

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 A9	LinDirHis	Max	0	0	1.474E-11	0.000004814	0.000023	0
140	Tren A9	LinDirHis	Min	0	0	-0.000288	-0.000001124	-1.435E-13	0
229	Tren A9	LinDirHis	Max	0	0	5.061E-12	2.425E-08	1.599E-12	0
229	Tren A9	LinDirHis	Min	0	0	-0.000253	-0.000066	-0.000023	0
230	Tren A9	LinDirHis	Max	0	0	5.263E-12	3.213E-07	8.742E-12	0
230	Tren A9	LinDirHis	Min	0	0	-0.000266	-0.000032	-0.000015	0
231	Tren A9	LinDirHis	Max	0	0	6.861E-13	1.981E-12	0.000015	0
231	Tren A9	LinDirHis	Min	0	0	-0.000212	-0.000089	-0.00000848	0
232	Tren A9	LinDirHis	Max	0	0	0.00000219	1.913E-12	0.00005	0
232	Tren A9	LinDirHis	Min	0	0	-0.000352	-0.000102	-0.000005155	0
233	Tren A9	LinDirHis	Max	0	0	0.000002983	1.506E-12	0.000026	0
233	Tren A9	LinDirHis	Min	0	0	-0.000467	-0.000132	-0.00000465	0
234	Tren A9	LinDirHis	Max	0	0	8.392E-07	2.117E-07	0.000049	0
234	Tren A9	LinDirHis	Min	0	0	-0.000528	-0.000175	-0.000008434	0
235	Tren A9	LinDirHis	Max	0	0	4.052E-07	1.473E-07	0.000062	0
235	Tren A9	LinDirHis	Min	0	0	-0.000743	-0.000179	-0.000006026	0
236	Tren A9	LinDirHis	Max	0	0	0.000001679	6.597E-08	0.000045	0
236	Tren A9	LinDirHis	Min	0	0	-0.000902	-0.000203	-0.000011	0
237	Tren A9	LinDirHis	Max	0	0	7.504E-07	1.858E-07	0.000075	0
237	Tren A9	LinDirHis	Min	0	0	-0.001057	-0.000226	-0.000013	0
238	Tren A9	LinDirHis	Max	0	0	6.815E-07	2.002E-07	0.000073	0
238	Tren A9	LinDirHis	Min	0	0	-0.001298	-0.000225	-0.000013	0
239	Tren A9	LinDirHis	Max	0	0	0.000001789	1.167E-07	0.000064	0
239	Tren A9	LinDirHis	Min	0	0	-0.001483	-0.00024	-0.000018	0
240	Tren A9	LinDirHis	Max	0	0	0.000001379	2.213E-07	0.000077	0
240	Tren A9	LinDirHis	Min	0	0	-0.001684	-0.000248	-0.00002	0
241	Tren A9	LinDirHis	Max	0	0	0.000001453	0.000000276	0.000079	0
241	Tren A9	LinDirHis	Min	0	0	-0.001914	-0.000243	-0.000025	0
242	Tren A9	LinDirHis	Max	0	0	0.000002517	2.502E-07	0.00008	0
242	Tren A9	LinDirHis	Min	0	0	-0.00213	-0.000247	-0.000028	0
244	Tren A9	LinDirHis	Max	0	0	0.000002862	3.089E-07	0.000078	0
244	Tren A9	LinDirHis	Min	0	0	-0.002573	-0.000232	-0.000033	0
245	Tren A9	LinDirHis	Max	0	0	0.000003503	3.216E-07	0.000079	0
245	Tren A9	LinDirHis	Min	0	0	-0.002766	-0.000227	-0.000042	0
246	Tren A9	LinDirHis	Max	0	0	0.000004356	3.747E-07	0.000086	0
246	Tren A9	LinDirHis	Min	0	0	-0.002976	-0.000212	-0.000046	0
247	Tren A9	LinDirHis	Max	0	0	0.000004907	2.939E-07	0.000077	0
247	Tren A9	LinDirHis	Min	0	0	-0.003176	-0.000196	-0.00005	0
248	Tren A9	LinDirHis	Max	0	0	0.000005145	3.082E-07	0.000077	0
