# INTERNATIONAL FINN CLASS MEASUREMENT FORM
## 2011 Edition
## To be used in conjunction with the Class Rules and the Measurement Certificate (Hull and Centreboard)

**ISAF Sticker Number** 4120

| Official Measurer for Section D (hull with centreboard) | | | |
|---|---|---|---|
| Date | Please Print Name | Signature | Appointed by |
| 26 July 2013 | Reichen | | SWISS SAILING Measurer No 08 Beat Reichen |

| Official Measurer for the centreboard (Sections E.1 and E.2 except E.2.5 (b)) | | | |
|---|---|---|---|
| Date | Please Print Name | Signature | Appointed by |
| 26 July 2013 | Reichen | | SWISS SAILING Measurer No 08 Beat Reichen |

| Hull Templates | | | | | | |
|---|---|---|---|---|---|---|
| Identifier | 0 | 2 | 4 | 6 | 8 | Stem |
| | ← | | Swiss | Sailing | | → |

| IDENTIFICATION AND GENERAL | | | |
|---|---|---|---|
| **Item** | **Rule** | **Entry** | **Requirement** |
| ISAF Sticker attached to hull | D.2.4 | 4120 | Enter number, (also at top of form) |
| Other Identifiers | | CH-WILF 3388 G133 | Number & Place of numbers moulded in hull etc |
| | | | |
| Boat complete as for Swing Test | D.9.2 (a) | complies | "Complies" |
| Hull Materials | D.3.1 | GRP / complies | Description/ "Complies" |
| Hull Construction | D.3.2 & diagrams | complies | "Complies" |

| HULL BOTTOM UP | | | | | |
|---|---|---|---|---|---|
| Item | Rule | < (min) | Entry | < (max) | Requirement |
| Hull length | D.9.1 | 4480< | 4508 | <4510 | Number, mm |
| Transom forward of Station 0: | " | | 0 | <5 | Number, mm |
| No hollows, knuckles or chines | D.3.2 (e),(f) | | complies | | "Complies" |
| Baseline below hull shell: at station 1 | D.9.1 & diagrams | 147< | 155 | <157 | Number, mm |
| at station 2 | D.9.1 | 99< | 110 | <119 | Number, mm |
| at station 4 | " | 35< | 37 | <55 | Number, mm |
| at station 6 | " | 6< | 10 | <26 | Number, mm |
| Stem profile (outside stem band) to template: | D.9.1 & diagram | | 5 | <10 | Number, mm |
| Sheer above position marked on stem template: | D.9.1 & diagram | -10< | -9 | <+10 | + Number means more freeboard |
| Keel band and Stem band construction | D.8 & diagram | | comply | | "Comply" |
| Keel band Section radius | D.9.1 | 6, half round< | 6 | | Number, mm |
| Stem band (for'd of Section 8) radius | " | 6< | 6 | | Number, mm |
| Centreboard case construction | D.3.2 (c)(d)(e) | | complies | | "Complies" |
| Centreboard Case slot width | D.9.1 | 8< | 10 | <12 | Number, mm |
| Centre of centreboard pivot pin above underside of keel | " | 40< | 49 | <50 | Number, mm |
| Fore and aft adjustment for centreboard pivot pin | " | | 5 | <20 | Number, mm |

| SECTION TEMPLATES | | | | | | | |
|---|---|---|---|---|---|---|---|
| Item | Rule | Entry | | | | | Requirement |
| | | < (min) | Port | < (max) | < (min) | Starboard | < (max) | |
| Hull shell to hull template: at station 0 | D.9.1 & diagram | | 9 | <10 | | 9 | <10 | Number, mm |
| at station 2 | " | | 9 | <10 | | 7 | <10 | Number, mm |
| at station 4 | " | | 10 | <10 | | 10 | <10 | Number, mm |
| at station 6 | " | | 8 | <10 | | 7 | <10 | Number, mm |
| at station 8 | " | | 8 | <10 | | 8 | <10 | Number, mm |
| Sheerline above position marked on template: at station 0 | D.9.1 & diagram | -10< | -7 | <+10 | -10< | -7 | <+10 | + Number means more freeboard |
| at station 2 | " | -10< | 9 | <+10 | -10< | 9 | <+10 | Number, mm |
| at station 4 | " | -10< | 9 | <+10 | -10< | 9 | <+10 | Number, mm |
| at station 6 | " | -10< | 6 | <+10 | -10< | 6 | <+10 | Number, mm |
| at station 8 | " | -10< | -1 | <+10 | -10< | -1 | <+10 | Number, mm |



