

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 A1	LinDirHis	Max	0	0	1.905E-11	0.000003371	0.000026	0
140	Tren A1	LinDirHis	Min	0	0	-0.000288	-0.000001286	-6.006E-13	0
229	Tren A1	LinDirHis	Max	0	0	5.975E-12	1.963E-08	2.349E-12	0
229	Tren A1	LinDirHis	Min	0	0	-0.000258	-0.000069	-0.000022	0
230	Tren A1	LinDirHis	Max	0	0	7.972E-12	2.601E-07	1.073E-11	0
230	Tren A1	LinDirHis	Min	0	0	-0.00027	-0.000034	-0.000014	0
231	Tren A1	LinDirHis	Max	0	0	1.299E-12	1.312E-12	0.000021	0
231	Tren A1	LinDirHis	Min	0	0	-0.000221	-0.000092	-0.000008397	0
232	Tren A1	LinDirHis	Max	0	0	0.00000201	1.315E-12	0.000051	0
232	Tren A1	LinDirHis	Min	0	0	-0.000373	-0.000108	-0.000003589	0
233	Tren A1	LinDirHis	Max	0	0	0.000003302	8.938E-13	0.000024	0
233	Tren A1	LinDirHis	Min	0	0	-0.000493	-0.00014	-0.000006383	0
234	Tren A1	LinDirHis	Max	0	0	0.000001112	2.383E-07	0.000052	0
234	Tren A1	LinDirHis	Min	0	0	-0.000556	-0.000184	-0.000009588	0
235	Tren A1	LinDirHis	Max	0	0	5.437E-07	1.861E-07	0.000069	0
235	Tren A1	LinDirHis	Min	0	0	-0.000777	-0.000188	-0.000007121	0
236	Tren A1	LinDirHis	Max	0	0	0.000001841	6.658E-08	0.000052	0
236	Tren A1	LinDirHis	Min	0	0	-0.000952	-0.000214	-0.000012	0
237	Tren A1	LinDirHis	Max	0	0	9.912E-07	2.302E-07	0.000075	0
237	Tren A1	LinDirHis	Min	0	0	-0.001115	-0.000239	-0.000014	0
238	Tren A1	LinDirHis	Max	0	0	7.769E-07	1.777E-07	0.000079	0
238	Tren A1	LinDirHis	Min	0	0	-0.001365	-0.000236	-0.000014	0
239	Tren A1	LinDirHis	Max	0	0	0.000001771	1.259E-07	0.000072	0
239	Tren A1	LinDirHis	Min	0	0	-0.001566	-0.000253	-0.000018	0
240	Tren A1	LinDirHis	Max	0	0	0.000001724	2.686E-07	0.000086	0
240	Tren A1	LinDirHis	Min	0	0	-0.001775	-0.000262	-0.000019	0
241	Tren A1	LinDirHis	Max	0	0	0.000001826	2.646E-07	0.000084	0
241	Tren A1	LinDirHis	Min	0	0	-0.002022	-0.000257	-0.00002	0
242	Tren A1	LinDirHis	Max	0	0	0.000002523	2.439E-07	0.000084	0
242	Tren A1	LinDirHis	Min	0	0	-0.002241	-0.00026	-0.000027	0
244	Tren A1	LinDirHis	Max	0	0	0.000002857	0.000000326	0.000088	0
244	Tren A1	LinDirHis	Min	0	0	-0.002705	-0.000245	-0.000032	0
245	Tren A1	LinDirHis	Max	0	0	0.000003688	0.000000313	0.00009	0
245	Tren A1	LinDirHis	Min	0	0	-0.002923	-0.000238	-0.000037	0
246	Tren A1	LinDirHis	Max	0	0	0.000004251	3.694E-07	0.000091	0
246	Tren A1	LinDirHis	Min	0	0	-0.003141	-0.000224	-0.000041	0
247	Tren A1	LinDirHis	Max	0	0	0.000004849	3.103E-07	0.000086	0
247	Tren A1	LinDirHis	Min	0	0	-0.003349	-0.000207	-0.000048	0
248	Tren A1	LinDirHis	Max	0	0	0.000005744	2.797E-07	0.000087	0
