

Rules for the Type Approval of Inflatable Recreational Boats

Effective from 1 January 2016

GENERAL CONDITIONS

Definitions:

- "Administration" means the Government of the State whose flag the Ship is entitled to fly or under whose authority the Ship is authorized to operate in the specific case.
- "IACS" means the International Association of Classification Societies.
- "Interested Party" means the party, other than the Society, having an interest in or responsibility for the Ship, product, plant or system subject to classification or certification (such as the owner of the Ship and his representatives, the ship builder, the engine builder or the supplier of parts to be tested) who requests the Services or on whose behalf the Services are requested.
- "Owner" means the registered owner, the ship owner, the manager or any other party with the responsibility, legally or contractually, to keep the ship seaworthy or in service, having particular regard to the provisions relating to the maintenance of class laid down in Part A, Chapter 2 of the Rules for the Classification of Ships or in the corresponding rules indicated in the specific Rules.

"Rules" in these General Conditions means the documents below issued by the Society:

- (i) Rules for the Classification of Ships or other special units;
- (ii) Complementary Rules containing the requirements for product, plant, system and other certification or containing the requirements for the assignment of additional class notations;
- (iii) Rules for the application of statutory rules, containing the rules to perform the duties delegated by Administrations;
- (iv) Guides to carry out particular activities connected with Services;
- (v) Any other technical document, as for example rule variations or interpretations.
- "Services" means the activities described in Article 1 below, rendered by the Society upon request made by or on behalf of the Interested Party.
- "Ship" means ships, boats, craft and other special units, as for example offshore structures, floating units and underwater craft.
- "Society" or "TASNEEF" means Tasneef and/or all the companies in the Tasneef Group which provide the Services.
- "Surveyor" means technical staff acting on behalf of the Society in performing the Services.

Article 1

- 1.1. The purpose of the Society is, among others, the classification and certification of ships and the certification of their parts and components. In particular, the Society:
 - (i) sets forth and develops Rules;
 - (ii) publishes the Register of Ships;
 - (iii) issues certificates, statements and reports based on its survey activities.
- **1.2.** The Society also takes part in the implementation of national and international rules and standards as delegated by various Governments.
- **1.3.** The Society carries out technical assistance activities on request and provides special services outside the scope of classification, which are regulated by these general conditions, unless expressly excluded in the particular contract.

Article 2

- 2.1. The Rules developed by the Society reflect the level of its technical knowledge at the time they are published. Therefore, the Society, although committed also through its research and development services to continuous updating of the Rules, does not guarantee the Rules meet state-of-the-art science and technology at the time of publication or that they meet the Society's or others' subsequent technical developments.
- 2.2. The Interested Party is required to know the Rules on the basis of which the Services are provided. With particular reference to Classification Services, special attention is to be given to the Rules concerning class suspension, withdrawal and reinstatement. In case of doubt or inaccuracy, the Interested Party is to promptly contact the Society for clarification.
 - The Rules for Classification of Ships are published on the Society's website: www.tasneef.ae.
- 2.3. The Society exercises due care and skill:
 - (i) in the selection of its Surveyors
 - (ii) in the performance of its Services, taking into account the level of its technical knowledge at the time the Services are performed.
- 2.4. Surveys conducted by the Society include, but are not limited to, visual inspection and non-destructive testing. Unless otherwise required, surveys are conducted through sampling techniques and do not consist of comprehensive verification or monitoring of the Ship or of the items subject to certification. The surveys and checks made by the Society on board ship do not necessarily require the constant and continuous presence of the Surveyor. The Society may also commission laboratory testing, underwater inspection and other checks carried out by and under the responsibility of qualified service suppliers. Survey practices and procedures are selected by the Society based on its experience and knowledge and according to generally accepted technical standards in the sector.

