

QUEST MICRO MAXX II

CERTIFIED VALUES

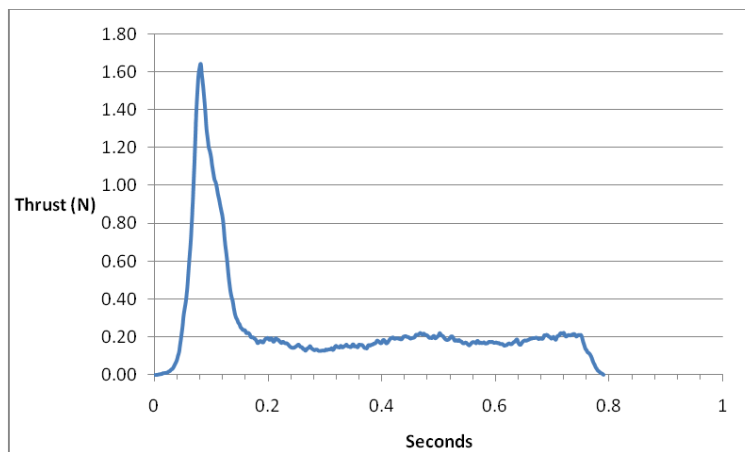
Total Impulse: 0.218 newton-seconds
Delays: 1 second, NE (see remarks)
Propellant Type: Black Powder
Propellant Mass: 0.50 grams
Casing Dimensions: 6mm x 26mm
Certification Date: July 7, 2001
Contest Use Date: September 5, 2001
Certification Type: Model Rocket

STATIC TEST DATA

Date Tested: November 16, 2008
Total Impulse: 0.218 newton-seconds
Peak Thrust: 2.108 newtons (σ 0.46)
Burn Time: 0.772 seconds (σ 0.04)
Average Thrust: 0.284 newtons
Mass After Firing: 0.5 grams

| | | |
|------------------------------|-------|------|
| Delay Time (sec) | 1 | 0 |
| Average Measured Delay (sec) | 0.857 | 0 |
| Initial Mass (gm) | 1.0g | 1.0g |

Typical Thrust-Time Curve



REMARKS

“NE” engines have 1 second of smoke after burnout but no ejection charge.

| | total impulse | peak thrust | burn time | average thrust | delay |
|--------------------|---------------|-------------|-----------|----------------|-------|
| q001 | 0.220 | 2.833 | 0.707 | 0.312 | 0.990 |
| q002 | 0.251 | 2.351 | 0.791 | 0.318 | 0.990 |
| q003 | 0.199 | 1.639 | 0.780 | 0.256 | 0.760 |
| q004 | 0.220 | 2.258 | 0.750 | 0.294 | 0.770 |
| q005 | 0.197 | 1.643 | 0.802 | 0.245 | 0.960 |
| q006 | 0.221 | 1.924 | 0.803 | 0.276 | 0.670 |
| standard deviation | 0.020 | 0.464 | 0.037 | | |
| average | 0.218 | 2.108 | 0.772 | 0.284 | 0.857 |

| | total impulse | peak thrust | burn time | average thrust |
|--------------------|---------------|-------------|-----------|----------------|
| q007 | 0.204 | 1.718 | 0.697 | 0.293 |
| q008 | 0.228 | 2.093 | 0.685 | 0.333 |
| q009 | 0.223 | 2.069 | 0.708 | 0.315 |
| q010 | 0.278 | 2.237 | 1.261 | 0.220 |
| q011 | 0.231 | 2.459 | 0.607 | 0.380 |
| q012 | 0.209 | 1.495 | 0.753 | 0.277 |
| standard deviation | 0.026 | 0.350 | 0.238 | |
| average | 0.229 | 2.012 | 0.785 | 0.303 |

```
; @File: q003.txt, @Pts-I: 769, @Pts-O: 31, @Sm: 0, @CO: 0%
; @TI: 0.1991613, @Tia: 0.1991608, @Tie: +0.1%, @ThMax: 1.624927, @ThAvg: 0.255335, @Tb: 0.78
; Exported using ThrustCurveTool, www.ThrustGear.com
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```
MAXXII 0 0 0.76 0.0 0.0 QUEST
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```
0.026 0.0394607
0.036 0.1214556
0.04 0.206028
0.05 0.444676
0.056 0.680251
0.06 0.899565
0.066 1.358816
0.068 1.475611
0.07 1.56653
0.074 1.624927
0.088 1.190166
0.112 0.830955
0.126 0.439917
0.134 0.319751
0.144 0.248959
0.174 0.1656754
0.206 0.1918503
0.258 0.1262147
0.342 0.1601231
0.366 0.1386081
0.384 0.1794569
0.494 0.218422
0.546 0.1540751
0.56 0.178168
0.608 0.1523896
0.682 0.209499
0.698 0.1837202
0.712 0.220206
0.742 0.209003
0.768 0.040353
```

