



# DOLPHIN 81 MEASUREMENT INSTRUCTIONS

Version 1.6 2005

## 1. General

The basis of all measurements are the actual **Dolphin 81 Class Rules** (D81CR). The way to take all the measurements is defined in the **ISAF ERS** (ERS). The measurement shall be documented in the measurement form of the International Dolphin 81 Association.

After the measurement the measurer shall send the filled out form through the MNA to the National Dolphin 81 Association (ND81A).

Original text is marked as *D81CR: "The keel shall ....."*.

Before measurement an actual and new measurement form shall be printed from [www.dolphin81.com](http://www.dolphin81.com).

## 2. Boat and Rig

→ The owner, boatyard or dealer has to bring the empty boat, the mast, the boom and the spinnaker pole with as well the original measurement form of the builder because of the weight of the keel. What shall be in the boat and what not, if the owner likes to weight the hull, is defined in the D81CR and is listed on the measurement form.

The boat and rig shall be measured with the mast **not** set for sailing.

Boat with hull number 1 – 20 are equipped with a keel which is 50 mm longer (stretched) but with the same other dimensions.

Hint: The angle between mast and forestay is 17° to mark the forestay point at the mast.

Tool g) is for measuring the thickness of keel and rudder.

On the *hull*, the following dimensions shall minimal be checked:

- Position of keel incl. tip
- Position of rudder
- Forestay and shroud fitting position
- Longitudinal position of the mast hole
- Position of the genoa and jib tracks and movement of blocks

On the *mast*, it shall be checked specially whether the defined top light is installed.

Tools d), e) and f) are to mark the mast.

*D81CR:“ The mast shall be uniquely numbered at **certification**. The numbers shall be impressed to the mast rear left side at the level 0.000 (see appendix C). The numbering scheme is “ hullnr · mastnr “ (example 81142 · 1 ; this means hull 81142, sailnr 142, first mast on this boat). The · shall be exactly at the level of 0.000 of the mast and impressed with a tool. The layout is defined in appendix G.“*

Zero 0.000 of the mast shall measured as shown in Appendix 1.

#### Tools needed:

	<i>English expr.</i>	<i>German expr.</i>
a)	1 measuring tape 20 m	1 Messband 20 m
b)	1 meter staff 2 m	1 Meterstab 2 m
c)	1 beam (wood, aluminum)	1 Balken (Holz/Alu)2.7m
d)	1 set of impact letters	1 Schlagbuchstaben
e)	1 impact point marker	1 Körner
f)	1 hammer	1 Hammer
g)	1 big caliper gauge	1 grosse Schieblehre
h)	1 balance >1100kg	1 Waage >1100kg
i)	1 measu. form p. boat	1 Messbrief / Boot

→ For change of Ownership or mast use Appendix 1 of the Measurement Form  
→ For Re-Weighting the boat use Appendix 2 of the Measurement Form

### 3. Sails

→ The **owner** has to bring all the sails with and has to check whether the weight of the ply is indicated for the spinnakers. Please take tools with to remove one hank if you use hanks at the headsails.

*D81CR:„The weight in g/m<sup>2</sup> of the **body of the sail** shall be indelibly marked near the **head point** by the sail maker together with the date and his signature or stamp.“*

*D81CR:“LPG of genoa and jib are defined **including** 20mm width of forestay profile, if used.“*

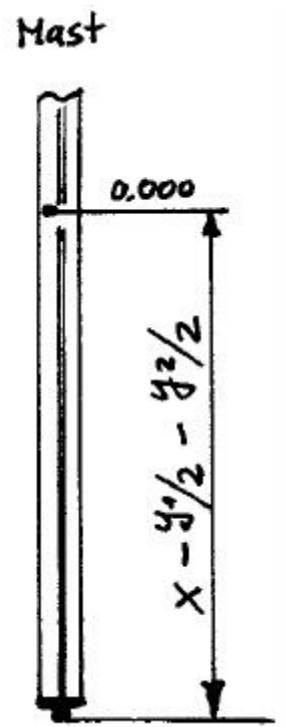
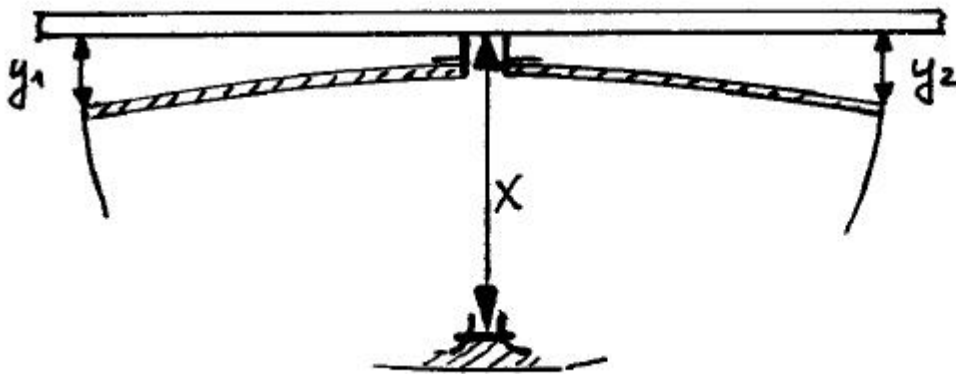
Sail numbers has been on spinnakers conforming to ERS. Sail number on main sail and on spinnakers shall be **without** the numbers 81xx. Class Insignia shall be in dark blue colour, white or black is allowed on grey coloured sails.

The letter balance is needed to weight one hank of the headsails. Approximately weight of one hank (jib or genoa) : 20-30 g for metallic and 10 g for synthetic devices

#### Tools needed:

	<i>English expr.</i>	<i>German expr.</i>
a)	1 measuring tape 20 m	1 Messband 20 m
b)	1 Meter ruler 2 m	1 Meterstab 2 m
c)	2 spring balances 5 kg	2 Federwaagen à 5 kg
d)	1 balance for letters	1 Briefwaage

#### 4. Appendix 1



3.8.2004  
Dr. Urs E. Zurfluh