

ANALISIS_EJE_23

MESH:

Entity	Size
Nodes	7549
Elements	28634

ELEMENT TYPE:

Connectivity	Statistics
TE4	28115 (98,19%)
SPIDER	519 (1,81%)

ELEMENT QUALITY:

Criterion	Good	Poor	Bad	Worst	Average
Stretch	28115 (100,00%)	0 (0,00%)	0 (0,00%)	0,311	0,616
Aspect Ratio	28115 (100,00%)	0 (0,00%)	0 (0,00%)	4,936	1,978

Materials.1

Material	AISI-4140
Young's modulus	2,05e+011N_m2
Poisson's ratio	0,3
Density	7850kg_m3
Yield strength	2,5e+008N_m2
Coefficient of thermal expansion	1,17e-005_Kdeg

Material	F-114
Young's modulus	2,05e+011N_m2
Poisson's ratio	0,3

Density	7850kg_m3
Yield strength	2,5e+008N_m2
Coefficient of thermal expansion	1,17e-005_Kdeg

Material	F-1540
Young's modulus	2,05e+011N_m2
Poisson's ratio	0,3
Density	7820kg_m3
Yield strength	2,5e+008N_m2
Coefficient of thermal expansion	1,17e-005_Kdeg

Static Case

Boundary Conditions

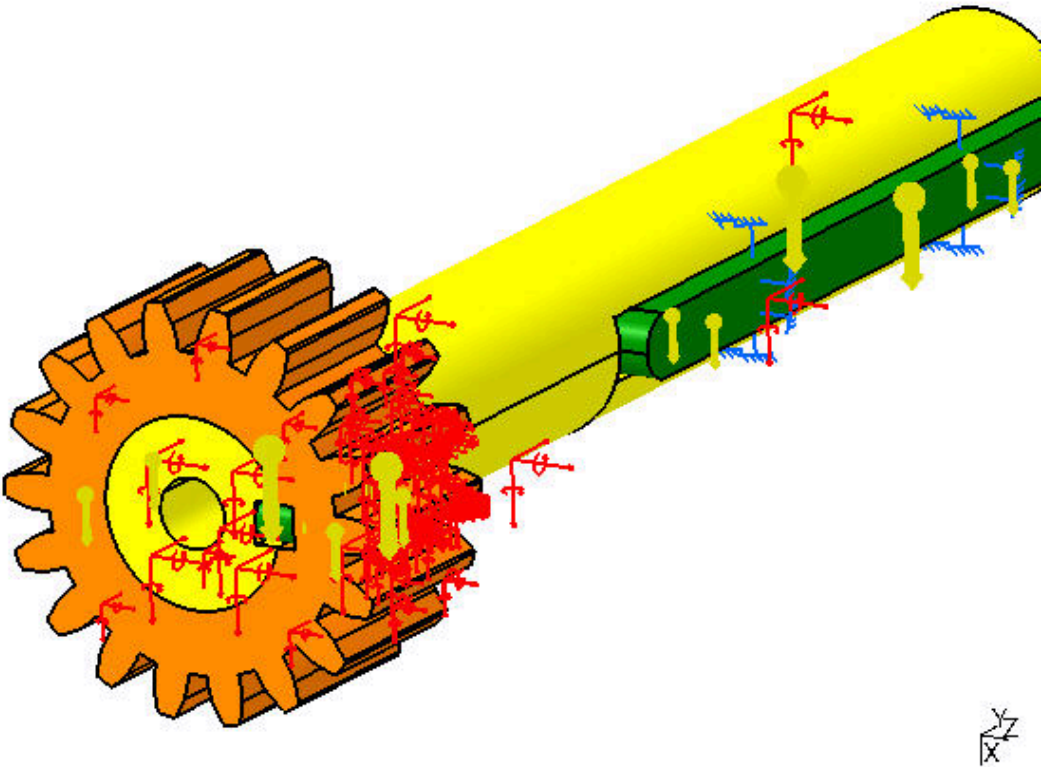


Figure 1

STRUCTURE Computation

Number of nodes	:	7549
Number of elements	:	28634
Number of D.O.F.	:	22647

Number of Contact relations	:	519
Number of coefficients	:	3073
Number of Kinematic relations	:	1038
Number of coefficients	:	8989

Linear tetrahedron	:	28115
Solid to solid fitting join	:	519

RESTRAINT Computation

Name: Restraints.1

Number of S.P.C : 5129

LOAD Computation

Name: Loads.1

Applied load resultant :

Fx	=	9	.	627e+002	N
Fy	=	4	.	657e-010	N
Fz	=	-5	.	960e-008	N
Mx	=	1	.	227e-008	Nxm
My	=	3	.	139e+001	Nxm
Mz	=	2	.	004e+002	Nxm

STRUCTURAL MASS Computation

Name: StructuralMassSet.1

Number of lines	:	22647
Number of coefficients	:	424392
Number of blocks	:	1
Maximum number of coefficients per bloc	:	424392
Total matrix size	:	4 . 94 Mb

Structural mass : 3.550e-001 kg

Inertia center coordinates

Xg	:	-2	.	527e+001	mm
Yg	:	-1	.	638e+002	mm
Zg	:	1	.	682e+001	mm

Inertia tensor at origin: kgxm2

1.029e-002	-1.469e-003	1.509e-004
-1.469e-003	3.569e-004	9.727e-004
1.509e-004	9.727e-004	1.041e-002

STIFFNESS Computation

Number of lines	:	22647		
Number of coefficients	:	424392		
Number of blocks	:	1		
Maximum number of coefficients per bloc	:	424392		
Total matrix size	:	4	.	94 Mb

SINGULARITY Computation

Restraint: Restraints.1

Number of local singularities	:	0
Number of singularities in translation	:	0
Number of singularities in rotation	:	0
Generated constraint type	:	MPC

