

**Saudi Standards, Metrology and Quality Organization**  
**SASO**

**Technical regulations for water vehicles**

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## Introduction

244 On the date of Council of Ministers Resolution No. With the accession of the Kingdom of Saudi Arabia to the World Trade Organization **In line** 9/21/1426 AH regarding the approval of the Kingdom's accession documents to the World Trade Organization, and the Kingdom's commitment to harmonize its stipulates **principles** of the organization's agreements, especially the Technical Barriers to Trade (TBT) Agreement (which relevant systems in line with the Establishing unnecessary technical requirements for the flow of goods between member states, and not distinguishing between products of different origin in terms of technical requirements and methods of conformity assessment, by issuing technical regulations that include basic legitimate requirements and unifying work procedures.

- 1) Organized by the Saudi Standards, Metrology and Quality Organization issued by Council of Ministers Resolution No. 3 (Paragraph 216) dated 6/17/1431 AH, corresponding to 5/31/2010 AD, for the Authority to undertake **"the issuance of Saudi standard specifications, regulations and manuals." Quality and conformity assessment, is consistent with international standards and evidence, fulfills the requirements of the World Trade Organization agreement with Islamic Sharia, and achieves compatibility in this field, they are compatible**

Based on Article Four (Paragraph - 2) of the regulation of the Saudi Standards, Metrology and Quality Organization issued by Council of Ministers Resolution No. 216 dated 6/17/1431 AH, corresponding to 5/31/2010 AD, that the Authority is responsible for **"issuing regulations for procedures for assessing conformity of goods and products." And services are in accordance with the standard specifications it adopts."**

- 14) of the organization of the Saudi Standards, Metrology and Quality Organization issued by Council of Ministers Resolution No. 4 (Paragraph 216 and Building 216 dated 6/17/1431 AH, corresponding to 5/31/2010 AD, for the Authority to **"review the relevant regulatory systems and regulations In the areas of work of the Authority, developing them, proposing the necessary amendments to them, to keep pace with quality and safety requirements, and referring them to -"for regular roads"** the competent authorities, for study and issuance in accordance

1-) of the regulation of the Saudi Standards , Metrology and Quality Organization issued by Council of Ministers Resolution No. **Conformity and** 216 dated 6/17/1431 AH, corresponding to 5/31/2010 AD, which states: **granting the quality mark to the government and private sectors and their commitment to Saudi standards in all their purchases, measurement and calibration and in all their work."**

The compliance of these products with the basic requirements in one of the regulations is considered a basis, and since the standard specifications for the products included for safety are in the specific regulation, the Authority has prepared this technical regulation.

**Note: This preamble and all the appendices to this regulation are an integral part of it.**



## Article (1) Terms and Definitions

1/1 The terms and expressions below and the other expressions mentioned in this regulation - when applying its provisions - will have the connotations and meanings shown in

It is in the form unless the context of the text requires otherwise. front of them, or contained in the applicable laws, regulations and decisions.

**Kingdom:** Kingdom of Saudi Arabia.

**The Council:** The Authority's Board of Directors.

**Authority:** The Saudi Standards, Metrology and Quality Organization.

**Regulatory bodies:** These are the government agencies/agencies with supervisory duties according to their jurisdiction, responsible for implementing or following up on customs ports, markets, or factories implementation of technical regulations whether

ensure conformity of products **Market Survey:** Government agencies responsible for monitoring markets and the measures taken to **authorities**

To the requirements of regulations issued by the Board of Directors.

**Technical Regulation:** A document approved by the Board of Directors that sets out the characteristics of products, their associated processes and production methods, including the applicable administrative provisions that must be adhered to. It may include or look in particular at terms, definitions, packaging, and labeling requirements for products, services, processes or production methods.

**Standard Specification:** A document that specifies the characteristics of the good, material, service, or everything subject to measurement, its descriptions, characteristics, quality level, dimensions, standards, or safety and security requirements. It also includes terms, symbols, methods of testing, sampling, packaging, data cards, and signs.

**Essential requirements:** Product-specific requirements that may affect safety, health and the environment that must be adhered to.

**Hazard:** A potential source of harm.

; Dependent on the severity of the damage. **Risk:** The possibility of a danger causing harm

Market survey to verify that the products meet the requirements. **Market survey:** activities and measures taken by authorities stipulated in Health, safety, environment, or any other aspect on related the relevant technical regulations, and that they do not constitute a risk to the protection of the public interest.

