

Fatigue failure accumulated probability as computed in initial condition and after considering additional information through Bayesian inference

Fatigue Life [Years]	<i>Pf</i> before inspection
1	0.000000
2	0.000020
3	0.000096
4	0.000325
5	0.000768
6	0.001538
7	0.002718
8	0.004269
9	0.006000
10	0.008656
11	0.011600
12	0.014630
13	0.018300

Fatigue Life [Years]	<i>Pf</i> without inspection
14	0.022750
15	0.026800
16	0.032160
17	0.037538
18	0.042716
19	0.048460
20	0.054799
21	0.060570
22	0.068112
23	0.074930
24	0.080757
25	0.088508
26	0.095000
27	0.103800
28	0.111233
29	0.119000
30	0.125000
31	0.133000
32	0.142000
33	0.149000
34	0.156000
35	0.166000
36	0.173600
37	0.181400
38	0.189430
39	0.197660

40	0.206100
45	0.245000
50	0.284000
55	0.322700
60	0.355700
65	0.389700
70	0.424655
75	0.452242
80	0.484000
83	0.500000
85	0.507978
90	0.535800
95	0.560000
100	0.583000

Fatigue Life [Years] *P_f* after inspection at t=13 years

14.5	0.000968
17.0	0.001350
19.5	0.001866
22.0	0.002555
24.5	0.003467
27.0	0.004661
29.5	0.006210
31.9	0.008198
34.4	0.010724
36.9	0.013903
39.4	0.017864
41.9	0.022750
44.4	0.028717
46.8	0.035930
49.3	0.044565
51.8	0.054799
54.3	0.066807
56.8	0.080757
59.3	0.096801
61.8	0.115070
64.2	0.135666
66.7	0.158655
69.2	0.181411
71.7	0.211855
74.2	0.241964
76.7	0.274253
79.1	0.308538
81.6	0.344578
84.1	0.382089
86.6	0.420740

89.1	0.460172
91.6	0.500000
94.0	0.539828
96.5	0.579260
99.0	0.617911
101.5	0.655422