CONSTRAINT Computation

Restraint: Restraints.1

Number of constraints	:	6167
Number of coefficients	:	0
Number of factorized constraints	:	5186
Number of coefficients	:	1599
Number of deferred constraints	:	0

FACTORIZED Computation

Method	:	SPARSE
Number of factorized degrees	:	17461
Number of supernodes	:	3529

Number of overhead indices : 135377
 Number of coefficients : 1212140
 Maximum front width : 381
 Maximum front size : 72771
 Size of the factorized matrix (Mb) : 9 . 24789
 Number of blocks : 2
 Number of Mflops for factorization : 1 . 376e+002
 Number of Mflops for solve : 4 . 936e+000
 Minimum relative pivot : 1 . 566e-001

Minimum and maximum pivot

Value	Dof	Node	x (mm)	y (mm)	z (mm)
7.6819e+007	Ty	7236	-7.4944e+000	-2.1083e+002	2.0138e+001
2.4112e+010	Ty	7505	-4.3607e+001	-2.0523e+002	1.8941e+001

Minimum pivot

Value	Dof	Node	x (mm)	y (mm)	z (mm)
7.7514e+007	Tz	6398	-1.2909e+001	-2.0803e+002	1.9430e+000
7.9841e+007	Tx	6465	-1.0050e+001	-2.0830e+002	7.6487e+000
7.9873e+007	Ty	2064	-1.9255e+001	-2.0708e+002	3.5049e+001
8.2318e+007	Tz	2135	-8.7395e+000	-2.0458e+002	2.6841e+001
8.2662e+007	Ty	2809	-4.1803e+001	-2.0818e+002	6.1585e+000
8.3153e+007	Tx	6399	-1.3154e+001	-2.0956e+002	3.1665e+000
8.4786e+007	Tx	7236	-7.4944e+000	-2.1083e+002	2.0138e+001
8.5416e+007	Tz	6464	-1.0435e+001	-2.0707e+002	7.8213e+000
8.6362e+007	Tz	4319	-3.0389e+001	-2.0946e+002	-1.2200e+000

Translational pivot distribution

Value	Percentage
10.E7 --> 10.E8	3.4935e-001
10.E8 --> 10.E9	8.3901e+001
10.E9 --> 10.E10	1.5744e+001
10.E10 --> 10.E11	5.7270e-003

DIRECT METHOD Computation

Name: Static Case Solution.1

Restraint: Restraints.1

Structural mass is taken into account

Load: Loads.1

Strain Energy : 8.789e-012 J

Pressure fitting analysis

(

Solid to solid fitting join

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Contact Element	Contact Force N	Initial Clearance mm	Final Clearance mm
28116	2.6286e-004	0.0000e+000	0.0000e+000
28117	No Contact	0.0000e+000	9.4389e-010
28118	3.7579e-004	0.0000e+000	0.0000e+000
28119	No Contact	0.0000e+000	0.0000e+000
28120	3.6122e-004	0.0000e+000	0.0000e+000
28121	2.0289e-004	0.0000e+000	0.0000e+000
28122	2.0263e-004	0.0000e+000	0.0000e+000
28123	No Contact	0.0000e+000	9.8012e-010
28124	No Contact	0.0000e+000	9.0575e-010
28125	8.3878e-004	0.0000e+000	0.0000e+000
28126	No Contact	0.0000e+000	0.0000e+000
28127	9.3673e-004	0.0000e+000	0.0000e+000

28128	No Contact	0.0000e+000	6.0269e-011
28129	2.0815e-005	0.0000e+000	0.0000e+000
28130	3.0587e-004	0.0000e+000	0.0000e+000
28131	No Contact	0.0000e+000	1.1500e-010
28132	3.6918e-005	0.0000e+000	0.0000e+000
28133	3.3241e-004	0.0000e+000	0.0000e+000
28134	1.9032e-004	0.0000e+000	0.0000e+000
28135	No Contact	0.0000e+000	1.8550e-010
28136	2.6855e-005	0.0000e+000	0.0000e+000
28137	3.0634e-004	0.0000e+000	0.0000e+000
28138	1.8560e-004	0.0000e+000	0.0000e+000
28139	No Contact	0.0000e+000	1.3538e-010
28140	5.6099e-006	0.0000e+000	0.0000e+000
28141	3.6112e-004	0.0000e+000	0.0000e+000
28142	1.4695e-004	0.0000e+000	0.0000e+000
28143	3.1681e-005	0.0000e+000	0.0000e+000
28144	5.1073e-005	0.0000e+000	0.0000e+000
28145	4.0741e-004	0.0000e+000	0.0000e+000
28146	1.4559e-004	0.0000e+000	0.0000e+000
28147	1.2629e-003	0.0000e+000	0.0000e+000
28148	4.9120e-004	0.0000e+000	0.0000e+000
28149	8.1421e-004	0.0000e+000	0.0000e+000
28150	1.2338e-003	0.0000e+000	0.0000e+000
28151	5.1177e-004	0.0000e+000	0.0000e+000
28152	1.0853e-003	0.0000e+000	0.0000e+000
28153	No Contact	0.0000e+000	0.0000e+000
28154	No Contact	0.0000e+000	1.0107e-009
28155	9.4881e-004	0.0000e+000	0.0000e+000
28156	1.1899e-003	0.0000e+000	0.0000e+000
28157	No Contact	0.0000e+000	0.0000e+000
28158	6.5777e-004	0.0000e+000	0.0000e+000
28159	1.3997e-003	0.0000e+000	0.0000e+000

