

NAR OFFICIAL CERTIFICATION LABORATORY

HIGH POWER ROCKET ENGINE TESTING REPORT

Manufacturer and Type: AMW J400

Effective Dates: NAR Certification: 4/1/04

Certified Total Impulse (N-Sec): 1100

Delay Times: Plugged

Propellant Type: Red Rhino

Propellant Mass (GM): 558

Casing Diameter (MM): 54

Casing Length (MM): 326

----- 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): 1094.88

std. deviation: 7.82

Peak Thrust (Newtons): 469.24

std. deviation: 17.39

Burn Time (Seconds): 2.66

std. deviation: 0.03

Casing Burnt Mass (GM): 669.9

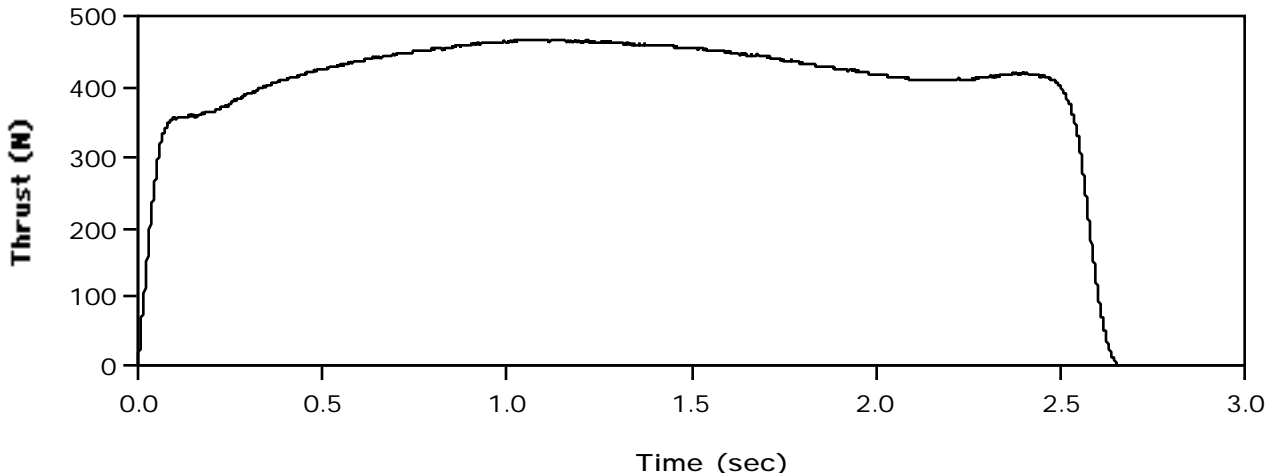
Max Casing External Temp (°c): under 200

Delay Time (sec)	Plugged
Initial Mass (gm)	1231.4
Avg. Measured Delay	None

Remarks:

Uses the 54-1050 motor case

Typical Thrust - Time Curve:



John Kane
NAR S&T Committee Chairman

; AMW J400 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.

J400 54 326 P .558 1.2314 AMW

00.043	246.550
00.060	317.381
00.081	344.709
00.107	358.372
00.150	356.06
00.201	365.204
00.308	392.532
00.568	435.734
00.863	458.339
01.094	469.240
01.209	467.180
01.466	460.148
01.705	443.972
01.923	423.275
02.132	409.411
02.303	413.831
02.402	420.563
02.470	413.831
02.517	395.445
02.543	347.421
02.568	265.238
02.598	128.198
02.615	68.801
02.632	25.398
02.660	0.000

