

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	9.291E-12	0.000003279	0.000022	0
140	Tren A9	LinDirHis	Min	0	0	-0.000252	-0.000003044	-1.499E-13	0
229	Tren A9	LinDirHis	Max	0	0	3.395E-12	2.425E-08	9.929E-13	0
229	Tren A9	LinDirHis	Min	0	0	-0.00024	-0.000064	-0.000022	0
230	Tren A9	LinDirHis	Max	0	0	3.415E-12	3.213E-07	0.000001523	0
230	Tren A9	LinDirHis	Min	0	0	-0.000246	-0.000031	-0.00001	0
231	Tren A9	LinDirHis	Max	0	0	5.794E-13	7.61E-13	0.00002	0
231	Tren A9	LinDirHis	Min	0	0	-0.000204	-0.000085	-0.00000848	0
232	Tren A9	LinDirHis	Max	0	0	0.00000219	1.324E-12	0.000043	0
232	Tren A9	LinDirHis	Min	0	0	-0.000348	-0.0001	-0.000005155	0
233	Tren A9	LinDirHis	Max	0	0	0.000002983	1.007E-12	0.000019	0
233	Tren A9	LinDirHis	Min	0	0	-0.000457	-0.000131	-0.00000465	0
234	Tren A9	LinDirHis	Max	0	0	8.392E-07	2.117E-07	0.000053	0
234	Tren A9	LinDirHis	Min	0	0	-0.000518	-0.000171	-0.000008434	0
235	Tren A9	LinDirHis	Max	0	0	4.052E-07	1.473E-07	0.000064	0
235	Tren A9	LinDirHis	Min	0	0	-0.000724	-0.000175	-0.000006026	0
236	Tren A9	LinDirHis	Max	0	0	0.000001679	6.597E-08	0.000046	0
236	Tren A9	LinDirHis	Min	0	0	-0.000886	-0.000199	-0.000011	0
237	Tren A9	LinDirHis	Max	0	0	7.504E-07	1.858E-07	0.000065	0
237	Tren A9	LinDirHis	Min	0	0	-0.00104	-0.000222	-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	-0.001267	-0.000219	-0.000013	0
239	Tren A9	LinDirHis	Max	0	0	0.000001789	1.167E-07	0.000067	0
239	Tren A9	LinDirHis	Min	0	0	-0.001454	-0.000235	-0.000018	0
240	Tren A9	LinDirHis	Max	0	0	0.000001379	2.213E-07	0.000079	0
240	Tren A9	LinDirHis	Min	0	0	-0.001649	-0.000243	-0.00002	0
241	Tren A9	LinDirHis	Max	0	0	0.000001453	0.000000276	0.000073	0
241	Tren A9	LinDirHis	Min	0	0	-0.001884	-0.000238	-0.000025	0
242	Tren A9	LinDirHis	Max	0	0	0.000002517	2.502E-07	0.000074	0
242	Tren A9	LinDirHis	Min	0	0	-0.002083	-0.000242	-0.000028	0
244	Tren A9	LinDirHis	Max	0	0	0.000002862	3.089E-07	0.000079	0
244	Tren A9	LinDirHis	Min	0	0	-0.002522	-0.000228	-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	-0.002718	-0.000221	-0.000042	0
246	Tren A9	LinDirHis	Max	0	0	0.000004356	3.747E-07	0.000077	0
246	Tren A9	LinDirHis	Min	0	0	-0.002917	-0.000209	-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	-0.003101	-0.000193	-0.00005	0
248	Tren A9	LinDirHis	Max	0	0	0.000005145	3.082E-07	0.000079	0
248	Tren A9	LinDirHis	Min	0	0	-0.003284	-0.000178	-0.000055	0
249	Tren A9	LinDirHis	Max	0	0	0.000005707	0.000000348	0.000074	0
