NAR OFFICIAL CERTIFICATION LABORATORY

HIGH POWER ROCKET ENGINE TESTING REPORT

Manufacturer and Type: AMW L1300

Effective Dates: NAR Certification: 4/1/04

Certified Total Impulse (N-Sec): 2675 Delay Times: Pluged

Propellant Type: Blue Baboon Propellant Mass (GM): 1314

Casing Diameter (MM): 54 Casing Length (MM): 728

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Number Tested: 3 Casing Date Codes: None

Date Tested: 3/27/04 Test Temp (°c): 17 Elevation (FT): 200

Total Impulse (N-Sec): 2672.02 std. deviation: 3.96

Peak Thrust (Newtons): 1586.74 std. deviation: 11.78

Burn Time (Seconds): 2.06 std. deviation: 0.05

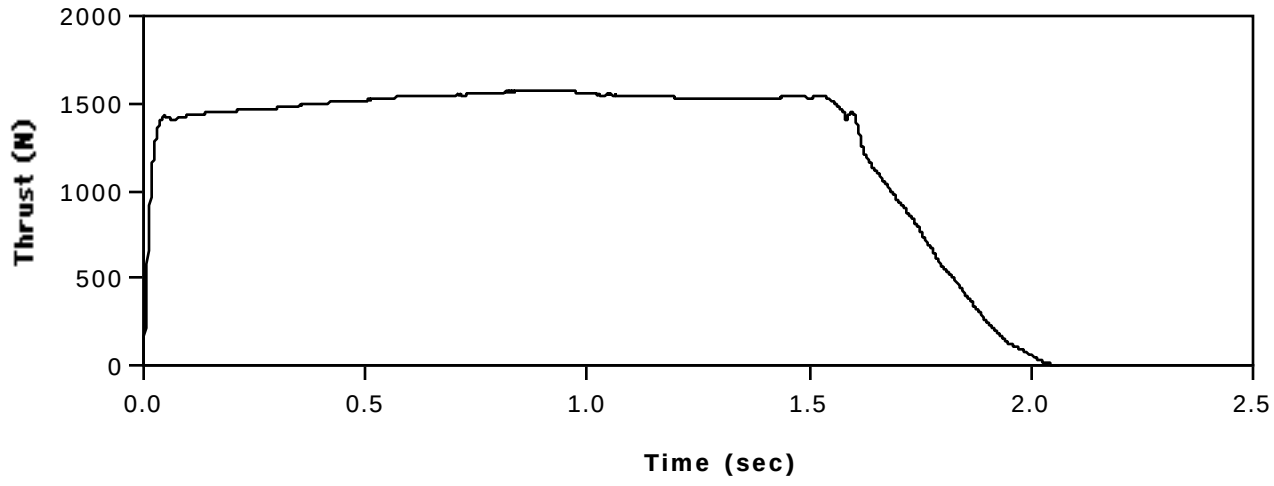
Casing Burnt Mass (GM): 1201.2 Max Casing External Temp (°c): under 200

Delay Time (sec)	Plugged
Initial Mass (gm)	2545.4
Avg. Measured Delay	None

Remarks:

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

Typical Thrust - Time Curve:



John Crane

NAR S&T Committee Chairman

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; AMW L1300 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.
  L1300   54   728   P   1.314   2.5454   AMW
   0.014   710.467
   0.025   1247.640
   0.039   1384.132
   0.053   1447.829
   0.074   1420.530
   0.120   1447.829
   0.276   1474.116
   0.475   1519.614
   0.712   1555.001
   0.942   1586.740
   1.147   1562.078
   1.360   1534.779
   1.484   1551.967
   1.537   1551.967
   1.569   1497.370
   1.590   1406.376
   1.604   1451.873
   1.615   1333.580
   1.640   1168.778
   1.689   986.687
   1.753   767.749
   1.824   512.503
   1.891   275.512
   1.933   147.816
   1.987   74.737
   2.060   0.000
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