



**2011**  
**INTERNATIONAL DRAGON CLASS**  
MEASUREMENT FORM

Authority\*: International Sailing Federation, Ariadne House,  
Town Quay, Southampton, SO14 2AQ, United Kingdom.  
Tel: + 44 23 80635111 Fax: + 44 23 80635789



I S A F

**YACHT DETAILS**

Nat. Letter(s):	Sail Number:	ICF Plaque No:
<b><u>MEASUREMENT CERTIFICATE</u></b>		
Name of yacht: .....		
Name of Builder ..... Year of Construction:.....		
Yacht Weight: (excluding correctors) per Rule 10-10 ..... kg (As for Swing Test)		
Number and weight of correctors at position: .....		
Number and weight of correctors at position: .....		
Number and weight of correctors at position: .....		
Number of Crew seats..... Weight of Helmsman's seat .....kg		
Hull Material: .....		
This certificate is dated ..... and its validity is confirmed by		
..... for .....		
(enter name of national authority)		
Signature: ..... Stamp of Authority		

**OWNER'S DECLARATION**

To be signed by the first owner: .....

Address (of first owner): .....

.....

.....Club:.....

I undertake to race this International Dragon only so long as I maintain it in conformity with the Class Rules. I also undertake that the weight correctors (if any) will not be altered or removed except when done in conjunction with an official reweighing and that only sails, spars etc., which have been measured and found to be in accordance with the rules, will be used.

Date: .....

Signature: .....

**\* The International Sailing Federation (ISAF) is not a National Authority (NA).**

Measurer's Signature.....

ISAF Plaque Number.....

### **RE-WEIGHING ENDORSEMENT**

Date	Hull or fully rigged weight (kg)	Total Weight of corrector (kg)	No. and position of correctors	Signature of measurer	N.A. Stamp and date

On re-weighing this certificate must be returned to the national authority for re-validation by stamping.

**NOTE:** If number and position of correctors are changed, the yacht must be re-swung in accordance with CR 10.20.

### **CHANGE OF OWNERSHIP**

Name (First Owner).....

Address (First Owner): .....

.....

.....

New Owner's Name: .....

New Owner's Address: .....

.....

.....

\_\_\_\_\_

New Owner's Name: .....

New Owner's Address: .....

.....

.....

\_\_\_\_\_

Measurer's Signature.....

ISAF Plaque Number.....

### **NEW OWNER'S DECLARATION**

#### **To be signed by the second owner:**

National Letters and sail number .....

Name and address.....

.....

Club:.....Boat Name:.....

I undertake to race this International Dragon only so long as I maintain it in conformity with the Class Rules. I also undertake that the weight correctors (if any) will not be altered or removed except when done in conjunction with an official reweighing and that only sails, spars etc., which have been measured and found to be in accordance with the rules, will be used.

Date: ..... Signature:.....

### **RE-VALIDATION OF CERTIFICATE**

This certificate is dated ..... and its validity is confirmed by .....

..... for .....  
(enter name of national authority)

Signature ..... Stamp of Authority

Note: Change of ownership invalidates this Certificate. The new owner should send the Certificate to his National Authority for re-validation.

#### **To be signed by the third owner:**

National Letters and sail number .....

Name and address.....

.....

Club:.....Boat Name:.....

I undertake to race this International Dragon only so long as I maintain it in conformity with the Class Rules. I also undertake that the weight correctors (if any) will not be altered or removed except when done in conjunction with an official reweighing and that only sails, spars etc., which have been measured and found to be in accordance with the rules, will be used.

Date:..... Signature: .....

### **RE-VALIDATION OF CERTIFICATE**

This certificate is dated..... and its validity is confirmed by .....

..... for .....  
(enter name of national authority)

Signature: ..... Stamp of Authority

Note: Change of ownership invalidates this Certificate. The new owner should send the Certificate to his National Authority for re-validation.

Measurer's Signature.....

ISAF Plaque Number.....

