

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	3.422E-11	0.000004164	0.000024	0
140	Tren A9	LinDirHis	Min	0	0	-0.000293	-0.000001028	-6.239E-13	0
229	Tren A9	LinDirHis	Max	0	0	5.66E-12	2.425E-08	5.898E-12	0
229	Tren A9	LinDirHis	Min	0	0	-0.000263	-0.000069	-0.000026	0
230	Tren A9	LinDirHis	Max	0	0	1.932E-11	3.213E-07	1.451E-11	0
230	Tren A9	LinDirHis	Min	0	0	-0.000276	-0.000034	-0.000014	0
231	Tren A9	LinDirHis	Max	0	0	2.998E-12	1.379E-12	0.00002	0
231	Tren A9	LinDirHis	Min	0	0	-0.000221	-0.000092	-0.00001	0
232	Tren A9	LinDirHis	Max	0	0	0.000002483	1.688E-12	0.000051	0
232	Tren A9	LinDirHis	Min	0	0	-0.000372	-0.000107	-0.000004434	0
233	Tren A9	LinDirHis	Max	0	0	0.000004079	9.292E-13	0.000024	0
233	Tren A9	LinDirHis	Min	0	0	-0.000492	-0.00014	-0.000007885	0
234	Tren A9	LinDirHis	Max	0	0	0.000001373	2.944E-07	0.000052	0
234	Tren A9	LinDirHis	Min	0	0	-0.000555	-0.000183	-0.000012	0
235	Tren A9	LinDirHis	Max	0	0	6.716E-07	2.298E-07	0.000069	0
235	Tren A9	LinDirHis	Min	0	0	-0.000779	-0.000187	-0.000008796	0
236	Tren A9	LinDirHis	Max	0	0	0.000002274	8.225E-08	0.000051	0
236	Tren A9	LinDirHis	Min	0	0	-0.000951	-0.000213	-0.000015	0
237	Tren A9	LinDirHis	Max	0	0	0.000001224	2.844E-07	0.000074	0
237	Tren A9	LinDirHis	Min	0	0	-0.00111	-0.000238	-0.000017	0
238	Tren A9	LinDirHis	Max	0	0	9.597E-07	2.195E-07	0.000078	0
238	Tren A9	LinDirHis	Min	0	0	-0.001355	-0.000235	-0.000017	0
239	Tren A9	LinDirHis	Max	0	0	0.000002188	1.555E-07	0.000071	0
239	Tren A9	LinDirHis	Min	0	0	-0.001555	-0.000252	-0.000022	0
240	Tren A9	LinDirHis	Max	0	0	0.00000213	3.318E-07	0.000086	0
240	Tren A9	LinDirHis	Min	0	0	-0.001762	-0.00026	-0.000024	0
241	Tren A9	LinDirHis	Max	0	0	0.000002256	3.268E-07	0.000085	0
241	Tren A9	LinDirHis	Min	0	0	-0.002013	-0.000255	-0.000025	0
242	Tren A9	LinDirHis	Max	0	0	0.000003116	3.013E-07	0.000085	0
242	Tren A9	LinDirHis	Min	0	0	-0.002238	-0.000259	-0.000034	0
244	Tren A9	LinDirHis	Max	0	0	0.000003529	4.028E-07	0.000087	0
244	Tren A9	LinDirHis	Min	0	0	-0.002701	-0.000244	-0.00004	0
245	Tren A9	LinDirHis	Max	0	0	0.000004556	3.867E-07	0.000089	0
245	Tren A9	LinDirHis	Min	0	0	-0.00291	-0.000237	-0.000046	0
246	Tren A9	LinDirHis	Max	0	0	0.000005251	4.563E-07	0.000089	0
246	Tren A9	LinDirHis	Min	0	0	-0.003121	-0.000223	-0.000051	0
247	Tren A9	LinDirHis	Max	0	0	0.00000599	3.833E-07	0.000086	0
247	Tren A9	LinDirHis	Min	0	0	-0.003323	-0.000206	-0.00006	0
248	Tren A9	LinDirHis	Max	0	0	0.000007095	3.455E-07	0.000088	0
248	Tren A9	LinDirHis	Min	0	0	-0.003513	-0.000191	-0.000066	0
