** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO, 5

BENDING MOMENT (T.M)

I	J	MAX CASE,	MAX FORCE	MIN CASE,	MIN FORCE
34	43	4	2.461	4	-52.457
43	34	4	8.859	4	-78.847
43	52	4	8.859	4	-78.853
52	43	4	35.023	4	-6.506
52	61	4	35.023	4	-6.506
61	52	4	78.654	4	-28.144
61	70	4	78.668	4	-28.147
70	61	4	39.240	4	-4.492
70	79	4	39.240	4	-4.492
79	70	4	7.447	4	-66.115
79	88	4	7.448	4	-66.127
88	79	4	2.081	4	-43.594
88	97	4	2.081	4	-43.594
97	88	4	4.527	4	-32.239
97	106	4	4.527	4	-32.251
106	97	4	2.263	4	-16.125
106	115	4	2.263	4	-16.125
115	106	4	0.002	4	-0.001
8	17	4	0.000	4	-0.001
17	8	4	3.177	4	-21.055
17	26	4	3.177	4	-21.055
26	17	4	6.355	4	-42.109
26	35	4	6.355	4	-42.112
35	26	4	4.823	4	-58.619
35	44	4	4.823	4	-58.619
44	35	4	9.174	4	-83.907
44	53	4	9.175	4	-83.914
53	44	4	37.214	4	-6.864
53	62	4	37.214	4	-6.864
62	53	4	90.068	4	-25.406
62	71	4	90.084	4	-25.408
71	62	4	42.339	4	-5.180
71	80	4	42.339	4	-5.180
80	71	4	7.227	4	-69.662
80	89	4	7.228	4	-69.676
89	80	4	3.864	4	-48.555
89	98	4	3.864	4	-48.555
98	89	4	6.152	4	-35.481
98	107	4	6.153	4	-35.495
107	98	4	3.076	4	-17.746
107	116	4	3.076	4	-17.746
116	107	4	0.002	4	-0.001
9	18	4	0.000	4	-0.001
18	9	4	5.536	4	-23.294
18	27	4	5.536	4	-23.294
27	18	4	11.071	4	-46.588
27	36	4	11.072	4	-46.591
36	27	4	9.619	4	-68.211
36	45	4	9.619	4	-68.211
45	36	4	9.613	4	-91.607

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 5

BENDING MOMENT (T.M)

I	J	MAX CASE,	MAX FORCE	MIN CASE,	MIN FORCE
45	54	4	9.614	4	-91.614
54	45	4	41.572	4	-8.430
54	63	4	41.572	4	-8.430
63	54	4	98.432	4	-25.656
63	72	4	98.449	4	-25.658
72	63	4	47.941	4	-7.215
72	81	4	47.941	4	-7.215
81	72	4	6.809	4	-76.083
81	90	4	6.810	4	-76.098
90	81	4	7.567	4	-56.090
90	99	4	7.567	4	-56.090
99	90	4	10.393	4	-38.821
99	108	4	10.396	4	-38.837
108	99	4	5.198	4	-19.417
108	117	4	5.198	4	-19.417
117	108	4	0.003	4	-0.001
1	2	19	0.040	19	-0.131
2	1	19	0.067	19	-0.018
2	3	21	0.028	21	-0.031
3	2	19	0.036	19	-0.034
3	4	4	0.001	21	-0.011
4	3	4	0.010	4	-0.001
4	5	19	0.031	19	-0.009
5	4	19	0.001	4	-0.027
5	6	4	0.001	4	-0.010
6	5	4	0.007	4	-0.001
6	7	4	0.025	4	-0.000
7	6	4	0.001	4	-0.014
7	8	4	0.013	4	-0.003
8	7	4	0.003	4	-0.023
8	9	4	0.006	4	-0.002
9	8	4	0.007	4	-0.031
19	20	19	0.360	19	-0.417
20	19	19	29.292	19	-48.055
20	21	19	29.396	19	-48.137
21	20	4	22.180	19	-65.502
21	22	4	22.268	19	-65.595
22	21	4	27.658	19	-66.186
22	23	4	27.739	19	-66.255
23	22	4	29.269	19	-55.488
23	24	4	29.349	19	-55.465
24	23	4	27.638	19	-38.030
24	25	4	27.719	19	-37.951
25	24	4	22.102	4	-22.496
25	26	4	22.190	4	-22.378
26	25	4	12.234	4	-12.118
26	27	4	12.317	4	-11.981
27	26	4	0.054	4	-0.269
37	38	19	0.564	19	-0.058
38	37	4	0.021	19	-0.360

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 5

BENDING MOMENT (T.M)

I	J	MAX CASE.	MAX FORCE	MIN CASE.	MIN FORCE
38	39	19	0.156	21	-0.052
39	38	4	0.024	22	-0.129
39	40	19	0.215	4	-0.032
40	39	4	0.011	4	-0.190
40	41	4	0.113	4	-0.019
41	40	4	0.017	4	-0.115
41	42	4	0.186	4	-0.008
42	41	4	0.010	4	-0.185
42	43	4	0.120	4	-0.019
43	42	4	0.017	4	-0.129
43	44	4	0.191	4	-0.015
44	43	4	0.034	4	-0.170
44	45	4	0.185	4	-0.021
45	44	4	0.042	4	-0.364
55	56	4	0.104	19	-0.768
56	55	19	44.305	4	-33.764
56	57	19	44.163	4	-33.929
57	56	4	62.435	4	-58.129
57	58	4	62.178	4	-58.309
58	57	4	79.410	4	-72.189
58	59	4	79.158	4	-72.344
59	58	4	84.939	4	-76.493
59	60	4	84.689	4	-76.636
60	59	4	79.748	4	-72.033
60	61	4	79.496	4	-72.189
61	60	4	63.002	4	-57.920
61	62	4	62.744	4	-58.102
62	61	4	34.305	4	-33.628
62	63	4	33.983	4	-33.793
63	62	4	0.600	4	-0.106
73	74	20	0.659	4	-0.034
74	73	4	0.022	20	-0.337
74	75	19	0.261	4	-0.040
75	74	4	0.020	19	-0.229
75	76	19	0.175	4	-0.021
76	75	4	0.019	4	-0.158
76	77	4	0.175	4	-0.016
77	76	4	0.015	4	-0.169
77	78	4	0.164	4	-0.017
78	77	4	0.019	4	-0.163
78	79	4	0.171	4	-0.018
79	78	4	0.017	4	-0.189
79	80	4	0.158	4	-0.023
80	79	4	0.049	4	-0.122
80	81	4	0.266	4	-0.019
81	80	4	0.035	4	-0.381
91	92	19	0.460	19	-0.612
92	91	19	30.747	19	-54.202
92	93	19	30.938	19	-54.425
93	92	4	23.984	19	-78.304

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 5

BENDING MOMENT (T.M)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
93	94	4	24.110	19	-78.521
94	93	4	30.899	19	-82.602
94	95	4	31.023	19	-82.776
95	94	4	33.048	19	-71.802
95	96	4	33.170	19	-71.824
96	95	4	30.806	19	-51.209
96	97	4	30.928	19	-51.129
97	96	4	23.861	19	-29.085
97	98	4	23.988	19	-28.933
98	97	4	12.544	4	-12.118
98	99	4	12.651	4	-11.933
99	98	4	0.080	4	-0.356
109	110	19	0.059	19	-0.218
110	109	19	0.161	19	-0.062
110	111	21	0.035	21	-0.035
111	110	19	0.033	4	-0.014
111	112	19	0.033	19	-0.052
112	111	19	0.030	19	-0.029
112	113	4	0.012	19	-0.008
113	112	4	0.011	4	-0.003
113	114	4	0.037	19	-0.002
114	113	4	0.002	4	-0.037
114	115	4	0.004	4	-0.011
115	114	4	0.004	4	-0.021
115	116	4	0.020	4	-0.003
116	115	4	0.012	4	-0.007
116	117	4	0.049	4	-0.009
117	116	4	0.013	4	-0.049

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 6

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
1	10	24	0.001	5	-0.001
10	1	24	108.416	5	-26.224
10	19	24	108.416	5	-26.224
19	10	24	113.459	5	-52.449
19	28	24	113.466	5	-52.452
28	19	24	65.930	24	-89.690
28	37	24	65.930	24	-89.690
37	28	5	11.884	24	-150.232
37	46	5	11.885	24	-150.243
46	37	24	53.746	24	-39.469
46	55	24	53.746	24	-39.469
55	46	24	107.781	5	-34.229
55	64	24	107.800	5	-34.234
64	55	24	66.741	24	-43.382
64	73	24	66.741	24	-43.382
73	64	5	17.232	25	-138.439
73	82	5	17.235	25	-138.464
82	73	24	46.173	24	-77.264
82	91	24	46.173	24	-77.264
91	82	24	89.285	24	-43.853
91	100	24	89.315	24	-43.867
100	91	24	91.263	24	-21.485
100	109	24	91.263	24	-21.485
109	100	24	0.003	24	-0.013
2	11	24	0.001	5	-0.001
11	2	24	80.270	5	-22.308
11	20	24	80.270	5	-22.308
20	11	24	93.153	5	-45.986
20	29	24	93.157	5	-45.989
29	20	5	46.944	24	-66.131
29	38	5	46.944	24	-66.131
38	29	5	9.600	24	-129.265
38	47	5	9.600	24	-129.274
47	38	24	39.412	24	-27.220
47	56	24	39.412	24	-27.220
56	47	24	92.321	5	-32.761
56	65	24	92.339	5	-32.765
65	56	24	51.747	24	-27.871
65	74	24	51.747	24	-27.871
74	65	5	15.927	25	-110.044
74	83	5	15.930	25	-110.063
83	74	28	30.179	24	-59.874
83	92	28	30.179	24	-59.874
92	83	24	78.094	28	-45.180
92	101	24	78.118	28	-45.192
101	92	24	63.565	24	-19.898
101	110	24	63.565	24	-19.898
110	101	24	0.003	24	-0.009
3	12	24	0.001	5	-0.001
12	3	5	58.216	5	-19.870

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 6

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
12	21	5	58.216	5	-19.870
21	12	5	70.324	5	-42.625
21	30	5	70.327	5	-42.628
30	21	5	42.227	5	-50.044
30	39	5	42.227	5	-50.044
39	30	5	9.585	5	-95.199
39	48	5	9.586	5	-95.205
48	39	5	32.974	5	-23.423
48	57	5	32.974	5	-23.423
57	48	5	73.705	5	-34.524
57	66	5	73.717	5	-34.527
66	57	5	36.990	24	-11.315
66	75	5	36.990	24	-11.315
75	66	5	14.484	5	-61.373
75	84	5	14.487	5	-61.384
84	75	24	10.496	24	-42.156
84	93	24	10.496	24	-42.156
93	84	24	60.379	24	-32.390
93	102	24	60.394	24	-32.402
102	93	24	36.335	24	-16.200
102	111	24	36.335	24	-16.200
111	102	24	0.002	24	-0.005
4	13	24	0.000	5	-0.001
13	4	5	56.318	5	-17.453
13	22	5	56.318	5	-17.453
22	13	5	65.975	5	-37.981
22	31	5	65.979	5	-37.982
31	22	5	39.051	5	-45.649
31	40	5	39.051	5	-45.649
40	31	5	8.910	5	-92.984
40	49	5	8.910	5	-92.990
49	40	5	31.061	5	-21.881
49	58	5	31.061	5	-21.881
58	49	5	68.186	5	-33.099
58	67	5	68.196	5	-33.104
67	58	5	34.968	5	-5.130
67	76	5	34.968	5	-5.130
76	67	5	12.938	5	-60.090
76	85	5	12.941	5	-60.101
85	76	5	6.574	5	-36.693
85	94	5	6.574	5	-36.693
94	85	24	35.072	24	-28.072
94	103	24	35.091	24	-28.085
103	94	24	17.544	24	-14.041
103	112	24	17.544	24	-14.041
112	103	24	0.002	24	-0.002
5	14	5	0.000	5	-0.001
14	5	5	55.871	5	-16.155
14	23	5	55.871	5	-16.155
23	14	5	65.126	5	-35.443

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 6

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
23	32	5	65.128	5	-35.445
32	23	5	38.520	5	-44.819
32	41	5	38.520	5	-44.819
41	32	5	8.407	5	-92.849
41	50	5	8.407	5	-92.856
50	41	5	30.491	5	-21.656
50	59	5	30.491	5	-21.656
59	50	5	67.203	5	-32.214
59	68	5	67.213	5	-32.218
68	59	5	34.579	5	-5.219
68	77	5	34.579	5	-5.219
77	68	5	12.029	5	-59.820
77	86	5	12.032	5	-59.832
86	77	5	5.871	5	-35.894
86	95	5	5.871	5	-35.894
95	86	24	12.098	5	-24.675
95	104	24	12.098	5	-24.683
104	95	24	6.049	5	-12.341
104	113	24	6.049	5	-12.341
113	104	5	0.002	5	-0.001
6	15	5	0.000	5	-0.001
15	6	5	56.339	5	-17.527
15	24	5	56.339	5	-17.527
24	15	5	66.022	5	-38.127
24	33	5	66.027	5	-38.129
33	24	5	39.102	5	-45.700
33	42	5	39.102	5	-45.700
42	33	5	9.021	5	-92.993
42	51	5	9.022	5	-93.000
51	42	5	31.072	5	-21.938
51	60	5	31.072	5	-21.938
60	51	5	68.062	5	-33.354
60	69	5	68.074	5	-33.356
69	60	5	34.938	5	-5.122
69	78	5	34.938	5	-5.122
78	69	5	12.869	5	-59.854
78	87	5	12.872	5	-59.865
87	78	5	6.533	5	-36.398
87	96	5	6.533	5	-36.398
96	87	5	7.168	5	-26.327
96	105	5	7.169	5	-26.337
105	96	5	3.584	5	-13.167
105	114	5	3.584	5	-13.167
114	105	5	0.002	5	-0.002
7	16	5	0.000	5	-0.001
16	7	5	58.305	5	-19.924
16	25	5	58.305	5	-19.924
25	16	5	70.474	5	-42.725
25	34	5	70.478	5	-42.727
34	25	5	42.330	5	-50.152

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 6

BENDING MOMENT (T.M)

I	J	MAX CASE,	MAX FORCE	MIN CASE,	MIN FORCE
34	43	5	42.330	5	-50.152
43	34	5	9.666	5	-95.325
43	52	5	9.666	5	-95.332
52	43	5	33.017	5	-23.516
52	61	5	33.017	5	-23.516
61	52	5	73.786	5	-34.753
61	70	5	73.799	5	-34.758
70	61	5	36.929	5	-5.250
70	79	5	36.929	5	-5.250
79	70	5	14.442	5	-61.414
79	88	5	14.445	5	-61.426
88	79	5	8.206	5	-40.135
88	97	5	8.206	5	-40.135
97	88	5	7.534	5	-29.617
97	106	5	7.535	5	-29.628
106	97	5	3.767	5	-14.813
106	115	5	3.767	5	-14.813
115	106	5	0.002	5	-0.002
8	17	5	0.001	5	-0.001
17	8	5	63.330	5	-22.162
17	26	5	63.330	5	-22.162
26	17	5	82.247	5	-45.736
26	35	5	82.251	5	-45.739
35	26	5	46.722	5	-56.251
35	44	5	46.722	5	-56.251
44	35	5	9.713	5	-101.697
44	53	5	9.714	5	-101.705
53	44	5	35.581	5	-26.636
53	62	5	35.581	5	-26.636
62	53	5	84.958	5	-33.005
62	71	5	84.972	5	-33.008
71	62	5	39.809	5	-5.925
71	80	5	39.809	5	-5.925
80	71	5	15.788	5	-64.926
80	89	5	15.791	5	-64.938
89	80	5	10.417	5	-45.202
89	98	5	10.417	5	-45.202
98	89	5	9.340	5	-33.029
98	107	5	9.342	5	-33.042
107	98	5	4.671	5	-16.520
107	116	5	4.671	5	-16.520
116	107	5	0.002	5	-0.002
9	18	5	0.000	5	-0.001
18	9	5	73.206	5	-25.906
18	27	5	73.206	5	-25.906
27	18	5	95.474	5	-51.814
27	36	5	95.479	5	-51.818
36	27	5	55.458	5	-66.377
36	45	5	55.458	5	-66.377
45	36	5	11.763	5	-112.526

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 6

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
45	54	5	11.764	5	-112.535
54	45	5	40.784	5	-31.837
54	63	5	40.784	5	-31.837
63	54	5	94.284	5	-34.325
63	72	5	94.300	5	-34.330
72	63	5	45.519	5	-8.209
72	81	5	45.519	5	-8.209
81	72	5	17.009	5	-71.726
81	90	5	17.013	5	-71.740
90	81	5	14.209	5	-52.906
90	99	5	14.209	5	-52.906
99	90	5	13.643	5	-36.617
99	108	5	13.648	5	-36.632
108	99	5	6.824	5	-18.315
108	117	5	6.824	5	-18.315
117	108	5	0.003	5	-0.002
1	2	5	0.035	24	-0.145
2	1	24	0.074	5	-0.017
2	3	5	0.018	26	-0.044
3	2	5	0.064	5	-0.028
3	4	5	0.006	5	-0.022
4	3	5	0.020	5	-0.010
4	5	5	0.026	5	-0.067
5	4	5	0.067	5	-0.025
5	6	5	0.010	5	-0.019
6	5	5	0.019	5	-0.007
6	7	5	0.024	5	-0.063
7	6	5	0.044	5	-0.014
7	8	5	0.015	5	-0.041
8	7	5	0.054	5	-0.025
8	9	5	0.007	5	-0.037
9	8	5	0.099	5	-0.035
19	20	5	0.284	24	-0.519
20	19	24	38.499	24	-38.847
20	21	24	38.500	24	-39.033
21	20	5	59.492	5	-54.921
21	22	5	59.349	5	-54.947
22	21	5	73.296	5	-66.993
22	23	5	73.145	5	-67.002
23	22	5	77.319	5	-70.506
23	24	5	77.167	5	-70.506
24	23	5	73.373	5	-66.913
24	25	5	73.221	5	-66.920
25	24	5	59.657	5	-54.860
25	26	5	59.512	5	-54.885
26	25	5	33.470	5	-32.361
26	27	5	33.301	5	-32.385
27	26	5	0.433	5	-0.285
37	38	24	0.556	24	-0.066
38	37	24	0.034	24	-0.346

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 6

BENDING MOMENT (T,M)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
38	39	24	0.167	5	-0.041
39	38	5	0.024	5	-0.161
39	40	5	0.209	5	-0.015
40	39	5	0.016	5	-0.198
40	41	5	0.162	5	-0.019
41	40	5	0.017	5	-0.164
41	42	5	0.195	5	-0.017
42	41	5	0.019	5	-0.195
42	43	5	0.168	5	-0.019
43	42	5	0.018	5	-0.179
43	44	5	0.196	5	-0.020
44	43	5	0.040	5	-0.176
44	45	5	0.245	5	-0.023
45	44	5	0.050	5	-0.435
55	56	5	0.198	24	-0.680
56	55	24	37.939	24	-38.411
56	57	24	37.888	24	-38.819
57	56	5	64.999	5	-61.037
57	58	5	64.797	5	-61.171
58	57	5	83.534	5	-76.741
58	59	5	83.335	5	-76.854
59	58	5	89.735	5	-81.706
59	60	5	89.538	5	-81.809
60	59	5	83.813	5	-76.636
60	61	5	83.614	5	-76.750
61	60	5	65.468	5	-60.915
61	62	5	65.265	5	-61.051
62	61	5	35.372	5	-34.599
62	63	5	35.104	5	-34.707
63	62	5	0.574	5	-0.201
73	74	25	0.619	5	-0.102
74	73	5	0.055	25	-0.316
74	75	24	0.234	24	-0.064
75	74	5	0.050	24	-0.196
75	76	24	0.153	5	-0.039
76	75	5	0.039	5	-0.146
76	77	5	0.161	5	-0.038
77	76	5	0.036	5	-0.156
77	78	5	0.151	5	-0.037
78	77	5	0.038	5	-0.150
78	79	5	0.158	5	-0.041
79	78	5	0.044	5	-0.175
79	80	5	0.146	5	-0.044
80	79	5	0.059	5	-0.115
80	81	5	0.249	5	-0.066
81	80	5	0.102	5	-0.360
91	92	24	0.418	24	-0.654
92	91	24	31.258	24	-53.691
92	93	24	31.407	24	-53.957
93	92	24	24.830	24	-77.196

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 6

BENDING MOMENT (T.M)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
93	94	24	24.991	24	-77.455
94	93	5	29.073	24	-81.190
94	95	5	29.173	24	-81.408
95	94	5	30.891	24	-70.394
95	96	5	30.989	24	-70.460
96	95	5	29.010	24	-50.075
96	97	5	29.108	24	-50.039
97	96	5	22.760	24	-28.366
97	98	5	22.864	24	-28.260
98	97	5	12.154	5	-11.719
98	99	5	12.237	5	-11.569
99	98	5	0.113	5	-0.336
109	110	24	0.053	24	-0.224
110	109	24	0.168	24	-0.055
110	111	26	0.036	26	-0.034
111	110	24	0.034	5	-0.014
111	112	24	0.029	24	-0.056
112	111	24	0.034	24	-0.025
112	113	5	0.012	24	-0.009
113	112	5	0.010	5	-0.004
113	114	5	0.034	24	-0.009
114	113	5	0.006	5	-0.034
114	115	5	0.004	5	-0.010
115	114	5	0.006	5	-0.020
115	116	5	0.018	5	-0.005
116	115	5	0.012	5	-0.007
116	117	5	0.046	5	-0.014
117	116	5	0.017	5	-0.046

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 1

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
1	10	14	34.551	14	-2.211
10	1	14	11.431	14	-19.187
10	19	14	20.028	14	-11.431
19	10	14	23.586	15	-11.946
19	28	17	16.443	16	-23.576
28	19	14	33.858	16	-3.771
28	37	16	3.771	14	-35.352
37	28	14	49.303	16	1.280
37	46	14	52.000	16	-4.233
46	37	18	9.659	14	-27.331
46	55	14	29.333	15	-10.340
55	46	14	26.254	16	-15.282
55	64	14	25.396	16	-15.002
64	55	14	29.150	15	-11.547
64	73	15	9.330	14	-29.150
73	64	14	49.313	16	-3.762
73	82	14	45.758	17	-2.232
82	73	17	9.191	15	-29.474
82	91	15	29.070	17	-9.191
91	82	17	20.771	16	-16.480
91	100	14	23.924	14	-10.564
100	91	14	22.475	15	-10.252
100	109	18	8.532	14	-22.475
109	100	15	30.081	14	-3.847
2	11	15	30.604	17	0.498
11	2	14	9.183	14	-19.307
11	20	14	18.253	14	-9.183
20	11	14	21.868	14	-9.048
20	29	17	18.060	17	-18.147
29	20	14	28.836	16	-4.307
29	38	16	4.307	14	-28.836
38	29	14	41.646	14	0.932
38	47	14	39.780	17	-6.184
47	38	15	9.376	15	-23.319
47	56	15	23.319	15	-9.503
56	47	14	20.958	14	-14.483
56	65	14	21.049	17	-12.708
65	56	14	22.475	15	-10.696
65	74	15	10.532	14	-22.475
74	65	14	36.617	17	-6.383
74	83	14	35.406	14	-7.011
83	74	17	9.145	14	-23.681
83	92	14	23.498	17	-9.145
92	83	17	19.263	14	-16.690
92	101	14	20.020	14	-12.114
101	92	14	19.064	15	-9.083
101	110	18	8.573	14	-17.106
110	101	15	24.589	17	-4.188
3	12	14	19.605	14	6.369
12	3	14	2.029	14	-10.071

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 1

SHEARING FORCE (T)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
12	21	14	10.071	14	-2.029
21	12	14	14.905	14	2.267
21	30	17	10.525	14	-3.276
30	21	14	15.341	17	2.242
30	39	17	-2.242	14	-15.341
39	30	14	24.063	17	10.062
39	48	14	14.898	14	-1.691
48	39	14	1.691	14	-12.240
48	57	14	12.395	14	-1.691
57	48	14	3.764	14	-11.444
57	66	14	4.921	14	-9.296
66	57	14	9.784	18	-3.187
66	75	18	3.187	14	-9.784
75	66	14	12.032	14	-2.766
75	84	14	13.173	17	-1.991
84	75	17	2.653	14	-11.794
84	93	14	11.794	17	-2.653
93	84	17	3.923	14	-9.455
93	102	14	4.686	14	-7.518
102	93	14	10.807	14	-3.047
102	111	14	3.047	14	-10.807
111	102	14	9.932	14	-3.047
4	13	14	10.748	14	3.842
13	4	14	-1.385	14	-8.291
13	22	14	8.291	14	1.385
22	13	14	2.206	14	-5.330
22	31	17	-0.694	14	-8.309
31	22	14	11.001	17	4.285
31	40	17	-4.285	14	-11.001
40	31	14	13.458	17	6.741
40	49	14	6.781	14	-1.371
49	40	14	1.371	14	-6.781
49	58	14	6.781	14	-1.371
58	49	14	1.371	14	-8.257
58	67	14	2.518	14	-5.461
67	58	14	4.269	14	-2.518
67	76	14	2.518	14	-4.269
76	67	14	4.269	14	-2.518
76	85	14	6.213	17	-1.904
85	76	17	1.904	14	-6.213
85	94	14	6.213	17	-1.904
94	85	17	1.904	14	-6.213
94	103	14	2.272	14	-5.089
103	94	14	6.152	14	-2.272
103	112	14	2.272	14	-6.152
112	103	14	5.011	14	-2.272
5	14	14	8.207	14	4.809
14	5	14	-2.431	14	-5.829
14	23	14	5.829	14	2.431
23	14	14	1.044	14	-2.605