### HULL AND TEMPLATES

Item No.	Rule No.	Measurement	Min	Actual	Max
1	2.15	Are the measurement marks at stations 2, 4, 6, 8, 10, 12 and 14 visible		Yes/No	
2	2.16	Is the Transom flat		Yes/No	+/-2
3	2.16	Transom Slope	310		330
4	2.13	Length Overall	8855		8944
5	2.13	Length forward of station 8	4675		4724
6	2.13	Length aft of station 8	4180		4220
7	2.13	Station 2 horizontal distance to station 8		3600	
		Freeboard within limits marked on template		Yes/No	
		Distance between template and hull	0		10
8	2.13	Station 4 horizontal distance to station 8		2400	
		Freeboard within limits marked on template		Yes/No	
		Distance between template and hull	0		12
9	2.13	Station 6 horizontal distance to station 8		1200	
		Freeboard within limits marked on template		Yes/No	
		Distance between template and hull	0		14
10	2.13	Station 8			
		Freeboard within limits marked on template		Yes/No	
		Distance between template and hull	0		16
11	2.13	Station 10 horizontal distance to station 8		1200	
		Freeboard within limits marked on template		Yes/No	
		Distance between template and hull	0		14
12	2.13	Station 12 horizontal distance to station 8		2400	
		Freeboard within limits marked on template		Yes/No	
		Distance between template and hull	0		10
13	2.13	Station 14 horizontal distance to station 8		3600	
		Freeboard within limits marked on template		Yes/No	
		Distance between template and hull	0		10
14	2.13	Does bow template fit within tolerances		Yes/No	

Measurer's Signature.....

ISAF Plaque Number.....

# **DECK/CABIN/COCKPIT**

Item No.	Rule No.	Measurement	Min	Actual	Max
15	3.11	Length of cabin top from aft end	1000		
16	3.12	Aft end of cabin top / aft of station 8		Yes/No	
17	3.13	Height of sides of cabin above top of deck at station 8	180		
18	3.13	Arch of cabin top at station 8 (from top of cabin sides)	100		
19	3.14	Width of cabin 1000mm forward of after end of cabin top	500		
20	3.14	Height of sides of cabin at 1000mm forward or aft end of cabin top	80		
21	2.17	Are two lifting eyes attached - weight		Yes/No	3kg ea
22	2.18	Is ISAF Plaque number carved in rear Bhd or in Stb. inner hull side - 50mm high 2mm deep		Yes/No	
23	3.22	Does cockpit extend forward of station 8		Yes/No	
24	3.23	Side deck outside cockpit – Width	300		
25	3.24	Height of coaming aft of cabin	100		
26	3.25	Coaming shall fair into cabin sides		Yes/No	
27	3.41	Floorboards shall be wood or GRP Thickness Floorboards secured		Yes/No	16
28	3.42	Floorboard area	0.2m <sup>2</sup>		
29	3.43	Floorboard weight - GRP Yacht Wooden Yacht			15kg 40kg
30	3.31	Does hatch forward of mast comply with rules if fitted		Yes/No	
31	3.31	Hatch area if fitted, not more than Spinnaker Chute ,if fitted Rigid between hatch and St.5 Inner diameter of rigid part of Chute		Yes/No	508x508  300
32	2.192	Bulkheads - from station 5 or 12 or at ends of internal Moulding Control Lines depth below deck			300  100
33	2.193	Manual Bilge pump fitted Bulkheads - inspection hatches fitted - a means of pumping out fitted Non return valves fitted		Yes/No  Yes/No Yes/No	
34	2.505	Does internal moulding extend at least from station 5 to station 11		Yes/No	
35	2.505	Horizontal width of internal moulding at station 8	1700		
36	2.505	Horizontal width of internal moulding at forward end	1300		
37	2.505	Horizontal width of internal moulding at aft end	1300		
38	2.506	Does mast step comply with provisions of this rule		Yes/No	
39	2.507	Number of floors	8		
40	2.507	Spacing of floors			700
41	2.515	Optional additional reinforcement - Does yacht comply		Yes/No	
42	2.162	Rounding at sheerline and at transom			9

Measurer's Signature.....

ISAF Plaque Number.....

Item No.	Rule No.	Measurement	Min	Actual	Max
		<b>WEIGHTS</b>			
43	4.20	Ballast keel - including keel bolts	1000kg		1020kg
44	10.10	Weight of hull complete with items as specified in rule	1650kg		
45	10.11	Weight of yacht as in 10.10 plus mast, boom, rigging and sea as specified in rule	1700kg		
		<b>RUDDER</b>			
46	5.10	Rudder shall comply with plans (wood and GRP)		Yes/No	
47	5.30	Rudder stock - solid steel or bronze diameter	25		
48	5.60	Weight of rudder including stock and fittings	11kg		17kg
		<b>SWING TEST</b>			
49	10.20	Does Yacht comply with provisions of swing test		Yes/No	
50	10.21a	Distance swing centre forward station 8	40		90
51	10.21c	Depth of swing centre below sheerline			
52	10.21b	Depth of depression with 10kg weight in place			
53	10.21d	Time of 10 oscillations in seconds and hundredths of second			
54	10.31	Weight of correctors (lead) between stations 4 and 12			20kg
55	10.30	Number, weight and position of other correctors			
56	12.0	Does Yacht comply with provisions of prohibitions		Yes/No	

**IF GRP HULL HAS WOODEN DECKS AND/OR CABIN COMPLETE ALSO SECTIONS 66 - 7**

Measurer's Signature.....