249	Tren A9	LinDirHis	Max	0	0	0.000008044	3.868E-07	0.000085	0
249	Tren A9	LinDirHis	Min	0	0	-0.003688	-0.00017	-0.000074	0
250	Tren A9	LinDirHis	Max	0	0	0.000009494	3.879E-07	0.000081	0
250	Tren A9	LinDirHis	Min	0	0	-0.003843	-0.000148	-0.00008	0
251	Tren A9	LinDirHis	Max	0	0	0.000011	3.853E-07	0.000076	0
251	Tren A9	LinDirHis	Min	0	0	-0.003977	-0.000127	-0.000085	0
252	Tren A9	LinDirHis	Max	0	0	0.000012	3.903E-07	0.000071	0

252	Tren A9	LinDirHis	Min	0	0	-0.004086	-0.000101	-0.00009	0
253	Tren A9	LinDirHis	Max	0	0	0.000013	3.367E-07	0.000067	0
253	Tren A9	LinDirHis	Min	0	0	-0.004173	-0.000075	-0.000096	0
254	Tren A9	LinDirHis	Max	0	0	0.000014	2.817E-07	0.000061	0
254	Tren A9	LinDirHis	Min	0	0	-0.004235	-0.000049	-0.0001	0
255	Tren A9	LinDirHis	Max	0	0	0.000014	2.114E-07	0.000055	0
255	Tren A9	LinDirHis	Min	0	0	-0.00427	-0.000025	-0.000104	0
256	Tren A9	LinDirHis	Max	0	0	0.000015	0.000016	0.000048	0
256	Tren A9	LinDirHis	Min	0	0	-0.00428	-0.000009065	-0.000108	0
257	Tren A9	LinDirHis	Max	0	0	0.000014	0.000043	0.000041	0
257	Tren A9	LinDirHis	Min	0	0	-0.004261	-0.000004953	-0.000111	0
258	Tren A9	LinDirHis	Max	0	0	0.000015	0.00007	0.000033	0
258	Tren A9	LinDirHis	Min	0	0	-0.004209	-0.000002858	-0.000113	0
259	Tren A9	LinDirHis	Max	0	0	0.000015	0.000098	0.000023	0
259	Tren A9	LinDirHis	Min	0	0	-0.004125	-0.00000193	-0.000113	0
260	Tren A9	LinDirHis	Max	0	0	0.000015	0.000124	0.000014	0
260	Tren A9	LinDirHis	Min	0	0	-0.004002	-0.000001371	-0.000112	0
261	Tren A9	LinDirHis	Max	0	0	0.000015	0.000148	0.00000615	0
261	Tren A9	LinDirHis	Min	0	0	-0.003851	-0.000001024	-0.000111	0
262	Tren A9	LinDirHis	Max	0	0	0.000015	0.000173	0.000001751	0
262	Tren A9	LinDirHis	Min	0	0	-0.003671	-0.000001075	-0.000112	0
263	Tren A9	LinDirHis	Max	0	0	0.000014	0.000194	0.000001712	0
263	Tren A9	LinDirHis	Min	0	0	-0.003467	-0.000001086	-0.000113	0
264	Tren A9	LinDirHis	Max	0	0	0.000013	0.000213	0.000001598	0
264	Tren A9	LinDirHis	Min	0	0	-0.003239	-9.902E-07	-0.000114	0
265	Tren A9	LinDirHis	Max	0	0	0.000012	0.000233	0.000001542	0
265	Tren A9	LinDirHis	Min	0	0	-0.002988	-9.688E-07	-0.000114	0
266	Tren A9	LinDirHis	Max	0	0	0.000009528	0.000243	0.000001381	0
266	Tren A9	LinDirHis	Min	0	0	-0.002736	-0.000000986	-0.000111	0
267	Tren A9	LinDirHis	Max	0	0	0.000008416	0.00025	0.000001134	0
267	Tren A9	LinDirHis	Min	0	0	-0.002464	-8.949E-07	-0.000114	0
268	Tren A9	LinDirHis	Max	0	0	0.000007201	0.000261	0.000001065	0
268	Tren A9	LinDirHis	Min	0	0	-0.00216	-9.843E-07	-0.000109	0