249	Tren A9	LinDirHis	Min	0	0	-0.00345	-0.000158	-0.000059	0
250	Tren A9	LinDirHis	Max	0	0	0.000007301	2.997E-07	0.000066	0
250	Tren A9	LinDirHis	Min	0	0	-0.003596	-0.000139	-0.000072	0
251	Tren A9	LinDirHis	Max	0	0	0.00000918	2.759E-07	0.000065	0
251	Tren A9	LinDirHis	Min	0	0	-0.003709	-0.000119	-0.000073	0
252	Tren A9	LinDirHis	Max	0	0	0.00001	3.119E-07	0.000067	0

252	Tren A9	LinDirHis	Min	0	0	-0.003824	-0.000093	-0.000074	0
253	Tren A9	LinDirHis	Max	0	0	0.00001	2.787E-07	0.000056	0
253	Tren A9	LinDirHis	Min	0	0	-0.003911	-0.00007	-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	-0.003964	-0.000045	-0.000085	0
255	Tren A9	LinDirHis	Max	0	0	0.000012	1.891E-07	0.000041	0
255	Tren A9	LinDirHis	Min	0	0	-0.003992	-0.000023	-0.00009	0
256	Tren A9	LinDirHis	Max	0	0	0.000013	0.000014	0.000038	0
256	Tren A9	LinDirHis	Min	0	0	-0.003991	-0.000007493	-0.000089	0
257	Tren A9	LinDirHis	Max	0	0	0.000013	0.00004	0.000033	0
257	Tren A9	LinDirHis	Min	0	0	-0.003976	-0.00000396	-0.000092	0
258	Tren A9	LinDirHis	Max	0	0	0.000011	0.000065	0.000024	0
258	Tren A9	LinDirHis	Min	0	0	-0.003926	-0.000002599	-0.000089	0
259	Tren A9	LinDirHis	Max	0	0	0.000012	0.00009	0.000012	0
259	Tren A9	LinDirHis	Min	0	0	-0.003847	-0.00000155	-0.000099	0
260	Tren A9	LinDirHis	Max	0	0	0.000013	0.000115	0.000005799	0
260	Tren A9	LinDirHis	Min	0	0	-0.003727	-9.875E-07	-0.000098	0
261	Tren A9	LinDirHis	Max	0	0	0.000013	0.000139	0.000004169	0
261	Tren A9	LinDirHis	Min	0	0	-0.003602	-9.332E-07	-0.000095	0
262	Tren A9	LinDirHis	Max	0	0	0.000012	0.000162	0.000001436	0
262	Tren A9	LinDirHis	Min	0	0	-0.003439	-7.896E-07	-0.000096	0
263	Tren A9	LinDirHis	Max	0	0	0.00001	0.000181	0.000001243	0
263	Tren A9	LinDirHis	Min	0	0	-0.003244	-0.000000895	-0.000101	0
264	Tren A9	LinDirHis	Max	0	0	0.00001	0.000199	0.000001222	0
264	Tren A9	LinDirHis	Min	0	0	-0.003031	-8.053E-07	-0.000103	0
265	Tren A9	LinDirHis	Max	0	0	0.000009473	0.000217	0.000001244	0
265	Tren A9	LinDirHis	Min	0	0	-0.002793	-8.015E-07	-0.000102	0
266	Tren A9	LinDirHis	Max	0	0	0.000007468	0.000226	0.000001133	0
266	Tren A9	LinDirHis	Min	0	0	-0.002558	-8.373E-07	-0.000094	0
267	Tren A9	LinDirHis	Max	0	0	0.000006019	0.000233	8.776E-07	0
267	Tren A9	LinDirHis	Min	0	0	-0.002303	-0.000000694	-0.000098	0
268	Tren A9	LinDirHis	Max	0	0	0.000005755	0.000244	0.000000761	0
268	Tren A9	LinDirHis	Min	0	0	-0.002019	-0.000000695	-0.000098	0
269	Tren A9	LinDirHis	Max	0	0	0.000005116	0.000237	7.234E-07	0
