

HIGH PERFORMANCE RULE V.4h1 2014



Boat Name: **CONSTELLATION**
 Class: **TP52**
 Certificate: **Annapolis Fall Regatta**
 Sail Number: **USA52221**
 Issue Date: **10/30/14 12:41**

Owner: **NASS**

Owner Signature: _____

Certificate Fee: **\$416.06** (\$26.25/m LOA)
 Change Fee: **\$0.00**

Hull	
LOA	15.850
FO	0
Y	0.09
Age Date	2007
BM	4.420
FF	1.419
FBI	1.280
FA	1.124
DRA	3.216
CW	1200
Dempty	7595
Pre HPR	0.000

Spars	
J	6.18
P	20.4
E	7.23
IG	19.717
ISP	22.403
BAL	0.152
BD	0
BAS	2.134
FSP	0.076
CPD	0.1
CPW	1
SWA	1
MWC	2
CG	6.8
B	0.000
BC	3.208
Runners	0
Spreaders	2
TPS	9.014
TPSmax	8.988
TPS Excess	0.026

Mainsail	
HB	1.4
MGT	2.25
MGU	3.22
MGM	4.77
MGL	6
Meas Main	93.20
Rated Main	95.49
Jib	
Jib luff	29.6
LPG	6
LP	6.1
JH	0.1
JGT	2.000
JGU	1.600
JM	2.880
JGL	4.450
Jb Area	60.448
JSA + MSA	155.94

Measured / Calculated	Meas Val	Base Val	Reference Only	
			Meas - Base	PD- Percent Difference
Beam	4.420	4.496	-0.076	-0.017
Meas Freeboard - Rb	1.27	1.326	-0.051	-0.039
Meas Draft	3.216	3.566	-0.350	-0.098
Meas/Calc VCG	-1.121	-1.157	0.036	-0.031
Meas Cr Wt - CW	1200	1155	45.0	0.039
Displ Dempty	7595	7595	0	0.000
MSA	155.938	169.9	-13.94	-0.082
Spinner	260.300	276.1	-15.77	-0.057
Rig Height	22.534	23.37	-0.833	-0.036

KWT	
KVCG	0.000
HCGic	0.745
HWTic	7300.0
VCG-comp	0.000
VCG-incl	-1.121

RUD2	N
PSP	Y
AC	0
HDHM	0
SPHM	0
EOSC	N

0.39 60.82 = JSA min
 0.44 68.61 = JSA max

Ayso	
SLU	25.6
SLE	21.47
AMG	13.11
ASF	13.4
AYSO	260.30

Final Calculation

Length	L	15.8500
Age Plus Pre HPR	AGEc	0.9860
Beam	BMc	0.9992
Freeboard	FRc	1.0000
Draft	DRAc	0.9956
VCG	VCGc	0.9976
Crew Factor	CFc	1.0000
Displacement	Demptyc	1.0000
Upwind Sail Area	USAc	0.9846
Spinnaker Area	SPAc	0.9929
Rig Height	RHC	0.9938
Robust Mast	RMASTc	1.0000
Appendage	APc	1.0000
Engine-Propeller	EPc	0.9829
Construction Cost	CCc	1.0000
Preliminary Rated Length == >		14.8115
Rated Length Lower Limit == >		13.9480
Final Rated Length ===== >		14.8115

TCF **1.0857**
 Seconds per mile **508.4**

RULE WARNINGS / FAILURES

IG	
LP	
TPS	TPS EXCEEDS MAX, 4 x EXCESS ADDED TO AMG & ASF
MIN RATED LENGTH	
VCG SOURCE	OFFSETS FILE / INCLINATION
	NO BOOM WGT: SMALL RATED LENGTH PENALTY

Final Rating is in Units of Length
 TCF is calculated from the Final Rating by the formula:
 $TCF = (L/12.2)^{4.424}$
 A boat with Rated Length 12.2m will have a TCF of 1.000
 Seconds per mile = 552 / TCF

1+.002*age
 .002*age

Website: www.hprsailing.org
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Bill's color code	
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Corrector Guide
 1.000 - Measured Value Equals Base Value
 > 1.0000 - Measured Value is slower than Base Value
 <1.0000 - Measured Value is faster than Base Value

L value = **Yellow** indicates AGE applies