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| DECK AND COCKPIT | | | | | |
|---|---|---|---|---|---|
| **Item** | **Rule** | **< (min)** | **Entry** | **< (max)** | **Requirement** |
| Deck General Arrangement | D.4.1 | | complies | | "Complies" |
| Length of foredeck | D.9.1 & diagram | 1350< | 1350 | <1450 | Number, mm |
| Length of aft deck | | 550< | 650 | <650 | Number, mm |
| Distance between side decks or built in tanks and the centreplane: at station 2 | D.4, diagram & D.9.1 | 410< | 430 | | **Minimum Half-width** Number, mm |
| at station 3 | " | 500< | 500 | | Number, mm |
| at station 4 | " | 490< | 490 | | Number, mm |
| at station 5 | " | 440< | 440 | | Number, mm |
| Distance between side decks or built in tanks and the centreplane, at some point between the **sheerline** and 100 mm below the **sheerline:** At Station 2 | D.4, diagram & D.9.1 | | 434 | <520 | **Maximum Half-width** Number, mm |
| at station 3 | " | | 504 | <560 | Number, mm |
| at station 4 | " | | 495 | <550 | Number, mm |
| at station 5 | " | | 495 | <500 | Number, mm |
| Top of the deck at centreplane above the **sheer** at station 0 | " | 45< | 45 | <55 | Number, mm |
| Top of the deck at centreplane above a straight line between the stemhead and station 0 | D.4, diagram & D.9.1 | -10< | complies | <+10 | "Complies" |
| Pads or recesses to mount or locate fittings | D.4.1 (d), D.9.1 | -10< | complies | <+10 | "Complies" |

| DECK AND COCKPIT DETAILS | | | | | |
|---|---|---|---|---|---|
| **Item** | **Rule** | **< (min)** | **Entry** | **< (max)** | **Requirement** |
| Number of buoyancy units | D.5.2 | 4< | 4 | | Number, "Complies" |
| Construction of buoyancy units | D.5.2 | | complies | | "Complies" |
| Buoyancy Inspection and Testing | D.5.3 D.9.1 | | satisfied | | Details of any tests carried out. "Satisfied". |
| Gunwale Rubbing Strakes | D.6 & diagram, D.9.1 | | complies | | "Complies" |
| G.R.S. depth (down from the sheerline around the hull) | | 20< | 20 | <35 | Number, mm |
| " width (at a right angle to the shell) | | 20< | 25 | <25 | Number, mm |

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| DECK AND COCKPIT DETAILS | | | | | | |
|---|---|---|---|---|---|---|
| **Item** | **Rule** | **(min) < Entry < (max)** | | | | **Requirement** |
| Floorboard/Double Bottom construction | D.7 | complies | | | | "Complies" |
| Width of floorboards at station 2 | D.7, D.9.1 | 800< | 860 | | | Number, mm |
| at station 3 | " | 880< | 1000 | | | Number, mm |
| at station 4 | " | 720< | 980 | | | Number, mm |
| Floorboards or double bottom below sheer at station 2 | D.7, D.9.1 | 285< | 290 | | | Number, mm |
| at station 3 | " | 325< | 344 | | | Number, mm |
| at station 4 | " | 375< | 400 | | | Number, mm |
| (if fitted) at station 5 | " | 375< | 413 | | | Number, mm |
| (if fitted) at station 6 | " | 390< | 426 | | | Number, mm |
| Thwart depth | D.9.1 | 16< | 26 | <50 | | Number, mm |
| " width | " | 70< | 80 | <80 | | Number, mm |
| " aft side forward of station 0 | " | 1950< | 2650 | <2050 | | Number, mm |
| Top of thwart below sheer | " | | 56 | <130 | | Number, mm |
| Overall width of centreboard case | " | | 100 | <100 | | Number, mm |
| Mainsheet traveller block: Travel from centreplane of boat | " | | 540 | <550 | | Number, mm |
| Travel forward of station 4 | " | | 100 | <150 | | Number, mm |
| Distance from mast heel to underside of keel band | " | | 39 | <56 | | Number, mm |
| Mast bearing surface above deck | " | | 0 | <10 | | Number, mm |
| Horizontal play in mast bearings (not play between mast and bearing) | " | Upper | 5 | <5 | Lower 0 <5 | Number, mm |
| Fittings to have a reasonable weight | C.7.3 (e) (4) | complies | | | | "Complies" |
| Fittings information recorded on certificate if necessary | C.7.3 (e) (5) | N/A | | | | "Entered" or "N/A" |