269	Tren A9	LinDirHis	Min	0	0	-0.001756	-7.807E-07	-0.000089	0
270	Tren A9	LinDirHis	Max	0	0	0.000004956	0.000232	6.479E-07	0
270	Tren A9	LinDirHis	Min	0	0	-0.001492	-7.124E-07	-0.00009	0
271	Tren A9	LinDirHis	Max	0	0	0.000003739	0.00023	6.926E-07	0
271	Tren A9	LinDirHis	Min	0	0	-0.001203	-7.967E-07	-0.000075	0
272	Tren A9	LinDirHis	Max	0	0	0.000003008	0.000202	4.898E-07	0
272	Tren A9	LinDirHis	Min	0	0	-0.000988	-0.00000063	-0.000065	0
273	Tren A9	LinDirHis	Max	0	0	0.000002747	0.000182	4.754E-07	0
273	Tren A9	LinDirHis	Min	0	0	-0.000742	-5.689E-07	-0.000075	0
274	Tren A9	LinDirHis	Max	0	0	0.000001708	0.000162	4.994E-07	0
274	Tren A9	LinDirHis	Min	0	0	-0.000519	-6.663E-07	-0.000046	0
275	Tren A9	LinDirHis	Max	0	0	0.000002311	0.000104	2.099E-07	0
275	Tren A9	LinDirHis	Min	0	0	-0.000435	-0.000000517	-0.00003	0
276	Tren A9	LinDirHis	Max	0	0	0.000001915	0.000068	5.671E-07	0
276	Tren A9	LinDirHis	Min	0	0	-0.000242	-0.000000378	-0.000052	0
277	Tren A9	LinDirHis	Max	0	0	0.000003797	0.000033	8.102E-07	0

277	Tren A9	LinDirHis	Min	0	0	-0.000053	-4.284E-07	-0.000014	0
278	Tren A9	LinDirHis	Max	0	0	9.722E-07	0.000031	3.432E-07	0
278	Tren A9	LinDirHis	Min	0	0	-0.000067	-4.065E-07	-0.000062	0
279	Tren A9	LinDirHis	Max	0	0	6.41E-12	0.000002272	0.00007	0
279	Tren A9	LinDirHis	Min	0	0	-0.000131	-5.841E-13	-0.000001524	0
280	Tren A9	LinDirHis	Max	0	0	7.748E-08	3.558E-13	0.00005	0
280	Tren A9	LinDirHis	Min	0	0	-0.000285	-0.000095	-0.00000318	0
283	Tren A9	LinDirHis	Max	0	0	0.000003264	1.065E-13	0.000037	0
283	Tren A9	LinDirHis	Min	0	0	-0.00043	-0.000114	-9.568E-07	0
347	Tren A9	LinDirHis	Max	0	0	0.00000196	9.897E-08	0.000021	0
347	Tren A9	LinDirHis	Min	0	0	-0.000486	-0.000159	-0.000008036	0
378	Tren A9	LinDirHis	Max	0	0	3.688E-07	1.889E-07	0.000066	0
378	Tren A9	LinDirHis	Min	0	0	-0.000633	-0.000177	-0.000005959	0
379	Tren A9	LinDirHis	Max	0	0	0.000001559	1.125E-07	0.000051	0
379	Tren A9	LinDirHis	Min	0	0	-0.000828	-0.000189	-0.000006368	0
380	Tren A9	LinDirHis	Max	0	0	0.000001284	1.387E-07	0.000056	0
380	Tren A9	LinDirHis	Min	0	0	-0.000966	-0.000218	-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	-0.001161	-0.000227	-0.00001	0
383	Tren A9	LinDirHis	Max	0	0	0.000001451	1.664E-07	0.000061	0
383	Tren A9	LinDirHis	Min	0	0	-0.001378	-0.000232	-0.000015	0
388	Tren A9	LinDirHis	Max	0	0	0.000001559	2.271E-07	0.000068	0
388	Tren A9	LinDirHis	Min	0	0	-0.001557	-0.000246	-0.000017	0