28160	No Contact	0.0000e+000	1.2437e-009
28161	No Contact	0.0000e+000	0.0000e+000
28162	No Contact	0.0000e+000	1.5509e-009
28163	No Contact	0.0000e+000	0.0000e+000
28164	1.7685e-004	0.0000e+000	0.0000e+000
28165	1.9828e-004	0.0000e+000	0.0000e+000
28166	No Contact	0.0000e+000	2.8472e-010
28167	No Contact	0.0000e+000	2.5870e-009
28168	No Contact	0.0000e+000	2.1014e-009
28169	No Contact	0.0000e+000	2.9333e-009
28170	No Contact	0.0000e+000	2.4287e-009
28171	No Contact	0.0000e+000	1.2255e-009
28172	No Contact	0.0000e+000	0.0000e+000
28173	No Contact	0.0000e+000	0.0000e+000
28174	No Contact	0.0000e+000	2.6170e-009
28175	No Contact	0.0000e+000	8.7279e-010
28176	No Contact	0.0000e+000	2.3570e-009
28177	No Contact	0.0000e+000	7.6338e-010
28178	No Contact	0.0000e+000	3.8728e-009
28179	No Contact	0.0000e+000	4.3016e-009
28180	No Contact	0.0000e+000	2.2791e-009
28181	No Contact	0.0000e+000	6.3455e-010
28182	No Contact	0.0000e+000	2.2557e-009
28183	No Contact	0.0000e+000	7.4040e-010
28184	No Contact	0.0000e+000	3.9606e-009
28185	No Contact	0.0000e+000	4.4845e-009
28186	No Contact	0.0000e+000	2.4825e-009
28187	No Contact	0.0000e+000	7.8804e-010
28188	No Contact	0.0000e+000	2.2575e-009
28189	No Contact	0.0000e+000	8.2671e-010
28190	No Contact	0.0000e+000	3.9926e-009
28191	No Contact	0.0000e+000	4.4707e-009

28192	No Contact	0.0000e+000	2.2685e-009
28193	No Contact	0.0000e+000	7.8207e-010
28194	No Contact	0.0000e+000	2.1118e-009
28195	No Contact	0.0000e+000	7.4487e-010
28196	No Contact	0.0000e+000	3.9824e-009
28197	No Contact	0.0000e+000	4.1858e-009
28198	No Contact	0.0000e+000	2.0720e-009
28199	No Contact	0.0000e+000	5.4464e-010
28200	No Contact	0.0000e+000	0.0000e+000
28201	No Contact	0.0000e+000	2.1973e-010
28202	No Contact	0.0000e+000	3.6080e-009
28203	No Contact	0.0000e+000	5.1145e-009
28204	No Contact	0.0000e+000	3.5913e-009
28205	No Contact	0.0000e+000	4.0881e-009
28206	No Contact	0.0000e+000	4.6459e-009
28207	No Contact	0.0000e+000	2.7867e-009
28208	No Contact	0.0000e+000	2.8295e-009
28209	2.9671e-005	0.0000e+000	0.0000e+000
28210	1.9884e-005	0.0000e+000	0.0000e+000
28211	1.0624e-005	0.0000e+000	0.0000e+000
28212	No Contact	0.0000e+000	5.1063e-010
28213	1.4630e-005	0.0000e+000	0.0000e+000
28214	No Contact	0.0000e+000	1.3824e-009
28215	No Contact	0.0000e+000	1.0131e-009
28216	2.2955e-005	0.0000e+000	0.0000e+000
28217	1.2638e-004	0.0000e+000	0.0000e+000
28218	3.0912e-004	0.0000e+000	0.0000e+000
28219	No Contact	0.0000e+000	2.1105e-009
28220	9.8010e-005	0.0000e+000	0.0000e+000
28221	1.5405e-004	0.0000e+000	0.0000e+000
28222	No Contact	0.0000e+000	3.0640e-010
28223	No Contact	0.0000e+000	3.2856e-010

28224	3.6798e-004	0.0000e+000	0.0000e+000
28225	No Contact	0.0000e+000	1.1283e-010
28226	No Contact	0.0000e+000	1.3340e-010
28227	No Contact	0.0000e+000	0.0000e+000
28228	No Contact	0.0000e+000	0.0000e+000
28229	No Contact	0.0000e+000	1.6188e-009
28230	No Contact	0.0000e+000	1.2353e-009
28231	No Contact	0.0000e+000	2.7310e-009
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28237	3.2647e-001	0.0000e+000	0.0000e+000
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28239	1.7868e-001	0.0000e+000	0.0000e+000
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28244	1.7246e-001	0.0000e+000	0.0000e+000
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28246	No Contact	0.0000e+000	0.0000e+000
28247	No Contact	0.0000e+000	1.5014e-009
28248	No Contact	0.0000e+000	0.0000e+000
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28251	No Contact	0.0000e+000	2.9215e-010
28252	No Contact	0.0000e+000	0.0000e+000
28253	No Contact	0.0000e+000	0.0000e+000
28254	No Contact	0.0000e+000	0.0000e+000

28255	No Contact	0.0000e+000	0.0000e+000
28256	No Contact	0.0000e+000	0.0000e+000
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28258	No Contact	0.0000e+000	0.0000e+000
28259	No Contact	0.0000e+000	0.0000e+000
28260	No Contact	0.0000e+000	0.0000e+000
28261	No Contact	0.0000e+000	0.0000e+000
28262	No Contact	0.0000e+000	0.0000e+000
28263	3.0911e-004	0.0000e+000	0.0000e+000
28264	No Contact	0.0000e+000	1.1666e-010
28265	No Contact	0.0000e+000	1.2712e-010
28266	9.7047e-004	0.0000e+000	0.0000e+000
28267	8.6480e-002	0.0000e+000	0.0000e+000
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28269	1.5241e-002	0.0000e+000	0.0000e+000
28270	No Contact	0.0000e+000	1.1811e-009
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28272	No Contact	0.0000e+000	1.1534e-009
28273	1.7419e-001	0.0000e+000	0.0000e+000
28274	No Contact	0.0000e+000	0.0000e+000
28275	1.8367e-002	0.0000e+000	0.0000e+000
28276	No Contact	0.0000e+000	0.0000e+000
28277	No Contact	0.0000e+000	0.0000e+000
28278	No Contact	0.0000e+000	0.0000e+000
28279	No Contact	0.0000e+000	0.0000e+000
28280	8.1252e-003	0.0000e+000	0.0000e+000
28281	No Contact	0.0000e+000	0.0000e+000
28282	No Contact	0.0000e+000	0.0000e+000
28283	No Contact	0.0000e+000	0.0000e+000
28284	No Contact	0.0000e+000	0.0000e+000
28285	4.4923e-002	0.0000e+000	0.0000e+000
28286	2.8529e-001	0.0000e+000	0.0000e+000

