	3	.4701E-02
2	3	.0905E-03
3	3	-.7303E-02
1	7	.3095E-02
2	7	.7938E-03
3	7	-.5469E-02
1	6	.3040E-02
2	6	.2910E-09
3	6	-.5014E-02
1	10	.4607E-02
2	10	.3055E-03
3	10	-.7195E-02
1	15	.4259E-02
2	15	.0000E-03
3	15	-.6372E-02
1	18	.3619E-02
2	18	.2022E-03
3	18	-.5122E-02
1	14	.3061E-02
2	14	-.7509E-09
3	14	-.6030E-02
1	1	.5956E-02
2	1	-.2139E-00
3	1	-.1171E-01
1	5	.4214E-02
2	5	-.4505E-09
3	5	-.7700E-02
1	9	.5010E-02
2	9	-.1005E-00
3	9	-.9225E-02
1	17	.3717E-02
2	17	-.2622E-09
3	17	-.6105E-02
1	13	.4055E-02
2	13	-.1040E-00
3	13	-.9796E-02
1	8	.4002E-02
2	8	.1013E-02
3	8	-.0925E-02
1	19	.4300E-02
2	19	.1130E-02
3	19	-.7157E-02
1	20	.4474E-02
2	20	.0672E-03
3	20	-.0204E-02

FINE GRID ELEMENT = 7

NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	3	3	3	.131E+01	.260E+00	.463E+00	11	4	5	3	.142E+01	.507E+00	.463E+00
2	3	3	3	.169E+01	.336E+00	.463E+00	12	3	4	3	.120E+01	.306E+00	.463E+00
3	5	5	3	.160E+01	.663E+00	.463E+00	13	3	3	4	.130E+01	.270E+00	.657E+00
4	3	5	3	.123E+01	.511E+00	.463E+00	14	5	3	4	.173E+01	.343E+00	.654E+00
5	3	3	5	.146E+01	.201E+00	.045E+00	15	5	5	4	.162E+01	.057E+00	.652E+00
6	3	3	5	.179E+01	.350E+00	.041E+00	16	3	5	4	.127E+01	.506E+00	.654E+00
7	5	5	5	.165E+01	.652E+00	.030E+00	17	4	3	5	.162E+01	.315E+00	.043E+00
8	3	5	5	.132E+01	.500E+00	.041E+00	18	5	4	5	.173E+01	.507E+00	.043E+00
9	4	3	3	.150E+01	.290E+00	.463E+00	19	4	5	5	.140E+01	.576E+00	.040E+00
10	5	4	3	.166E+01	.500E+00	.463E+00	20	3	4	5	.140E+01	.390E+00	.043E+00

POINT, CLAMP, AND SLOPE TYPE BC.

TYPE	NODE	VALUE
1	2	.6298E-02
2	2	.1340E-02
3	2	-.9613E-02
1	3	.6244E-02
2	3	.2767E-02
3	3	-.9749E-02
1	7	.5320E-02
2	7	.2203E-02
3	7	-.8244E-02
1	6	.4701E-02
2	6	.8945E-03
3	6	-.7363E-02
1	10	.6260E-02
2	10	.2049E-02
3	10	-.9617E-02
1	15	.9730E-02
2	15	.2437E-02
3	15	-.8978E-02
1	18	.5819E-02
2	18	.1527E-02
3	18	-.7713E-02
1	14	.5461E-02
2	14	.1877E-02
3	14	-.8444E-02
1	4	.897E-C2
2	4	.3978E-02
3	4	-.1510E-01
1	8	.7101E-02
2	8	.3642E-C2
3	8	-.1303E-01
1	11	.7310E-02
2	11	.3110E-02
3	11	-.1241E-01
1	16	.7924E-02
2	16	.3731E-02
3	16	-.1411E-01
1	19	.6117E-02
2	19	.2670E-C2
3	19	-.1074E-C1
1	1	.9279E-02
2	1	.2137E-02
3	1	-.1511E-01
1	12	.9133E-02
2	12	.3895E-02
3	12	-.1508E-01
1	9	.7479E-02
2	9	.1615E-02
3	9	-.1227E-01

FINE GRID ELEMENT = 8													
NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	3	3	5	.146E+01	.291E+00	.845E+00	11	4	5	5	.148E+01	.576E+00	.809E+00
2	5	3	5	.179E+01	.150E+00	.841E+00	12	3	4	5	.144E+01	.398E+00	.943E+00
3	5	5	5	.165E+01	.652E+00	.838E+00	13	3	3	6	.155E+01	.291E+00	.103E+01
4	3	5	5	.132E+01	.500E+00	.841E+00	14	5	3	6	.185E+01	.357E+00	.102E+01
5	3	3	7	.166E+01	.302E+00	.120E+01	15	5	5	6	.168E+01	.646E+00	.182E+01
6	5	3	7	.192E+01	.363E+00	.120E+01	16	3	5	6	.137E+01	.495E+00	.102E+01
7	5	5	7	.172E+01	.640E+00	.120E+01	17	4	3	7	.179E+01	.332E+00	.120E+01
8	3	5	7	.143E+01	.489E+00	.120E+01	18	5	4	7	.183E+01	.513E+00	.120E+01
9	4	3	5	.162E+01	.315E+00	.843E+00	19	4	5	7	.157E+01	.564E+00	.120E+01
10	5	4	5	.173E+01	.507E+00	.84CE+00	20	3	4	7	.156E+01	.410E+00	.120E+01

POINT, CLAMP, AND SLOPE TYPE BC		
TYPE	NODE	VALUE
1	2	.4701E-02
2	2	.1340E-02

4	4	.0000E-00
3	2	-.7363E-02
1	3	.5320E-02
2	3	.2203E-02
3	3	-.0264E-02
1	7	.4763E-02
2	7	.2895E-02
3	7	-.6070E-02
1	6	.3099E-02
2	6	.7030E-03
3	6	.5409E-02
1	10	.5019E-02
2	10	.1927E-02
3	10	-.7713E-02
1	15	.4995E-02
2	15	.2306E-02
3	15	.7904E-02
1	10	.4276E-02
2	10	.1939E-02
3	10	-.6054E-02
1	14	.4259E-02
2	14	.0000E-03
3	14	-.0372E-02
1	4	.7401E-02
2	4	.3642E-02
3	4	-.1303E-01
1	8	.3059E-02
2	8	.3039E-02
3	8	-.1902E-01
1	11	.6117E-02
2	11	.2670E-02
3	11	-.1074E-01
1	16	.0500E-02
2	16	.3711E-02
3	16	-.1107E-01
1	19	.5567E-02
2	19	.2093E-02
3	19	-.0959E-02
1	5	.4002E-02
2	5	.1013E-02
3	5	-.0922E-02
1	20	.5440E-02
2	20	.2037E-02
3	20	-.0703E-02
1	17	.4300E-02
2	17	.1130E-02
3	17	-.7197E-02

TIME IN REZONE = 1.261 SECONDS

TIME IN FORMKF = 3.690 SECONDS

TIME IN PREFRONT = .309

TOTAL NUMBER OF D.O.F.'S = 270

D.O.F. IN FRONT = 112

MAXIMUM ACTIVE STORAGE = 0900

TOTAL NICKNAME STORAGE = 224

BUFFER LENGTH = 10033

TIME IN FORWARD ELIMINATION = 7.523

NUMBER OF RECORDS/DONES = 300

NUMBER OF SECTORS/FRUST = 404

TIME IN BACKSUBSTITUTION = .658

TIME IN ZIPP * 8.494 SECONDS

BLOCK OPTION

ROUNDS

	MIN	MAX	MIN	MAX
X	-1.000E+21	.1000E+21	I	0 0
Y	-1.000E+21	.1000E+21	J	0 0
Z	-1.000E+21	.1000E+21	K	0 0

PRINT LEVEL = 4

STRESS POINTS FOR BRICK(DEGEN) ELEMENTS

POINT	S1	S2	S3
1	-1.000	-1.000	-1.000
2	1.000	-1.000	-1.000
3	1.000	1.000	-1.000
4	-1.000	1.000	-1.000
5	-1.000	-1.000	1.000
6	1.000	-1.000	1.000
7	1.000	1.000	1.000
8	-1.000	1.000	1.000
9	0.000	0.000	0.000

STRESS POINTS FOR PRISM ELEMENTS

POINT	S1	S2	S3	S4
1	1.000	0.000	0.000	-1.000
2	0.000	1.000	0.000	-1.000
3	0.000	0.000	1.000	-1.000
4	1.000	0.000	1.000	1.000
5	0.000	1.000	0.000	1.000
6	0.000	0.000	1.000	1.000
7	.333	.333	.333	0.000

STRESS POINTS FOR WEDGE ELEMENTS

POINT	S1	S2	S3
1	.050	0.000	-1.000
2	1.000	0.000	-1.000
3	1.000	1.000	-1.000
4	.050	0.000	1.000
5	1.000	0.000	1.000
6	1.000	1.000	1.000
7	.667	.500	0.000

STRESS POINTS FOR TETRA ELEMENTS

POINT	S1	S2	S3	S4
1	1.000	0.000	0.000	0.000
2	0.000	1.000	0.000	0.000
3	0.000	0.000	1.000	0.000
4	0.000	0.000	0.000	1.000
5	.250	.250	.250	.250

DISPLACEMENTS FOR BRICKM ELEMENT NO. 1 MATERIAL = 1

I	J	K	U	V	W	M
1	1	1	.1519E-01	.1098E-09	-.2214E-11	.1106E+00
1	1	2	.9239E-02	-.1042E-08	-.1930E-01	-.1197E+01
1	1	3	.9279E-02	.2137E-02	-.1511E-01	.9537E-01
1	1	4	.1873E-01	.3947E-02	-.2116E-01	.1359E+01
1	1	5	.9150E-02	-.1825E-08	-.1810E-01	.1505E+01
1	1	6	.5956E-02	-.2135E-08	-.1171E-01	.2160E+00
1	1	7	.6460E-02	.1518E-02	-.1195E-01	.2179E+00
1	1	8	.9240E-02	.9909E-02	-.1756E-01	-.1128E+01
2	1	1	.1225E-01	-.6807E-09	-.1849E-01	
2	1	2	.9414E-02	.1105E-02	-.1510E-01	
2	1	3	.1170E-01	.2914E-02	-.1915E-01	
2	1	4	.1490E-01	.2056E-02	-.2172E-01	
2	1	5	.1182E-01	-.6569E-09	-.2023E-01	
2	1	6	.7517E-02	-.1936E-08	-.1355E-01	
2	1	7	.7889E-02	.2431E-02	-.1300E-01	
2	1	8	.1172E-01	.3892E-02	-.1995E-01	
2	1	9	.7336E-02	-.1849E-08	-.1467E-01	
3	1	1	.6620E-02	.9415E-03	-.1313E-01	
3	1	2	.6721E-02	.2720E-02	-.1466E-01	
3	1	3	.9150E-02	.8914E-02	-.1703E-01	

STRESSES FOR BRICKM ELEMENT NO. 1 MATERIAL = 1

POINT	X	Y	Z	SIGMAX	SIGMAY	SIGMAZ	TAUXY	TAUYZ	TAUZX	SIGM91	SIGM92	SIGM93	TAUMAX
1	.94E+00	0.	.64E+00	.67E+03	.99E+03	.67E+03	-.44E+02	.21E+02	.74E+02	.99E+03	.67E+03	.67E+03	.67E+03
2	.13E+01	0.	.46E+00	-.18E-01	.23E-01	-.26E-02	-.22E-02	.34E-02	.12E-01	.23E-01	-.26E-02	-.26E-02	.63E-01
3	.13E+01	.26E+00	.46E+00	-.92E+04	-.98E+04	-.98E+04	-.68E+00	-.65E+00	.61E+02	-.98E+04	-.98E+04	-.98E+04	.14E+03
4	.92E+00	.18E+00	.64E+00	.47E+03	.69E+03	.71E+03	-.44E+02	.54E+02	.72E+02	.75E+03	.64E+03	.64E+03	.14E+03
5	.12E+01	0.	.85E+00	-.16E-01	.18E-01	-.67E-02	-.16E-02	.35E-02	.72E-02	.17E-01	-.67E-02	-.67E-02	.23E-01
6	.15E+01	0.	.85E+00	-.13E+04	.15E+04	-.67E-02	-.22E-02	.55E-02	.21E-01	.17E-01	-.67E-02	-.67E-02	.24E+03
7	.15E+01	.26E+00	.85E+00	.57E+02	.72E+02	.51E+03	.67E+02	-.17E+01	.94E+02	.15E+04	.15E+04	.15E+04	.37E+03
8	.11E+01	.21E+00	.85E+00	.57E+02	.17E+03	-.39E+04	-.64E+02	.19E+01	.34E+01	.11E-01	.34E+02	.11E-01	.25E+03
9	.12E+01	.12E+00	.66E+00	-.29E-01	.15E+01	.89E+03	-.44E+02	.36E+02	.16E+01	.20E-01	-.29E-01	-.29E-01	.48E+01
				-.11E-01	.13E-01	-.13E-02	-.63E-02	.56E-02	.14E-01	.13E-01	-.13E-02	-.13E-02	.27E-01

DISPLACEMENTS FOR BRICK ELEMENT NO. 2 MATERIAL = 1

I	J	K	U	V	M	M
1	1	5	.915E-02	-.182E+00	-.181E-01	.180E+01
1	1	2	.939E+02	-.213E+00	.117E-01	.219E+00
3	1	2	.648E-02	.151E-02	-.119E-01	-.217E+00
1	3	7	.924E-02	.370E-02	-.179E-01	-.229E+01
1	1	7	.594E-02	-.264E-02	-.728E-02	-.364E+01
3	1	7	.421E-02	-.450E-02	-.702E-02	-.364E+00
3	1	7	.488E-02	.183E-02	-.622E-02	-.208E+00
1	3	7	.972E+02	-.415E+02	-.227E-01	.280E+01
2	1	5	.733E-02	-.164E-02	-.166E-01	
3	2	5	.662E-02	.941E-03	-.131E-01	
2	3	5	.672E-02	.272E-02	-.166E-01	
1	2	5	.915E-02	.241E-02	-.178E-01	
1	1	6	.717E-02	-.710E-02	-.156E-01	
3	1	6	.489E-02	-.168E-02	-.579E-02	
3	3	6	.572E-02	.909E-03	-.599E-02	
1	3	6	.729E-02	.399E-02	-.152E-01	
2	1	7	.694E-02	-.275E-02	-.100E-01	
3	2	7	.447E-02	.667E-03	-.829E-02	
2	3	7	.537E-02	.281E-02	-.107E-01	
1	2	7	.979E+02	.211E-02	-.227E-01	

STRESSES FOR BRICK ELEMENT NO. 2 MATERIAL = 1

POINT	X	Y	Z	SIGMAX EPSX	SIGMAX EPY	SIGMAX EPSZ	TAUXY GAMMAX	TAUYZ GAMMAX	TAUZX GAMMAX	SIGMA1 EPS1	SIGMA2 EPS2	SIGMA3 EPS3	TAMMAX GAMMAX
10	.12E+01	0.	.05E+00	.94E+04	.97E+04	.94E+04	-.24E+02	.39E+02	.24E+03	.97E+04	.95E+04	.95E+04	.24E+03
11	.15E+01	0.	.05E+00	-.13E-01	.17E-01	-.67E-02	-.22E-02	.55E-02	.21E-01	.17E-01	.12E-02	-.21E-01	.30E-01
12	.15E+01	.20E+00	.04E+00	.13E+04	.15E+04	.14E+04	.82E+02	-.11E+03	.94E+02	.15E+04	.14E+04	.14E+04	.17E+03
13	.11E+01	.21E+00	.05E+00	.15E+04	.14E+04	.15E+04	.67E-02	-.17E-01	.15E-01	.13E+01	.14E-02	-.15E-01	.27E-01
14	.15E+01	0.	.12E+01	.15E+04	.15E+04	.15E+04	-.10E-01	.20E-01	.47E-02	.14E-01	.76E-02	-.92E-02	.23E-01
15	.19E+01	0.	.12E+01	.15E+04	.15E+04	.15E+04	.23E+05	.23E+02	.10E-01	.20E-01	.25E-02	-.20E-01	.48E-01
16	.17E+01	.30E+00	.12E+01	.15E+04	.15E+04	.15E+04	-.23E+05	.23E+02	.21E+03	.23E+05	.23E+05	-.23E+05	.20E+03
17	.14E+01	.24E+00	.12E+01	.15E+04	.15E+04	.15E+04	.14E-01	.61E-02	.33E-01	.14E-01	.66E-02	-.29E-01	.64E-01
18	.15E+01	.14E+00	.10E+01	.15E+04	.15E+04	.15E+04	.30E+04	.91E+00	.12E+03	-.29E+04	-.29E+04	-.31E+04	.13E+03
				.15E+04	.15E+04	.15E+04	.66E-02	.26E-02	.20E-01	.59E-02	.66E-02	-.14E-01	.20E-01
				.15E+04	.15E+04	.15E+04	-.14E+04	.39E+02	.67E+02	-.17E+04	-.17E+04	-.15E+04	.14E+03
				.15E+04	.15E+04	.15E+04	.14E-02	.61E-02	.11E-01	.06E-02	.64E-03	-.14E-01	.23E-01
				.15E+04	.15E+04	.15E+04	.16E+05	.90E+02	.57E+03	.16E+05	.16E+05	.16E+05	.22E+03
				.15E+04	.15E+04	.15E+04	-.36E-02	.16E-01	.27E-01	.20E-01	.27E-01	-.14E-01	.34E-01
				.15E+04	.15E+04	.15E+04	-.90E+03	-.69E+02	.97E+02	-.79E+03	-.05E+03	-.11E+04	.14E+03
				.15E+04	.15E+04	.15E+04	-.70E-02	-.70E-02	.15E-01	.97E-02	.97E-02	-.13E-01	.22E-01

DISPLACEMENTS FOR BRICK ELEMENT NO. 3 MATERIAL = 1

I	J	K	U	V	M	H
1	3	3	.1473E-01	.3947E-02	-.2136E-01	.1359E-01
3	3	3	.9279E-02	.2137E-02	-.1311E-01	.8937E-01
3	5	3	.6974E-02	.3791E-02	-.1510E-01	-.1203E-01
1	3	5	.1814E-01	.7230E-02	-.2811E-01	.7116E+00
1	3	5	.9248E-02	.3988E-02	-.1756E-01	-.1258E+01
3	5	5	.4666E-02	.1918E-02	-.1195E-01	.2179E+00
3	5	5	.7114E-02	.3642E-02	-.1303E-01	.2526E+00
1	3	3	.9629E-02	.7339E-02	-.1701E-01	.5205E+00
3	4	3	.1178E-01	.6914E-02	-.1315E-01	
3	4	3	.9133E-02	.3095E-02	-.1508E-01	
2	5	3	.1124E-01	.5349E-02	-.1740E-01	
1	4	3	.1644E-01	.5671E-02	-.2096E-01	
1	3	4	.1172E-01	.3692E-02	-.1959E-01	
3	3	4	.7889E-02	.2431E-02	-.1305E-01	
3	5	4	.7924E-02	.3731E-02	-.1414E-01	
1	5	4	.1168E-01	.7214E-02	-.1887E-01	
2	3	5	.6724E-02	.2720E-02	-.1466E-01	
3	4	5	.6712E-02	.2280E-02	-.1154E-01	
2	5	5	.8272E-02	.5198E-02	-.1512E-01	
1	4	5	.9397E-02	.5683E-02	-.1729E-01	

STRESSES FOR BRICK ELEMENT NO. 3 MATERIAL = 1

POINT	K	Y	Z	SIGMAX EPSX	SIGMAY EPSY	SIGMAZ EPSZ	TAUXY GAMMAX	TAUXZ GAMMAX	TAUYZ GAMMAX	TAUZX GAMMAX	SIGMA1 EPS1	SIGMA2 EPS2	SIGMA3 EPS3	TAUMAX GAMMAX
15	.92E+00	.40E+00	.46E+00	.84E+04	.80E+04	.86E+04	-.18E+03	.63E+02	.42E+02	.49E+04	.89E+04	.86E+04	.84E+04	.29E+03
20	.13E+01	.26E+00	.46E+00	.36E-01	.19E-01	.53E-03	-.16E-01	.99E-02	.72E-02	.21E-01	.78E-03	.78E-03	.19E-01	.68E-01
21	.12E+01	.51E+00	.46E+00	.10E-01	.70E-02	.85E-02	-.76E-02	.85E-02	.11E-01	.12E-01	.68E-02	.68E-02	.13E-01	.29E-01
22	.87E+00	.36E+00	.46E+00	.77E+04	.76E+04	.28E-02	-.13E-01	.47E-02	.81E-02	.75E+04	.75E+04	.78E+04	.78E+04	.12E+03
23	.11E+01	.21E+00	.85E+00	.13E-01	.11E-01	.51E-02	-.26E-01	.99E+02	.61E-01	.19E-01	.27E-02	.19E-01	.19E-01	.38E-01
24	.15E+01	.28E+00	.84E+00	.82E+04	.78E+04	.80E+04	-.13E+03	.12E+03	.11E+03	.77E+04	.77E+04	.79E+04	.79E+04	.38E+03
25	.13E+01	.59E+00	.84E+00	.20E-01	.15E-01	.37E-03	-.21E-01	.18E-01	.18E-01	.28E-01	.28E-01	.28E-01	.28E-01	.88E+02
26	.99E+00	.35E+00	.84E+00	.44E+04	.44E+04	.13E+04	-.27E+02	.70E+02	.15E+02	.14E+04	.14E+04	.13E+04	.13E+04	.88E+02
27	.12E+01	.34E+00	.66E+00	.15E-02	.19E-03	.61E-02	-.43E-02	.11E-01	.24E-02	.54E-02	.54E-02	.54E-02	.54E-02	.88E+02
				.11E-12	.83E-02	.18E-02	-.80E+02	-.36E+02	.97E-02	.13E-01	.13E-01	.13E-01	.13E-01	.15E+03
				.32E+04	.33E+04	.34E+04	.14E+03	.14E+03	.14E+03	.39E+04	.39E+04	.39E+04	.39E+04	.22E+03
				.44E+02	.38E-02	.98E-02	-.23E-01	.22E-01	-.29E-02	.20E-01	.20E-01	.20E-01	.20E-01	.35E-01
				.82E+03	.83E+03	.59E+03	-.76E+02	.54E+02	.54E+02	.69E+03	.69E+03	.69E+03	.69E+03	.19E+03
				.18E-01	.69E-02	.31E-02	-.12E-01	.85E-02	.85E-02	.94E-02	.94E-02	.94E-02	.94E-02	.23E-01

DISPLACEMENTS FOR BRICKM ELEMENT NO. & MATERIAL = 1

	I	J	K	U	V	A	M
1	3	5		.3908E-02	.1758E-01		
2	3	5		.1510E-02	.1159E-01		
3	5	5		.8425E-02	.5278E-00		
4	5	5		.7338E-02	.5202E-00		
5	3	7		.4158E-02	.2468E-01		
6	3	7		.1813E-02	.2087E-00		
7	3	7		.3933E-02	.1806E-01		
8	3	7		.8009E-02	.7500E-00		
9	3	5		.2723E-02	.1466E-01		
10	3	5		.2200E-02	.1194E-01		
11	4	5		.5198E-02	.1512E-01		
12	4	5		.5683E-02	.1728E-01		
13	3	6		.3994E-02	.1526E-01		
14	3	6		.9091E-03	.9982E-02		
15	3	6		.3711E-02	.1107E-01		
16	3	6		.6508E-02	.1107E-01		
17	3	6		.7941E-02	.1494E-01		
18	2	3	7	.2816E-02	.1877E-01		
19	2	3	7	.2837E-02	.1978E-01		
20	2	5	7	.5644E-02	.1185E-01		
21	4	7		.8133E-02	.1267E-01		

STRESSES FOR BRICKM ELEMENT NO. & MATERIAL = 1

POINT	X	Y	Z	SIGMAX EPSX	SIGMAY EPSY	SIGMAZ EPSZ	TAUXY GAMMAX	TAUYZ GAMMAX	TAUZX GAMMAX	SIGMA1 EPS1	SIGMA2 EPS2	SIGMA3 EPS3	TAMMAX GAMMAX
28	.11E+01	.21E+00	.89E+00	-.82E+04	.78E+04	-.88E+04	-.33E+03	.12E+03	.11E+03	.77E+04	-.79E+04	-.83E+04	.38E+03
29	.19E+01	.20E+00	.84E+00	-.80E-01	.15E-01	.37E-03	-.21E-01	.18E-01	.18E-01	.20E-01	.25E-02	-.26E-01	.60E-01
30	.13E+01	.50E+00	.84E+00	.44E+04	.14E+04	.19E+04	-.26E+02	.76E+02	.62E+02	.59E+04	.44E+04	.43E+04	.10E+03
31	.99E+00	.95E+00	.84E+00	.46E+04	.17E+04	.16E+04	-.82E-02	.38E+02	.97E+02	.10E+04	.10E+04	.44E+04	.10E+03
32	.14E+01	.24E+00	.12E+01	-.64E-02	.38E-02	.98E-02	-.23E-01	.22E-01	-.29E-02	.20E-01	.85E-03	-.19E-01	.39E-01
33	.17E+01	.30E+00	.12E+01	-.36E-02	.81E-02	.36E-02	-.16E-01	.27E-01	.69E-02	.28E-01	.27E-02	-.14E-01	.34E-01
34	.14E+01	.92E+00	.12E+01	-.44E+04	.13E+04	.14E+04	-.99E+02	.11E+03	.67E+02	.28E+04	-.13E+04	-.19E+04	.14E+03
35	.12E+01	.34E+00	.12E+01	-.66E-02	.11E-02	.82E-02	-.61E-02	.17E-01	.11E-01	.86E-02	.45E-03	-.14E-01	.23E-01
36	.13E+01	.35E+00	.10E+01	-.46E+04	.15E+04	.16E+04	-.89E+04	.93E+02	.90E+02	.78E+04	-.88E+04	-.89E+04	.10E+03
				-.23E-02	.12E-01	.13E-01	-.80E-02	.11E+03	.24E+02	.50E+04	.47E+04	.66E+04	.20E+03
				-.33E+04	.14E+04	.13E+04	-.76E+02	.11E+03	.72E+02	.16E+04	-.26E+02	-.19E-01	.32E-01
				-.56E-02	.32E-02	.16E-02	-.12E-01	.17E-01	.11E-01	.11E-01	.24E-02	-.14E-01	.29E-01