ISAF Plaque Number.....

# COLD MOULDED YACHTS

Item No.	Rule No.	Measurement	Min	Actual	Max
57	2.31	Wood keel stem and horn timber and frames weight	530kg/m <sup>3</sup>		575kg/m <sup>3</sup>
58	2.31	Thickness and widths of centreline structure as per rule and plans		Yes/No	
59	2.32	Hull skin thickness (not less than 3 layers)	16		
60	2.32	Weight of layer timber	535kg/m <sup>3</sup>		
61	2.33	2 frames between stations 5&6 and between 11 & 12 mandatory, dimension	50x30		
62	2.342	Floor timbers - Oak or to 2.12 – Siding in way of ballast keel Siding forward & aft of keel Siding tapered for ½ length	70 50 46		
63	2.343	Mast step - Oak or to 2.12 1350x150x60 For taper of moulding see official drawings		Yes/No	
64	2.341	Transom Oak or Mahogany – Thickness	20		
65	2.344	Shelf, Pine, Fir or Larch see rule	27x100 or 24x115		
66	2.345	Carling	50x40		
67	2.345	All beams (Pine, Fir or Larch) see rule spacing between beams centre to centre			254
68	2.161 2.345	Mast beams and beams at end of cockpit and cabin top opening	40x60 on centreline to 40x40 at sides		Round of beam 9.5 per 305 of its length
69	2.345 2.161	Complete beams between stations 3 & 13	30x45 at centreline taper 30x30 at sides		Round of beam 9.5 per 305 of its length
70	2.345 2.161	Half beams at sides of Cockpit etc. at inboard ends	25x38 taper to 25x25 at sides		Round of beam 9.5 per 305 of its length
71	2.345 2.161	Beams forward of station 3 and aft of station 13	25x38 at centreline taper 25x25 at sides		Round of beam 9.5 per 305 of its length
72	2.350	Cabin sides - Mahogany Thickness	16		
73	2.350	Cabin top - wood or plywood Thickness	10		
74	2.346	Planked deck shall be Larch, Pine, Fir, Spruce or Plywood			
75	2.346	Weight	432kg/m <sup>3</sup>		
76	2.346	Thickness	14		
77	2.346	Covered with canvas or other material of equivalent weight	236kg/m <sup>2</sup>		
78	2.347	Plywood or plywood overlaid with Teak – Thickness	15		
79	2.347	Weight	7.6kg/m <sup>2</sup>		

Measurer's Signature.....

ISAF Plaque Number.....

## RIGGING

Item No.	Rule No.	Measurement	Min	Actual	Max
80	7.20	Distance shrouds at deck to centreline	700		
81	7.10	Diameter lower shrouds	5		
82	7.10	Diameter main shrouds	5		
83	7.10	Diameter forestay	1x5 or 2x4		
84	7.10	Diameter jumper stays	4		
85	7.10	Diameter runner and permanent backstays	3		

## SPARS MAST

**If the mast has been self-certified** please add;

IDA Label No.....

Builder's Code.....

Serial Number of the Spar.....Date Made.....

And complete Item No 106 only, together with the weight of any correctors.....

**If the Spar has not been self-certified** Items 80-114 must be completed

Item No.	Rule No.	Measurement	Min	Actual	Max
86	7.30	Are shrouds adjustable only in length		Yes/No	
87	6.103 6.104	Do the marks on deck comply with this rule And note to rule 6.113		Yes/No	
88	6.105	Permanent set between upper and lower measurement bands			100
89	6.105	Is the mast prevented from rotating		Yes/No	
90	6.106	Masthead bracket or chock - from aft edge of mast			102
91	6.113	Upper edge of lower band to foot of mast	1450		
92	6.107(a)	Upper edge of lower band - Height from deck	790		810
93	6.107(b)	Lower edge of upper band - Height from lower band			9200
94	6.108	Jumper strut shall be fitted – length	300		
95	6.108	Jumper strut; upper edge above lower measurement band	6285		6315
96	6.108	Cross member distance from outer end			30
97	6.108	Cross members diameter	4		

Measurer's Signature.....