28287	No Contact	0.0000e+000	0.0000e+000
28288	No Contact	0.0000e+000	0.0000e+000
28289	2.0258e-002	0.0000e+000	0.0000e+000
28290	No Contact	0.0000e+000	0.0000e+000
28291	No Contact	0.0000e+000	0.0000e+000
28292	No Contact	0.0000e+000	0.0000e+000
28293	No Contact	0.0000e+000	0.0000e+000
28294	2.6628e-001	0.0000e+000	0.0000e+000
28295	No Contact	0.0000e+000	0.0000e+000
28296	No Contact	0.0000e+000	0.0000e+000
28297	1.6575e-002	0.0000e+000	0.0000e+000
28298	No Contact	0.0000e+000	0.0000e+000
28299	No Contact	0.0000e+000	0.0000e+000
28300	No Contact	0.0000e+000	3.7169e-010
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28303	No Contact	0.0000e+000	0.0000e+000
28304	No Contact	0.0000e+000	4.2315e-010
28305	No Contact	0.0000e+000	0.0000e+000
28306	No Contact	0.0000e+000	1.1168e-010
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28309	No Contact	0.0000e+000	4.6793e-009
28310	No Contact	0.0000e+000	4.9148e-009
28311	No Contact	0.0000e+000	4.8256e-009
28312	No Contact	0.0000e+000	0.0000e+000
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28314	No Contact	0.0000e+000	2.1629e-009
28315	No Contact	0.0000e+000	0.0000e+000
28316	No Contact	0.0000e+000	0.0000e+000
28317	No Contact	0.0000e+000	2.2703e-009
28318	No Contact	0.0000e+000	0.0000e+000

28319	No Contact	0.0000e+000	2.2900e-009
28320	No Contact	0.0000e+000	2.3372e-009
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28323	No Contact	0.0000e+000	2.4054e-009
28324	No Contact	0.0000e+000	2.2946e-009
28325	No Contact	0.0000e+000	0.0000e+000
28326	No Contact	0.0000e+000	0.0000e+000
28327	No Contact	0.0000e+000	2.3140e-009
28328	No Contact	0.0000e+000	2.3330e-009
28329	No Contact	0.0000e+000	0.0000e+000
28330	No Contact	0.0000e+000	0.0000e+000
28331	No Contact	0.0000e+000	2.1125e-009
28332	No Contact	0.0000e+000	1.7831e-009
28333	No Contact	0.0000e+000	0.0000e+000
28334	No Contact	0.0000e+000	0.0000e+000
28335	No Contact	0.0000e+000	2.2429e-009
28336	No Contact	0.0000e+000	0.0000e+000
28337	No Contact	0.0000e+000	0.0000e+000
28338	No Contact	0.0000e+000	0.0000e+000
28339	No Contact	0.0000e+000	0.0000e+000
28340	No Contact	0.0000e+000	2.1951e-009
28341	No Contact	0.0000e+000	4.0224e-009
28342	No Contact	0.0000e+000	9.8069e-011
28343	No Contact	0.0000e+000	2.6441e-010
28344	No Contact	0.0000e+000	3.2068e-010
28345	No Contact	0.0000e+000	4.7170e-010
28346	No Contact	0.0000e+000	8.7702e-010
28347	No Contact	0.0000e+000	5.9047e-010
28348	No Contact	0.0000e+000	0.0000e+000
28349	No Contact	0.0000e+000	7.6082e-011

28350	5.0481e-005	0.0000e+000	0.0000e+000
28351	1.3251e-004	0.0000e+000	0.0000e+000
28352	5.6339e-005	0.0000e+000	0.0000e+000
28353	1.7082e-005	0.0000e+000	0.0000e+000
28354	3.3019e-005	0.0000e+000	0.0000e+000
28355	4.7138e-005	0.0000e+000	0.0000e+000
28356	No Contact	0.0000e+000	0.0000e+000
28357	1.5363e-005	0.0000e+000	0.0000e+000
28358	No Contact	0.0000e+000	0.0000e+000
28359	1.8920e-005	0.0000e+000	0.0000e+000
28360	4.0494e-005	0.0000e+000	0.0000e+000
28361	4.9330e-005	0.0000e+000	0.0000e+000
28362	2.2743e-005	0.0000e+000	0.0000e+000
28363	No Contact	0.0000e+000	5.2147e-011
28364	No Contact	0.0000e+000	0.0000e+000
28365	4.3202e-005	0.0000e+000	0.0000e+000
28366	No Contact	0.0000e+000	1.6216e-010
28367	No Contact	0.0000e+000	0.0000e+000
28368	3.0543e-006	0.0000e+000	0.0000e+000
28369	No Contact	0.0000e+000	8.6944e-011
28370	No Contact	0.0000e+000	0.0000e+000
28371	6.1032e-005	0.0000e+000	0.0000e+000
28372	No Contact	0.0000e+000	7.3310e-011
28373	No Contact	0.0000e+000	0.0000e+000
28374	3.7659e-005	0.0000e+000	0.0000e+000
28375	No Contact	0.0000e+000	8.1355e-012
28376	No Contact	0.0000e+000	0.0000e+000
28377	1.0188e-004	0.0000e+000	0.0000e+000
28378	No Contact	0.0000e+000	1.0811e-010
28379	No Contact	0.0000e+000	0.0000e+000