Article 3

- **3.1.** The class assigned to a Ship, like the reports, statements, certificates or any other document or information issued by the Society, reflects the opinion of the Society concerning compliance, at the time the Service is provided, of the Ship or product subject to certification, with the applicable Rules (given the intended use and within the relevant time frame).
 - The Society is under no obligation to make statements or provide information about elements or facts which are not part of the specific scope of the Service requested by the Interested Party or on its behalf.
- 3.2. No report, statement, notation on a plan, review, Certificate of Classification, document or information issued or given as part of the Services provided by the Society shall have any legal effect or implication other than a representation that, on the basis of the checks made by the Society, the Ship, structure, materials, equipment, machinery or any other item covered by such document or information meet the Rules. Any such document is issued solely for the use of the Society, its committees and clients or other duly authorised bodies and for no other purpose. Therefore, the Society cannot be held liable for any act made or document issued by other parties on the basis of the statements or information given by the Society. The validity, application, meaning and interpretation of a Certificate of Classification, or any other document or information issued by the Society in connection with its Services, is governed by the Rules of the Society, which is the sole subject entitled to make such interpretation. Any disagreement on technical matters between the Interested Party and the Surveyor in the carrying out of his functions shall be raised in writing as soon as possible with the Society, which will settle any divergence of opinion or dispute.
- **3.3.** The classification of a Ship, or the issuance of a certificate or other document connected with classification or certificate on and in general with the performance of Services by the Society shall have the validity conferred upon it by the Rules of the Society at the time of the assignment of class or issuance of the certificate; in no case shall it amount to a statement or warranty of seaworthiness,

structural integrity, quality or fitness for a particular purpose or service of any Ship, structure, material, equipment or machinery inspected or tested by the Society.

- 3.4. Any document issued by the Society in relation to its activities reflects the condition of the Ship or the subject of certification or other activity at the time of the check.
- **3.5.** The Rules, surveys and activities performed by the Society, reports, certificates and other documents issued by the Society are in no way intended to replace the duties and responsibilities of other parties such as Governments, designers, ship builders, manufacturers, repairers, suppliers, contractors or sub-contractors, Owners, operators, charterers, underwriters, sellers or intended buyers of a Ship or other product or system surveyed.

These documents and activities do not relieve such parties from any fulfilment, warranty, responsibility, duty or obligation (also of a contractual nature) expressed or implied or in any case incumbent on them, nor do they confer on such parties any right, claim or cause of action against the Society. With particular regard to the duties of the ship Owner, the Services undertaken by the Society do not relieve the Owner of his duty to ensure proper maintenance of the Ship and ensure seaworthiness at all times. Likewise, the Rules, surveys performed, reports, certificates and other documents issued by the Society are intended neither to guarantee the buyers of the Ship, its components or any other surveyed or certified item, nor to relieve the seller of the duties arising out of the law or the contract, regarding the quality, commercial value or characteristics of the item which is the subject of transaction.

In no case, therefore, shall the Society assume the obligations incumbent upon the above-mentioned parties, even when it is consulted in connection with matters not covered by its Rules or other documents.

In consideration of the above, the Interested Party undertakes to relieve and hold harmless the Society from any third party claim, as well as from any liability in relation to the latter concerning the Services rendered.

Insofar as they are not expressly provided for in these General Conditions, the duties and responsibilities of the Owner and Interested Parties with respect to the services rendered by the Society are described in the Rules applicable to the specific Service rendered.

Article 4

- 4.1. Any request for the Society's Services shall be submitted in writing and signed by or on behalf of the Interested Party. Such a request will be considered irrevocable as soon as received by the Society and shall entail acceptance by the applicant of all relevant requirements of the Rules, including these General Conditions. Upon acceptance of the written request by the Society, a contract between the Society and the Interested Party is entered into, which is regulated by the present General Conditions.
- **4.2.** In consideration of the Services rendered by the Society, the Interested Party and the person requesting the service shall be jointly liable for the payment of the relevant fees, even if the service is not concluded for any cause not pertaining to the Society. In the latter case, the Society shall not be held liable for non-fulfilment or partial fulfilment of the Services requested. In the event of late payment, interest at the legal current rate increased by 1.5% may be demanded.
- **4.3.** The contract for the classification of a Ship or for other Services may be terminated and any certificates revoked at the request of one of the parties, subject to at least 30 days' notice to be given in writing. Failure to pay, even in part, the fees due for Services carried out by the Society will entitle the Society to immediately terminate the contract and suspend the Services.

For every termination of the contract, the fees for the activities performed until the time of the termination shall be owed to the Society as well as the expenses incurred in view of activities already programmed; this is without prejudice to the right to compensation due to the Society as a consequence of the termination.

With particular reference to Ship classification and certification, unless decided otherwise by the Society, termination of the contract implies that the assignment of class to a Ship is withheld or, if already assigned, that it is suspended or withdrawn; any statutory certificates issued by the Society will be withdrawn in those cases where provided for by agreements between the Society and the flag State.