DISPLACEMENTS FOR BRICKM ELEMENT NO. 5 MATERIAL = 1

I	J	K	U	V	M	M
3	1	3	.9539E-02	-.1642E-08	-.1530E-01	-.1437E+01
3	1	4	.6446E-02	.3618E-09	-.9979E-02	.1829E+01
3	3	3	.6298E-02	.1348E-02	-.9513E-02	.2491E+00
3	3	4	.9279E-02	.2137E-02	-.1511E-01	.9537E+01
3	1	5	.5956E-02	-.2139E-08	-.1171E-01	.2192E+00
3	1	5	.4697E-02	-.1079E-08	-.7208E-02	.7170E+01
3	3	5	.4781E-02	.8945E-03	-.7353E-02	-.5364E+00
3	3	4	.6458E-02	.1918E-02	-.1192E-01	.2719E+00
4	1	3	.7670E-02	-.6948E-09	-.1246E-01	
4	1	3	.6358E-02	.6653E-03	-.9734E-02	
4	3	3	.7479E-02	.1615E-02	-.1277E-01	
4	3	3	.9414E-02	.1106E-02	-.1510E-01	
3	1	4	.7517E-02	-.1355E-01	-.1359E-01	
3	1	4	.5366E-02	-.7239E-09	-.8521E-02	
3	3	4	.5461E-02	.1077E-02	-.8444E-02	
3	3	4	.7809E-02	.2431E-02	-.1380E-01	
4	1	5	.5010E-02	-.1405E-09	-.2255E-02	
4	2	5	.4607E-02	.3855E-03	-.7195E-02	
4	3	5	.4961E-02	.1790E-02	-.1829E-01	
3	2	5	.6682E-02	.9419E-03	-.1343E-01	

STRESSES FOR BRICKM ELEMENT NO. 5 MATERIAL = 1

POINT	X	Y	Z	SIGMAX	EPSX	SIGMAY	EPSY	SIGMAZ	EPSZ	TAUXX	GAMMAX	TAUYY	GAMMAY	TAUZZ	GAMMAZ	TAUXZ	GAMMAXZ	TAUYZ	GAMMAYZ	TAUZX	GAMMAXX	TAUYX	GAMMAYX	TAUZY	GAMMAZY	SIGMA1	EPS1	SIGMA2	EPS2	SIGMA3	EPS3	TAUMAX	GAMMAX	
38	.13E+01	0.	.46E+00	-.92E+04	-.12E-11	-.98E+04	-.98E+04	-.91E+04	-.19E-02	-.11E-03	-.68E+06	-.65E+06	-.10E-03	-.10E-03	-.10E-03	.61E+02	.61E+02	-.60E+06	-.60E+06	-.90E+04	-.90E+04	.96E+02	.96E+02	.27E+01	.27E+01	.12E+05	.12E+05	.13E-01	.13E-01	.22E+01	.22E+01			
39	.17E+01	.34E+00	.46E+00	-.68E-02	.39E-02	.39E-02	.39E-02	.44E-02	.44E-02	-.28E-05	.43E+03	.43E+03	.43E+03	.43E+03	.43E+03	.75E+02	.75E+02	.43E+03	.43E+03	.43E+03	.43E+03	.75E+02	.75E+02	.43E+03	.43E+03	.43E+03	.43E+03	.43E+03	.43E+03	.43E+03	.43E+03	.43E+03		
40	.13E+01	.26E+00	.46E+00	-.44E-02	.40E-02	.40E-02	.40E-02	.34E-02	.34E-02	-.24E-02	.72E+03	.72E+03	.72E+03	.72E+03	.72E+03	.91E+02	.91E+02	.72E+03	.72E+03	.72E+03	.72E+03	.91E+02	.91E+02	.72E+03	.72E+03	.72E+03	.72E+03	.72E+03	.72E+03	.72E+03	.72E+03	.72E+03		
41	.15E+01	0.	.05E+00	-.10E-01	.73E-02	.73E-02	.73E-02	.85E-02	.85E-02	-.76E-02	.85E-02	.85E-02	.85E-02	.85E-02	.85E-02	.11E-01	.11E-01	.85E-02	.85E-02	.85E-02	.85E-02	.11E-01	.11E-01	.85E-02	.85E-02	.85E-02	.85E-02	.85E-02	.85E-02	.85E-02	.85E-02	.85E-02	.85E-02	
42	.10E+01	0.	.04E+00	-.75E-02	.72E-02	.72E-02	.72E-02	.51E-03	.51E-03	.67E-02	.48E+03	.48E+03	.48E+03	.48E+03	.48E+03	.15E+01	.15E+01	.48E+03	.48E+03	.48E+03	.48E+03	.15E+01	.15E+01	.48E+03	.48E+03	.48E+03	.48E+03	.48E+03	.48E+03	.48E+03	.48E+03	.48E+03	.48E+03	.48E+03
43	.10E+01	.35E+00	.04E+00	-.20E-02	.17E-02	.17E-02	.17E-02	.20E-02	.20E-02	-.47E-03	.13E+03	.13E+03	.13E+03	.13E+03	.13E+03	.82E+02	.82E+02	.13E+03	.13E+03	.13E+03	.13E+03	.82E+02	.82E+02	.13E+03	.13E+03	.13E+03	.13E+03	.13E+03	.13E+03	.13E+03	.13E+03	.13E+03	.13E+03	.13E+03
44	.15E+01	.20E+00	.04E+00	.24E-02	.11E-02	.11E-02	.11E-02	.14E+04	.14E+04	-.87E-03	.34E+04	.34E+04	.34E+04	.34E+04	.34E+04	.17E-01	.17E-01	.34E+04	.34E+04	.34E+04	.34E+04	.17E-01	.17E-01	.34E+04	.34E+04	.34E+04	.34E+04	.34E+04	.34E+04	.34E+04	.34E+04	.34E+04	.34E+04	.34E+04
45	.16E+01	.16E+00	.66E+00	-.11E-01	.46E-02	.46E-02	.46E-02	.56E-03	.56E-03	-.32E+02	.64E+02	.64E+02	.64E+02	.64E+02	.64E+02	.97E+04	.97E+04	.64E+02	.64E+02	.64E+02	.64E+02	.97E+04	.97E+04	.64E+02	.64E+02	.64E+02	.64E+02	.64E+02	.64E+02	.64E+02	.64E+02	.64E+02	.64E+02	.64E+02
				-.47E+03	.63E+03	.63E+03	.63E+03	.55E+03	.55E+03	-.22E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.75E+02	.75E+02	.13E+02	.13E+02	.13E+02	.13E+02	.75E+02	.75E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02	.13E+02
				-.71E-02	.62E-02	.62E-02	.62E-02	.80E-03	.80E-03	-.35E-02	.20E-02	.20E-02	.20E-02	.20E-02	.20E-02	.12E-01	.12E-01	.20E-02	.20E-02	.20E-02	.20E-02	.12E-01	.12E-01	.20E-02	.20E-02	.20E-02	.20E-02	.20E-02	.20E-02	.20E-02	.20E-02	.20E-02	.20E-02	.20E-02

DISPLACEMENTS FOR BRICK ELEMENT NO. 7 MATERIAL = 1

I	J	K	U	V	M	M
3	3	3	.9279E-02	.2137E-02	-.1511E-01	.9537E-01
3	3	3	.8290E-02	.1368E-02	-.9613E-02	.2491E+00
5	5	3	.6244E-02	.2767E-02	-.9745E-02	.1178E+01
3	3	3	.8976E-02	.3979E-02	-.1510E-01	-.1203E+01
5	3	5	.6460E-02	.1510E-02	-.1195E-01	.2179E+00
5	3	5	.4781E-02	.6945E-03	-.7363E-02	-.5364E+00
3	3	5	.5320E-02	.2283E-02	-.8244E-02	.2611E+00
3	3	5	.7101E-02	.3882E-02	-.1393E-01	.2526E+00
4	3	3	.7479E-02	.1615E-02	-.1227E-01	
5	4	3	.6266E-02	.2049E-02	-.9617E-02	
4	3	3	.7310E-02	.3110E-02	-.1241E-01	
3	3	4	.9133E-02	.3895E-02	-.1500E-01	
3	3	4	.7889E-02	.2431E-02	-.1300E-01	
5	3	4	.5461E-02	.1077E-02	-.8444E-02	
5	5	4	.5736E-02	.2437E-02	-.8978E-02	
3	5	4	.7924E-02	.3731E-02	-.1411E-01	
4	3	5	.4961E-02	.1790E-02	-.1129E-01	
5	4	5	.5619E-02	.1527E-02	-.7713E-02	
4	5	5	.6117E-02	.2670E-02	-.11074E-01	
3	4	5	.6712E-02	.2800E-02	-.1154E-01	

STRESSES FOR BRICK ELEMENT NO. 7 MATERIAL = 1

POINT	X	Y	Z	SIGMAX	SIGMY	SIGMZ	TAUZY	TAUYZ	TAUZX	SIGMA1	SIGMA2	SIGMA3	TAMMAX
5	.13E+01	.26E+00	.46E+00	.47E+03	.69E+03	.73E+03	-.48E+02	.54E+02	.72E+02	.78E+03	.68E+03	.44E+03	.16E+03
56	.17E+01	.34E+00	.46E+00	-.10E-01	.70E-02	.85E-02	-.75E-02	.85E-02	.11E-01	.12E-01	.80E-02	-.13E-01	.25E-01
57	.16E+01	.66E+00	.46E+00	-.46E-02	.16E+04	.16E+04	-.15E+04	.65E+01	.50E+02	.16E+04	.16E+04	.15E+04	.77E+02
58	.12E+01	.51E+00	.46E+00	-.78E+02	.75E+04	.75E+04	-.29E+02	.72E+03	.91E+02	.56E+02	.41E+02	-.66E-02	.12E-01
59	.15E+01	.20E+00	.04E+00	-.12E-01	.12E+04	.12E+04	-.13E+02	.35E+02	.51E+02	.78E+04	.41E+02	-.68E-02	.13E-01
60	.18E+01	.35E+00	.04E+00	-.34E+04	.34E+04	.34E+04	-.47E+01	.40E+02	.81E-02	.69E+02	.40E+02	-.13E-01	.19E-01
61	.16E+01	.65E+00	.04E+00	.24E-02	.11E-02	.87E-03	.75E-02	.80E+02	.17E-01	.32E+04	.34E+04	-.35E+04	.12E+03
62	.13E+01	.58E+00	.04E+00	-.41E-02	.42E-02	.19E-02	-.25E+02	.38E+02	.17E+04	.17E+04	.17E+04	.45E+04	.94E+02
63	.15E+01	.45E+00	.65E+00	-.61E-02	.31E-02	.16E-04	-.80E+02	-.38E+02	.12E+01	.69E+02	.30E-02	-.83E-02	.15E-01
				.33E+03	.48E+03	.48E+03	-.13E+01	-.57E-02	.15E-01	.13E-01	.16E+04	-.12E-01	.25E-01
				-.62E-02	.15E-02	.38E-02	-.47E-02	.24E-02	.83E-02	.46E+02	.22E-02	-.85E-02	.13E-01

DISPLACEMENTS FOR BRICK ELEMENT NO. 6 MATERIAL = 1

I	J	K	U	V	M	H
3	3	5	.646E-02	.1510E-02	-.1195E-01	.2179E+00
3	3	5	.6781E-02	.6985E-03	-.7353E-02	.5765E+00
3	3	5	.5720E-02	.2203E-02	-.9245E-02	.2611E+00
3	3	5	.7103E-02	.3502E-02	-.1303E-01	.5526E+00
3	3	7	.4802E-02	.1813E-02	-.8225E-02	-.5037E+00
3	3	7	.3895E-02	.7930E-03	-.8659E-02	.6694E+00
3	3	7	.5763E-02	.2505E-02	-.6978E-02	.3203E+00
3	3	7	.5788E-02	.5938E-03	-.8312E-02	-.1800E+01
3	3	5	.4963E-02	.1790E-02	-.1826E-01	
3	3	5	.8018E-02	.1927E-02	-.7138E-02	
3	3	5	.6117E-02	.2670E-02	-.1875E-01	
3	3	5	.5712E-02	.5200E-02	-.2439E-01	
3	3	6	.5726E-02	.9031E-03	-.5936E-02	
3	3	6	.5802E-02	.5802E-03	-.6372E-02	
3	3	6	.6935E-02	.5706E-02	-.7394E-02	
3	3	7	.4388E-02	.1131E-02	-.7187E-02	
3	3	7	.4388E-02	.1338E-02	-.7815E-02	
3	3	7	.4278E-02	.1338E-02	-.8035E-02	
3	3	7	.5563E-02	.2893E-02	-.8939E-02	
3	3	7	.5948E-02	.2637E-02	-.9793E-02	

STRESSES FOR BRICK ELEMENT NO. 6 MATERIAL = 1

POINT	X	Y	Z	SIGMX	SIGMY	SIGMZ	TAUXX	TAUYY	TAUZZ	TAUZY	TAUZX	SIGM1	SIGM2	SIGM3	TAUMAX	TAUMIN
64	.19E+01	.20E+00	.84E+00	.12E+04	.19E+04	.11E+01	.30E+02	.30E+02	.30E+02	.30E+02	.30E+02	.15E+04	.12E+04	.12E+04	.12E+04	.12E+04
65	.18E+01	.39E+00	.84E+00	.24E+02	.39E+02	.11E+01	.30E+02	.30E+02	.30E+02	.30E+02	.30E+02	.11E+01	.30E+02	.30E+02	.30E+02	.30E+02
66	.16E+01	.65E+00	.84E+00	.24E+02	.11E+02	.07E+03	.07E+03	.07E+03	.07E+03	.07E+03	.07E+03	.92E+02	.92E+02	.92E+02	.92E+02	.92E+02
67	.13E+01	.90E+00	.84E+00	.41E+02	.42E+02	.19E+02	.29E+02	.29E+02	.29E+02	.29E+02	.29E+02	.65E+02	.65E+02	.65E+02	.65E+02	.65E+02
68	.17E+01	.30E+00	.12E+01	.11E+02	.03E+02	.10E+02	.10E+02	.10E+02	.10E+02	.10E+02	.10E+02	.13E+01	.13E+01	.13E+01	.13E+01	.13E+01
69	.19E+01	.36E+00	.12E+01	.11E+02	.31E+02	.52E+02	.52E+02	.52E+02	.52E+02	.52E+02	.52E+02	.66E+02	.66E+02	.66E+02	.66E+02	.66E+02
70	.17E+01	.84E+00	.12E+01	.38E+02	.30E+02	.11E+03	.20E+02	.20E+02	.20E+02	.20E+02	.20E+02	.57E+02	.57E+02	.57E+02	.57E+02	.57E+02
71	.14E+01	.49E+00	.12E+01	.69E+02	.56E+02	.68E+04	.68E+04	.68E+04	.68E+04	.68E+04	.68E+04	.82E+02	.82E+02	.82E+02	.82E+02	.82E+02
72	.16E+01	.46E+00	.10E+01	.11E+02	.15E+03	.96E+02	.17E+02	.17E+02	.17E+02	.17E+02	.17E+02	.14E+03	.14E+03	.14E+03	.14E+03	.14E+03

ELEMENT SUMMARY REPORT

THREE MOST HIGHLY STRESSED ELEMENTS
 FIRST POINT STRESS SECOND POINT STRESS THIRD POINT STRESS
 I J K I J K I J K I J K I J K I J K

MATERIAL NUMBER = 1

STRESS	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
SIGMA	17	14	6	1	1	14	13	5
EPS	32	37	26	4	13	8	3	5
TAU	36	2	13	19	8	20	5	20

TIME IN POST = 1.116 SECONDS

MINIMUM NUMBER OF COARSE GRID ELEMENTS POSSIBLE = 16

MAXIMUM DIMENSION OF REFINED GRID = 1331

MAXIMUM NUMBER OF GRID POINTS IN ANY ONE DIRECTION = 15

COARSE GRID ELEMENT = 1

MODE	K	J	I	X-COORD	Y-COORD	Z-COORD	MODE	K	J	I	X-COORD	Y-COORD	Z-COORD
1	30101	0	0	.940E+00	0	.463E+00	11	30302	.111E+01	.221E+00	.463E+00	.463E+00	.463E+00
2	30102	.132E+01	0	.132E+01	0	.463E+00	12	30201	.935E+00	.924E-01	.463E+00	.463E+00	.463E+00
3	30303	.131E+01	.260E+01	.131E+01	.260E+01	.463E+00	13	40101	.106E+01	0	.664E+00	.664E+00	.664E+00
4	30301	.921E+00	.181E+00	.921E+00	.181E+00	.463E+00	14	40103	.141E+01	0	.660E+00	.660E+00	.660E+00
5	50101	.120E+01	0	.120E+01	0	.854E+00	15	40303	.138E+01	.270E+00	.657E+00	.657E+00	.657E+00
6	50103	.151E+01	0	.151E+01	0	.899E+00	16	40301	.102E+01	.190E+00	.660E+00	.660E+00	.660E+00
7	50303	.146E+01	.281E+01	.146E+01	.281E+01	.855E+00	17	50102	.136E+01	0	.852E+00	.852E+00	.852E+00
8	50301	.113E+01	.213E+01	.113E+01	.213E+01	.899E+00	18	50203	.149E+01	.149E+00	.847E+00	.847E+00	.847E+00
9	30102	.113E+01	6	.113E+01	6	.463E+00	19	50302	.129E+01	.247E+00	.847E+00	.847E+00	.847E+00
10	30203	.132E+01	.131E+01	.132E+01	.131E+01	.463E+00	20	50201	.117E+01	.116E+00	.852E+00	.852E+00	.852E+00

FINE GRID ELEMENT = 1

MODE	I	J	K	X-COORD	Y-COORD	Z-COORD	MODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	1	1	3	.940E+00	0	.463E+00	11	2	3	3	.183E+01	.182E+00	.463E+00
2	3	1	3	.113E+01	0	.463E+00	12	1	2	3	.938E+00	.464E-01	.463E+00
3	3	3	3	.113E+01	.112E+00	.463E+00	13	1	1	4	.999E+00	0	.565E+00
4	1	3	3	.106E+01	.924E-01	.463E+00	14	3	1	4	.118E+01	0	.564E+00
5	1	1	5	.106E+01	0	.664E+00	15	3	3	4	.117E+01	.117E+00	.564E+00
6	3	1	5	.123E+01	0	.662E+00	16	1	3	4	.988E+00	.983E-01	.564E+00
7	3	3	5	.122E+01	.122E+00	.660E+00	17	2	1	5	.118E+01	0	.663E+00
8	1	3	5	.105E+01	.174E+00	.662E+00	18	3	2	5	.123E+01	.621E-01	.663E+00
9	2	1	3	.103E+01	0	.463E+00	19	2	3	5	.113E+01	.113E+00	.661E+00
10	3	2	3	.113E+01	.760E-01	.463E+00	20	1	2	5	.105E+01	.534E-01	.663E+00

PERCENT CLAMP AND SLOPE TYPE RG

TYPE	MODE	VALUE
1	1	.1498E-01
2	4	.0000E+00
3	4	.0000E+00

1	4	.2172E-01
1	1	.1519E-01
2	1	.3090E-09
3	1	-.2204E-01
1	5	.1102E-01
2	5	-.6569E-09
3	5	-.2023E-01
1	8	.1170E-01
2	8	.2017E-02
3	8	-.1992E-01
1	12	.1509E-01
2	12	.1049E-02
3	12	-.2109E-01
1	13	.1342E-01
2	13	-.2103E-09
3	13	-.2110E-01
1	20	.1179E-01
2	20	.1026E-02
3	20	-.2000E-01
1	16	.1330E-01
2	16	.2032E-02
3	16	-.2000E-01
1	2	.1205E-01
2	2	-.6007E-09
3	2	-.1049E-01
1	6	.9402E-02
2	6	-.1600E-00
3	6	-.1000E-01
1	9	.1354E-01
2	9	-.2341E-09
3	9	-.2022E-01
1	14	.1065E-01
2	14	-.1230E-00
3	14	-.1701E-01
1	17	.1055E-01
2	17	-.1210E-00
3	17	-.1041E-01
1	3	.1100E-01
2	3	.1517E-02
3	3	-.1032E-01
1	11	.1336E-01
2	11	.1771E-02
3	11	-.1999E-01
1	10	.1197E-01
2	10	.7736E-03
3	10	-.1041E-01

FINE GRID ELEMENT # 2													
NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	1	1	5	.106E+01	0.	.664E+00	11	2	3	5	.113E+01	.113E+00	.661E+00
2	3	1	5	.123E+01	0.	.662E+00	12	1	2	5	.105E+01	.534E-01	.663E+00
3	3	3	5	.122E+01	.122E+00	.660E+00	13	1	1	6	.113E+01	0.	.760E+00
4	1	3	5	.105E+01	.104E+00	.662E+00	14	3	1	6	.129E+01	0.	.750E+00
5	1	1	7	.120E+01	0.	.854E+00	15	3	3	6	.120E+01	.127E+00	.756E+00
6	3	1	7	.136E+01	0.	.852E+00	16	1	3	6	.111E+01	.110E+00	.750E+00
7	3	3	7	.133E+01	.132E+00	.849E+00	17	2	1	7	.120E+01	0.	.853E+00
8	1	3	7	.117E+01	.116E+00	.852E+00	18	3	2	7	.135E+01	.681E-01	.850E+00
9	2	1	9	.115E+01	0.	.663E+00	19	2	3	7	.125E+01	.124E+00	.890E+00
10	3	2	5	.123E+01	.621E-01	.661E+00	20	1	2	7	.119E+01	.604E-01	.853E+00

POINT CLAMP AND SLOPE TYPE BC.		
TYPE	NODE	VALUE
1	4	.1170E-01
2	4	.2017E-02
3	4	-.1992E-01
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2 1 -.6559E-09
3 1 -.2623E-01
1 5 .9150E-02
2 5 -.1026E-00
3 5 -.1011E-01
1 8 .9199E-02
2 8 .2014E-02
3 8 -.1703E-01
1 12 .1179E-C1
2 12 .1020E-02
3 12 -.2000E-C1
1 13 .1040E-01
2 13 -.9262E-09
3 13 -.1921E-C1
1 20 .9145E-02
2 20 .1022E-02
3 20 -.1797E-01
1 16 .1030E-01
2 16 .2011E-C2
3 16 -.1091E-C1
1 2 .9402E-02
2 2 -.1600E-00
3 2 -.1660E-C1
1 6 .7336E-02
2 6 -.1049E-00
3 6 -.1467E-01
1 9 .1055E-C1
2 9 -.1210E-C0
3 9 -.1041E-01
1 14 .0297E-C2
2 14 -.1014E-00
3 14 -.1570E-01
1 17 .0109E-02
2 17 -.1505E-G0
3 17 -.1633E-01
1 7 .7220E-C2
2 7 .1461E-C2
3 7 -.1531E-C1
1 10 .7326E-02
2 10 .7709E-03
3 10 -.1515E-C1
1 19 .0021E-C2
2 19 .1740E-02
3 19 -.1653E-01

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FINE GRID ELEMENT = 3

NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	1	3	3	.935E+00	.924E-01	.463E+00	11	2	5	3	.102E+01	.202E+00	.463E+00
2	3	3	3	.113E+01	.112E+00	.463E+00	12	1	4	3	.929E+00	.130E+00	.463E+00
3	3	5	3	.111E+01	.221E+00	.463E+00	13	1	3	4	.900E+00	.903E-01	.564E+00
4	1	5	3	.921E+00	.183E+00	.463E+00	14	3	3	4	.117E+01	.117E+00	.563E+00
5	1	3	5	.105E+01	.104E+00	.662E+00	15	3	5	4	.115E+01	.220E+00	.562E+00
6	3	3	5	.122E+01	.122E+00	.660E+00	16	1	5	4	.960E+00	.191E+00	.562E+00
7	3	5	5	.120E+01	.234E+00	.650E+00	17	2	3	5	.113E+01	.113E+00	.661E+00
8	1	5	5	.102E+01	.190E+00	.660E+00	18	3	4	5	.121E+01	.179E+00	.659E+00
9	2	3	3	.103E+01	.102E+00	.463E+00	19	2	5	5	.111E+01	.216E+00	.659E+00
10	3	4	3	.112E+01	.167E+00	.463E+00	20	1	4	5	.103E+01	.153E+00	.661E+00

POINT, CLAMP, AND SLOPE TYPE BC.