| TRANSOM DETAILS | | | | | **Requirement** |
|---|---|---|---|---|---|
| **Item** | **Rule** | **(min) < Entry < (max)** | | | |
| Holes, Number & Diameter | D.9.1 | complies | | | "Complies" |
| Bearing at Pintle above **hull datum point** | " | 52< | 54 | <57 | Number, mm |
| Bearing at Gudgeon above **hull datum point** | " | 262< | 267 | <267 | Number, mm |
| Axis of Pintle aft of Station 0 (α) | " | 10< | 20 | <30 | Number, mm |
| Axis of Gudgeon aft of Stn. 0 (β) | " | 10< | 22 | <30 | Number, mm |
| Difference between (α) and (β) | " | 0< | 2 | <2 | Number, mm |
| Dia. of Pintle & Gudgeon Hole | " | 7.9< | 8 | <8.1 | Number, mm |

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| CENTREBOARD | | | | | |
|---|---|---|---|---|---|
| Item | Rule | < (min) | Entry | < (max) | Requirement |
| Centreboard identifying number | E.2.2 (a) | | C4120 | | Number |
| Centreboard materials | E.2.3 | | complies | | "Complies" |
| Centreboard arm complies with diagram requirements | E.2.5 (a) & diagram | | complies | | "Complies" |
| Centreboard large radius | " | 885< | 895 | <895 | Number, mm |
| " small radius | " | 30< | 30 | <40 | Number, mm |
| " chord length | " | 815< | 825 | <825 | Number, mm |
| " nominal thickness | " | 8< | 8 | <8 | Number, mm |
| " edge shaping distance | " | | 25 | <25 | "Complies" |
| Centreboard Mass including buffer stop | E.2.4 (a)(1) E.2.6 | 11·0< | 12,380 | <13·0 | Number, kg |
| Certification mark fixed, signed & dated | E.2.2 | | complies | | "Complies" |

| HULL WITH CENTREBOARD | | | | | |
|---|---|---|---|---|---|
| Item | Rule | < (min) | Entry | < (max) | Requirement |
| Centreboard hole diameter larger than pivot pin diameter | E.2.5 (b) | | 0 | <2 | Number, mm |
| Centreboard theoretical reference point below hull shell | " | | 699 | <700 | |
| Hull datum point to centreboard (pivot pin at maximum aft position) | " | 2050< | 2050 | | |
| Centreboard projection below hull shell when fully raised | " | | None | | "None" |
| Centreboard Certification Mark details and number entered on Measurement Certificate (Hull and Centreboard) | D.2.1 | | Entered | | "Entered" |
| | | | | | |
| Correct condition for weighing | D.9.2 (a) | | complies | | "Complies" |
| Mass of hull and centreboard | D.9.2 (b) | 116·0< | 116.0 | | Number, kg |
| Mass of correctors | D.9.4 (b) | 2 / Total 5kg | | <5·00 | Number, kg |
| | | | | | |
| Period of oscillations | D.9.3(b)(iii) | $T_1$ 3.2005 | $T_2$ 3.5994 | | sec, 3 decimals |
| Distance λ from Stn 0 to C of G | D.9.3 (c) | 2100< | 2100 | <2290 | Number, mm |
| C of G above underneath of hull | " | 210< | 229 | | Number, mm |
| Radius of gyration ρ | " | 1100< | 1102,729 | | "Complies" |
| Corrector weights securely fastened | D.9.4 (a) | | complies | | "Complies" |
| Corrector and other weight details entered on certificate | D.9.4 (b) | | Entered | | "Entered" |