Article 5

- **5.1.** In providing the Services, as well as other correlated information or advice, the Society, its Surveyors, servants or agents operate with due diligence for the proper execution of the activity. However, considering the nature of the activities performed (see art. 2.4), it is not possible to guarantee absolute accuracy, correctness and completeness of any information or advice supplied. Express and implied warranties are specifically disclaimed.
 - Therefore, except as provided for in paragraph 5.2 below, and also in the case of activities carried out by delegation of Governments, neither the Society nor any of its Surveyors will be liable for any loss, damage or expense of whatever nature sustained by any person, in tort or in contract, derived from carrying out the Services.
- 5.2. Notwithstanding the provisions in paragraph 5.1 above, should any user of the Society's Services prove that he has suffered a loss or damage due to any negligent act or omission of the Society, its Surveyors, servants or agents, then the Society will pay compensation to such person for his proved loss, up to, but not exceeding, five times the amount of the fees charged for the specific services, information or opinions from which the loss or damage derives or, if no fee has been charged, a maximum of AED5,000 (Arab Emirates Dirhams Five Thousand only). Where the fees charged are related to a number of Services, the amount of the fees will be apportioned for the purpose of the calculation of the maximum compensation, by reference to the estimated time involved in the performance of the Service from which the damage or loss derives. Any liability for indirect or consequential loss, damage or expense is specifically excluded. In any case, irrespective of the amount of the fees charged, the maximum damages payable by the Society will not be more than AED5,000,000 (Arab Emirates Dirhams Five Millions only). Payment of compensation under this paragraph will not entail any admission of responsibility and/or liability by the Society and will be made without prejudice to the disclaimer clause contained in paragraph 5.1 above.
- **5.3.** Any claim for loss or damage of whatever nature by virtue of the provisions set forth herein shall be made to the Society in writing, within the shorter of the following periods: (i) THREE (3) MONTHS from the date on which the Services were performed, or (ii) THREE (3) MONTHS from the date on which the damage was discovered. Failure to comply with the above deadline will constitute an absolute bar to the pursuit of such a claim against the Society.

Article 6

- **6.1.** These General Conditions shall be governed by and construed in accordance with United Arab Emirates (UAE) law, and any dispute arising from or in connection with the Rules or with the Services of the Society, including any issues concerning responsibility, liability or limitations of liability of the Society, shall be determined in accordance with UAE law. The courts of the Dubai International Financial Centre (DIFC) shall have exclusive jurisdiction in relation to any claim or dispute which may arise out of or in connection with the Rules or with the Services of the Society.
- 6.2. However,
 - (i) In cases where neither the claim nor any counterclaim exceeds the sum of AED300,000 (Arab Emirates Dirhams Three Hundred Thousand) the dispute shall be referred to the jurisdiction of the DIFC Small Claims Tribunal; and
 - (ii) for disputes concerning non-payment of the fees and/or expenses due to the Society for services, the Society shall have the

right to submit any claim to the jurisdiction of the Courts of the place where the registered or operating office of the Interested Party or of the applicant who requested the Service is located.

In the case of actions taken against the Society by a third party before a public Court, the Society shall also have the right to summon the Interested Party or the subject who requested the Service before that Court, in order to be relieved and held harmless according to art. 3.5 above.

Article 7

- 7.1. All plans, specifications, documents and information provided by, issued by, or made known to the Society, in connection with the performance of its Services, will be treated as confidential and will not be made available to any other party other than the Owner without authorization of the Interested Party, except as provided for or required by any applicable international, European or domestic legislation, Charter or other IACS resolutions, or order from a competent authority. Information about the status and validity of class and statutory certificates, including transfers, changes, suspensions, withdrawals of class, recommendations/conditions of class, operating conditions or restrictions issued against classed ships and other related information, as may be required, may be published on the website or released by other means, without the prior consent of the Interested Party.
 Information about the status and validity of other certificates and statements may also be published on the website or released by other means, without the prior consent of the Interested Party.
- 7.2. Notwithstanding the general duty of confidentiality owed by the Society to its clients in clause 7.1 above, the Society's clients hereby accept that the Society may participate in the IACS Early Warning System which requires each Classification Society to provide other involved Classification Societies with relevant technical information on serious hull structural and engineering systems failures, as defined in the IACS Early Warning System (but not including any drawings relating to the ship which may be the specific property of another party), to enable such useful information to be shared and used to facilitate the proper working of the IACS Early Warning System. The Society will provide its clients with written details of such information sent to the involved Classification Societies.
- 7.3. In the event of transfer of class, addition of a second class or withdrawal from a double/dual class, the Interested Party undertakes to provide or to permit the Society to provide the other Classification Society with all building plans and drawings, certificates, documents and information relevant to the classed unit, including its history file, as the other Classification Society may require for the purpose of classification in compliance with the applicable legislation and relative IACS Procedure. It is the Owner's duty to ensure that, whenever required, the consent of the builder is obtained with regard to the provision of plans and drawings to the new Society, either by way of appropriate stipulation in the building contract or by other agreement. In the event that the ownership of the ship, product or system subject to certification is transferred to a new subject, the latter shall have the right to access all pertinent drawings, specifications, documents or information issued by the Society or which has come to the knowledge of the Society while carrying out its Services, even if