248	Tren A9	LinDirHis	Min	0	0	-0.003351	-0.000182	-0.000055	0
249	Tren A9	LinDirHis	Max	0	0	0.000005707	0.000000348	0.000073	0
249	Tren A9	LinDirHis	Min	0	0	-0.003516	-0.000162	-0.000059	0
250	Tren A9	LinDirHis	Max	0	0	0.000007301	2.997E-07	0.000072	0
250	Tren A9	LinDirHis	Min	0	0	-0.003662	-0.000141	-0.000072	0
251	Tren A9	LinDirHis	Max	0	0	0.00000918	2.759E-07	0.00007	0
251	Tren A9	LinDirHis	Min	0	0	-0.003795	-0.00012	-0.000073	0
252	Tren A9	LinDirHis	Max	0	0	0.00001	3.119E-07	0.000063	0

252	Tren A9	LinDirHis	Min	0	0	-0.003902	-0.000096	-0.000074	0
253	Tren A9	LinDirHis	Max	0	0	0.00001	2.787E-07	0.000055	0
253	Tren A9	LinDirHis	Min	0	0	-0.003987	-0.000071	-0.000078	0
254	Tren A9	LinDirHis	Max	0	0	0.000011	2.124E-07	0.000049	0
254	Tren A9	LinDirHis	Min	0	0	-0.004034	-0.000046	-0.000085	0
255	Tren A9	LinDirHis	Max	0	0	0.000012	1.891E-07	0.00005	0
255	Tren A9	LinDirHis	Min	0	0	-0.004075	-0.000023	-0.00009	0
256	Tren A9	LinDirHis	Max	0	0	0.000013	0.000015	0.000038	0
256	Tren A9	LinDirHis	Min	0	0	-0.004087	-0.000007477	-0.000089	0
257	Tren A9	LinDirHis	Max	0	0	0.000013	0.00004	0.000029	0
257	Tren A9	LinDirHis	Min	0	0	-0.004056	-0.00000396	-0.000092	0
258	Tren A9	LinDirHis	Max	0	0	0.000011	0.000066	0.000021	0
258	Tren A9	LinDirHis	Min	0	0	-0.004	-0.0000026	-0.000089	0
259	Tren A9	LinDirHis	Max	0	0	0.000012	0.000093	0.000016	0
259	Tren A9	LinDirHis	Min	0	0	-0.00392	-0.00000155	-0.000099	0
260	Tren A9	LinDirHis	Max	0	0	0.000013	0.000118	0.00001	0
260	Tren A9	LinDirHis	Min	0	0	-0.003815	-9.876E-07	-0.000097	0
261	Tren A9	LinDirHis	Max	0	0	0.000013	0.000141	0.0000015	0
261	Tren A9	LinDirHis	Min	0	0	-0.003674	-9.332E-07	-0.000095	0
262	Tren A9	LinDirHis	Max	0	0	0.000012	0.000165	0.000001436	0
262	Tren A9	LinDirHis	Min	0	0	-0.003504	-7.896E-07	-0.000101	0
263	Tren A9	LinDirHis	Max	0	0	0.00001	0.000185	0.000001243	0
263	Tren A9	LinDirHis	Min	0	0	-0.003301	-8.951E-07	-0.000105	0
264	Tren A9	LinDirHis	Max	0	0	0.00001	0.000203	0.000001222	0
264	Tren A9	LinDirHis	Min	0	0	-0.003095	-8.054E-07	-0.000099	0
265	Tren A9	LinDirHis	Max	0	0	0.000009474	0.000221	0.000001244	0
265	Tren A9	LinDirHis	Min	0	0	-0.002861	-8.016E-07	-0.000097	0
266	Tren A9	LinDirHis	Max	0	0	0.000007468	0.000231	0.000001133	0
266	Tren A9	LinDirHis	Min	0	0	-0.002607	-8.374E-07	-0.0001	0
267	Tren A9	LinDirHis	Max	0	0	0.000006019	0.000238	8.776E-07	0
267	Tren A9	LinDirHis	Min	0	0	-0.002346	-6.941E-07	-0.000102	0
268	Tren A9	LinDirHis	Max	0	0	0.000005756	0.000248	0.000000761	0
268	Tren A9	LinDirHis	Min	0	0	-0.002058	-6.951E-07	-0.0001	0