TYPE	NODE	VALUE
1	4	.1473E-01
2	4	.3947E-02
3	4	-.2136E-01
1	1	.1490E-C1
2	1	.2056E-C2
3	7	-.2170E-01

1	5	.1176E-01
2	5	.2017E-02
3	5	-.1992E-01
1	8	.1172E-01
2	8	.3092E-02
3	8	-.1959E-01
1	12	.1406E-01
2	12	.3022E-02
3	12	-.2155E-01
1	13	.1330E-01
2	13	.2032E-02
3	13	-.2006E-01
1	20	.1174E-01
2	20	.2973E-02
3	20	-.1976E-01
1	16	.1316E-01
2	16	.3911E-02
3	16	-.2051E-01
1	3	.1170E-01
2	3	.2914E-02
3	3	-.1815E-01
1	7	.9006E-02
2	7	.3101E-02
3	7	-.1620E-01
1	11	.1314E-01
2	11	.3399E-02
3	11	-.1973E-01
1	19	.1022E-01
2	19	.3402E-02
3	19	-.1707E-01
1	15	.1036E-01
2	15	.3079E-02
3	15	-.1712E-01
1	2	.1100E-01
2	2	.1517E-02
3	2	-.1832E-01
1	10	.1179E-01
2	10	.2231E-02
3	10	-.1823E-01
1	9	.1336E-01
2	9	.1771E-02
3	9	-.1999E-01

FINE GRID ELEMENT = 4

NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	1	3	5	.109E+01	.104E+00	.662E+00	11	2	9	9	.111E+01	.210E+00	.699E+00
2	3	3	5	.122E+01	.122E+00	.660E+00	12	1	4	5	.103E+01	.153E+00	.661E+00
3	3	5	5	.126E+01	.234E+00	.658E+00	13	1	3	6	.111E+01	.110E+00	.750E+00
4	1	5	5	.102E+01	.198E+00	.660E+00	14	3	3	6	.128E+01	.127E+00	.756E+00
5	1	3	7	.117E+01	.116E+00	.652E+00	15	3	5	6	.124E+01	.241E+00	.754E+00
6	3	3	7	.133E+01	.132E+00	.649E+00	16	1	5	6	.107E+01	.206E+00	.755E+00
7	3	5	7	.129E+01	.247E+00	.647E+00	17	2	3	7	.129E+01	.124E+00	.850E+00
8	1	5	7	.113E+01	.213E+00	.649E+00	18	3	4	7	.132E+01	.192E+00	.848E+00
9	2	3	5	.113E+01	.113E+00	.661E+00	19	2	5	7	.121E+01	.230E+00	.848E+00
10	3	4	5	.121E+01	.179E+00	.659E+00	20	1	4	7	.115E+01	.167E+00	.850E+00

POINT, CLAMP, AND SLOPE TYPE BC.

TYPE	NODE	VALUE
1	4	.1172E-01
2	4	.3092E-02
3	4	-.1959E-01
1	1	.1176E-01
2	1	.2017E-02
3	1	-.1992E-01
1	5	.9150E-02
2	5	.3101E-02
3	5	-.1620E-01

3	5	-.1703E-01
1	8	.9240E-02
2	8	.3908E-02
3	8	-.1756E-01
1	12	.1174E-01
2	12	.2973E-02
3	12	-.1976E-01
1	13	.1830E-01
2	13	.2011E-02
3	13	-.1091E-01
1	20	.9190E-02
2	20	.2976E-02
3	20	-.1770E-01
1	16	.1041E-01
2	16	.3091E-02
3	16	-.1061E-01
1	3	.9066E-02
2	3	.3101E-02
3	3	-.1620E-01
1	7	.6721E-02
2	7	.2720E-02
3	7	-.1406E-01
1	11	.1022E-01
2	11	.3482E-02
3	11	-.1787E-01
1	19	.7898E-02
2	19	.3316E-02
3	19	-.1009E-01
1	15	.7872E-02
2	15	.2982E-02
3	15	-.1538E-01
1	6	.7220E-02
2	6	.1481E-02
3	6	-.1531E-01
1	18	.7018E-02
2	18	.2131E-02
3	18	-.1515E-01
1	17	.8021E-02
2	17	.1748E-02
3	17	-.1453E-01

FINE GRID ELEMENT = 5

NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	3	1	3	.113E+01	0.	.463E+00	11	4	3	3	.122E+01	.121E+00	.463E+00
2	5	1	3	.132E+01	0.	.463E+00	12	3	2	3	.113E+01	.560E-01	.463E+00
3	5	3	3	.132E+01	.131E+00	.463E+00	13	3	1	4	.110E+01	0.	.463E+00
4	3	3	3	.113E+01	.112E+00	.463E+00	14	5	1	4	.135E+01	0.	.562E+00
5	3	1	4	.123E+01	0.	.662E+00	15	5	3	4	.136E+01	.135E+00	.562E+00
6	5	1	5	.141E+01	0.	.560E+00	16	3	3	4	.117E+01	.117E+00	.563E+00
7	5	3	5	.140E+01	.139E+00	.658E+00	17	4	1	5	.132E+01	0.	.661E+00
8	3	3	5	.122E+01	.122E+00	.660E+00	18	5	2	5	.141E+01	.708E-01	.659E+00
9	4	1	5	.122E+01	0.	.463E+00	19	4	3	5	.131E+01	.131E+00	.659E+00
10	5	2	3	.132E+01	.656E-01	.463E+00	20	3	2	5	.123E+01	.621E-01	.661E+00

POINT, CLAMP, AND SLOPE TYPE BC.

TYPE	NODE	VALUE
1	2	.9539E-02
2	2	-.1042E-08
3	2	-.1530E-01
1	3	.9414E-02
2	3	.1106E-02
3	3	-.1518E-01
1	7	.7916E-02
2	7	.1325E-02
3	7	-.1391E-01

2	6	-.1936E-08
3	6	-.1355E-01
1	10	.9470E-02
2	10	.9621E-03
3	10	-.1924E-01
1	15	.0034E-02
2	15	.1291E-02
3	15	-.1440E-01
1	18	.7770E-02
2	18	.0900E-03
3	18	-.1309E-01
1	14	.0471E-02
2	14	-.1576E-00
3	14	-.1443E-01
1	1	.1205E-01
2	1	-.0807E-09
3	1	-.1049E-01
1	5	.9402E-02
2	5	-.1600E-00
3	5	-.1060E-01
1	9	.1071E-01
2	9	-.0901E-09
3	9	-.1605E-01
1	17	.0393E-02
2	17	-.1050E-00
3	17	-.1500E-01
1	13	.1065E-01
2	13	-.1230E-00
3	13	-.1761E-01
1	4	.1100E-01
2	4	.1517E-02
3	4	-.1032E-01
1	12	.1197E-01
2	12	.7730E-03
3	12	-.1041E-01
1	11	.1057E-01
2	11	-.1296E-02
3	11	-.1672E-01

FINE GRID ELEMENT = 6

NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	3	1	5	.123E+01	0.	.662E+00	11	4	3	9	.131E+01	.131E+00	.659E+00
2	5	1	5	.141E+01	0.	.660E+00	12	3	2	5	.123E+01	.621E-01	.661E+00
3	5	3	5	.140E+01	.139E+00	.658E+00	13	3	1	6	.129E+01	0.	.758E+00
4	3	3	5	.122E+01	.132E+00	.660E+00	14	3	1	6	.146E+01	0.	.755E+00
5	3	1	7	.130E+01	0.	.652E+00	15	5	3	6	.149E+01	.140E+00	.794E+00
6	5	1	7	.151E+01	0.	.649E+00	16	3	3	6	.120E+01	.127E+00	.756E+00
7	5	3	7	.150E+01	.148E+00	.647E+00	17	4	1	7	.143E+01	0.	.850E+00
8	3	3	7	.133E+01	.132E+00	.649E+00	18	3	2	7	.151E+01	.760E-01	.848E+00
9	4	1	5	.132E+01	0.	.661E+00	19	4	3	7	.142E+01	.140E+00	.848E+00
10	5	2	5	.141E+01	.708E-01	.659E+00	20	3	2	7	.135E+01	.681E-01	.850E+00

POINT, CLAMP, AND SLOPE TYPE BC.

TYPE	NODE	VALUE
1	2	.7517E-02
2	2	-.1936E-08
3	2	-.1355E-01
1	3	.7910E-02
2	3	.1325E-02
3	3	-.1391E-01
1	7	.6620E-02
2	7	.9415E-03
3	7	-.1313E-01
1	6	.5956E-02
2	6	-.2135E-08

1	0	-.6474E-04
2	10	.7770E-02
3	10	.6980E-03
1	10	-.1389E-01
2	15	.7246E-02
3	15	.1209E-02
1	19	-.1390E-01
2	10	.6397E-02
3	10	.5164E-03
1	10	-.1274E-01
2	14	.6077E-02
3	14	-.2123E-00
1	14	-.1264E-01
2	1	-.9402E-02
3	1	-.1608E-00
1	1	-.1668E-01
2	5	.7336E-02
3	5	-.1849E-00
1	5	-.1467E-01
2	9	.8393E-02
3	9	-.1850E-00
1	9	-.1506E-01
2	17	.6592E-02
3	17	-.2866E-00
1	17	-.1313E-01
2	13	.8297E-02
3	13	-.1814E-00
1	13	-.1576E-01
2	8	.7220E-02
3	8	-.1481E-02
1	8	-.1531E-01
2	19	.6756E-02
3	19	.1212E-02
1	19	-.1418E-01
2	20	.7326E-02
3	20	.7709E-03
1	20	-.1515E-01

FINE GRID ELEMENT = 7													
NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	3	3	3	.113E+01	.112E+00	.463E+00	11	4	5	3	.121E+01	.248E+00	.483E+00
2	5	3	3	.132E+01	.131E+00	.463E+00	12	3	4	3	.112E+01	.167E+00	.483E+00
3	5	5	3	.131E+01	.260E+00	.463E+00	13	3	3	4	.117E+01	.117E+00	.562E+00
4	3	5	3	.111E+01	.221E+00	.463E+00	14	5	3	4	.136E+01	.135E+00	.562E+00
5	3	3	5	.122E+01	.122E+00	.660E+00	15	5	5	4	.134E+01	.265E+00	.561E+00
6	5	3	5	.140E+01	.139E+00	.658E+00	16	3	5	4	.115E+01	.228E+00	.562E+00
7	5	5	5	.138E+01	.270E+00	.657E+00	17	4	3	5	.131E+01	.131E+00	.659E+00
8	3	5	5	.120E+01	.234E+00	.658E+00	18	5	4	5	.139E+01	.206E+00	.658E+00
9	4	3	3	.122E+01	.121E+00	.463E+00	19	4	5	5	.129E+01	.252E+00	.658E+00
10	5	4	3	.131E+01	.195E+00	.463E+00	20	3	4	5	.121E+01	.179E+00	.659E+00

POINT, CLAMP, AND SLOPE TYPE BC.		
TYPE	NODE	VALUE
1	2	.9414E-02
2	2	.1106E-02
3	2	-.1518E-01
1	3	.9279E-02
2	3	.2137E-02
3	3	-.1511E-01
1	7	.7889E-02
2	7	.2431E-02
3	7	-.1300E-01
1	6	.7916E-02
2	6	.1325E-02
3	6	-.1391E-01
1	10	.9348E-02
2	10	.1222E-02
3	10	-.1515E-01

3	10	-.1516E-01
1	15	.0509E-02
2	15	.2435E-02
3	15	-.1392E-01
1	18	.7956E-02
2	18	.1905E-02
3	18	-.1361E-01
1	14	.0639E-02
2	14	.1291E-02
3	14	-.1448E-01
1	4	.1178E-01
2	4	.2914E-02
3	4	-.1815E-01
1	8	.9006E-02
2	8	.3101E-02
3	8	-.1020E-01
1	11	.1041E-01
2	11	.2494E-02
3	11	-.1661E-01
1	16	.1036E-01
2	16	.3079E-02
3	16	-.1712E-01
1	19	.0300E-02
2	19	.2751E-02
3	19	-.1457E-01
1	1	.1100E-01
2	1	.1517E-02
3	1	-.1032E-01
1	12	.1179E-01
2	12	.2231E-02
3	12	-.1023E-01
1	9	.1057E-01
2	9	.1296E-02
3	9	-.1072E-01

FINE GRID ELEMENT = 8

NODE	I	J	K	X-COORD	Y-COORD	Z-COORD	NODE	I	J	K	X-COORD	Y-COORD	Z-COORD
1	3	3	5	.122E+01	.122E+00	.660E+00	11	4	5	5	.129E+01	.252E+00	.658E+00
2	3	3	5	.140E+01	.139E+00	.650E+00	12	3	4	5	.121E+01	.179E+00	.659E+00
3	9	9	9	.130E+01	.270E+00	.697E+00	13	3	3	6	.120E+01	.127E+00	.796E+00
4	3	5	5	.120E+01	.234E+00	.650E+00	14	5	3	6	.145E+01	.144E+00	.754E+00
5	3	3	7	.133E+01	.132E+00	.849E+00	15	5	5	6	.142E+01	.276E+00	.752E+00
6	5	3	7	.150E+01	.148E+00	.847E+00	16	3	5	6	.124E+01	.241E+00	.754E+00
7	5	5	7	.146E+01	.201E+00	.845E+00	17	4	3	7	.142E+01	.148E+00	.848E+00
8	3	5	7	.129E+01	.247E+00	.847E+00	18	5	4	7	.146E+01	.216E+00	.846E+00
9	4	3	9	.131E+01	.131E+00	.899E+00	19	4	9	7	.139E+01	.204E+00	.848E+00
10	5	4	5	.139E+01	.206E+00	.658E+00	20	3	4	7	.132E+01	.192E+00	.848E+00

PCINT, CLAMP, AND SLOPE TYPE BC.

TYPE	NODE	VALUE
1	2	.7916E-02
2	2	.1325E-02
3	2	-.1391E-01
1	3	.7009E-02
2	3	.2431E-02
3	3	-.1300E-01
1	7	.6460E-02
2	7	.1510E-02
3	7	-.1195E-01
1	6	.6620E-02
2	6	.9415E-03
3	6	-.1313E-01
1	10	.7956E-02
2	10	.1905E-02
3	10	-.1361E-01

4	17	.1406E-06
2	15	.2125E-02
3	15	-.1234E-01
1	10	.6649E-02
2	10	-.1275E-02
3	10	-.1206E-01
1	14	.7200E-02
2	14	.1209E-02
3	14	-.1346E-01
1	4	.9086E-02
2	4	.3101E-02
3	4	-.1620E-01
1	0	.6721E-02
2	0	-.2720E-02
3	0	-.1466E-01
1	11	.8388E-02
2	11	.8791E-02
3	11	-.1457E-01
1	16	.7072E-02
2	16	.2902E-02
3	16	-.1530E-01
1	19	.6308E-02
2	19	.8121E-02
3	19	-.1320E-01
1	5	.7220E-02
2	5	-.1481E-02
3	5	-.1531E-01
1	20	.7018E-02
2	20	.8131E-02
3	20	-.1515E-01
1	17	.6756E-02
2	17	-.1212E-02
3	17	-.1410E-01

TIME IN REZONE = 1.214 SECONDS

TIME IN FORMKF = 3.772 SECONDS

TIME IN PREFRONT = .308

TOTAL NUMBER OF D.O.F.s = 270

D.O.F. IN FRONT = 112

MAXIMUM ACTIVE STORAGE = 8966

TOTAL NICKNAME STORAGE = 224

BUFFER LENGTH = 10333

TIME IN FORWARD ELIMINATION = 7.580

NUMBER OF SECTORS(PRUS) = 201

TIME IN BACKSUBSTITUTION = .643

TIME IN ZIPP = 8.539 SECONDS

BLOCK OPTION

BOUNDS

	MIN	MAX	MIN	MAX
X	-.1000E+21	.1000E+21	I	0 0
Y	-.1000E+21	.1000E+21	J	0 0
Z	-.1000E+21	.1000E+21	K	0 0

PRINT LEVEL = 4

STRESS POINTS FOR BRICK (DEGEN) ELEMENTS

POINT	S1	S2	S3
1	-1.000	-1.000	-1.000
2	1.000	-1.000	-1.000
3	1.000	1.000	-1.000
4	-1.000	1.000	-1.000
5	-1.000	-1.000	1.000
6	1.000	-1.000	1.000
7	1.000	1.000	1.000
8	-1.000	1.000	1.000
9	0.000	0.000	0.000

STRESS POINTS FOR PRISM ELEMENTS

POINT	S1	S2	S3	S4
1	1.000	0.000	0.000	-1.000
2	0.000	1.000	0.000	-1.000
3	0.000	0.000	1.000	-1.000
4	1.000	0.000	0.000	1.000
5	0.000	1.000	0.000	1.000
6	0.000	0.000	1.000	1.000
7	.333	.333	.333	0.000

STRESS POINTS FOR WEDGE ELEMENTS

POINT	S1	S2	S3
1	.050	0.000	-1.000
2	1.000	0.000	-1.000
3	1.000	1.000	-1.000
4	.050	0.000	1.000
5	1.000	0.000	1.000
6	1.000	1.000	1.000
7	.667	.500	0.000

STRESS POINTS FOR TETRA ELEMENTS

POINT	S1	S2	S3	S4
1	1.000	0.000	0.000	0.000
2	0.000	1.000	0.000	0.000
3	0.000	0.000	1.000	0.000
4	0.000	0.000	1.000	1.000
5	.250	.250	.250	.250

DISPLACEMENTS FOR BRICK ELEMENT NO. 1 MATERIAL = 1

PCINT	X	Y	Z	SIGMAX	SIGMY	SIGMZ	TAUXY	TAMXZ	TAMYZ	TAUZX	TAMXZ	TAMYZ	TAMXZ	TAMYZ	TAMXZ	TAMYZ
1	.94E+00	0.	.46E+00	.45E+04	.58E+04	.77E+04	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02
2	.11E+01	0.	.46E+00	-.10E+01	.23E+01	-.26E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02
3	.11E+01	.11E+00	.46E+00	-.90E+03	-.62E+03	-.62E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03
4	.93E+00	.92E-01	.66E+00	-.15E+01	.14E+01	.13E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03
5	.11E+01	0.	.66E+00	-.14E+01	.13E+01	.13E+01	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02
6	.12E+01	0.	.66E+00	-.17E+01	.21E+01	.21E+01	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02
7	.12E+01	.62E+00	.66E+00	-.18E+01	.19E+01	.19E+01	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02
8	.10E+01	.10E+00	.66E+00	-.12E+01	.14E+01	.14E+01	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02
9	.11E+01	.54E-01	.56E+00	-.23E+04	.27E+04	.27E+04	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02

STRESSES FOR BRICK ELEMENT NO. 1 MATERIAL = 1

PCINT	X	Y	Z	SIGMAX	SIGMY	SIGMZ	TAUXY	TAMXZ	TAMYZ	TAUZX	TAMXZ	TAMYZ	TAMXZ	TAMYZ	TAMXZ	TAMYZ
1	.94E+00	0.	.46E+00	.45E+04	.58E+04	.77E+04	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02	-.14E+02
2	.11E+01	0.	.46E+00	-.10E+01	.23E+01	-.26E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02	-.22E+02
3	.11E+01	.11E+00	.46E+00	-.90E+03	-.62E+03	-.62E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03	-.49E+03
4	.93E+00	.92E-01	.66E+00	-.15E+01	.14E+01	.13E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03	-.77E+03
5	.11E+01	0.	.66E+00	-.14E+01	.13E+01	.13E+01	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02	-.63E+02
6	.12E+01	0.	.66E+00	-.17E+01	.21E+01	.21E+01	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02	-.95E+02
7	.12E+01	.62E+00	.66E+00	-.18E+01	.19E+01	.19E+01	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02	-.12E+02
8	.10E+01	.10E+00	.66E+00	-.12E+01	.14E+01	.14E+01	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02	-.19E+02
9	.11E+01	.54E-01	.56E+00	-.23E+04	.27E+04	.27E+04	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02	-.34E+02

DISPLACEMENTS FOR BRICK ELEMENT NO. 3 MATERIAL = 1

POINT	K	J	I	U	V	M	H
1	3	3	3	.1498E-01	.2056E-02	-.2172E-01	.7493E-01
2	3	3	3	.1196E-01	.2515E-02	-.1952E-01	.6950E+00
3	3	3	3	.1174E-01	.2515E-02	-.1912E-01	-.9130E+00
1	3	2	3	.1497E-01	.3942E-02	-.2139E-01	.1818E+01
1	3	2	2	.1174E-01	.2011E-02	-.1924E-01	.8711E-01
3	3	2	2	.3286E-02	.1428E-02	-.1694E-01	.2750E+00
1	3	2	2	.1172E-01	.3992E-02	-.1684E-01	.5808E+00
2	3	3	3	.1336E-01	.1771E-02	-.1939E-01	.1800E+01
3	3	3	3	.1174E-01	.2534E-02	-.1823E-01	
1	3	4	3	.1314E-01	.3392E-02	-.1973E-01	
1	3	4	2	.1486E-01	.3022E-02	-.2152E-01	
1	3	4	2	.1330E-01	.2032E-02	-.2086E-01	
3	3	4	3	.1039E-01	.1732E-02	-.1732E-01	
3	3	4	2	.1036E-01	.3079E-02	-.1712E-01	
1	3	4	2	.1316E-01	.3911E-02	-.2091E-01	
2	3	5	3	.1027E-01	.1773E-02	-.1826E-01	
3	3	5	3	.9566E-02	.2380E-02	-.1669E-01	
2	3	5	2	.1022E-01	.3482E-02	-.1797E-01	
1	3	5	2	.1174E-01	.2973E-02	-.1976E-01	

STRESSES FOR BRICK ELEMENT NO. 3 MATERIAL = 1

POINT	K	Y	Z	SIGMAX	SIGMY	SIGMZ	TAUXX	TAUYY	TAUZZ	TAUZX	TAUZY	TAUZY	TAUZX	SIGM1	SIGM2	SIGM3	TAUMAX
19	93E+00	.92E+01	.46E+00	.25E+03	.74E+03	.46E+03	-.60E+02	-.60E+02	.61E+02	.79E+09	-.97E+03	-.97E+03	-.97E+03	.23E+03	.23E+03	.23E+03	.23E+03
20	.11E+01	.11E+00	.46E+00	-.17E-01	.21E-01	-.12E-02	-.95E-02	-.95E-02	.67E-02	.22E-01	.53E-04	.53E-04	.53E-04	-.19E-01	-.19E-01	-.19E-01	.41E-01
21	.11E+01	.22E+00	.46E+00	-.14E-01	.13E-01	.53E-02	-.63E-02	-.63E-02	.54E+02	.41E+02	.59E+04	.59E+04	.59E+04	.52E+04	.52E+04	.52E+04	.19E+03
22	.92E+00	.10E+00	.46E+00	-.13E-01	.11E-01	.46E-02	-.11E-01	-.11E-01	.87E-02	.71E-02	.14E-01	.14E-01	.14E-01	-.57E-04	-.57E-04	-.57E-04	.19E+03
23	.10E+01	.10E+00	.66E+00	-.16E-01	.18E-01	.53E-03	-.16E-01	-.16E-01	.99E-02	.72E-02	.21E-01	.21E-01	.21E-01	.70E-03	.70E-03	.70E-03	.40E+01
24	.12E+01	.12E+00	.66E+00	-.19E-01	.19E-01	.13E-02	-.87E-02	-.87E-02	.82E-02	.15E-01	.20E-01	.20E-01	.20E-01	-.23E-01	-.23E-01	-.23E-01	.42E+01
25	.12E+01	.23E+00	.66E+00	-.93E-02	.17E-01	.56E-02	.32E-02	.32E-02	-.83E-02	.19E-01	.39E+02	.39E+02	.39E+02	.16E-01	.16E-01	.16E-01	.34E+01
26	.10E+01	.20E+00	.66E+00	-.17E-02	.94E-02	.93E-03	-.24E-01	-.24E-01	.21E-01	.62E-02	.71E+04	.71E+04	.71E+04	.80E-03	.80E-03	.80E-03	.37E+01
27	.11E+01	.16E+00	.56E+00	-.17E-01	.17E-01	.44E-03	-.97E-02	-.97E-02	.85E-02	.13E-01	.13E-01	.13E-01	.13E-01	.22E-01	.22E-01	.22E-01	.42E+01
				-.22E+04	.26E+04	.24E+04	-.52E+02	-.52E+02	.49E+02	.64E+02	.26E+04	.26E+04	.26E+04	.16E-01	.16E-01	.16E-01	.20E+03
				-.14E-01	.14E-01	-.163E-03	-.82E-02	-.82E-02	.77E-02	.10E-01	.69E-03	.69E-03	.69E-03	-.16E-03	-.16E-03	-.16E-03	.32E+01

DISPLACEMENTS FOR BRICKM ELEMENT NO. 6 MATERIAL = 1

I	J	K	U	V	W	M
3	1	5	.9402E-02	-.1600E-00	-.1600E-01	.3738E+00
5	1	5	.7517E-02	-.1935E-08	-.1395E-01	.1132E+01
3	3	5	.1325E-02	-.1391E-01	-.1391E-01	.3054E+00
3	3	5	.9286E-02	-.1424E-02	-.1054E-01	.2790E+00
3	1	7	.7336E-02	-.1849E-08	-.1467E-01	.8903E-01
5	1	7	.5956E-02	-.2135E-08	-.1371E-01	-.1831E+00
5	3	7	.6620E-02	-.9415E-03	-.1313E-01	.1408E+00
3	3	7	.7220E-02	-.1801E-02	-.1973E-01	.9377E+00
4	1	5	.8393E-02	-.1850E-08	-.1506E-01	
9	2	4	.7778E-02	.6900E-03	-.1394E-01	
4	3	5	.8442E-02	.1691E-02	-.1920E-01	
3	2	5	.9830E-02	.7805E-03	-.1699E-01	
3	1	6	.8597E-02	-.1814E-08	-.1978E-01	
9	1	6	.8879E-02	-.2129E-08	-.1288E-01	
5	3	6	.7246E-02	.1209E-02	-.1346E-01	
3	3	6	.8275E-02	.1990E-02	-.1907E-01	
4	1	7	.6592E-02	-.2868E-08	-.1313E-01	
5	2	7	.6397E-02	.5164E-03	-.1274E-01	
4	3	7	.6756E-02	.1212E-02	-.1418E-01	
3	2	7	.7320E-02	.7709E-03	-.1919E-01	