The following is intended :

C This is by calling him the maker **he is considered** a mint maker C, if he resides in the Kingdom, or every person who presents it a(

\* C By his name or any relevant trade description, as well as every person applying to renew the product <sup>the internet</sup>

b) The manufacturer's agent in the Kingdom if the manufacturer resides outside the Kingdom, or the importer if there is no agent for the manufacturer in the Kingdom.

Kingdom.



characteristics of the product or any person in the supply chain whose activity may have an impact on the

**Conformity assessment procedures:** A document approved by the Board of Directors that explains the procedure used directly or indirectly to assess conformity.

Regulations for accepting conformity assessment bodies **Accepted bodies:** These are conformity assessment bodies accepted by the Authority in accordance with

**Certificate of Conformity:** The certificate issued by the Authority or one of the approved bodies, which confirms the conformity of the product or any batch thereof to the requirements of the relevant standard specifications.

An acknowledgment from the supplier himself that his product conforms to the requirements of applicable legislation, without any intervention **confirming conformity: The supplier's acknowledgment** is mandatory from a third party - at all stages of the manufacturing process - and the acknowledgment may depend on tests on the product in accordance with the relevant legislation.

**Saudi Quality Mark:** It is a mark approved by the Authority that indicates that the facility has an effective management system that ensures the production of a commodity that conforms to the regulations, grant procedures, and its Saudi standard specifications.

You will supply/C. For the first time in the Kingdom's market, the person responsible for it is either the manufacturer or the supplier **It is the situation of the product in the market:**

**Supply in the market:** means any supply of a product for the purpose of distribution, consumption or use in the Kingdom within the framework of a commercial activity, whether in exchange for financial sums or without compensation.

**Withdrawal:** Any action aimed at preventing products from being placed on the market and in the supply chain.

**Recall:** is any procedure aimed at retrieving offered products that were previously provided to the end user.

**Competent authority:** The competent authority to implement the provisions of this technical regulation and license the facility and its activity.

**License:** A license to operate watercraft issued by the competent authority after approval or successful inspection.

**Watercraft:** All recreational watercraft and jet skis.

**Recreational watercraft:** Any watercraft intended for use for sporting or recreational purposes with a hull length ranging from 2.5 to 2.5 inches, regardless of the meter method

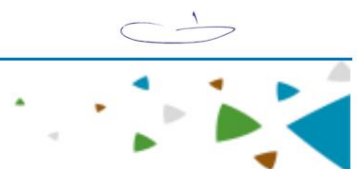
**Water bikes: Watercraft** intended for sports or recreational purposes, with a hull length of less than 4 meters, using an engine for propulsion, and designed to be operated by a person or persons in a situation. A basic Driven by a water jet pump (source).

Sitting, standing, or leaning on part of the vehicle body.

**Hovercraft / vehicles cushion air:** Watercraft that float on an air cushion beneath their body.

The air thrust engines installed behind it control its horizontal speed (propelling it forward).

**Hydrofoils:** Watercraft equipped with metal fins or plates to partially raise the hull from the surface of the water when speed increases.



**Watercraft designated for fishing purposes:** Watercraft designated for commercial fishing purposes and often contain refrigerators and cranes.

**Propulsion engine:** any engine used directly or indirectly for propulsion purposes.

**Substantial Engine Modification:** Modification of the drive motor that could cause the engine to exceed the emission limits set forth in Appendix (2) or increase engine power by more than 15%.

**Substantial conversion of the vehicle:** any conversion of a watercraft that leads to a change in the vehicle's means of propulsion, including a fundamental modification.

On the engine or modification of the watercraft to the extent that may affect its compliance with the safety and environmental requirements stipulated in these regulations.

**Payment methods:** Watercraft payment method.

**Engine class:** A group of engines produced by a manufacturer that have the same exhaust emission or noise characteristics.

**Entry into service:** The first use of a product covered by this technical regulation by its end user.

2/1 The other words and expressions mentioned in this technical regulation shall have the meanings stated in the applicable laws, regulations and decisions in Kingdom.

## Article (2) Scope

**1/2 The provisions of this regulation apply to the following products:**

1/1/2 Recreational watercraft.

2/1/2 Water bikes.

3/1/2 The following components of watercraft when placed on the market:

Flame protection equipment for internal and rear-wheel drive gasoline engines and tank spaces a(

Fuel.

up protection devices in direct gear for outboard motors. Engine start- B(

Steering wheels, steering mechanisms and cable assemblies.

Fuel tanks for fixed installations and fuel hoses. grandfather(

Watercraft hatches and navigation lights. H(

Designed for installation on or in watercraft.<sup>a</sup> 4/1/2 Propulsion engines installed or adapted

5/1/2 Propulsion engines installed on or inside watercraft that are subject to a major engine modification.