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 7

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
23	32	17	-1.139	14	-4.583
32	23	14	7.716	17	4.614
32	41	17	-4.614	14	-7.716
41	32	14	10.094	17	6.992
41	50	14	3.478	14	-0.637
50	41	14	0.637	14	-3.510
50	59	14	3.510	14	-0.637
59	50	14	0.637	14	-3.991
59	68	14	2.037	14	-1.758
68	59	14	1.280	14	-2.037
68	77	14	2.037	14	-1.280
77	68	14	1.280	14	-2.037
77	86	14	2.396	17	-1.371
86	77	17	1.371	14	-2.440
86	95	14	2.440	17	-1.371
95	86	17	1.371	14	-2.436
95	104	14	1.280	14	-2.412
104	95	14	2.841	14	-1.280
104	113	14	1.280	14	-2.841
113	104	14	2.379	14	-1.280
6	15	14	7.070	14	5.437
15	6	14	-2.749	14	-4.381
15	24	14	4.381	14	2.749
24	15	14	1.256	14	-0.532
24	33	17	-0.037	17	-2.223
33	24	14	6.010	17	4.238
33	42	17	-4.238	14	-6.010
42	33	14	8.698	17	6.927
42	51	14	1.683	14	-0.111
51	42	14	0.111	14	-1.683
51	60	14	1.683	14	-0.111
60	51	14	0.232	14	-1.826
60	69	17	1.881	14	0.014
69	60	14	-0.168	17	-1.745
69	78	17	1.745	14	0.168
78	69	14	-0.168	17	-1.745
78	87	14	0.663	17	-1.365
87	78	17	1.365	14	-0.663
87	96	14	0.663	17	-1.365
96	87	17	1.365	14	-0.663
96	105	14	0.603	14	-1.013
105	96	14	1.127	14	-0.700
105	114	14	0.700	14	-1.127
114	105	14	0.994	14	-0.603
7	16	14	6.560	14	5.164
16	7	14	-2.476	14	-3.871
16	25	14	3.871	14	2.476
25	16	14	1.597	14	0.049
25	34	17	0.452	17	-1.399
34	25	17	5.308	14	3.721

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 1

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
34	43	14	-3.721	17	-5.308
43	34	17	7.997	14	6.409
43	52	14	1.103	14	-0.378
52	43	14	0.378	14	-1.103
52	61	14	1.103	14	-0.378
61	52	14	0.685	14	-1.103
61	70	14	2.177	14	0.572
70	61	14	-0.589	14	-1.915
70	79	14	1.915	14	0.589
79	70	14	-0.589	14	-1.915
79	88	17	0.031	14	-1.630
88	79	14	1.630	17	-0.031
88	97	17	0.031	14	-1.630
97	88	14	1.630	17	-0.031
97	106	14	0.711	14	-0.620
106	97	14	0.611	14	-0.978
106	115	14	0.978	14	-0.611
115	106	14	0.611	14	-0.711
8	17	14	6.690	14	4.375
17	8	14	-1.918	14	-4.234
17	26	14	4.234	14	1.918
26	17	14	1.867	14	-0.644
26	35	14	0.746	17	-1.619
35	26	17	5.209	14	3.113
35	44	14	-3.113	17	-5.209
44	35	17	7.665	14	5.569
44	53	14	1.610	14	-1.192
53	44	14	1.192	14	-1.610
53	62	14	1.610	14	-1.192
62	53	14	1.663	14	-1.610
62	71	14	2.860	14	0.191
71	62	14	-0.191	14	-2.483
71	80	14	2.483	14	0.191
80	71	14	-0.191	14	-2.483
80	89	17	0.351	14	-2.334
89	80	14	2.334	17	-0.351
89	98	17	0.351	14	-2.334
98	89	14	2.334	17	-0.351
98	107	14	1.357	14	-1.165
107	98	14	1.165	14	-1.798
107	116	14	1.798	14	-1.165
116	107	14	1.165	14	-1.357
9	18	14	7.364	14	3.951
18	9	14	-1.257	14	-4.670
18	27	14	4.670	14	1.257
27	18	14	2.919	14	-0.733
27	36	14	1.670	18	-1.285
36	27	18	5.222	14	2.555
36	45	14	-2.555	18	-5.222
45	36	18	7.916	14	5.248

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 1

SHEARING FORCE (T)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
45	54	14	2,388	14	-2,031
54	45	14	2,031	14	-2,388
54	63	14	2,388	14	-2,031
63	54	14	2,651	14	-2,388
63	72	14	3,554	14	-0,374
72	63	14	0,374	14	-3,077
72	81	14	3,077	14	-0,374
81	72	14	0,374	14	-3,077
81	90	14	0,943	14	-3,044
90	81	14	3,044	14	-0,943
90	99	14	0,943	14	-3,044
99	90	14	3,044	14	-0,943
99	108	14	2,246	14	-1,882
108	99	14	1,882	14	-2,206
108	117	14	2,206	14	-1,882
117	108	14	1,882	14	-2,071
1	2	14	0,124	14	-0,008
2	1	14	0,008	14	-0,124
2	3	14	0,064	14	0,006
3	2	14	-0,006	14	-0,064
3	4	17	0,009	16	0,000
4	3	16	-0,000	17	-0,009
4	5	14	0,051	14	0,016
5	4	14	-0,016	14	-0,051
5	6	14	0,003	14	-0,002
6	5	14	0,002	14	-0,003
6	7	14	0,026	14	0,018
7	6	14	-0,018	14	-0,026
7	8	14	0,018	14	0,010
8	7	14	-0,010	14	-0,018
8	9	14	0,024	14	0,011
9	8	14	-0,011	14	-0,024
19	20	14	23,509	14	-16,646
20	19	14	16,646	14	-23,509
20	21	14	14,140	14	-7,200
21	20	14	7,200	14	-14,140
21	22	14	-1,997	14	-15,350
22	21	14	15,350	14	1,997
22	23	14	2,576	17	-7,716
23	22	17	7,716	14	-2,576
23	24	14	6,514	14	-4,766
24	23	14	4,766	14	-6,514
24	25	14	7,609	14	-4,551
25	24	14	4,551	14	-7,609
25	26	14	6,212	14	-3,826
26	25	14	3,826	14	-6,212
26	27	14	4,063	14	-1,824
27	26	14	1,824	14	-4,063
37	38	14	0,094	14	-0,418
38	37	14	0,418	14	-0,094

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 1

SHEARING FORCE (T)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
38	39	17	0.017	18	-0.139
39	38	18	0.139	17	-0.017
39	40	14	0.033	14	-0.126
40	39	14	0.126	14	-0.033
40	41	14	-0.027	17	-0.069
41	40	17	0.069	14	0.027
41	42	14	0.006	14	-0.033
42	41	14	0.033	14	-0.006
42	43	17	-0.030	18	-0.045
43	42	18	0.045	17	0.030
43	44	14	0.004	14	-0.014
44	43	14	0.014	14	-0.004
44	45	14	-0.006	14	-0.071
45	44	14	0.071	14	0.006
55	56	14	13.891	14	-25.794
56	55	14	25.794	14	-13.891
56	57	18	4.844	14	-19.271
57	56	14	19.271	18	-4.844
57	58	18	4.920	14	-8.396
58	57	14	8.396	18	-4.920
58	59	14	7.542	18	-2.435
59	58	18	2.435	14	-7.542
59	60	14	10.059	18	-2.468
60	59	18	2.468	14	-10.059
60	61	14	10.725	18	-3.112
61	60	18	3.112	14	-10.725
61	62	14	8.784	14	-3.017
62	61	14	3.017	14	-8.784
62	63	14	5.108	14	-2.144
63	62	14	2.144	14	-5.108
73	74	14	0.093	15	-0.456
74	73	15	0.456	14	-0.093
74	75	14	0.084	14	-0.153
75	74	14	0.153	14	-0.084
75	76	14	0.037	18	-0.085
76	75	18	0.085	14	-0.037
76	77	14	0.034	17	-0.019
77	76	17	0.019	14	-0.034
77	78	14	0.026	18	0.000
78	77	18	-0.000	14	-0.026
78	79	17	0.030	18	0.011
79	78	18	-0.011	17	-0.030
79	80	18	0.024	14	0.008
80	79	14	-0.008	18	-0.024
80	81	18	0.055	14	0.002
81	80	14	-0.002	18	-0.055
91	92	14	17.349	14	-26.776
92	91	14	26.776	14	-17.349
92	93	14	6.123	14	-19.189
93	92	14	19.189	14	-6.123

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

SHEARING FORCE (T)

I	J	MAX CASE,	MAX FORCE	MIN CASE,	MIN FORCE
1	10	19	29.812	19	-6.950
10	1	19	16.170	19	-14.448
10	19	19	15.289	19	-16.170
19	10	19	28.325	20	-7.207
19	28	22	19.996	21	-20.024
28	19	19	30.305	21	-7.324
28	37	21	7.324	19	-31.799
37	28	19	45.751	21	-2.273
37	46	19	56.342	21	0.109
46	37	23	5.317	19	-31.673
46	55	19	33.675	20	-5.998
55	46	19	21.912	21	-17.624
55	64	19	20.409	21	-19.989
64	55	19	34.136	20	-6.560
64	73	20	4.344	19	-34.136
73	64	19	54.300	21	1.224
73	82	19	46.075	22	-1.915
82	73	22	8.874	20	-29.791
82	91	20	29.387	22	-8.874
91	82	22	20.454	21	-16.797
91	100	19	25.593	19	-8.895
100	91	19	20.806	20	-11.921
100	109	23	10.201	19	-20.806
109	100	20	28.412	19	-5.516
2	11	20	23.520	22	-6.586
11	2	19	14.014	19	-14.475
11	20	19	13.422	19	-14.014
20	11	19	23.408	19	-7.508
20	29	22	18.133	22	-18.074
29	20	19	25.472	21	-7.671
29	38	21	7.671	19	-25.472
38	29	19	36.030	19	-4.685
38	47	19	46.768	22	0.803
47	38	20	5.179	20	-27.516
47	56	20	27.516	20	-5.306
56	47	19	20.591	19	-14.849
56	65	19	19.620	22	-14.136
65	56	19	27.733	20	-5.437
65	74	20	5.274	19	-27.733
74	65	19	44.666	22	1.666
74	83	19	36.703	19	-5.714
83	74	22	7.848	19	-24.978
83	92	19	24.795	22	-7.848
92	83	22	17.965	19	-17.987
92	101	19	21.507	19	-10.628
101	92	19	17.578	20	-10.570
101	110	23	10.059	19	-15.620
110	101	20	23.102	22	-5.674
3	12	19	8.198	19	-5.038
12	3	19	5.616	19	-6.484

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

SHEARING FORCE (T)

I	J	MAX CASE,	MAX FORCE	MIN CASE,	MIN FORCE
12	21	19	6.484	19	-5.616
21	12	19	7.065	19	-5.573
21	30	22	0.664	19	-13.137
30	21	19	13.774	22	0.675
30	39	22	-0.675	19	-13.774
39	30	19	14.676	22	0.675
39	48	19	27.389	19	10.801
48	39	19	-1.111	19	-15.041
48	57	19	15.197	19	1.111
57	48	19	14.261	19	-0.947
57	66	19	13.928	19	-0.289
66	57	19	14.075	23	1.104
66	75	23	-1.104	19	-14.075
75	66	19	26.012	19	11.214
75	84	19	15.851	22	0.687
84	75	22	-0.025	19	-14.473
84	93	19	14.473	22	0.025
93	84	22	1.244	19	-12.133
93	102	19	5.876	19	-6.329
102	93	19	9.617	19	-4.236
102	111	19	4.236	19	-9.617
111	102	19	8.743	19	-4.236
4	13	19	2.612	19	-4.294
13	4	19	4.294	19	-2.612
13	22	19	2.612	19	-4.294
22	13	19	4.294	19	-3.241
22	31	22	-0.222	19	-7.837
31	22	19	6.939	22	0.222
31	40	22	-0.222	19	-6.939
40	31	19	6.939	22	0.222
40	49	19	14.647	19	6.495
49	40	19	-3.451	19	-11.603
49	58	19	11.603	19	3.451
58	49	19	0.728	19	-8.901
58	67	19	0.502	19	-7.478
67	58	19	10.463	19	3.676
67	76	19	-3.676	19	-10.463
76	67	19	13.508	19	6.721
76	85	19	8.053	22	-0.064
85	76	22	0.064	19	-8.053
85	94	19	8.053	22	-0.064
94	85	22	0.064	19	-8.053
94	103	19	3.752	19	-3.609
103	94	19	4.672	19	-3.752
103	112	19	3.752	19	-4.672
112	103	19	3.531	19	-3.752
5	14	19	0.199	19	-3.198
14	5	19	3.198	19	-0.199
14	23	19	0.199	19	-3.198
23	14	19	3.198	19	-0.450

** MONBASA JV BRIDGE **

** PICKUP TABLE ** NO. 2

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
23	32	22	-0.600	19	-4.044
32	23	19	3.701	22	0.600
32	41	22	-0.600	19	-3.701
41	32	19	3.701	22	0.600
41	50	19	11.239	19	7.123
50	41	19	-4.176	19	-8.323
50	59	19	8.323	19	4.176
59	50	19	-0.132	19	-4.769
59	68	19	-0.044	19	-3.839
68	59	19	7.406	19	4.089
68	77	19	-4.089	19	-7.406
77	68	19	10.353	19	7.035
77	86	19	4.138	22	0.371
86	77	22	-0.371	19	-4.182
86	95	19	4.182	22	0.371
95	86	22	-0.371	19	-4.178
95	104	19	2.781	19	-0.911
104	95	19	1.340	19	-2.781
104	113	19	2.781	19	-1.340
113	104	19	0.878	19	-2.781
6	15	19	-0.965	19	-2.598
15	6	19	2.598	19	0.965
15	24	19	-0.965	19	-2.598
24	15	19	2.673	19	0.885
24	33	22	-0.230	22	-2.417
33	24	19	2.274	22	0.503
33	42	22	-0.503	19	-2.274
42	33	19	2.274	22	0.503
42	51	19	9.563	19	7.769
51	42	19	-4.438	19	-6.232
51	60	19	6.232	19	4.438
60	51	19	0.257	19	-1.802
60	69	22	0.669	19	-1.197
69	60	19	5.616	22	4.040
69	78	22	-4.040	19	-5.616
78	69	19	8.948	22	7.371
78	87	19	2.289	22	0.260
87	78	22	-0.260	19	-2.289
87	96	19	2.289	22	0.260
96	87	22	-0.260	19	-2.289
96	105	19	2.121	19	0.505
105	96	19	-0.391	19	-2.218
105	114	19	2.218	19	0.391
114	105	19	-0.524	19	-2.121
7	16	19	-1.192	19	-2.587
16	7	19	2.587	19	1.192
16	25	19	-1.192	19	-2.587
25	16	19	2.730	19	1.183
25	34	22	-0.005	22	-1.856
34	25	22	1.836	19	0.248

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO, 2

SHEARING FORCE (T)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
34	43	19	-0.248	22	-1.836
43	34	22	1.836	19	0.248
43	52	19	8.807	19	7.326
52	43	19	-3.995	19	-5.476
52	61	19	5.476	19	3.995
61	52	19	0.885	19	-0.903
61	70	19	1.233	19	-0.371
70	61	19	4.927	19	3.601
70	79	19	-3.601	19	-4.927
79	70	19	8.258	19	6.932
79	88	22	1.490	19	-0.171
88	79	19	0.171	22	-1.490
88	97	22	1.490	19	-0.171
97	88	19	0.171	22	-1.490
97	106	19	2.261	19	0.930
106	97	19	-0.939	19	-2.528
106	115	19	2.528	19	0.939
115	106	19	-0.939	19	-2.261
8	17	19	-0.606	19	-2.922
17	8	19	2.922	19	0.606
17	26	19	-0.606	19	-2.922
26	17	19	3.117	19	0.606
26	35	19	0.469	22	-1.896
35	26	22	1.896	19	-0.200
35	44	19	0.200	22	-1.896
44	35	22	1.896	19	-0.200
44	53	19	8.876	19	6.073
53	44	19	-3.030	19	-5.832
53	62	19	5.832	19	3.030
62	53	19	1.619	19	-1.654
62	71	19	1.776	19	-0.893
71	62	19	5.071	19	2.778
71	80	19	-2.778	19	-5.071
80	71	19	8.115	19	5.822
80	89	22	1.625	19	-1.061
89	80	19	1.061	22	-1.625
89	98	22	1.625	19	-1.061
98	89	19	1.061	22	-1.625
98	107	19	2.901	19	0.379
107	98	19	-0.379	19	-3.342
107	116	19	3.342	19	0.379
116	107	19	-0.379	19	-2.901
9	18	19	0.128	19	-3.285
18	9	19	3.285	19	-0.128
18	27	19	0.128	19	-3.285
27	18	19	3.524	19	-0.128
27	36	19	0.735	23	-2.220
36	27	23	2.220	19	-0.447
36	45	19	0.447	23	-2.220
45	36	23	2.220	19	-0.447

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
45	54	19	9.730	19	5.311
54	45	19	-1.973	19	-6.392
54	63	19	6.392	19	1.973
63	54	19	3.229	19	-1.810
63	72	19	3.164	19	-0.764
72	63	19	5.346	19	1.895
72	81	19	-1.895	19	-5.346
81	72	19	8.684	19	5.233
81	90	19	2.166	19	-1.822
90	81	19	1.822	19	-2.166
90	99	19	2.166	19	-1.822
99	90	19	1.822	19	-2.166
99	108	19	3.764	19	-0.365
108	99	19	0.365	19	-3.724
108	117	19	3.724	19	-0.365
117	108	19	0.365	19	-3.589
1	2	19	0.102	19	-0.030
2	1	19	0.030	19	-0.102
2	3	19	0.032	19	-0.026
3	2	19	0.026	19	-0.032
3	4	22	0.010	21	0.001
4	3	21	-0.001	22	-0.010
4	5	19	0.005	19	-0.030
5	4	19	0.030	19	-0.005
5	6	19	0.006	19	0.001
6	5	19	-0.001	19	-0.006
6	7	19	-0.006	19	-0.014
7	6	19	0.014	19	0.006
7	8	19	-0.003	19	-0.010
8	7	19	0.010	19	0.003
8	9	19	0.001	19	-0.012
9	8	19	0.012	19	-0.001
19	20	19	15.217	19	-24.938
20	19	19	24.938	19	-15.217
20	21	19	4.235	19	-17.105
21	20	19	17.105	19	-4.235
21	22	19	5.798	19	-7.555
22	21	19	7.555	19	-5.798
22	23	19	7.812	22	-2.481
23	22	22	2.481	19	-7.842
23	24	19	9.057	19	-2.223
24	23	19	2.223	19	-9.057
24	25	19	8.928	19	-3.232
25	24	19	3.232	19	-8.928
25	26	19	6.854	19	-3.184
26	25	19	3.184	19	-6.854
26	27	19	3.732	19	-2.155
27	26	19	2.155	19	-3.732
37	38	19	0.040	19	-0.472
38	37	19	0.472	19	-0.040

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

SHEARING FORCE (7)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
38	39	22	0.013	23	-0.143
39	38	23	0.143	22	-0.013
39	40	19	-0.039	19	-0.199
40	39	19	0.199	19	0.039
40	41	19	-0.025	22	-0.066
41	40	22	0.066	19	0.025
41	42	19	-0.062	19	-0.101
42	41	19	0.101	19	0.062
42	43	22	-0.033	23	-0.047
43	42	23	0.047	22	0.033
43	44	19	-0.050	19	-0.068
44	43	19	0.068	19	0.050
44	45	19	-0.047	19	-0.112
45	44	19	0.112	19	0.047
55	56	19	23.219	19	-16.465
56	55	19	16.465	19	-23.219
56	57	23	15.967	19	-8.147
57	56	19	8.147	23	-15.967
57	58	23	-3.461	19	-16.777
58	57	19	16.777	23	3.461
58	59	19	1.821	23	-8.156
59	58	23	8.156	19	-1.821
59	60	19	7.188	23	-5.338
60	59	23	5.338	19	-7.188
60	61	19	9.042	23	-4.795
61	60	23	4.795	19	-9.042
61	62	19	7.843	19	-3.957
62	61	19	3.957	19	-7.843
62	63	19	5.296	19	-1.956
63	62	19	1.956	19	-5.296
73	74	19	0.019	20	-0.530
74	73	20	0.530	19	-0.019
74	75	19	-0.011	19	-0.248
75	74	19	0.248	19	0.011
75	76	19	-0.039	23	-0.160
76	75	23	0.160	19	0.039
76	77	19	-0.048	22	-0.101
77	76	22	0.101	19	0.048
77	78	19	-0.049	23	-0.075
78	77	23	0.075	19	0.049
78	79	22	-0.051	23	-0.069
79	78	23	0.069	22	0.051
79	80	23	-0.026	19	-0.042
80	79	19	0.042	23	0.026
80	81	23	-0.063	19	-0.116
81	80	19	0.116	23	0.063
91	92	19	15.998	19	-28.128
92	91	19	28.128	19	-15.998
92	93	19	4.582	19	-20.730
93	92	19	20.730	19	-4.582

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

SHEARING FORCE (T)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
93	94	19	5.513	19	-8.752
94	93	19	8.752	19	-5.513
94	95	19	8.189	19	-2.633
95	94	19	2.633	19	-8.189
95	96	19	10.697	19	-2.375
96	95	19	2.375	19	-10.697
96	97	19	11.439	19	-3.614
97	96	19	3.614	19	-11.439
97	98	19	9.372	19	-3.677
98	97	19	3.677	19	-9.372
98	99	19	5.411	19	-2.528
99	98	19	2.528	19	-5.411
109	110	19	0.196	19	-0.061
110	109	19	0.061	19	-0.196
110	111	21	0.030	21	-0.020
111	110	21	0.020	21	-0.030
111	112	19	0.043	19	-0.032
112	111	19	0.032	19	-0.043
112	113	19	0.008	19	-0.005
113	112	19	0.005	19	-0.008
113	114	19	-0.001	19	-0.031
114	113	19	0.031	19	0.001
114	115	19	0.001	19	-0.008
115	114	19	0.008	19	-0.001
115	116	19	-0.001	19	-0.006
116	115	19	0.006	19	0.001
116	117	19	0.001	19	-0.039
117	116	19	0.039	19	-0.001

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

SHEARING FORCE (T)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
1	10	24	32.296	24	-4.466
10	1	24	13.686	24	-16.932
10	19	24	17.773	24	-13.686
19	10	24	25.841	25	-9.691
19	28	27	17.648	26	-22.371
28	19	24	32.653	26	-4.977
28	37	26	4.977	24	-34.146
37	28	24	48.098	26	0.074
37	46	24	54.949	26	-1.284
46	37	28	6.710	24	-30.279
46	55	24	32.281	25	-7.391
55	46	24	23.305	26	-18.231
55	64	24	22.366	26	-18.031
64	55	24	32.179	25	-8.518
64	73	25	6.301	24	-32.179
73	64	24	52.343	26	-0.733
73	82	24	45.801	27	-2.189
82	73	27	9.148	25	-29.517
82	91	25	29.112	27	-9.148
91	82	27	20.728	26	-16.522
91	100	24	25.032	24	-9.457
100	91	24	21.368	25	-11.359
100	109	28	9.639	24	-21.368
109	100	25	28.974	24	-4.954
2	11	25	27.964	27	-2.142
11	2	24	11.562	24	-16.927
11	20	24	15.874	24	-11.562
20	11	24	22.948	24	-7.968
20	29	27	17.611	27	-18.596
29	20	24	27.985	26	-5.158
29	38	26	5.158	24	-27.985
38	29	24	41.574	24	0.860
38	47	24	46.250	27	0.285
47	38	25	6.414	25	-26.282
47	56	25	26.282	25	-6.541
56	47	24	20.463	24	-14.977
56	65	24	20.354	27	-13.402
65	56	24	25.637	25	-7.534
65	74	25	7.370	24	-25.637
74	65	24	42.247	27	-0.753
74	83	24	36.222	24	-6.195
83	74	27	8.330	24	-24.497
83	92	24	24.314	27	-8.330
92	83	27	18.447	24	-17.506
92	101	24	20.981	24	-11.154
101	92	24	18.104	25	-10.044
101	110	28	9.534	24	-16.146
110	101	25	23.628	27	-5.148
3	12	24	16.519	24	3.283
12	3	24	4.210	24	-7.890

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
12	21	24	7.890	24	-4.210
21	12	24	12.574	24	-0.064
21	30	27	5.855	24	-7.946
30	21	24	15.498	27	2.399
30	39	27	-2.399	24	-15.498
39	30	24	26.923	27	12.922
39	48	24	29.081	24	12.493
48	39	24	-0.316	24	-14.246
48	57	24	14.402	24	0.316
57	48	24	10.326	24	-4.882
57	66	24	11.181	24	-3.036
66	57	24	12.093	28	-0.879
66	75	28	0.879	24	-12.093
75	66	24	22.909	24	8.111
75	84	24	15.198	27	0.034
84	75	27	0.628	24	-13.820
84	93	24	13.820	27	-0.628
93	84	27	1.897	24	-11.480
93	102	24	5.375	24	-6.830
102	93	24	10.118	24	-3.735
102	111	24	3.735	24	-10.118
111	102	24	9.244	24	-3.735
4	13	24	7.743	24	0.837
13	4	24	1.336	24	-5.570
13	22	24	5.570	24	-1.336
22	13	24	3.509	24	-4.027
22	31	27	-1.163	24	-8.777
31	22	24	10.052	27	3.336
31	40	27	-3.336	24	-10.052
40	31	24	13.359	27	6.642
40	49	24	14.105	24	5.953
49	40	24	-2.126	24	-10.278
49	58	24	10.278	24	2.126
58	49	24	0.566	24	-9.062
58	67	24	1.423	24	-6.557
67	58	24	8.057	24	1.270
67	76	24	-1.270	24	-8.057
76	67	24	10.749	24	3.962
76	85	24	7.380	27	-0.738
85	76	27	0.738	24	-7.380
85	94	24	7.380	27	-0.738
94	85	27	0.738	24	-7.380
94	103	24	3.238	24	-4.123
103	94	24	5.186	24	-3.238
103	112	24	3.238	24	-5.186
112	103	24	4.045	24	-3.238
5	14	24	5.217	24	1.819
14	5	24	0.286	24	-3.112
14	23	24	3.112	24	-0.286
23	14	24	2.391	24	-1.258