28380	5.5369e-005	0.0000e+000	0.0000e+000
28381	No Contact	0.0000e+000	2.9364e-011
28382	No Contact	0.0000e+000	0.0000e+000
28383	8.5571e-005	0.0000e+000	0.0000e+000
28384	1.5586e-006	0.0000e+000	0.0000e+000
28385	No Contact	0.0000e+000	0.0000e+000
28386	4.2636e-005	0.0000e+000	0.0000e+000
28387	1.8862e-005	0.0000e+000	0.0000e+000
28388	No Contact	0.0000e+000	0.0000e+000
28389	7.2745e-005	0.0000e+000	0.0000e+000
28390	1.8694e-005	0.0000e+000	0.0000e+000
28391	No Contact	0.0000e+000	0.0000e+000
28392	3.3024e-004	0.0000e+000	0.0000e+000
28393	No Contact	0.0000e+000	0.0000e+000
28394	No Contact	0.0000e+000	6.8195e-011
28395	8.9006e-005	0.0000e+000	0.0000e+000
28396	6.1971e-005	0.0000e+000	0.0000e+000
28397	7.9908e-005	0.0000e+000	0.0000e+000
28398	3.0575e-005	0.0000e+000	0.0000e+000
28399	No Contact	0.0000e+000	9.6325e-012
28400	No Contact	0.0000e+000	0.0000e+000
28401	3.5452e-004	0.0000e+000	0.0000e+000
28402	No Contact	0.0000e+000	0.0000e+000
28403	7.0060e-006	0.0000e+000	0.0000e+000
28404	1.2712e-004	0.0000e+000	0.0000e+000
28405	No Contact	0.0000e+000	0.0000e+000
28406	9.8275e-006	0.0000e+000	0.0000e+000
28407	3.5240e-004	0.0000e+000	0.0000e+000
28408	No Contact	0.0000e+000	0.0000e+000
28409	No Contact	0.0000e+000	2.8635e-011
28410	3.5417e-004	0.0000e+000	0.0000e+000
28411	No Contact	0.0000e+000	0.0000e+000

28412	2.3521e-005	0.0000e+000	0.0000e+000
28413	1.3620e-005	0.0000e+000	0.0000e+000
28414	No Contact	0.0000e+000	1.1974e-010
28415	No Contact	0.0000e+000	0.0000e+000
28416	No Contact	0.0000e+000	0.0000e+000
28417	1.6086e-005	0.0000e+000	0.0000e+000
28418	No Contact	0.0000e+000	0.0000e+000
28419	No Contact	0.0000e+000	0.0000e+000
28420	No Contact	0.0000e+000	0.0000e+000
28421	No Contact	0.0000e+000	0.0000e+000
28422	No Contact	0.0000e+000	0.0000e+000
28423	6.7968e-004	0.0000e+000	0.0000e+000
28424	No Contact	0.0000e+000	0.0000e+000
28425	1.0094e-003	0.0000e+000	0.0000e+000
28426	7.2598e-004	0.0000e+000	0.0000e+000
28427	No Contact	0.0000e+000	0.0000e+000
28428	No Contact	0.0000e+000	0.0000e+000
28429	3.0174e-004	0.0000e+000	0.0000e+000
28430	1.2017e-004	0.0000e+000	0.0000e+000
28431	No Contact	0.0000e+000	0.0000e+000
28432	No Contact	0.0000e+000	0.0000e+000
28433	No Contact	0.0000e+000	0.0000e+000
28434	No Contact	0.0000e+000	0.0000e+000
28435	No Contact	0.0000e+000	0.0000e+000
28436	No Contact	0.0000e+000	0.0000e+000
28437	No Contact	0.0000e+000	3.2197e-009
28438	No Contact	0.0000e+000	0.0000e+000
28439	No Contact	0.0000e+000	0.0000e+000
28440	No Contact	0.0000e+000	0.0000e+000
28441	No Contact	0.0000e+000	3.9054e-009
28442	1.6560e-004	0.0000e+000	0.0000e+000
28443	No Contact	0.0000e+000	0.0000e+000

28444	No Contact	0.0000e+000	0.0000e+000
28445	9.8044e-004	0.0000e+000	0.0000e+000
28446	No Contact	0.0000e+000	0.0000e+000
28447	No Contact	0.0000e+000	0.0000e+000
28448	No Contact	0.0000e+000	0.0000e+000
28449	No Contact	0.0000e+000	0.0000e+000
28450	9.3927e-004	0.0000e+000	0.0000e+000
28451	No Contact	0.0000e+000	3.0526e-009
28452	No Contact	0.0000e+000	0.0000e+000
28453	No Contact	0.0000e+000	0.0000e+000
28454	No Contact	0.0000e+000	0.0000e+000
28455	6.2098e-004	0.0000e+000	0.0000e+000
28456	6.8874e-004	0.0000e+000	0.0000e+000
28457	9.5568e-004	0.0000e+000	0.0000e+000
28458	4.9529e-004	0.0000e+000	0.0000e+000
28459	No Contact	0.0000e+000	0.0000e+000
28460	No Contact	0.0000e+000	0.0000e+000
28461	No Contact	0.0000e+000	0.0000e+000
28462	No Contact	0.0000e+000	9.0027e-009
28463	No Contact	0.0000e+000	1.6765e-008
28464	No Contact	0.0000e+000	1.6355e-008
28465	No Contact	0.0000e+000	9.8127e-009
28466	No Contact	0.0000e+000	0.0000e+000
28467	No Contact	0.0000e+000	7.9947e-009
28468	No Contact	0.0000e+000	1.3860e-008
28469	No Contact	0.0000e+000	1.8164e-008
28470	No Contact	0.0000e+000	1.0928e-008
28471	No Contact	0.0000e+000	8.4995e-009
28472	No Contact	0.0000e+000	8.0632e-009
28473	No Contact	0.0000e+000	1.4869e-008
28474	No Contact	0.0000e+000	0.0000e+000