269	Tren A9	LinDirHis	Max	0	0	0.000005117	0.000242	7.235E-07	0
269	Tren A9	LinDirHis	Min	0	0	-0.0018	-7.807E-07	-0.000083	0
270	Tren A9	LinDirHis	Max	0	0	0.000004956	0.000236	0.000000648	0
270	Tren A9	LinDirHis	Min	0	0	-0.001519	-7.125E-07	-0.000092	0
271	Tren A9	LinDirHis	Max	0	0	0.00000374	0.000235	6.927E-07	0
271	Tren A9	LinDirHis	Min	0	0	-0.001225	-7.968E-07	-0.000081	0
272	Tren A9	LinDirHis	Max	0	0	0.000003008	0.000205	4.898E-07	0
272	Tren A9	LinDirHis	Min	0	0	-0.001004	-6.301E-07	-0.000068	0
273	Tren A9	LinDirHis	Max	0	0	0.000002747	0.000186	4.754E-07	0
273	Tren A9	LinDirHis	Min	0	0	-0.000758	-5.689E-07	-0.000074	0
274	Tren A9	LinDirHis	Max	0	0	0.000001708	0.000166	4.994E-07	0
274	Tren A9	LinDirHis	Min	0	0	-0.000531	-6.664E-07	-0.000041	0
275	Tren A9	LinDirHis	Max	0	0	0.000002312	0.000106	0.00000021	0
275	Tren A9	LinDirHis	Min	0	0	-0.000437	-0.000000517	-0.000035	0
276	Tren A9	LinDirHis	Max	0	0	0.000001915	0.00007	5.671E-07	0
276	Tren A9	LinDirHis	Min	0	0	-0.000247	-3.781E-07	-0.000057	0
277	Tren A9	LinDirHis	Max	0	0	0.000003797	0.000025	0.000008314	0

277	Tren A9	LinDirHis	Min	0	0	-0.000101	-4.285E-07	-0.000008053	0
278	Tren A9	LinDirHis	Max	0	0	9.722E-07	0.000034	3.432E-07	0
278	Tren A9	LinDirHis	Min	0	0	-0.000098	-4.066E-07	-0.000039	0
279	Tren A9	LinDirHis	Max	0	0	7.318E-12	0.000003694	0.000081	0
279	Tren A9	LinDirHis	Min	0	0	-0.000148	-9.733E-13	-0.000001524	0
280	Tren A9	LinDirHis	Max	0	0	7.748E-08	2.928E-13	0.000049	0
280	Tren A9	LinDirHis	Min	0	0	-0.000279	-0.000098	-0.00000318	0
283	Tren A9	LinDirHis	Max	0	0	0.000003264	1.851E-13	0.000034	0
283	Tren A9	LinDirHis	Min	0	0	-0.000438	-0.000117	-9.568E-07	0
347	Tren A9	LinDirHis	Max	0	0	0.00000196	9.897E-08	0.000019	0
347	Tren A9	LinDirHis	Min	0	0	-0.000503	-0.000161	-0.000008036	0
378	Tren A9	LinDirHis	Max	0	0	3.688E-07	1.889E-07	0.000072	0
378	Tren A9	LinDirHis	Min	0	0	-0.000643	-0.00018	-0.000005959	0
379	Tren A9	LinDirHis	Max	0	0	0.000001559	1.125E-07	0.000054	0
379	Tren A9	LinDirHis	Min	0	0	-0.000845	-0.000193	-0.000006368	0
380	Tren A9	LinDirHis	Max	0	0	0.000001284	1.387E-07	0.000053	0
380	Tren A9	LinDirHis	Min	0	0	-0.00098	-0.000224	-0.000011	0
381	Tren A9	LinDirHis	Max	0	0	7.387E-07	1.982E-07	0.000078	0
381	Tren A9	LinDirHis	Min	0	0	-0.001194	-0.00023	-0.00001	0
383	Tren A9	LinDirHis	Max	0	0	0.000001451	1.664E-07	0.000063	0
383	Tren A9	LinDirHis	Min	0	0	-0.001404	-0.000236	-0.000015	0
388	Tren A9	LinDirHis	Max	0	0	0.000001559	2.271E-07	0.000075	0