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
34	43	24	-2.855	27	-4.443
43	34	27	8.063	24	6.475
43	52	24	8.367	24	6.886
52	43	24	-2.697	24	-4.177
52	61	24	4.177	24	2.697
61	52	24	0.559	24	-1.229
61	70	24	1.838	24	0.233
70	61	24	2.698	24	1.372
70	79	24	-1.372	24	-2.698
79	70	24	5.647	24	4.321
79	88	27	0.951	24	-0.710
88	79	24	0.710	27	-0.951
88	97	27	0.951	24	-0.710
97	88	24	0.710	27	-0.951
97	106	24	1.717	24	0.386
106	97	24	-0.394	24	-1.983
106	115	24	1.983	24	0.394
115	106	24	-0.394	24	-1.717
8	17	24	3.991	24	1.675
17	8	24	0.499	24	-1.817
17	26	24	1.817	24	-0.499
26	17	24	2.868	24	0.357
26	35	24	0.174	27	-2.190
35	26	27	4.365	24	2.268
35	44	24	-2.268	27	-4.365
44	35	27	7.672	24	5.576
44	53	24	8.394	24	5.592
53	44	24	-1.764	24	-4.566
53	62	24	4.566	24	1.764
62	53	24	1.401	24	-1.872
62	71	24	2.417	24	-0.252
71	62	24	2.946	24	0.654
71	80	24	-0.654	24	-2.946
80	71	24	5.640	24	3.348
80	89	27	1.150	24	-1.535
89	80	24	1.535	27	-1.150
89	98	27	1.150	24	-1.535
98	89	24	1.535	27	-1.150
98	107	24	2.356	24	-0.166
107	98	24	0.166	24	-2.797
107	116	24	2.797	24	-0.166
116	107	24	0.166	24	-2.356
9	18	24	4.746	24	1.333
18	9	24	1.051	24	-2.362
18	27	24	2.362	24	-1.051
27	18	24	3.674	24	0.022
27	36	24	0.852	28	-2.104
36	27	28	4.488	24	1.821
36	45	24	-1.821	28	-4.488
45	36	28	8.115	24	5.448

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
45	54	24	9.374	24	4.955
54	45	24	-0.757	24	-5.177
54	63	24	5.177	24	0.757
63	54	24	2.817	24	-2.222
63	72	24	3.566	24	-0.362
72	63	24	3.316	24	-0.135
72	81	24	0.135	24	-3.316
81	72	24	6.271	24	2.820
81	90	24	1.737	24	-2.251
90	81	24	2.251	24	-1.737
90	99	24	1.737	24	-2.251
99	90	24	2.251	24	-1.737
99	108	24	3.218	24	-0.910
108	99	24	0.910	24	-3.178
108	117	24	3.178	24	-0.910
117	108	24	0.910	24	-3.043
1	2	24	0.114	24	-0.018
2	1	24	0.018	24	-0.114
2	3	24	0.051	24	-0.007
3	2	24	0.007	24	-0.051
3	4	27	0.011	26	0.002
4	3	26	-0.002	27	-0.011
4	5	24	0.030	24	-0.004
5	4	24	0.004	24	-0.030
5	6	24	0.005	24	0.000
6	5	24	-0.000	24	-0.005
6	7	24	0.012	24	0.004
7	6	24	-0.004	24	-0.012
7	8	24	0.009	24	0.001
8	7	24	-0.001	24	-0.009
8	9	24	0.015	24	0.002
9	8	24	-0.002	24	-0.015
19	20	24	20.048	24	-20.107
20	19	24	20.107	24	-20.048
20	21	24	10.048	24	-11.292
21	20	24	11.292	24	-10.048
21	22	24	0.911	24	-12.442
22	21	24	12.442	24	-0.911
22	23	24	4.650	27	-5.642
23	22	27	5.642	24	-4.650
23	24	24	7.632	24	-3.648
24	23	24	3.648	24	-7.632
24	25	24	8.268	24	-3.892
25	24	24	3.892	24	-8.268
25	26	24	6.578	24	-3.461
26	25	24	3.461	24	-6.578
26	27	24	3.999	24	-1.888
27	26	24	1.888	24	-3.999
37	38	24	0.052	24	-0.460
38	37	24	0.460	24	-0.052

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
38	39	27	-0.001	28	-0.157
39	38	28	0.157	27	0.001
39	40	24	-0.024	24	-0.184
40	39	24	0.184	24	0.024
40	41	24	-0.040	27	-0.082
41	40	27	0.082	24	0.040
41	42	24	-0.046	24	-0.084
42	41	24	0.084	24	0.046
42	43	27	-0.046	28	-0.061
43	42	28	0.061	27	0.046
43	44	24	-0.036	24	-0.054
44	43	24	0.054	24	0.036
44	45	24	-0.049	24	-0.113
45	44	24	0.113	24	0.049
55	56	24	19.869	24	-19.816
56	55	24	19.816	24	-19.869
56	57	28	12.010	24	-12.104
57	56	24	12.104	28	-12.010
57	58	28	-0.735	24	-14.052
58	57	24	14.052	28	0.735
58	59	24	3.787	28	-6.190
59	58	28	6.190	24	-3.787
59	60	24	8.265	28	-4.261
60	59	28	4.261	24	-8.265
60	61	24	9.734	28	-4.103
61	60	28	4.103	24	-9.734
61	62	24	8.257	24	-3.544
62	61	24	3.544	24	-8.257
62	63	24	5.286	24	-1.966
63	62	24	1.966	24	-5.286
73	74	24	0.051	25	-0.498
74	73	25	0.498	24	-0.051
74	75	24	0.020	24	-0.217
75	74	24	0.217	24	-0.020
75	76	24	-0.013	28	-0.135
76	75	28	0.135	24	0.013
76	77	24	-0.017	27	-0.070
77	76	27	0.070	24	0.017
77	78	24	-0.021	28	-0.047
78	77	28	0.047	24	0.021
78	79	27	-0.020	28	-0.039
79	78	28	0.039	27	0.020
79	80	28	-0.007	24	-0.023
80	79	24	0.023	28	0.007
80	81	28	-0.019	24	-0.072
81	80	24	0.072	28	0.019
91	92	24	16.285	24	-27.841
92	91	24	27.841	24	-16.285
92	93	24	4.914	24	-20.398
93	92	24	20.398	24	-4.914

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 3

SHEARING FORCE (T)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
93	94	24	5.692	24	-8.573
94	93	24	8.573	24	-5.692
94	95	24	8.210	24	-2.612
95	94	24	2.612	24	-8.210
95	96	24	10.577	24	-2.495
96	95	24	2.495	24	-10.577
96	97	24	11.246	24	-3.807
97	96	24	3.807	24	-11.246
97	98	24	9.185	24	-3.864
98	97	24	3.864	24	-9.185
98	99	24	5.294	24	-2.644
99	98	24	2.644	24	-5.294
109	110	24	0.203	24	-0.054
110	109	24	0.054	24	-0.203
110	111	26	0.030	26	-0.020
111	110	26	0.020	26	-0.030
111	112	24	0.047	24	-0.028
112	111	24	0.028	24	-0.047
112	113	24	0.008	24	-0.005
113	112	24	0.005	24	-0.008
113	114	24	0.006	24	-0.024
114	113	24	0.024	24	-0.006
114	115	24	0.002	24	-0.008
115	114	24	0.008	24	-0.002
115	116	24	0.000	24	-0.005
116	115	24	0.005	24	-0.000
116	117	24	0.007	24	-0.032
117	116	24	0.032	24	-0.007

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 4

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
1	10	14	34.551	14	-2.211
10	1	14	11.431	14	-19.187
10	19	14	20.028	14	-11.431
19	10	14	23.586	15	-11.946
19	28	17	16.443	16	-23.576
28	19	14	33.858	3	-5.215
28	37	3	5.215	14	-35.352
37	28	14	49.303	3	-1.949
37	46	14	52.000	16	-4.233
46	37	18	9.659	14	-27.331
46	55	14	29.333	15	-10.340
55	46	14	26.254	16	-15.282
55	64	14	25.396	16	-15.002
64	55	14	29.150	15	-11.547
64	73	15	9.330	14	-29.150
73	64	14	49.313	16	-3.762
73	82	14	45.758	17	-2.232
82	73	17	9.191	15	-29.474
82	91	15	29.070	17	-9.191
91	82	17	20.771	16	-16.480
91	100	14	23.924	14	-10.564
100	91	14	22.475	15	-10.252
100	109	18	8.532	14	-22.475
109	100	15	30.081	14	-3.847
2	11	15	30.604	3	-1.792
11	2	14	9.183	14	-19.307
11	20	14	18.253	14	-9.183
20	11	14	21.868	3	-9.563
20	29	17	18.060	17	-18.147
29	20	14	28.836	3	-5.204
29	38	3	5.204	14	-28.836
38	29	14	41.646	3	-2.007
38	47	14	39.780	17	-6.184
47	38	15	9.376	15	-23.319
47	56	15	23.319	15	-9.503
56	47	14	20.958	14	-14.483
56	65	14	21.049	17	-12.708
65	56	14	22.475	15	-10.696
65	74	15	10.532	14	-22.475
74	65	14	36.617	17	-6.383
74	83	14	35.406	14	-7.011
83	74	17	9.145	14	-23.681
83	92	14	23.498	17	-9.145
92	83	17	19.263	14	-16.690
92	101	14	20.020	14	-12.114
101	92	14	19.064	15	-9.083
101	110	18	8.573	14	-17.106
110	101	15	24.589	17	-4.188
3	12	3	21.535	3	-0.998
12	3	3	7.036	3	-12.461

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 4

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
12	21	3	12.461	3	-7.036
21	12	3	15.255	3	-8.037
21	30	3	13.651	3	-10.761
30	21	3	16.082	3	-5.636
30	39	3	5.636	3	-16.082
39	30	3	24.704	3	-1.451
39	48	14	14.898	14	-1.691
48	39	14	1.691	14	-12.240
48	57	14	12.395	14	-1.691
57	48	14	3.764	14	-11.444
57	66	14	4.921	14	-9.296
66	57	14	9.784	18	-3.187
66	75	18	3.187	14	-9.784
75	66	14	12.032	14	-2.766
75	84	14	13.173	17	-1.991
84	75	17	2.653	14	-11.794
84	93	14	11.794	17	-2.653
93	84	17	3.923	14	-9.455
93	102	14	4.686	14	-7.518
102	93	14	10.807	14	-3.047
102	111	14	3.047	14	-10.807
111	102	14	9.932	14	-3.047
4	13	3	21.177	3	-0.835
13	4	3	6.904	3	-12.007
13	22	3	12.007	3	-6.904
22	13	3	15.197	3	-7.538
22	31	3	13.552	3	-10.280
31	22	3	15.637	3	-5.490
31	40	3	5.490	3	-15.637
40	31	3	24.353	3	-1.239
40	49	3	10.232	14	-1.371
49	40	14	1.371	14	-6.781
49	58	14	6.781	14	-1.371
58	49	14	1.371	14	-8.257
58	67	14	2.518	14	-5.461
67	58	14	4.269	14	-2.518
67	76	14	2.518	14	-4.269
76	67	14	4.269	14	-2.518
76	85	14	6.213	17	-1.904
85	76	17	1.904	14	-6.213
85	94	14	6.213	17	-1.904
94	85	17	1.904	14	-6.213
94	103	14	2.272	14	-5.089
103	94	14	6.152	14	-2.272
103	112	14	2.272	14	-6.152
112	103	14	5.011	14	-2.272
5	14	3	21.092	3	-0.664
14	5	3	6.740	3	-11.894
14	23	3	11.894	3	-6.740
23	14	3	15.027	3	-7.425

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 4

SHEARING FORCE (T)

I	J	MAX CASE,	MAX FORCE	MIN CASE,	MIN FORCE
23	32	3	13.337	3	-10.193
32	23	3	15.568	3	-5.295
32	41	3	5.295	3	-15.568
41	32	3	24.302	3	-1.049
41	50	3	10.310	3	-1.008
50	41	3	1.008	14	-3.510
50	59	14	3.510	3	-1.008
59	50	3	1.008	14	-3.991
59	68	3	2.053	14	-1.758
68	59	14	1.280	3	-2.053
68	77	3	2.053	14	-1.280
77	68	14	1.280	3	-2.053
77	86	14	2.396	17	-1.371
86	77	17	1.371	14	-2.440
86	95	14	2.440	17	-1.371
95	86	17	1.371	14	-2.436
95	104	14	1.280	14	-2.412
104	95	14	2.841	14	-1.280
104	113	14	1.280	14	-2.841
113	104	14	2.379	14	-1.280
6	15	3	21.181	3	-0.842
15	6	3	6.911	3	-12.012
15	24	3	12.012	3	-6.911
24	15	3	15.204	3	-7.543
24	33	3	13.561	3	-10.287
33	24	3	15.644	3	-5.498
33	42	3	5.498	3	-15.644
42	33	3	24.358	3	-1.248
42	51	3	10.232	3	-0.914
51	42	3	0.914	3	-3.371
51	60	3	3.371	3	-0.914
60	51	3	0.914	3	-3.371
60	69	3	2.143	3	-0.489
69	60	3	0.489	3	-2.143
69	78	3	2.143	3	-0.489
78	69	3	0.489	3	-2.143
78	87	14	0.663	17	-1.365
87	78	17	1.365	14	-0.663
87	96	14	0.663	17	-1.365
96	87	17	1.365	14	-0.663
96	105	14	0.603	14	-1.013
105	96	14	1.127	14	-0.700
105	114	14	0.700	14	-1.127
114	105	14	0.994	14	-0.603
7	16	3	21.546	3	-1.006
16	7	3	7.041	3	-12.476
16	25	3	12.476	3	-7.041
25	16	3	15.260	3	-8.047
25	34	3	13.658	3	-10.773
34	25	3	16.095	3	-5.643

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 4

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
34	43	3	5.643	3	-16.095
43	34	3	24.715	3	-1.457
43	52	3	10.033	3	-0.757
52	43	3	0.757	3	-3.130
52	61	3	3.130	3	-0.757
61	52	3	0.757	3	-3.130
61	70	3	2.395	3	-0.502
70	61	3	0.502	3	-2.395
70	79	3	2.395	3	-0.502
79	70	3	0.502	3	-2.395
79	88	3	0.408	14	-1.630
88	79	14	1.630	3	-0.408
88	97	3	0.408	14	-1.630
97	88	14	1.630	3	-0.408
97	106	14	0.711	14	-0.620
106	97	14	0.611	14	-0.978
106	115	14	0.978	14	-0.611
115	106	14	0.611	14	-0.711
8	17	3	22.416	3	-1.800
17	8	3	6.640	3	-13.608
17	26	3	13.608	3	-6.640
26	17	3	14.343	3	-9.504
26	35	3	12.522	3	-12.454
35	26	3	17.374	3	-5.222
35	44	3	5.222	3	-17.374
44	35	3	25.800	3	-2.017
44	53	3	10.093	3	-1.220
53	44	14	1.192	3	-3.163
53	62	3	3.163	14	-1.192
62	53	14	1.663	3	-3.163
62	71	14	2.860	3	-0.580
71	62	3	0.580	3	-2.614
71	80	3	2.614	3	-0.580
80	71	3	0.580	3	-2.614
80	89	17	0.351	14	-2.334
89	80	14	2.334	17	-0.351
89	98	17	0.351	14	-2.334
98	89	14	2.334	17	-0.351
98	107	14	1.357	14	-1.165
107	98	14	1.165	14	-1.798
107	116	14	1.798	14	-1.165
116	107	14	1.165	14	-1.357
9	18	3	23.827	3	-1.630
18	9	3	6.627	3	-15.015
18	27	3	15.015	3	-6.627
27	18	3	13.825	3	-9.418
27	36	3	11.735	3	-12.803
36	27	3	19.165	3	-5.227
36	45	3	5.227	3	-19.165
45	36	3	27.530	3	-1.946

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 4

SHEARING FORCE (T)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
45	54	3	10.508	14	-2.031
54	45	14	2.031	3	-3.685
54	63	3	3.685	14	-2.031
63	54	14	2.651	3	-3.685
63	72	14	3.554	3	-0.868
72	63	3	0.868	14	-3.077
72	81	14	3.077	3	-0.868
81	72	3	0.868	14	-3.077
81	90	14	0.943	14	-3.044
90	81	14	3.044	14	-0.943
90	99	14	0.943	14	-3.044
99	90	14	3.044	14	-0.943
99	108	14	2.246	14	-1.882
108	99	14	1.882	14	-2.206
108	117	14	2.206	14	-1.882
117	108	14	1.882	14	-2.071
1	2	14	0.124	14	-0.008
2	1	14	0.008	14	-0.124
2	3	14	0.064	3	-0.004
3	2	3	0.004	14	-0.064
3	4	3	0.017	3	-0.008
4	3	3	0.008	3	-0.017
4	5	3	0.075	3	-0.000
5	4	3	0.000	3	-0.075
5	6	3	0.015	3	-0.009
6	5	3	0.008	3	-0.015
6	7	3	0.059	3	-0.001
7	6	3	0.001	3	-0.059
7	8	3	0.051	3	-0.005
8	7	3	0.005	3	-0.051
8	9	3	0.072	3	-0.007
9	8	3	0.006	3	-0.072
19	20	14	23.509	14	-16.646
20	19	14	16.646	14	-23.509
20	21	3	16.721	3	-13.891
21	20	3	13.891	3	-16.721
21	22	3	17.876	3	-16.480
22	21	3	16.480	3	-17.876
22	23	3	19.329	3	-18.777
23	22	3	18.777	3	-19.329
23	24	3	18.990	3	-19.104
24	23	3	19.104	3	-18.990
24	25	3	16.688	3	-17.639
25	24	3	17.639	3	-16.688
25	26	3	14.113	3	-16.492
26	25	3	16.492	3	-14.113
26	27	3	14.261	3	-14.461
27	26	3	14.461	3	-14.261
37	38	14	0.094	14	-0.418
38	37	14	0.418	14	-0.094

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO, 4

SHEARING FORCE (T)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
93	94	14	5.564	14	-8.700
94	93	14	8.700	14	-5.564
94	95	14	7.882	14	-2.940
95	94	14	2.940	14	-7.882
95	96	14	10.148	14	-2.924
96	95	14	2.924	14	-10.148
96	97	14	10.782	14	-4.271
97	96	14	4.271	14	-10.782
97	98	14	8.807	14	-4.242
98	97	14	4.242	14	-8.807
98	99	14	5.116	14	-2.823
99	98	14	2.823	14	-5.116
109	110	14	0.215	14	-0.042
110	109	14	0.042	14	-0.215
110	111	16	0.029	16	-0.021
111	110	16	0.021	16	-0.029
111	112	14	0.054	14	-0.021
112	111	14	0.021	14	-0.054
112	113	14	0.008	14	-0.005
113	112	14	0.005	14	-0.008
113	114	14	0.020	14	-0.010
114	113	14	0.010	14	-0.020
114	115	14	0.004	14	-0.006
115	114	14	0.006	14	-0.004
115	116	14	0.003	14	-0.003
116	115	14	0.003	14	-0.003
116	117	14	0.019	14	-0.021
117	116	14	0.021	14	-0.019

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 5

SHEARING FORCE (T)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
12	21	19	6.484	19	-5.616
21	12	19	7.065	19	-5.573
21	30	4	2.672	19	-13.137
30	21	19	13.774	4	-2.672
30	39	4	2.672	19	-13.774
39	30	19	14.676	4	-2.672
39	48	4	28.195	4	-2.729
48	39	4	6.214	4	-17.915
48	57	4	17.915	4	-6.214
57	48	4	15.861	4	-11.157
57	66	4	16.199	4	-10.223
66	57	4	16.607	4	-6.509
66	75	4	6.509	4	-16.607
75	66	4	26.926	4	-2.188
75	84	19	15.851	4	-2.430
84	75	4	2.430	19	-14.473
84	93	19	14.473	4	-2.430
93	84	4	2.430	19	-12.133
93	102	19	5.876	19	-6.329
102	93	19	9.617	19	-4.236
102	111	19	4.236	19	-9.617
111	102	19	8.743	19	-4.236
4	13	19	2.612	19	-4.294
13	4	19	4.294	19	-2.612
13	22	19	2.612	19	-4.294
22	13	19	4.294	19	-3.241
22	31	4	2.612	19	-7.837
31	22	4	7.526	4	-2.612
31	40	4	2.612	4	-7.526
40	31	4	13.243	4	-2.612
40	49	4	27.512	4	-2.510
49	40	4	6.069	4	-17.112
49	58	4	17.112	4	-6.069
58	49	4	15.839	4	-10.341
58	67	4	16.169	4	-9.526
67	58	4	15.924	4	-6.372
67	76	4	6.372	4	-15.924
76	67	4	26.355	4	-1.985
76	85	4	12.580	4	-2.473
85	76	4	2.473	19	-8.053
85	94	19	8.053	4	-2.473
94	85	4	2.473	19	-8.053
94	103	19	3.752	19	-3.609
103	94	19	4.672	19	-3.752
103	112	19	3.752	19	-4.672
112	103	19	3.531	19	-3.752
5	14	4	0.470	4	-3.719
14	5	4	3.719	4	-0.470
14	23	4	0.470	4	-3.719
23	14	4	3.719	4	-0.470

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 5

SHEARING FORCE (T)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE
34	43	4	2.683	4	-7.445
43	34	4	13.175	4	-2.683
43	52	4	28.219	4	-2.766
52	43	4	6.232	4	-17.938
52	61	4	17.938	4	-6.232
61	52	4	15.883	4	-11.170
61	70	4	16.218	4	-10.222
70	61	4	16.605	4	-6.526
70	79	4	6.526	4	-16.605
79	70	4	26.921	4	-2.194
79	88	4	12.389	4	-2.429
88	79	4	2.429	4	-6.469
88	97	4	6.469	4	-2.429
97	88	4	2.429	4	-6.469
97	106	4	3.718	4	-0.522
106	97	4	0.522	4	-3.718
106	115	4	3.718	4	-0.522
115	106	4	0.522	4	-3.718
8	17	4	0.733	4	-4.854
17	8	4	4.854	4	-0.733
17	26	4	0.733	4	-4.854
26	17	4	4.854	4	-0.733
26	35	4	2.837	4	-7.361
35	26	4	7.361	4	-2.837
35	44	4	2.837	4	-7.361
44	35	4	13.221	4	-2.837
44	53	4	29.394	4	-3.266
53	44	4	5.965	4	-19.296
53	62	4	19.296	4	-5.965
62	53	4	14.782	4	-12.960
62	71	4	15.143	4	-11.920
71	62	4	17.892	4	-6.198
71	80	4	6.198	4	-17.892
80	71	4	27.997	4	-2.687
80	89	4	12.396	4	-2.607
89	80	4	2.607	4	-6.374
89	98	4	6.374	4	-2.607
98	89	4	2.607	4	-6.374
98	107	4	4.092	4	-0.709
107	98	4	0.709	4	-4.092
107	116	4	4.092	4	-0.709
116	107	4	0.709	4	-4.092
9	18	4	1.276	4	-5.370
18	9	4	5.370	4	-1.276
18	27	4	1.276	4	-5.370
27	18	4	5.370	4	-1.276
27	36	4	2.442	4	-7.455
36	27	4	7.455	4	-2.442
36	45	4	2.442	4	-7.455
45	36	4	13.315	4	-2.442

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 5

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
38	39	4	0.030	23	-0.143
39	38	23	0.143	4	-0.030
39	40	4	0.007	4	-0.201
40	39	4	0.201	4	-0.007
40	41	4	0.017	4	-0.117
41	40	4	0.117	4	-0.017
41	42	4	0.004	4	-0.190
42	41	4	0.190	4	-0.004
42	43	4	0.016	4	-0.128
43	42	4	0.128	4	-0.016
43	44	4	0.020	4	-0.185
44	43	4	0.185	4	-0.020
44	45	4	0.031	4	-0.282
45	44	4	0.282	4	-0.031
55	56	19	23.219	4	-17.476
56	55	4	17.476	19	-23.219
56	57	4	20.857	4	-17.698
57	56	4	17.698	4	-20.857
57	58	4	21.621	4	-19.827
58	57	4	19.827	4	-21.621
58	59	4	22.728	4	-21.956
59	58	4	21.956	4	-22.728
59	60	4	22.293	4	-22.371
60	59	4	22.371	4	-22.293
60	61	4	20.109	4	-21.315
61	60	4	21.315	4	-20.109
61	62	4	17.991	4	-20.588
62	61	4	20.588	4	-17.991
62	63	4	17.604	4	-17.431
63	62	4	17.431	4	-17.604
73	74	4	0.026	20	-0.530
74	73	20	0.530	4	-0.026
74	75	4	0.026	19	-0.248
75	74	19	0.248	4	-0.026
75	76	4	0.017	23	-0.160
76	75	23	0.160	4	-0.017
76	77	4	0.011	4	-0.177
77	76	4	0.177	4	-0.011
77	78	4	0.014	4	-0.168
78	77	4	0.168	4	-0.014
78	79	4	0.014	4	-0.185
79	78	4	0.185	4	-0.014
79	80	4	0.035	4	-0.144
80	79	4	0.144	4	-0.035
80	81	4	0.027	4	-0.332
81	80	4	0.332	4	-0.027
91	92	19	15.998	19	-28.128
92	91	19	28.128	19	-15.998
92	93	4	7.187	19	-20.730
93	92	19	20.730	4	-7.187

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 5

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
93	94	4	6.683	19	-8.752
94	93	19	8.752	4	-6.683
94	95	19	8.189	4	-6.795
95	94	4	6.795	19	-8.189
95	96	19	10.697	4	-6.603
96	95	4	6.603	19	-10.697
96	97	19	11.439	4	-6.850
97	96	4	6.850	19	-11.439
97	98	19	9.372	4	-7.360
98	97	4	7.360	19	-9.372
98	99	4	6.068	4	-6.598
99	98	4	6.598	4	-6.068
109	110	19	0.196	19	-0.061
110	109	19	0.061	19	-0.196
110	111	21	0.030	21	-0.020
111	110	21	0.020	21	-0.030
111	112	19	0.043	19	-0.032
112	111	19	0.032	19	-0.043
112	113	19	0.008	4	-0.007
113	112	4	0.007	19	-0.008
113	114	4	0.000	4	-0.037
114	113	4	0.037	4	-0.000
114	115	4	0.006	4	-0.012
115	114	4	0.012	4	-0.006
115	116	4	0.005	4	-0.011
116	115	4	0.011	4	-0.005
116	117	4	0.011	4	-0.049
117	116	4	0.049	4	-0.011

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO, 6

SHEARING FORCE (T)