269	Tren A9	LinDirHis	Max	0	0	0.000006137	0.000253	8.929E-07	0
269	Tren A9	LinDirHis	Min	0	0	-0.001885	-9.661E-07	-0.000097	0
270	Tren A9	LinDirHis	Max	0	0	0.000005999	0.000247	7.893E-07	0
270	Tren A9	LinDirHis	Min	0	0	-0.001594	-8.494E-07	-0.0001	0
271	Tren A9	LinDirHis	Max	0	0	0.000004615	0.000246	8.525E-07	0
271	Tren A9	LinDirHis	Min	0	0	-0.001286	-9.766E-07	-0.000086	0
272	Tren A9	LinDirHis	Max	0	0	0.000003894	0.000216	6.021E-07	0
272	Tren A9	LinDirHis	Min	0	0	-0.00106	-8.188E-07	-0.000069	0
273	Tren A9	LinDirHis	Max	0	0	0.000003967	0.000195	5.749E-07	0
273	Tren A9	LinDirHis	Min	0	0	-0.000797	-6.629E-07	-0.000078	0
274	Tren A9	LinDirHis	Max	0	0	0.000002069	0.000174	6.373E-07	0
274	Tren A9	LinDirHis	Min	0	0	-0.000559	-7.779E-07	-0.000048	0
275	Tren A9	LinDirHis	Max	0	0	0.000002557	0.000111	2.762E-07	0
275	Tren A9	LinDirHis	Min	0	0	-0.000465	-6.052E-07	-0.000036	0
276	Tren A9	LinDirHis	Max	0	0	0.000002514	0.000073	6.908E-07	0
276	Tren A9	LinDirHis	Min	0	0	-0.000258	-4.514E-07	-0.000058	0
277	Tren A9	LinDirHis	Max	0	0	0.000004424	0.000028	0.000001561	0

277	Tren A9	LinDirHis	Min	0	0	-0.00007	-5.352E-07	-0.000008284	0
278	Tren A9	LinDirHis	Max	0	0	0.000001097	0.000035	4.624E-07	0
278	Tren A9	LinDirHis	Min	0	0	-0.000088	-0.000000511	-0.000044	0
279	Tren A9	LinDirHis	Max	0	0	2.708E-11	0.000003404	0.000082	0
279	Tren A9	LinDirHis	Min	0	0	-0.000152	-5.286E-12	-0.000001524	0
280	Tren A9	LinDirHis	Max	0	0	7.748E-08	3.032E-13	0.000052	0
280	Tren A9	LinDirHis	Min	0	0	-0.0003	-0.000102	-0.000005166	0
283	Tren A9	LinDirHis	Max	0	0	0.000003834	8.754E-13	0.000038	0
283	Tren A9	LinDirHis	Min	0	0	-0.000461	-0.000122	-0.000002225	0
347	Tren A9	LinDirHis	Max	0	0	0.000002894	1.198E-07	0.000023	0
347	Tren A9	LinDirHis	Min	0	0	-0.000527	-0.000169	-0.00000999	0
378	Tren A9	LinDirHis	Max	0	0	3.728E-07	3.201E-07	0.000075	0
378	Tren A9	LinDirHis	Min	0	0	-0.000671	-0.00019	-0.000006642	0
379	Tren A9	LinDirHis	Max	0	0	0.000001565	0.000000134	0.000057	0
379	Tren A9	LinDirHis	Min	0	0	-0.00089	-0.000203	-0.000007721	0
380	Tren A9	LinDirHis	Max	0	0	0.000001937	1.443E-07	0.000057	0
380	Tren A9	LinDirHis	Min	0	0	-0.001035	-0.000235	-0.000014	0
381	Tren A9	LinDirHis	Max	0	0	8.181E-07	2.733E-07	0.000085	0
381	Tren A9	LinDirHis	Min	0	0	-0.001246	-0.000242	-0.000014	0
383	Tren A9	LinDirHis	Max	0	0	0.000001855	2.102E-07	0.000069	0
383	Tren A9	LinDirHis	Min	0	0	-0.001476	-0.000248	-0.000017	0
388	Tren A9	LinDirHis	Max	0	0	0.000001875	2.762E-07	0.000077	0
