

TABLE: Joint Displacements

Joint	OutputCase	CaseType	StepType	U1	U2	U3	R1	R2	R3
Text	Text	Text	Text	m	m	m	Radians	Radians	Radians
140	Tren A2	LinDirHis	Max	0	0	2.498E-12	0.000005692	0.000027	0
140	Tren A2	LinDirHis	Min	0	0	-0.000335	-0.000003881	-5.531E-13	0
229	Tren A2	LinDirHis	Max	0	0	1.055E-11	2.309E-08	2.245E-12	0
229	Tren A2	LinDirHis	Min	0	0	-0.0003	-0.000079	-0.000025	0
230	Tren A2	LinDirHis	Max	0	0	7.126E-12	0.000000306	4.035E-12	0
230	Tren A2	LinDirHis	Min	0	0	-0.00031	-0.000038	-0.000015	0
231	Tren A2	LinDirHis	Max	0	0	9.322E-13	4.036E-13	0.000023	0
231	Tren A2	LinDirHis	Min	0	0	-0.000252	-0.000105	-0.000009878	0
232	Tren A2	LinDirHis	Max	0	0	0.000002365	5.92E-13	0.000059	0
232	Tren A2	LinDirHis	Min	0	0	-0.000421	-0.000122	-0.000004223	0
233	Tren A2	LinDirHis	Max	0	0	0.000003885	9.009E-13	0.000026	0
233	Tren A2	LinDirHis	Min	0	0	-0.000559	-0.000159	-0.000007509	0
234	Tren A2	LinDirHis	Max	0	0	0.000001308	2.804E-07	0.000058	0
234	Tren A2	LinDirHis	Min	0	0	-0.000631	-0.000209	-0.000011	0
235	Tren A2	LinDirHis	Max	0	0	6.396E-07	2.189E-07	0.000077	0
235	Tren A2	LinDirHis	Min	0	0	-0.000884	-0.000214	-0.000008404	0
236	Tren A2	LinDirHis	Max	0	0	0.000002166	7.833E-08	0.000058	0
236	Tren A2	LinDirHis	Min	0	0	-0.001084	-0.000243	-0.000014	0
237	Tren A2	LinDirHis	Max	0	0	0.000001166	2.709E-07	0.000084	0
237	Tren A2	LinDirHis	Min	0	0	-0.001269	-0.000271	-0.000016	0
238	Tren A2	LinDirHis	Max	0	0	0.000000914	2.091E-07	0.000089	0
238	Tren A2	LinDirHis	Min	0	0	-0.001552	-0.000268	-0.000016	0
239	Tren A2	LinDirHis	Max	0	0	0.000002078	1.487E-07	0.00008	0
239	Tren A2	LinDirHis	Min	0	0	-0.001775	-0.000287	-0.000021	0
240	Tren A2	LinDirHis	Max	0	0	0.000002025	3.153E-07	0.000097	0
240	Tren A2	LinDirHis	Min	0	0	-0.00201	-0.000297	-0.000023	0
241	Tren A2	LinDirHis	Max	0	0	0.000002149	3.107E-07	0.000097	0
241	Tren A2	LinDirHis	Min	0	0	-0.00229	-0.000291	-0.000024	0
242	Tren A2	LinDirHis	Max	0	0	0.000002968	2.871E-07	0.000097	0
242	Tren A2	LinDirHis	Min	0	0	-0.002547	-0.000295	-0.000029	0
244	Tren A2	LinDirHis	Max	0	0	0.000003363	3.838E-07	0.000102	0
244	Tren A2	LinDirHis	Min	0	0	-0.003079	-0.000278	-0.000035	0
245	Tren A2	LinDirHis	Max	0	0	0.000004342	3.688E-07	0.000102	0
245	Tren A2	LinDirHis	Min	0	0	-0.003324	-0.000271	-0.000041	0
246	Tren A2	LinDirHis	Max	0	0	0.000005005	4.349E-07	0.000102	0
246	Tren A2	LinDirHis	Min	0	0	-0.003566	-0.000255	-0.000046	0
247	Tren A2	LinDirHis	Max	0	0	0.000005711	3.656E-07	0.000098	0
247	Tren A2	LinDirHis	Min	0	0	-0.003796	-0.000235	-0.000053	0