STRESSES FOR BRICKM ELEMENT NO. 6 MATERIAL = 1

POINT	X	Y	Z	SIGMAX EPSX	SIGMAY EPSY	SIGMAZ EPSZ	TAUXX GAMMAX	TAUXY GAMMAX	TAUYZ GAMMAX	TAUZX GAMMAX	SIGMA1 EPS1	SIGMA2 EPS2	SIGMA3 EPS3	TAUMAX GAMMAX
46	.12E+01	0.	.68E+00	.22E+04	.29E+04	.23E+04	.92E+02	.59E+02	.51E+02	.72E+02	.72E+04	.24E+04	.21E+04	.21E+04
47	.14E+01	0.	.66E+00	-.12E-01	.14E-01	-.15E-02	.77E-02	.77E-02	-.91E-02	.14E-01	.15E-01	.17E-02	-.17E-01	.32E-01
48	.14E+01	.14E+00	.66E+00	.94E+04	.79E+04	.72E+04	.28E+02	.28E+02	.64E+02	.74E+02	.74E+04	.72E+04	.71E+04	.18E+03
49	.12E+01	.12E+00	.68E+00	-.43E-02	.19E+04	.19E+04	.74E-02	.74E-02	.64E+02	.59E+02	.21E+04	.28E+02	.18E+04	.12E+03
50	.14E+01	0.	.65E+00	.18E+04	.18E+04	.17E+04	.64E+02	.64E+02	.64E+02	.64E+02	.18E+04	.18E+02	.18E+02	.18E-01
51	.15E+01	0.	.65E+00	-.10E-01	.11E+04	.31E-02	.44E-03	.44E-03	-.74E-02	.14E-01	.72E+03	.59E+03	.32E+03	.18E+03
52	.12E+01	.12E+00	.68E+00	.75E+02	.75E+02	.75E+02	.67E-02	.67E-02	.11E+03	.94E+02	.11E+04	.11E+04	.11E+04	.12E+03
53	.13E+01	.13E+00	.65E+00	.94E+03	.94E+03	.94E+03	.13E+02	.13E+02	.29E+03	.34E+02	.18E+04	.92E+03	.92E+03	.92E+02
54	.14E+01	.69E-01	.74E+00	.23E+04	.23E+04	.23E+04	.56E+02	.56E+02	.56E+02	.56E+02	.34E+04	.34E+04	.34E+04	.14E+01
				-.85E-12	.11E-01	-.16E-02	-.14E-02	-.14E-02	-.28E-02	.12E-01	.11E-01	.15E-02	-.12E-01	.23E-01

DISPLACEMENTS FOR BRICKM ELEMENT NO. 8 MATERIAL = 1

I	J	K	U	V	M	M
3	3	5	.9284E-02	.1424E-02	-.1654E-01	.2750E+00
3	3	5	.7918E-02	.1329E-02	-.1391E-01	.3094E+00
5	5	5	.7884E-02	.2431E-02	-.1380E-01	.1218E+00
3	3	5	.9086E-02	.3101E-02	-.1620E-01	.9868E+00
3	3	7	.7224E-02	.1481E-02	-.1331E-01	.8537E+00
5	3	7	.6624E-02	.9459E-03	-.1313E-01	.1408E+00
5	5	7	.6468E-02	.1518E-02	-.1195E-01	.1809E+01
3	3	7	.8721E-02	.2728E-02	-.1180E-01	.2169E-01
4	3	5	.8442E-02	.1691E-02	-.1520E-01	
5	4	5	.7958E-02	.1905E-02	-.1351E-01	
4	5	5	.8308E-02	.2751E-02	-.1497E-01	
3	4	5	.9568E-02	.2380E-02	-.1669E-01	
3	3	6	.8278E-02	.1596E-02	-.1587E-01	
3	3	8	.7248E-02	.1209E-02	-.1366E-01	
5	5	6	.7184E-02	.2155E-02	-.1234E-01	
3	5	6	.7872E-02	.2982E-02	-.1398E-01	
4	3	7	.6756E-02	.1212E-02	-.1418E-01	
5	4	7	.6648E-02	.1279E-02	-.1486E-01	
4	5	7	.6304E-02	.2121E-02	-.1328E-01	
3	4	7	.7014E-02	.2131E-02	-.1319E-01	

STRESSES FOR BRICKM ELEMENT NO. 8 MATERIAL = 1

POINT	X	Y	Z	SIGMAX EPSX	SIGMAY EPSY	SIGMAZ EPSZ	TAUXY GAMMAX	TAUYZ GAMMAX	TAUZX GAMMAX	SIGMA1 EPS1	SIGMA2 EPS2	SIGMA3 EPS3	TAUMAX GAMMAX
54	.12E+01	.12E+00	.68E+00	.18E+04	.28E+04	.17E+04	.87E+03	-.28E+02	.78E+02	.21E+01	.18E+02	-.18E+01	.23E+03
55	.14E+01	.14E+00	.66E+00	.19E+04	.28E+04	.18E+04	-.48E+02	.43E+02	.59E+02	.21E+04	.28E+04	.18E+04	.12E+03
56	.14E+01	.27E+00	.65E+00	.74E+03	.85E+03	.75E+03	-.78E-02	.68E-02	.86E-02	.94E-02	.18E-02	-.88E-02	.18E+01
57	.12E+01	.23E+00	.68E+00	.38E+04	.38E+04	.37E+04	-.73E-02	.15E-01	.78E-02	.13E-01	.25E-02	-.86E-02	.12E+01
58	.13E+01	.13E+00	.69E+00	.34E+04	.34E+04	.34E+04	-.24E-01	.21E-01	.62E-01	.18E-01	.88E-03	-.17E-01	.37E+01
59	.15E+01	.15E+00	.69E+00	.75E-02	.99E-02	.48E-02	-.89E-02	.48E-02	.77E-02	.11E-01	-.14E-02	-.11E-01	.22E+01
70	.12E+01	.28E+00	.64E+00	.23E-03	.45E-02	.48E-02	-.21E-02	-.10E+01	.34E+01	.18E+04	.94E+03	.87E+03	.65E+02
71	.13E+01	.25E+00	.65E+00	.57E-02	.17E-03	.33E-02	-.18E-01	.19E-01	.47E-03	.11E-01	.34E-02	-.11E-01	.21E+01
72	.13E+01	.28E+00	.75E+00	-.66E-02	.64E-02	.15E-02	-.18E-01	.19E-01	.35E+02	.33E+03	.11E+03	-.58E+02	.18E+03
				.24E+04	.24E+04	.24E+04	-.56E+02	.58E+02	.43E+02	.24E+04	.24E+04	.24E+04	.12E+03
				-.53E-02	.69E-02	-.19E-02	-.88E-02	.91E-02	.68E-02	.94E-02	.14E-04	-.97E-02	.18E+01

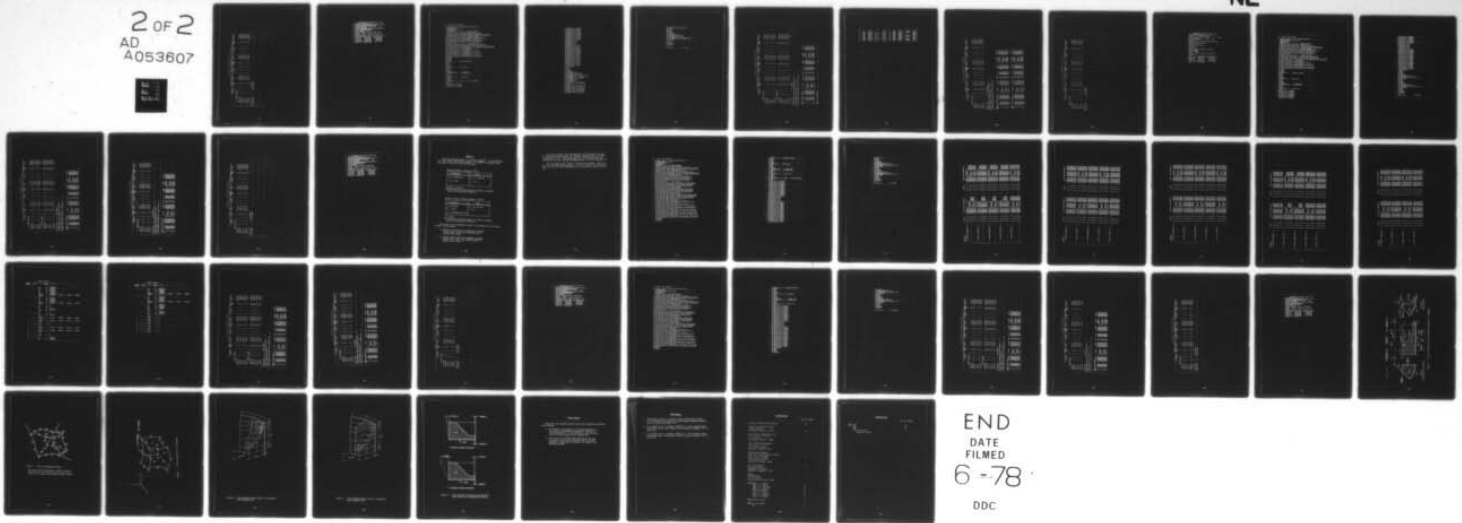
AD-A053 607

ARMY MISSILE RESEARCH AND DEVELOPMENT COMMAND REDSTO--ETC F/G 21/9.2
THREE-DIMENSIONAL FINITE ELEMENT ANALYSIS OF A SOLID PROPELLANT--ETC(U)
NOV 77 R M HACKETT
DRDMI-T-78-18

UNCLASSIFIED

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2 of 2
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ELEMENT SUMMARY REPORT

THREE MOST HIGHLY STRESSED ELEMENTS
 FIRST SECOND THIRD
 I ELEMENT POINT STRESS I ELEMENT POINT STRESS I ELEMENT POINT STRESS
 J K NO. J K NO. J K NO.

MATERIAL NUMBER = 1

SIGMA MAX	3	3	3	57	.155E+05	1	3	5	32	.003E+04	1	1	5	17	.003E+04
SIGMA MIN	1	3	5	35	-.134E+05	1	1	5	14	-.719E+04	3	3	3	50	-.500E+04
TAU MAX	1	3	5	35	.303E+03	1	1	3	1	.275E+03	1	1	5	13	.269E+03
EPS MAX	1	1	3	1	.231E-01	1	1	3	4	.219E-01	1	3	3	19	.219E-01
EPS MIN	1	3	5	35	-.276E-01	1	1	5	13	-.227E-01	1	1	3	8	-.227E-01
GAMMA MAX	1	3	5	35	.478E-01	1	1	3	1	.434E-01	1	1	5	13	.425E-01

TIME IN POST = 1.120 SECONDS

TIME IN STOP = .054501 SECONDS

NICOM SCOPE 3.4.2 HN SN 68 MXN 9.0 14.27
 15.22.58.MHLKPMN PROM /KP
 15.22.58.IP 00000976 WORDS - FILE INPUT , DC 88
 15.22.58.MHLKPM.Y1000,CN200000.L1000.
 15.22.59.7E01K10N05 7200 A3 MACKETT 0M01
 15.23.00.LIMIT(1000)
 15.23.00.ATTACH(TEX30,KPXXMM.ID=KPXXX,CY=3,MR=1)
 15.23.00.DISPOSE(OUTPUT,"PR=C")
 15.41.54.LOSET(PRESET=ZERO)
 15.41.54.TEX30.
 16.29.10. NON-FATAL ERROR(S) IN OVERLAY GEN.
 18.37.31. STOP
 18.37.31. 05.988 CP SECONDS EXECUTION TIME
 18.37.31.EXIT.
 18.37.31.OP 00043000 WORDS - FILE OUTPUT , DC 40
 18.37.31.MS 43000 WORDS (300400 MAX USED)
 18.37.31.CPA 92.477 SEC. 83.230 ADJ.
 18.37.31.IO 96.901 SEC. 94.630 ADJ.
 18.37.31.CH 9367.442 KMS. 95.276 ADJ.
 18.37.32.PP 196.389 SEC. DATE 10/10/77
 18.37.32.EJ END OF JOB. KP