388	Tren A9	LinDirHis	Min	0	0	-0.001666	-0.000264	-0.000023	0
389	Tren A9	LinDirHis	Max	0	0	0.000001922	4.074E-07	0.000088	0
389	Tren A9	LinDirHis	Min	0	0	-0.001903	-0.000261	-0.000024	0
390	Tren A9	LinDirHis	Max	0	0	0.000002631	3.042E-07	0.000083	0
390	Tren A9	LinDirHis	Min	0	0	-0.002137	-0.000261	-0.000028	0
391	Tren A9	LinDirHis	Max	0	0	0.000003497	3.941E-07	0.000089	0
391	Tren A9	LinDirHis	Min	0	0	-0.002359	-0.000264	-0.000033	0
392	Tren A9	LinDirHis	Max	0	0	0.000003621	3.959E-07	0.000089	0
392	Tren A9	LinDirHis	Min	0	0	-0.002595	-0.000254	-0.000036	0
393	Tren A9	LinDirHis	Max	0	0	0.000004445	3.535E-07	0.000088	0
393	Tren A9	LinDirHis	Min	0	0	-0.002809	-0.000247	-0.000042	0
394	Tren A9	LinDirHis	Max	0	0	0.000004955	4.019E-07	0.00009	0
394	Tren A9	LinDirHis	Min	0	0	-0.003021	-0.000238	-0.000048	0
448	Tren A9	LinDirHis	Max	0	0	0.000005075	4.568E-07	0.000088	0
448	Tren A9	LinDirHis	Min	0	0	-0.003233	-0.00022	-0.000053	0
449	Tren A9	LinDirHis	Max	0	0	0.000005742	4.127E-07	0.000087	0
449	Tren A9	LinDirHis	Min	0	0	-0.003432	-0.000204	-0.000062	0
450	Tren A9	LinDirHis	Max	0	0	0.000006696	0.000000429	0.000086	0
450	Tren A9	LinDirHis	Min	0	0	-0.003617	-0.000183	-0.000069	0
451	Tren A9	LinDirHis	Max	0	0	0.00000782	4.263E-07	0.000083	0
451	Tren A9	LinDirHis	Min	0	0	-0.003788	-0.00016	-0.000074	0
452	Tren A9	LinDirHis	Max	0	0	0.000009414	3.886E-07	0.00008	0
452	Tren A9	LinDirHis	Min	0	0	-0.003934	-0.000139	-0.000079	0
455	Tren A9	LinDirHis	Max	0	0	0.000011	3.878E-07	0.000072	0
455	Tren A9	LinDirHis	Min	0	0	-0.004055	-0.000115	-0.000083	0
516	Tren A9	LinDirHis	Max	0	0	0.000012	3.347E-07	0.000068	0
516	Tren A9	LinDirHis	Min	0	0	-0.00415	-0.000088	-0.000086	0
517	Tren A9	LinDirHis	Max	0	0	0.000014	2.995E-07	0.000063	0

517	Tren A9	LinDirHis	Min	0	0	-0.004222	-0.000062	-0.000091	0
518	Tren A9	LinDirHis	Max	0	0	0.000015	2.674E-07	0.000056	0
518	Tren A9	LinDirHis	Min	0	0	-0.004268	-0.000037	-0.000096	0
519	Tren A9	LinDirHis	Max	0	0	0.000015	0.000003875	0.000051	0
519	Tren A9	LinDirHis	Min	0	0	-0.004287	-0.000015	-0.000099	0
527	Tren A9	LinDirHis	Max	0	0	0.000016	0.00003	0.000044	0
527	Tren A9	LinDirHis	Min	0	0	-0.004278	-0.000006321	-0.000104	0
528	Tren A9	LinDirHis	Max	0	0	0.000016	0.000058	0.000035	0
528	Tren A9	LinDirHis	Min	0	0	-0.004239	-0.000003968	-0.000107	0
529	Tren A9	LinDirHis	Max	0	0	0.000016	0.000085	0.000027	0
529	Tren A9	LinDirHis	Min	0	0	-0.004173	-0.000002447	-0.000108	0
531	Tren A9	LinDirHis	Max	0	0	0.000016	0.000112	0.000017	0