248	Tren A2	LinDirHis	Max	0	0	0.000006765	3.294E-07	0.000099	0
248	Tren A2	LinDirHis	Min	0	0	-0.004011	-0.000218	-0.000059	0
249	Tren A2	LinDirHis	Max	0	0	0.000007671	3.688E-07	0.000095	0
249	Tren A2	LinDirHis	Min	0	0	-0.00421	-0.000194	-0.000065	0
250	Tren A2	LinDirHis	Max	0	0	0.000009055	3.699E-07	0.000092	0
250	Tren A2	LinDirHis	Min	0	0	-0.004387	-0.000169	-0.000071	0
251	Tren A2	LinDirHis	Max	0	0	0.000011	3.675E-07	0.000087	0
251	Tren A2	LinDirHis	Min	0	0	-0.00454	-0.000144	-0.000075	0
252	Tren A2	LinDirHis	Max	0	0	0.000012	3.722E-07	0.000081	0

252	Tren A2	LinDirHis	Min	0	0	-0.004666	-0.000114	-0.00008	0
253	Tren A2	LinDirHis	Max	0	0	0.000013	3.212E-07	0.000076	0
253	Tren A2	LinDirHis	Min	0	0	-0.00477	-0.000084	-0.000085	0
254	Tren A2	LinDirHis	Max	0	0	0.000013	2.687E-07	0.000068	0
254	Tren A2	LinDirHis	Min	0	0	-0.004839	-0.000056	-0.00009	0
255	Tren A2	LinDirHis	Max	0	0	0.000014	2.017E-07	0.000061	0
255	Tren A2	LinDirHis	Min	0	0	-0.004876	-0.000025	-0.000093	0
256	Tren A2	LinDirHis	Max	0	0	0.000014	0.000018	0.000055	0
256	Tren A2	LinDirHis	Min	0	0	-0.004883	-0.000008079	-0.000096	0
257	Tren A2	LinDirHis	Max	0	0	0.000014	0.000049	0.000047	0
257	Tren A2	LinDirHis	Min	0	0	-0.004858	-0.000004725	-0.000099	0
258	Tren A2	LinDirHis	Max	0	0	0.000014	0.00008	0.000038	0
258	Tren A2	LinDirHis	Min	0	0	-0.004798	-0.000002729	-0.000101	0
259	Tren A2	LinDirHis	Max	0	0	0.000014	0.000111	0.000028	0
259	Tren A2	LinDirHis	Min	0	0	-0.004706	-0.000001841	-0.000101	0
260	Tren A2	LinDirHis	Max	0	0	0.000014	0.000142	0.000018	0
260	Tren A2	LinDirHis	Min	0	0	-0.004573	-0.000001309	-0.000101	0
261	Tren A2	LinDirHis	Max	0	0	0.000014	0.000169	0.000006843	0
261	Tren A2	LinDirHis	Min	0	0	-0.004404	-9.759E-07	-0.0001	0
262	Tren A2	LinDirHis	Max	0	0	0.000014	0.000197	0.000001672	0
262	Tren A2	LinDirHis	Min	0	0	-0.004199	-0.000001026	-0.000105	0
263	Tren A2	LinDirHis	Max	0	0	0.000013	0.000221	0.000001634	0
263	Tren A2	LinDirHis	Min	0	0	-0.003962	-0.000001037	-0.000107	0
264	Tren A2	LinDirHis	Max	0	0	0.000012	0.000243	0.000001525	0
264	Tren A2	LinDirHis	Min	0	0	-0.003702	-9.442E-07	-0.000109	0
265	Tren A2	LinDirHis	Max	0	0	0.000011	0.000265	0.000001472	0
265	Tren A2	LinDirHis	Min	0	0	-0.003415	-9.257E-07	-0.00011	0
266	Tren A2	LinDirHis	Max	0	0	0.000009095	0.000277	0.000001318	0
266	Tren A2	LinDirHis	Min	0	0	-0.003122	-0.000000942	-0.000108	0
267	Tren A2	LinDirHis	Max	0	0	0.000008033	0.000285	0.000001082	0
267	Tren A2	LinDirHis	Min	0	0	-0.002809	-8.548E-07	-0.000112	0
268	Tren A2	LinDirHis	Max	0	0	0.000006874	0.000298	0.000001017	0