I	J	MAX CASE,	MAX FORCE	MIN CASE,	MIN FORCE
1	10	24	32.296	5	-6.046
10	1	24	13.686	24	-16.932
10	19	24	17.773	24	-13.686
19	10	24	25.841	25	-9.691
19	28	27	17.648	26	-22.371
28	19	24	32.653	5	-6.461
28	37	5	6.461	24	-34.146
37	28	24	48.098	5	-3.532
37	46	24	54.949	5	-3.444
46	37	28	6.710	24	-30.279
46	55	24	32.281	25	-7.391
55	46	24	23.305	26	-18.231
55	64	24	22.366	26	-18.031
64	55	24	32.179	25	-8.518
64	73	5	7.595	24	-32.179
73	64	24	52.343	5	-4.318
73	82	24	45.801	5	-3.103
82	73	27	9.148	25	-29.517
82	91	25	29.112	27	-9.148
91	82	27	20.728	26	-16.522
91	100	24	25.032	24	-9.457
100	91	24	21.368	25	-11.359
100	109	28	9.639	24	-21.368
109	100	25	28.974	24	-4.954
2	11	25	27.964	5	-5.468
11	2	24	11.562	24	-16.927
11	20	24	15.874	24	-11.562
20	11	24	22.948	5	-9.267
20	29	27	17.611	27	-18.596
29	20	24	27.985	5	-6.663
29	38	5	6.663	24	-27.985
38	29	24	41.574	5	-3.791
38	47	24	46.250	5	-3.429
47	38	25	6.414	25	-26.282
47	56	25	26.282	25	-6.541
56	47	24	20.463	24	-14.977
56	65	24	20.354	27	-13.402
65	56	24	25.637	25	-7.534
65	74	5	7.434	24	-25.637
74	65	24	42.247	5	-4.202
74	83	24	36.222	24	-6.195
83	74	27	8.330	24	-24.497
83	92	24	24.314	27	-8.330
92	83	27	18.447	24	-17.506
92	101	24	20.981	24	-11.154
101	92	24	18.104	25	-10.044
101	110	28	9.534	24	-16.146
110	101	25	23.628	27	-5.148
3	12	5	20.241	5	-4.581
12	3	5	9.538	5	-11.864

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 6

SHEARING FORCE (T)

I	J	MAX CASE.	MAX FORCE	MIN CASE.	MIN FORCE
12	21	5	11.864	5	-9.538
21	12	5	17.092	5	-7.686
21	30	5	14.521	5	-14.599
30	21	5	19.586	5	-7.072
30	39	5	7.072	5	-19.586
39	30	5	27.442	5	-3.244
39	48	24	29.081	5	-2.994
48	39	5	6.273	5	-18.468
48	57	5	18.468	5	-6.273
57	48	5	15.227	5	-12.146
57	66	5	16.563	5	-9.614
66	57	5	15.597	5	-7.602
66	75	5	7.602	5	-15.597
75	66	5	24.966	5	-3.515
75	84	24	15.198	5	-2.786
84	75	5	2.786	24	-13.820
84	93	24	13.820	5	-2.786
93	84	5	2.786	24	-11.480
93	102	24	5.375	24	-6.830
102	93	24	10.118	24	-3.735
102	111	24	3.735	24	-10.118
111	102	24	9.244	24	-3.735
4	13	5	19.892	5	-4.024
13	4	5	9.122	5	-11.419
13	22	5	11.419	5	-9.122
22	13	5	16.743	5	-7.198
22	31	5	14.412	5	-14.238
31	22	5	19.258	5	-6.923
31	40	5	6.923	5	-19.258
40	31	5	27.208	5	-3.037
40	49	5	27.339	5	-2.933
49	40	5	6.281	5	-17.918
49	58	5	17.918	5	-6.281
58	49	5	15.344	5	-11.578
58	67	5	16.390	5	-8.971
67	58	5	14.970	5	-7.334
67	76	5	7.334	5	-14.970
76	67	5	24.451	5	-3.186
76	85	5	12.235	5	-2.783
85	76	5	2.783	24	-7.380
85	94	24	7.380	5	-2.783
94	85	5	2.783	24	-7.380
94	103	24	3.238	24	-4.123
103	94	24	5.186	24	-3.238
103	112	24	3.238	24	-5.186
112	103	24	4.045	24	-3.238
5	14	5	19.817	5	-3.724
14	5	5	8.827	5	-11.317
14	23	5	11.317	5	-8.827
23	14	5	16.441	5	-7.096

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 6

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
23	32	5	14.232	5	-14.212
32	23	5	19.249	5	-6.763
32	41	5	6.763	5	-19.249
41	32	5	27.216	5	-2.927
41	50	5	27.298	5	-2.860
50	41	5	6.225	5	-17.853
50	59	5	17.853	5	-6.225
59	50	5	15.274	5	-11.494
59	68	5	16.171	5	-8.844
68	59	5	14.842	5	-7.130
68	77	5	7.130	5	-14.842
77	68	5	24.351	5	-2.946
77	86	5	12.323	5	-2.634
86	77	5	2.634	5	-6.475
86	95	5	6.475	5	-2.634
95	86	5	2.634	5	-6.475
95	104	5	2.846	24	-1.428
104	95	24	1.857	5	-2.846
104	113	5	2.846	24	-1.857
113	104	24	1.395	5	-2.846
6	15	5	19.896	5	-4.041
15	6	5	9.137	5	-11.425
15	24	5	11.425	5	-9.137
24	15	5	16.758	5	-7.204
24	33	5	14.431	5	-14.242
33	24	5	19.262	5	-6.942
33	42	5	6.942	5	-19.262
42	33	5	27.210	5	-3.060
42	51	5	27.334	5	-2.967
51	42	5	6.297	5	-17.912
51	60	5	17.912	5	-6.297
60	51	5	15.368	5	-11.565
60	69	5	16.416	5	-8.943
69	60	5	14.927	5	-7.356
69	78	5	7.356	5	-14.927
78	69	5	24.416	5	-3.185
78	87	5	12.238	5	-2.776
87	78	5	2.776	5	-6.370
87	96	5	6.370	5	-2.776
96	87	5	2.776	5	-6.370
96	105	5	3.036	5	-0.826
105	96	5	0.826	5	-3.036
105	114	5	3.036	5	-0.826
114	105	5	0.826	5	-3.036
7	16	5	20.257	5	-4.593
16	7	5	9.547	5	-11.883
16	25	5	11.883	5	-9.547
25	16	5	17.100	5	-7.702
25	34	5	14.533	5	-14.626
34	25	5	19.612	5	-7.085

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 6

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
45	54	5	30.627	5	-3.449
54	45	5	6.332	5	-21.548
54	63	5	21.548	5	-6.332
63	54	5	13.940	5	-14.346
63	72	5	15.276	5	-11.473
72	63	5	18.481	5	-7.586
72	81	5	7.586	5	-18.481
81	72	5	27.639	5	-4.276
81	90	5	12.430	5	-3.058
90	81	5	3.058	5	-6.553
90	99	5	6.553	5	-3.058
99	90	5	3.058	5	-6.553
99	108	5	4.223	5	-1.573
108	99	5	1.573	5	-4.223
108	117	5	4.223	5	-1.573
117	108	5	1.573	5	-4.223
1	2	24	0.114	5	-0.027
2	1	5	0.027	24	-0.114
2	3	5	0.054	5	-0.022
3	2	5	0.022	5	-0.054
3	4	5	0.021	5	-0.008
4	3	5	0.008	5	-0.021
4	5	5	0.069	5	-0.026
5	4	5	0.025	5	-0.069
5	6	5	0.020	5	-0.009
6	5	5	0.008	5	-0.020
6	7	5	0.055	5	-0.019
7	6	5	0.019	5	-0.055
7	8	5	0.048	5	-0.019
8	7	5	0.019	5	-0.048
8	9	5	0.069	5	-0.022
9	8	5	0.021	5	-0.069
19	20	24	20.048	24	-20.107
20	19	24	20.107	24	-20.048
20	21	5	19.491	5	-17.144
21	20	5	17.144	5	-19.491
21	22	5	20.505	5	-19.475
22	21	5	19.475	5	-20.505
22	23	5	21.814	5	-21.467
23	22	5	21.467	5	-21.814
23	24	5	21.583	5	-21.700
24	23	5	21.700	5	-21.583
24	25	5	19.583	5	-20.391
25	24	5	20.391	5	-19.583
25	26	5	17.262	5	-19.372
26	25	5	19.372	5	-17.262
26	27	5	16.831	5	-17.197
27	26	5	17.197	5	-16.831
37	38	24	0.052	24	-0.460
38	37	24	0.460	24	-0.052

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 6

SHEARING FORCE (T)

I	J	MAX CASE.	FORCE	MIN CASE.	FORCE
93	94	5	6.451	24	-8.573
94	93	24	8.573	5	-6.451
94	95	24	8.210	5	-6.628
95	94	5	6.628	24	-8.210
95	96	24	10.577	5	-6.455
96	95	5	6.455	24	-10.577
96	97	24	11.246	5	-6.585
97	96	5	6.585	24	-11.246
97	98	24	9.185	5	-7.020
98	97	5	7.020	24	-9.185
98	99	5	5.898	5	-6.371
99	98	5	6.371	5	-5.898
109	110	24	0.203	24	-0.054
110	109	24	0.054	24	-0.203
110	111	26	0.030	26	-0.020
111	110	26	0.020	26	-0.030
111	112	24	0.047	24	-0.028
112	111	24	0.028	24	-0.047
112	113	24	0.008	5	-0.007
113	112	5	0.007	24	-0.008
113	114	24	0.006	5	-0.034
114	113	5	0.034	5	-0.006
114	115	5	0.006	5	-0.012
115	114	5	0.011	5	-0.007
115	116	5	0.005	5	-0.011
116	115	5	0.011	5	-0.006
116	117	5	0.016	5	-0.046
117	116	5	0.046	5	-0.016

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 1

TORSIONAL MOMENT (T,M)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO. 2

TORSIONAL MOMENT (T.M)

I	J	MAX CASE.	MAX FORCE	MIN CASE.	MIN FORCE

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO, 4

TORSIONAL MOMENT (T.M)

I	J	MAX CASE,	MAX FORCE	MIN CASE,	MIN FORCE

** MONBASA JU BRIDGE **

** PICKUP TABLE ** NO, 6

TORSIONAL MOMENT (T.M)

I	J	MAX CASE,	FORCE	MIN CASE,	FORCE

Mombasa, Ju. Bride

TOTAL MOMENT

POINT		G1 ③	U. L. S			S. L. S		
		MOMENT M (kNm)	γfL	γ3	MOMENT OF DESIGN Mu=MγfLγ3 (kNm)	γfL	γ3	MOMENT OF DESIGN Mu=MγfLγ3 (kNm)
DEAD LOAD		717.9	1.20	1.15	990.7	1.00	1.00	717.9
LIVE LOAD	HA		1.50	1.10	0.0	1.20	1.00	0.0
	HA HB	1303.4	1.30	1.10	1863.9	1.10	1.00	1433.7
TOTAL					990.7 2854.6			717.9 2151.6
DESIGN MOMENT					2854.6			2151.6
RESISTANCE MOMENT					5012.7			2504.0

TOTAL MOMENT

POINT		G1 ⑤	U. L. S			S. L. S		
		MOMENT M (kNm)	γfL	γ3	MOMENT OF DESIGN Mu=MγfLγ3 (kNm)	γfL	γ3	MOMENT OF DESIGN Mu=MγfLγ3 (kNm)
DEAD LOAD		-1549.9	1.20	1.15	-2138.9	1.00	1.00	-1549.9
LIVE LOAD	HA		1.50	1.10	0.0	1.20	1.00	0.0
	HA HB	-1483.7	1.30	1.10	-2121.7	1.10	1.00	-1632.1
TOTAL					-2138.9 -4260.6			-1549.9 -3182.0
DESIGN MOMENT					-4260.6			-3182.0
RESISTANCE MOMENT					-5223.0			-3307.8

TOTAL MOMENT

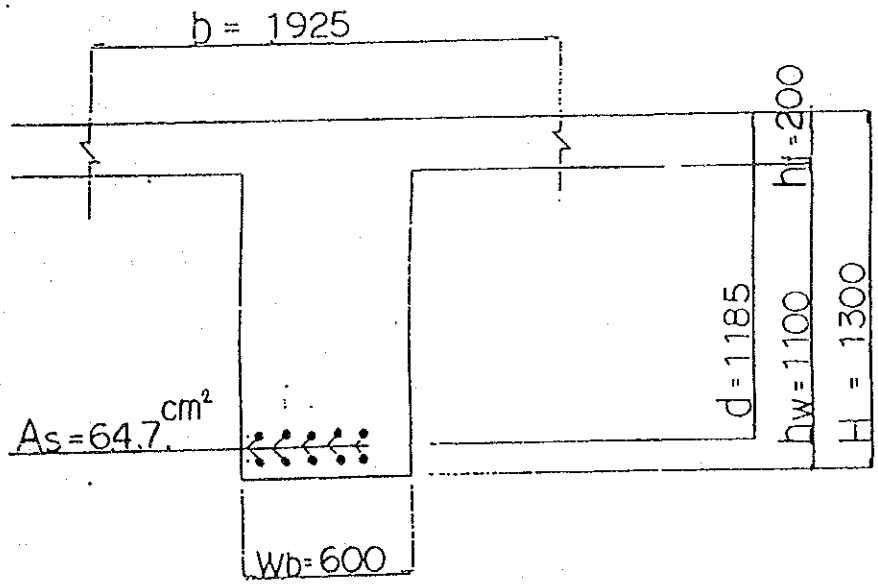
POINT		G2 ⑤	U. L. S			S. L. S		
		MOMENT M (kNm)	γfL	γ3	MOMENT OF DESIGN Mu=MγfLγ3 (kNm)	γfL	γ3	MOMENT OF DESIGN Mu=MγfLγ3 (kNm)
DEAD LOAD		-1230.7	1.20	1.15	-1698.4	1.00	1.00	-1230.7
LIVE LOAD	HA	-997.2	1.50	1.10	-1645.4	1.20	1.00	-1196.6
	HA HB	-1267.1	1.30	1.10	-1812.0	1.10	1.00	-1393.8
TOTAL					-3343.7 -3510.3			-2427.3 -2624.5
DESIGN MOMENT					-3510.3			-2624.5
RESISTANCE MOMENT					-5223.0			-2870.3

U.FLG b=	192.5	AS=	64.7
U.FLG hf=	20	fcu=	3000
WEB hw=	110	fy=	41000
d=	118.5		

Z=d-1/2*hf = 108.5

MRC=0.4*fcu*b*hf*Z= 5012.7

MRS=0.87*fy*AS*Z = 2504.0

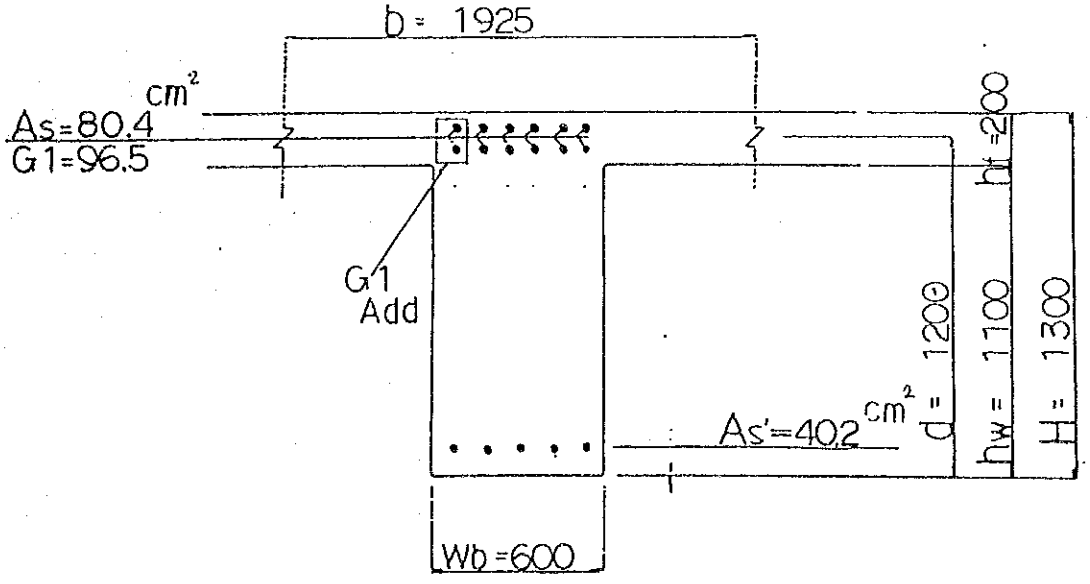


G1

U.FLG b=	192.5	AS=	96.5
U.FLG hf=	20	fcu=	3000
WEB hw=	120	fy=	41000
WEB Wb=	60	AS'=	40.2
d=	120	d'=	7.5
X=0.87*fy*AS/(0.4*fcu*Wb)			47.8
Z=d-1/2*X		=	96.1
MRC=0.15*fcu*b*d^2+0.72*fy*AS'*(d-d)			5223.0
MRS=0.87*fy*AS*Z		=	3307.8

G2

U.FLG b=	192.5	AS=	80.4
U.FLG hf=	20	fcu=	3000
WEB hw=	120	fy=	41000
WEB Wb=	60	AS'=	40.2
d=	120	d'=	7.5
X=0.87*fy*AS/(0.4*fcu*Wb)			39.8
Z=d-1/2*X		=	100.1
MRC=0.15*fcu*b*d^2+0.72*fy*AS'*(d-d)			5223.0
MRS=0.87*fy*AS*Z		=	2870.3



Calculation of deck slab for Main bridge (U.L.S)

1. Span and bending moment

a) Span $\ell = 1.925 - 0.600 = 1.325 \fallingdotseq 1.400^{m}$

b) moment of middle span

$$M \fallingdotseq \left\{ 0.80(0.12\ell + 0.07)\ P + \frac{1}{10}\omega d\ \ell^2 \right\} \times 1.5 \times 1.1$$

$$= \left\{ 0.8(0.12 \times 1.40 + 0.07) \times 100 + \frac{1}{10} \times 4.72 \times 1.40^2 \right\} \times 1.5 \times 1.1 = 33.0^{KNm/m}$$

c) moment of each fulcrum

$$M \fallingdotseq \left\{ (0.15\ell + 0.125)\ P + \frac{1}{10}\omega d\ \ell^2 \right\} \times 1.5 \times 1.1$$

$$= \left\{ (0.15 \times 1.40 + 0.125) \times 100 + \frac{1}{10} \times 4.72 \times 1.40^2 \right\} \times 1.5 \times 1.1 = 56.8^{KNm/m}$$

where :

$P = 100^{KN}$: Single nominal wheel load

ωd = dead load of deck slab

$= 23.6 \times 0.20 = 4.720^{KN/m}$

d) over hanging slab

Span $\ell = 1.40 - 0.60 - 0.30 - 0.25 = 1.250^{m}$

moment $M = \dfrac{P \cdot \ell}{1.30\ \ell + 0.25} = \dfrac{100 \times 0.25}{1.30 \times 0.25 + 0.25} = 43.5^{KNm} < 56.8^{KNm}$ OK

2. Calculation of stress

a) middle span $b = 100^{cm}$ $h = 20$ $d = 15.0$ $d' = 5.0$

$As = Y_{12} - 150^{ctc} = 1.131/0.150 = 7.540\ cm^2$

$$P = \frac{7.540}{100 \times 15.0} \times 100 = 0.503\ \%$$

$$x = \frac{0.87 \times 41000 \times 7.540}{0.40 \times 3000 \times 100} = 2.4^{cm}$$

$$Z = 15.0 - \frac{1}{2} \times 2.4 = 13.8^{cm} < 0.95 \times 15 = 14.25^{cm}$$

$M_{RS} = 0.87 \times 41000 \times 7.54 \times 13.8 \times 10^{-5} = 37.1^{KNm} > 33.0^{KNm}$

$M_{RC} = 0.40 \times 3000 \times 100 \times 2.4 \times 13.8 \times 10^{-5} = 39.7^{KNm} > 33.0^{KNm}$ OK

b) each fulcrum $b = 100^{cm}$ $h = 20$ $d = 16.0$ $d' = 4.0$

$As = Y_{16} - 150^{ctc} = 2.011/0.150 = 13.407\ cm^2$

$$P = \frac{13.407}{100 \times 16.0} \times 100 = 0.838\ \%$$

$$x = \frac{0.87 \times 41000 \times 13.407}{0.4 \times 3000 \times 100} = 4.0^{cm}$$

$$Z = 16.0 - \frac{1}{2} \times 4.0 = 14.0^{cm} < 0.95 \times 16.0 = 15.2^{cm}$$

$M_{RS} = 0.87 \times 41000 \times 13.407 \times 14.0 \times 10^{-5} = 66.9^{KNm} > 56.8^{KNm}$

$M_{RC} = 0.40 \times 3000 \times 100 \times 4.0 \times 14.0 \times 10^{-5} = 67.2^{KNm} > 56.8^{KNm}$ OK

Calculation of deck slab (S.L.S) : Check

Span $\ell \fallingdotseq 1.40^{m}$ ··· review of fulcrum for bending moment

moment $M = \left\{ (0.15 \times 1.40 + 0.125) \times 100 + \frac{1}{10} \times 4.720 \times 1.40^{2} \right\} = 34.5^{KNm}$

Calculation of stress

$b = 100^{cm}$ $h = 20$ $d = 16.0$ $d' = 4.0$

$As = Y_{16} - 150^{c\,t\,c} = 13.407\ cm^{2}$

$P = \frac{13.407}{100 \times 16.0} \times 100 = 0.838\ \%$

$X = \frac{0.80 \times 41000 \times 13.407}{0.25 \times 3000 \times 100} = 6.3^{cm}$

$Z = 16.0 - \frac{1}{3} \times 6.3 = 12.9^{cm}$

$M_{RS} = 0.80 \times 41000 \times 13.407 \times 12.9 \times 10^{-5} = 56.7^{KNm} > 34.5^{KNm}$

$M_{RC} = 0.25 \times 3000 \times 100 \times 6.3 \times 12.9 \times 10^{-5} = 60.9^{KNm} > 34.5^{KNm}$ OK

Calculation of Shoe

1) quantity of expantion between
Girder-edge and Parapet face of abutment

quantity of expantion or shrinkage (maximum)

for temperature : $dt = a \times T \times L = (1.0 \times 10^{-5} \times 15.0 \times L)^{m} = (0.150 \times L)^{mm}$

for shrinkage : $ds = a \times T \times L \times b = (1.0 \times 10^{-5} \times 20.0 \times L \times 0.8) = (0.160 \times L)''$

for creep : $dc = \frac{P}{E \times A} \times \phi \times L \times b = \frac{750}{2.7 \times 10^{6}} \times 1.9 \times L \times 0.8 = (0.430 \times L)''$

for other : $do = -5.0''$

total : $dL = (0.80L + 5.0)^{mm}$

where a = coefficient of thermal expantion or shrinkage
T = quantity of temperature variance
L = girder length
b = coefficient of decrease
E = young's modulus
P/A = $0.5 f_{cu}/2 = 0.5 \times 300/2 = 750^{N/cm^2}$
ϕ = creep factor
f_{cu} = strength of concrete ($30^{N/mm^2}$)

MOMBASA－JU－Bridge

calculation of shoe

edge fulcrum　Rd = 1950.2／9 ×1.1　= 238.4 KN／choe

(MOV)　RL1 = 1509.2／9 ×1.1　= 184.6 〃

or RL2 = (472.4＋373.4＋206.8＋105.8)／4　= 289.6 〃

Rmax =　= 528.0 〃

∴ dL = (0.80L＋5)=(0.80×28.7＋5)　= 28 mm

middle fulcrum　Rd = 6270.0／9×1.1　= 766.4 KN／choe

(Fix)　RL1 = 2929.2／9×1.1　= 358.1 〃

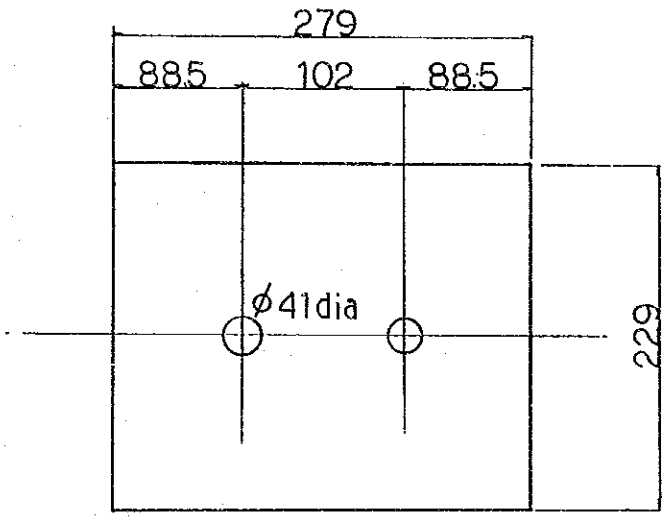
or RL2 = (734.0＋659.5＋465.5＋235.2)／4　= 523.6 〃

Rmax =　= 1290.0 〃

∴ dL = 0

1) edge fulcrum (mov) = 279 mm ×229×65

(A1,A2)



vertical pressure

$$AS = 27.9\times 22.9 - \frac{\pi}{4}\times 4.1^2\times 2 = 612.5\ cm^2$$

$$VC = \frac{Rmax}{AC} = \frac{528.0\times 10^3}{612.5} \fallingdotseq 800\ N/cm^2 \quad < \quad Vca = 800\ N/cm^2$$

Dowel bar ···· φ 20mm × 500mm × 2 NO／shoe

$$Ab = \frac{\pi}{4}\times 2.0^2\times 2 = 6.283\ cm^2$$

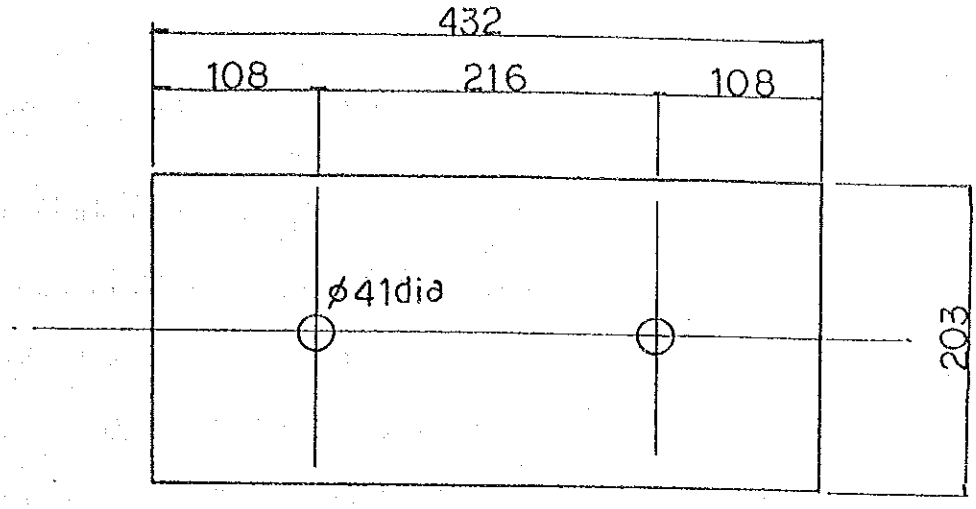
Hd = 238.4×0.15　= 35.8 KN／choe ··· temperature state

shearing stress

$$\tau s = \frac{1.43Hd}{Ab} = \frac{1.43\times 35.8\times 10^3}{6.283} = 8200\ N/cm^2 \quad < \quad 9000\ N/cm^2$$

anchor cap ····· φ 80mm × 250mm × 2 NO／shoe

2) middle fulcrum (Fix) : 432mm × 203 × 18
(P1, P2)



Vertical pressure

$$AS = 43.2 \times 20.3 - \frac{\pi}{4} \times 4.1^2 \times 2 = 850.5 \ cm^2$$

$$VC = \frac{Rmax}{As} = \frac{1290.0 \times 10^3}{850.5} = 1520 \ N/cm^2 \quad < \quad Vca = 1600 \ N/cm^2$$

Dowel bar ----- φ 40mm × 900mm × 2 NO/shoe

$$Ab = \frac{\pi}{4} \times 4.0^2 \times 2 = 25.133 \ cm^2$$

$$Hd = (238.4 + 766.4) \times 0.1 = 100.5 \text{ --- seismic state}$$

shearing stress

$$\tau s = \frac{1.65Hd}{Ab} = \frac{1.65 \times 100.5 \times 10^3}{25.133} = 6.600 \ N/cm^2 \quad < \quad 9000 \ N/cm^2$$

anchor bar ----- φ 50mm × 450mm × 2 NO/shoe

Reaction from Superstructure

1) For Abut (Movable) ··· S.L.S.