LINE DIRECT LIST OF INPUT DATA

```
1 $FLNOCYL - STAR TO CYLINDRICAL TORR TRANSITION (I)
2 SETUP,4,PRESCRIB
3 ISJ,PROPELLANT,1,1 9:4,499
4 ISJ,CASE,2,3,6,7,3
5 ENJ,MATERIALS
6 BLJCK-C,1, 1,1,1, 3,5,3, 7,0,0 $ PROPELLANT NODES
7 9:4,499, 2,447,000, 1,730,1,730, 0,00,0,665,0,0/
8 9:4,499,403, 2,447,000,403, 1,730,1,730,403, 0,665,0,665,403
9 10:2,430,0,0,1,0, 12,0,0,0,470,0, 18,2,430,0,0,1,0,463, 20,0,0,0,70,0,0,0,0/
10 22:2,100,1,250,0, 24,0,0,0,2,3,3, 30,2 100,1 250,0,463, 32,0,900,243,0,03
11 BLJCK-C,0, 1,1,3, 3,5,7, 7,0,5 $ PROPELLANT NODES
12 9:4,499,403, 2,447,000,63, 1,730,1,730,403, 0,665,0,665,403/
13 2,1,2,0,6,1,9,2, 2,447,0,0,1,9,2, 1 730,1,730,1 342, 0,600,0,5,1,9,2
14 1,2,4,30,0,0,1,0,463, 2,0,0,14,0,7,0,463, 13,0,31,0,0,973/
15 18,2,430,0,0,1,1,9,4, 20,1,15,0,33,1,9,2, 22,2,100,1,250,0,0,3/
16 24,0,907,0,2,4,0,0,3, 26,1,775,0,1,4,32, 30,2,100,1,250,1,9,2/
17 32,0,75, 33,1,342
18 BLJCK-C,1, 1,1,7, 3,5,9, 7,0,0 $ PROPELLANT NODES
19 2,1,2,0,6,1,9,2, 2,447,0,0,1,9,2, 1,730,1,730,1,342, 0,600,0,5,1,9,2/
20 2,1,2,0,6,1,9,2, 2,447,0,0,2,4,45, 1,730,1,730,2,4,45, 0,600,0,5,2,4,45
21 1,2,4,30,0,0,1,1,9,4, 12,1,15,0,33,1,9,2, 18,2,430,0,0,1,2,4,5, 20,1,15,0,33,2,4,45/
22 22,2,100,1,250,1,9,2, 24,1,75,0,33,1,9,4, 30,2,100,1,250,2,4,45, 32,1,75,0,33,2,4,45
23 BLJCK,2, 5,1,1,1, 7,0,3 $ CASE NODES
24 2,0,0,7,0,0,0,0,2,5,1,7,0,0,0,2,5,1,7,0,0,0,2,4,47,0,0,0,0/
25 2,0,0,7,0,0,0,0,3,2,5,1,7,0,0,0,4,3,2,5,1,7,0,0,0,4,0,3,2,0,0,7,0,5,4,4,3
26 BLJCK,2, 5,1,1,3, 7,0,3 $ CASE NODES
27 2,0,0,7,0,0,0,0,3,2,5,1,7,0,0,0,4,3,2,5,1,7,0,0,0,4,0,3,2,0,0,7,0,5,4,4,3/
28 2,0,0,7,0,0,1,9,2,2,5,1,7,0,0,1,9,4,2,5,1,7,0,0,1,9,2,2,4,4,7,0,5,1,9,4,2
29 BLJCK,2, 5,1,1,7, 7,0,9 $ CASE NODES
30 2,0,0,7,0,0,1,9,2,2,5,1,7,0,0,1,9,4,2,2,5,1,7,0,0,1,9,2,2,4,4,7,0,5,1,9,4,2/
31 2,0,0,7,0,0,2,4,4,5,2,5,1,7,0,0,2,4,4,5,2,5,1,7,0,0,2,4,4,7,0,5,2,4,4,5
32 ENJ,GRID
33 KLJOP,4
34 ILOOP,2
35 JLJOP,2
36 BRICKM,1, 1,1,1 $ PROPELLANT ELEMENTS
37 JEVD
38 IEND
39 KEVD
40 KLJOP,4
41 JLJOP,2
42 BRICK,2, 5,1,1 $ CASE ELEMENTS
43 JEVD
44 KEVD
45 KLJOP,4
46 ILOOP,3
47 30,SLOPE,1,1,1, 5 $ 1 DEGREE FACE
48 30,SLOPE,1,3,1, 2 $ 45 DEGREE FACE
49 IEND
50 KEVD
51 JLJOP,2
52 30,SLOPE,0,1,1, 0 $ END OF CASE
53 JEVD
54 KLJOP,4
55 JLJOP,2
56 30,PRESSURE, 1,1,1, 4,1,425E3 $ 1425 PSI PRESSURE
57 JEVD
58 KEVD
59 30,JZ,1,1,1, 0,-2,184E-2
60 30,JZ,1,2,1, 0,-2,184E-2
61 30,JZ,1,3,1, 0,-2,184E-2
62 30,JZ,1,4,1, 0,-2,184E-2
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63 BC,UZ,1,5,1, 6,-2.184E-2
64 BC,JZ,2,1,1, 0,-1.038E-2
65 BC,UZ,2,3,1, 0,-1.638E-2
66 BC,UZ,2,5,1, 0,-1.038E-2
67 BC,UZ,3,1,1, 0,-1.092E-2
68 BC,UZ,3,2,1, 0,-1.092E-2
69 BC,UZ,3,3,1, 0,-1.092E-2
70 BC,UZ,3,4,1, 0,-1.092E-2
71 BC,JZ,3,5,1, 0,-1.192E-2
72 BC,UZ,4,1,1, 0,-6.548E-2
73 BC,UZ,4,3,1, 0,-6.548E-2
74 BC,UZ,4,5,1, 0,-6.548E-2
75 BC,JZ,5,1,1, 0,0
76 BC,UZ,5,2,1, 0,0
77 BC,UZ,5,3,1, 0,0
78 BC,UZ,5,4,1, 0,0
79 BC,UZ,5,5,1, 0,0
80 BC,UZ,1,1,9, 6,-.245E-2
81 BC,UZ,1,2,9, 0,-.266E-2
82 BC,UZ,1,3,9, 0,-.377E-2
83 BC,UZ,1,4,9, 0,-.435E-2
84 BC,UZ,1,5,9, 0,-.482E-2
85 BC,JZ,2,1,9, 0,-.246E-2
86 BC,JZ,2,3,9, 0,-.296E-2
87 BC,UZ,2,5,9, 0,-.384E-2
88 BC,UZ,3,1,9, 0,-.184E-2
89 BC,UZ,3,2,9, 0,-.266E-2
90 BC,JZ,3,3,9, 0,-.257E-2
91 BC,UZ,3,4,9, 0,-.317E-2
92 BC,JZ,3,5,9, 0,-.341E-2
93 BC,UZ,4,1,9, 0,-.188E-2
94 BC,UZ,4,3,9, 0,-.194E-2
95 BC,UZ,4,5,9, 0,-.236E-2
96 BC,UZ,5,1,9, 0,-.133E-2
97 BC,UZ,5,3,9, 0,-.153E-2
98 BC,JZ,5,5,9, 0,-.153E-2
99 BC,UZ,5,5,9, 0,-.153E-2
100 BC,UZ,5,5,9, 0,-.153E-2
101 END,ELEMENTS
102 SU,VE
103 PJST
104 BLOCK
105 OPTIUM,2
106 END,POST
107 REZONE,1,1,9, 3,3,9
108 REFINE,GRADS,1,1,9, 2,2,2
109 REFINE,GRADS,1,1,7, 2,2,2
110 BC,REZONE,1,1,9, 2,2,2,2,2, 1,1,9
111 BC,REZONE,1,1,7, 2,2,2,2,2, 1,1,9
112 BC,PRESSURE,1,1,9, 4,1,-2963
113 BC,PRESSURE,1,1,7, 4,1,-425E3
114 REPOS,REZONE,1,1,9
115 REPOS,REZONE,1,1,7
116 END,CONTROL
117 POINT,1,1,2,9, 2.648, 233,1.942
118 POINT,1,1,3,9, 1.645, 33,1.942
119 END,SET
120 POINT,1,1,2,1, 2.648, 233,1.942
121 POINT,1,1,3,1, 1.645, 33,1.942
122 POINT,1,1,2,2, 2.648, 233,2.046
123 POINT,1,1,3,2, 1.645, 33,2.046
124 POINT,1,1,2,3, 2.648, 233,2.17
125 POINT,1,1,3,3, 1.645, 33,2.17
126 POINT,1,1,2,4, 2.648, 233,2.29
127 POINT,1,1,3,4, 1.645, 33,2.29
128 POINT,1,1,2,5, 2.648, 233,2.41

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129 POINT,1,1,3,3, 1,0,5,33,2,4,5
130 END,SET
131 SOLVE
132 POST
133 BLOCK
134 OPTION,2
135 END,POST
136 REZONE,1,1,7, 3,3,11
137 REZONE,GRAUS,1,1,7, 2,2,2
138 REZONE,GRAUS,1,1,9, 2,2,2
139 REZONE, 1,1,7, 2,2,2,2,2, 1,1,7
140 REZONE, 1,1,9, 2,2,2,2,2, 1,1,11
141 END,CONTROL
142 SOLVE
143 POST
144 BLOCK
145 OPTION,2
146 END,POST
147 STOP

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TIME IN FFLDS3 * 1.141 SECONDS

ELEMENT SUMMARY REPORT

THREE MOST HEAVILY STRESSED ELEMENTS

ELEMENT NO.	I	J	K	L	ELEMNT NO.	STRESS	I	J	K	L	ELEMNT NO.	STRESS	I	J	K	L	ELEMNT NO.	STRESS	
																			POINT NO.
MATERIAL NUMBER = 1																			
SIGMA MAX	1	1	1	1	1	-0.37E+03	1	1	1	1	1	-0.94E+03	1	3	1	1	1	1	-0.84E+03
SIGMA MIN	3	1	1	20	3	-0.19E+04	3	1	1	21	3	-0.16E+04	3	3	1	29	3	1	-0.10E+04
TAU 48X	1	1	1	73	1	0.27E+03	1	1	3	61	1	0.27E+03	1	1	3	37	1	1	0.27E+03
EPS 48X	1	1	1	1	1	0.23E+01	1	1	1	5	1	0.23E+01	1	1	3	1	1	1	0.23E+01
EPS 41N	1	1	1	73	1	-0.29E+01	1	1	3	61	1	-0.29E+01	1	1	3	77	1	1	-0.29E+01
GAMMA MAX	1	1	1	73	1	0.03E+01	1	1	3	61	1	0.03E+01	1	1	3	37	1	1	0.03E+01
MATERIAL NUMBER = 2																			
SIGMA MAX	5	3	7	209	5	0.51E+05	5	3	7	210	5	0.50E+05	5	3	1	155	5	3	0.50E+05
SIGMA MIN	5	1	7	203	5	-0.12E+05	5	1	7	206	5	-0.12E+05	5	1	7	199	5	1	-0.12E+05
TAU 48X	5	3	1	154	5	0.29E+05	5	3	1	157	5	0.29E+05	5	3	7	200	5	3	0.29E+05
EPS 48X	5	3	1	156	5	0.17E+02	5	3	7	210	5	0.17E+02	5	3	3	196	5	3	0.17E+02
EPS 41N	5	1	7	203	5	-0.03E+03	5	1	7	199	5	-0.03E+03	5	3	7	212	5	3	-0.03E+03
GAMMA MAX	5	3	1	154	5	0.25E+02	5	3	1	157	5	0.25E+02	5	3	3	208	5	3	0.25E+02

TIME IN POST = 3.153 SECONDS

MAXIMUM NUMBER OF COARSE GRID ELEMENTS POSSIBLE = 16

MAXIMUM DIMENSION OF REFINED GRID = 1331

MAXIMUM NUMBER OF GRID POINTS IN ANY ONE DIRECTION = 13

COARSE GRID ELEMENT = 9		Y-COORD		Z-COORD		MODE		K J I		X-COORD		Y-COORD		Z-COORD							
MODE	K	J	I	X	Y	Z	MODE	K	J	I	X	Y	Z	MODE	K	J	I	X	Y	Z	
1	50101	139E+01	66	122E+01	11	5032	11	5032	143E+01	0.89E+01	12.1E+1	1	12.1E+1	1	12.1E+1	1	1	1	1	1	1
2	50103	139E+01	66	122E+01	12	5021	12	5021	146E+01	0.24E+01	12.4E+1	1	12.4E+1	1	12.4E+1	1	1	1	1	1	1
3	50104	172E+01	64E+03	122E+01	13	60101	13	60101	100E+01	6	15E+01	1	15E+01	1	15E+01	1	1	1	1	1	1
4	50105	130E+01	38E+03	122E+01	14	60103	14	60103	217E+01	6	15E+01	1	15E+01	1	15E+01	1	1	1	1	1	1
5	70101	215E+01	66	134E+01	15	60303	15	60303	179E+01	0.627E+01	15.7E+1	1	15.7E+1	1	15.7E+1	1	1	1	1	1	1
6	70102	215E+01	66	134E+01	16	60301	16	60301	133E+01	0.337E+01	15.6E+1	1	15.6E+1	1	15.6E+1	1	1	1	1	1	1
7	70103	149E+01	64E+03	134E+01	17	70102	17	70102	222E+01	6	19E+01	1	19E+01	1	19E+01	1	1	1	1	1	1
8	70101	149E+01	38E+03	134E+01	18	70203	18	70203	217E+01	0.30E+01	19.4E+1	1	19.4E+1	1	19.4E+1	1	1	1	1	1	1
9	50102	172E+01	66	122E+01	19	70302	19	70302	167E+01	0.48E+01	19.4E+1	1	19.4E+1	1	19.4E+1	1	1	1	1	1	1
10	50203	132E+01	38E+03	122E+01	20	70201	20	70201	100E+01	0.30E+01	19.4E+1	1	19.4E+1	1	19.4E+1	1	1	1	1	1	1

COARSE GRID ELEMENT = 13

NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
1	70101	.215E+01	..	.19E+01	11	70302	.167E+01	.409E+00	.19E+01
2	70103	.230E+01	0.	.19E+01	12	70201	.100E+01	.30E+00	.19E+01
3	70303	.109E+01	.0E+00	.19E+01	13	00101	.215E+01	u.	.217E+01
4	70301	.1E+01	.330E+00	.19E+01	14	00103	.230E+01	u.	.217E+01
5	90101	.215E+01	u.	.2E+01	15	00303	.107E+01	.632E+00	.217E+01
6	90103	.230E+01	u.	.2E+01	16	00301	.106E+01	.330E+00	.217E+01
7	90303	.130E+01	.612E+00	.2E+01	17	90102	.222E+01	u.	.24E+01
8	90301	.140E+01	.330E+00	.2E+01	18	90203	.215E+01	.391E+00	.24E+01
9	70102	.222E+01	u.	.19E+01	19	90302	.160E+01	.40E+00	.24E+01
10	70203	.217E+01	.390E+00	.19E+01	20	90201	.100E+01	.30E+00	.24E+01

ELEMENT SUMMARY REPORT

THREE MOST HIGHLY STRESSED ELEMENTS
 /-----FIRST-----/-----SECOND-----/-----THIRD-----/
 ELEMENT POINT STRESS ELEMENT POINT STRESS ELEMENT POINT STRESS
 I J K NO. I J K NO. I J K NO.

MATERIAL NUMBER = 1

PARAMETER	1	2	3	11	164	3	1	3	30
SIGMA MAX			.251E+00			.142E+00			.001E+00
SIGMA MIN			-.070E+00			-.001E+00			-.051E+00
TAU MAX			.015E+03			.730E+03			.363E+03
EPS MAX			.065E+01			.020E+01			.032E+01
EPS MIN			-.025E+01			-.021E+01			-.028E+01
GAMMA MAX			.123E+00			.119E+00			.078E+01

TIME IN POST = 2.687 SECONDS
 MAXIMUM NUMBER OF COARSE GRID ELEMENTS POSSIBLE = 16
 MAXIMUM DIMENSION OF REFINING GRID = 1331
 MAXIMUM NUMBER OF GRID POINTS IN ANY ONE DIRECTION = 13

COARSE GRID ELEMENT = 2

MODE	K	J	I	X-COORD	Y-COORD	Z-COORD	MODE	K	J	I	X-COORD	Y-COORD	Z-COORD
1	70401			.198E+01		.153E+01	11	70302			.176E+01	.297E+00	.156E+01
2	70403			.242E+01		.153E+01	12	70201			.179E+01	.163E+00	.156E+01
3	70303			.198E+01	.320E+02	.153E+01	13	00101			.262E+01		.176E+01
4	70401			.197E+01	.274E+01	.153E+01	14	00103			.213E+01		.179E+01
5	90201			.219E+01		.154E+01	15	00303			.195E+01	.333E+00	.179E+01
6	90403			.222E+01		.154E+01	16	00301			.170E+01	.289E+00	.179E+01
7	90303			.203E+01	.347E+03	.153E+01	17	30102			.210E+01		.194E+01
8	90301			.182E+01	.338E+03	.153E+01	18	90203			.214E+01	.199E+00	.194E+01
9	70402			.195E+01		.153E+01	19	90302			.195E+01	.326E+00	.194E+01
10	70203			.196E+01	.180E+03	.153E+01	20	90201			.205E+01	.233E+00	.194E+01

COARSE GRID ELEMENT = 3

MODE	K	J	I	X-COORD	Y-COORD	Z-COORD	MODE	K	J	I	X-COORD	Y-COORD	Z-COORD
1	90101			.215E+01		.194E+01	11	90502			.195E+01	.326E+00	.194E+01
2	90103			.222E+01		.194E+01	12	90201			.215E+01	.233E+00	.194E+01
3	90303			.236E+01	.347E+03	.194E+01	13	100103			.222E+01		.206E+01
4	90301			.192E+01	.330E+03	.194E+01	14	100101			.222E+01		.206E+01
5	110201			.215E+01		.212E+01	15	100103			.202E+01	.347E+00	.206E+01
6	110103			.222E+01		.212E+01	16	100101			.182E+01	.336E+00	.206E+01
7	110101			.212E+01	.347E+03	.217E+01	17	110102			.210E+01	.200E+00	.217E+01
8	110103			.192E+01	.330E+03	.217E+01	18	110103			.210E+01	.323E+00	.217E+01
9	90102			.210E+01		.194E+01	19	110102			.205E+01	.233E+00	.217E+01
10	90203			.214E+01	.199E+03	.194E+01	20	110201			.205E+01	.233E+00	.217E+01

ELEMENT SUMMARY REPORT

THREE 9031 HIGHLY STR. S.D. ELEMENTS
 /-----FIRST POINT STRESS /-----SECOND POINT STRESS /-----THIRD POINT STRESS /
 ELEMENT I J K NO. ELEMENT I J K NO. ELEMENT I J K NO.

MATERIAL NUMBER :		1			2			3			4				
SIGMA MAX	1	4	3	89	1104E+03	1	3	3	104	1180E+05	3	1	3	124	120E+05
SIGMA MIN	1	3	7	24	-0013E+03	1	1	3	86	-0028E+05	3	1	3	123	-0195E+05
TAU MAX	3	1	3	120	0055E+03	3	1	1	115	0065E+03	3	3	3	132	0065E+03
EPS MAX	3	3	9	69	454E-01	3	1	9	52	0094E-01	3	1	1	111	0091E-01
EPS MIN	3	1	3	124	-0050E-01	3	3	3	137	-0090E-01	3	1	1	115	-0090E-01
GAMMA MAX	3	1	3	124	010E+00	3	1	1	115	010E+00	3	3	3	137	010E+00

TIME IN POST = 2.066 S.COMDS
 TIME IN STOP = 122.537 S.COMDS

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VICOM SCOPE 3.0.2 MW SN 08 MKN R.D 10.97
15.51.43.WH1KPCN FROM /KP
15.51.43.IP 03.1672 WORDS - FILE INPUT 03 03
15.51.44.WH1KP,7188J,CN26660,L1838.
15.51.44.
15.51.44.5F35K1FF05 7206 A3 MACKETT 0M01 000186
15.51.44.LIMIT(1000)
15.51.44.
15.51.44.ATTACH(TEX3B,KPXXXXM,IO=KPXXX,CY=3,MR=1)
15.51.44.
15.51.44.DISPOSE(OUTPUT,*PK=C)
15.51.44.
15.51.44.LOSEI(PRES=T=ZLKJ)
15.51.44.
15.51.44.TEX3D.
15.51.44.
10.05.13. NON-FATAL ERROR(S) IN OVERLAY GEN.
10.31.43.LOCKIN.
10.32.30.UNLOCK.
10.35.10 STOP
10.35.10 122.501 CP SECONDS EXECUTION TIME
10.35.10.EXIT.
10.35.10.
10.35.10 JP 00007728 WORDS - FILE OUTPUT 03 03
10.35.10.45 0.928 WORDS ( 347649 MAX USE)
10.35.10.CPA 129.764 SEC. 117.745 ADJ.
10.35.10.10 141.122 SEC. 73.833 ADJ.
10.35.10.0M 137.09 419 KWS. 137.464 ADJ
10.35.10.PP 271.880 SEC. JAT: 11/26/77
10.35.10.EJ END OF JOB, KP

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LINE DIRECT LIST OF INPUT DATA

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1 SPINOCYL - STAR TO CYLINDRICAL BORE TRANSITION (I)
2 SETUP,6,PRESCRIB
3 ISO,PROPELLANT,1,,7E3,,499,-.013245
4 ISO,CASE,2,3,E7,,3
5 END,MATERIALS
6 BLOCK=C,1, 1,1,1, 9,9,3, 7,,5 8 PROPELLANT NODES
7 .94,0,0, 2.447,0,0, 1.730,1.730,0, .665,.665,0/
8 .94,0,.463, 2.447,0,.463, 1.730,1.730,.463, .665,.665,.463
9 10,2.430,.651,0, 12,.814,.470,3, 11,2.430,.651,.463, 20,.814,.470,.463/
10 22,2.100,1.250,0, 24,.900,.243,5, 30,2.100,1.250,.463, 32,.900,.243,.463
11 BLOCK=C,1, 1,1,3, 5,5,7, 7,,5 8 PROPELLANT NODES
12 .94,0,.463, 2.447,0,.463, 1.730,1.730,.463, .665,.665,.463/
13 2.145,0,1.942, 2.447,0,1.942, 1.730,1.730,1.942, .665,.665,1.942
14 10,2.430,.651,.463, 12,.814,.470,.463, 13,1.31,0,.973/
15 10,2.430,.651,1.942, 20,1.15,.33,1.942, 22,2.100,1.250,.463/
16 24,.900,.243,.463, 25,1.775,0,1.432, 30,2.100,1.250,1.942/
17 32,1.75,.33,1.942
18 BLOCK=C,1, 1,1,1, 9,9,9, 7,,5 8 PROPELLANT NODES
19 2.145,0,1.942, 2.447,0,1.942, 1.730,1.730,1.942, .665,.665,1.942/
20 2.145,0,2.405, 2.447,0,2.405, 1.730,1.730,2.405, .665,.665,2.405
21 10,2.430,.651,1.942, 12,1.15,.33,1.942, 10,2.430,.651,2.405, 20,1.15,.33,2.405/
22 22,2.100,1.250,1.942, 24,1.75,.33,1.942, 30,2.100,1.250,2.405, 32,1.75,.33,2.405
23 BLOCK=2, 5,1,1, 7,5,3 8 CASE NODES
24 2.447,0,0,2.517,0,0,2.517,45,0,2.447,45,3/
25 2.447,0,.463,2.517,0,.463,2.517,45,.463,2.447,45,.463
26 BLOCK=2, 5,1,3, 7,5,7 8 CASE NODES
27 2.447,0,.463,2.517,0,.463,2.517,45,.463,2.447,45,.463/
28 2.447,0,1.942,2.517,0,1.942,2.517,45,1.942,2.447,45,1.942
29 BLOCK=2, 5,1,7, 7,5,9 8 CASE NODES
30 2.447,0,1.942,2.517,0,1.942,2.517,45,1.942,2.447,45,1.942/
31 2.447,0,2.405,2.517,0,2.405,2.517,45,2.405,2.447,45,2.405
32 END,GRID
33 KLOOP,4
34 ILOOP,2
35 JLOOP,2
36 ORIGN=1, 1,1,1 8 PROPELLANT ELEMENTS
37 JEND
38 IEND
39 KEND
40 KLOOP,4
41 JLOOP,2
42 ORIGN=2, 5,1,1 8 CASE ELEMENTS
43 JEND
44 KEND
45 KLOOP,4
46 ILOOP,3
47 BC,SLOPE,1,1,1, 5 8 0 DEGREE FACE
48 BC,SLOPE,1,3,1, 2 8 45 DEGREE FACE
49 IEND
50 KEND
51 JLOOP,2
52 BC,SLOPE,5,1,1, 6 8 END OF CASE
53 JEND
54 BC,UZ,1,1,1, 0,-7.305E-2
55 BC,UZ,1,2,1, 0,-7.305E-2
56 BC,UZ,1,3,1, 0,-7.305E-2
57 BC,UZ,1,4,1, 0,-7.305E-2
58 BC,UZ,1,5,1, 0,-7.305E-2
59 BC,UZ,2,1,1, 0,-5.530E-2
60 BC,UZ,2,3,1, 0,-5.530E-2
61 BC,UZ,2,5,1, 0,-5.530E-2

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63 BC,UZ,3,2,1, 0,-3.692E-2
64 BC,UZ,3,3,1, 0,-3.692E-2
65 BC,UZ,3,4,1, 0,-3.692E-2
66 BC,UZ,3,5,1, 0,-3.692E-2
67 BC,UZ,4,1,1, 0,-1.846E-2
68 BC,UZ,4,3,1, 0,-1.846E-2
69 BC,UZ,4,5,1, 0,-1.846E-2
70 BC,UZ,5,1,1, 0,0
71 BC,UZ,5,2,1, 0,0
72 BC,UZ,5,3,1, 0,0
73 BC,UZ,5,4,1, 0,0
74 BC,UZ,5,5,1, 0,0
75 BC,UZ,1,1,9, 0,-.577E-2
76 BC,UZ,1,2,9, 0,-.799E-2
77 BC,UZ,1,3,9, 0,-1.036E-2
78 BC,UZ,1,4,9, 0,-1.382E-2
79 BC,UZ,1,5,9, 0,-1.836E-2
80 BC,UZ,2,1,9, 0,-.529E-2
81 BC,UZ,2,3,9, 0,-.899E-2
82 BC,UZ,2,5,9, 0,-1.199E-2
83 BC,UZ,3,1,9, 0,-.478E-2
84 BC,UZ,3,2,9, 0,-.948E-2
85 BC,UZ,3,3,9, 0,-.723E-2
86 BC,UZ,3,4,9, 0,-.932E-2
87 BC,UZ,3,5,9, 0,-1.019E-2
88 BC,UZ,4,1,9, 0,-.414E-2
89 BC,UZ,4,3,9, 0,-.522E-2
90 BC,UZ,4,5,9, 0,-.638E-2
91 BC,UZ,5,1,9, 0,-.362E-2
92 BC,UZ,5,2,9, 0,-.362E-2
93 BC,UZ,5,3,9, 0,-.362E-2
94 BC,UZ,5,4,9, 0,-.362E-2
95 BC,UZ,5,5,9, 0,-.362E-2
96 END,ELEMENTS
97 SOLVE
98 POST
99 BLOCK
100 OPTION,2
101 END,POST
102 REZONE,1,1,3, 3,3,9
103 REFINE,GRADS,1,1,3, 2,2,2
104 BCR,REZONE,1,1,3, 2,2,2,2,2,2, 1,1,3
105 END,CONTROL
106 SOLVE
107 POST
108 BLOCK
109 OPTION,2
110 END,POST
111 REZONE,1,1,3, 3,3,5
112 REFINE,GRADS,1,1,3, 2,2,2
113 BCR,REZONE,1,1,3, 2,2,2,2,2,2, 1,1,3
114 END,CONTROL
115 SOLVE
116 POST
117 BLOCK
118 OPTION,2
119 END,POST
120 STOP

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TIME IN FFLOS8 = .843 SECONDS

ELEMENT SUMMARY REPORT

FIRST STRESS		SECOND STRESS		THIRD STRESS		ELEMENT NO.		ELEMENT NO.		ELEMENT NO.		ELEMENT NO.			
I	J	K	L	M	N	O	P	Q	R	S	T	U	V		
MATERIAL NUMBER = 1															
SIGMA MAX	1	1	7	109	.101E+03	1	1	5	77	.101E+03	1	1	5	78	.170E+03
SIGMA MIN	1	1	7	116	-.205E+02	1	1	5	86	-.373E+02	1	1	7	112	-.309E+02
TAU MAX	1	1	5	73	.958E+02	1	1	3	61	.948E+02	1	1	5	77	.999E+02
EPS MAX	1	1	1	5	.197E+00	1	1	3	37	.197E+00	1	1	3	1	.15
EPS MIN	1	1	5	77	-.201E+00	1	1	7	109	-.253E+00	1	1	5	73	-.253E+00
GAMMA MAX	1	1	5	73	.637E+00	1	1	3	61	.606E+00	1	1	5	77	.608E+00
MATERIAL NUMBER = 2															
SIGMA MAX	5	3	7	213	.373E+05	5	3	7	209	.267E+05	5	3	7	210	.303E+05
SIGMA MIN	5	1	7	203	-.116E+05	5	1	7	206	-.115E+06	5	3	7	212	-.111E+06
TAU MAX	5	1	7	203	.648E+05	5	3	7	212	.637E+05	5	1	7	206	.626E+05
EPS MAX	5	1	7	203	.234E-12	5	3	7	212	.233E-02	5	1	7	206	.283E-02
EPS MIN	5	1	7	203	-.321E-02	5	3	7	212	-.310E-02	5	1	7	206	-.310E-02
GAMMA MAX	5	1	7	203	.855E-02	5	3	7	212	.592E-02	5	1	7	206	.592E-02

TIME IN SECS = 3.099 SECONDS
 MAXIMUM NUMBER OF CHANGE GRID ELEMENTS POSSIBLE = 14
 MAXIMUM DIMENSION OF MESH GRID = 1331
 MAXIMUM NUMBER OF GRID POINTS IN ANY ONE DIRECTION = 13

CHANGE GRID ELEMENT = 5		I-COORD		Y-COORD		Z-COORD		MODE		K J I		I-COORD		Y-COORD		Z-COORD	
MODE	K	J	I	I	Y	Z	MODE	K	J	I	I	Y	Z	I	Y	Z	
1	30101	.968E+00	0.	.000E+00	11	30102	.123E+01	.511E+00	.643E+01								
2	30103	.169E+01	0.	.603E+00	12	30201	.921E+00	.193E+00	.603E+01								
3	30104	.150E+01	.663E+00	.643E+00	13	41101	.120E+01	0.	.603E+01								
4	30105	.169E+00	.160E+01	.603E+00	14	40101	.102E+01	0.	.603E+01								
5	51101	.150E+01	0.	.123E+01	15	40103	.102E+01	.652E+00	.603E+01								
6	50103	.259E+01	0.	.123E+01	16	40102	.999E+01	.392E+00	.603E+01								
7	50104	.172E+01	.649E+01	.123E+01	17	50102	.177E+01	0.	.120E+01								
8	50105	.110E+01	.249E+01	.123E+01	18	50203	.192E+01	.303E+00	.120E+01								
9	30102	.172E+01	0.	.643E+00	19	50103	.102E+01	.603E+00	.120E+01								
10	30203	.169E+01	.196E+01	.643E+00	20	50104	.102E+01	.206E+00	.120E+01								

ELEMENT SUMMARY REPORT

THREE MOST HIGHLY STRESSED ELEMENTS
 FIRST SECOND THIRD
 ELEMENT POINT STRESS ELEMENT POINT STRESS ELEMENT POINT STRESS
 NO. NO. NO. NO. NO. NO. NO. NO. NO.

MATERIAL NUMBER = 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
SIGMA MAX	1	1	5	17	.531E+04	1	3	5	32	.531E+04	1	1	3	5	.353E+04																																																																																					
SIGMA MIN	1	1	5	14	-.726E+04	1	1	3	2	-.299E+04	3	1	3	37	-.259E+04																																																																																					
TAU MAX	1	3	5	20	.960E+02	1	3	3	23	.960E+02	1	1	3	0	.960E+02																																																																																					
EPS MAX	1	1	3	1	.197E+00	1	3	5	32	.194E+00	1	1	3	17	.184E+00																																																																																					
EPS MIN	1	1	5	14	-.259E+00	1	1	5	13	-.224E+00	1	1	3	0	-.224E+00																																																																																					
GAMMA MAX	1	1	5	13	.615E+00	1	1	3	0	.615E+00	1	3	3	23	.615E+00																																																																																					

TIME IN POST = 1.111 SECONDS

MAXIMUM NUMBER OF COARSE GRID ELEMENTS POSSIBLE = 10

MAXIMUM DIMENSION OF REFINED GRID = 1331

MAXIMUM NUMBER OF GRID POINTS IN ANY ONE DIRECTION = 15

COARSE GRID ELEMENT = 1

MODE	K	J	I	X-COORD	Y-COORD	Z-COORD	MODE	K	J	I	X-COORD	Y-COORD	Z-COORD
1	30101	.940E+00	0.	.000E+00	.000E+00	.000E+00	11	30302	.111E+01	.221E+00	.463E+00	.463E+00	
2	30102	.132E+01	0.	.000E+00	.000E+00	.000E+00	12	30303	.099E+00	.924E-01	.463E+00	.463E+00	
3	30303	.131E+01	0.	.268E+00	.000E+00	.000E+00	13	40101	.186E+01	0.	.664E+00	.664E+00	
4	30301	.961E+00	.183E+00	.000E+00	.000E+00	.000E+00	14	40103	.461E+01	0.	.664E+00	.664E+00	
5	50101	.120E+01	0.	.000E+00	.000E+00	.000E+00	15	40303	.130E+01	.278E+00	.664E+00	.664E+00	
6	50103	.151E+01	0.	.000E+00	.000E+00	.000E+00	16	40301	.182E+01	.190E+00	.664E+00	.664E+00	
7	50303	.146E+01	.281E+00	.000E+00	.000E+00	.000E+00	17	50102	.136E+01	0.	.657E+00	.657E+00	
8	50301	.113E+01	.743E+00	.000E+00	.000E+00	.000E+00	18	50303	.150E+01	.340E+00	.657E+00	.657E+00	
9	30102	.113E+01	0.	.000E+00	.000E+00	.000E+00	19	50302	.129E+01	.247E+00	.657E+00	.657E+00	
10	30203	.132E+01	.131E+00	.000E+00	.000E+00	.000E+00	20	50201	.117E+01	.116E+00	.657E+00	.657E+00	

ELEMENT SUMMARY REPORT

THREE MOST HIGHLY STRESSED ELEMENTS

FIRST POINT		SECOND POINT		THIRD POINT	
ELEMENT I	ELEMENT J	ELEMENT I	ELEMENT J	ELEMENT I	ELEMENT J
STRESS	POINT NO.	STRESS	POINT NO.	STRESS	POINT NO.
MATERIAL NUMBER = 1					
SIGMA MAX	3 3 3	57	70	62	62
SIGMA MIN	1 3 5	15	14	21	21
TAU MAX	1 3 5	35	13	20	20
EPS MAX	3 3 3	59	1	64	64
EPS MIN	1 3 5	35	13	20	20
GAMMA MAX	1 3 5	35	13	20	20
TIME IN POST = 1.189 SECONDS					
TIME IN STOP = 05.593 SECONDS					

```

NICON SCOPE 3.4.2 MR BN 48 MXN R.D 16.27
15.25.00.HM2KPDN FROM /KP
15.25.00.IP 0000076 WORDS - FILE INPUT , DC 00
15.25.00.HM2KP.Y1000.CK200000.L1000.
15.25.00.FE4K10M05 7200 AJ MACKETT 0M01
15.25.00.LIMIT(1000)
15.25.00.ATTACH(TEX30,KPKXRM,IO=KPKX,CY=3,MR=1)
15.25.00.DISPOSE(OUTPUT,"PRCT")
15.42.31.LDSET(PRESET=ZERO)
15.46.25.TEX30.
16.32.37. NON-FATAL ERROR(S) IN OVERLAY GEN.
18.44.18. STOP
18.44.18. 05.591 CP SECONDS EXECUTION TIME
18.44.18.EXIT.
18.44.18.OP 00042000 WORDS - FILE OUTPUT , DC 48
18.44.18.MS 43000 WORDS ( 330000 MAX USED)
18.44.18.CPA 92.547 SEC. 81.381 ADJ.
18.44.18.IO 96.174 SEC. 84.400 ADJ.
18.44.18.CH 9380.425 KMS. 97.103 ADJ.
18.44.18.PP 182.357 SEC. DATE 10/10/77
18.44.18.EJ END OF JOB, KP

```

MODEL II

The finite element model II is shown in Figure 5. It was analyzed for both pressure and thermal loading. The TEXGAP-3D computer input and output is shown on the following pages.

Pressure Loading - Firing at -65°F

Propellant	Case
$E_p = 19,000 \text{ psi}$	$E_c = 3 \times 10^7 \text{ psi}$
$\nu_p = 0.499$	$\nu_c = 0.3$

pressure = 1425 psi

Corresponding end displacements are shown on computer input and referenced to Figure 6.

Thermal Loading (2 Weeks Storage at -65°F)

Propellant	Case
$E_p = 700 \text{ psi}$	$E_c = 3 \times 10^7 \text{ psi}$
$\nu_p = 0.499$	$\nu_c = 0.3$
$\alpha_p = 0.000089 \text{ in/in/}^{\circ}\text{F}$	

$T_o = 140^{\circ}\text{F}$

Corresponding end displacements are shown on computer input and referenced to Figure 6.

The results of two analyses on Model II are shown on the following computer output sheets:

- 1) pressure loading with two sequential rezoning computations, without any repositioning of element nodal points;
- 2) thermal loading with two sequential rezoning computations, without any repositioning of element nodal points.

The first analysis, with rezoning near the cylindrical bore end of the transition (see Figure 5), yielded a maximum strain of 0.0260 in element 113 (IJK). The second analysis, with rezoning near the cylindrical bore end, yielded a maximum strain of 0.235 in element 113.

The following results consist of abbreviated computer output for both the first and second analyses. The first analysis is contained on pages 111 thru 124; the second analysis is contained on pages 125 thru 131.

Element	Strain
113 (IJK)	0.0260

Element	Strain
113 (IJK)	0.235

LINE DIRECT LIST OF INPUT DATA