Article 8

related to a period prior to transfer of ownership.

8.1. Should any part of these General Conditions be declared invalid, this will not affect the validity of the remaining provisions.

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1 - FIELD OF APPLICATION

These rules apply to inflatable recreational boats or ribs (rigid inflatable boats) with an outboard, inboard-outboard or inboard engine, screw or water jet propelled.

2 - DEFINITIONS

- Inflatable boat means a craft which acquires the capacity to float when inflated with air.
- Rubber coated fabric means fabric treated with rubber compound (other synthetic materials are acceptable).
- A P.R.F.V. hull means a hull built of reinforced plastic with fibreglass or suitable composite material.

3 - GENERAL REQUIREMENTS

- (a) Number of people which can be transported This is the maximum number of people which the inflatable boat is permitted to carry; this number depends on the thrust, available space and buoyancy and is the smallest of those obtained as follows:
 - dividing by 100 the total volume of the air chambers in dm³;
 - dividing by 0.3 the area of the bottom of the inflatable boat in m²;
 - the one from the checks made in 8.

Area of the bottom of the inflatable boat means the part of the bottom delimited by vertical planes tangential to the innermost side of the buoyancy tubes and perpendicular to the bottom.

(b) Number of compartments

The buoyancy tubes of the inflatable boat are to be subdivided by means of diaphragms so as to form non communicating compartments once the craft is inflated. Independent inflation and deflation valves for these compartments are to be foreseen.

The minimum number of compartments in relation to the length L of the inflatable boat and to the design category is given in the Table 1.

The inflatable keel is not considered a compartment.

TABLE 1

Design	Length	n L (m)
Design category	L < 3	L≥3
В		5
С	2	3
D	2	3

(c) Owner's Manual

Each inflatable boat is to be provided with an owner's manual drawn up under the responsibility of the manufacturer and in accordance with the standard ISO 10240. A copy of this Manual is to be sent to Tasneef Head Office.

(d) Design working pressure

The value of the normal working pressure *p* of the compartments is to be shown on each compartment and in the owner's manual.

(e) Hull accessories

- Plywood

The plywood used for the transom and for rigid hull structures, such as the keel, limber boards and similar is to be of the marine type.

- Arrangement of the fittings

The hull fittings bearing a load are to be fitted in such a way as not to impair the buoyancy tubes when the fittings are subject to breaking load.

Grab handles

The inflatable boat is to be equipped with suitable grab handles which can also be used when the inflatable boat has capsized. The number of grab handles shall correspond to the number of persons the boat is permitted to carry.

Inflation valves

The inflation valves are to be provided with a non return (or tight) device capable of ensuring tightness.

4 - DRAWINGS AND SPECIFICATION

The drawings and specifications the manufacturer is required to send, in triplicate, to Tasneef for review, for type approval of the prototype, are in general, the following:

- (a) A brief report on the manufacturing methods of the inflatable boats and on the procedures of internal production control (for manufacturers not yet recognised by TASNEEF).
- (b) Description of the type and characteristics of the materials and relevant joints used for the buoyancy tubes, the bottom and for the other structural parts of the hull including the fittings in 3.(e).
- (c) General layout of the inflatable boat, showing:
 - the main dimensions and characteristics of the inflatable boat such as L, B, D, T, number of compartments, number of persons, pressure p, volume of the compartments, dimensional tolerance;
 - buoyancy tubes (materials, shape, airtight diaphragms, type and location of the inflation and deflation valves);
 - bottom (materials, keel, limber board, stiffeners);
 - transom (materials, connection to the buoyancy tubes and to the keel, stiffeners);
 - fixed parts of the fittings (carrying handles, rowlocks, external safety ropes);
 - installation, mass and power of the engine;
 - steering systems (manual helm, remote and wheel).
- (d) Schematic drawing of the inflation device (valves, method of operation, connection to the buoyancy tubes, pipes and pumps).