389	Tren A9	LinDirHis	Max	0	0	0.000001621	3.049E-07	0.000082	0
389	Tren A9	LinDirHis	Min	0	0	-0.001775	-0.000244	-0.000019	0
390	Tren A9	LinDirHis	Max	0	0	0.000002298	2.184E-07	0.000076	0
390	Tren A9	LinDirHis	Min	0	0	-0.001996	-0.000244	-0.000023	0
391	Tren A9	LinDirHis	Max	0	0	0.000002167	2.878E-07	0.000081	0
391	Tren A9	LinDirHis	Min	0	0	-0.002201	-0.000247	-0.000027	0
392	Tren A9	LinDirHis	Max	0	0	0.000002786	3.687E-07	0.000078	0
392	Tren A9	LinDirHis	Min	0	0	-0.002431	-0.000236	-0.000033	0
393	Tren A9	LinDirHis	Max	0	0	0.000003713	2.814E-07	0.000079	0
393	Tren A9	LinDirHis	Min	0	0	-0.002623	-0.00023	-0.000035	0
394	Tren A9	LinDirHis	Max	0	0	0.00000405	3.045E-07	0.000083	0
394	Tren A9	LinDirHis	Min	0	0	-0.002827	-0.000222	-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	-0.003025	-0.000205	-0.000042	0
449	Tren A9	LinDirHis	Max	0	0	0.000005021	3.348E-07	0.000074	0
449	Tren A9	LinDirHis	Min	0	0	-0.003208	-0.000191	-0.000055	0
450	Tren A9	LinDirHis	Max	0	0	0.000006167	3.064E-07	0.000073	0
450	Tren A9	LinDirHis	Min	0	0	-0.003375	-0.000172	-0.000059	0
451	Tren A9	LinDirHis	Max	0	0	0.000006977	0.000000321	0.000073	0
451	Tren A9	LinDirHis	Min	0	0	-0.003533	-0.00015	-0.00006	0
452	Tren A9	LinDirHis	Max	0	0	0.0000079	3.253E-07	0.000069	0
452	Tren A9	LinDirHis	Min	0	0	-0.003669	-0.000129	-0.000066	0
455	Tren A9	LinDirHis	Max	0	0	0.000008493	3.372E-07	0.000063	0
455	Tren A9	LinDirHis	Min	0	0	-0.003783	-0.000108	-0.000071	0
516	Tren A9	LinDirHis	Max	0	0	0.00001	2.574E-07	0.000055	0
516	Tren A9	LinDirHis	Min	0	0	-0.003884	-0.000083	-0.000078	0
517	Tren A9	LinDirHis	Max	0	0	0.000012	2.492E-07	0.000052	0

517	Tren A9	LinDirHis	Min	0	0	-0.00394	-0.000058	-0.00008	0
518	Tren A9	LinDirHis	Max	0	0	0.000012	2.255E-07	0.000049	0
518	Tren A9	LinDirHis	Min	0	0	-0.003993	-0.000034	-0.000082	0
519	Tren A9	LinDirHis	Max	0	0	0.000011	0.000002578	0.00004	0
519	Tren A9	LinDirHis	Min	0	0	-0.004011	-0.000012	-0.000081	0
527	Tren A9	LinDirHis	Max	0	0	0.000012	0.000027	0.000031	0
527	Tren A9	LinDirHis	Min	0	0	-0.004001	-0.000005002	-0.00009	0
528	Tren A9	LinDirHis	Max	0	0	0.000013	0.000053	0.000023	0
528	Tren A9	LinDirHis	Min	0	0	-0.003958	-0.000003315	-0.000092	0
529	Tren A9	LinDirHis	Max	0	0	0.000013	0.000079	0.00002	0
529	Tren A9	LinDirHis	Min	0	0	-0.003898	-0.000002078	-0.000091	0
531	Tren A9	LinDirHis	Max	0	0	0.000013	0.000105	0.000012	0
531	Tren A9	LinDirHis	Min	0	0	-0.003806	-0.000001287	-0.000094	0