ISAF Plaque Number.....



Item No.	Rule No.	Measurement	Min	Actual	Max
98	6.108	Distance from taut line joining bearing points to face of mast	30		
99	6.109	Spreaders - length measured from side of mast	450		
100	6.109	Spreaders - upper edge above lower measurement band	3200		3615
101	6.109	Spreaders - maximum swing either way			10°
102	6.110	Spinnaker halyard attachment: Height above lower measurement band			6300
103	6.110	Spinnaker halyard out from foreside of mast			40
104	6.112	Weight of mast with fittings as per rules	39kg		
105	6.112	Centre of gravity of mast above lower measurement band	3400		
106	6.112	Weight at upper band when mast supported at lower band including all rigging as per rule	13kg		
107	6.24	Luff groove cut away above lower measurement band			400
108	6.23	Dimensions, athwartship	70		
109	6.23(a)	Fore and aft	110		
110	6.23(b)	Or if luff groove not integral, section diameter of tube	75		
111	6.25	Does taper conform to this rule		Yes/No	
112	6.26	Dimensions of mast at upper measurement band Athwartships	45		
113	6.26	Dimensions of mast at upper measurement band fore and aft including luff groove for extruded section or Diameter of tube when luff groove is not integral	50 45		
114	6.73	Spinnaker pole attachment from foreside of mast Spinnaker pole attachment athwartships from side of mast			75 0
115	7.60	Intersection of rigging Upper jumper wire Lower end jumper wire Forestay Main shrouds Running backstay Lower shrouds	8950   6000 6000 6000 3150		9000 3715 6200 6200 6200 3500
		<b>BOOM</b>			
116	6.42	Do cutaways comply with rule 6.42		Yes/No	
117	6.43	Inner edge of measurement band from after side of mast			3450
118	6.43	Stop fitted?		Yes/No	
119	6.44	Permanent set between forward end and measurement band			50
120	6.52	Boom section depth including continuous groove for foot rope: (untapered or cutaway except as 6.42)	80		100
121	6.52	Boom width	64		
		<b>SPINNAKER BOOM</b>			
122	6.72	Overall length of boom			2240

Measurer's Signature.....

ISAF Plaque Number.....

**To be signed by the Measurer:**

I certify that I have taken the measurements on this form for the items stated below, that the particulars on this Form are correct, and that, to the best of my knowledge, the boat conforms to the plans and the rules of the International Dragon Class at present in force, except as I have stated below.

Item numbers measured: .....

Measurer's comments: .....

.....

.....

.....

Name (BLOCK CAPITALS): .....

Address: .....

.....

.....

Signature:

Date

Officially recognised by N.A. ....

IDA No.....

**DECLARATION OF BUOYANCY**

The undersigned hereby declares that Dragon yard number \_\_\_\_\_, ISAF Plaque number \_\_\_\_\_ is similar to the boat tested under CR 2.191 ISAF Plaque number \_\_\_\_\_ as far as buoyancy its type and distribution is concerned.

The test details under CR 2.191 were as follows:

ISAF Plaque number \_\_\_\_\_

Yard Number \_\_\_\_\_

Date of Test \_\_\_\_\_

Witness \_\_\_\_\_

Water Type Salt/Fresh

Distribution and Type of Buoyancy

Total Buoyancy \_\_\_\_\_ litres

This declaration is made by the Licensed builder .....(Name)

Signature .....

Measurer's Signature.....

ISAF Plaque Number.....

## DECLARATIONS

### **To be completed and signed by Licensed Builder**

I certify that this Dragon has been built according to the plans and rules of the International Dragon Class and undertake to rectify any contravention thereof during construction.

For glass reinforced plastic construction specify Manufacturer and Product Name of materials used (please continue on a separate sheet if necessary):

	Construction method eg. for GRP -open lay up, closed mould or for wooden boats – cold moulded, strip plank or carvel	Glass Reinforcement	Laminating Resin	'Fleece' material (per CR 2.502.1)	Other
Hull Shell					
Deck					
Inner Moulding					

INTERNATIONAL CLASS PLAQUE NUMBER: .....

Name of Builder: ... Year of Construction.....

Signature: ..... Date: .....

### **To be signed by Builder completing the Yacht**

I certify that this Yacht is to the best of my belief built and fitted out in accordance with the Rules of the International Dragon Class.

Name of Builder: .....