```

1 SFINOCYL - STAR TO CYLINDRICAL BORE TRANSITION (III)
2 SETUP,6,PRESCHIB
3 ISO. PROPELLANT,1.1.944,.499
4 ISO. CASE,2.3.E7,.3
5 END. MATERIALS
6 BLOCK-C.1. 1.1.1. 9.3.3 SPROPELLANT NODES
7 .94.0.0. 2.447.0.0. 2.291.06.0. .00..33.0/
8 .94.0.0.463. 2.447.0.463. 2.291.06.463. .00..33.463
9 10.2.430.292.0. 12.913.223.0. 10.2.430.292.463. 20.913.223.463/
10 22.2.377.500.0. 24.933.112.0. 32.2.377.500.463. 32.933.112.463
11 BLOCK-C.1. 1.3.1. 5.5.3 SPROPELLANT NODES
12 .00..33.0. 2.291.06.0. 1.730.1.730.0. .009.009.0/
13 .00..33.463. 2.291.06.463. 1.730.1.730.463. .009.009.463
14 10.2.150.1.170.0. 12.752.559.0. 10.2.150.1.170.463. 20.752.559.463/
15 22.1.950.1.457.0. 24.825.452.0. 30.1.950.1.457.463. 32.825.452.463
16 BLOCK-C.1. 1.1.3. 9.3.7 SPROPELLANT NODES
17 .94.0.0.463. 2.447.0.463. 2.291.06.463. .00..33.463/
18 2.149.0.1.942. 2.447.0.1.942. 2.291.06.1.942. .00..33.1.942
19 10.2.430.292.463. 12.913.223.463. 13.1.39.0.963/
20 10.2.430.292.1.942. 20.1.403.33.1.942. 22.2.377.500.463/
21 24.933.112.463. 25.1.79.0.1.363. 30.2.377.500.1.942/
22 32.1.09.33.1.942
23 BLOCK-C.1. 1.3.3. 5.5.7 SPROPELLANT NODES
24 .00..33.463. 2.291.06.463. 1.730.1.730.463. .009.009.463/
25 .00..33.1.942. 2.291.06.1.942. 1.730.1.730.1.942. .009.009.1.942
26 10.2.150.1.170.463. 12.752.559.463. 10.2.150.1.170.1.942/
27 20.752.559.1.942. 22.1.950.1.457.463. 24.825.452.463/
28 30.1.950.1.457.1.942. 32.825.452.1.942
29 BLOCK-C.1. 1.1.7. 5.3.9 SPROPELLANT NODES
30 2.149.0.1.942. 2.447.0.1.942. 2.291.06.1.942. .00..33.1.942/
31 2.149.0.2.405. 2.447.0.2.405. 2.291.06.2.405. .00..33.2.405
32 10.2.430.292.1.942. 12.1.403.33.1.942. 10.2.430.292.2.405/
33 20.1.403.33.2.405. 22.2.377.500.1.942. 24.1.09.33.1.942/
34 30.2.377.500.2.405. 32.1.09.33.2.405
35 BLOCK-C.1. 1.3.7. 5.5.9 SPROPELLANT NODES
36 .00..33.1.942. 2.291.06.1.942. 1.730.1.730.1.942. .009.009.1.942/
37 .00..33.2.405. 2.291.06.2.405. 1.730.1.730.2.405. .009.009.2.405
38 10.2.150.1.170.1.942. 12.752.559.1.942. 10.2.150.1.170.2.405/
39 20.752.559.2.405. 22.1.950.1.457.1.942. 24.825.452.1.942/
40 30.1.950.1.457.2.405. 32.825.452.2.405
41 BLOCK.2. 5.1.1. 7.3.3 SCASE NODES
42 2.447.0.0. 2.517.0.0. 2.517.20.50.0. 2.447.20.50.0/
43 2.447.0.463. 2.517.0.463. 2.517.20.50.463. 2.447.20.50.463
44 BLOCK.2. 5.3.1. 7.5.3 SCASE NODES
45 2.447.20.50.0. 2.517.20.50.0. 2.517.45.0. 2.447.45.0/
46 2.447.20.50.463. 2.517.20.50.463. 2.517.45.463. 2.447.45.463
47 BLOCK.2. 5.1.3. 7.3.7 SCASE NODES
48 2.447.0.463. 2.517.0.463. 2.517.20.50.463. 2.447.20.50.463/
49 2.447.0.1.942. 2.517.0.1.942. 2.517.20.50.1.942. 2.447.20.50.1.942
50 BLOCK.2. 5.3.3. 7.5.7 SCASE NODES
51 2.447.20.50.463. 2.517.20.50.463. 2.517.45.463. 2.447.45.463/
52 2.447.20.50.1.942. 2.517.20.50.1.942. 2.517.45.1.942. 2.447.45.1.942
53 BLOCK.2. 5.1.7. 7.3.9 SCASE NODES
54 2.447.0.1.942. 2.517.0.1.942. 2.517.20.50.1.942. 2.447.20.50.1.942/
55 2.447.0.2.405. 2.517.0.2.405. 2.517.20.50.2.405. 2.447.20.50.2.405
56 BLOCK.2. 5.3.7. 7.5.9 SCASE NODES
57 2.447.20.50.1.942. 2.517.20.50.1.942. 2.517.45.1.942. 2.447.45.1.942/
58 2.447.20.50.2.405. 2.517.20.50.2.405. 2.517.45.2.405. 2.447.45.2.405
59 END. GRID
60 KLOOP,4
61 ILOOP,2

```