388	Tren A9	LinDirHis	Min	0	0	-0.001588	-0.000251	-0.000017	0
389	Tren A9	LinDirHis	Max	0	0	0.000001621	3.049E-07	0.000081	0
389	Tren A9	LinDirHis	Min	0	0	-0.001812	-0.00025	-0.000019	0
390	Tren A9	LinDirHis	Max	0	0	0.000002298	2.184E-07	0.000075	0
390	Tren A9	LinDirHis	Min	0	0	-0.002037	-0.000249	-0.000023	0
391	Tren A9	LinDirHis	Max	0	0	0.000002167	2.878E-07	0.00008	0
391	Tren A9	LinDirHis	Min	0	0	-0.002246	-0.000251	-0.000027	0
392	Tren A9	LinDirHis	Max	0	0	0.000002786	3.687E-07	0.000084	0
392	Tren A9	LinDirHis	Min	0	0	-0.002473	-0.000242	-0.000033	0
393	Tren A9	LinDirHis	Max	0	0	0.000003713	2.814E-07	0.000082	0
393	Tren A9	LinDirHis	Min	0	0	-0.002685	-0.000235	-0.000035	0
394	Tren A9	LinDirHis	Max	0	0	0.00000405	3.045E-07	0.000082	0
394	Tren A9	LinDirHis	Min	0	0	-0.002882	-0.000227	-0.000038	0
448	Tren A9	LinDirHis	Max	0	0	0.000003852	3.791E-07	0.000078	0
448	Tren A9	LinDirHis	Min	0	0	-0.00309	-0.00021	-0.000042	0
449	Tren A9	LinDirHis	Max	0	0	0.000005021	3.348E-07	0.000076	0
449	Tren A9	LinDirHis	Min	0	0	-0.00327	-0.000195	-0.000055	0
450	Tren A9	LinDirHis	Max	0	0	0.000006167	3.064E-07	0.000078	0
450	Tren A9	LinDirHis	Min	0	0	-0.003449	-0.000175	-0.000059	0
451	Tren A9	LinDirHis	Max	0	0	0.000006977	0.000000321	0.000072	0
451	Tren A9	LinDirHis	Min	0	0	-0.003607	-0.000153	-0.00006	0
452	Tren A9	LinDirHis	Max	0	0	0.0000079	3.253E-07	0.000067	0
452	Tren A9	LinDirHis	Min	0	0	-0.003742	-0.000133	-0.000066	0
455	Tren A9	LinDirHis	Max	0	0	0.000008493	3.372E-07	0.000062	0
455	Tren A9	LinDirHis	Min	0	0	-0.003853	-0.00011	-0.000071	0
516	Tren A9	LinDirHis	Max	0	0	0.00001	2.574E-07	0.000062	0
516	Tren A9	LinDirHis	Min	0	0	-0.003958	-0.000084	-0.000078	0
517	Tren A9	LinDirHis	Max	0	0	0.000012	2.492E-07	0.000055	0

517	Tren A9	LinDirHis	Min	0	0	-0.004033	-0.000059	-0.000079	0
518	Tren A9	LinDirHis	Max	0	0	0.000012	2.255E-07	0.000046	0
518	Tren A9	LinDirHis	Min	0	0	-0.004071	-0.000035	-0.000082	0
519	Tren A9	LinDirHis	Max	0	0	0.000011	0.000002651	0.000039	0
519	Tren A9	LinDirHis	Min	0	0	-0.004094	-0.000012	-0.000081	0
527	Tren A9	LinDirHis	Max	0	0	0.000012	0.000028	0.000032	0
527	Tren A9	LinDirHis	Min	0	0	-0.004078	-0.000005002	-0.00009	0
528	Tren A9	LinDirHis	Max	0	0	0.000013	0.000054	0.000029	0
528	Tren A9	LinDirHis	Min	0	0	-0.004046	-0.000003316	-0.000092	0
529	Tren A9	LinDirHis	Max	0	0	0.000013	0.000081	0.000019	0
529	Tren A9	LinDirHis	Min	0	0	-0.00398	-0.000002078	-0.000091	0
531	Tren A9	LinDirHis	Max	0	0	0.000013	0.000107	0.000008964	0