268	Tren A2	LinDirHis	Min	0	0	-0.002465	-9.401E-07	-0.000109	0
269	Tren A2	LinDirHis	Max	0	0	0.000005858	0.00029	8.524E-07	0
269	Tren A2	LinDirHis	Min	0	0	-0.002149	-9.225E-07	-0.000099	0
270	Tren A2	LinDirHis	Max	0	0	0.000005723	0.000282	7.533E-07	0
270	Tren A2	LinDirHis	Min	0	0	-0.001817	-8.107E-07	-0.000107	0
271	Tren A2	LinDirHis	Max	0	0	0.000004403	0.000281	8.135E-07	0
271	Tren A2	LinDirHis	Min	0	0	-0.001465	-9.318E-07	-0.000093	0
272	Tren A2	LinDirHis	Max	0	0	0.000003713	0.000246	5.745E-07	0
272	Tren A2	LinDirHis	Min	0	0	-0.001202	-7.814E-07	-0.000076	0
273	Tren A2	LinDirHis	Max	0	0	0.000003784	0.000223	5.484E-07	0
273	Tren A2	LinDirHis	Min	0	0	-0.000905	-6.325E-07	-0.000088	0
274	Tren A2	LinDirHis	Max	0	0	0.000001975	0.000198	0.000000608	0
274	Tren A2	LinDirHis	Min	0	0	-0.000636	-7.426E-07	-0.00005	0
275	Tren A2	LinDirHis	Max	0	0	0.000002434	0.000127	2.637E-07	0
275	Tren A2	LinDirHis	Min	0	0	-0.000529	-5.783E-07	-0.000039	0
276	Tren A2	LinDirHis	Max	0	0	0.000002398	0.000083	6.583E-07	0
276	Tren A2	LinDirHis	Min	0	0	-0.000296	-4.315E-07	-0.000064	0
277	Tren A2	LinDirHis	Max	0	0	0.000004217	0.000037	0.000007272	0

277	Tren A2	LinDirHis	Min	0	0	-0.000099	-5.116E-07	-0.000012	0
278	Tren A2	LinDirHis	Max	0	0	0.000001044	0.000039	0.000000441	0
278	Tren A2	LinDirHis	Min	0	0	-0.000096	-4.882E-07	-0.000069	0
279	Tren A2	LinDirHis	Max	0	0	8.438E-12	0.000002646	0.000099	0
279	Tren A2	LinDirHis	Min	0	0	-0.000168	-9.245E-07	-0.000001452	0
280	Tren A2	LinDirHis	Max	0	0	7.379E-08	4.05E-13	0.000058	0
280	Tren A2	LinDirHis	Min	0	0	-0.000345	-0.000117	-0.00000492	0
283	Tren A2	LinDirHis	Max	0	0	0.000003652	2.043E-13	0.000043	0
283	Tren A2	LinDirHis	Min	0	0	-0.000531	-0.00014	-0.000002119	0
347	Tren A2	LinDirHis	Max	0	0	0.000002757	1.141E-07	0.000027	0
347	Tren A2	LinDirHis	Min	0	0	-0.0006	-0.000192	-0.000008619	0
378	Tren A2	LinDirHis	Max	0	0	0.000000355	3.049E-07	0.000085	0
378	Tren A2	LinDirHis	Min	0	0	-0.000765	-0.000216	-0.000006326	0
379	Tren A2	LinDirHis	Max	0	0	0.000001491	1.276E-07	0.000065	0
379	Tren A2	LinDirHis	Min	0	0	-0.001007	-0.000231	-0.000007355	0
380	Tren A2	LinDirHis	Max	0	0	0.000001845	1.374E-07	0.000066	0
380	Tren A2	LinDirHis	Min	0	0	-0.001177	-0.000267	-0.000013	0
381	Tren A2	LinDirHis	Max	0	0	7.792E-07	2.603E-07	0.000098	0
381	Tren A2	LinDirHis	Min	0	0	-0.001418	-0.000277	-0.000013	0
383	Tren A2	LinDirHis	Max	0	0	0.000001761	2.002E-07	0.000078	0
383	Tren A2	LinDirHis	Min	0	0	-0.001682	-0.000284	-0.000016	0