5 - APPLICATION FOR TYPE APPROVAL

The manufacturer shall submit an application to Tasneef Head Office for type approval of the prototype and indicate the location of the yard and include the documentation required under point 4.

6 - VISIT TO THE MANUFACTURER'S PREMISES

Following the successful review of the documentation under point 4, Tasneef will visit the manufacturer's premises to ascertain that:

- the yard has suitable plants and equipment for the construction of inflatable boats (and relevant hulls in P.R.F.V. if foreseen);
- suitable production control procedures are in place to guarantee the constancy and level of quality;
- the prototype of the inflatable boat has the general requirements referred to in point 3;
- the prototype conforms in all its parts to the documentation referred to in point 4.

7 - TESTING OF MATERIALS

Each type of material used for the construction of the inflatable boat (buoyancy tubes, bottom, etc.) is to undergo a test to measure the change in mass per unit area in kg/m² (ISO 2286) for the material as it is and a tensile test (ISO 1421) under the following conditions:

- (a) material as it is,
- (b) material after 7 days at 66°C,
- (c) material after 24 hours at 0°C,
- (d) material after being immersed for 3 days in salt water, at approximately 20°C,
- (e) material after being immersed for 3 days in diesel oil, at approximately 20°C.

The tests in (a), (b) and (e) are to be performed on both integral material and material with seams.

For each test, 6 test pieces consisting of strips 50 mm wide are to be taken from the roll of material (3 in the warp sense and 3 in the weft sense).

The minimum unitary breaking load R and relative lengthening A are to be:

- for the bottom $R \ge 490 \text{ N/cm}$; $A \le 35\%$
- for the buoyancy tubes $R \ge 5 \times 10^4 \times p \times \emptyset$ N/cm; $A \le 35\%$ where:
- $p = \text{normal working pressure in N/m}^2$
- Ø = internal diameter of the buoyancy tubes, in cm. The following tests are to be carried out:
- abrasion resistance (ISO 5470),
- resistance to bending at high and low temperature (ISO 4675),
- resistance to ozone (ISO 3011).

If material type approved by Tasneef is used, the

tensile tests referred to in (a), (b) and (e) are to be performed on test pieces with seams prepared at the boat manufacturer's.

If the hull is to be in P.R.F.V., also the tensile and bending tests are to be carried out on the rolled sections in accordance with the TASNEEF rules for the type approval of components of composite materials intended for the construction of hulls.

The above tests may be omitted for manufacturers already recognised as suitable by TASNEEF for the construction of inflatable boats and/or hulls in P.R.F.V.

8 - FINAL TESTS ON THE PROTOTYPE

(a) Airtightness of the inflatable boat at ambient temperature

The inflatable boat is to be inflated and airtight for 30 minutes at a pressure more than 20% that of the

working one. The pressure is then to be reduced to the working pressure and the inflatable boat is to be left, without any further intervention, at ambient temperature for 5 hours.

- (b) Climatic test of the inflatable boat at 66°C The inflatable boat inflated to the normal working pressure and at ambient temperature is to be placed in a climatic chamber at a temperature of 66°C and kept there for 4 hours.
- (c) Tightness test of the inflatable boat at 0°C The inflatable boat inflated to the normal working pressure is to be kept for 12 hours in a refrigeration cell at a temperature of 0°C.
- (d) Overpressure test at ambient temperature The inflatable boat inflated to an overpressure of 50% compared to the normal working pressure is to be kept at ambient temperature (approximately 20°C) for 30 minutes.

During the above tests no drawbacks such as damage or rupture of the seams, non uniform pressure or other defects (for example on the seams or on the inflation device) are to occur, and that for the tests a) and d) the pressure is not less than 5% of the initial one.

For the tests referred to in (b) and (c) simulacra of inflatable boats in a reduced size can be used (e.g. 2 buoyancy tubes of approximately 1 m with the same diameter as the buoyancy tubes of the inflatable boats and provided with an aft cone). These tests may be omitted if already previously performed at the same manufacturer's and for types similar to the inflatable boats.