Signature: .....

Date: .....

Builder's approval reference number: .....

Measurer's Signature.....

ISAF Plaque Number.....

### **WEIGHT CERTIFICATE FOR GLASSFIBRE DRAGON**

Hull built by yard: .....

Yard Dragon No: .....Finished date: .....

The undersigned hereby declare that the above Dragon hull is built in accordance with the rules no. 2.50 "Glass Reinforced Plastic Yacht" in the International Dragon Class Rules.

Weight of "exterior hull moulding"  
as specified in rule no. 2.503 .....kg

Weight of "keel reinforcement"  
as specified in rule no. 2.504 ..... kg

Weight of "internal hull moulding"  
as specified in rule no. 2.508 .....kg  
Weight of "deck moulding"  
as specified in rule no. 2.510 .....kg

Weight of "bonding hull to deck"  
as specified in rule no. 2.512 .....kg

Wight of "assembled hull & deck moulding"  
as specified in rule no. 2.513 .....kg

Weight of "rudder and stock"  
as specified in rule no. 5.60 .....kg

This certificate is issued by:

Licensed builder: ..... Name: .....

Signature: ..... ISAF Plaque No.:

### **BALLAST KEEL WEIGHT CERTIFICATE**

Keel No: ..... Date delivered to Yard: .....

Cast by: .....

Delivered to Dragon, Yard no. .... ISAF Plaque no. ....

The undersigned hereby declares that the above Dragon keel is cast in accordance with the rules no. 4.0,4.10,4.20, and 4.30 "Ballast Keel" of the International Dragon Class Rules.

Weight of cast iron keel with keel bolt or studs as specified in rule no. 4.20 .....kg

This certificate is issued by the Licensed builder (Name)

Signature: .....

Measurer's Signature.....

ISAF Plaque Number.....

## **NOTES**

### **GENERAL**

1. The licensed builder shall pay the International Class Fee to the ISAF, which shall issue an ISAF receipt and Plaque to the builder.
2. The owner or builder shall apply to the owner's National Authority (N.A.) (or the National Dragon Association if the N.A. is not administering the class) for a sail number enclosing the International Class Fee receipt, and may at the same time submit the proposed name(s) of the boat.
3. The measurement form, when completed, shall be submitted by the owner to his N.A. (or National Dragon Association if there is no N.A.) together with any registration fee required by the N.A. A copy shall be supplied to the IDA Secretary by the builder (CR 1.85)
4. The owner shall sign the owner's declaration.
5. The builder shall sign the builder's declarations.
6. The weight certificate for the ballast keel shall be provided.

### **TO THE MEASURER (S)**

1. Measurers officially recognised by IDA and their NA shall take all the measurements on this form.
2. If the measurer feels the slightest doubt concerning the accuracy or compliance with the class rules or class plans of any part of the boat its equipment or the sails, he shall report it on the measurement form and send it to the NA and IDA
3. The boat shall conform to all the class rules, even if some of the rules are not mentioned on the measurement form.
4. All measurements are in millimetres unless stated otherwise.
5. The templates shall be those approved by the ISAF, and stamped ISAF-D 2001 or later. The Measurer(s) shall check the compliance of the Templates with plan 8c from time to time.
6. Each item on the form is to have the actual measurement recorded.
7. The measurer(s) shall sign each page on which they have entered measurements and shall complete the declaration(s).
8. The form is to be completed in duplicate and both originals given to the owner, a copy shall be supplied to the IDA Secretary by the builder. If the boat is not yard finished this copy shall be supplied by the owner.
9. The duration of the certificate shall be for the life of the boat and she shall not be liable for re-measurement at any time except under the circumstances enumerated in rules section 1.60.

The race committee at any international regatta may restrict the number of sails presented for measurement by any one boat. The number shall not be exceeded except in emergency, at the discretion of the committee.

Measurer's Signature.....

ISAF Plaque Number.....

**TO THE NATIONAL AUTHORITY**

1. The measurement certificate is valid only (1) if an original completed measurement form or a certified true copy of it is attached and (2) if the document has been validated with the National Authority's stamp. If a certified true copy of the measurement form is attached each page shall have the National Authority's stamp on it.
2. The second copy of the measurement form is to be retained by the National Authority.

Name of Yacht: .....

National Letters and Sail No. ....

Builder: .....Year of construction .....

Material: .....

Name of owner: .....

Address: .....

.....

.....

Club: .....

Measurer's Signature.....

ISAF Plaque Number.....