388	Tren A2	LinDirHis	Max	0	0	0.000001781	2.629E-07	0.000087	0
388	Tren A2	LinDirHis	Min	0	0	-0.001899	-0.000301	-0.000022	0
389	Tren A2	LinDirHis	Max	0	0	0.00000183	3.872E-07	0.000099	0
389	Tren A2	LinDirHis	Min	0	0	-0.002167	-0.000298	-0.000023	0
390	Tren A2	LinDirHis	Max	0	0	0.000002506	0.00000029	0.000093	0
390	Tren A2	LinDirHis	Min	0	0	-0.002436	-0.000298	-0.000027	0
391	Tren A2	LinDirHis	Max	0	0	0.00000333	3.755E-07	0.0001	0
391	Tren A2	LinDirHis	Min	0	0	-0.002691	-0.000301	-0.000031	0
392	Tren A2	LinDirHis	Max	0	0	0.000003451	3.774E-07	0.000101	0
392	Tren A2	LinDirHis	Min	0	0	-0.002962	-0.000289	-0.000033	0
393	Tren A2	LinDirHis	Max	0	0	0.000004237	3.369E-07	0.0001	0
393	Tren A2	LinDirHis	Min	0	0	-0.003212	-0.000282	-0.000037	0
394	Tren A2	LinDirHis	Max	0	0	0.000004723	0.000000383	0.000102	0
394	Tren A2	LinDirHis	Min	0	0	-0.003452	-0.000272	-0.000042	0
448	Tren A2	LinDirHis	Max	0	0	0.00000484	4.353E-07	0.000099	0
448	Tren A2	LinDirHis	Min	0	0	-0.003692	-0.000251	-0.000047	0
449	Tren A2	LinDirHis	Max	0	0	0.000005476	3.936E-07	0.000097	0
449	Tren A2	LinDirHis	Min	0	0	-0.003918	-0.000233	-0.000055	0
450	Tren A2	LinDirHis	Max	0	0	0.000006384	4.091E-07	0.000096	0
450	Tren A2	LinDirHis	Min	0	0	-0.004125	-0.000209	-0.000061	0
451	Tren A2	LinDirHis	Max	0	0	0.000007458	4.066E-07	0.000093	0
451	Tren A2	LinDirHis	Min	0	0	-0.004315	-0.000183	-0.000066	0
452	Tren A2	LinDirHis	Max	0	0	0.000008979	3.708E-07	0.00009	0
452	Tren A2	LinDirHis	Min	0	0	-0.004483	-0.000158	-0.00007	0
455	Tren A2	LinDirHis	Max	0	0	0.00001	3.699E-07	0.000084	0
455	Tren A2	LinDirHis	Min	0	0	-0.004626	-0.000131	-0.000074	0
516	Tren A2	LinDirHis	Max	0	0	0.000012	3.193E-07	0.000078	0
516	Tren A2	LinDirHis	Min	0	0	-0.004741	-0.0001	-0.000077	0
517	Tren A2	LinDirHis	Max	0	0	0.000013	2.858E-07	0.000071	0

517	Tren A2	LinDirHis	Min	0	0	-0.004826	-0.000071	-0.000081	0
518	Tren A2	LinDirHis	Max	0	0	0.000014	0.000000255	0.000062	0
518	Tren A2	LinDirHis	Min	0	0	-0.004876	-0.000041	-0.000086	0
519	Tren A2	LinDirHis	Max	0	0	0.000015	0.00000426	0.000055	0
519	Tren A2	LinDirHis	Min	0	0	-0.004895	-0.000013	-0.000089	0
527	Tren A2	LinDirHis	Max	0	0	0.000015	0.000034	0.000047	0
527	Tren A2	LinDirHis	Min	0	0	-0.004885	-0.000006022	-0.000093	0
528	Tren A2	LinDirHis	Max	0	0	0.000015	0.000065	0.000038	0
528	Tren A2	LinDirHis	Min	0	0	-0.004841	-0.000003787	-0.000096	0
529	Tren A2	LinDirHis	Max	0	0	0.000015	0.000097	0.00003	0
529	Tren A2	LinDirHis	Min	0	0	-0.004763	-0.000002332	-0.000096	0
531	Tren A2	LinDirHis	Max	0	0	0.000015	0.000128	0.00002	0
