

Model

Part

### Surface Mesh Statistics

Mesh operation	Solid mesh
Final mesh size	6.55984 in
Elements created	41288

### Solid Mesh Statistics

Mesh type	Mix of bricks, wedges, pyramids and tetrahedra
Watertight	Yes
Mesh has microholes	Yes
Total nodes	62390
Volume	2526635.951943 in <sup>3</sup>
Total elements	25741

	Tetrahedra	Pyramids	Wedges	Bricks
Elements	2180	13970	553	9038
Volume %	0.65	4.98	1.89	92.47
Max. length ratio	104.2	196.6	26.6	27.9
Avg. length ratio	12.4	18.2	3.1	1.5
Avg. aspect ratio	1.6	1.8	1.1	1
Unconstrained aspect ratio	3.3	3.6	1.6	1.7

### Log File

Length units used in the log file are modeling units: in

SOLID MESH GENERATION BEFORE ANALYSIS

PROGRAM WILL USE THE FOLLOWING FILES:

Input: C:\Autodesk\Algor\Boom Shiploader 7000 STH.FEM  
 Output: C:\Autodesk\Algor\Boom Shiploader 7000 STH.FEM

COMMAND LINE:

C:\Program Files\Autodesk\Algor Simulation 2011\SOLIDX.exe -b=0 -o=1 -zw=2

TYPE OF OPERATION:

Meshing only surface defined by part 1  
 Generating bricks, wedges, pyramids and tetrahedra elements  
 Automatically minimizing aspect ratio of solid elements

FINAL STATISTICS:

Elements built (4,5,6,8 noded): 25741 ( 2180, 13970, 553, 9038 )  
 Volume (4,5,6,8 noded %): 2526635.951943 ( 0.65, 4.98, 1.89, 92.47 )  
 Number of nodes: 62390  
 Length ratios (avg) 12.4, 18.2, 3.1, 1.5  
 Length ratios (max) 104.2, 196.6, 26.6, 27.9  
 Aspect ratio: unconstrained ( 3.3, 3.6, 1.6, 1.7 )  
 Average aspect ratios: ( 1.6, 1.8, 1.1, 1.0 )  
 Number of restarts: 0  
 Elapsed time: 3 minutes 23 seconds