531	Tren A9	LinDirHis	Min	0	0	-0.003881	-0.000001287	-0.000094	0
532	Tren A9	LinDirHis	Max	0	0	0.000011	0.000131	0.000001289	0
532	Tren A9	LinDirHis	Min	0	0	-0.00375	-0.000001035	-0.000094	0
533	Tren A9	LinDirHis	Max	0	0	0.000012	0.000156	0.000001328	0
533	Tren A9	LinDirHis	Min	0	0	-0.003605	-9.324E-07	-0.000095	0
539	Tren A9	LinDirHis	Max	0	0	0.000012	0.000178	0.000001394	0
539	Tren A9	LinDirHis	Min	0	0	-0.003423	-9.569E-07	-0.000093	0
540	Tren A9	LinDirHis	Max	0	0	0.000011	0.000198	0.000001342	0
540	Tren A9	LinDirHis	Min	0	0	-0.003212	-8.387E-07	-0.000099	0
541	Tren A9	LinDirHis	Max	0	0	0.000008975	0.000218	0.000001218	0
541	Tren A9	LinDirHis	Min	0	0	-0.002988	-9.129E-07	-0.0001	0
542	Tren A9	LinDirHis	Max	0	0	0.000008111	0.000232	0.000001022	0
542	Tren A9	LinDirHis	Min	0	0	-0.00274	-8.911E-07	-0.000103	0
543	Tren A9	LinDirHis	Max	0	0	0.000007356	0.000238	9.705E-07	0
543	Tren A9	LinDirHis	Min	0	0	-0.002495	-7.621E-07	-0.000095	0
544	Tren A9	LinDirHis	Max	0	0	0.000006634	0.000249	8.898E-07	0
544	Tren A9	LinDirHis	Min	0	0	-0.002216	-7.917E-07	-0.000098	0
545	Tren A9	LinDirHis	Max	0	0	0.000005169	0.000252	8.247E-07	0
545	Tren A9	LinDirHis	Min	0	0	-0.001933	-8.741E-07	-0.00009	0
546	Tren A9	LinDirHis	Max	0	0	0.000004349	0.000241	0.000000617	0
546	Tren A9	LinDirHis	Min	0	0	-0.001672	-6.601E-07	-0.00009	0
547	Tren A9	LinDirHis	Max	0	0	0.000004154	0.00024	6.166E-07	0
547	Tren A9	LinDirHis	Min	0	0	-0.001381	-6.905E-07	-0.000091	0
548	Tren A9	LinDirHis	Max	0	0	0.000003296	0.000227	5.342E-07	0
548	Tren A9	LinDirHis	Min	0	0	-0.001124	-8.147E-07	-0.000061	0
549	Tren A9	LinDirHis	Max	0	0	0.000003249	0.000198	4.101E-07	0
549	Tren A9	LinDirHis	Min	0	0	-0.000897	-0.000000673	-0.000069	0
550	Tren A9	LinDirHis	Max	0	0	0.000002638	0.000182	4.884E-07	0
550	Tren A9	LinDirHis	Min	0	0	-0.00064	-6.542E-07	-0.000066	0
551	Tren A9	LinDirHis	Max	0	0	0.000001557	0.000141	3.462E-07	0
551	Tren A9	LinDirHis	Min	0	0	-0.000496	-5.673E-07	-0.000024	0
552	Tren A9	LinDirHis	Max	0	0	0.000002778	0.000087	0.000000252	0
552	Tren A9	LinDirHis	Min	0	0	-0.000371	-4.455E-07	-0.000052	0
553	Tren A9	LinDirHis	Max	0	0	8.715E-07	0.000053	5.127E-07	0
553	Tren A9	LinDirHis	Min	0	0	-0.000174	-4.575E-07	-0.000038	0
556	Tren A9	LinDirHis	Max	0	0	8.513E-12	0.000005465	0.00009	0
556	Tren A9	LinDirHis	Min	0	0	-0.000171	-1.287E-12	-0.0000017	0
557	Tren A9	LinDirHis	Max	0	0	0.000002817	0.000000296	0.000084	0

Apéndice X1				Flecha Dinámica Tren A9						V= 336 km/h
557	Tren A9	LinDirHis	Min	0	0	-0.00235	-0.000242	-0.000028	0	