531	Tren A2	LinDirHis	Min	0	0	-0.00465	-0.00000164	-0.000098	0
532	Tren A2	LinDirHis	Max	0	0	0.000015	0.000157	0.00001	0
532	Tren A2	LinDirHis	Min	0	0	-0.004501	-0.000001184	-0.0001	0
533	Tren A2	LinDirHis	Max	0	0	0.000014	0.000186	0.000001575	0
533	Tren A2	LinDirHis	Min	0	0	-0.004315	-0.000001123	-0.000099	0
539	Tren A2	LinDirHis	Max	0	0	0.000013	0.000214	0.000001546	0
539	Tren A2	LinDirHis	Min	0	0	-0.004096	-0.000001041	-0.000103	0
540	Tren A2	LinDirHis	Max	0	0	0.000012	0.000237	0.0000014	0
540	Tren A2	LinDirHis	Min	0	0	-0.003848	-0.000001025	-0.000105	0
541	Tren A2	LinDirHis	Max	0	0	0.000011	0.00026	0.000001299	0
541	Tren A2	LinDirHis	Min	0	0	-0.003575	-0.000001059	-0.000108	0
542	Tren A2	LinDirHis	Max	0	0	0.000009386	0.000278	0.000001275	0
542	Tren A2	LinDirHis	Min	0	0	-0.003284	-0.000001072	-0.000109	0
543	Tren A2	LinDirHis	Max	0	0	0.000008101	0.000286	0.000001122	0
543	Tren A2	LinDirHis	Min	0	0	-0.002986	-8.855E-07	-0.000109	0
544	Tren A2	LinDirHis	Max	0	0	0.000007329	0.000298	0.000000981	0
544	Tren A2	LinDirHis	Min	0	0	-0.002653	-8.491E-07	-0.000114	0
545	Tren A2	LinDirHis	Max	0	0	0.000006234	0.000302	9.144E-07	0
545	Tren A2	LinDirHis	Min	0	0	-0.002318	-9.154E-07	-0.000103	0
546	Tren A2	LinDirHis	Max	0	0	0.000005581	0.000289	7.534E-07	0
546	Tren A2	LinDirHis	Min	0	0	-0.002004	-8.647E-07	-0.000103	0
547	Tren A2	LinDirHis	Max	0	0	0.000005125	0.000288	7.186E-07	0
547	Tren A2	LinDirHis	Min	0	0	-0.001647	-8.542E-07	-0.000107	0
548	Tren A2	LinDirHis	Max	0	0	0.000003811	0.000271	6.619E-07	0
548	Tren A2	LinDirHis	Min	0	0	-0.001341	-9.433E-07	-0.000076	0
549	Tren A2	LinDirHis	Max	0	0	0.000003479	0.000236	4.724E-07	0
549	Tren A2	LinDirHis	Min	0	0	-0.001077	-7.843E-07	-0.000085	0
550	Tren A2	LinDirHis	Max	0	0	0.000002912	0.000218	6.384E-07	0
550	Tren A2	LinDirHis	Min	0	0	-0.000766	-7.608E-07	-0.000079	0
551	Tren A2	LinDirHis	Max	0	0	0.000001632	0.000169	3.738E-07	0
551	Tren A2	LinDirHis	Min	0	0	-0.000598	-7.809E-07	-0.000025	0
552	Tren A2	LinDirHis	Max	0	0	0.000003331	0.000104	3.357E-07	0
552	Tren A2	LinDirHis	Min	0	0	-0.000446	-5.235E-07	-0.000068	0
553	Tren A2	LinDirHis	Max	0	0	0.00000113	0.000059	6.401E-07	0
553	Tren A2	LinDirHis	Min	0	0	-0.000219	-0.000000552	-0.000046	0
556	Tren A2	LinDirHis	Max	0	0	7.161E-12	0.000005688	0.00011	0
556	Tren A2	LinDirHis	Min	0	0	-0.000195	-7.228E-08	-0.000001619	0
557	Tren A2	LinDirHis	Max	0	0	0.000002902	3.951E-07	0.000105	0

Apéndice I				Flecha Dinámica Tren A2						V= 280 km/h
557	Tren A2	LinDirHis	Min	0	0	-0.002812	-0.00029	-0.000031	0	