For all width of Abut (B = 18.300m)

dead load : Rd = 1950.2KN

live load : Rℓ = 1509.2KN

total : R = 3459.4KN

For Unit width of Abut

(1) For Vertical load

$$Rd = \frac{1950.2}{18.30} = 106.570^{KN/m}$$

$$R\ell = \frac{1509.2}{18.30} = 82.470^{KN/m}$$

$$R = \qquad = 189.040^{KN/m}$$

(2) For Horizontal force for temperature of Seismic

$$H_T = H_D = 106.570 \times 0.15 = 15.986^{KN/m}$$

2) For Pier (Fixed) ··· S.L.S.

(1) For Vertical load

dead load : $Rd = 6270.0^{KN}$

live load : $R\ell = 2929.2^{KN}$

total : $R = 9199.2^{KN}$

(2) For Horizontal load

a) Longitudinal direction

Braking : $H_B = 8.0 \times 39.25 + 200 = 514.0^{KN}$

Seismic : $H_D = (1950.2 + 6270.0) \times 0.10 = 822.0^{KN}$

b) Crossing direction

Skidding : $H_S = 250^{KN}$

Seismic : $H_D = 6270.0 \times 0.10 = 627.0^{KN}$

** MOMBASA-ABUT **

(1) SHAPE AND SIZE

H0	=	9.000 (m)	B0	=	5.000 (m)
H1	=	1.400 (m)	B1	=	1.500 (m)
H2	=	0.000 (m)	B2	=	1.100 (m)
H3	=	0.000 (m)	B3	=	0.300 (m)
H4	=	6.800 (m)	B4	=	2.400 (m)
H5	=	0.000 (m)	B5	=	0.800 (m)
H6	=	0.800 (m)	B6	=	0.000 (m)
BW1	=	1.000 (m)	HU1	=	0.500 (m)
BW2	=	1.000 (m)	HU2	=	0.500 (m)
HW1	=	1.000 (m)			
HW2	=	1.000 (m)			

NOTE : THE DIMENSION(t) BE EXCHANG TO

DIMENSION(KN) INTO THIS CALCULATION

REACTION OF DEAD LOAD	RL	=	82.470 (t)
〃 LIVE LOAD	RD	=	105.570 (t)
HORIZONTAL FORCE FOR TEMPERATURE.SEISMIC	HT	=	15.986 (t)
	HD	=	15.986 (t)
SITUATION OF REACTION	RX	=	0.350 (m)
AND HORIZONTAL FORCE	RY	=	0.100 (m)
	QL	=	34.300 (t/m^2)
	QD	=	0.000 (t/m^2)
	KH	=	0.10
SEISMIC COEFFICIENT	KHS	=	0.00

UNIT VOLUME WEIGHTS FOR CONCRETE	GAMC	=	23.600 (t/m^3)
FOR BACK FILL	GAM1	=	19.600 (t/m^3)
〃 (UNDER WATER)	GAM1S	=	10.800 (t/m^3)
INTERNAL FRICTION ANGLE	FAi	=	35.000 (°)
FOR ABOVE TOE SLAB	GAM2	=	18.600 (t/m^3)
〃 (UNDERWATER)	GAM2S	=	9.800 (t/m^3)
FOR WATER	WATS	=	9.800 (t/m^3)

FOR FOUNDATION GROUND

COHESIVE DOWER	C	=	0.00 (t/m^2)
FRICTION FACTER	tanøB	=	0.500
ALLOWABLE PRESSURE	Qa	=	350.00 (t/m^2)

CALCULATION OF WEIGHT AND FORCE OR LOAD

(1) CONCRETE

NO.	V(t)	H(t)	X(m)	Y(m)	MX(t·m)	MY(t·m)
1	9.912	0.991	2.450	8.300	24.284	8.227
4	176.528	17.653	2.050	4.200	361.882	74.142
8	94.400	9.440	2.500	0.400	236.000	3.776
Σ1	280.840	28.084			622.167	86.145

V = X*Y*BW*GAM1　　H = V*KH
MX = V*X　　MY = H*Y

(2) EARTH

a) BACK FILLING

NO.	V(t)	H(t)	X(m)	Y(m)	MX(t·m)	MY(t·m)
1	65.856	6.586	3.800	8.300	250.253	54.661
4	319.872	31.987	3.800	4.200	1215.510	134.346
Σ2	385.728	38.573			1465.770	189.007

b) SURCHAGE OF TOE SLAB

NO.	V(t)	H(t)	X(m)	Y(m)	MX(t·m)	MY(t·m)
6	27.900	0.000	0.750	1.300	20.925	0.000
Σ3	27.900	0.000			20.925	0.000

V = X*Y*BW*GAM1　　H = V*KHS
MX = V*X　　MY = H*Y

(3) REACTION

STATE	RV(t)	RH(t)	RMX(t·m)	RMY(t·m)
ORDINARY	189.040	0.000	368.628	0.000
TEMPERATURE	189.040	15.986	368.628	123.092
SEISMIC	106.570	15.986	207.811	123.092

RV :　　RH :
RMX= RV*X　　RMY= RH*Y

(4) EARTH PRESSURE FACTOR

	ORDINARY OR TEMPERATURE		SEISMIC	
	0.2497	0.2508	0.3056	0.3277
SIN(δ)	0.5736	0.2022	0.3007	0.0000
COS(δ)	0.8192	0.9793	0.9537	1.0000

(5) EARTH PRESSURE

	V(t)	H(t)	X(m)	Y(m)	MX(t·m)	MY(t·m)
	44.216	63.147	5.000	4.500	221.080	284.162
	113.698	162.378	5.000	3.000	568.491	487.134
	83.224	118.857	5.000	3.867	416.121	459.579
	29.409	42.000	5.000	0.640	147.044	26.896
	72.941	231.339	5.000	3.000	364.705	694.018
	53.391	169.335	5.000	3.867	266.955	654.761
	18.867	59.838	5.000	0.640	94.334	38.318

(6) BUOYANCY

	V(t)	H(t)	X(m)	Y(m)	MX(t·m)	MY(t·m)
	92.610	0.000	3.650	0.000	338.027	0.000
	-61.750	0.000	2.496	0.000	-154.128	0.000
	-61.750	0.000	2.496	0.000	-154.128	0.000

TOTAL OF ACTION FORCE

1.EXCLUDE BUOYANCY

(1) ORDINARY···FOR FOUNDATION

LOAD	V(t)	H(t)	MX(t·m)	MY(t·m)
Σ1	280.840	0.000	622.167	0.000
Σ2	385.728	0.000	1465.770	0.000
	44.216	63.147	221.080	284.162
	113.698	162.378	568.491	487.134
	189.040	0.000	368.628	0.000
	92.610	0.000	338.027	0.000
Σ3	27.900	0.000	20.925	0.000
TOTAL	1134.030	225.525	3605.080	771.296

Mo = ΣMX − ΣMY = 2833.790 (t·m)

(2) ORDINARY···FOR INVERSION OR SLIDE

	V(t)	H(t)	MX(t·m)	MY(t·m)
SAME 1 (1)	280.840	0.000	622.167	0.000
	385.728	0.000	1465.770	0.000
	44.216	63.147	221.080	284.162
	113.698	162.378	568.491	487.134
	106.570	0.000	207.811	0.000
	27.900	0.000	20.925	0.000
	958.952	225.525	3106.240	771.296

Mo = ΣMX − ΣMY = 2334.950 (t·m)

(3) TEMPERATURE···FOR FOUNDATION

	V(t)	H(t)	MX(t·m)	MY(t·m)
SAME 1 (1)	280.840	0.000	622.167	0.000
	385.728	0.000	1465.770	0.000
	44.216	63.147	221.080	284.162
	113.698	162.378	568.491	487.134
	189.040	15.986	368.628	123.092
	92.610	0.000	338.027	0.000
	27.900	0.000	20.925	0.000
	1134.030	241.511	3605.080	894.388

Mo = ΣMX − ΣMY = 2710.700 (t·m)

(4) TEMPERATURE···INVERSION OR SLIDE

	V(t)	H(t)	MX(t·m)	MY(t·m)
SAME 1 (1)	280.840	0.000	622.167	0.000
	385.728	0.000	1465.770	0.000
	44.216	63.147	221.080	284.162
	113.698	162.378	568.491	487.134
	106.570	15.986	207.811	123.092
	27.900	0.000	20.925	0.000
	958.952	241.511	3106.240	894.388

Mo = ΣMX − ΣMY = 2211.850 (t·m)

(5) SEISMIC

	V(t)	H(t)	MX(t·m)	MY(t·m)
SAME 1 (1)	280.840	28.084	622.167	86.145
	385.728	38.573	1465.770	189.007
	72.941	231.339	364.705	694.018
	106.570	15.986	207.811	123.092
	27.900	0.000	20.925	0.000
	873.979	313.982	2681.370	1092.260

Mo = ΣMX − ΣMY = 1589.110 (t·m)

2. INCLUDE BUOYANCY

(1) ORDINARY

	V(t)	H(t)	MX(t·m)	MY(t·m)
	280.840	0.000	622.167	0.000
	385.728	0.000	1465.770	0.000
	44.216	63.147	221.080	284.162
	83.224	118.857	416.121	459.579
	29.409	42.000	147.044	26.896
	189.040	0.000	368.628	0.000
	92.610	0.000	338.027	0.000
	27.900	0.000	20.925	0.000
	-61.750	0.000	-154.128	0.000
	1071.220	224.004	3445.630	770.637

Mo = ΣMX − ΣMY = 2674.990 (t·m)

(2) ORDINARY

	V(t)	H(t)	MX(t·m)	MY(t·m)
	280.840	0.000	622.167	0.000
	385.728	0.000	1465.770	0.000
	44.216	63.147	221.080	284.162
	83.224	118.857	416.121	459.579
	29.409	42.000	147.044	26.896
	106.570	0.000	207.811	0.000
	27.900	0.000	20.925	0.000
	-61.750	0.000	-154.128	0.000
	896.137	224.004	2946.790	770.637

Mo = ΣMX − ΣMY = 2176.150 (t·m)

(3) TEMPERATURE

	V(t)	H(t)	MX(t·m)	MY(t·m)
	280.840	0.000	622.167	0.000
	385.728	0.000	1465.770	0.000
	44.216	63.147	221.080	284.162
	83.224	118.857	416.121	459.579
	29.409	42.000	147.044	26.896
	189.040	15.986	368.628	123.092
	92.610	0.000	338.027	0.000
	27.900	0.000	20.925	0.000
	-61.750	0.000	-154.128	0.000
	1071.220	239.990	3445.630	893.729

Mo = ΣMX − ΣMY = 2551.900 (t·m)

(4) TEMPERATURE

	V(t)	H(t)	MX(t·m)	MY(t·m)
	280.840	0.000	622.167	0.000
	385.728	0.000	1465.770	0.000
	44.216	63.147	221.080	284.162
	83.224	118.857	416.121	459.579
	29.409	42.000	147.044	26.896
	106.570	15.986	207.811	123.092
	27.900	0.000	20.925	0.000
	-61.750	0.000	-154.128	0.000
	896.137	239.990	2946.790	893.729

Mo = ΣMX − ΣMY = 2053.060 (t·m)

(5) SEISMIC

	V(t)	H(t)	MX(t·m)	MY(t·m)
	280.840	28.084	622.167	86.145
	385.728	38.573	1465.770	189.007
	53.391	169.335	266.955	654.761
	18.867	59.838	94.334	38.318
	106.570	15.986	207.811	123.092
	27.900	0.000	20.925	0.000
	-61.750	0.000	-154.128	0.000
	811.546	311.815	2523.830	1091.320

Mo = ΣMX − ΣMY = 1432.510 (t·m)

TOTAL FORCE FOR UNDER FONDATION CENTER

LOAD	V(t)	H(t)	Mo(t·m)	e(m)	Mc(t·m)
A					
1	1134.030	225.525	2833.790	0.001	1.293
2	958.952	225.525	2334.950	0.065	62.435
3	1134.030	241.511	2710.700	0.110	124.385
4	958.952	241.511	2211.850	0.193	185.528
5	873.979	313.982	1589.110	0.682	595.835
B					
1	1071.220	224.004	2674.990	0.003	3.049
2	896.137	224.004	2176.150	0.072	64.191
3	1071.220	239.990	2551.900	0.118	126.141
4	896.137	239.990	2053.060	0.209	187.284
5	811.546	311.815	1432.510	0.735	596.355

e = B0/2 − Mo/V : Mc = V * e

WHERE

A AND B:EXCLUDE OF BOUYANCY
OR INCLUDE BOUYANCY

1. ORDINARY : FOR FOUNDATION
2. 〃 : FOR INVERSION OR SLIDE
3. TENPERATURE : STATE OF 1
4. 〃 : 〃 2
5. SEISMIC

CALCULATION OF SECURITY
FOR DIRECT FOUNDATION

FOR INVERSION

		V(t)	Mc(t·m)	e(m)
A				
	1	958.952	62.435	0.065 < 0.833
	2	958.952	185.528	0.193 < 0.833
	3	873.979	595.835	0.682 < 1.667
B				
	1	896.137	64.191	0.072 < 0.833
	2	896.137	187.284	0.209 < 0.833
	3	811.546	596.356	0.735 < 1.667

e = Mc/V

e

B0/6 ≧ e
B0/3 ≦ e

FOR SLIDE

		A'(m^2)	V(t)	Hb(t)	Hu(t)	Fs
A						
	1	4.87	958.952	225.525	479.48	2.13 > 1.5
	2	4.61	958.952	241.511	479.48	1.99 > 1.5
	3	3.64	873.979	313.982	436.99	1.39 > 1.2
B						
	1	4.86	896.137	224.004	448.07	2.00 > 1.5
	2	4.58	896.137	239.990	448.07	1.87 > 1.5
	3	3.53	811.546	311.815	405.77	1.30 > 1.2

C = 0.00 (t/m^2) tan(φB) = 0.50

Hu = C*A'+ V*tan(φB)

Fs = Hu/Hb

FOR CONTACT PRESSURE
UNDER FOUNDATION

EXCLUDE BOUYANCY

STATE		1	3	5
B	(m)	5.000	5.000	5.000
L	(m)	1.000	1.000	1.000
V	(t)	1134.030	1134.030	873.979
H	(t)	225.525	241.511	313.982
Mc	(t·m)	1.293	124.385	595.835
e	(m)	0.001	0.110	0.682
X	(m)	5.000	5.000	5.000
Qmax(t/m^2)		227.117	256.659	317.796
Qmin(t/m^2)		226.496	196.954	31.796

INCLUDE BOUYANCY

STATE		1	3	5
B	(m)	5.000	5.000	5.000
L	(m)	1.000	1.000	1.000
V	(t)	1071.220	1071.220	811.546
H	(t)	224.004	239.990	311.815
Mc	(t·m)	3.049	126.141	596.356
e	(m)	0.003	0.118	0.735
X	(m)	5.000	5.000	5.000
Qmax(t/m^2)		214.975	244.517	305.435
Qmin(t/m^2)		213.512	183.970	19.184

Q = V/(B*L) + 6*Mc/(L*B^2)

Q = 2*V/(L*X) :X = 3*(B0/2-Mc/V)

MOMBASA —— ABUT

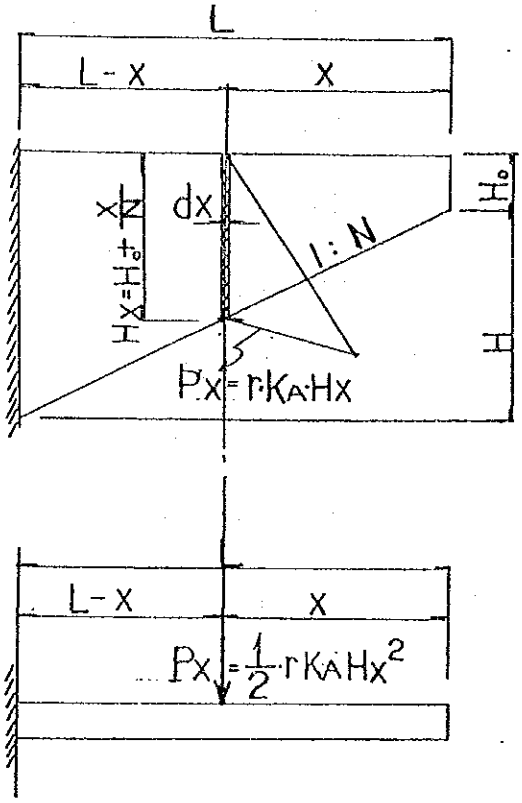
Notice : the Calculation of this Abut is abridge and the bar arengement of this vertical wall or footing slab is adapt Abut of Uhuru Bridge.

where

Vertical wall ···	$Y_{32}-150^{ctc}$
Footing slab ···	$Y_{25}-150^{ctc}$

CALCULATION OF WINGWALL

Caluculation formula for wingwalls



bending moment

$$Mx = \int_0^L Px \ (L-x)\ dx$$

$$= \int_0^L \frac{1}{2} rK_A \left(H_o + \frac{x}{N} \right)^2 \ (L-x)\ dx$$

shearing force

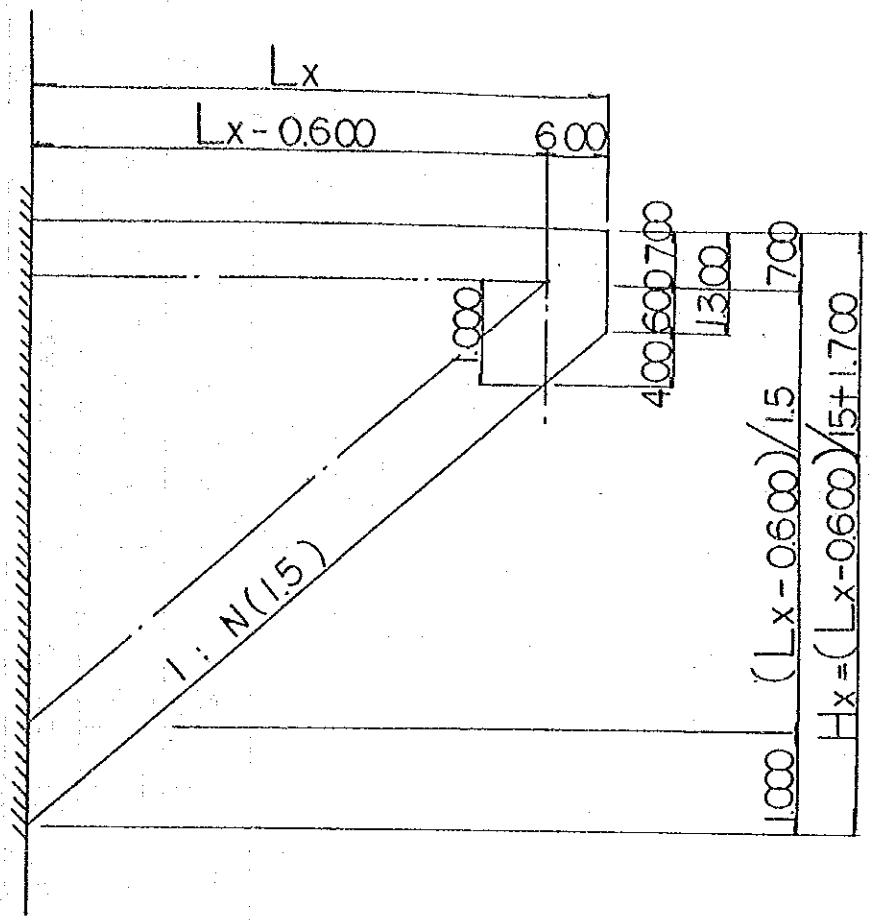
$$Sx = \int_0^L Px \cdot dx$$

$$= \int_0^L \frac{1}{2} rK_A \left(H_o + \frac{x}{N} \right)^2 dx$$

∴ Analysis of upper formula for earth pressure

$$Mx = \frac{1}{2} rK_A \left(\frac{H_o \cdot x^2}{2} + \frac{H_o \cdot x^3}{3 \cdot N} + \frac{x^4}{12 \cdot N^2} \right)$$

$$Sx = \frac{1}{2} rK_A \left(H_o^2 \cdot x + \frac{H_o \cdot x^2}{N} + \frac{x^3}{3 \cdot N^2} \right)$$



from general formula

where

$r = 19.6 \ \ KN/m^2$

$$K_A = \tan^2(45^\circ - \frac{\phi}{2}) = \tan^2(45^\circ - \frac{30^\circ}{2}) = 0.5774^2$$

$$= 0.3334 \fallingdotseq 0.400$$

$$Mx = \frac{1}{2} \times 19.6 \times 0.400 \left(\frac{1.30^2}{2}x^2 + \frac{1.30}{3 \times 1.5}x^3 + \frac{1}{12 \times 1.5^2}x^4\right) / Hx$$

$$= (3.312 \cdot x^2 + 1.132 \cdot x^3 + 0.145 \cdot x^4) / Hx \quad (KNm/m)$$

$$Sx = \frac{1}{2} \times 19.6 \times 0.400 \left(1.30^2 \cdot x^2 + \frac{1.30}{1.5}x^2 + \frac{1}{3 \times 1.5^2}x^3\right) / Hx$$

$$= (6.628 \cdot x + 3.397 \cdot x^2 + 0.581 \cdot x^3) / Hx \quad (KN/m)$$

Calculation of bending moment and shearing force

Lx(m)	Hx(m)	S . L . S		U . L . S		Area of reinforced	thickness of menber	
		Mx($^{KNm}/_{m}$)	Sx($^{KN}/_{m}$)	Mx($^{KNm}/_{m}$)	Sx($^{KN}/_{m}$)		D cm	d cm
5.0	4.633	67.975	41.159	117.257	71.000	$Y_{16}-150^{ctc}$	40	34.0
5.5	4.967	84.802	47.489	146.283	81.919	$Y_{16}-150^{ctc}$	40	34.0
6.0	5.300	104.088	54.256	179.552	93.592	$Y_{16}-150^{ctc}$	50	44.0
8.0	6.633	208.876	85.618	360.312	147.691	$Y_{20}-150^{ctc}$	60	54.0
8.5	6.967	242.772	94.528	418.782	163.061	$Y_{25}-150^{ctc}$	60	53.5
9.0	7.300	280.116	103.885	483.200	179.202	$Y_{25}-150^{ctc}$	60	53.5
9.5	7.633	321.039	113.675	553.792	196.090	$Y_{25}-150^{ctc}$	60	53.5
10.0	7.967	365.658	123.884	630.760	213.700	$Y_{25}-150^{ctc}$	70	63.5
10.5	8.300	414.225	134.541	714.538	232.083	$Y_{20}-300^{ctc}$ $Y_{32}-300^{ctc}$	70	63.0
11.0	8.633	466.858	145.634	805.330	251.219	$Y_{25}-300^{ctc}$ $Y_{32}-300^{ctc}$	70	63.0
11.5	8.967	523.665	157.143	903.322	271.072	$Y_{32}-150^{ctc}$	70	63.0

Each calculation of

Resisting moment and shearing intension for U.L.S and S.L.S

1) $Lx = 5.0^{m}$ and 5.5^{m}

$b = 100^{cm}$ $h = 40$ $d = 34.0$ $d' = 6.0$

$As = Y_{16} - 150^{c\,t\,c} = 2.011/0.15 = 13.41\ cm^2$

$p = As \times 100/bd = 13.41 \times 100 / 100 \times 34.0 = 0.394\ \%$

a) S.L.S

$$x = \frac{0.8fy \cdot As}{0.25fcu \cdot b} = \frac{0.8 \times 41000 \times 13.41}{0.25 \times 2500 \times 100} = 7.0\ ^{cm}$$

$Z = d - x/3 = 34.0 - 7.0/3 = 31.7\ ^{cm}$

$M_{RS} = 0.8fy\ As\ Z$

$= 0.8 \times 41000 \times 13.41 \times 31.7 \times 10^{-5}$

$= 139.4\ ^{KNm} = Ms = 67.975\ ^{KNm}$ or 84.802^{KNm}

$M_{RC} = 0.25fcub \cdot xZ$

$= 0.25 \times 2500 \times 100 \times 7.0 \times 31.7 \times 10^{-5}$

$= 138.7\ ^{KNm} > M$ OK

b) U.L.S

$$x = \frac{0.87fy \cdot As}{0.40fcu \cdot b} = \frac{0.87 \times 41000 \times 13.41}{0.40 \times 2500 \times 100} = 4.8\ ^{cm}$$

