**Report Generated by 'Abaqus Report Generator'**

**1. Overview**

*This report was generated by user on 2022-06-24 11:12:25 India Standard Time from output database file C:/Temp/wear.odb*.  
  
The information included in this report reflects the options selected in the HTML Report Generator plug-in when the report was generated. Therefore, the report does not necessarily include all of the model and results data available in the output database (.odb) file. In addition, this report may include information in 3D XML format; to view the 3D XML content properly, you must use Internet Explorer as your browser.  
  
You can distribute this report by copying all of the files listed in the [File Summary.](file:///C:\Temp\htmlReport\HTMLreport.html#fileSummary)  
  
This report is organized into sections that match the organization of modules in Abaqus/CAE:

**Table of Contents**

* [Assembly Information](file:///C:\Temp\htmlReport\HTMLreport.html#assembly)
* [Material Information](file:///C:\Temp\htmlReport\HTMLreport.html#materials)
* [Step Data](file:///C:\Temp\htmlReport\HTMLreport.html#steps)
* [Job Diagnostics](file:///C:\Temp\htmlReport\HTMLreport.html#dataDiagnostics)
* [Results](file:///C:\Temp\htmlReport\HTMLreport.html#results)
* [File Summary](file:///C:\Temp\htmlReport\HTMLreport.html#fileSummary)

**Basic Model Information**

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| User's name |  |
| Output database | C:/Temp/wear.odb |
| Time created | Fri Jun 24 11:01:23 India Standard Time 2022 |
| Solver | Abaqus/Explicit 6.14-5 |
| Precision | SINGLE\_PRECISION |
| Work directory | C:/Temp |
| HTML directory | C:/Temp/htmlReport |
| Image directory | C:/Temp/htmlReport\images |

**2. Assembly Information**

This section includes the following information about the part instances in the assembly:

* [Instance Table](file:///C:\Temp\htmlReport\HTMLreport.html#instanceTable)
* [3DXML for Instances in the Model](file:///C:\Temp\htmlReport\HTMLreport.html#instance3dxml)
* [Figures Containing All Instances](file:///C:\Temp\htmlReport\HTMLreport.html#instance)

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| **Table 2.1 Instance Table** | | | | |
| **Instance Name** | **Color** | **# Elements** | **# Nodes** | **Element type (# elements)** |
| PIN-1 |  | 1380 | 1752 | [C3D8T : (1380),](file:///C:\Temp\htmlReport\HTMLreport.html#C3D8T) |
| DISC-1 |  | 62 | 148 | [C3D8T : (62),](file:///C:\Temp\htmlReport\HTMLreport.html#C3D8T) |

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**3DXML for Instances in the Model**  
  
**Note: The "artificial ground" in the 3DXML is a visual artifact and not part of the model**  
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| |  | | --- | | **Figures Containing All Instances** | | |  | | --- | |  | | **Figure 2.1 Figures Containing All Instances Front view** | | | |  | | --- | |  | | **Figure 2.2 Figures Containing All Instances Iso view** | | | |  | | --- | |  | | **Figure 2.3 Figures Containing All Instances Top view** | | |

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**Element Details**

* **C3D8T** : 8-node thermally coupled brick, trilinear displacement and temperature

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**3. Material Information**

This section includes figures that display the material information in the model. The default view orientations are provided, along with any user-defined views requested, and these figures are color coded according to the material definitions. A key to material definitions and their corresponding colors is provided after the figures. Hyperelastic material properties are included in the figures, if they are available.

* [Material Color Table](file:///C:\Temp\htmlReport\HTMLreport.html#materialColorTable)
* [Elastic Behaviour](file:///C:\Temp\htmlReport\HTMLreport.html#elasticBehaviour)
* [Density Table](file:///C:\Temp\htmlReport\HTMLreport.html#densityTable)
* [Thermal Conductivity Table](file:///C:\Temp\htmlReport\HTMLreport.html#thermalconductivityTable)
* [3DXML for material data](file:///C:\Temp\htmlReport\HTMLreport.html#material3dxml)
* [Figures Containing Material Information](file:///C:\Temp\htmlReport\HTMLreport.html#material)

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| **Table 3.1 Material Color Table** | |
| **Material** | **Color** |
| PIN(AL6061) |  |
| DISC(EN60) |  |

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| **Table 3.2 Elastic Behaviour** | | | | | | |
| **Material** | **dependencies** | **moduli** | **noCompression** | **noTension** | **temperatureDependency** | **type** |
| PIN(AL6061) | 0 | LONG\_TERM | OFF | OFF | OFF | ISOTROPIC |
| DISC(EN60) | 0 | LONG\_TERM | OFF | OFF | OFF | ISOTROPIC |