248	Tren A1	LinDirHis	Min	0	0	-0.003541	-0.000192	-0.000053	0
249	Tren A1	LinDirHis	Max	0	0	0.000006513	3.132E-07	0.000084	0
249	Tren A1	LinDirHis	Min	0	0	-0.003713	-0.000171	-0.000059	0
250	Tren A1	LinDirHis	Max	0	0	0.000007686	0.000000314	0.00008	0
250	Tren A1	LinDirHis	Min	0	0	-0.003866	-0.000149	-0.000064	0
251	Tren A1	LinDirHis	Max	0	0	0.000009013	3.119E-07	0.000077	0
251	Tren A1	LinDirHis	Min	0	0	-0.003997	-0.000127	-0.000068	0
252	Tren A1	LinDirHis	Max	0	0	0.000009925	0.000000316	0.000072	0

252	Tren A1	LinDirHis	Min	0	0	-0.004109	-0.000101	-0.000072	0
253	Tren A1	LinDirHis	Max	0	0	0.000011	2.726E-07	0.000068	0
253	Tren A1	LinDirHis	Min	0	0	-0.004199	-0.000074	-0.000077	0
254	Tren A1	LinDirHis	Max	0	0	0.000011	2.281E-07	0.000062	0
254	Tren A1	LinDirHis	Min	0	0	-0.004264	-0.000049	-0.000081	0
255	Tren A1	LinDirHis	Max	0	0	0.000012	1.712E-07	0.000054	0
255	Tren A1	LinDirHis	Min	0	0	-0.0043	-0.000023	-0.000084	0
256	Tren A1	LinDirHis	Max	0	0	0.000012	0.000016	0.000047	0
256	Tren A1	LinDirHis	Min	0	0	-0.004306	-0.000007326	-0.000087	0
257	Tren A1	LinDirHis	Max	0	0	0.000012	0.000043	0.000039	0
257	Tren A1	LinDirHis	Min	0	0	-0.004279	-0.000004009	-0.000089	0
258	Tren A1	LinDirHis	Max	0	0	0.000012	0.00007	0.000031	0
258	Tren A1	LinDirHis	Min	0	0	-0.004221	-0.000002314	-0.000091	0
259	Tren A1	LinDirHis	Max	0	0	0.000012	0.000098	0.000023	0
259	Tren A1	LinDirHis	Min	0	0	-0.004137	-0.000001562	-0.000091	0
260	Tren A1	LinDirHis	Max	0	0	0.000012	0.000124	0.000015	0
260	Tren A1	LinDirHis	Min	0	0	-0.004022	-0.00000111	-0.000091	0
261	Tren A1	LinDirHis	Max	0	0	0.000012	0.000149	0.000007265	0
261	Tren A1	LinDirHis	Min	0	0	-0.003877	-8.283E-07	-0.00009	0
262	Tren A1	LinDirHis	Max	0	0	0.000012	0.000174	0.000001417	0
262	Tren A1	LinDirHis	Min	0	0	-0.003703	-8.702E-07	-0.000094	0
263	Tren A1	LinDirHis	Max	0	0	0.000011	0.000195	0.000001386	0
263	Tren A1	LinDirHis	Min	0	0	-0.003498	-8.793E-07	-0.000097	0
264	Tren A1	LinDirHis	Max	0	0	0.000011	0.000214	0.000001294	0
264	Tren A1	LinDirHis	Min	0	0	-0.003267	-8.011E-07	-0.000099	0
265	Tren A1	LinDirHis	Max	0	0	0.000009355	0.000233	0.000001249	0
265	Tren A1	LinDirHis	Min	0	0	-0.003011	-7.847E-07	-0.0001	0
266	Tren A1	LinDirHis	Max	0	0	0.000007712	0.000244	0.000001117	0
266	Tren A1	LinDirHis	Min	0	0	-0.00275	-7.985E-07	-0.000097	0
267	Tren A1	LinDirHis	Max	0	0	0.000006812	0.000251	9.179E-07	0
267	Tren A1	LinDirHis	Min	0	0	-0.002473	-7.246E-07	-0.0001	0
268	Tren A1	LinDirHis	Max	0	0	0.000005828	0.000262	0.000000862	0