$Z = d - x/2 = 34.0 - 4.8/3 = 31.6\ ^{cm} < 0.95 \times 34.0 = 32.3^{cm}$

$M_{RS} = 0.87fy\ As\ Z$

$= 0.87 \times 41000 \times 13.41 \times 31.6 \times 10^{-5}$

$= 151.1\ ^{KNm} > Mu = 117.257\ ^{KNm}$ or 146.283^{KNm}

$M_{RC} = 0.40fcub \cdot xZ$

$= 0.40 \times 2500 \times 100 \times 4.8 \times 31.6 \times 10^{-5}$

$= 151.7\ ^{KNm} > Mu$ OK

Notice : the U.L.S is critical from result of both calculation of resisting moment and the other case is exclude calculation of resisting moment for S.L.S

Shearing intension (U.L.S)

$$\tau = \frac{Su}{bd} = \frac{81.919 \times 10^3}{100 \times 34.0} = 24.1 \ N/cm^2$$

$$< \ \tau a = 35.0 + \frac{15.00}{0.25} (0.394 - 0.25) = 43.6 \ N/cm^2$$

2) $Lx = 6.0^m$ (for U.L.S)

$b = 100^{cm}$ $h = 50$ $d = 44.0$ $d' = 6.0$

$As = Y_{16} - 150^{ctc} = 2.011/0.15 = 13.41^{cm}$

$P = 13.41 \times 100 / 100 \times 44.0 = 0.305$

$$X = \frac{0.87 \times 41000 \times 13.41}{0.40 \times 2500 \times 100} = 4.8^{cm}$$

$Z = 44.0 - 4.8/2 = 41.6^{cm} < 0.95 \times 44.0 = 41.8^{cm}$

$M_{Rs} = 0.87 \times 41000 \times 13.41 \times 41.6 \times 10^5 = 199.0^{KNm} > Mu = 179.552^{KNm}$

$M_{Rc} = 0.40 \times 2500 \times 100 \times 4.8 \times 41.6 \times 10^5 = 199.7^{KNm} > Mu = 179.552^{KNm}$

OK

$$\tau = \frac{93.592 \times 10^3}{100 \times 44.0} = 21.3 \ N/cm^2$$

$$< \tau a = 35.0 + \frac{15.0}{0.25} (0.305 - 0.25) = 38.3 \ N/cm^2$$

OK

3) Lx = 8.0^{m} (for U.L.S)

b = 100^{cm} h=60 d=54.0 d′ = 6.0

As= $Y_{20}-150^{ctc}$= 3.141/0.15 = 20.94 cm^2

P = 20.94×100/ 100×54.0 = 0.388

$$X = \frac{0.87\times 41000 \times 20.94}{0.40 \times 2500\times 100} = 7.4 \text{ cm}$$

Z = 54.0 −7.4/2 = 50.3^{cm} < 0.95×54.0= 51.3 ^{cm} OK

M_{Rs} = 0.87 ×41000 ×20.94 ×50.3×10^{-5}= 375.7^{KNm} > Mu =360.312^{KNm}

M_{Rc} = 0.40 ×2500×100 × 7.4×50.3×10^{-5}=372.2^{KNm}> Mu =360.312^{KNm} OK

$$\tau = \frac{147.691 \times 10^3}{100\times 54.0} = 27.4 \text{ N/cm}^2$$

$$< \tau a = 35.0 + \frac{15.0}{0.25}(0.388-0.25) = 43.3 \text{ N/cm}^2$$

4) Lx = 8.5^{m} 9.0^{m} and 9.5^{m} (for U.L.S)

b = 100^{cm} h=60 d=53.5 d′ =6.5

As= $Y_{25}-150^{ctc}$= 4.909/0.15 = 32.73 cm^2

P = 32.73×100/ 100×53.5 = 0.612

$$X = \frac{0.87\times 41000 \times 32.73}{0.40 \times 2500\times 100} = 11.8 \text{ cm}$$

Z = 53.5 −11.8/2= 47.6^{cm} <0.95×53.5= 50.8 ^{cm} OK

M_{Rs} = 0.87 ×41000 ×32.73 ×47.6×10^{-5}= 555.7^{KNm} > Mu =418.782^{KNm} ~553.792^{KNm}

M_{Rc} = 0.40 ×2500×100 ×11.8×47.6×10^{-5}=561.7^{KNm}> OK

$$\tau = \frac{196.090 \times 10^3}{100 \times 53.5} = 36.7 \text{ N/cm}^2$$

$$< \tau a = 50 + \frac{15.0}{0.50}(0.612-0.50) = 53.4 \text{ N/cm}^2 \quad \text{OK}$$

5) Lx = 10.0^{m} (for U.L.S)

b = 100^{cm} h=70 d=63.5 d´ = 6.5

As= $Y_{26}-150^{ctc}$= 4.909/0.15 = 32.73 cm^{2}

P = 32.73×100/ 100×63.5 = 0.515

$$X = \frac{0.87\times41000\times32.73}{0.40\times2500\times100} = 11.8\ ^{cm}$$

Z = 63.5 −11.8/2= 57.6^{cm} <0.95×63.5= 60.3 ^{cm} OK

M_{Rs} = 0.87 ×41000 ×32.73 ×57.6×10^{-5}= 672.5^{KNm} > Mu =630.760^{KNm}

M_{Rc} = 0.40 ×2500×100 ×11.8×57.6×10^{-5}=679.7^{KNm}> Mu =630.760^{KNm} OK

$$\tau = \frac{263.700\times10^{3}}{100\times63.5} = 33.7\ N/cm^{2}$$

$$< \tau a = 50 + \frac{15.0}{0.50}(0.515-0.50) = 50.4\ N/cm^{2}$$

6) Lx = 10.5^{m} (for U.L.S)

b = 100^{cm} h=70 d=63.0 d´ =7.0

$$As = \begin{matrix} Y_{20}-300^{ctc} \\ Y_{32}-300^{ctc} \end{matrix} = \left[\begin{matrix} 3.142/0.300 \\ 8.042/0.300 \end{matrix} \right] = 37.28\ cm^{2}$$

P = 37.28×100/ 100×63.0 = 0.592

$$X = \frac{0.87\times41000\times37.28}{0.40\times2500\times100} = 13.4\ ^{cm}$$

Z = 63.0 −13.4/2= 56.3^{cm} <0.95×63.0= 59.8 ^{cm} OK

M_{Rs} = 0.87 ×41000 ×37.28 ×56.3×10^{-5}= 748.6^{KNm} > Mu =714.538^{KNm}

M_{Rc} = 0.40 ×2500×100 ×13.4×56.3×10^{-5}=754.4^{KNm}> Mu =714.538^{KNm} OK

$$\tau = \frac{232.083\times10^{3}}{100\times63.0} = 36.8\ N/cm^{2}$$

$$< \tau a = 50 + \frac{15.0}{0.50}(0.592-0.50) = 52.7\ N/cm^{2}$$ OK

7) $L_x = 11.0^{m}$ (for U.L.S)

$b = 100^{cm}$ $h=70$ $d=63.0$ $d' = 7.0$

$$As = \begin{matrix} Y_{25}-300^{ctc} \\ Y_{32}-300^{ctc} \end{matrix} = \begin{bmatrix} 4.909/0.300 \\ 8.042/0.300 \end{bmatrix} = 43.17\ cm^2$$

$$P = 43.17\times100/\ 100\times63.5 = 0.685$$

$$X = \frac{0.87\times41000\ \times43.17}{0.40\ \times2500\times100} = 15.4\ ^{cm}$$

$$Z = 63.0 - 15.4/2 = 55.3^{cm} < 0.95\times63.0 = 59.8\ ^{cm}$$ OK

$$M_{RS} = 0.87\times41000\times43.17\times55.3\times10^{-5} = 851.5^{KNm} > Mu = 805.330^{KNm}$$

$$M_{RC} = 0.40\times2500\times100\times15.4\times55.3\times10^{-5} = 851.6^{KNm} > Mu = 805.330^{KNm}$$ OK

$$\tau = \frac{251.219\times10^{3}}{100\times63.0} = 39.9\ N/cm^2$$

$$< \tau a = 50.0 + \frac{15.0}{0.50}\ (0.685-0.50) = 55.4\ N/cm^2$$

check of S.L.S

$$X = \frac{0.80\times41000\ \times43.17}{0.25\ \times2500\times100} = 22.8\ ^{cm}$$

$$Z = 63.0 - 22.8/3 = 55.4^{cm}$$

$$M_{RS} = 0.80\times41000\times43.17\times55.4\times10^{-5} = 784.4^{KNm} > Mu = 466.858^{KNm}$$

$$M_{RC} = 0.25\times2500\times100\times22.8\times55.4\times10^{-5} = 789.4^{KNm} > Mu = 466.858^{KNm}$$ OK

8) Lx = 11.5^{m} (for U.L.S)

b = 100^{cm} h=70 d=63.0 d′ = 7.0

As= Y_{s2}−150^{ctc}= 8.042/0.15 = 53.61 cm^2

P = 53.61×100/ 100×63.0 = 0.851

$$X = \frac{0.87\times41000\times53.61}{0.40\times2500\times100} = 19.2\ ^{cm}$$

Z = 63.0 −19.2/2= 53.4^{cm} <0.95×63.0= 59.8 ^{cm} OK

M_{RS} = 0.87 ×41000 ×53.61 ×53.4×10^{-5}=1021.1^{KNm} > Mu =903.322^{KNm}

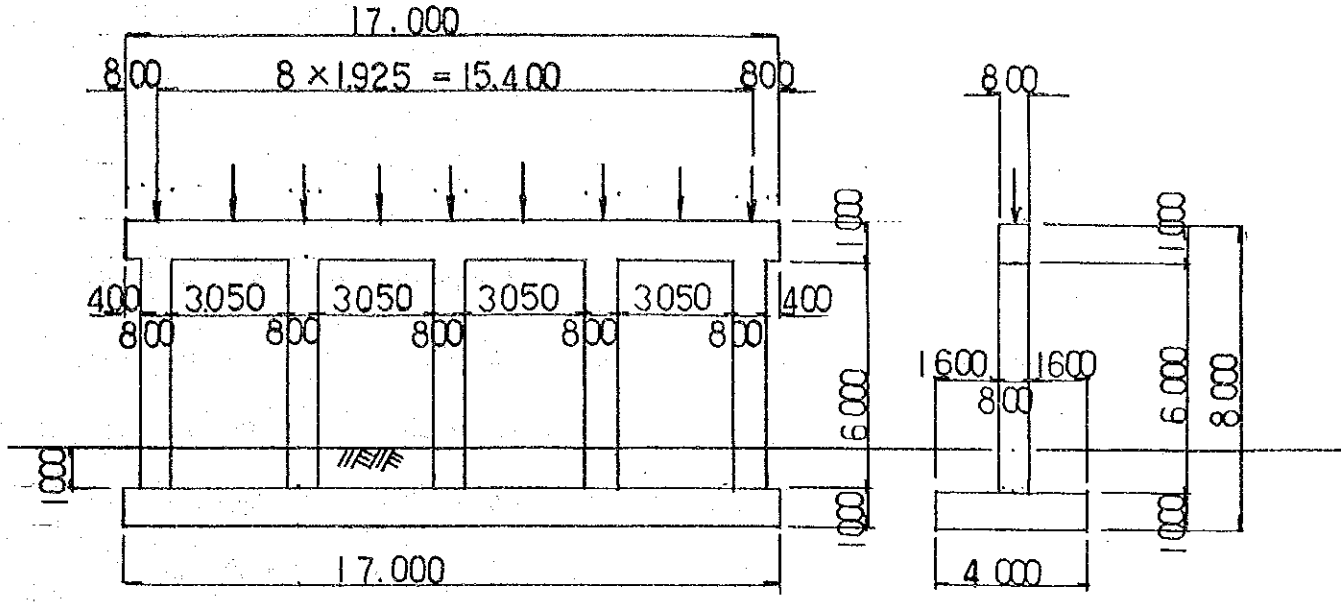
M_{Rc} = 0.40 ×2500×100 ×19.2×53.4×10^{-5}=1025.8^{KNm} > Mu =903.322^{KNm} OK

$$\tau = \frac{271.072\times10^{3}}{100\times63.0} = 43.1\ N/cm^2$$

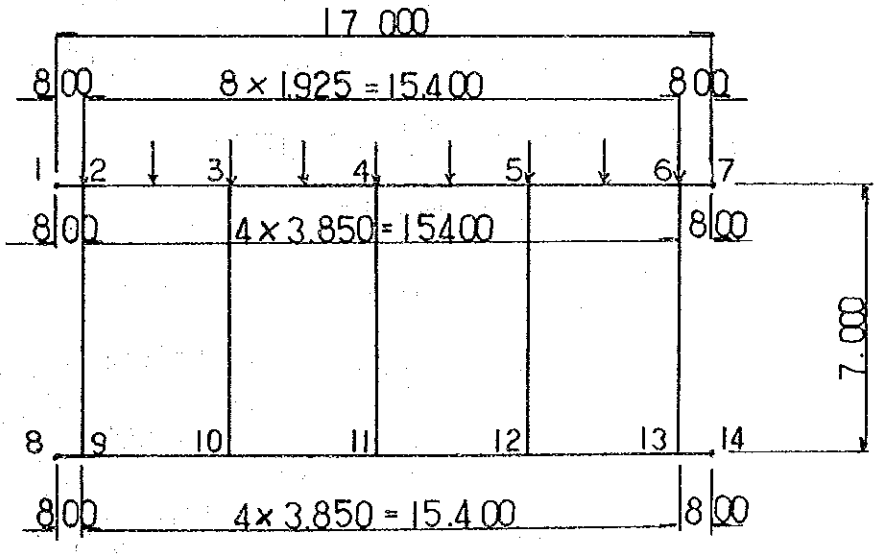
$$< \tau a = 50.0 + \frac{15.0}{0.50}(0.851-0.50) = 60.5\ N/cm^2$$

Crossing direction

1) Shape and Size



2) Frame



3) Factor of section

beam : $A = 0.80 \times 1.00 = 0.80000\ m^2$

$I = \dfrac{0.80 \times 1.00^3}{12} = 0.06667\ m^4$

Pillar: $A = 0.80 \times 0.80 = 0.64000\ m^2$

$I = \dfrac{0.80^4}{12} = 0.03413\ m^4$

footing : $A = 4.00 \times 1.00 = 4.00000\ m^2$

$I = \dfrac{4.00 \times 1.00^3}{12} = 0.33333\ m^4$

$Ec = 2.5 \times 10^7\ KN/m^2$

4) Load

a) Reaction from superstructure

Dead load : $Rd_1 \sim Rd_7 = 6270.0/9 = 696.670$ KN/shoe

Live load : $R\ell_{1\sim3} = R\ell_{7\sim9} = 160.0$ KN/shoe

$R\ell_4 = R\ell_5 = R\ell_6 = (2929.2 - 160.0 \times 6)/3 = 656.4$ KN/shoe

b) Dead load of substructure

beam : $\omega d_1 = 23.6 \times 0.80 \times 1.00 = 18.880$ KN/m

pillar : $\omega d_2 = 23.6 \times 0.80 \times 0.80 = 15.104$ KN/m

footing : $\omega d_3 = 23.6 \times 4.00 \times 1.00 = 94.400$ KN/m

surcharge: $\omega d_4 = 18.6 \times 4.00 \times 1.00 = 74.400$ KN/m

c) Seismic state

Horizontal load

superstructure : $Hd = 6270.0 \times 0.10 = 627.0$ KN

: $Md = 627.0 \times 1.20/17.00 = 44.259$ KNm/m

beam : $Hd_1 = 18.880 \times 0.10 = 1.888$ KNm/m

pillar : $Hd_2 = 15.104 \times 0.10 = 1.511$ KNm/m

footing : $Hd_3 = 94.400 \times 0.10 = 9.440$ KNm/m

d) Temperature

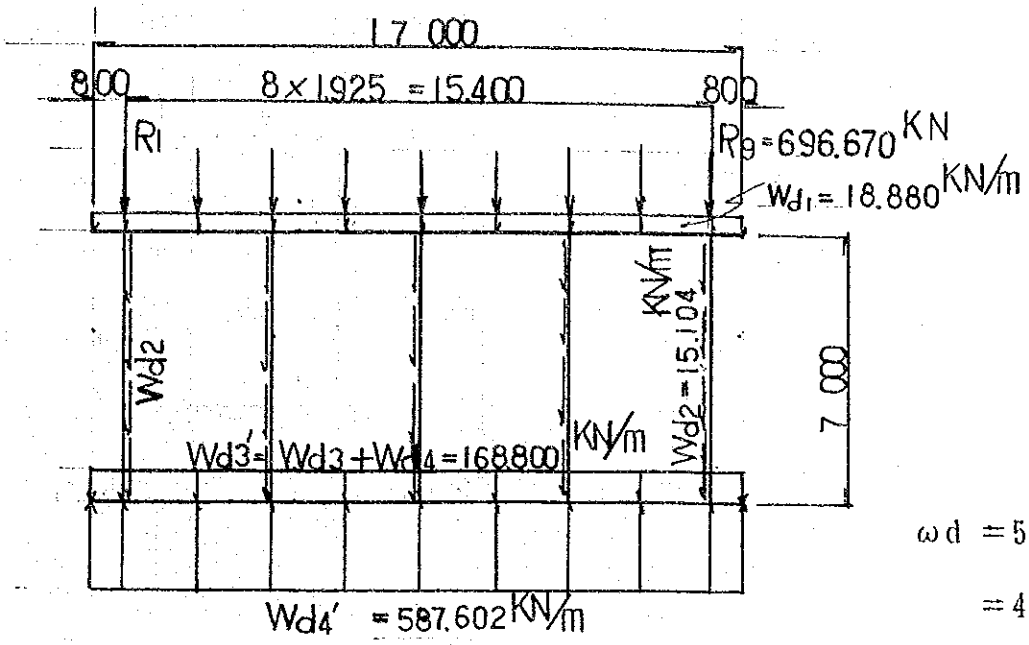
$T = \pm 12.5$℃

$\alpha = 1.2 \times 10^{-5}$

$Ec = 2.5 \times 10^7$ KN/m²

Loaded figure

Case－1 Dead load



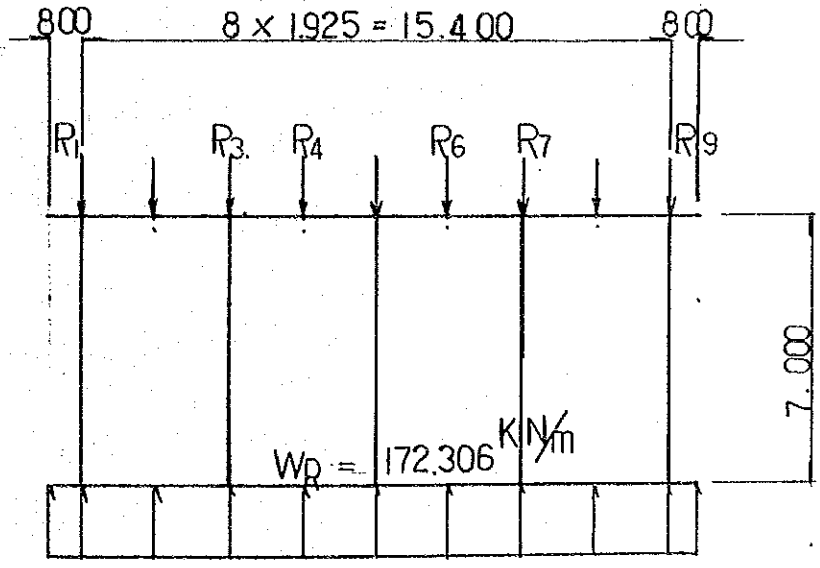
$\omega d = 587.602 - 168.800$

$= 418.802$ KN/m

$\omega d_4' = (696.670 \times 9 + 18.880 \times 17.00 + 15.104 \times 7.00 \times 5) / 17.00 + 168.800$

$= 418.802 + 168.800 = 587.602$ KN/m

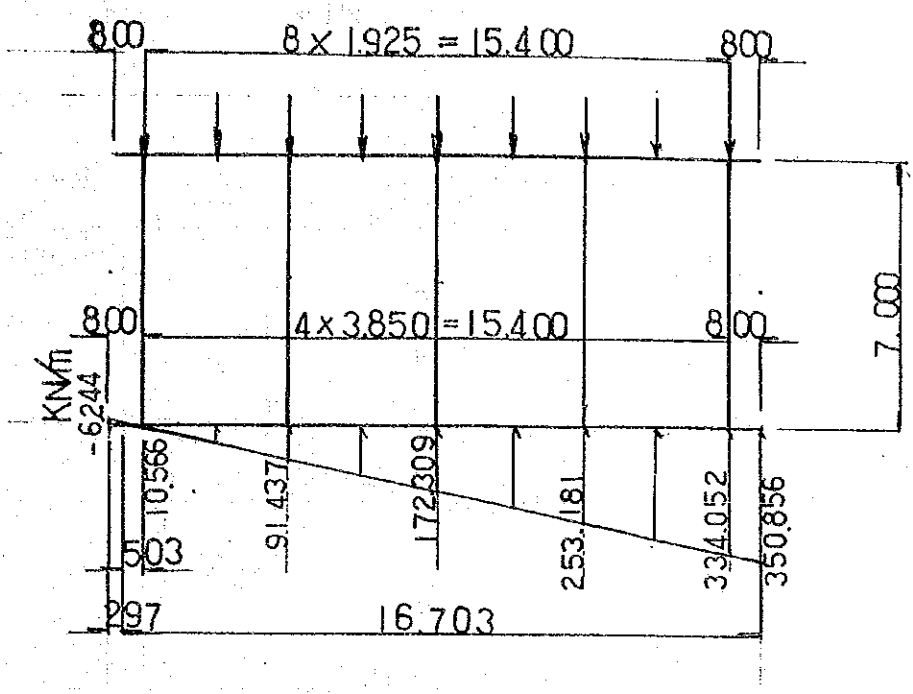
Case－2 Live load



$R\ell_{1\sim3} = R\ell_{7\sim9} = 160.0$ KN/shoe　　$R\ell_{4\sim6} = 656.4$ KN/shoe

$\omega_R = (160.0 \times 6 + 656.4 \times 3) / 17.00 = 172.306$ KN/m

Case－3 Live load



$R\ell_1 \sim R\ell_6 = 160.0^{KN/shoe}$　　$R\ell_7 \sim R\ell_9 = 656.4^{KN/shoe}$

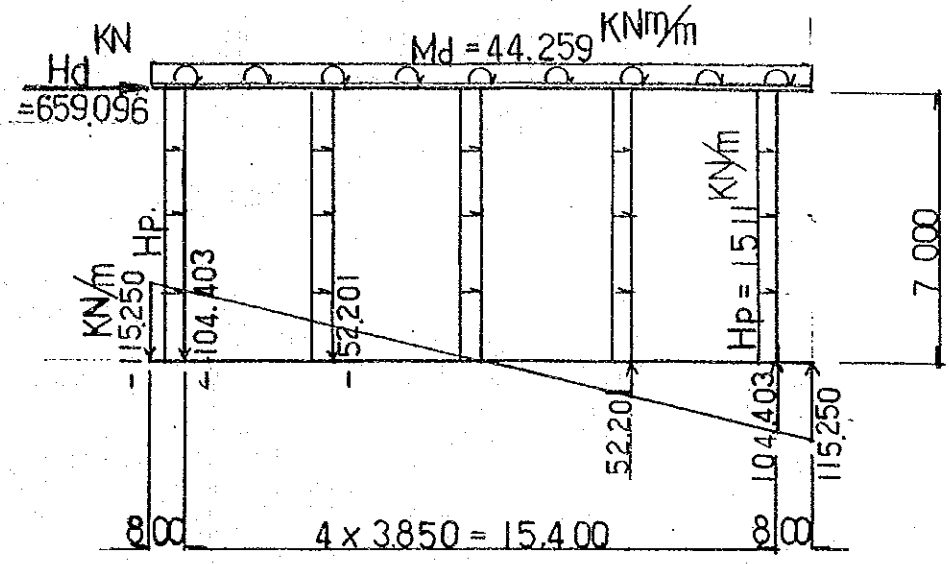
$\sum_1^9 R\ell i = 2929.2^{KN}$

$Me = (-160.0 \times 6 \times 2.887^5 + 656.4 \times 3 \times 5.775) = 8600.2^{KNm}$

$e = 8600.2 / 2929.2 = 2.936^m$

$\omega_{Ri} = \frac{2929.2}{17.00}\left(1 \pm \frac{6 \times 2.936}{17.00}\right) = \begin{cases} 350.856^{KN/m} \\ -6.244 \end{cases}$

Case－4　　Seismic state



$$Hd = 627.0 + 1.888 \times 17.00 = 659.096^{KN}$$

$$M = 659.096 \times 7.00 + 44.259 \times 17.00 + \frac{7.00^2}{2} \times 1.511 \times 5 = 5551.173^{KNm}$$

$$q = \pm\frac{6M}{B^2} = \pm\frac{6 \times 5551.173}{17.00^2} = \pm 115.250\ ^{KN/m}$$

Case－5　Temperature state

$t = 12.5\ ℃$　　$\alpha = 1.2 \times 10^{-5}$

$Ec = 2.5 \times 10^7\ KN/m^2$

No	X (m)	Y (m)
1	0.0000	7.0000
2	0.8000	7.0000
3	4.6500	7.0000
4	8.5000	7.0000
5	12.3500	7.0000
6	16.2000	7.0000
7	17.0000	7.0000
8	0.0000	0.0000
9	0.8000	0.0000
10	4.6500	0.0000
11	8.5000	0.0000
12	12.3500	0.0000
13	16.2000	0.0000
14	17.0000	0.0000

