

IMS RATING CERTIFICATE No. 09681
Based on: FULL MEASUREMENT (Metric)

IMS AMENDED TO JANUARY 2007
Offshore Racing Congress
Chelmsford, England
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IMS AMENDED TO JANUARY 2007 VPP: 14/MAY/07 18:07:52
Cert No 09681 9 L-9681.DAT 14/MAY/07 09:22:46
OFF Meas'd: 01/APR/80 DEH34N.OFF 08/JUN/02 19:33:12

INVALID, INCL. ANGLE LIMITS
| 643.1 |
+-----+

--- YACHT DESCRIPTION ---
Name: CARABILLA III
Sail No: FIN-9681
Class: DEHLER 34
LOA: 10.222m Beam(MB) 3.200m
Designer: DEHLER TEAM
Builder: DEHLER YB
Rig: MASTHEAD SLOOP 142% Jib
Keel/CB: FIXED KEEL
PropInst: STRUT DRIVE FOLDING
FwdAccom: YES Spin: SYMMETRIC
HullCnst: HVYCORE RudCnst: STNDRD
Forestay: ADJST AFT BoomMtl: HEAVY
Spreadrs: 2 Sets InrFsty: NONE
Runners: NONE Jumpers: NONE
Dates: AGE:5/2003 SERIES: 5/2002
COMMENTS-----

RATING OFFICE:
Issued: FSF RATING OFFICE
14/MAY/07 TIMO SARAINMAA
Measured: PUTMALANKUJA 4 C 15
25/MAY/04 FIN-20720 TURKU FINLAND
Revalidation Authority: FINNISH Y.A.
Measurer: LOPMERI
"I CERTIFY THAT I UNDERSTAND MY
RESPONSIBILITIES UNDER THE IMS."
OWNER:.....
RALF RAMM-SCHMIDT
HUVILAKATU 21 A 1
FIN-00150 HELSINKI
NJK

-----CENTERBOARD AND DRAFT-----
ECM 0.000 CBRC 0.000 CBMC 0.000 CBTC 0.000
WCBA 0.0 CBDA 0.000 KCDA 0.000 ECE 0.000
WCCB 0.0 CBDB 0.000 ENDPLATE ADJ (KEDA) 0.000
-----PROPELLER AND INSTALLATION-----
PRD 0.380 ST1 0.040 ST4 0.120 ST5 0.290 EDL 1.640

PIPA 0.0034 ST4MAX 0.105
-----FLOTATION DATA-----
FFPS 1.155 AFPS 0.894 SFFP 0.233 SAFF 9.681
FFM 1.141 FAM 0.925 FFPV 0.000 AFPV 0.000
FF 1.148 FA 0.929 SG 1.005

-----STABILITY DATA-----
W1 18.500 PD1 162.300 PLM 9000.000 PL 4500.000
W2 37.000 PD2 321.800 GSA 1.000 RSA 1.0
W3 55.500 PD3 486.900 SMB 6.559 WD 9.910
W4 74.000 PD4 646.900 RM 89.2 RMC 89.2
RM2 91.6 RM20 82.8 RM40 67.5 RM60 46.0
RM90 18.4 WBV 0.0 CREW ARM (CRA) 1.585
CALCULATED LIMIT OF POSITIVE STABILITY: 113.5 DEGREES
RATIO STABILITY CURVE AREAS, POSITIVE/NEGATIVE 2.120

-----HYDROSTATICS-----MEASUREMENT TRIM--SAILING TRIM-
KEEL DRAFT (DHK0) 1.876 (DHKA) 1.914
2ND MOMENT LENGTH (LSM0) 9.707 (LSM1) 9.951
DISPLACEMENT (WEIGHT) (DSPM) 4886 (DSPS) 5602
WETTED SURFACE (WSM) 23.23 (WSS) 24.46
VCG FROM OFFSETS DATUM (For CLUB RM) (VCGD) 0.060
VCG FROM MEASUREMENT TRIM WATERLINE (VCGM) 0.077
INTEGRATED BEAM ATTENUATED WITH DEPTH (B) 2.691
MAXIMUM SECTION AREA (AMS1) 1.107
BEAM/DEPTH RATIO (BTR) 4.414
EFFECTIVE DRAFT (D) 1.640
2° HEEL (LSM2) 9.955 25° HEEL (LSM3) 10.054
SUNK (LSM4) 10.849 AVG LENGTH (L) 9.823
TRIM: 1mm/8.813m-kg SINK: 1mm/17.516kg

-----SAIL AREAS:-----
MAIN+FORE+MIZ'N: 59.20 MAIN: 33.31 MIZ'N: 0.00
GENOA: 36.45 SYM: 86.07 ASYM: 0.00

-----FORETRIANGLE-----MAIN & SPARS-----
J 3.775 FSP 0.064
IG 13.642 LPG 5.33 HB 0.140 TH NO
MW 0.180 LP 5.39 MGT 0.93 TL 0.700
GO 0.200 JL 13.15 MGU 1.67 MDT1 0.100
ISP 13.672 JGT 0.00 MGM 2.88 MDL1 0.180
IM 13.715 JGU 0.00 MGL 3.77 MDT2 0.100
HBI 1.003 JGM 0.00 MSW 15.6 MDL2 0.150
SFJ 0.000 JGL 0.00 P 12.515 MWT 144.5
SPL 3.775 TPS 0.000 E 4.490 MCG 4.570
SL 13.37 ASL 0.00 EC 4.490 BD 0.125
SMW 6.73 AMG 0.00 BAS 1.677 CPW 0.000
SF 6.70 ASF 0.00 SPS 2.890 BAL 0.152