531	Tren A9	LinDirHis	Min	0	0	-0.004072	-0.000001718	-0.00011	0
532	Tren A9	LinDirHis	Max	0	0	0.000016	0.000138	0.000008687	0
532	Tren A9	LinDirHis	Min	0	0	-0.003938	-0.000001239	-0.000111	0
533	Tren A9	LinDirHis	Max	0	0	0.000015	0.000163	0.000002004	0
533	Tren A9	LinDirHis	Min	0	0	-0.003776	-0.000001177	-0.00011	0
539	Tren A9	LinDirHis	Max	0	0	0.000014	0.000187	0.000001621	0
539	Tren A9	LinDirHis	Min	0	0	-0.003584	-0.000001092	-0.00011	0
540	Tren A9	LinDirHis	Max	0	0	0.000013	0.000207	0.000001469	0
540	Tren A9	LinDirHis	Min	0	0	-0.003372	-0.000001073	-0.000108	0
541	Tren A9	LinDirHis	Max	0	0	0.000011	0.000228	0.00000136	0
541	Tren A9	LinDirHis	Min	0	0	-0.003135	-0.000001109	-0.000109	0
542	Tren A9	LinDirHis	Max	0	0	0.000009823	0.000244	0.000001335	0
542	Tren A9	LinDirHis	Min	0	0	-0.002882	-0.000001123	-0.000107	0
543	Tren A9	LinDirHis	Max	0	0	0.000008478	0.00025	0.000001174	0
543	Tren A9	LinDirHis	Min	0	0	-0.002621	-0.000000928	-0.000107	0
544	Tren A9	LinDirHis	Max	0	0	0.000007671	0.000261	0.000001027	0
544	Tren A9	LinDirHis	Min	0	0	-0.002325	-8.902E-07	-0.000109	0
545	Tren A9	LinDirHis	Max	0	0	0.000006524	0.000264	9.571E-07	0
545	Tren A9	LinDirHis	Min	0	0	-0.002031	-9.577E-07	-0.000098	0
546	Tren A9	LinDirHis	Max	0	0	0.000005842	0.000253	7.885E-07	0
546	Tren A9	LinDirHis	Min	0	0	-0.001756	-9.048E-07	-0.000095	0
547	Tren A9	LinDirHis	Max	0	0	0.000005367	0.000253	7.523E-07	0
547	Tren A9	LinDirHis	Min	0	0	-0.001443	-8.942E-07	-0.000096	0
548	Tren A9	LinDirHis	Max	0	0	0.000003991	0.000237	6.931E-07	0
548	Tren A9	LinDirHis	Min	0	0	-0.001178	-9.877E-07	-0.000071	0
549	Tren A9	LinDirHis	Max	0	0	0.000003645	0.000207	4.947E-07	0
549	Tren A9	LinDirHis	Min	0	0	-0.000944	-0.000000821	-0.000075	0
550	Tren A9	LinDirHis	Max	0	0	0.00000305	0.000191	6.698E-07	0
550	Tren A9	LinDirHis	Min	0	0	-0.000674	-7.966E-07	-0.00007	0
551	Tren A9	LinDirHis	Max	0	0	0.000001714	0.000149	3.916E-07	0
551	Tren A9	LinDirHis	Min	0	0	-0.000523	-8.175E-07	-0.000025	0
552	Tren A9	LinDirHis	Max	0	0	0.000003495	0.000091	3.523E-07	0
552	Tren A9	LinDirHis	Min	0	0	-0.000392	-5.476E-07	-0.000059	0
553	Tren A9	LinDirHis	Max	0	0	0.000001184	0.000053	6.714E-07	0
553	Tren A9	LinDirHis	Min	0	0	-0.00019	-0.000000578	-0.000042	0
556	Tren A9	LinDirHis	Max	0	0	2.785E-11	0.000005243	0.000091	0
556	Tren A9	LinDirHis	Min	0	0	-0.000174	-5.582E-12	-0.0000017	0
557	Tren A9	LinDirHis	Max	0	0	0.000003047	4.149E-07	0.000092	0

Apéndice Y1				Flecha Dinámica Tren A9						V= 280 km/h
557	Tren A9	LinDirHis	Min	0	0	-0.00247	-0.000254	-0.000036	0	