(e) Check of the main dimensions

With all the compartments inflated at the working pressure it is to be checked that the dimensional tolerances accepted at the design approval stage are complied with. These tolerances are acceptable up to 3%.

(f) Determination of the Load Line (LL) With the inflatable boat fully loaded with its equipment, engine, fuel and conventional mass of the No persons which can be transported

$$P = 75 \times N_0 \text{ (kg)}$$

upright with all the compartments inflated to the working pressure, the LL is to be at 0,5 L, which is to be at least equal to 0,12 B (m).

It is to be noted that for inflatable boats, the LL is the vertical distance at 0,5 L between the water line and the horizontal straight line at a tangent to the upper side of the material (removing or reducing seams, ? and similar which may be on the upper side) of the two buoyancy tubes.

- (g) Overpressure test
 - With the inflatable boat in the conditions referred to in (f) but with the addition of 75 x N_O kg, N_O being the number of persons which can be carried, the LL is at 0,5 L, which shall not be less than 0,65 LL.
- (h) Flooding test (required for inflatable boats with L < 5 m in design category B)

With the inflatable boat in the conditions referred to in (f) but completely flooded and with mass representing the persons which can be carried distributed along one side, the residual LL on the side of listing is to be positive.

Arrangement on one side of the mass representing the people (75 kg each) is to be made according to the scheme shown in Figure 1, that is to say, subdividing the length of the buoyancy tube in 35 cm long sections and placing 75 kg on each section and the remaining weights on the limber board, adjacent to the buoyancy tube, until the number $N_{\rm O}$ has been completely used up.

(i) Buoyancy test

With the inflatable boat in the conditions in (f) and with half the compartments deflated (rounded down to the nearest integer), the inflatable boat shall remain afloat without capsizing.

If deemed necessary, to assess this requirement, the test is to be repeated for several compartments or combination of compartments.

 Strength test of the carrying handles and external safety ropes

Each carrying handle and external safety rope are to be subjected to a weight of 100 kg without being damaged.

(k) Navigation test

With the inflatable boat in the conditions in (f) a navigation test is to be carried out in accordance with the Tasneef rules, to ascertain whether there are drawbacks concerning the hull strength, with particular reference to the transom and steering.

9 - MAXIMUM RATED POWER OF THE ENGINES INSTALLED ON INFLATABLE BOATS

The maximum admissible power of the engine installed on inflatable recreational boats shall not exceed

the following values:

$$P_{max} = 10 \cdot F(d) -33$$

where:

P_{max} = engine maximum power rating, in kW

 $F(d) = L x I_{max}$ (dimensional factor)

= length of the inflatable boat, in m

I_{max} = maximum beam of the inflatable boat, in m.

When the power of the engine exceeds 18,4 kW, remote control of the rudder is to be installed with a device activated from the wheel. The slow motion device of the remote control is to be such that one turn of the wheel corresponds to not less than 15° of band.

The values of the power given by the above formula may be increased or reduced on the basis of the results of the navigation tests, capable of demonstrating the actual capacity of the inflatable boat to be provided with a engine of a given power in relation to steering, mass, hull strength and stability.

Moreover, for inboard engines, water jet and inboardoutboard engines, the value of the power given by the above formula may be increased by 35%.

10 - CERTIFICATION

Following the successful outcome of the tests and checks mentioned in the previous chapters, TASNEEF issues a type approval certificate for the prototype which contains the main characteristics of the inflatable boat.

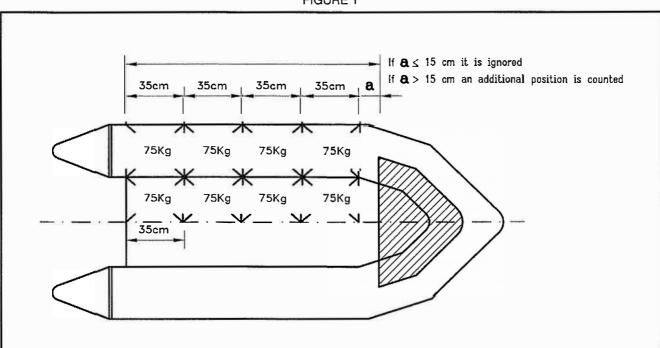


FIGURE 1