28475	No Contact	0.0000e+000	0.0000e+000
28476	No Contact	0.0000e+000	0.0000e+000
28477	No Contact	0.0000e+000	0.0000e+000
28478	No Contact	0.0000e+000	0.0000e+000
28479	No Contact	0.0000e+000	1.0494e-008
28480	No Contact	0.0000e+000	2.2457e-008
28481	No Contact	0.0000e+000	2.1885e-008
28482	No Contact	0.0000e+000	2.4380e-008
28483	No Contact	0.0000e+000	2.3806e-008
28484	No Contact	0.0000e+000	2.2118e-008
28485	No Contact	0.0000e+000	2.1892e-008
28486	No Contact	0.0000e+000	0.0000e+000
28487	No Contact	0.0000e+000	5.1990e-009
28488	No Contact	0.0000e+000	0.0000e+000
28489	No Contact	0.0000e+000	0.0000e+000
28490	No Contact	0.0000e+000	1.2552e-008
28491	No Contact	0.0000e+000	1.6689e-008
28492	No Contact	0.0000e+000	1.4287e-008
28493	No Contact	0.0000e+000	0.0000e+000
28494	No Contact	0.0000e+000	9.1159e-009
28495	No Contact	0.0000e+000	0.0000e+000
28496	No Contact	0.0000e+000	0.0000e+000
28497	No Contact	0.0000e+000	1.9520e-008
28498	No Contact	0.0000e+000	1.6135e-008
28499	No Contact	0.0000e+000	2.0141e-008
28500	No Contact	0.0000e+000	0.0000e+000
28501	No Contact	0.0000e+000	4.6385e-009
28502	No Contact	0.0000e+000	1.3909e-008
28503	No Contact	0.0000e+000	0.0000e+000
28504	No Contact	0.0000e+000	0.0000e+000
28505	No Contact	0.0000e+000	0.0000e+000
28506	No Contact	0.0000e+000	0.0000e+000

28507	1.2231e-003	0.0000e+000	0.0000e+000
28508	No Contact	0.0000e+000	0.0000e+000
28509	1.5900e-003	0.0000e+000	0.0000e+000
28510	3.1596e-003	0.0000e+000	0.0000e+000
28511	3.0264e-003	0.0000e+000	0.0000e+000
28512	3.4389e-003	0.0000e+000	0.0000e+000
28513	1.7216e-003	0.0000e+000	0.0000e+000
28514	2.3151e-003	0.0000e+000	0.0000e+000
28515	No Contact	0.0000e+000	0.0000e+000
28516	2.2906e-003	0.0000e+000	0.0000e+000
28517	No Contact	0.0000e+000	5.6338e-009
28518	No Contact	0.0000e+000	0.0000e+000
28519	No Contact	0.0000e+000	7.6257e-009
28520	No Contact	0.0000e+000	1.2621e-008
28521	No Contact	0.0000e+000	1.6274e-008
28522	No Contact	0.0000e+000	8.5201e-009
28523	No Contact	0.0000e+000	0.0000e+000
28524	No Contact	0.0000e+000	8.3273e-009
28525	3.2562e-003	0.0000e+000	0.0000e+000
28526	5.0621e-003	0.0000e+000	0.0000e+000
28527	5.0988e-003	0.0000e+000	0.0000e+000
28528	4.7189e-003	0.0000e+000	0.0000e+000
28529	3.4480e-003	0.0000e+000	0.0000e+000
28530	3.2350e-003	0.0000e+000	0.0000e+000
28531	2.1106e-003	0.0000e+000	0.0000e+000
28532	3.2654e-003	0.0000e+000	0.0000e+000
28533	7.9708e-004	0.0000e+000	0.0000e+000
28534	No Contact	0.0000e+000	0.0000e+000
28535	8.3920e-004	0.0000e+000	0.0000e+000
28536	No Contact	0.0000e+000	7.2239e-010
28537	No Contact	0.0000e+000	0.0000e+000
28538	No Contact	0.0000e+000	2.9442e-009

28539	No Contact	0.0000e+000	0.0000e+000
28540	No Contact	0.0000e+000	1.8959e-009
28541	No Contact	0.0000e+000	6.7602e-009
28542	No Contact	0.0000e+000	7.3333e-009
28543	No Contact	0.0000e+000	0.0000e+000
28544	No Contact	0.0000e+000	1.9991e-008
28545	No Contact	0.0000e+000	2.2783e-008
28546	No Contact	0.0000e+000	2.2004e-008
28547	2.2884e-003	0.0000e+000	0.0000e+000
28548	No Contact	0.0000e+000	0.0000e+000
28549	1.0747e-003	0.0000e+000	0.0000e+000
28550	No Contact	0.0000e+000	0.0000e+000
28551	3.3258e-004	0.0000e+000	0.0000e+000
28552	No Contact	0.0000e+000	0.0000e+000
28553	No Contact	0.0000e+000	9.8279e-010
28554	No Contact	0.0000e+000	1.7116e-009
28555	No Contact	0.0000e+000	2.6111e-009
28556	No Contact	0.0000e+000	5.5608e-009
28557	No Contact	0.0000e+000	6.1490e-009
28558	No Contact	0.0000e+000	0.0000e+000
28559	No Contact	0.0000e+000	0.0000e+000
28560	No Contact	0.0000e+000	1.4649e-008
28561	No Contact	0.0000e+000	1.5320e-008
28562	No Contact	0.0000e+000	1.4415e-008
28563	No Contact	0.0000e+000	1.3414e-008
28564	No Contact	0.0000e+000	2.0324e-008
28565	No Contact	0.0000e+000	1.8888e-008
28566	No Contact	0.0000e+000	3.1565e-009
28567	8.0278e-004	0.0000e+000	0.0000e+000
28568	7.8515e-004	0.0000e+000	0.0000e+000
28569	3.1365e-003	0.0000e+000	0.0000e+000
28570	No Contact	0.0000e+000	3.4616e-009

