

NAR OFFICIAL CERTIFICATION LABORATORY

HIGH POWER ROCKET ENGINE TESTING REPORT

Manufacturer and Type: AMW K1000

Effective Dates: NAR Certification: 4/1/04

Certified Total Impulse (N-Sec): 2120

Delay Times: Plugged

Propellant Type: Skidmark

Propellant Mass (GM): 1297

Casing Diameter (MM): 54

Casing Length (MM): 728

----- STATIC TEST DATA -----

Number Tested: 3

Casing Date Codes: None

Date Tested: 3/27/04

Test Temp (°c): 17

Elevation (FT): 200

Total Impulse (N-Sec): 2077.51

std. deviation: 41.64

Peak Thrust (Newtons): 1426.12

std. deviation: 136.23

Burn Time (Seconds): 2.18

std. deviation: 0.41

Casing Burnt Mass (GM): 1234.6

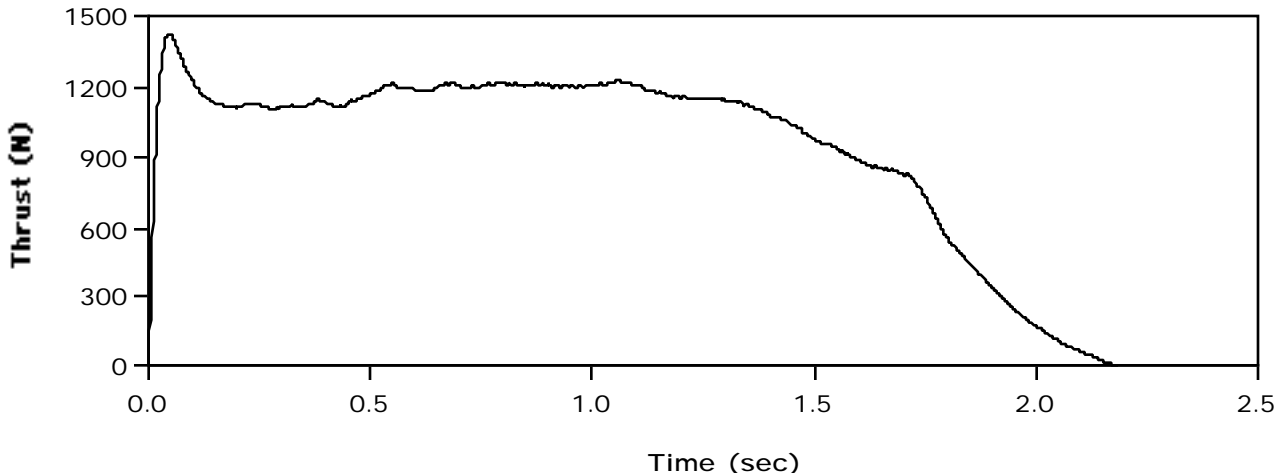
Max Casing External Temp (°c): under 200

Delay Time (sec)	Plugged
Initial Mass (gm)	2556.0
Avg. Measured Delay	None

Remarks:

Uses the 54-2550 motor case and produces about 10 to 15 sec of smoke

Typical Thrust - Time Curve:



*John Kane*  
NAR S&T Committee Chairman

; AMW K1000 RASP.ENG file made from NAR published data  
 ; File produced April 19, 2004  
 ; 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.

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K1000 54 728 P 1.297 2.5560 AMW
0.019 1155.063
0.045 1426.120
0.094 1248.230
0.161 1112.988
0.239 1128.015
0.343 1113.990
0.377 1149.053
0.440 1121.003
0.544 1221.182
0.633 1178.105
0.674 1221.182
0.737 1193.131
0.883 1200.144
1.009 1194.133
1.057 1236.208
1.188 1137.031
1.299 1145.045
1.396 1087.943
1.516 954.104
1.631 855.228
1.717 827.077
1.777 650.061
1.848 465.932
1.930 303.141
2.023 147.463
2.083 83.879
2.132 41.484
2.180 0.000
  
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