-----MIZZEN-----
IY 0.000 PY 0.000 HBY 0.000 TLY 0.000
EB 0.000 EY 0.000 MGTY 0.000 MDT1Y 0.000
YSD 0.00 ECY 0.000 MGUY 0.000 MDL1Y 0.000
YSF 0.00 BASY 0.000 MGYM 0.000 MDT2Y 0.000
YSMG 0.00 BALY 0.000 MGLY 0.000 MDL2Y 0.000

HBIY 0.000 BDY 0.000

----- LIMITS AND REGULATIONS -----
Limit of Positive Stability: MEETS REQ Measurement Inventory: 03/JUN/03
Minimum Displacem't 2904kg: MEETS REQ Accom Lgth: RACE= 0.0 C/R= 0.0
Maximum Crew Weight: 500 kg. Accom Certificate: C/R DA= 0.67%
Stability Index: 116.2 Plan Approval: NONE FILED
C/R HeavyItems Pitch Adjustm't 0.00000 Anchor(s) Weight: 0 Dist: 0.00
Applied Age Allowance: 0.32%

NOTE TO OWNER: The range available to revise crew weight is 394- 727 kg.
----- TIME ALLOWANCES IN SEC/MI BY TRUE WIND VELOCITY & ANGLE -----
(NOT WIND-AVERAGED)

| Wind Velocity: | 6kt | 8kt | 10kt | 12kt | 14kt | 16kt | 20kt | CHECKSUM |
|----------------|--------|--------|--------|--------|--------|--------|--------|----------|
| BEAT ANGLES: | 44.6° | 44.3° | 41.9° | 40.2° | 39.1° | 38.5° | 38.5° | (287.1) |
| BEAT VMG: | 1075.7 | 894.1 | 815.2 | 773.8 | 749.9 | 736.6 | 730.1 | (5775.4) |
| 52°: | 688.5 | 580.4 | 546.8 | 529.0 | 517.0 | 509.4 | 503.7 | (3874.8) |
| R 60°: | 639.5 | 552.5 | 520.9 | 503.5 | 493.9 | 488.8 | 484.3 | (3683.4) |
| E 75°: | 600.4 | 531.8 | 494.9 | 479.7 | 472.8 | 468.1 | 461.9 | (3509.6) |
| A 90°: | 595.8 | 520.5 | 485.8 | 474.4 | 464.0 | 452.9 | 440.6 | (3434.0) |
| C 110°: | 613.2 | 531.2 | 488.4 | 468.4 | 450.7 | 436.3 | 419.4 | (3407.6) |
| H 120°: | 656.2 | 549.7 | 500.1 | 474.1 | 454.2 | 432.6 | 402.9 | (3469.8) |
| 135°: | 760.2 | 605.3 | 535.7 | 493.3 | 471.2 | 450.5 | 406.6 | (3722.8) |
| 150°: | 911.6 | 713.3 | 595.8 | 535.7 | 495.5 | 473.3 | 431.9 | (4157.1) |
| RUN VMG: | 1052.6 | 823.6 | 687.8 | 602.6 | 548.0 | 508.0 | 464.2 | (4686.8) |
| GYBE ANGLES: | 142.6° | 146.8° | 151.2° | 162.8° | 170.9° | 172.0° | 176.1° | (1122.4) |

NOTE: To convert any time allowance above to speed in knots: Kt = 3600/TA

----- TIME ALLOWANCES FOR SELECTED COURSES (AFTER WIND-AVERAGING) -----
Wnd/Lwd VMG 1084.7 874.1 762.6 697.3 656.4 629.3 604.2 (5308.6)
CircularRandom 878.9 712.4 624.2 573.8 543.2 523.4 499.2 (4355.1)
Ocean for PCS 997.5 784.6 664.8 590.6 541.6 506.7 459.1 (4544.9)
Non-Spinnaker 947.8 759.8 658.0 598.7 562.3 539.1 512.3 (4578.0)

----- SIMPLIFIED SCORING OPTIONS -----

| | Time-on-Distance | | | Time-on-Time | | | Performance Line | | |
|---|------------------|-------------------|--------|--------------|-----------------|--------|------------------|--|--|
| | (sec/mi) | TMF | | PLT | PLD | | | | |
| OFFSHORE | 643.1 (=GPH) | 0.9330 (=600/GPH) | | 0.756 | 82.9 (Ocean) | | | | |
| INSHORE | 723.3 (=ILC) | 0.9332 (=675/ILC) | | 1.071 | 370.8 (Olympic) | | | | |
| Performance Line Corrected Time = (PLT x Elapsed Time)-(PLD x Distance) | | | | | | | | | |
| ----- TRI-NUMBER TMFS BY WIND RANGE ----- | | | | | | | | | |
| WINDWARD | Low | Medium | High | CIRCULAR | Low | Medium | High | | |
| /LEEWARD | 0.7020 | 0.9458 | 1.0896 | RANDOM | 0.9256 | 1.1809 | 1.3127 | | |

MAX PURJELUKUMÄÄRÄT
IMS-MÄÄRÄYKSET 205

Genoat LPG > 110 % 3
Fokat LPG < 110 % 2
Spinaakkerit 3
+1 staysail+allaolevat

TURVAMÄÄRÄYSTEN MUKAISTEN
PURJEIDEN MAX PINTA-ALAT

Kovantuulen fokka 25.4
Myrskyfokka JL 8.91 9.4
Myrskyisopurje 9.8

ISONPURJEEN (MAX) LEVEYDEET

HBL 0.180
MGTL 0.99 MGML 2.92
MGUL 1.71 MGML 4.04

SPINAAKKERIN (MAX) MITAT

MSL 13.47 MSMW 6.80

OLETUSPAINOT ELLEI MITATTU

Miehistö 606

Masto+Riki 85.27
M+R painopiste 3.93

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