28571	No Contact	0.0000e+000	2.6494e-009
28572	1.3024e-003	0.0000e+000	0.0000e+000
28573	No Contact	0.0000e+000	7.2448e-009
28574	No Contact	0.0000e+000	8.3127e-009
28575	No Contact	0.0000e+000	7.3475e-009
28576	No Contact	0.0000e+000	1.2368e-008
28577	2.2460e-003	0.0000e+000	0.0000e+000
28578	1.5885e-003	0.0000e+000	0.0000e+000
28579	9.0513e-004	0.0000e+000	0.0000e+000
28580	No Contact	0.0000e+000	0.0000e+000
28581	5.1253e-004	0.0000e+000	0.0000e+000
28582	No Contact	0.0000e+000	0.0000e+000
28583	1.9509e-003	0.0000e+000	0.0000e+000
28584	3.4069e-003	0.0000e+000	0.0000e+000
28585	7.2576e-004	0.0000e+000	0.0000e+000
28586	No Contact	0.0000e+000	9.6682e-009
28587	No Contact	0.0000e+000	1.0113e-008
28588	No Contact	0.0000e+000	0.0000e+000
28589	2.2280e-003	0.0000e+000	0.0000e+000
28590	3.1998e-003	0.0000e+000	0.0000e+000
28591	No Contact	0.0000e+000	1.7989e-008
28592	3.2477e-003	0.0000e+000	0.0000e+000
28593	No Contact	0.0000e+000	0.0000e+000
28594	No Contact	0.0000e+000	0.0000e+000
28595	No Contact	0.0000e+000	0.0000e+000
28596	No Contact	0.0000e+000	0.0000e+000
28597	3.0323e-003	0.0000e+000	0.0000e+000
28598	No Contact	0.0000e+000	1.3286e-008
28599	2.9864e-003	0.0000e+000	0.0000e+000
28600	3.8072e-003	0.0000e+000	0.0000e+000
28601	3.0780e-003	0.0000e+000	0.0000e+000

28602	2.8308e-003	0.0000e+000	0.0000e+000
28603	3.1372e-003	0.0000e+000	0.0000e+000
28604	3.7064e-003	0.0000e+000	0.0000e+000
28605	1.3918e-003	0.0000e+000	0.0000e+000
28606	1.9633e-003	0.0000e+000	0.0000e+000
28607	No Contact	0.0000e+000	0.0000e+000
28608	No Contact	0.0000e+000	0.0000e+000
28609	No Contact	0.0000e+000	0.0000e+000
28610	No Contact	0.0000e+000	0.0000e+000
28611	1.5780e-003	0.0000e+000	0.0000e+000
28612	3.8333e-003	0.0000e+000	0.0000e+000
28613	4.0663e-003	0.0000e+000	0.0000e+000
28614	4.3163e-003	0.0000e+000	0.0000e+000
28615	3.4521e-003	0.0000e+000	0.0000e+000
28616	2.8834e-003	0.0000e+000	0.0000e+000
28617	1.8197e-003	0.0000e+000	0.0000e+000
28618	1.6632e-003	0.0000e+000	0.0000e+000
28619	No Contact	0.0000e+000	0.0000e+000
28620	1.7424e-003	0.0000e+000	0.0000e+000
28621	No Contact	0.0000e+000	0.0000e+000
28622	No Contact	0.0000e+000	3.1637e-011
28623	2.3405e-003	0.0000e+000	0.0000e+000
28624	No Contact	0.0000e+000	0.0000e+000
28625	1.2704e-003	0.0000e+000	0.0000e+000
28626	1.5868e-003	0.0000e+000	0.0000e+000
28627	2.1739e-003	0.0000e+000	0.0000e+000
28628	No Contact	0.0000e+000	0.0000e+000
28629	No Contact	0.0000e+000	0.0000e+000
28630	No Contact	0.0000e+000	0.0000e+000
28631	No Contact	0.0000e+000	0.0000e+000
28632	No Contact	0.0000e+000	0.0000e+000

28633	No Contact	0.0000e+000	0.0000e+000
28634	No Contact	0.0000e+000	0.0000e+000

Equilibrium

Components	Applied Forces	Reactions	Residual	Relative Magnitude Error
Fx (N)	9.6273e+002	-9.6273e+002	5.5820e-011	1.0362e-012
Fy (N)	4.6566e-010	-4.6556e-010	1.0484e-013	1.9462e-015
Fz (N)	-5.9605e-008	5.9601e-008	-4.1193e-012	7.6466e-014
Mx (Nxm)	1.2274e-008	-1.2273e-008	8.5489e-013	7.3116e-014
My (Nxm)	3.1394e+001	-3.1394e+001	8.7397e-013	7.4747e-014
Mz (Nxm)	2.0038e+002	-2.0038e+002	1.0203e-011	8.7266e-013