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# MEASUREMENT CERTIFICATE

**This is page 2 of the certificate required under ISAF RRS 78**

## INTERNATIONAL FINN CLASS

## Identification and Certification (Hull and Centreboard)

**SAIL N°**
**(Rule A.10.2)**

| | | | |
|---|---|---|---|
| ISAF Sticker No | 412c | Builder | Wilke |
| Other Hull Identifying Numbers | CH-WILF3388 GI33 | Date completed | 26 July 2013 |
| Date of this measurement | 26 July 2013 | Date of first measurement | 26 July 2013 |
| Corrector weights Position 32c<br>Amount 3,0 kg | (Include dist from Stn.0) 333c<br>Amount 2,0 kg | Position —<br>Amount kg | Position —<br>Amount kg |
| Fittings etc. such as Compass (not Digital), Hiking pads. Item weight not required. Hiking Pads, Foot straps | | | |
| Centreboard Certification Mark and Unique Number | C412c | Weight of hull plus centreboard | 116.0 kg |
| Weight of Centreboard | 12,38c kg | λ from Stn 0 to C of G | 2100 mm |
| $T_1$ | 3,2005 sec | **d** (App.H.3) | 866 mm |
| $T_2$ | 3,5994 sec | **a** (App.H.3) | 637 mm |
| Radius of gyration **ρ** | 1102,729 mm | **h** CG above underneath of hull | 229 mm |
| Official Measurer (Please print) | Reichen | Appointed by | SWISS SAILING Measurer No 08 Beat Reichen |
| Hull and Centreboard comply with **fundamental measurement** requirements. | | Official Measurer (Please sign) | |

Registered by Certifying Authority:

Stamp and date of registration

**OWNER**

Name Deniss Karpak
Address Kivilastr. 5-125
City Tallin
Code EST-13917
Nation Estonia
Club

**Please use Black Ink**

19 June 2009

# MEASUREMENT CERTIFICATE

**This forms Page 1 of the certificate required under ISAF RRS 78**

# INTERNATIONAL FINN CLASS

## Regatta Identification
## (to be completed by the Helmsman)

| | |
|---|---|
| **SAIL NUMBER IN USE** *Print* | |
| **SAIL NUMBER (Rule A.10.2)** *Print* | |
| **ISAF STICKER NUMBER** *Print* | 412 |
| **HELMSMAN** *Print* | Deniss Karpak<br>Kivilaste. 5-125<br>EST-13917 Tallin<br>Estonia |
| **HELMSMAN'S DECLARATION**<br>I am satisfied that the Certificate for this boat is valid and that the boat complies with the Class Rules.<br>In particular, all equipment to be used complies with the requirements of Section C of the Class Rules.<br>*Sign and date* | |

SWISS SAILING
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This page shall be completed by the Helmsman, who shall alter or replace it as necessary.
Replacement pages and "Reweighing" Attachment Sheets can be downloaded from the ISAF website at Finn Class Documents.
Please use a laser printer or photocopier (the ink is more resistant to damp).

**ATTACHMENT SHEETS**

Changes to the information on page 2 shall be recorded. If there is insufficient space, use additional copies of these pages or the "Reweighing" Form as Attachment Sheets. Retain the original sheets, with obsolete information crossed through.

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# MEASUREMENT CERTIFICATE

**This is an attachment to the Measurement Form and the Certificate required under ISAF RRS 78**

# INTERNATIONAL FINN CLASS

## Reweighing

**SAIL N°**
**(Rule A.10.2)**

### ATTACHMENT SHEETS

Changes to the information on page 2 of the Certificate shall be recorded. If there is insufficient space, use additional copies of page 2 or the "Reweighing" Form as Attachment Sheets. Retain the original sheets, with obsolete information crossed through.

| | | | |
|---|---|---|---|
| ISAF Sticker No | | Other Hull Identifying Numbers | |
| Date of this measurement | | Date of first measurement | |
| Corrector weights<br>Amount kg | (Include dist from Stn.0)<br>Amount kg | Position<br>Amount kg | Position<br>Amount kg |
| Fittings etc. such as Compass (not Digital), Hiking pads. Item weight not required. | | | |
| Centreboard Certification Mark and Unique Number | | Weight of hull plus centreboard | kg |
| Weight of Centreboard | kg | λ from Stn 0 to C of G | mm |
| $T_1$ | sec | **d** (App.H.3) | mm |
| $T_2$ | sec | **a** (App.H.3) | mm |
| Radius of gyration ρ | mm | **h**<br>CG above underneath of hull | mm |
| Official Measurer (Please print) | | Appointed by | |
| Items remeasured comply with **fundamental measurement** requirements. | | Official Measurer (Please sign) | |

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19 June 2009