NOTE: THE DIMENSION(t) BE EXCHANG TO DIMENSION(KN) INTO THIS CALCULATION

No	I	J	A (m2)	I (m4)	I - J	L (m)	E (t/m2)	EPS
1	1	2	0.80000	0.066670	Fix - Fix	0.800	2.50E+07	1.20E-05
2	2	3	0.80000	0.066670	Fix - Fix	3.850	2.50E+07	1.20E-05
3	3	4	0.80000	0.066670	Fix - Fix	3.850	2.50E+07	1.20E-05
4	4	5	0.80000	0.066670	Fix - Fix	3.850	2.50E+07	1.20E-05
5	5	6	0.80000	0.066670	Fix - Fix	3.850	2.50E+07	1.20E-05
6	6	7	0.80000	0.066670	Fix - Fix	0.800	2.50E+07	1.20E-05
7	8	9	4.00000	0.333330	Fix - Fix	0.800	2.50E+07	1.20E-05
8	9	10	4.00000	0.333330	Fix - Fix	3.850	2.50E+07	1.20E-05
9	10	11	4.00000	0.333330	Fix - Fix	3.850	2.50E+07	1.20E-05
10	11	12	4.00000	0.333330	Fix - Fix	3.850	2.50E+07	1.20E-05
11	12	13	4.00000	0.333330	Fix - Fix	3.850	2.50E+07	1.20E-05
12	13	14	4.00000	0.333330	Fix - Fix	0.800	2.50E+07	1.20E-05
13	2	9	0.64000	0.034130	Fix - Fix	7.000	2.50E+07	1.20E-05
14	3	10	0.64000	0.034130	Fix - Fix	7.000	2.50E+07	1.20E-05
15	4	11	0.64000	0.034130	Fix - Fix	7.000	2.50E+07	1.20E-05
16	5	12	0.64000	0.034130	Fix - Fix	7.000	2.50E+07	1.20E-05
17	6	13	0.64000	0.034130	Fix - Fix	7.000	2.50E+07	1.20E-05

No	X (t/m)	Y (t/m)	M(tm/Rad)
8	Fix	Fix	Free
14	Free	Fix	Free

No		L-No 1 11	L-No 2 12	L-No 3 13	L-No 4 14	L-No 5 15	L-No 6 16	L-No 7 17	L-No 8 18	L-No 9 19	L-No 10 20
1	0										
2	3	0.963	1.925	2.888							
3	3	0.963	1.925	2.888							
4	3	0.963	1.925	2.888							
5	3	0.963	1.925	2.888							
6	0										
7	0										
8	3	0.963	1.925	2.888							
9	3	0.963	1.925	2.888							
10	3	0.963	1.925	2.888							
11	3	0.963	1.925	2.888							
12	0										
13	3	1.750	3.500	5.250							
14	3	1.750	3.500	5.250							
15	3	1.750	3.500	5.250							
16	3	1.750	3.500	5.250							
17	3	1.750	3.500	5.250							

MOMBASA-PIER(F)

: Dead Load
No. : 1
No. : 1

No	i -j		Li (m)	Lo (m)	Pi (t/m)	Pj (t/m)
2	2- 3	-Y	0.001		-696.670	
2	2- 3	-Y	1.925		-696.670	
3	3- 4	-Y	0.001		-696.670	
3	3- 4	-Y	1.925		-696.670	
4	4- 5	-Y	0.001		-696.670	
4	4- 5	-Y	1.925		-696.670	
4	4- 5	-Y	3.849		-696.670	
5	5- 6	-Y	1.925		-696.670	
5	5- 6	-Y	3.849		-696.670	
1	1- 2	-Y	0.000	0.800	-18.880	-18.880
2	2- 3	-Y	0.000	3.850	-18.880	-18.880
3	3- 4	-Y	0.000	3.850	-18.880	-18.880
4	4- 5	-Y	0.000	3.850	-18.880	-18.880
5	5- 6	-Y	0.000	3.850	-18.880	-18.880
6	6- 7	-Y	0.000	0.800	-18.880	-18.880
13	2- 9	-Y	0.000	7.000	-15.104	-15.104
14	3- 10	-Y	0.000	7.000	-15.104	-15.104
15	4- 11	-Y	0.000	7.000	-15.104	-15.104
16	5- 12	-Y	0.000	7.000	-15.104	-15.104
17	6- 13	-Y	0.000	7.000	-15.104	-15.104
7	8- 9	-Y	0.000	0.800	418.802	418.802
8	9- 10	-Y	0.000	3.850	418.802	418.802
9	10- 11	-Y	0.000	3.850	418.802	418.802
10	11- 12	-Y	0.000	3.850	418.802	418.802
11	12- 13	-Y	0.000	3.850	418.802	418.802
12	13- 14	-Y	0.000	0.800	418.802	418.802

ΣV = 0.004 (t)
ΣH = 0.000 (t)

MOMBASA-PIER(F)

: Live Load
No. : 2
No. : 1

No	i -j		Li (m)	Lo (m)	Pi (t/m)	Pj (t/m)
2	2- 3	-Y	0.001		-160.000	
2	2- 3	-Y	1.925		-160.000	
3	3- 4	-Y	0.001		-160.000	
3	3- 4	-Y	1.925		-656.400	
4	4- 5	-Y	0.001		-656.400	
4	4- 5	-Y	1.925		-656.400	
4	4- 5	-Y	3.849		-160.000	
5	5- 6	-Y	1.925		-160.000	
5	5- 6	-Y	3.849		-160.000	
7	8- 9	-Y	0.000	0.800	172.306	172.306
8	9- 10	-Y	0.000	3.850	172.306	172.306
9	10- 11	-Y	0.000	3.850	172.306	172.306
10	11- 12	-Y	0.000	3.850	172.306	172.306
11	12- 13	-Y	0.000	3.850	172.306	172.306
12	13- 14	-Y	0.000	0.800	172.306	172.306

ΣV = 0.002 (t)
ΣH = 0.000 (t)

MOMBASA-PIER(F)

: Live Load
No. : 3
No. : 1

No	i - j		Li (m)	Lo (m)	Pi (t/m)	Pj (t/m)
2	2- 3	-Y	0.001		-160.000	
2	2- 3	-Y	1.925		-160.000	
3	3- 4	-Y	0.001		-160.000	
3	3- 4	-Y	1.925		-160.000	
4	4- 5	-Y	0.001		-160.000	
4	4- 5	-Y	1.925		-160.000	
5	5- 6	-Y	0.001		-656.400	
5	5- 6	-Y	1.925		-656.400	
6	6- 7	-Y	0.001		-656.400	
7	8- 9	-Y	0.000	0.297	-6.244	0.000
7	8- 9	-Y	0.297	0.503	0.000	10.566
8	9- 10	-Y	0.000	3.850	10.566	91.437
8	9- 10	-Y	0.000	3.850	0.000	0.000
9	10- 11	-Y	0.000	3.850	91.437	172.309
10	11- 12	-Y	0.000	3.850	172.309	253.181
11	12- 13	-Y	0.000	3.850	253.181	334.052
12	13- 14	-Y	0.000	0.800	334.052	350.856

ΣV = 0.052 (t)
ΣH = 0.000 (t)

MOMBASA-PIER(F)

: Seismic State
No. : 4
No. : 1

	X (t)	Y (t)	M (tm)
1	659.096	0.000	0.000

No	i - j		Li (m)	Lo (m)	Pi (t/m)	Pj (t/m)
1	1- 2	-M	0.000	0.800	44.259	44.259
2	2- 3	-M	0.000	3.850	44.259	44.259
3	3- 4	-M	0.000	3.850	44.259	44.259
4	4- 5	-M	0.000	3.850	44.259	44.259
5	5- 6	-M	0.000	3.850	44.259	44.259
6	6- 7	-M	0.000	0.800	44.259	44.259
13	2- 9	-X	0.000	7.000	1.511	1.511
14	3- 10	-X	0.000	7.000	1.511	1.511
15	4- 11	-X	0.000	7.000	1.511	1.511
16	5- 12	-X	0.000	7.000	1.511	1.511
17	6- 13	-X	0.000	7.000	1.511	1.511
7	8- 9	-Y	0.000	0.800	-115.250	-104.403
8	9- 10	-Y	0.000	3.850	-104.403	-52.201
9	10- 11	-Y	0.000	3.850	-52.201	0.000
10	11- 12	-Y	0.000	3.850	0.000	52.201
11	12- 13	-Y	0.000	3.850	52.201	104.403
12	13- 14	-Y	0.000	0.800	104.403	115.250

ΣV = 0.000 (t)
ΣH = 711.981 (t)

MOMBASA-PIER(F)

: Temperature
No. : 5
No. : 1

No	TO	No	T (°C)
1	—	6	12.50

ΣV = 0.000 (t)
ΣH = 0.000 (t)

No / No	C-No 1 / No 6	C-No 2 / No 7	C-No 3 / No 8	C-No 4 / No 9	C-No 5 / No10	C-No 6 / No11	C-No 7 / No12	C-No 8 / No13
α	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
No 1	1.3800	1.3800	1.3800	1.3800	1.3800	1.0000	1.0000	1.0000
No 2	1.6500	0.0000	0.0000	1.3800	0.0000	1.0000	0.0000	0.0000
No 3	0.0000	1.6500	0.0000	0.0000	1.3800	0.0000	1.0000	0.0000
No 4	0.0000	0.0000	1.6500	0.0000	0.0000	0.0000	0.0000	1.0000
No 5	0.0000	0.0000	0.0000	1.4300	1.4300	0.0000	0.0000	0.0000

No / No	C-No 9 / No14	C-No10 / No15
α	1.0000	1.0000
No 1	1.0000	1.0000
No 2	1.0000	0.0000
No 3	0.0000	1.0000
No 4	0.0000	0.0000
No 5	1.0000	1.0000

No 1 : 6 7 8 9 10

No 2 : 11 12 13 14 15

No.	Case. 1 RX (t)	RY (t)	RM (tm)	Case. 2 RX (t)	RY (t)	RM (tm)	Case. 3 RX (t)	RY (t)	RM (tm)
8.	0.000	-0.043	0.000	0.000	-0.040	0.000	0.000	-0.136	0.000
14.	0.000	0.039	0.000	0.000	0.038	0.000	0.000	0.084	0.000

No.	Case. 4 RX (t)	RY (t)	RM (tm)	Case. 5 RX (t)	RY (t)	RM (tm)	Case. 6 RX (t)	RY (t)	RM (tm)
8.	-711.981	88.519	0.000	0.000	0.000	0.000	0.000	-0.125	0.000
14.	0.000	-88.519	0.000	0.000	0.000	0.000	0.000	0.116	0.000

No.	Case. 7 RX (t)	RY (t)	RM (tm)	Case. 8 RX (t)	RY (t)	RM (tm)	Case. 9 RX (t)	RY (t)	RM (tm)
8.	0.000	-0.283	0.000	-1174.770	145.998	0.000	0.000	-0.114	0.000
14.	0.000	0.192	0.000	0.000	-146.003	0.000	0.000	0.106	0.000

No.	Case. 10 RX (t)	RY (t)	RM (tm)	Case. 11 RX (t)	RY (t)	RM (tm)	Case. 12 RX (t)	RY (t)	RM (tm)
8.	0.000	-0.247	0.000	0.000	-0.083	0.000	0.000	-0.179	0.000
14.	0.000	0.169	0.000	0.000	0.077	0.000	0.000	0.123	0.000

No.	Case. 13 RX (t)	RY (t)	RM (tm)	Case. 14 RX (t)	RY (t)	RM (tm)	Case. 15 RX (t)	RY (t)	RM (tm)
8.	-711.981	88.476	0.000	0.000	-0.083	0.000	0.000	-0.179	0.000
14.	0.000	-88.480	0.000	0.000	0.077	0.000	0.000	0.123	0.000

No.	Case. 1 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)	Case. 2 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)	Case. 3 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)
1.	-0.00443	-0.18913	-0.15881	0.04244	-0.13773	-0.27177	-0.02525	0.02742	0.1065
2.	-0.00443	-0.31637	-0.15978	0.04244	-0.35515	-0.27177	-0.02525	0.11265	0.1065
3.	-0.00411	-0.13628	0.09259	0.03139	-1.71670	-0.37702	-0.01866	0.87179	0.1682
4.	-0.00067	0.04391	-0.00024	0.00714	-2.65706	-0.00023	-0.00508	1.26283	-0.0280
5.	0.00277	-0.13655	-0.09250	-0.01711	-1.71695	0.37710	0.00788	0.52693	-0.3085
6.	0.00309	-0.31642	0.15980	-0.02817	-0.35520	0.27179	0.01146	-0.18872	0.0720
7.	0.00309	-0.18917	0.15883	-0.02817	-0.13777	0.27179	0.01146	-0.13111	0.0720
8.	0.00000	0.00000	0.17269	0.00000	0.00000	-0.29154	0.00000	0.00000	0.2280
9.	0.00000	0.13901	0.17698	0.00000	-0.23288	-0.28977	0.00000	0.18235	0.2279
10.	-0.00006	0.57531	0.06375	0.00221	-1.45254	-0.28749	-0.00132	1.02852	0.1848
11.	-0.00075	0.70909	-0.00003	0.00706	-2.14846	-0.00003	-0.00403	1.43492	-0.0024
12.	-0.00144	0.57512	-0.06376	0.01191	-1.45273	0.28748	-0.00663	1.01911	-0.1623
13.	-0.00150	0.13896	-0.17691	0.01412	-0.23293	0.28983	-0.00734	0.20212	-0.2553
14.	-0.00150	0.00000	-0.17262	0.01412	0.00000	0.29160	-0.00734	0.00000	-0.2518

No.	Case. 4 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)	Case. 5 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)	Case. 6 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)
1.	5.40341	0.11523	-0.27124	-1.26727	-0.02365	0.10998	0.06391	-0.48825	-0.6676
2.	5.37705	-0.10403	-0.27974	-1.14727	0.06433	0.10998	0.06391	-1.02259	-0.6689
3.	5.27087	-0.40812	-0.07068	-0.57241	0.34783	0.05318	0.04612	-3.02062	-0.4943
4.	5.19245	-0.05976	0.01008	0.00129	0.44739	0.00000	0.01086	-4.32355	-0.0007
5.	5.14501	0.31519	-0.05647	0.57499	0.34783	-0.05318	-0.02441	-3.02141	0.4946
6.	5.12502	0.08684	-0.25036	1.14984	0.06433	-0.10998	-0.04221	-1.02274	0.6690
7.	5.12502	-0.10891	-0.24186	1.26984	-0.02365	-0.10998	-0.04221	-0.48837	0.6676
8.	0.00000	0.00000	-0.17768	0.00000	0.00000	0.08627	0.00000	0.00000	-0.2427
9.	0.00570	-0.14147	-0.17544	0.00000	0.06902	0.08627	0.00000	-0.19242	-0.2339
10.	0.02856	-0.42262	0.00431	0.00053	0.34358	0.05318	0.00356	-1.60277	-0.3864
11.	0.04547	-0.05965	0.10941	0.00129	0.44652	0.00000	0.01061	-2.56641	-0.0001
12.	0.05577	0.33082	0.01852	0.00205	0.34358	-0.05318	0.01766	-1.60334	0.3864
13.	0.06017	0.12303	-0.15239	0.00258	0.06902	-0.08627	0.02122	-0.19257	0.2341
14.	0.06017	0.00000	-0.15463	0.00258	0.00000	-0.08627	0.02122	0.00000	0.2429

No.	Case. 7 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)	Case. 8 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)	Case. 9 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)
1.	-0.04777	-0.21575	-0.04337	8.90952	-0.07086	-0.66672	-1.75974	-0.48489	-0.4369
2.	-0.04777	-0.25072	-0.04470	8.86602	-0.60824	-0.68207	-1.58814	-0.83471	-0.4383
3.	-0.03647	1.25039	0.40533	8.69126	-0.86146	0.01115	-0.78091	-2.05971	-0.3165
4.	-0.00931	2.14427	-0.04655	8.56663	-0.03801	0.01630	0.01077	-2.96638	-0.0007
5.	0.01583	0.68100	-0.63670	8.49308	0.33163	-0.22083	0.80244	-2.06043	0.3167
6.	0.02317	-0.74805	0.33933	8.46054	-0.29338	-0.19258	1.60967	-0.83485	0.4383
7.	0.02317	-0.47739	0.33800	8.46054	-0.44076	-0.17989	1.78127	-0.48500	0.4370
8.	0.00000	0.00000	0.61442	0.00000	0.00000	-0.05487	0.00000	0.00000	-0.0405
9.	0.00000	0.49271	0.62029	0.00940	-0.04160	-0.04524	0.00000	-0.03084	-0.0323
10.	-0.00226	2.49098	0.39283	0.04704	0.09661	0.09508	0.00372	-0.71926	-0.2327
11.	-0.00769	3.34616	-0.00395	0.07398	0.88013	0.18048	0.01055	-1.34780	-0.0001
12.	-0.01292	2.47519	-0.35577	0.09003	1.33952	-0.05743	0.01738	-0.71978	0.2327
13.	-0.01419	0.52526	-0.66540	0.09721	0.39476	-0.49558	0.02110	-0.03099	0.0325
14.	-0.01419	0.00000	-0.65362	0.09721	0.00000	-0.49337	0.02110	0.00000	0.0408

No.	Case. 10 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)	Case. 11 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)	Case. 12 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)
1.	-1.85314	-0.25698	0.08513	0.03801	-0.32686	-0.43058	-0.02968	-0.16171	-0.0523
2.	-1.68154	-0.18914	0.08379	0.03801	-0.67152	-0.43155	-0.02968	-0.20372	-0.0532
3.	-0.84998	1.51241	0.43596	0.02728	-1.85298	-0.28443	-0.02277	0.73551	0.2608
4.	-0.00609	2.44307	-0.03899	0.00647	-2.61315	-0.00047	-0.00575	1.30674	-0.0283
5.	0.83693	1.03613	-0.62945	-0.01434	-1.85350	0.28460	0.01065	0.39038	-0.4010
6.	1.66435	-0.60511	0.16262	-0.02508	-0.67162	0.43158	0.01455	-0.50514	0.2318
7.	1.83595	-0.47581	0.16129	-0.02508	-0.32694	0.43061	0.01455	-0.32028	0.2308
8.	0.00000	0.00000	0.67624	0.00000	0.00000	-0.11885	0.00000	0.00000	0.4006
9.	0.00000	0.54217	0.68212	0.00000	-0.09387	-0.11280	0.00000	0.32136	0.4049
10.	-0.00115	2.70460	0.41900	0.00215	-0.87723	-0.22374	-0.00138	1.60383	0.2485
11.	-0.00476	3.59726	-0.00331	0.00631	-1.43937	-0.00006	-0.00478	2.14401	-0.0024
12.	-0.00820	2.69135	-0.38800	0.01047	-0.87761	0.22372	-0.00807	1.59422	-0.2261
13.	-0.00852	0.56938	-0.71984	0.01262	-0.09397	0.11292	-0.00884	0.34108	-0.4322
14.	-0.00852	0.00000	-0.70901	0.01262	0.00000	0.11898	-0.00884	0.00000	-0.4244

No.	Case. 13 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)	Case. 14 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)	Case. 15 X-DIS.(mm)	Y-DIS.(mm)	ROTA.(mmRad)
1.	5.39898	-0.07389	-0.43006	-1.22926	-0.35051	-0.32061	-1.29694	-0.18536	0.0577
2.	5.37262	-0.42040	-0.43952	-1.10926	-0.60719	-0.32158	-1.17694	-0.13939	0.0567
3.	5.26676	-0.54440	0.02191	-0.54514	-1.50514	-0.23124	-0.59519	1.08334	0.3140
4.	5.19179	-0.01585	0.00984	0.00776	-2.16576	-0.00047	-0.00446	1.75413	-0.0283
5.	5.14777	0.17864	-0.14897	0.56065	-1.50567	0.23142	0.58564	0.73821	-0.4542
6.	5.12811	-0.22958	-0.09056	1.12477	-0.60729	0.32161	1.16439	-0.44081	0.1218
7.	5.12811	-0.29808	-0.08303	1.24477	-0.35059	0.32064	1.28439	-0.34393	0.1209
8.	0.00000	0.00000	-0.00499	0.00000	0.00000	-0.03258	0.00000	0.00000	0.4869
9.	0.00570	-0.00246	0.00154	0.00000	-0.02485	-0.02653	0.00000	0.39037	0.4912
10.	0.02850	0.15270	0.06806	0.00268	-0.53365	-0.17056	-0.00085	1.94741	0.3017
11.	0.04471	0.64945	0.10938	0.00760	-0.99284	-0.00006	-0.00350	2.59053	-0.0024
12.	0.05433	0.90594	-0.04524	0.01252	-0.53403	0.17054	-0.00602	1.93780	-0.2792
13.	0.05867	0.26199	-0.32930	0.01519	-0.02495	0.02665	-0.00627	0.41009	-0.5185
14.	0.05867	0.00000	-0.32726	0.01519	0.00000	0.03271	-0.00627	0.00000	-0.5107

No	L(m)	Case 1 Dead Load M (tm)	S (t)	N (t)	Case 2 Live Load M (tm)	S (t)	N (t)	Case 3 Live Load M (tm)	S (t)	N (t)
1- 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2- 1	0.800	-6.042	-15.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2- 3	0.000	-41.264	972.898	1.664	-198.717	279.477	-57.403	104.872	159.309	34.191
* 1	0.963	216.685	258.046	1.664	-83.500	119.477	-57.403	104.367	-0.691	34.191
* 2	1.925	456.189	239.884	1.664	31.437	119.477	-57.403	103.702	-0.691	34.191
* 3	2.888	7.550	-474.968	1.664	-7.586	-40.523	-57.403	-51.044	-160.691	34.191
3- 2	3.850	-458.106	-493.130	1.664	-46.568	-40.523	-57.403	-205.629	-160.691	34.191
3- 4	0.000	-397.844	1080.500	17.877	-297.427	563.262	-125.959	-80.379	197.541	70.553
* 1	0.963	-36.274	365.649	17.877	91.074	403.262	-125.959	-44.067	37.541	70.553
* 2	1.925	306.744	347.486	17.877	479.012	403.262	-125.959	-7.952	37.541	70.553
* 3	2.888	-38.275	-367.365	17.877	235.240	-253.138	-125.959	-125.880	-122.459	70.553
4- 3	3.850	-400.416	-385.528	17.877	-8.279	-253.138	-125.959	-243.685	-122.459	70.553
4- 5	0.000	-400.533	1082.026	17.851	-8.389	909.376	-125.984	-258.030	270.874	67.347
* 1	0.963	-37.493	367.175	17.851	235.884	252.976	-125.984	-151.098	110.874	67.347
* 2	1.925	306.993	349.012	17.851	479.246	252.976	-125.984	-44.437	110.874	67.347
* 3	2.888	-36.556	-365.839	17.851	90.749	-403.424	-125.984	-91.745	-49.126	67.347
5- 4	3.850	-397.927	-1080.672	17.851	-297.505	-563.424	-125.984	-139.005	-49.126	67.347
5- 6	0.000	-458.130	493.126	1.651	-46.592	40.519	-57.415	-327.478	1075.855	18.590
* 1	0.963	7.996	474.945	1.651	-7.572	40.519	-57.415	77.114	419.455	18.590
* 2	1.925	456.157	456.782	1.651	31.407	40.519	-57.415	480.630	419.455	18.590
* 3	2.888	216.391	-258.069	1.651	-83.653	-119.481	-57.415	252.452	-236.945	18.590
6- 5	3.850	-41.304	-972.902	1.651	-198.754	-279.481	-57.415	24.512	-236.945	18.590
6- 7	0.000	-6.042	15.104	0.000	0.000	0.000	0.000	-0.656	656.400	0.000
7- 6	0.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8- 9	0.000	0.000	-0.043	0.000	0.000	-0.040	0.000	0.000	-0.136	0.000
9- 8	0.800	133.982	334.999	0.000	55.106	137.805	0.000	-0.313	1.594	0.000
9- 10	0.000	180.856	-758.731	-1.664	-147.999	-141.672	57.403	134.150	-157.715	-34.191
* 1	0.963	-355.610	-355.425	-1.664	-204.534	24.258	57.403	-9.704	-137.800	-34.191
* 2	1.925	-503.740	47.463	-1.664	-101.468	190.017	57.403	-124.901	-98.456	-34.191
* 3	2.888	-263.841	450.769	-1.664	161.414	355.947	57.403	-192.939	-39.601	-34.191
10- 9	3.850	363.588	853.657	-1.664	583.565	521.706	57.403	-194.959	38.641	-34.191
10- 11	0.000	416.818	-825.702	-17.877	354.532	-82.079	125.959	-65.675	-319.591	-70.553
* 1	0.963	-184.141	-422.395	-17.877	355.386	83.852	125.959	-327.916	-221.797	-70.553
* 2	1.925	-396.696	-19.508	-17.877	515.781	249.610	125.959	-486.498	-104.655	-70.553
* 3	2.888	-221.291	383.799	-17.877	836.051	415.541	125.959	-523.007	32.079	-70.553
11- 10	3.850	341.713	786.686	-17.877	1315.531	581.299	125.959	-418.650	188.120	-70.553
11- 12	0.000	341.647	-786.596	-17.851	1315.470	-581.215	125.984	-426.743	-205.213	-67.347
* 1	0.963	-221.653	-383.290	-17.851	835.656	-415.284	125.984	-541.340	-29.539	-67.347
* 2	1.925	-396.588	19.598	-17.851	515.883	-249.525	125.984	-477.548	165.402	-67.347
* 3	2.888	-183.524	422.904	-17.851	355.485	-83.595	125.984	-216.493	380.015	-67.347
12- 11	3.850	417.099	825.792	-17.851	354.797	82.164	125.984	260.000	613.855	-67.347