Static Case Solution.1 - Deformed mesh.2

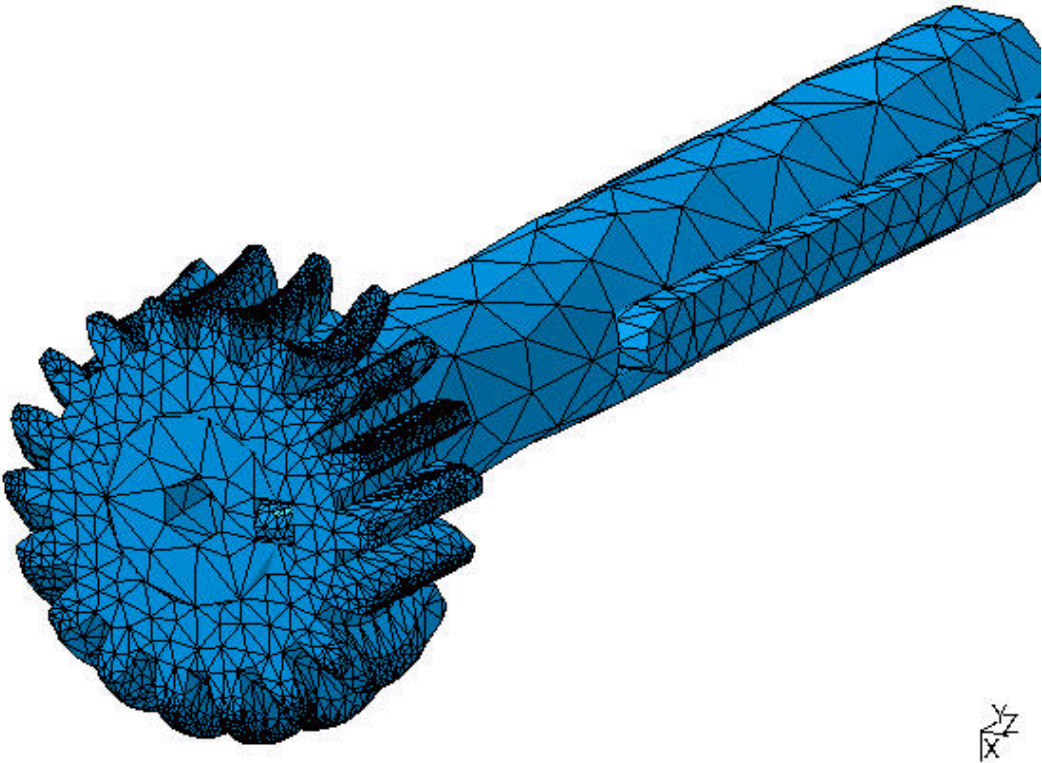


Figure 2

On deformed mesh ---- On boundary ---- Over all the model

Static Case Solution.1 - Von Mises stress (nodal values).2

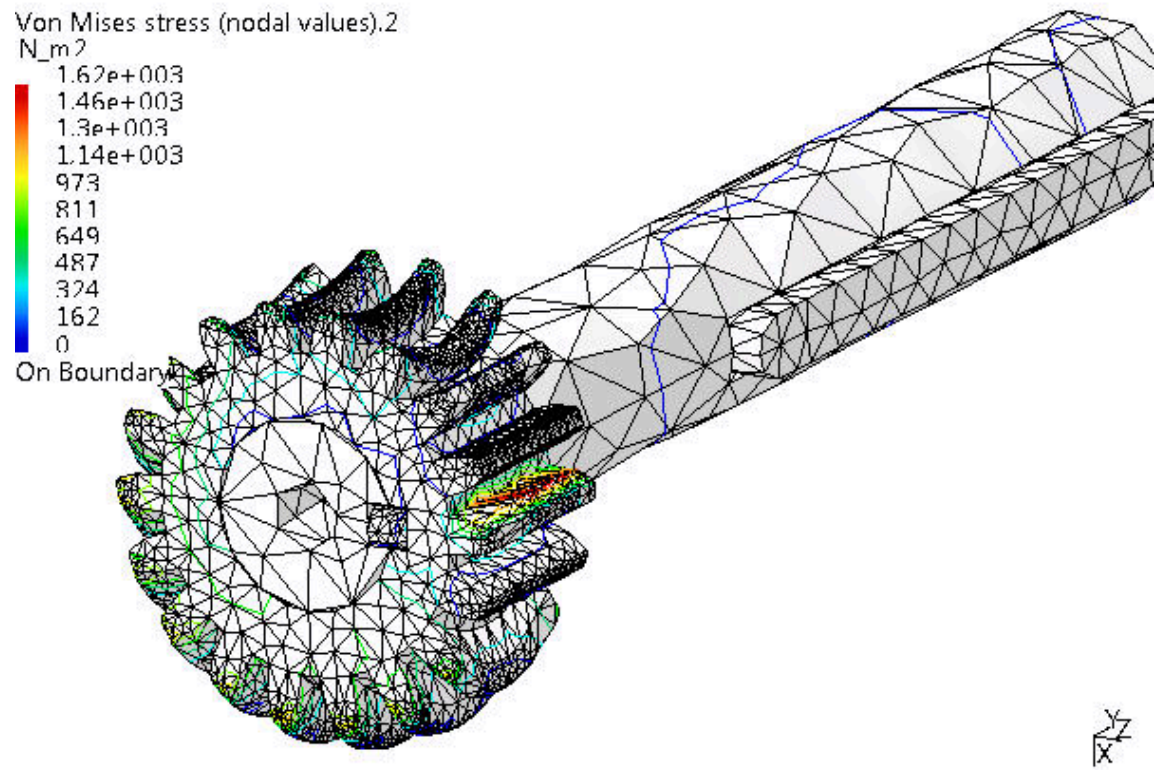


Figure 3

1D elements: : Components: : All

3D elements: : Components: : All

On deformed mesh ---- On boundary ---- Over all the model

Global Sensors

Sensor Name	Sensor Value
Energy	0J

Local Sensors

Sensor Name
CARGA_EJE_23

Sensor Name
TENSION_EJE_23

Sensor Name
TENSION_CARA_SUP_CHAVETA_INT

Sensor Name
TENSION_CARA_LAT_CHAVETA_INT

Sensor Name
TENSION_CARA_INF_CHAVETA_INT

Sensor Name
TENSION_CARA_SUP_CHAVETA_EXT

Sensor Name
TENSION_CARA_LAT_CHAVETA_EXT

Sensor Name
TENSION_CARA_INF_CHAVETA_EXT