6/1/2 Watercraft that are subject to fundamental modifications.



## 2/2 The following products are excluded from the provisions of this regulation:

1/2/2 Watercraft that the manufacturer has classified as prepared for racing and on them, including rowing boats designated for racing and training.

2/2/2 Watercraft designed to be propelled individually by human power.

3/2/2 Surfboards, even if they are designed to be blown by the wind and occupied by a standing person or persons.

4/2/2 Original historical watercraft and their replicas (replicas) that are based on a design before 1950 AD, that were mostly built with original materials and were classified by the manufacturer.

2/2/5 Experimental watercraft specially prepared for commercial purposes, regardless of the number of passengers and installed propulsion engines. 2/2/6 Watercraft equipped with a crew equipped, To install on and/or specially

• Transport of people.

• Transport of goods.

• Hunting purposes.

7/2/2 Submarines and 8/2/2 Hovercraft / cushion air vehicles (and specially installed

9/2/2 Hydrofoils and them.

10/2/2 Amphibious craft with wheels or tracks and for To work on water and on solid ground.

11/2/2 Watercraft used for military and security

12/2/2 Watercraft powered by external combustion steam fueled by coal, wood, petroleum or gas products, and propulsion engines On prepared for specially installed or

## Article 3: Objectives

This technical regulation aims to determine the basic requirements for recreational watercraft products included in the scope of this technical regulation, to adhere to them, in order to ensure that these products conform to the basic requirements ~~and~~ to determine the conformity assessment procedures that suppliers Which aims to preserve the environment, health and safety of its users, and facilitate market survey procedures.

## Supplier's Obligations Article (4)

The supplier must comply with the following requirements: I must

The basic requirements stipulated in Appendix (2). 1/4

2/4 Conformity assessment procedures required to provide the technical documents referred to in Article (6).



3/4 The products meet the technical requirements contained in the relevant standard specifications listed in Appendix (1).

4/4 The use of International System Units (SI Units) or their multiples or parts, for products included in the scope of this regulation during design, measurement system and standards, or trading, in accordance with the Saudi

#### Article (5) Explanatory data

To place and offer it on the market include: Must meet the explanatory data for recreational watercraft,

Identifying each watercraft with the watercraft identification number (Identification Watercraft) as shown in Clause 1/2 of Appendix (2). 1/5

Install the watercraft maker plate as shown in item 2/2 of Appendix (2). 2/5

Information, warnings and operating instructions. 3/5

It is permissible to write it in another language in addition to Arabic, without removing it. The data must be in Arabic, in a clear font and style, and what is important is that it is in Arabic. 4/5

The images and phrases used on the product are contrary to public order, public morals, and Islamic values prevailing in the country. 5/5  
Kingdom.

#### Article 6: Conformity assessment procedures

Relevant Saudi Standard; To the requirements of this regulation and specifications Obtain a certificate of conformity in accordance with The supplier must 1/6  
evaluate the conformity shown Accepted entities, based on the product categories shown in Appendix (3), and on models issued by one of the following:  
In Appendix (4) and Appendix (5).

For the specified model, to ensure that the requirements of this technical regulation and the relevant Saudi standard specifications are met: shown in Appendix (1). 2/6 must be

3/6 Conformity assessment procedures for products subject to fundamental modifications must ensure that the requirements of this regulation are met.  
Requirements for additional conformity assessment procedures related to amendment processes.

it contains: Technical file C<sub>Supplied with the product</sub> ought to 4/6

6(D) In accordance with the form attached in Appendix (6) (manufacturer/supplier) Approval of matters a(

b) Risk assessment document.

Conformity assessment models in the following documents (4) and (5). C(

5/6 Watercraft that have obtained the Saudi Quality Mark are considered to meet the requirements of this regulation.



## Article (7) Responsibilities of regulatory authorities

The supervisory authorities shall, within the scope of their jurisdiction and powers, do the following:

- 1/7 Relevant procedures for specific conformity assessment to verify product fulfillment
- 2/7 The regulatory authorities have the right - at random - to withdraw samples of the relevant products and refer them to the relevant laboratories to ensure their conformity with the requirements contained in this technical regulation.
- 3/7 The regulatory authorities have the right to examine and inspect watercraft to ensure their compliance with the requirements contained in this law. The list.
- 4/7 is entitled to Regulatory authorities charge suppliers for the costs of conducting tests and anything related to that.
- 5/7 When the regulatory authority detects a case of non-conformity with the product, it will withdraw the Procedures are taken from warehouses against it.