No	L(m)	Case 1 Dead Load M (tm)	S (t)	N (t)	Case 2 Live Load M (tm)	S (t)	N (t)	Case 3 Live Load M (tm)	S (t)	N (t)
12- 13	0.000	363.902	-853.735	-1.651	583.861	-521.779	57.415	107.174	-511.126	-18.590
* 1	0.963	-264.052	-450.428	-1.651	161.283	-355.849	57.415	-264.518	-257.573	-18.590
* 2	1.925	-503.576	-47.541	-1.651	-101.313	-190.090	57.415	-382.673	15.167	-18.590
* 3	2.888	-355.165	355.765	-1.651	-204.474	-24.160	57.415	-228.796	307.659	-18.590
13- 12	3.850	180.870	758.653	-1.651	-147.986	141.599	57.415	215.512	619.298	-18.590
13- 14	0.000	134.048	-335.081	0.000	55.168	-137.882	0.000	110.549	-274.047	0.000
14- 13	0.800	0.000	-0.039	0.000	0.000	-0.038	0.000	0.000	-0.084	0.000
2- 9	0.000	35.223	1.664	-988.002	198.717	-57.403	-279.477	-104.872	34.191	-159.309
* 1	1.750	38.135	1.664	-1014.434	98.261	-57.403	-279.477	-45.038	34.191	-159.309
* 2	3.500	41.048	1.664	-1040.866	-2.194	-57.403	-279.477	14.795	34.191	-159.309
* 3	5.250	43.961	1.664	-1067.298	-102.650	-57.403	-279.477	74.629	34.191	-159.309
9- 2	7.000	46.874	1.664	-1093.730	-203.106	-57.403	-279.477	134.463	34.191	-159.309
3- 10	0.000	-60.262	16.213	-1573.630	250.859	-68.556	-603.785	-125.250	36.362	-358.232
* 1	1.750	-31.889	16.213	-1600.062	130.886	-68.556	-603.785	-61.616	36.362	-358.232
* 2	3.500	-3.516	16.213	-1626.494	10.913	-68.556	-603.785	2.017	36.362	-358.232
* 3	5.250	24.857	16.213	-1652.926	-109.060	-68.556	-603.785	65.651	36.362	-358.232
10- 3	7.000	53.230	16.213	-1679.358	-229.033	-68.556	-603.785	129.284	36.362	-358.232
4- 11	0.000	0.117	-0.026	-1467.554	0.110	-0.025	-1162.514	14.344	-3.205	-393.333
* 1	1.750	0.071	-0.026	-1493.986	0.067	-0.025	-1162.514	8.735	-3.205	-393.333
* 2	3.500	0.026	-0.026	-1520.418	0.024	-0.025	-1162.514	3.126	-3.205	-393.333
* 3	5.250	-0.020	-0.026	-1546.850	-0.019	-0.025	-1162.514	-2.484	-3.205	-393.333
11- 4	7.000	-0.065	-0.026	-1573.282	-0.062	-0.025	-1162.514	-8.093	-3.205	-393.333
5- 12	0.000	60.204	-16.200	-1573.798	-250.913	68.568	-603.943	188.473	-48.757	-1124.981
* 1	1.750	31.854	-16.200	-1600.230	-130.919	68.568	-603.943	103.148	-48.757	-1124.981
* 2	3.500	3.503	-16.200	-1626.662	-10.925	68.568	-603.943	17.823	-48.757	-1124.981
* 3	5.250	-24.847	-16.200	-1653.094	109.070	68.568	-603.943	-67.501	-48.757	-1124.981
12- 5	7.000	-53.197	-16.200	-1679.526	229.064	68.568	-603.943	-152.826	-48.757	-1124.981
6- 13	0.000	-35.263	-1.651	-988.006	-198.754	57.415	-279.481	25.168	-18.590	-893.345
* 1	1.750	-38.152	-1.651	-1014.438	-98.277	57.415	-279.481	-7.365	-18.590	-893.345
* 2	3.500	-41.042	-1.651	-1040.870	2.200	57.415	-279.481	-39.898	-18.590	-893.345
* 3	5.250	-43.932	-1.651	-1067.302	102.677	57.415	-279.481	-72.431	-18.590	-893.345
13- 6	7.000	-46.822	-1.651	-1093.734	203.154	57.415	-279.481	-104.964	-18.590	-893.345

No	L(m)	Case 4 Seismic State M (tm)	S (t)	N (t)	Case 5 Temperature M (tm)	S (t)	N (t)	Case 6 M (tm)	S (t)	N (t)
1- 2	0.000	0.000	0.000	-659.096	0.000	0.000	0.000	0.000	0.000	0.000
2- 1	0.800	-35.407	0.000	-659.096	0.000	0.000	0.000	-8.337	-20.844	0.000
2- 3	0.000	340.457	-85.584	-551.599	-45.213	10.715	-13.744	-384.828	1803.736	-92.418
* 1	0.963	215.417	-85.584	-551.599	-34.895	10.715	-13.744	161.250	553.242	-92.418
* 2	1.925	90.508	-85.584	-551.599	-24.587	10.715	-13.744	681.413	528.177	-92.418
* 3	2.888	-34.531	-85.584	-551.599	-14.269	10.715	-13.744	-2.098	-722.318	-92.418
3- 2	3.850	-159.441	-85.584	-551.599	-3.962	10.715	-13.744	-709.024	-747.382	-92.418
3- 4	0.000	348.694	-118.718	-407.332	-24.927	0.989	-19.734	-1039.780	2420.472	-183.162
* 1	0.963	191.747	-118.718	-407.332	-23.975	0.989	-19.734	100.214	1169.977	-183.162
* 2	1.925	34.964	-118.718	-407.332	-23.023	0.989	-19.734	1213.677	1144.913	-183.162
* 3	2.888	-121.983	-118.718	-407.332	-22.071	0.989	-19.734	335.327	-924.642	-183.162
4- 3	3.850	-278.766	-118.718	-407.332	-21.119	0.989	-19.734	-566.234	-949.706	-183.162
4- 5	0.000	284.408	-118.453	-246.492	-21.119	-0.989	-19.734	-566.577	2993.666	-183.238
* 1	0.963	127.716	-118.453	-246.492	-22.072	-0.989	-19.734	337.467	924.111	-183.238
* 2	1.925	-28.813	-118.453	-246.492	-23.023	-0.989	-19.734	1214.406	899.047	-183.238
* 3	2.888	-185.505	-118.453	-246.492	-23.976	-0.989	-19.734	99.288	-1170.508	-183.238
5- 4	3.850	-342.034	-118.453	-246.492	-24.927	-0.989	-19.734	-1040.022	-2420.977	-183.238
5- 6	0.000	160.499	-82.722	-103.825	-3.962	-10.715	-13.744	-709.096	747.370	-92.457
* 1	0.963	38.217	-82.722	-103.825	-14.280	-10.715	-13.744	-1.459	722.280	-92.457
* 2	1.925	-83.939	-82.722	-103.825	-24.587	-10.715	-13.744	681.318	697.216	-92.457
* 3	2.888	-206.222	-82.722	-103.825	-34.906	-10.715	-13.744	160.592	-553.279	-92.457
6- 5	3.850	-328.377	-82.722	-103.825	-45.213	-10.715	-13.744	-384.944	-1803.748	-92.457
6- 7	0.000	35.407	0.000	0.000	0.000	0.000	0.000	-8.337	20.844	0.000
7- 6	0.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8- 9	0.000	0.000	88.519	711.981	0.000	0.000	0.000	0.000	-0.125	0.000
9- 8	0.800	35.093	0.658	711.981	0.000	0.000	0.000	275.821	689.677	0.000
9- 10	0.000	448.724	86.243	593.907	-50.992	-10.715	13.744	5.382	-1280.808	92.418
* 1	0.963	485.384	-8.010	593.907	-61.311	-10.715	13.744	-828.223	-450.460	92.418
* 2	1.925	437.422	-89.611	593.907	-71.618	-10.715	13.744	-862.583	379.026	92.418
* 3	2.888	316.838	-158.729	593.907	-81.936	-10.715	13.744	-97.768	1209.375	92.418
10- 9	3.850	135.963	-215.220	593.907	-92.244	-10.715	13.744	1464.634	2038.861	92.418
10- 11	0.000	674.718	-182.087	439.063	-113.209	-0.989	19.734	1160.186	-1274.898	183.162
* 1	0.963	477.182	-226.070	439.063	-114.162	-0.989	19.734	332.271	-444.550	183.162
* 2	1.925	243.602	-257.452	439.063	-115.113	-0.989	19.734	303.597	384.936	183.162
* 3	2.888	-14.409	-276.300	439.063	-116.066	-0.989	19.734	1074.104	1215.285	183.162
11- 10	3.850	-284.233	-282.574	439.063	-117.017	-0.989	19.734	2642.190	2044.771	183.162
11- 12	0.000	315.496	-282.838	267.646	-117.017	0.989	19.734	2641.998	-2044.506	183.238
* 1	0.963	45.141	-276.551	267.646	-116.065	0.989	19.734	1072.951	-1214.158	183.238
* 2	1.925	-212.848	-257.716	267.646	-115.113	0.989	19.734	303.914	-384.672	183.238
* 3	2.888	-446.908	-226.295	267.646	-114.161	0.989	19.734	333.288	445.676	183.238
12- 11	3.850	-644.473	-182.351	267.646	-113.209	0.989	19.734	1161.011	1275.162	183.238

MOMBASA-PIER(F)

	No	L(m)	Case 4 Seismic State M (tm)	S (t)	N (t)	Case 5 Temperature M (tm)	S (t)	N (t)	Case 6 M (tm)	S (t)	N (t)
12-	13	0.000	-111.318	-218.083	114.402	-92.244	10.715	13.744	1465.556	-2039.090	92.457
*	1	0.963	-295.109	-161.526	114.402	-81.926	10.715	13.744	-98.275	-1208.741	92.457
*	2	1.925	-418.289	-92.473	114.402	-71.618	10.715	13.744	-862.101	-379.255	92.457
*	3	2.888	-469.015	-10.782	114.402	-61.300	10.715	13.744	-827.511	451.093	92.457
13-	12	3.850	-435.101	83.380	114.402	-50.992	10.715	13.744	5.423	1280.579	92.457
13-	14	0.000	-35.093	0.658	0.000	0.000	0.000	0.000	276.013	-689.917	0.000
14-	13	0.800	0.000	88.519	0.000	0.000	0.000	0.000	0.000	-0.116	0.000
2-	9	0.000	-375.864	107.497	85.584	45.213	-13.744	-10.715	376.490	-92.418	-1824.580
*	1	1.750	-185.431	110.141	85.584	21.162	-13.744	-10.715	214.758	-92.418	-1861.056
*	2	3.500	9.629	112.785	85.584	-2.889	-13.744	-10.715	53.026	-92.418	-1897.532
*	3	5.250	209.317	115.429	85.584	-26.941	-13.744	-10.715	-108.707	-92.418	-1934.008
9-	2	7.000	413.632	118.074	85.584	-50.992	-13.744	-10.715	-270.439	-92.418	-1970.485
3-	10	0.000	-508.134	144.267	33.133	20.966	-5.990	9.726	330.756	-90.743	-3167.854
*	1	1.750	-253.353	146.911	33.133	10.483	-5.990	9.726	171.955	-90.743	-3204.331
*	2	3.500	6.056	149.556	33.133	0.000	-5.990	9.726	13.154	-90.743	-3240.807
*	3	5.250	270.092	152.200	33.133	-10.483	-5.990	9.726	-145.647	-90.743	-3277.283
10-	3	7.000	538.756	154.844	33.133	-20.965	-5.990	9.726	-304.448	-90.743	-3313.759
4-	11	0.000	-563.174	160.841	-0.264	0.000	0.000	1.978	0.343	-0.076	-3943.372
*	1	1.750	-279.390	163.485	-0.264	0.000	0.000	1.978	0.209	-0.076	-3979.849
*	2	3.500	9.022	166.129	-0.264	0.000	0.000	1.978	0.075	-0.076	-4016.325
*	3	5.250	302.062	168.773	-0.264	0.000	0.000	1.978	-0.058	-0.076	-4052.801
11-	4	7.000	599.729	171.418	-0.264	0.000	0.000	1.978	-0.192	-0.076	-4089.277
5-	12	0.000	-502.533	142.667	-35.731	-20.966	5.990	9.726	-330.926	90.782	-3168.348
*	1	1.750	-250.552	145.311	-35.731	-10.483	5.990	9.726	-172.059	90.782	-3204.824
*	2	3.500	6.056	147.955	-35.731	0.000	5.990	9.726	-13.191	90.782	-3241.300
*	3	5.250	267.292	150.600	-35.731	10.483	5.990	9.726	145.577	90.782	-3277.776
12-	5	7.000	533.155	153.244	-35.731	20.965	5.990	9.726	304.545	90.782	-3314.252
6-	13	0.000	-363.784	103.825	-82.722	-45.213	13.744	-10.715	-376.607	92.457	-1824.592
*	1	1.750	-179.777	106.469	-82.722	-21.162	13.744	-10.715	-214.808	92.457	-1861.068
*	2	3.500	8.857	109.113	-82.722	2.889	13.744	-10.715	-53.009	92.457	-1897.544
*	3	5.250	202.119	111.758	-82.722	26.941	13.744	-10.715	108.791	92.457	-1934.020
13-	6	7.000	400.008	114.402	-82.722	50.992	13.744	-10.715	270.590	92.457	-1970.496

MOMBASA-PIER(F)

No	L(m)	Case 7 M (tm)	Case 7 S (t)	Case 7 N (t)	Case 8 M (tm)	Case 8 S (t)	Case 8 N (t)	Case 9 M (tm)	Case 9 S (t)	Case 9 N (t)
1- 2	0.000	0.000	0.000	0.000	0.000	0.000	-1087.508	0.000	0.000	0.000
2- 1	0.800	-8.337	-20.844	0.000	-66.759	-20.844	-1087.508	-8.337	-20.844	0.000
2- 3	0.000	116.094	1605.458	58.711	504.809	1201.384	-907.842	-395.829	1743.600	-96.573
* 1	0.963	471.230	354.963	58.711	654.464	214.889	-907.842	133.895	536.305	-96.573
* 2	1.925	800.649	329.899	58.711	778.879	189.825	-907.842	637.765	511.240	-96.573
* 3	2.888	-73.804	-920.596	58.711	-46.558	-796.670	-907.842	-20.455	-696.055	-96.573
3- 2	3.850	-971.473	-945.660	58.711	-895.263	-821.734	-907.842	-702.115	-721.119	-96.573
3- 4	0.000	-681.650	1817.033	141.083	26.319	1295.206	-647.427	-995.121	2269.806	-177.372
* 1	0.963	-122.768	566.538	141.083	266.325	308.711	-647.427	41.340	1062.511	-177.372
* 2	1.925	410.186	541.474	141.083	480.997	283.647	-647.427	1051.420	1037.447	-177.372
* 3	2.888	-260.521	-709.021	141.083	-254.090	-702.848	-647.427	240.251	-854.880	-177.372
4- 3	3.850	-954.655	-734.086	141.083	-1012.538	-727.913	-647.427	-594.200	-879.945	-177.372
4- 5	0.000	-978.485	1940.138	135.758	-83.462	1297.748	-382.076	-594.513	2746.720	-177.442
* 1	0.963	-301.052	689.643	135.758	158.992	311.253	-382.076	242.216	854.393	-177.442
* 2	1.925	350.329	664.579	135.758	376.109	286.189	-382.076	1052.087	829.329	-177.442
* 3	2.888	-201.828	-585.916	135.758	-356.530	-700.306	-382.076	40.500	-1062.998	-177.442
5- 4	3.850	-778.496	-1572.385	135.758	-1113.495	-1686.775	-382.076	-995.342	-2270.267	-177.442
5- 6	0.000	-1172.558	2455.676	32.953	-367.396	544.023	-169.032	-702.181	721.108	-96.608
* 1	0.963	138.273	1347.525	32.953	74.092	518.933	-169.032	-19.835	696.018	-96.608
* 2	1.925	1422.536	1322.461	32.953	490.997	493.869	-169.032	637.678	670.954	-96.608
* 3	2.888	715.166	-747.094	32.953	-41.646	-492.626	-169.032	133.263	-536.341	-96.608
6- 5	3.850	-16.556	-1733.563	32.953	-598.822	-1479.095	-169.032	-395.936	-1743.610	-96.608
6- 7	0.000	-9.420	1103.904	0.000	50.084	20.844	0.000	-8.337	20.844	0.000
7- 6	0.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8- 9	0.000	0.000	-0.283	0.000	0.000	145.998	1174.769	0.000	-0.114	0.000
9- 8	0.800	184.379	464.929	0.000	242.798	463.384	1174.769	260.942	652.469	0.000
9- 10	0.000	470.928	-1307.278	-58.711	989.976	-904.748	977.650	-27.577	-1257.879	96.573
* 1	0.963	-506.753	-717.855	-58.711	310.142	-503.703	977.650	-860.673	-472.332	96.573
* 2	1.925	-901.247	-96.953	-58.711	26.586	-82.359	977.650	-937.601	312.400	96.573
* 3	2.888	-682.449	556.719	-58.711	158.682	360.159	977.650	-258.519	1097.947	96.573
10- 9	3.850	180.069	1241.804	-58.711	726.090	822.933	977.650	1175.162	1882.678	96.573
10- 11	0.000	466.845	-1666.793	-141.083	1688.494	-1439.912	699.783	902.573	-1254.151	177.372
* 1	0.963	-795.177	-948.871	-141.083	533.236	-955.920	699.783	73.066	-468.604	177.372
* 2	1.925	-1350.163	-199.602	-141.083	-145.498	-451.717	699.783	-0.276	316.127	177.372
* 3	2.888	-1168.343	582.572	-141.083	-329.155	73.747	699.783	682.396	1101.674	177.372
11- 10	3.850	-219.209	1396.025	-141.083	2.579	619.380	699.783	2119.662	1886.405	177.372
11- 12	0.000	-232.653	-1424.104	-135.758	992.041	-1552.185	416.980	2119.487	-1886.164	177.442
* 1	0.963	-1199.091	-577.679	-135.758	-231.399	-985.249	416.980	681.352	-1100.617	177.442
* 2	1.925	-1335.246	299.958	-135.758	-898.491	-398.187	416.980	0.014	-315.886	177.442
* 3	2.888	-610.476	1210.633	-135.758	-990.661	210.222	416.980	74.057	469.661	177.442
12- 11	3.850	1004.597	2152.454	-135.758	-487.784	838.713	416.980	903.327	1254.393	177.442

MOMBASA-PIER(F)

No	L(m)	Case 7 M (tm)	S (t)	N (t)	Case 8 M (tm)	S (t)	N (t)	Case 9 M (tm)	S (t)	N (t)
12- 13	0.000	679.022	-2021.512	-32.953	318.510	-1537.990	186.484	1176.005	-1882.887	96.608
* 1	0.963	-800.846	-1046.586	-32.953	-851.322	-888.109	186.484	-258.975	-1097.340	96.608
* 2	1.925	-1326.345	-40.581	-32.953	-1385.110	-218.188	186.484	-937.160	-312.609	96.608
* 3	2.888	-867.641	998.594	-32.953	-1264.003	473.167	186.484	-859.962	472.938	96.608
13- 12	3.850	605.196	2068.782	-32.953	-468.316	1184.518	186.484	-27.539	1257.670	96.608
13- 14	0.000	367.391	-914.589	0.000	127.083	-461.325	0.000	261.118	-652.689	0.000
14- 13	0.800	0.000	-0.192	0.000	0.000	146.003	0.000	0.000	-0.106	0.000
2- 9	0.000	-124.432	58.711	-1626.302	-571.568	179.666	-1222.228	387.492	-96.573	-1764.443
* 1	1.750	-21.686	58.711	-1662.778	-253.334	184.029	-1258.704	218.489	-96.573	-1800.919
* 2	3.500	81.059	58.711	-1699.254	72.534	188.392	-1295.180	49.486	-96.573	-1837.396
* 3	5.250	183.804	58.711	-1735.730	406.039	192.755	-1331.656	-119.517	-96.573	-1873.872
9- 2	7.000	286.549	58.711	-1772.207	747.178	197.118	-1368.132	-288.519	-96.573	-1910.348
3- 10	0.000	-289.823	82.371	-2762.693	-921.582	260.415	-2116.940	293.005	-80.799	-2990.925
* 1	1.750	-145.673	82.371	-2799.169	-462.039	264.778	-2153.417	151.607	-80.799	-3027.401
* 2	3.500	-1.524	82.371	-2835.645	5.140	269.141	-2189.893	10.208	-80.799	-3063.877
* 3	5.250	142.626	82.371	-2872.122	479.955	273.504	-2226.369	-131.191	-80.799	-3100.353
10- 3	7.000	286.776	82.371	-2908.598	962.404	277.867	-2262.845	-272.590	-80.799	-3136.830
4- 11	0.000	23.829	-5.325	-2674.224	-929.077	265.351	-2025.661	0.313	-0.070	-3626.665
* 1	1.750	14.511	-5.325	-2710.700	-460.895	269.714	-2062.137	0.191	-0.070	-3663.141
* 2	3.500	5.193	-5.325	-2747.176	14.922	274.077	-2098.613	0.069	-0.070	-3699.617
* 3	5.250	-4.126	-5.325	-2783.652	498.374	278.440	-2135.089	-0.053	-0.070	-3736.093
11- 4	7.000	-13.444	-5.325	-2820.128	989.462	282.803	-2171.565	-0.175	-0.070	-3772.570
5- 12	0.000	394.062	-102.805	-4028.061	-746.098	213.044	-2230.799	-293.161	80.834	-2991.375
* 1	1.750	214.153	-102.805	-4064.537	-369.453	217.407	-2267.275	-151.701	80.834	-3027.851
* 2	3.500	34.243	-102.805	-4101.013	14.827	221.770	-2303.751	-10.241	80.834	-3064.328
* 3	5.250	-145.666	-102.805	-4137.489	406.743	226.133	-2340.227	131.218	80.834	-3100.804
12- 5	7.000	-325.575	-102.805	-4173.966	806.294	230.496	-2376.703	272.678	80.834	-3137.280
6- 13	0.000	-7.135	-32.953	-2837.466	-648.907	169.032	-1499.939	-387.599	96.608	-1754.454
* 1	1.750	-64.803	-32.953	-2873.943	-349.283	173.395	-1536.415	-218.535	96.608	-1800.930
* 2	3.500	-122.470	-32.953	-2910.419	-42.024	177.758	-1572.891	-49.471	96.608	-1837.406
* 3	5.250	-180.137	-32.953	-2946.895	272.870	182.121	-1609.367	119.593	96.608	-1873.882
13- 6	7.000	-237.805	-32.953	-2983.371	595.400	186.484	-1645.843	288.657	96.608	-1910.358

MOMBASA-PIER(F)

No	L(m)	Case 10 M (tm)	Case 10 S (t)	Case 10 N (t)	Case 11 M (tm)	Case 11 S (t)	Case 11 N (t)	Case 12 M (tm)	Case 12 S (t)	Case 12 N (t)
1- 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2- 1	0.800	-8.337	-20.844	0.000	-6.042	-15.104	0.000	-6.042	-15.104	0.000
2- 3	0.000	23.123	1577.767	29.827	-239.981	1252.375	-55.739	63.608	1132.206	35.855
* 1	0.963	393.151	370.472	29.827	133.185	377.524	-55.739	321.052	257.355	35.855
* 2	1.925	737.489	345.408	29.827	487.627	359.361	-55.739	559.891	239.192	35.855
* 3	2.888	-80.427	-861.887	29.827	-0.036	-515.490	-55.739	-43.494	-635.659	35.855
3- 2	3.850	-921.618	-886.952	29.827	-504.674	-533.653	-55.739	-663.734	-653.822	35.855
3- 4	0.000	-695.594	1765.111	93.814	-695.272	1643.762	-108.082	-478.223	1278.041	88.430
* 1	0.963	-145.154	557.816	93.814	54.800	768.911	-108.082	-80.340	403.190	88.430
* 2	1.925	379.410	532.752	93.814	785.756	750.748	-108.082	298.792	385.027	88.430
* 3	2.888	-258.094	-674.543	93.814	196.966	-620.503	-108.082	-164.154	-489.824	88.430
4- 3	3.850	-919.061	-699.607	93.814	-408.695	-638.666	-108.082	-644.102	-507.987	88.430
4- 5	0.000	-939.017	1865.588	89.355	-408.922	1991.402	-108.132	-658.563	1352.900	85.199
* 1	0.963	-291.818	658.293	89.355	198.391	620.150	-108.132	-188.591	478.049	85.199
* 2	1.925	329.403	633.228	89.355	786.239	601.988	-108.132	262.556	459.886	85.199
* 3	2.888	-211.342	-574.067	89.355	54.193	-769.264	-108.132	-128.302	-414.965	85.199
5- 4	3.850	-776.611	-1560.536	89.355	-695.432	-1644.096	-108.132	-536.931	-1129.798	85.199
5- 6	0.000	-1089.804	2149.873	8.280	-504.722	533.645	-55.764	-785.608	1568.982	20.242
* 1	0.963	97.032	1218.950	8.280	0.424	515.464	-55.764	85.110	894.400	20.242
* 2	1.925	1257.606	1193.886	8.280	487.564	497.301	-55.764	936.787	876.238	20.242
* 3	2.888	597.088	-698.441	8.280	132.738	-377.550	-55.764	468.843	-495.014	20.242
6- 5	3.850	-87.829	-1684.910	8.280	-240.059	-1252.383	-55.764	-16.793	-1209.846	20.242
6- 7	0.000	-9.243	926.676	0.000	-6.042	15.104	0.000	-6.698	671.504	0.000
7- 6	0.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8- 9	0.000	0.000	-0.247	0.000	0.000	-0.083	0.000	0.000	-0.179	0.000
9- 8	0.800	184.464	464.498	0.000	189.088	472.804	0.000	133.669	336.593	0.000
9- 10	0.000	361.789	-1280.017	-29.827	32.856	-900.403	55.739	315.005	-916.445	-35.855
* 1	0.963	-591.807	-695.971	-29.827	-560.144	-331.166	55.739	-365.314	-493.224	-35.855
* 2	1.925	-969.938	-85.692	-29.827	-605.208	237.480	55.739	-628.641	-50.993	-35.855
* 3	2.888	-747.525	552.089	-29.827	-102.427	806.717	55.739	-456.780	411.168	-35.855
10- 9	3.850	100.799	1216.049	-29.827	947.153	1375.363	55.739	168.629	892.298	-35.855
10- 11	0.000	322.688	-1581.918	-93.814	771.349	-907.780	108.082	351.143	-1145.293	-88.430
* 1	0.963	-869.891	-890.400	-93.814	171.244	-338.543	108.082	-512.057	-644.192	-88.430
* 2	1.925	-1383.421	-172.759	-93.814	119.084	230.103	108.082	-883.195	-124.163	-88.430
* 3	2.888	-1193.105	572.496	-93.814	614.761	799.340	108.082	-744.298	415.877	-88.430
11- 10	3.850	-273.508	1343.818	-93.814	1657.244	1367.985	108.082	-76.937	974.806	-88.430
11- 12	0.000	-284.767	-1367.282	-89.355	1657.117	-1367.810	108.132	-85.096	-991.809	-85.199
* 1	0.963	-1218.902	-568.289	-89.355	614.003	-798.573	108.132	-762.992	-412.829	-85.199
* 2	1.925	-1370.921	256.714	-89.355	119.294	-229.928	108.132	-874.137	185.000	-85.199
* 3	2.888	-715.273	1109.443	-89.355	171.962	339.309	108.132	-400.017	802.919	-85.199
12- 11	3.850	772.507	1988.127	-89.355	771.896	907.955	108.132	677.099	1439.647	-85.199