268	Tren A1	LinDirHis	Min	0	0	-0.002169	-7.969E-07	-0.000097	0
269	Tren A1	LinDirHis	Max	0	0	0.000004967	0.000256	7.227E-07	0
269	Tren A1	LinDirHis	Min	0	0	-0.001894	-7.821E-07	-0.000087	0
270	Tren A1	LinDirHis	Max	0	0	0.000004855	0.000249	6.388E-07	0
270	Tren A1	LinDirHis	Min	0	0	-0.0016	-6.875E-07	-0.000095	0
271	Tren A1	LinDirHis	Max	0	0	0.000003735	0.000247	6.901E-07	0
271	Tren A1	LinDirHis	Min	0	0	-0.00129	-7.904E-07	-0.000083	0
272	Tren A1	LinDirHis	Max	0	0	0.000003151	0.000217	4.874E-07	0
272	Tren A1	LinDirHis	Min	0	0	-0.00106	-6.627E-07	-0.000069	0
273	Tren A1	LinDirHis	Max	0	0	0.000003211	0.000196	4.654E-07	0
273	Tren A1	LinDirHis	Min	0	0	-0.000796	-5.365E-07	-0.000079	0
274	Tren A1	LinDirHis	Max	0	0	0.000001675	0.000174	0.000000516	0
274	Tren A1	LinDirHis	Min	0	0	-0.000558	-6.297E-07	-0.000047	0
275	Tren A1	LinDirHis	Max	0	0	0.000002068	0.000112	2.236E-07	0
275	Tren A1	LinDirHis	Min	0	0	-0.000464	-4.902E-07	-0.000036	0
276	Tren A1	LinDirHis	Max	0	0	0.000002035	0.000073	0.000000559	0
276	Tren A1	LinDirHis	Min	0	0	-0.00026	-3.657E-07	-0.000058	0
277	Tren A1	LinDirHis	Max	0	0	0.000003581	0.000033	6.487E-07	0

277	Tren A1	LinDirHis	Min	0	0	-0.000054	-4.334E-07	-0.000013	0
278	Tren A1	LinDirHis	Max	0	0	8.878E-07	0.000034	3.743E-07	0
278	Tren A1	LinDirHis	Min	0	0	-0.000079	-4.137E-07	-0.000058	0
279	Tren A1	LinDirHis	Max	0	0	9.624E-12	0.000002399	0.000081	0
279	Tren A1	LinDirHis	Min	0	0	-0.000148	-2.127E-12	-0.000001234	0
280	Tren A1	LinDirHis	Max	0	0	6.272E-08	5.081E-13	0.000052	0
280	Tren A1	LinDirHis	Min	0	0	-0.0003	-0.000103	-0.000004182	0
283	Tren A1	LinDirHis	Max	0	0	0.000003104	5.238E-13	0.000038	0
283	Tren A1	LinDirHis	Min	0	0	-0.000464	-0.000123	-0.000001801	0
347	Tren A1	LinDirHis	Max	0	0	0.000002343	0.000000097	0.000023	0
347	Tren A1	LinDirHis	Min	0	0	-0.000527	-0.00017	-0.000008087	0
378	Tren A1	LinDirHis	Max	0	0	3.018E-07	2.591E-07	0.000074	0
378	Tren A1	LinDirHis	Min	0	0	-0.000672	-0.00019	-0.000005377	0
379	Tren A1	LinDirHis	Max	0	0	0.000001267	1.085E-07	0.000055	0
379	Tren A1	LinDirHis	Min	0	0	-0.000887	-0.000203	-0.00000625	0
380	Tren A1	LinDirHis	Max	0	0	0.000001568	1.168E-07	0.000057	0
380	Tren A1	LinDirHis	Min	0	0	-0.001033	-0.000234	-0.000011	0
381	Tren A1	LinDirHis	Max	0	0	6.623E-07	2.212E-07	0.000085	0
381	Tren A1	LinDirHis	Min	0	0	-0.001247	-0.000243	-0.000011	0
383	Tren A1	LinDirHis	Max	0	0	0.000001502	1.702E-07	0.00007	0
383	Tren A1	LinDirHis	Min	0	0	-0.001481	-0.00025	-0.000014	0
388	Tren A1	LinDirHis	Max	0	0	0.000001518	2.236E-07	0.000077	0