```

63 BRICK,1, 1,1,1  8 PROPELLANT ELEMENTS
64 JEND
65 IEND
66 KEND
67 KLOOP,4
68 JLOOP,2
69 BRICK,2, 5,1,1  8 CASE ELEMENTS
70 JEND
71 KEND
72 KLOOP,4
73 ILOOP,3
74 DC,SLOPE,1,1,1, 9  8 0 DEGREE FACE
75 DC,SLOPE,1,3,1, 2  8 45 DEGREE FACE
76 IEND
77 KEND
78 JLOOP,2
79 DC,SLOPE,9,1,1, 6  8 END OF CASE
80 JEND
81 KLOOP,4
82 JLOOP,2
83 DC,PRESSURE, 1,1,1, 4,1.429E3  8 1429 PSI PRESSURE
84 JEND
85 KEND
86 DC,UZ,1,1,1, 0,-2.104E-2
87 DC,UZ,1,2,1, 0,-2.104E-2
88 DC,UZ,1,3,1, 0,-2.104E-2
89 DC,UZ,1,4,1, 0,-2.104E-2
90 DC,UZ,1,9,1, 0,-2.104E-2
91 DC,UZ,2,1,1, 0,-1.630E-2
92 DC,UZ,2,3,1, 0,-1.630E-2
93 DC,UZ,2,5,1, 0,-1.630E-2
94 DC,UZ,3,1,1, 0,-1.092E-2
95 DC,UZ,3,2,1, 0,-1.092E-2
96 DC,UZ,3,3,1, 0,-1.092E-2
97 DC,UZ,3,4,1, 0,-1.092E-2
98 DC,UZ,3,9,1, 0,-1.092E-2
99 DC,UZ,4,1,1, 0,-0.546E-2
100 DC,UZ,4,3,1, 0,-0.546E-2
101 DC,UZ,4,9,1, 0,-0.546E-2
102 DC,UZ,9,1,1, 0,0
103 DC,UZ,9,2,1, 0,0
104 DC,UZ,9,3,1, 0,0
105 DC,UZ,9,4,1, 0,0
106 DC,UZ,9,9,1, 0,0
107 DC,UZ,1,1,9, 0,-.215E-2
108 DC,UZ,1,2,9, 0,-.399E-2
109 DC,UZ,1,3,9, 0,-.462E-2
110 DC,UZ,1,4,9, 0,-.462E-2
111 DC,UZ,1,5,9, 0,-.462E-2
112 DC,UZ,2,1,9, 0,-.200E-2
113 DC,UZ,2,3,9, 0,-.304E-2
114 DC,UZ,2,9,9, 0,-.504E-2
115 DC,UZ,3,1,9, 0,-.104E-2
116 DC,UZ,3,2,9, 0,-.230E-2
117 DC,UZ,3,3,9, 0,-.341E-2
118 DC,UZ,3,4,9, 0,-.341E-2
119 DC,UZ,3,9,9, 0,-.341E-2
120 DC,UZ,4,1,9, 0,-.100E-2
121 DC,UZ,4,3,9, 0,-.230E-2
122 DC,UZ,4,9,9, 0,-.230E-2
123 DC,UZ,9,1,9, 0,-.153E-2
124 DC,UZ,9,2,9, 0,-.153E-2
125 DC,UZ,9,3,9, 0,-.153E-2
126 DC,UZ,9,4,9, 0,-.153E-2
127 DC,UZ,9,9,9, 0,-.153E-2

```

400 END ELEMENTS

129 SOLVE

130 POST

131 BLOCK

132 OPTION, 2

133 END, POST

134 REZONE, 1, 1, 3, 3, 3, 5

135 REZONE, GRAD, 1, 1, 3, 2, 2, 2

136 OCR, REZONE, 1, 1, 3, 2, 2, 2, 2, 2, 1, 1, 3

137 END, CONTROL

138 SOLVE

139 POST

140 BLOCK

141 OPTION, 2

142 END, POST

143 REZONE, 1, 1, 3, 3, 3, 5

144 REZONE, GRAD, 1, 1, 3, 2, 2, 2

145 OCR, REZONE, 1, 1, 3, 2, 2, 2, 2, 2, 1, 1, 3

146 END, CONTROL

147 SOLVE

148 POST

149 BLOCK

150 OPTION, 2

151 END, POST

152 STOP

TIME IN FFLOSB = 1.132 SECONDS

ELEMENT NO. TYPE

1 BRICKM MATERIAL NO. 1		NODES			MODAL POINT COORDINATES			NODES			MODAL POINT COORDINATES			
I	J	K	I	J	K	X	Y	Z	I	J	K	X	Y	Z
1	1	1	1	1	1	.000E+00	.338E+00	0.	2	5	1	.981E+00	.981E+00	0.
3	3	1	1	1	1	.159E+01	.595E+00	0.	1	4	1	.791E+00	.597E+00	0.
3	3	1	1	1	1	.120E+01	.120E+01	0.	1	3	2	.600E+00	.368E+00	0.
1	3	1	1	1	1	.000E+00	.000E+00	0.	3	3	2	.159E+01	.595E+00	0.
1	3	1	1	1	1	.000E+00	.338E+00	0.	3	2	2	.120E+01	.120E+01	0.
3	3	1	1	1	1	.159E+01	.595E+00	0.	1	3	2	.600E+00	.368E+00	0.
3	3	1	1	1	1	.120E+01	.120E+01	0.	2	3	3	.159E+01	.595E+00	0.
1	3	1	1	1	1	.000E+00	.338E+00	0.	2	3	3	.159E+01	.595E+00	0.
2	1	1	1	1	1	.132E+01	0.	0.	2	3	3	.120E+01	.120E+01	0.
3	2	1	1	1	1	.167E+01	.382E+00	0.	1	2	3	.925E+00	.168E+00	0.
1	3	1	1	1	1	.000E+00	.338E+00	0.	2	5	1	.981E+00	.981E+00	0.
3	3	1	1	1	1	.159E+01	.595E+00	0.	1	4	1	.791E+00	.597E+00	0.
3	3	1	1	1	1	.120E+01	.120E+01	0.	1	3	2	.600E+00	.368E+00	0.
1	3	1	1	1	1	.000E+00	.000E+00	0.	3	3	2	.159E+01	.595E+00	0.
1	3	1	1	1	1	.000E+00	.338E+00	0.	3	2	2	.120E+01	.120E+01	0.
3	3	1	1	1	1	.159E+01	.595E+00	0.	1	3	2	.600E+00	.368E+00	0.
3	3	1	1	1	1	.120E+01	.120E+01	0.	2	3	3	.159E+01	.595E+00	0.
1	3	1	1	1	1	.000E+00	.338E+00	0.	2	3	3	.159E+01	.595E+00	0.
2	3	1	1	1	1	.142E+01	.913E+00	0.	1	4	5	.701E+00	.597E+00	0.
3	4	1	1	1	1	.162E+01	0.	0.	1	4	5	.701E+00	.597E+00	0.
1	3	1	1	1	1	.102E+01	0.	0.	3	1	1	.192E+01	.728E+00	0.
3	3	1	1	1	1	.242E+01	.692E+00	0.	3	2	1	.167E+01	.382E+00	0.
3	3	1	1	1	1	.222E+01	.692E+00	0.	3	1	2	.180E+01	0.	0.
3	3	1	1	1	1	.159E+01	.595E+00	0.	5	1	2	.245E+01	0.	0.
3	1	3	1	3	3	.169E+01	0.	0.	2	2	2	.200E+01	.890E+00	0.
5	1	3	1	3	3	.245E+01	0.	0.	3	2	2	.150E+01	.595E+00	0.
3	3	3	1	3	3	.222E+01	.692E+00	0.	3	1	3	.287E+01	0.	0.
3	3	3	1	3	3	.159E+01	.595E+00	0.	5	2	3	.245E+01	.687E+00	0.
4	1	1	1	1	1	.207E+01	0.	0.	4	3	3	.180E+01	.728E+00	0.
5	2	1	1	1	1	.241E+01	.637E+00	0.	3	2	3	.167E+01	.382E+00	0.
3	3	1	1	1	1	.159E+01	.595E+00	0.	4	5	1	.145E+01	.145E+01	0.
3	3	1	1	1	1	.222E+01	.692E+00	0.	3	1	1	.182E+01	.813E+00	0.
5	1	1	1	1	1	.173E+01	.373E+00	0.	3	2	1	.150E+01	.595E+00	0.
3	3	1	1	1	1	.120E+01	.120E+01	0.	5	3	2	.200E+01	.890E+00	0.
3	3	1	1	1	1	.159E+01	.595E+00	0.	5	2	2	.170E+01	.173E+00	0.
3	3	1	1	1	1	.120E+01	.120E+01	0.	5	2	2	.180E+01	.728E+00	0.
5	2	3	1	3	3	.173E+01	.373E+00	0.	4	3	3	.194E+01	.728E+00	0.
3	3	3	1	3	3	.120E+01	.120E+01	0.	5	3	3	.200E+01	.890E+00	0.
4	3	1	1	1	1	.198E+01	.728E+00	0.	4	3	3	.146E+01	.146E+01	0.
5	4	1	1	1	1	.200E+01	.132E+01	0.	3	4	3	.142E+01	.913E+00	0.
1	1	3	1	3	3	.040E+00	0.	0.	2	3	3	.120E+01	.633E+00	0.
3	1	3	1	3	3	.169E+01	0.	0.	1	2	3	.925E+00	.168E+00	0.
3	3	3	1	3	3	.159E+01	.595E+00	0.	1	4	3	.127E+01	0.	0.
1	3	3	1	3	3	.000E+00	.338E+00	0.	3	1	4	.806E+01	0.	0.
1	1	3	1	3	3	.169E+01	0.	0.	3	4	3	.150E+01	.595E+00	0.
3	1	3	1	3	3	.202E+01	0.	0.	1	3	4	.800E+00	.380E+00	0.
3	3	3	1	3	3	.159E+01	.595E+00	0.	2	1	5	.801E+01	0.	0.
1	3	3	1	3	3	.000E+00	.338E+00	0.	2	5	5	.106E+01	.340E+00	0.
2	1	3	1	3	3	.132E+01	0.	0.	2	3	5	.120E+01	.633E+00	0.
3	2	3	1	3	3	.167E+01	.382E+00	0.	1	2	5	.131E+01	.286E+00	0.

ELEMENT NO.	TYPE	NODES			MODAL POINT COORDINATES			MODAL POINT COORDINATES						
		I	J	K	X	Y	Z	X	Y	Z				
6	BRICKM	MATERIAL NO. 1	1	3	3	.168E+00	.331E+00	.663E+00	.781E+00	.931E+00	.653E+00			
			3	3	3	.159E+01	.591E+00	.663E+00	.781E+00	.931E+00	.653E+00			
			3	5	3	.128E+01	.128E+01	.663E+00	.808E+00	.388E+00	.833E+00			
			1	5	3	.665E+00	.665E+00	.663E+00	.196E+01	.595E+00	.231E+00			
			1	3	3	.882E+00	.782E+00	.128E+01	.128E+01	.128E+01	.833E+00			
			3	3	5	.159E+01	.595E+00	.128E+01	.665E+00	.665E+00	.833E+00			
			3	5	5	.128E+01	.128E+01	.128E+01	.123E+01	.662E+00	.128E+01			
			1	5	5	.665E+00	.665E+00	.128E+01	.142E+01	.813E+00	.128E+01			
			2	3	3	.123E+01	.663E+00	.663E+00	.821E+00	.881E+00	.128E+01			
			3	6	3	.142E+01	.913E+00	.663E+00	.791E+00	.587E+00	.128E+01			
			3	1	3	.168E+01	.663E+00	.663E+00	.196E+01	.782E+00	.663E+00			
			5	1	3	.229E+01	.663E+00	.663E+00	.187E+01	.382E+00	.663E+00			
			3	3	3	.229E+01	.693E+00	.663E+00	.186E+01	.6	.833E+00			
			3	3	3	.159E+01	.595E+00	.663E+00	.245E+01	.6	.833E+00			
			3	1	5	.282E+01	.118E+01	.118E+01	.296E+01	.859E+00	.833E+00			
			3	1	5	.242E+01	.6	.128E+01	.199E+01	.789E+00	.833E+00			
			3	3	5	.229E+01	.859E+00	.128E+01	.228E+01	.6	.119E+01			
			3	3	5	.159E+01	.595E+00	.128E+01	.241E+01	.687E+00	.128E+01			
4	1	3	.207E+01	.663E+00	.663E+00	.196E+01	.728E+00	.128E+01						
5	2	3	.241E+01	.637E+00	.663E+00	.186E+01	.348E+00	.119E+01						
7	BRICKM	MATERIAL NO. 1	3	1	3	.168E+01	.331E+00	.663E+00	.781E+00	.931E+00	.653E+00			
			3	1	3	.245E+01	.6	.663E+00	.187E+01	.382E+00	.663E+00			
			5	3	3	.229E+01	.693E+00	.663E+00	.186E+01	.6	.833E+00			
			3	3	3	.159E+01	.595E+00	.663E+00	.245E+01	.6	.833E+00			
			3	1	5	.282E+01	.118E+01	.118E+01	.296E+01	.859E+00	.833E+00			
			3	1	5	.242E+01	.6	.128E+01	.199E+01	.789E+00	.833E+00			
			5	3	5	.229E+01	.859E+00	.128E+01	.228E+01	.6	.119E+01			
			3	3	5	.159E+01	.595E+00	.128E+01	.241E+01	.687E+00	.128E+01			
			4	1	3	.207E+01	.663E+00	.663E+00	.196E+01	.728E+00	.128E+01			
			5	2	3	.241E+01	.637E+00	.663E+00	.186E+01	.348E+00	.119E+01			
			8	BRICKM	MATERIAL NO. 1	3	3	3	.159E+01	.595E+00	.663E+00	.187E+01	.382E+00	.663E+00
						5	3	3	.229E+01	.693E+00	.663E+00	.186E+01	.6	.833E+00
						5	3	3	.173E+01	.173E+01	.663E+00	.159E+01	.595E+00	.663E+00
						3	3	5	.128E+01	.128E+01	.663E+00	.229E+01	.693E+00	.663E+00
						3	3	5	.159E+01	.595E+00	.128E+01	.173E+01	.173E+01	.663E+00
						5	3	5	.229E+01	.693E+00	.128E+01	.128E+01	.128E+01	.663E+00
						5	3	5	.173E+01	.173E+01	.128E+01	.159E+01	.595E+00	.663E+00
						3	3	5	.128E+01	.128E+01	.128E+01	.206E+01	.182E+01	.128E+01
4	3	3				.196E+01	.728E+00	.663E+00	.148E+01	.148E+01	.128E+01			
5	4	3				.206E+01	.132E+01	.663E+00	.142E+01	.613E+00	.128E+01			
9	BRICKM	MATERIAL NO. 1				1	1	5	.168E+01	.331E+00	.663E+00	.781E+00	.931E+00	.653E+00
						3	1	5	.245E+01	.6	.663E+00	.187E+01	.382E+00	.663E+00
						3	3	5	.229E+01	.693E+00	.663E+00	.186E+01	.6	.833E+00
						3	3	5	.159E+01	.595E+00	.663E+00	.245E+01	.6	.833E+00
						1	1	7	.238E+01	.338E+00	.128E+01	.217E+01	.6	.196E+01
						1	1	7	.238E+01	.338E+00	.196E+01	.159E+01	.595E+00	.663E+00
						3	3	7	.159E+01	.595E+00	.196E+01	.608E+00	.388E+00	.157E+01
						3	3	7	.608E+00	.388E+00	.196E+01	.282E+01	.6	.196E+01
			2	1	5	.181E+01	.6	.117E+01	.132E+01	.663E+00	.196E+01			
			3	2	5	.186E+01	.348E+00	.119E+01	.168E+01	.355E+00	.196E+01			
			10	BRICKM	MATERIAL NO. 1	1	3	5	.608E+00	.388E+00	.128E+01	.631E+00	.663E+00	.128E+01
						3	3	5	.159E+01	.595E+00	.128E+01	.781E+00	.931E+00	.653E+00
						3	2	5	.181E+01	.6	.117E+01	.132E+01	.663E+00	.196E+01
						1	5	5	.653E+00	.653E+00	.128E+01	.186E+01	.6	.833E+00
						1	3	7	.608E+00	.388E+00	.196E+01	.186E+01	.6	.157E+01
						3	3	7	.159E+01	.595E+00	.196E+01	.665E+00	.665E+00	.157E+01
						1	5	7	.653E+00	.653E+00	.196E+01	.128E+01	.663E+00	.196E+01
						1	5	7	.653E+00	.653E+00	.196E+01	.128E+01	.663E+00	.196E+01
2	3	7				.181E+01	.6	.117E+01	.132E+01	.663E+00	.196E+01			
3	2	5				.186E+01	.348E+00	.119E+01	.168E+01	.355E+00	.196E+01			

ELEMENT NO.	TYPE	MODES			MODAL POINT COORDINATES			MODAL POINT COORDINATES						
		I	J	K	X	Y	Z	X	Y	Z				
16	BRICK	MATERIAL NO. 1	3	3	7	.159E+01	.599E+00	.199E+01	.165E+01	.146E+01	.199E+01			
			5	3	7	.229E+01	.059E+00	.199E+01	.142E+01	.013E+00	.199E+01			
			5	5	7	.173E+01	.199E+01	.199E+01	.199E+01	.599E+00	.217E+01			
			5	3	0	.120E+01	.120E+01	.199E+01	.299E+01	.059E+00	.217E+01			
			3	3	9	.199E+01	.059E+00	.241E+01	.173E+01	.173E+01	.217E+01			
			3	3	9	.229E+01	.059E+00	.241E+01	.120E+01	.120E+01	.217E+01			
			3	5	9	.173E+01	.173E+01	.241E+01	.199E+01	.720E+00	.241E+01			
			3	5	9	.120E+01	.120E+01	.241E+01	.206E+01	.182E+01	.241E+01			
			5	3	7	.199E+01	.720E+00	.199E+01	.146E+01	.146E+01	.241E+01			
			5	4	7	.206E+01	.132E+01	.199E+01	.146E+01	.013E+00	.241E+01			
			17	BRICK	MATERIAL NO. 2	5	1	1	.249E+01 0.	0.	0.	.239E+01	.072E+00 0.	
						7	1	1	.259E+01 0.	0.	0.	.241E+01	.087E+00 0.	
						7	3	1	.236E+01	.084E+00 0.	0.	.249E+01	0.	.232E+00
						5	3	1	.229E+01	.059E+00 0.	0.	.259E+01	0.	.232E+00
						5	1	3	.249E+01 0.	.463E+00	0.	.236E+01	.084E+00	.232E+00
						7	1	3	.259E+01 0.	.463E+00	0.	.229E+01	.059E+00	.232E+00
7	3	3				.236E+01	.084E+00	.463E+00	.249E+01	.084E+00	.232E+00			
5	3	3				.229E+01	.059E+00	.463E+00	.249E+01	.084E+00	.232E+00			
5	3	3				.173E+01	.173E+01	.463E+00	.249E+01	.084E+00	.232E+00			
7	3	3				.173E+01	.173E+01	.463E+00	.249E+01	.084E+00	.232E+00			
6	3	1				.239E+01	.072E+00 0.	0.	.249E+01	.084E+00	.232E+00			
7	2	1				.249E+01	.084E+00 0.	0.	.241E+01	.087E+00	.232E+00			
18	BRICK	MATERIAL NO. 2				5	3	1	.229E+01	.059E+00 0.	0.	.179E+01	.179E+01 0.	
						7	3	1	.236E+01	.084E+00 0.	0.	.206E+01	.182E+01 0.	
						7	5	1	.173E+01	.173E+01 0.	0.	.206E+01	.182E+01 0.	
						5	5	1	.173E+01	.173E+01 0.	0.	.206E+01	.182E+01 0.	
			5	3	3	.229E+01	.059E+00	.463E+00	.236E+01	.084E+00	.232E+00			
			7	3	3	.236E+01	.084E+00	.463E+00	.236E+01	.084E+00	.232E+00			
			7	5	3	.173E+01	.173E+01	.463E+00	.179E+01	.179E+01	.232E+00			
			5	5	3	.173E+01	.173E+01	.463E+00	.179E+01	.179E+01	.232E+00			
			6	3	1	.239E+01	.072E+00 0.	0.	.236E+01	.084E+00	.232E+00			
			7	4	1	.212E+01	.132E+01 0.	0.	.206E+01	.182E+01	.232E+00			
			19	BRICK	MATERIAL NO. 2	5	1	3	.249E+01 0.	.463E+00	0.	.239E+01	.072E+00	.463E+00
						7	1	3	.259E+01 0.	.463E+00	0.	.241E+01	.087E+00	.463E+00
						5	3	3	.236E+01	.084E+00	.463E+00	.249E+01	.084E+00	.463E+00
						5	3	3	.229E+01	.059E+00	.463E+00	.259E+01	.084E+00	.463E+00
						7	1	5	.249E+01 0.	.463E+00	0.	.249E+01	.084E+00	.463E+00
						7	1	5	.259E+01 0.	.463E+00	0.	.259E+01	.084E+00	.463E+00
5	3	5				.236E+01	.084E+00	.463E+00	.236E+01	.084E+00	.463E+00			
7	3	5				.229E+01	.059E+00	.463E+00	.236E+01	.084E+00	.463E+00			
6	1	3				.239E+01	.072E+00 0.	0.	.236E+01	.084E+00	.463E+00			
7	2	3				.249E+01	.084E+00 0.	0.	.236E+01	.084E+00	.463E+00			
20	BRICK	MATERIAL NO. 2				5	3	3	.229E+01	.059E+00	.463E+00	.179E+01	.179E+01	.463E+00
						7	3	3	.236E+01	.084E+00	.463E+00	.206E+01	.182E+01	.463E+00
						7	4	3	.173E+01	.173E+01	.463E+00	.229E+01	.059E+00	.463E+00
						5	3	5	.173E+01	.173E+01	.463E+00	.229E+01	.059E+00	.463E+00
						5	3	5	.229E+01	.059E+00	.463E+00	.236E+01	.084E+00	.463E+00
						7	3	5	.236E+01	.084E+00	.463E+00	.236E+01	.084E+00	.463E+00
			7	5	5	.173E+01	.173E+01	.463E+00	.173E+01	.173E+01	.463E+00			
			5	5	5	.173E+01	.173E+01	.463E+00	.173E+01	.173E+01	.463E+00			
			6	3	3	.239E+01	.072E+00 0.	0.	.212E+01	.132E+01	.463E+00			
			7	4	3	.212E+01	.132E+01 0.	0.	.206E+01	.182E+01	.463E+00			

ELEMENT NO.	TYPE	NODES			MODAL POINT COORDINATES			MODAL POINT COORDINATES						
		I	J	K	X	Y	Z	X	Y	Z				
21	BRICK	MATERIAL NO. 2	5	1	5	.259E+01	.178E+01	.128E+01	.259E+01	.178E+01	.128E+01			
			7	1	5	.252E+01	.184E+00	.120E+01	.241E+01	.187E+00	.128E+01			
			7	3	5	.236E+01	.188E+00	.120E+01	.245E+01	.187E+00	.157E+01			
			5	3	5	.229E+01	.189E+00	.120E+01	.252E+01	.187E+00	.157E+01			
			5	1	7	.245E+01	.194E+01	.194E+01	.245E+01	.188E+00	.137E+01			
			7	1	7	.252E+01	.194E+01	.194E+01	.252E+01	.188E+00	.137E+01			
			7	3	7	.236E+01	.188E+00	.194E+01	.245E+01	.187E+01	.137E+01			
			5	3	7	.229E+01	.189E+00	.194E+01	.252E+01	.187E+01	.137E+01			
			5	1	5	.178E+01	.178E+01	.120E+01	.178E+01	.178E+01	.137E+01			
			7	1	5	.173E+01	.173E+01	.120E+01	.173E+01	.173E+01	.137E+01			
			7	3	5	.236E+01	.188E+00	.194E+01	.245E+01	.187E+01	.137E+01			
			5	3	5	.229E+01	.189E+00	.194E+01	.252E+01	.187E+01	.137E+01			
			7	1	7	.178E+01	.178E+01	.194E+01	.178E+01	.178E+01	.194E+01			
			5	1	7	.173E+01	.173E+01	.194E+01	.173E+01	.173E+01	.194E+01			
			7	3	7	.232E+01	.182E+00	.120E+01	.232E+01	.182E+00	.120E+01			
22	BRICK	MATERIAL NO. 2	5	3	5	.229E+01	.189E+00	.120E+01	.176E+01	.176E+01	.128E+01			
			7	3	5	.236E+01	.188E+00	.120E+01	.205E+01	.182E+01	.128E+01			
			7	5	5	.178E+01	.178E+01	.120E+01	.236E+01	.182E+00	.157E+01			
			5	5	5	.173E+01	.173E+01	.120E+01	.236E+01	.182E+00	.157E+01			
			5	3	7	.229E+01	.189E+00	.194E+01	.178E+01	.178E+01	.157E+01			
			7	3	7	.236E+01	.188E+00	.194E+01	.178E+01	.178E+01	.157E+01			
			7	5	7	.178E+01	.178E+01	.194E+01	.242E+01	.185E+01	.194E+01			
			5	5	7	.173E+01	.173E+01	.194E+01	.242E+01	.185E+01	.194E+01			
			6	3	5	.232E+01	.182E+00	.120E+01	.176E+01	.176E+01	.194E+01			
			7	4	5	.212E+01	.136E+01	.120E+01	.205E+01	.182E+01	.194E+01			
			23	BRICK	MATERIAL NO. 2	9	1	7	.249E+01	.194E+01	.194E+01	.249E+01	.182E+00	.194E+01
						7	1	7	.252E+01	.194E+01	.194E+01	.241E+01	.187E+00	.194E+01
						7	3	7	.236E+01	.188E+00	.194E+01	.252E+01	.187E+00	.217E+01
						5	3	7	.229E+01	.189E+00	.194E+01	.252E+01	.187E+00	.217E+01
						5	1	9	.245E+01	.194E+01	.194E+01	.245E+01	.188E+00	.137E+01
7	1	9				.252E+01	.194E+01	.194E+01	.245E+01	.188E+00	.137E+01			
7	3	9				.236E+01	.188E+00	.194E+01	.252E+01	.187E+00	.137E+01			
5	3	9				.229E+01	.189E+00	.194E+01	.252E+01	.187E+00	.137E+01			
6	1	7				.249E+01	.194E+01	.194E+01	.249E+01	.182E+00	.241E+01			
7	2	7				.246E+01	.194E+01	.194E+01	.241E+01	.187E+00	.241E+01			
24	BRICK	MATERIAL NO. 2				5	3	7	.229E+01	.189E+00	.194E+01	.176E+01	.176E+01	.194E+01
						7	3	7	.236E+01	.188E+00	.194E+01	.205E+01	.182E+01	.194E+01
						7	5	7	.178E+01	.178E+01	.194E+01	.236E+01	.182E+00	.217E+01
						5	5	7	.173E+01	.173E+01	.194E+01	.236E+01	.182E+00	.217E+01
						5	3	9	.229E+01	.189E+00	.241E+01	.178E+01	.178E+01	.217E+01
			7	3	9	.236E+01	.188E+00	.241E+01	.178E+01	.178E+01	.217E+01			
			7	5	9	.178E+01	.178E+01	.241E+01	.242E+01	.185E+00	.241E+01			
			5	5	9	.173E+01	.173E+01	.241E+01	.242E+01	.185E+00	.241E+01			
			6	3	7	.232E+01	.182E+00	.194E+01	.176E+01	.176E+01	.241E+01			
			7	4	7	.212E+01	.136E+01	.194E+01	.205E+01	.182E+01	.241E+01			

BOLNDARY CONDITIONS.

ELEMENT NUMBER	ELEMENT I	ELEMENT J	ELEMENT K	TYPE	NODE OR FACE	VALUE			
1	1	1	1	UZ	3	-.1092E-01			
				UZ	10	-.1092E-01			
				UZ	2	-.1092E-01			
				UZ	11	-.1638E-01			
				UZ	9	-.1638E-01			
				UZ	4	-.2184E-01			
				UZ	12	-.2184E-01			
				UZ	1	-.2184E-01			
				PRESSURE	4	.1425E+04	.1425E+04	.1425E+04	.1425E+04
				SLOPE	5	0.			
2	1	3	1	UZ	3	-.1092E-01			
				UZ	10	-.1092E-01			
				UZ	11	-.1638E-01			
				UZ	4	-.2184E-01			
				UZ	12	-.2184E-01			
				PRESSURE	4	.1425E+04	.1425E+04	.1425E+04	.1425E+04
				SLOPE	2	0.			
3	3	1	1	UZ	3	0.			
				UZ	10	0.			
				UZ	2	0.			
				UZ	11	-.5460E-02			
				UZ	9	-.5460E-02			
				SLOPE	5	0.			
4	3	3	1	UZ	3	0.			
				UZ	10	0.			
				UZ	11	-.5460E-02			
				SLOPE	2	0.			
5	1	1	3	PRESSURE	4	.1425E+04	.1425E+04	.1425E+04	.1425E+04
				SLOPE	5	0.			
6	1	3	3	PRESSURE	4	.1425E+04	.1425E+04	.1425E+04	.1425E+04
				SLOPE	2	0.			
7	3	1	3	SLOPE	5	0.			
8	3	3	3	SLOPE	2	0.			
9	1	1	5	PRESSURE	4	.1425E+04	.1425E+04	.1425E+04	.1425E+04
				SLOPE	5	0.			
10	1	3	5	PRESSURE	4	.1425E+04	.1425E+04	.1425E+04	.1425E+04
				SLOPE	2	0.			
11	3	1	5	SLOPE	5	0.			
12	3	3	5	SLOPE	2	0.			
13	1	1	7	UZ	7	-.3418E-02			
				UZ	10	-.2308E-02			
				UZ	6	-.1848E-02			

BOUNDARY CONDITIONS.

ELEMENT NUMBER	ELEMENT			TYPE	NODE OR FACE	VALUE			
	I	J	K						
13	1	1	7	UZ	19	-.3060E-02			
				UZ	17	-.2000E-02			
				UZ	8	-.4620E-02			
				UZ	20	-.3990E-02			
				UZ	5	-.2190E-02			
				PRESSURE	4	.1429E+04	.1429E+04	.1429E+04	.1429E+04
SLOPE	5	0.							
14	1	3	7	UZ	7	-.3410E-02			
				UZ	10	-.3410E-02			
				UZ	19	-.3060E-02			
				UZ	8	-.4620E-02			
				UZ	20	-.4620E-02			
				PRESSURE	4	.1429E+04	.1429E+04	.1429E+04	.1429E+04
SLOPE	2	0.							
15	3	1	7	UZ	7	-.1930E-02			
				UZ	10	-.1930E-02			
				UZ	6	-.1930E-02			
				UZ	19	-.2300E-02			
				UZ	17	-.1600E-02			
				SLOPE	5	0.			
16	3	3	7	UZ	7	-.1930E-02			
				UZ	10	-.1930E-02			
				UZ	19	-.2300E-02			
				SLOPE	2	0.			
17	5	1	1	SLOPE	6	0.			
				SLOPE	5	0.			
18	9	3	1	SLOPE	6	0.			
				SLOPE	2	0.			
19	5	1	3	SLOPE	5	0.			
20	9	3	3	SLOPE	2	0.			
21	5	1	5	SLOPE	5	0.			
22	9	3	5	SLOPE	2	0.			
23	5	1	7	SLOPE	5	0.			
24	5	3	7	SLOPE	2	0.			

ELEMENT SUMMARY REPORT

THREE MOST HIGHLY STRESSED ELEMENTS

FIRST		SECOND		THIRD											
ELEMENT	POINT	ELEMENT	POINT	ELEMENT	POINT										
I	J	K	NO.	I	J	K	NO.	I	J	K	NO.				
MATERIAL NUMBER = 1															
SIGMA MAX	1	1	5	17	.181E+05	1	3	5	32	.101E+05	3	1	3	38	.186E+05
SIGMA MIN	1	3	5	35	-.259E+05	1	1	5	14	-.166E+05	3	1	3	37	-.000E+04
TAU MAX	1	1	5	16	.315E+03	1	3	5	28	.307E+03	1	1	5	13	.307E+03
EPS MAX	1	1	3	1	.246E-01	1	1	3	4	.227E-01	1	3	3	19	.227E-01
EPS MIN	1	1	5	16	-.327E-01	1	1	5	13	-.293E-01	1	1	3	8	-.209E-01
GAMMA MAX	1	1	5	16	.697E-01	1	1	3	8	.606E-01	1	1	3	13	.606E-01

TIME IN POST = 1.139 SECONDS

MAXIMUM NUMBER OF COARSE GRID ELEMENTS POSSIBLE = 15

MAXIMUM DIMENSION OF REFINED GRID = 1331

MAXIMUM NUMBER OF GRID POINTS IN ANY ONE DIRECTION = 15

COARSE GRID ELEMENT = 1		Y-COORD		Z-COORD		MODE		K		I		X-COORD		Y-COORD		Z-COORD	
MODE	K	J	I	X	Y	X	Y	K	J	I	K	J	I	X	Y	X	Y
1	38181	0	0	.048E+08	0	.663E+08	11	38182	0	0	.111E+01	0	0	.281E+08	0	.443E+08	0
2	38182	0	0	.132E+01	0	.003E+08	12	38201	0	0	.596E+08	0	0	.000E-01	0	.000E+08	0
3	38183	0	0	.130E+01	0	.663E+08	13	48101	0	0	.110E+01	0	0	.000E-01	0	.642E+08	0
4	38184	0	0	.236E+03	0	.663E+08	14	48103	0	0	.146E+01	0	0	.000E-01	0	.659E+08	0
5	38185	0	0	.160E+08	0	.663E+08	15	48303	0	0	.137E+01	0	0	.253E+08	0	.653E+08	0
6	38186	0	0	.157E+01	0	.663E+08	16	48301	0	0	.182E+01	0	0	.192E+08	0	.656E+08	0
7	38187	0	0	.166E+01	0	.663E+08	17	58182	0	0	.142E+01	0	0	.000E-01	0	.843E+08	0
8	38188	0	0	.271E+03	0	.663E+08	18	58202	0	0	.128E+01	0	0	.000E-01	0	.839E+08	0
9	38189	0	0	.217E+08	0	.663E+08	19	58201	0	0	.128E+01	0	0	.246E+08	0	.838E+08	0
10	38203	0	0	.110E+03	0	.663E+08	20	58201	0	0	.128E+01	0	0	.121E+08	0	.842E+08	0

ELEMENT SUMMARY REPORT

THREE MOST HIGHLY STRESSED ELEMENTS																	
FIRST POINT			SECOND POINT			THIRD POINT			/								
ELEMENT NO.	I	J	K	ELEMENT NO.	I	J	K	ELEMENT NO.	I	J	K	ELEMENT NO.	I	J	K	POINT NO.	STRESS
MATERIAL NUMBER = 1																	
SIGMA MAX	3	3	3	57	.190E+05	3	1	5	51	.113E+05	1	3	3	22			.980E+06
SIGMA MIN	3	3	5	70	-.349E+05	3	3	3	50	-.151E+05	1	3	3	21			-.151E+05
TAU MAX	1	3	5	35	.317E+03	1	3	5	20	.300E+03	1	1	3	0			.300E+03
EPS MAX	1	1	3	7	.260E-01	3	1	3	44	.249E-01	1	1	3	1			.246E-01
EPS MIN	1	3	5	35	-.293E-01	1	1	3	0	-.259E-01	1	1	5	13			-.259E-01
GAMMA MAX	1	3	5	35	.406E-01	1	1	5	13	.473E-01	1	1	3	0			.473E-01
TIME IN POST	= 1.142 SECONDS																
TIME IN STOP	= 00.000 SECONDS																

MICOM SCOPE 3.4.2 MM SN 48 MXN R.D 14.27
 15.27.28.HM3KPB0 FROM /KP
 15.27.28.IP 8888784 WORDS - FILE INPUT , DC 88
 15.27.28.HM3KP.T1000.CHZ00000.L1000.
 15.27.29.7E41K10M05 7200 A3 MACKETT 0M01
 15.27.30.LIMIT(1000)
 15.27.30.ATTACH(TEX30,KPXXXXM,IC=KPXXX,CY=3,MP=1)
 15.27.30.0T3POSETOUTPUT,PP=C1
 15.43.20.LOSET(PRESET=ZERO)
 15.43.21.TEX30.
 16.33.12. NON-FATAL ERROR(S) IN OVERLAY GEN.
 19.04.52. STOP
 19.04.52. 86.400 CP SECCROS EXECUTION TIME
 19.04.52.EXIT.
 19.04.52.OP 88844992 WORDS - FILE OUTPUT , DC 48
 19.04.53.HS 46592 WORDS (344064 MAX USED)
 19.04.53.CPA 93.411 SEC. 84.878 ADJ.
 19.04.53.IO 96.688 SEC. 54.647 ADJ.
 19.04.53.CH 9415.918 KWS. 95.769 ADJ.
 19.04.53.PP 194.494 SEC. DATE 10/10/77
 19.04.53.EJ END OF JOB, KP

LINE DIRECT LIST OF INPUT DATA

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1 #FINOCYL - STAR TO CYLINDRICAL NORE TRANSITION (III)
2 SETUP,4,PRESCRIB
3 ISO,PROPELLANT,1,,7F3,.499,-,014245
4 ISO,CASE,2,3,E7,.3
5 END,MATERIALS
6 BLOCK-C,1, 1,1,1, 5,3,3  SPROPELLANT NODES
7 94,0,0, 2,447,0,0, 2,291,,86,0, .88,,33,C/
8 94,0,,463, 2,446,0,,463, 2,291,,86,,463, .88,,33,,463
9 10,2,430,,292,0, 12,,913,,223,0, 18,2,430,,292,,463, 20,,913,,223,,463/
10 22,2,377,,580,0, 24,,933,,112,0, 30,2,377,,580,,463, 32,,933,,112,,463
11 BLOCK-C,1, 1,3,1, 5,5,3  SPROPELLANT NODES
12 88,,33,0, 2,291,,86,0, 1,730,1,730,0, .665,,665,87
13 88,,33,,463, 2,291,,86,,463, 1,730,1,730,,463, .665,,665,,463
14 10,2,150,1,176,0, 12,,752,,559,0, 18,2,150,1,176,,463, 20,,752,,559,,463/
15 22,1,958,1,457,0, 24,,825,,452,3, 30,1,958,1,457,,463, 32,,825,,452,,463
16 BLOCK-C,1, 1,1,3, 5,3,7  SPROPELLANT NODES
17 94,0,,463, 2,447,0,,463, 2,291,,86,,463, .88,,33,,463/
18 2,145,0,1,942, 2,447,0,1,942, 2,291,,86,1,942, .88,,33,1,942
19 10,2,430,,292,,463, 12,,913,,223,,463, 13,1,39,0,,963/
20 18,2,430,,292,1,942, 20,1,403,,33,1,942, 22,2,377,,580,,463/
21 24,,933,,112,,463, 25,1,79,0,1,363, 30,2,377,,580,1,942/
22 32,1,89,,33,1,942
23 BLOCK-C,1, 1,3,3, 5,5,7  SPROPELLANT NODES
24 88,,33,,463, 2,291,,86,,463, 1,730,1,730,,463, .665,,665,,463/
25 88,,33,1,942, 2,291,,86,1,942, 1,730,1,730,1,942, .665,,665,1,942
26 10,2,150,1,176,,463, 12,,752,,559,,463, 18,2,150,1,176,1,942/
27 20,,752,,559,1,942, 22,1,958,1,457,,463, 24,,825,,452,,463/
28 30,1,958,1,457,1,942, 32,,825,,452,1,942
29 BLOCK-C,1, 1,1,7, 5,3,9  SPROPELLANT NODES
30 2,145,0,1,942, 2,447,0,1,542, 2,291,,86,1,942, .88,,33,1,942/
31 2,145,0,2,485, 2,447,0,2,405, 2,291,,86,2,485, .88,,33,2,485
32 10,2,430,,292,1,942, 12,1,403,,33,1,942, 18,2,430,,292,2,485/
33 20,1,403,,33,2,485, 22,2,377,,580,1,942, 24,1,89,,33,1,942/
34 30,2,377,,580,2,485, 32,1,89,,33,2,485
35 BLOCK-C,1, 1,3,7, 5,5,9  SPROPELLANT NODES
36 88,,33,1,942, 2,291,,86,1,942, 1,730,1,730,1,942, .665,,665,1,942/
37 88,,33,2,485, 2,291,,86,2,485, 1,730,1,730,2,485, .665,,665,2,485
38 10,2,150,1,176,1,942, 12,,752,,559,1,942, 18,2,150,1,176,2,485/
39 20,,752,,559,2,485, 22,1,958,1,457,1,942, 24,,825,,452,1,942/
40 30,1,958,1,457,2,485, 32,,825,,452,2,485
41 BLOCK,2, 5,1,1, 7,3,3  SCASE NODES
42 2,447,0,0, 2,517,0,0, 2,517,20,56,0, 2,447,20,56,0/
43 2,447,0,,463, 2,517,0,,463, 2,517,20,56,,463, 2,447,20,56,,463
44 BLOCK,2, 5,3,1, 7,5,3,  SCASE NODES
45 2,447,20,56,0, 2,517,20,56,0, 2,517,45,0, 2,447,45,0/
46 2,447,20,56,,463, 2,517,20,56,,463, 2,517,45,,463, 2,447,45,,463
47 BLOCK,2, 5,1,3, 7,3,7  SCASE NODES
48 2,447,0,,463, 2,517,0,,463, 2,517,20,56,,463, 2,447,20,56,,463/
49 2,447,0,1,942, 2,517,0,1,942, 2,517,20,56,1,942, 2,447,20,56,1,942
50 BLOCK,2, 5,3,3, 7,5,7  SCASE NODES
51 2,447,20,56,,463, 2,517,20,56,,463, 2,517,45,,463, 2,447,45,,463/
52 2,447,20,56,1,942, 2,517,20,56,1,942, 2,517,45,1,942, 2,447,45,1,942
53 BLOCK,2, 5,1,7, 7,3,9  SCASE NODES
54 2,447,0,1,942, 2,517,0,1,942, 2,517,20,56,1,942, 2,447,20,56,1,942/
55 2,447,0,2,485, 2,517,0,2,485, 2,517,20,56,2,485, 2,447,20,56,2,485
56 BLOCK,2, 5,3,7, 7,5,9  SCASE NODES
57 2,447,20,56,1,942, 2,517,20,56,1,942, 2,517,45,1,942, 2,447,45,1,942/
58 2,447,20,56,2,485, 2,517,20,56,2,485, 2,517,45,2,485, 2,447,45,2,485
99 END,GRID
60 KLOOP,4
61 ILOOP,2
62 *****

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63 BRICK,1, 1,1,1 8 PROPELLANT ELEMENTS
64 JEND
65 IEND
66 KEND
67 KLOOP,6
68 KLOOP,2
69 BRICK,2, 5,1,1 8 CASE ELEMENTS
70 JEND
71 IEND
72 KLOOP,4
73 KLOOP,3
74 BC,SLOPE,1,1,1, 9 8 0 DEGREE FACE
75 BC,SLOPE,1,3,1, 2 8 45 DEGREE FACE
76 IEND
77 KEND
78 KLOOP,2
79 BC,SLOPE,5,1,1, 6 8 END OF CASE
80 JEND
81 BC,UZ,1,1,1, 0,-7.385E-2
82 BC,UZ,1,2,1, 0,-7.385E-2
83 BC,UZ,1,3,1, 0,-7.385E-2
84 BC,UZ,1,4,1, 0,-7.385E-2
85 BC,UZ,1,5,1, 0,-7.385E-2
86 BC,UZ,2,1,1, 0,-5.938E-2
87 BC,UZ,2,3,1, 0,-5.938E-2
88 BC,UZ,2,5,1, 0,-5.938E-2
89 BC,UZ,3,1,1, 0,-3.692E-2
90 BC,UZ,3,2,1, 0,-3.692E-2
91 BC,UZ,3,3,1, 0,-3.692E-2
92 BC,UZ,3,4,1, 0,-3.692E-2
93 BC,UZ,3,5,1, 0,-3.692E-2
94 BC,UZ,4,1,1, 0,-1.846E-2
95 BC,UZ,4,3,1, 0,-1.846E-2
96 BC,UZ,4,5,1, 0,-1.846E-2
97 BC,UZ,5,1,1, 0,0.
98 BC,UZ,5,2,1, 0,0.
99 BC,UZ,5,3,1, 0,0.
100 BC,UZ,5,4,1, 0,0.
101 BC,UZ,5,5,1, 0,0.
102 BC,UZ,1,1,9, 0,-.977E-2
103 BC,UZ,1,2,9, 0,-1.864E-2
104 BC,UZ,1,3,9, 0,-1.436E-2
105 BC,UZ,1,4,9, 0,-1.436E-2
106 BC,UZ,1,5,9, 0,-1.436E-2
107 BC,UZ,2,1,9, 0,-.525E-2
108 BC,UZ,2,3,9, 0,-1.165E-2
109 BC,UZ,2,5,9, 0,-1.165E-2
110 BC,UZ,3,1,9, 0,-.478E-2
111 BC,UZ,3,2,9, 0,-.638E-2
112 BC,UZ,3,3,9, 0,-1.815E-2
113 BC,UZ,3,4,9, 0,-1.815E-2
114 BC,UZ,3,5,9, 0,-1.815E-2
115 BC,UZ,4,1,9, 0,-.414E-2
116 BC,UZ,4,3,9, 0,-.638E-2
117 BC,UZ,4,5,9, 0,-.638E-2
118 BC,UZ,5,1,9, 0,-.362E-2
119 BC,UZ,5,2,9, 0,-.362E-2
120 BC,UZ,5,3,9, 0,-.362E-2
121 BC,UZ,5,4,9, 0,-.362E-2
122 BC,UZ,5,5,9, 0,-.362E-2
123 END ELEMENTS
124 SOLVE
125 POST
126 BLOCK
127 OPTION,2
128 END

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129 REZONE,1,1,3, 3,3,5
130 REFINE,GRADS,1,1,3, 2,2,2
131 OCR,REZONE,1,1,3, 2,2,2,2,2, 1,1,3
132 END,CONTROL
133 SOLVE
134 POST
135 BLOCK
136 OPTION,2
137 END,POST
138 REZONE,1,1,3, 3,3,5
139 REFINE,GRADS,1,1,3, 2,2,2
140 OCR,REZONE,1,1,3, 2,2,2,2,2, 1,1,3
141 END,CONTROL
142 SOLVE
143 POST
144 BLOCK
145 OPTION,2
146 END,POST
147 STOP
```

