ESTES F50

CERTIFIED VALUES

Total Impulse: 80 newton-seconds
Delays: 6, 9 seconds

Propellant Type: Composite
Propellant Mass: 37.9 grams

Casing Dimensions: 29 mm × 98 mm

Certification Date: 88-February-26
Contest Use Date: 88-May-25

Certification Type: Model Rocket

STATIC TEST DATA

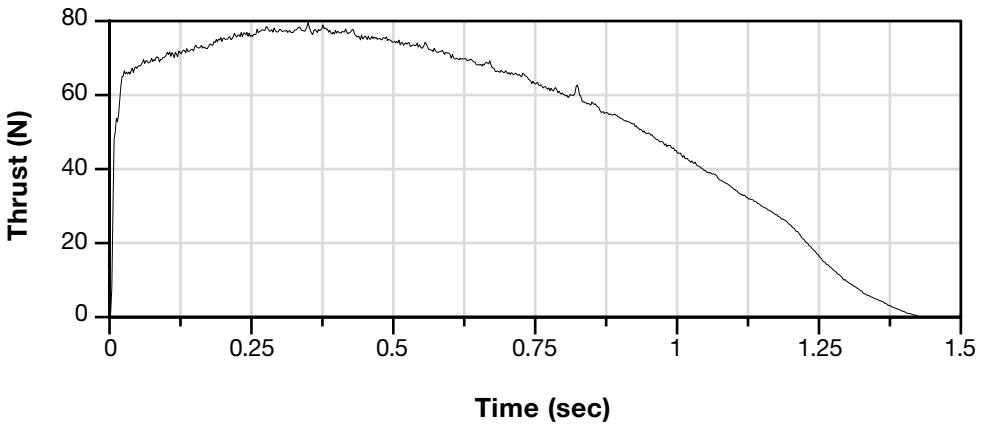
Date Tested: 95-September-3

Total Impulse:	76.83 newton-seconds	(σ 0.47)
Peak Thrust:	79.59 newtons	(σ 8.26)
Burn Time:	1.43 seconds	(σ 0.10)
Average Thrust:	53.73 newtons	

Mass After Firing: 38.4 grams

Delay Time	Average Measured Delay	Initial Mass	Mfg Recommended Max Liftoff Weight
4	4.25	84.9 g	1020 g
6	6.05	83.9 g	567 g

TYPICAL THRUST-TIME CURVE



REMARKS

Updated: 1/98

; Estes F50 RASP.ENG file made from NAR published data
; File produced July 4, 2000
; The total impulse, peak thrust, average thrust and burn time are
; the same as the averaged static test data on the NAR web site in
; the certification file. The curve drawn with these data points is as
; close to the certification curve as can be with such a limited
; number of points (32) allowed with wRASP up to v1.6.
F50 29 98 6-9 .0379 .0836 Estes
0.012 51.377
0.023 61.197
0.026 66.117
0.044 66.564
0.082 69.685
0.152 73.264
0.208 75.053
0.237 77.279
0.254 76.832
0.272 77.726
0.307 77.726
0.330 76.832
0.336 78.621
0.342 76.832
0.354 79.590
0.363 76.385
0.371 77.756
0.395 76.385
0.447 75.937
0.523 73.711
0.652 68.344
0.810 60.302
0.828 62.539
0.836 58.076
0.901 53.603
1.079 37.074
1.158 29.480
1.196 25.464
1.246 16.976
1.301 9.380
1.430 0.000