388	Tren A1	LinDirHis	Min	0	0	-0.001678	-0.000266	-0.000018	0
389	Tren A1	LinDirHis	Max	0	0	0.000001556	3.298E-07	0.000087	0
389	Tren A1	LinDirHis	Min	0	0	-0.001914	-0.000263	-0.000019	0
390	Tren A1	LinDirHis	Max	0	0	0.000000213	2.462E-07	0.000082	0
390	Tren A1	LinDirHis	Min	0	0	-0.002149	-0.000263	-0.000023	0
391	Tren A1	LinDirHis	Max	0	0	0.000002831	0.000000319	0.000088	0
391	Tren A1	LinDirHis	Min	0	0	-0.002371	-0.000265	-0.000026	0
392	Tren A1	LinDirHis	Max	0	0	0.000002932	3.204E-07	0.00009	0
392	Tren A1	LinDirHis	Min	0	0	-0.002605	-0.000254	-0.000029	0
393	Tren A1	LinDirHis	Max	0	0	0.000003599	2.862E-07	0.000089	0
393	Tren A1	LinDirHis	Min	0	0	-0.002826	-0.000247	-0.000034	0
394	Tren A1	LinDirHis	Max	0	0	0.000004011	3.253E-07	0.000091	0
394	Tren A1	LinDirHis	Min	0	0	-0.00304	-0.000239	-0.000039	0
448	Tren A1	LinDirHis	Max	0	0	0.000004108	3.698E-07	0.000088	0
448	Tren A1	LinDirHis	Min	0	0	-0.003254	-0.000221	-0.000043	0
449	Tren A1	LinDirHis	Max	0	0	0.000004649	3.341E-07	0.000086	0
449	Tren A1	LinDirHis	Min	0	0	-0.003452	-0.000206	-0.00005	0
450	Tren A1	LinDirHis	Max	0	0	0.000005421	3.473E-07	0.000084	0
450	Tren A1	LinDirHis	Min	0	0	-0.003635	-0.000185	-0.000055	0
451	Tren A1	LinDirHis	Max	0	0	0.000006331	3.451E-07	0.00008	0
451	Tren A1	LinDirHis	Min	0	0	-0.003799	-0.000161	-0.00006	0
452	Tren A1	LinDirHis	Max	0	0	0.000007622	3.146E-07	0.000077	0
452	Tren A1	LinDirHis	Min	0	0	-0.003943	-0.000139	-0.000064	0
455	Tren A1	LinDirHis	Max	0	0	0.000008904	3.139E-07	0.000073	0
455	Tren A1	LinDirHis	Min	0	0	-0.004068	-0.000115	-0.000067	0
516	Tren A1	LinDirHis	Max	0	0	0.000009949	0.000000271	0.000069	0
516	Tren A1	LinDirHis	Min	0	0	-0.004172	-0.000088	-0.00007	0
517	Tren A1	LinDirHis	Max	0	0	0.000011	2.425E-07	0.000064	0

517	Tren A1	LinDirHis	Min	0	0	-0.004252	-0.000062	-0.000073	0
518	Tren A1	LinDirHis	Max	0	0	0.000012	2.165E-07	0.000056	0
518	Tren A1	LinDirHis	Min	0	0	-0.004305	-0.000036	-0.000077	0
519	Tren A1	LinDirHis	Max	0	0	0.000012	0.000003741	0.000049	0
519	Tren A1	LinDirHis	Min	0	0	-0.004324	-0.000012	-0.000079	0
527	Tren A1	LinDirHis	Max	0	0	0.000013	0.00003	0.000042	0
527	Tren A1	LinDirHis	Min	0	0	-0.004312	-0.000005113	-0.000083	0
528	Tren A1	LinDirHis	Max	0	0	0.000013	0.000057	0.000033	0
528	Tren A1	LinDirHis	Min	0	0	-0.004267	-0.000003212	-0.000086	0
529	Tren A1	LinDirHis	Max	0	0	0.000013	0.000085	0.000027	0
529	Tren A1	LinDirHis	Min	0	0	-0.004194	-0.00000198	-0.000086	0
531	Tren A1	LinDirHis	Max	0	0	0.000013	0.000113	0.000018	0
