

NERO Basic Rocket Safety Data Sheet

1

Contacts

Rocket name: DECA

Owner: JURRIAAN VAN DE BEEK

Club: NERO

Mobile telephone: Already known

Date: 08/04/2010

E-mail: JURRIAANVDB@GMAIL.COM

General

Type (Experimental/HP/Model): EXPERIMENTAL

Number of stages: 1

Dimensions:	Total length: 1857 cm	Diameter: 5,4 cm	Start weight: 3,6 kg
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Colours:	Body: BLACK / SILVER	Finns: ORANGE
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Centre's (from nose-tip):	Centre of Pressure: 128,4 cm	Centre of Mass: 118,3 cm	Static Margin: 1,87 #
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Rocket flown before:	With same motor: NO #	With other motor: NO #
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Motor Specification

Motor name: DECA 54mm 4 GRAIN

Multiple nozzle:

Manufacturer: JURRIAAN

Validation date: 12 / 08 / 09

Propellant composition: KNDX 65/35

Casing:	Casing id.: N.A. #	Number of times used; 1 #	Date last use; 12 / 08 / 09
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Characteristics:	Propellant mass: 0,594 kg	Total impulse: 690 Ns	Burning time: 1,8 s
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Igniter:	Type: FUSEHEAD F	Necessary current: KNOWN mA	During: KNOWN s
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Flight control

Flight control device: RDAS TINY

NERO Basic Rocket Safety Data Sheet

2

Flight Characteristics

Characteristics:	Tower exit velocity:	Maximum velocity:	Impact range:
	<input type="text" value=""/> m/s	<input type="text" value="191"/> m/s	<input type="text" value=""/> m
Characteristics:	Apogeeum altitude:	Apogeeum time:	Touch down time:
	<input type="text" value="1545"/> m	<input type="text" value="17,7"/> s	<input type="text" value="54,2"/> s

Recovery systems

Drogue parachute:	Type (para/streamer):	Exit (Hatch/Seper.):	How was decent velocity obtained:		
	<input type="text" value="TUMBLE"/>	<input type="text" value="SEPERATIION"/>	<input type="text" value="UNKNOWN"/>		
Main parachute:	<input type="text" value="HEMISPHERICAL"/>	<input type="text" value="SEPARATION"/>	<input type="text" value="H11a"/>		
Drogue parachute:	Eject time:	Eject altitude:	Baro used:	Descent velocity:	Descent duration:
	<input type="text" value="t=19"/> s	<input type="text" value="1545"/> m	<input type="checkbox"/>	<input type="text" value="48"/> m/s	<input type="text" value="26"/> s
Main parachute:	<input type="text" value="t=45"/> s	<input type="text" value="300"/> m	<input type="checkbox"/>	<input type="text" value="11,5"/> m/s	<input type="text" value="26"/> s

Tracing systems

Radio beacon:	Y/N:	Frequency:	Signal (cont./intern.):
	<input checked="" type="checkbox"/>	<input type="text" value=""/> Hz	<input type="text" value=""/>
Audio beacon:	<input type="checkbox"/>	<input type="text" value=""/> Hz	<input type="text" value=""/>

Pyro systems

Pyro device 1:	Function:	Mechanism type:	Safe/Arm:
	<input type="text" value="SEPARATION MOTOR / PAYLOAD"/>	<input type="text" value=""/>	<input type="checkbox"/>
Pyro device 2:	<input type="text" value="SEPERATION NOSE CONE"/>	<input type="text" value=""/>	<input type="checkbox"/>
Pyro device 3:	<input type="text" value=""/>	<input type="text" value=""/>	<input type="checkbox"/>
How is pyro disarmed:	<input type="text" value="SWITCH"/>		

Pay-load		
Downlink:	Y/N: <input type="checkbox"/>	Frequency: [] Hz
Data acquisition device:	RDAS TINY	
Experiments:	Inertial measurement unit comprising of:	
	3 axis gyro (x,y,z)	
	dual axis accelerometer (x,z)	
	[]	
	[]	
Date & signature		
Owner, for correct and complete data:	Safety Officer for inspection & approval:	
Jurriaan van de Beek	[]	
[]	[]	

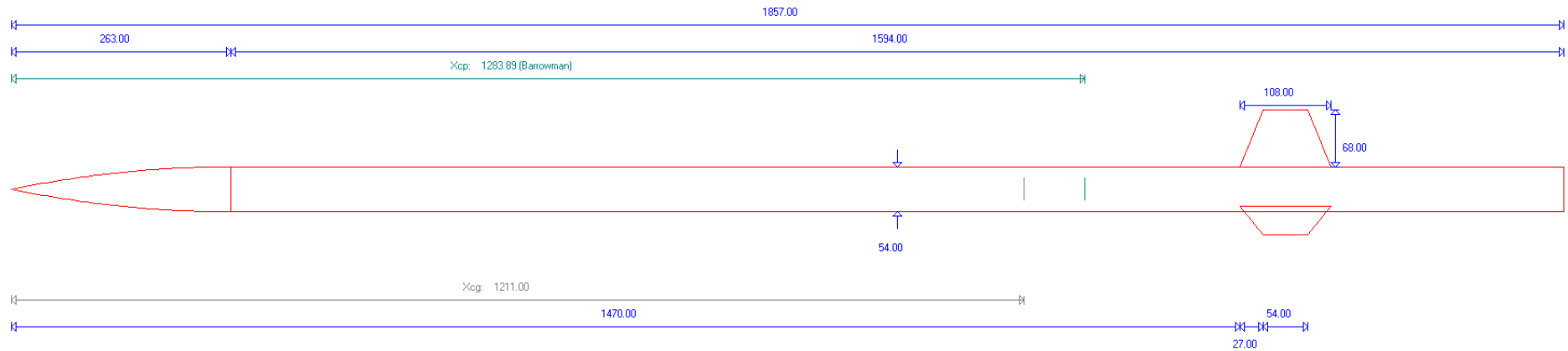
Please don't forget to include:

1. A drawing with the measurements of the rocket, for recalculation of the Centre of Pressure
2. A thrust diagram (thrust in Newton against time) of the used motor
3. The RockSym file (if you have one)

NERO Basic Rocket Safety Data Sheet

4

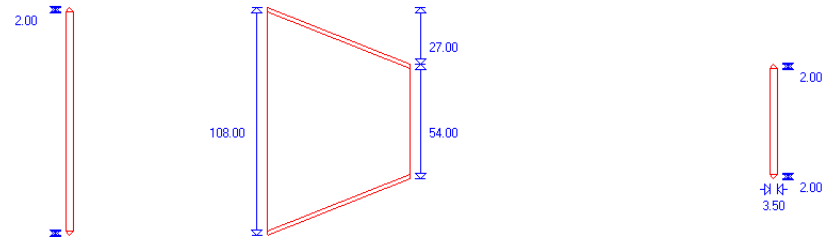
Project: test



All Dimensions are: mm

Barrowman Center of Pressure: 1283.89043
Barrowman Cpa: 12.598658
Center of gravity (full): 1211.000000

Number of Fins: 3
Fin Aspect Ratio: 0.000
Fin Taper Ratio: 0.500
Fin Thickness Ratio: 4.86 %
Fin Leading Edge Sweep: 0.00 deg
Fin Trailing Edge Sweep: 0.00 deg
Fin midchord Sweep: 0.00 deg
Profile: Hexagonal



54mm, 4 BATES grains, KNDX 65/35
static test #4 - 12.08.2009
corrected