532	Tren A9	LinDirHis	Max	0	0	0.000011	0.000129	0.000002927	0
532	Tren A9	LinDirHis	Min	0	0	-0.003682	-0.000001035	-0.000091	0
533	Tren A9	LinDirHis	Max	0	0	0.000012	0.000152	0.000001328	0
533	Tren A9	LinDirHis	Min	0	0	-0.003536	-9.324E-07	-0.000097	0
539	Tren A9	LinDirHis	Max	0	0	0.000012	0.000175	0.000001394	0
539	Tren A9	LinDirHis	Min	0	0	-0.003345	-9.568E-07	-0.000101	0
540	Tren A9	LinDirHis	Max	0	0	0.000011	0.000194	0.000001342	0
540	Tren A9	LinDirHis	Min	0	0	-0.003153	-8.386E-07	-0.000095	0
541	Tren A9	LinDirHis	Max	0	0	0.000008974	0.000213	0.000001218	0
541	Tren A9	LinDirHis	Min	0	0	-0.002928	-9.128E-07	-0.000095	0
542	Tren A9	LinDirHis	Max	0	0	0.00000811	0.000228	0.000001022	0
542	Tren A9	LinDirHis	Min	0	0	-0.002686	-0.000000891	-0.000099	0
543	Tren A9	LinDirHis	Max	0	0	0.000007355	0.000234	9.704E-07	0
543	Tren A9	LinDirHis	Min	0	0	-0.00244	-0.000000762	-0.000099	0
544	Tren A9	LinDirHis	Max	0	0	0.000006633	0.000243	8.898E-07	0
544	Tren A9	LinDirHis	Min	0	0	-0.002172	-7.916E-07	-0.000099	0
545	Tren A9	LinDirHis	Max	0	0	0.000005169	0.000246	8.247E-07	0
545	Tren A9	LinDirHis	Min	0	0	-0.001898	-0.000000874	-0.000085	0
546	Tren A9	LinDirHis	Max	0	0	0.000004349	0.000237	0.000000617	0
546	Tren A9	LinDirHis	Min	0	0	-0.001639	-6.601E-07	-0.000086	0
547	Tren A9	LinDirHis	Max	0	0	0.000004153	0.000236	6.165E-07	0
547	Tren A9	LinDirHis	Min	0	0	-0.001351	-6.904E-07	-0.00009	0
548	Tren A9	LinDirHis	Max	0	0	0.000003296	0.000221	5.342E-07	0
548	Tren A9	LinDirHis	Min	0	0	-0.001098	-8.147E-07	-0.000066	0
549	Tren A9	LinDirHis	Max	0	0	0.000003248	0.000194	0.00000041	0
549	Tren A9	LinDirHis	Min	0	0	-0.000888	-6.729E-07	-0.000067	0
550	Tren A9	LinDirHis	Max	0	0	0.000002638	0.00018	4.884E-07	0
550	Tren A9	LinDirHis	Min	0	0	-0.000627	-6.541E-07	-0.000062	0
551	Tren A9	LinDirHis	Max	0	0	0.000001557	0.000139	3.462E-07	0
551	Tren A9	LinDirHis	Min	0	0	-0.000485	-5.673E-07	-0.000023	0
552	Tren A9	LinDirHis	Max	0	0	0.000002778	0.000085	0.000000252	0
552	Tren A9	LinDirHis	Min	0	0	-0.000365	-4.454E-07	-0.000058	0
553	Tren A9	LinDirHis	Max	0	0	8.715E-07	0.000047	5.127E-07	0
553	Tren A9	LinDirHis	Min	0	0	-0.00018	-4.575E-07	-0.000039	0
556	Tren A9	LinDirHis	Max	0	0	6.783E-12	0.000003634	0.000077	0
556	Tren A9	LinDirHis	Min	0	0	-0.00015	-7.329E-13	-0.0000017	0
557	Tren A9	LinDirHis	Max	0	0	0.000002817	0.000000296	0.000087	0

Apéndice D2				Flecha Dinámica Tren A10						V= 336 km/h
557	Tren A9	LinDirHis	Min	0	0	-0.002302	-0.000237	-0.000028	0	