531	Tren A1	LinDirHis	Min	0	0	-0.004092	-0.000001391	-0.000088	0
532	Tren A1	LinDirHis	Max	0	0	0.000013	0.000138	0.000009882	0
532	Tren A1	LinDirHis	Min	0	0	-0.00396	-0.000001004	-0.000089	0
533	Tren A1	LinDirHis	Max	0	0	0.000012	0.000164	0.000002793	0
533	Tren A1	LinDirHis	Min	0	0	-0.003798	-9.528E-07	-0.000089	0
539	Tren A1	LinDirHis	Max	0	0	0.000011	0.000189	0.000001312	0
539	Tren A1	LinDirHis	Min	0	0	-0.003608	-8.835E-07	-0.00009	0
540	Tren A1	LinDirHis	Max	0	0	0.00001	0.000209	0.000001188	0
540	Tren A1	LinDirHis	Min	0	0	-0.003391	-8.691E-07	-0.000093	0
541	Tren A1	LinDirHis	Max	0	0	0.000008989	0.00023	0.000001101	0
541	Tren A1	LinDirHis	Min	0	0	-0.003148	-8.976E-07	-0.000097	0
542	Tren A1	LinDirHis	Max	0	0	0.000007956	0.000245	0.000001081	0
542	Tren A1	LinDirHis	Min	0	0	-0.002889	-9.089E-07	-0.000097	0
543	Tren A1	LinDirHis	Max	0	0	0.000006866	0.000251	0.000000951	0
543	Tren A1	LinDirHis	Min	0	0	-0.002624	-7.509E-07	-0.000097	0
544	Tren A1	LinDirHis	Max	0	0	0.000006212	0.000262	8.316E-07	0
544	Tren A1	LinDirHis	Min	0	0	-0.002333	-7.202E-07	-0.000101	0
545	Tren A1	LinDirHis	Max	0	0	0.000005284	0.000265	7.751E-07	0
545	Tren A1	LinDirHis	Min	0	0	-0.00204	-7.758E-07	-0.000092	0
546	Tren A1	LinDirHis	Max	0	0	0.000004731	0.000255	6.386E-07	0
546	Tren A1	LinDirHis	Min	0	0	-0.001767	-7.328E-07	-0.000092	0
547	Tren A1	LinDirHis	Max	0	0	0.000004346	0.000254	6.093E-07	0
547	Tren A1	LinDirHis	Min	0	0	-0.001456	-7.242E-07	-0.000095	0
548	Tren A1	LinDirHis	Max	0	0	0.000003232	0.000239	5.613E-07	0
548	Tren A1	LinDirHis	Min	0	0	-0.001185	-7.999E-07	-0.000069	0
549	Tren A1	LinDirHis	Max	0	0	0.000002952	0.000209	4.006E-07	0
549	Tren A1	LinDirHis	Min	0	0	-0.00095	-6.649E-07	-0.000075	0
550	Tren A1	LinDirHis	Max	0	0	0.00000247	0.000192	0.000000542	0
550	Tren A1	LinDirHis	Min	0	0	-0.000677	-6.451E-07	-0.00007	0
551	Tren A1	LinDirHis	Max	0	0	0.000001386	0.000149	3.171E-07	0
551	Tren A1	LinDirHis	Min	0	0	-0.000524	-0.000000662	-0.000022	0
552	Tren A1	LinDirHis	Max	0	0	0.000002829	0.000091	2.851E-07	0
552	Tren A1	LinDirHis	Min	0	0	-0.000391	-4.435E-07	-0.00006	0
553	Tren A1	LinDirHis	Max	0	0	9.589E-07	0.000051	5.435E-07	0
553	Tren A1	LinDirHis	Min	0	0	-0.000187	-4.681E-07	-0.000042	0
556	Tren A1	LinDirHis	Max	0	0	1.109E-11	0.000004293	0.00009	0
556	Tren A1	LinDirHis	Min	0	0	-0.000169	-2.512E-12	-0.000001376	0
557	Tren A1	LinDirHis	Max	0	0	0.000002467	3.358E-07	0.00009	0

Apéndice C				Flecha Dinámica Tren A1						V= 280 km/h
557	Tren A1	LinDirHis	Min	0	0	-0.002471	-0.000255	-0.000029	0	