

## Annex A

### Series Construction Supervision of Pleasure Craft

#### A. General

1. The requirements below apply to the supervision of series construction of FRP hulls which are produced in large numbers.

The procedure controls in accordance with these rules are also used for craft with metal hulls whose series construction is monitored.

2. Supervision of series construction of small recreational craft by GL covers proving of the design documentation, testing of the prototype and supervision of the series construction.

It is a presupposition that the prototype of the series was built and tested under classification supervision.

2.1 Series construction supervision covers:

- primary structural members of the hull including deck, superstructure and transverse bulkheads
- fuel and water tanks if these are integral with the structure
- zones of the hull where forces are transmitted to it from mast and rigging
- the fastening of the ballast keel
- engine foundations/seatings
- rudder, including stock and bearings
- closing appliances

2.1.1 If specially applied for, examination of masts, spars and standing rigging can be included in the series construction supervision.

2.1.2 Not subject to proving are:

- sails and running rigging
- appliances on and below deck such as cooking, domestic and heating appliances
- equipment and loose gear

3. If applied for, the scope of series construction supervision can be extended to that for classification. The extended series construction supervision supplementing 2.1 then includes:

- rig (masts, spars and standing rigging)
- stability and closures

- steering gear
- auxiliary engines
- electrical installation

4. GL issues a certificate covering the results of the checks. Proof of the checks on board the recreational craft itself is provided by a permanently affixed plate.

#### B. Approval of Manufacturer

1. The manufacturing facilities of companies producing recreational craft of fibre reinforced plastics shall be suitable for the work to be carried out as regards workshop equipment (see Rules for Classification and Construction, [II – Materials and Welding, Part 2 – Non-metallic Materials, Chapter 1 – Fibre Reinforced Plastics and Bonding](#)), quality control, production procedures and the craftsmanship of their personnel. The suitability is certified to the company by an approval certificate.

2. The application for approval, to be made by the company, must contain data about scale of production, organisation, technical equipment and production procedures, and the qualification of the staff executing the work.

3. A member of the management and his deputy are to be named to GL. This supervisory personnel is responsible for compliance with the approval conditions and for supervision of the production.

4. The applicant is responsible for compliance with the applicable laws and regulations, the processing guidelines of the producers of the materials, plus the codes of practice and accident prevention regulations of the responsible professional organisations, e.g. of the chemical industry.

5. Following proving of the application and inspection of the manufacturing premises, approval may be given initially for a period of 2 years; providing the prerequisites for approval still exist, a 4-year extension may be granted.

6. GL shall be informed immediately of any kind of change if it affects the prerequisites for the approval of the manufacturing premises, such as:

- production equipment
- production procedures
- supervisory personnel

The introduction of new working procedures shall be reported to GL in good time before they are put into effect.

### C. Series Construction Supervision

#### 1. General

1.1 For fibre reinforced/resin matrix craft produced in series and not intended for classification, series construction certificates are issued on the basis of prototype tests and systematic supervision of production.

A presupposition is, that all craft of a series are produced under GL supervision.

1.2 There shall be GL approval for the materials used.

1.3 The craft tested under the terms of this series production supervision are not subject to any subsequent inspections in the form of periodic surveys during later operation; all that is certified is their as-built condition.

#### 2. Prototype testing

2.1 Following approval of the manufacturing premises, construction of the first craft of a series ("prototype") shall be carried out based on GL approved technical documentation, under GL supervision - in accordance with classificatory requirements.

2.2 The prototype built under series construction supervision in accordance with A.2. is subject of comprehensive tests during completion, to be carried out in the presence of the GL surveyor. The tests cover all constructional and safety related details in accordance with the stipulations of these Rules.

2.3 The prototype built under extended series construction supervision in accordance with A.3. is subject of comprehensive tests during completion, to be carried out in the presence of the GL surveyor. The tests cover all constructional and safety related details of the hull, the machinery and electrical installations plus the rig and the closures in accordance with the stipulations of these Rules.

2.4 Repeated tests on the same scale as the prototype test are required if there is some change in the production, some significant design alterations or a lengthy interruption of the production of a series.

### 3. Testing during series production

3.1 Through its surveyors GL carries out regular checks matched to the production process to confirm that all craft of the current series conform to the tested prototype with regard to their technical characteristics and the constructional demands on the workmanship.

3.2 The frequency of these checks depends on the nature and intensity of the manufacturer's internal manufacturing quality control, type and size of the craft plus the number produced per year and the regularity of production.

The GL surveyor is to be given access at any time to the internal manufacturing quality control documentation.

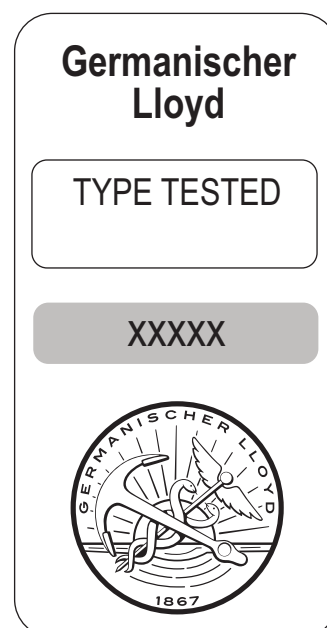
3.3 As well as the above mentioned checks, strength and performance tests may be necessary. Nature and frequency of these depend on the type of craft and the number produced in the series.

### D. Identification, Documentation

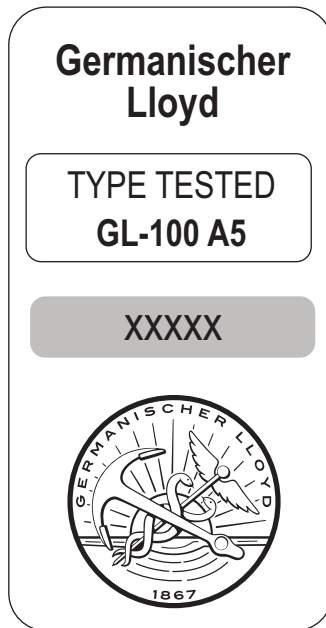
#### 1. Identification

Pleasure craft which have been tested in accordance with these Rules are identified by a plaque as in the illustration below:

##### 1.1 Series construction supervision



## 1.2    Extended series construction supervision



**1.3**    Only GL issues plaques. They refer to the scope of supervision of the pleasure craft.

**1.4**    Issuing a new plaque (e.g. after repairs) is permitted only with GL approval.

## 2.    Documentation

The series construction certificate contains data concerning:

- type and model of craft
- building yard
- yard series number
- year built
- Operating Category
- scope of tests carried out

### E.    Documentation for Approval

**1.**    Drawings and documentation clearly showing the arrangement and scantlings of the structural members and components are to be submitted in triplicate for proving compliance with the Rules for Construction.

The scope is based on Form F 146 in [Annex F](#).

**2.**    The supervision of construction is based on approved documentation which must be available before production starts.