TIME IN FFLOS9 = 1.111 SECONDS

ELEMENT SUMMARY REPORT

THREE MOST HIGHLY STRESSED ELEMENTS

ELEMNT NO.	I	J	K	FIRST POINT STRESS			SECOND POINT STRESS			THIRD POINT STRESS					
				1	2	3	4	5	6	7	8	9			
MATERIAL NUMBER = 1															
SIGMA MAX	1	1	5	73	.225E+03	1	1	3	41	.225E+03	1	1	7	149	.208E+03
SIGMA MIN	1	1	7	116	-.938E+02	1	1	3	44	-.808E+02	1	1	5	76	-.764E+02
TAU MAX	1	1	3	41	.118E+03	1	1	5	73	.107E+03	1	1	5	77	.919E+02
EPS MAX	1	1	1	5	.211E+00	1	1	3	37	.211E+00	1	1	1	4	.103E+00
EPS MIN	1	1	3	41	-.291E+00	1	1	5	73	-.276E+00	1	1	5	77	-.226E+00
GAMMA MAX	1	1	3	41	.673E+00	1	1	5	73	.659E+00	1	1	5	77	.304E+00
MATERIAL NUMBER = 2															
SIGMA MAX	5	3	7	213	.374E+05	5	3	7	209	.348E+05	5	3	7	210	.366E+05
SIGMA MIN	5	1	7	203	-.116E+06	5	1	7	206	-.116E+06	5	3	7	212	-.114E+06
TAU MAX	5	1	7	203	.640E+05	5	3	7	212	.637E+05	5	1	7	206	.686E+05
EPS MAX	5	1	7	203	.234E-02	5	3	7	212	.233E-02	5	1	7	206	.283E-02
EPS MIN	5	1	7	203	-.321E-02	5	3	7	212	-.318E-02	5	1	7	206	-.318E-02
GAMMA MAX	5	1	7	203	.555E-02	5	3	7	212	.552E-02	5	1	7	206	.552E-02

TIME IN POST = 3.009 SECONDS
 MAXIMUM NUMBER OF COARSE GRID ELEMENTS POSSIBLE = 16
 MAXIMUM DIMENSION OF REFINED GRID = 1331
 MAXIMUM NUMBER OF GRID POINTS IN ANY ONE DIRECTION = 19

COARSE GRID ELEMENT NO.	X-COORD			MODE	Z-COORD			K	J	I	Y-COORD			Z-COORD		
	1	2	3		4	5	6				7	8	9	10	11	12
1	38181	.948E+00	0.	11	.663E+00	.123E+01	.663E+00	38382	.123E+01	.663E+00	.663E+00	.663E+00	.663E+00	.663E+00	.663E+00	.663E+00
2	38183	.169E+01	0.	12	.663E+00	.925E+00	.169E+01	38281	.925E+00	.169E+01	.169E+01	.169E+01	.169E+01	.169E+01	.169E+01	.169E+01
3	38383	.159E+01	.592E+03	13	.663E+00	.127E+01	.663E+00	48101	.127E+01	.663E+00	.663E+00	.663E+00	.663E+00	.663E+00	.663E+00	.663E+00
4	38381	.808E+00	.338E+00	14	.663E+00	.106E+01	.808E+00	48103	.106E+01	.808E+00	.808E+00	.808E+00	.808E+00	.808E+00	.808E+00	.808E+00
5	58181	.168E+01	0.	15	.116E+01	.159E+01	.168E+01	48383	.159E+01	.116E+01	.592E+00	.592E+00	.592E+00	.592E+00	.592E+00	.592E+00
6	58183	.283E+04	0.	16	.116E+01	.808E+00	.283E+04	48381	.808E+00	.116E+01	.808E+00	.808E+00	.808E+00	.808E+00	.808E+00	.808E+00
7	58383	.159E+01	.592E+00	17	.128E+01	.101E+01	.159E+01	58182	.101E+01	.128E+01	.117E+01	.117E+01	.117E+01	.117E+01	.117E+01	.117E+01
8	58381	.808E+00	.338E+00	18	.128E+01	.106E+01	.808E+00	58283	.106E+01	.128E+01	.248E+00	.248E+00	.248E+00	.248E+00	.248E+00	.248E+00
9	38182	.132E+01	0.	19	.663E+00	.123E+01	.663E+00	58382	.123E+01	.663E+00	.663E+00	.663E+00	.663E+00	.663E+00	.663E+00	.663E+00
10	38283	.167E+01	.382E+00	20	.663E+00	.131E+01	.663E+00	58281	.131E+01	.663E+00	.266E+00	.266E+00	.266E+00	.266E+00	.266E+00	.266E+00

ELEMENT SUMMARY REPORT

THREE MOST HIGHLY STRESSED ELEMENTS															
FIRST			SECOND			THIRD			POINT						
ELEMENT	POINT	STRESS	ELEMENT	POINT	STRESS	ELEMENT	POINT	STRESS	ELEMENT	POINT	STRESS				
I	J	K	I	J	K	I	J	K	I	J	K				
MATERIAL NUMBER = 1															
SIGMA MAX	1	3	5	32	540E+04	1	1	5	17	540E+04	3	1	3	30	362E+04
SIGMA MIN	1	3	5	35	-802E+04	1	1	5	14	-807E+04	1	1	3	2	-240E+04
TAU MAX	1	1	5	14	110E+03	1	3	3	23	100E+03	1	3	3	20	160E+03
EPS MAX	1	1	3	1	211E+00	1	1	3	4	193E+00	1	3	3	19	103E+00
EPS MIN	1	1	5	14	-291E+00	1	3	5	20	-244E+00	1	3	3	23	-244E+00
GAMMA MAX	1	1	3	14	6.73E+01	1	3	5	20	6.29E+01	1	1	1	17	6.09E+01

TIME IN POST = 1.128 SECONDS

MAXIMUM NUMBER OF COARSE GRID ELEMENTS POSSIBLE = 15

MAXIMUM DIMENSION OF REFINED GRID = 1331

MAXIMUM NUMBER OF GRID POINTS IN ANY ONE DIRECTION = 15

COARSE GRID ELEMENT # 1													
NODE	K	J	I	X-COORD	Y-COORD	Z-COORD	MODE	K	J	I	X-COORD	Y-COORD	Z-COORD
1	30101	948E+08	0.	0.63E+00	0.	0.63E+00	11	30202	111E+01	0.	201E+00	0.	0.63E+00
2	30203	132E+01	0.	0.63E+00	0.	0.63E+00	12	30201	908E+09	0.	0.63E+00	0.	0.63E+00
3	30303	130E+01	0.	0.63E+00	0.	0.63E+00	13	40101	110E+01	0.	0.63E+00	0.	0.63E+00
4	30301	929E+00	0.	0.63E+00	0.	0.63E+00	14	40103	144E+01	0.	0.63E+00	0.	0.63E+00
5	50101	127E+01	0.	0.63E+00	0.	0.63E+00	15	40203	137E+01	0.	293E+00	0.	0.63E+00
6	50103	157E+01	0.	0.63E+00	0.	0.63E+00	16	40301	102E+01	0.	192E+00	0.	0.63E+00
7	50303	144E+01	0.	0.63E+00	0.	0.63E+00	17	50102	142E+01	0.	0.63E+00	0.	0.63E+00
8	50301	112E+01	0.	0.63E+00	0.	0.63E+00	18	50203	152E+01	0.	193E+00	0.	0.63E+00
9	30102	112E+01	0.	0.63E+00	0.	0.63E+00	19	50302	120E+01	0.	204E+00	0.	0.63E+00
10	30203	131E+01	0.	0.63E+00	0.	0.63E+00	20	50201	120E+01	0.	121E+00	0.	0.63E+00

ELEMENT SUMMARY REPORT

THREE MOST HIGHLY STRESSED ELEMENTS

FIRST POINT		SECOND POINT		THIRD POINT	
ELEMENT NO.	STRESS	ELEMENT NO.	STRESS	ELEMENT NO.	STRESS
3 3 3	57	3 1 5	51	3 3 3	22
3 3 5	70	3 3 3	50	3 3 3	21
1 3 5	35	1 3 3	23	1 3 3	20
1 1 3	7	3 1 3	44	1 1 3	1
1 3 5	35	1 1 5	13	1 3 3	20
1 3 5	35	1 1 5	13	1 1 3	0

MATERIAL NUMBER = 1
 TIME IN POST = 1.158 SECONDS
 TIME IN STOP = 06.298 SECONDS

```

MICON SCOPE 3.4.2 MM SN 43 MXM P.0 14.27
15.30.24.MMKPBR FROM /KP
15.30.24.IP 00000704 WORDS - FILE INPUT , DC 00
15.30.26.MMKXP.YI000.CWZ00000.LI000.
15.30.25.7E41K10M05 7200 AJ WACKETT BM01
15.30.26.LIMIT(1000)
15.30.26.ATTACH(TEX30,KPXXXXM,IC=KPXXX,CY=3,MP=1)
15.30.26.DISPOSE(OUTPUT,PP=C)
15.44.25.LOSET(PRESET=ZERO)
15.44.25.TEX39.
16.31.53. NON-FATAL ERROR(S) IN OVERLAY GEN.
19.06.51. STOP
19.06.51. 06.173 CP SECONDS EXECUTION TIME
19.06.51.EXIT.
19.06.51.OP 0004066 WORDS - FILE OUTPUT , DC 40
19.06.51.MS 46592 WORDS ( 344064 MAX USED)
19.06.51.CPA 93.278 SEC. 83.959 ADJ.
19.06.51.IO 96.212 SEC. 94.420 ADJ.
19.06.51.CH 9306.892 KWS. 95.473 ADJ.
19.06.51.PP 197.300 SEC. DATE 10/10/77
19.06.51.EJ END OF JOB. KP

```

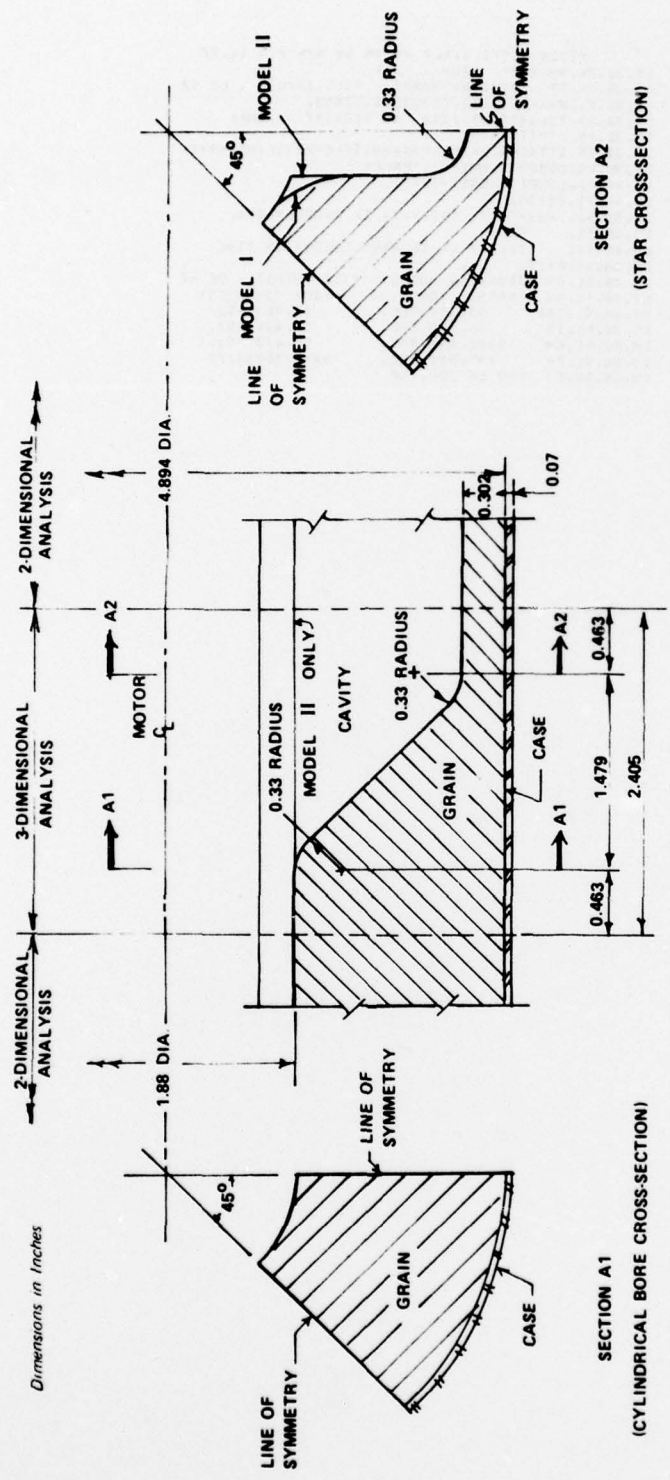


Figure 1. Star to Cylindrical Bore Transition Region (45° Segment)

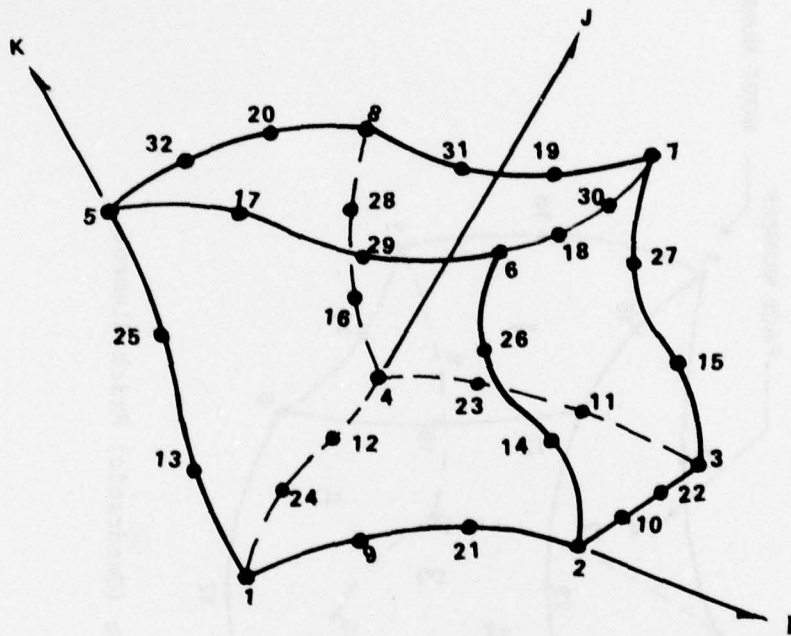


Figure 2. Cubic Grid Generation Block

The eight corner points must be input (1 thru 8). Points 9 thru 32 not specified are located automatically by linear interpolation between corners.

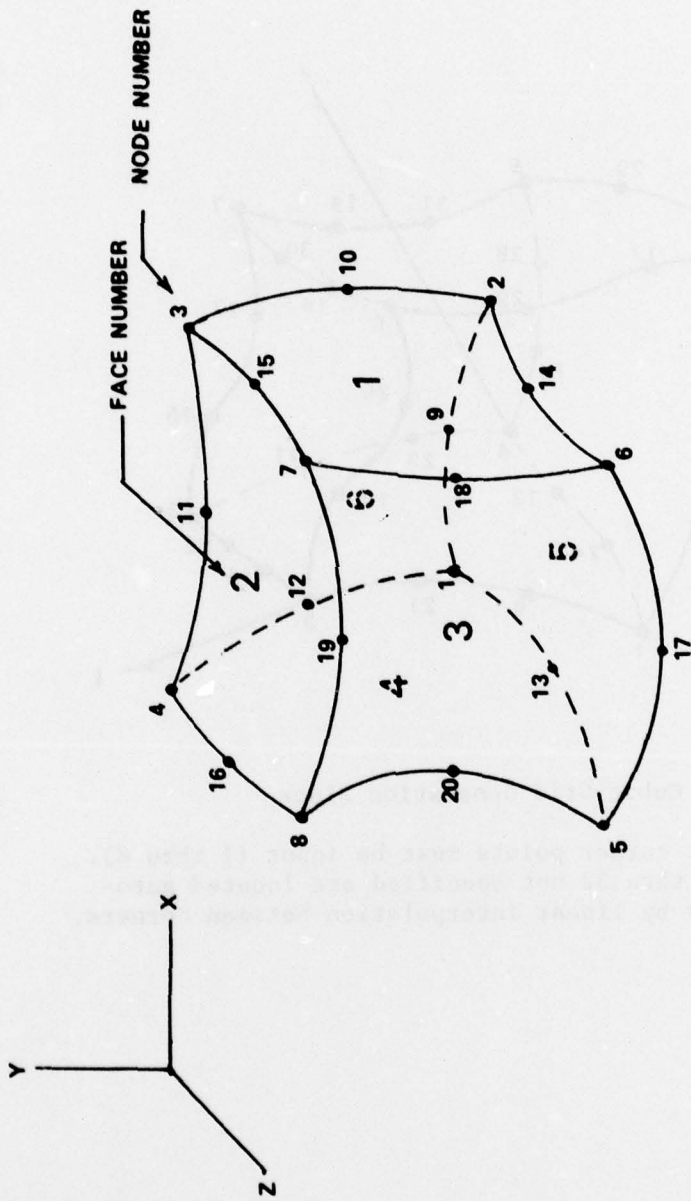


Figure 3. 20 Node (Quadratic) Brick Element

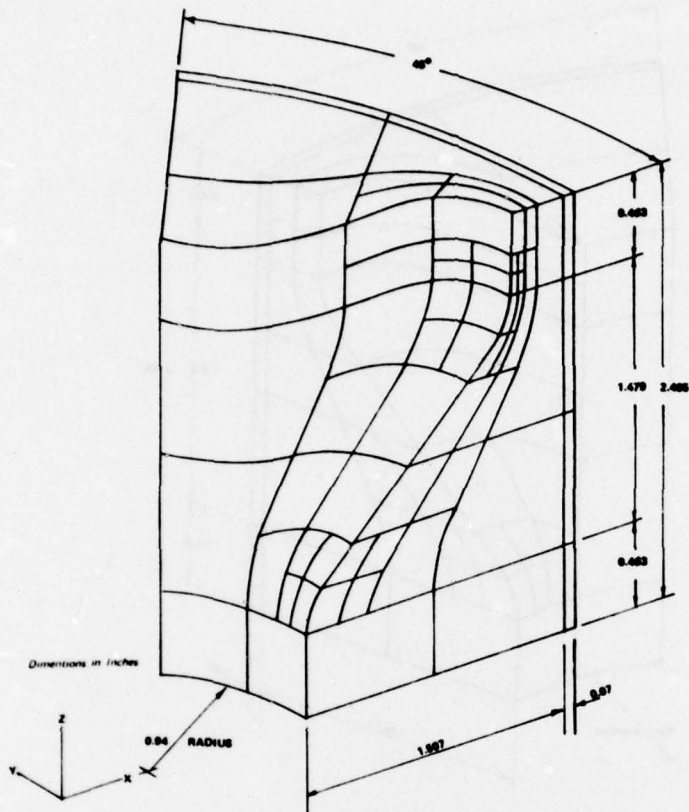


Figure 4. Finite Element Model of Star to Cylindrical Bore Transition (I)

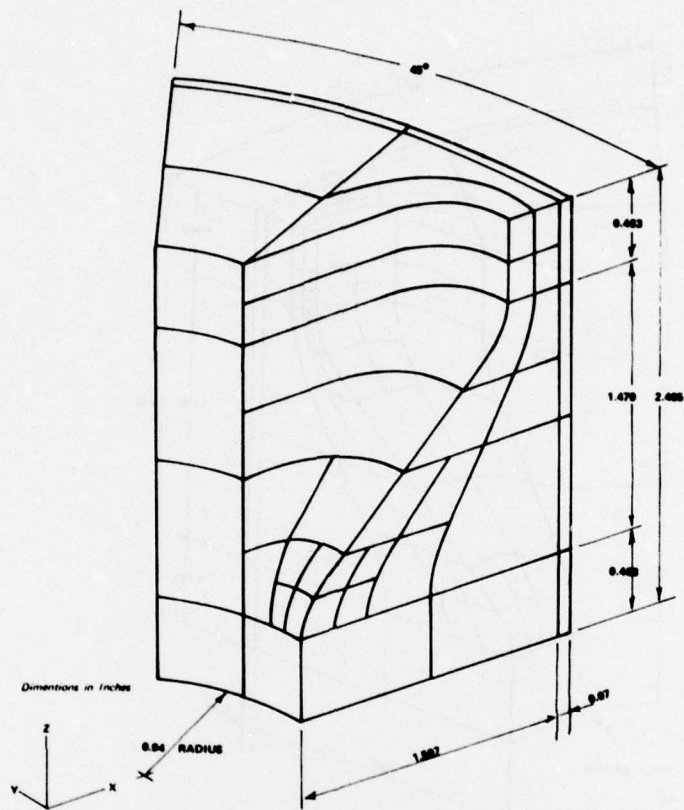
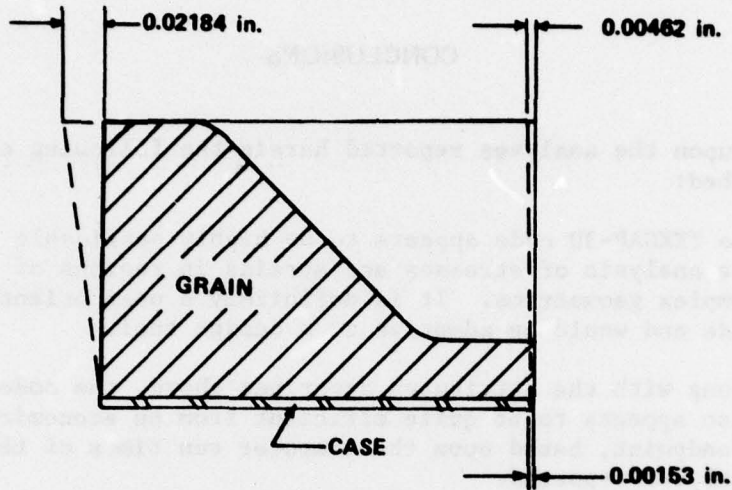
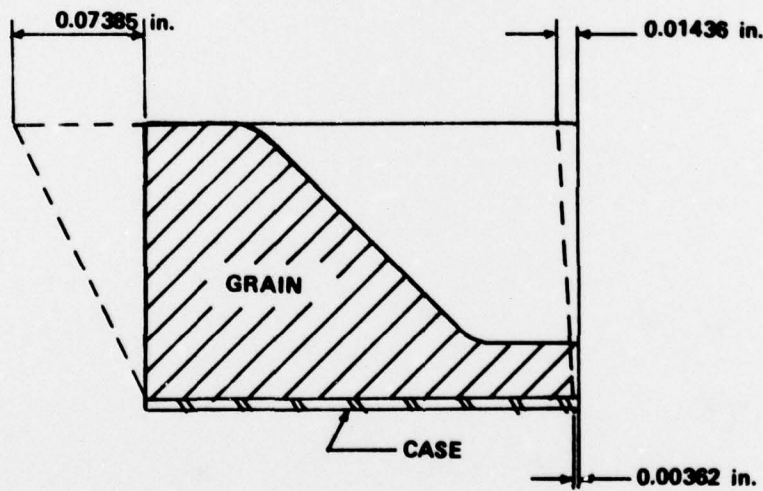


Figure 5. Finite Element Model of Star to Cylindrical Bore Transition (II)



a) PRESSURE LOADING CONDITION



b) THERMAL LOADING CONDITION

Figure 6. Grain Transition Interface Displacements
(From Previous Two-Dimensional Analyses)

CONCLUSIONS

Based upon the analyses reported herein the following conclusions can be reached:

- 1) The TEXGAP-3D code appears to be highly applicable to the analysis of stresses and strains in regions of complex geometrics. It is definitely a user oriented code and would be adaptive as a design tool.
- 2) Along with the attributes described above, the code also appears to be quite efficient from an economic standpoint, based upon the computer run times of the analyses reported.

REFERENCES

1. Engineering Analysis of Selected Advanced Propulsion Concepts - III, Technical Report RK-CR-76, US Army Missile Command, Redstone Arsenal, Alabama, September 1976.
2. E. B. Becker and R. S. Dunham, "TEXGAP-3D - A User Oriented Three-Dimensional Static Linear Elastic Stress Analysis Program", Vol. I, March 1977.
3. E. B. Becker and R. S. Dunham, "TEXGAP-3D - A User Oriented Three-Dimensional Static Linear Elastic Stress Analysis Program", Vol. II, March 1977.

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