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| **Table 3.3 Elastic Table** | | | |
| **Material** | **Young's modulus** | **Poisson's ratio** | **Temp** |
| PIN(AL6061) | 68900000000.0 | 0.33 |  |
| DISC(EN60) | 2e+11 | 0.3 |  |

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| **Table 3.4 Density Table** | | |
| **Material** | **Density** | **Temperature** |
| PIN(AL6061) | 2700.0 | # |
| DISC(EN60) | 7800.0 | # |

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| **Table 3.5 Thermal Conductivity Table** | | |
| **Material** | **Thermal conductivity** | **Temperature** |
| PIN(AL6061) | 0.15 | # |
| DISC(EN60) | 0.45 | # |

**3DXML for material data in the model**  
  
**Note: The "artificial ground" in the 3DXML is a visual artifact and not part of the model**

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| |  | | --- | | **Figures Containing Material Information** | | |  | | --- | |  | | **Figure 3.1 Figures Containing Material Information Front view** | | | |  | | --- | |  | | **Figure 3.2 Figures Containing Material Information Iso view** | | | |  | | --- | |  | | **Figure 3.3 Figures Containing Material Information Top view** | | |

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**4. Step Information**

This section gives details about steps used in this analysis. NLGeom controls whether nonlinear geometric aspects are taken into consideration in the analysis.

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| **Table 4.1 Step Information** | | | | | |
| **#** | **Step Name** | **Procedure** | **Step Time** | **Total Time** | **Nlgeom** |
| 1 | Step-1 | DYNAMIC TEMPERATURE-DISPLACEMENT, EXPLICT | 1.000 | 1.000 | OFF |

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**5. Data Diagnostics Information**

This section includes the following information about the analysis data:

* [Job time Table](file:///C:\Temp\htmlReport\HTMLreport.html#jobTime)
* [Numerical problem summary Table](file:///C:\Temp\htmlReport\HTMLreport.html#numericalProblemSummary)
* [Step Data](file:///C:\Temp\htmlReport\HTMLreport.html#stepData)

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| **Table 5.1 Job time (currently unavailable)** |
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| System time | 0.0 |
| User time | 0.0 |
| Wallclock time | 0.0 |

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| **Table 5.2 Numerical problem summary** |
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| Number of zero pivots | 0 |
| Number of numerical singularities | 0 |
| Number of negative eigenvalues | 0 |
| Converged zero pivots | OFF |
| Converged numerical singularities | OFF |
| Converged negative eigenvalues | OFF |

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| **Table 5.3 Step Data** | | |
| **Step** | **Package** | **Step-1** |
| Perturbation | OFF | OFF |
| Characteristic element length | 0.0000E+00 | 0.0000E+00 |
| Increments completed | 0 | 9036 |
| Minimum time increment | 0.0 | 0.0 |
| Step time completed | 0.0 | 1.0 |
| Analysis type | Standard | Explicit |
| Maximum time increment | 0.0 | 0.0 |
| Initial time increment | 0.0 | 0.0 |
| Riks | OFF | OFF |
| Matrix solver | DIRECT\_SOLVER | DIRECT\_SOLVER |
| Time Period | 0.0 | 1.0 |
| Stabilization | OFF | OFF |
| Maximum number of increments | 0 | 0 |
| Unsymmetric Solver | OFF | OFF |
| Stabilization Factor | 0.0 | 0.0 |
| Number of contact diagnostics | 0 | 0 |

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Converged zero pivots: Whether any increment of the analysis converged on a zero pivot.  
Converged numberical singularities: Whether any increment of the analysis converged on a numerical singularity.  
Converged negative eigenvalues: Whether any increment of the analysis converged on a negative eigenvalue.  
  
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**6. Results**

This section displays results data requested from the output database file, including the maximum and minimum values for selected output variables. This section also includes any X-Y plots saved to the output database and requested for inclusion in the report.

* [S Mises results step = Step-1 increment = 20](file:///C:\Temp\htmlReport\HTMLreport.html#SMises 3DXML)

**3DXML for S Mises results**  
  
**Note: The "artificial ground" in the 3DXML is a visual artifact and not part of the model**  
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| |  | | --- | | **Figures containing S Mises Results step=Step-1 increment=20** | | |  | | --- | |  | | **Figure 6.1 Figures containing S Mises Results Front view** | | |

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**7. File Summary**  
  
  
To transfer this report, following files and directories must be copied:

* htmlReport\image
* htmlReport\additionalImages
* htmlReport\additionalFiles
* htmlReport\abaqus.css
* htmlReport\htmlReport.html

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