## Market survey Article (8) Responsibilities of Authorities

Surveying the market within its area of competence and powers, by: Authorities do

- 1/8 Apply market survey procedures to products offered in the markets, as well as stored products In commercial warehouses in these technical regulations, specifications, and manufacturers to verify the safety of the products and the extent to which they meet the basic requirements shown Relevant standards.
- 2/8 Withdraw me From the market or warehouses C. (manufacturers and importers), in order to conduct the necessary tests, then And ensure their compliance with the requirements stipulated in these technical regulations.
- 3/8 When detecting a non-conformity of the product - Supplied and in stock - In accordance with the requirements of this technical regulation, the market survey authorities take action. C. Article (9), in accordance with the procedures and penalties stipulated in the withdrawal and recall of the product in question, and All management procedures after taking the necessary measures.

## Article 9: Violations and penalties

- 1/9 Pluck Manufacturing and importing products that do not comply with the provisions of these technical regulations, as well as placing and displaying them on the market, or even advertising them.
- 2/9 The requirement is considered non-fulfillment Survey the market and regulatory authorities to rule that the technical regulation is sufficient reason for the authorities to meet these requirements
- This is the hope C does not match; Which may pose a threat to the health and safety of the consumer and the environment, in the following cases
- a( Failure to install or incorrect installation of conformity badges, the Saudi Quality Mark, or its equivalent.

Either they are not identical, or they are issued incorrectly. Commitment or approval of matters. b) Non-issuance of the extension certificate due to

the unavailability or incompleteness of technical documentation. c)

Unavailability or incompleteness of explanatory data or instructions for use. Dr(

All procedures must conduct a market survey as necessary to 3/9 When detecting any violation of the provisions of these technical regulations, the case authorities remove the violation and its effects from the market, and for this purpose they may:

Assigning the violating party - responsible for placing and displaying the violating product - to withdraw it from warehouses or the market with the aim of correcting the violation, if possible, or exporting it, or destroying it (depending on the nature of the product) within the time period that Market survey. Determined by authorities

Withdrawing, seizing, or destroying products, or taking any other action to recall them from the market. The authorities have the right to remove markets B( Condition - Market - Depending The violating party shall pay all costs of announcing the recall of the product consequences.

4/9 When a violation is detected, the Authority takes the necessary measures against these products that violate the requirements of this technical regulation, including issuing a certificate in accordance with the acceptance regulation. This means canceling the relevant certificate of conformity, and taking the necessary measures with the approved authority Conformity assessment bodies.

Punish anyone who violates the requirements of the approved standard specifications, 5/9 Without prejudice to the more severe penalty in the applicable regulations

Products included in the scope of this technical regulation shall be subject to the penalties stipulated in the Anti-Commercial Fraud System.

## Article (10) General provisions

He shall be subject to the penalties Legal responsibility for implementing the requirements of this technical regulation d full responsibility. The matter shall be a show 1/10 stipulated in the Anti-Commercial Fraud Law and/or any related regulations, whenever he is proven to have violated any article of this technical regulation.

Ch. Other applicable laws in the Kingdom; related to currency trading in all systems/states Dr This technical regulation does not preclude supplier 2/10 compliance, transportation, and storage, as well as systems/regulations related to the environment, security, and safety.

Regulatory bodies and authorities Y Submit your file According to the provisions of this technical regulation, 3/10 all subject products must be de-mur Surveying the market of all facilities and information they require to carry out the tasks assigned to them.

shall be referred to its application, in 4/10 If any situation arises that cannot be addressed in accordance with the provisions of these technical regulations, or if any dispute arises, the matter A specialized committee in the Authority shall issue the appropriate decision regarding this case or dispute, in a manner that achieves the public interest.

D Submit a new application after the reasons for rejecting the application have disappeared, and after making the necessary corrections for the reasons that led to it is permissible for the Moors 5/10 Give it to the body. Limit Rejection and payment of any additional costs

6/10 The Authority studies the complaints it receives regarding products that have obtained a certificate of conformity or quality mark, verifies the validity of these complaints, and takes legal measures in the event that any violations are proven.

To cancel the license to use the quality mark. The provisions of this technical regulation, or if the Authority has the right to cancel the conformity certificate if the provisions are violated 7/10  
 In accordance with the general technical regulations of the Saudi Quality Mark, and taking legal measures to ensure the preservation of the authority's rights.

8/10 When any modifications occur to the product during the validity period of the certificate of conformity or the license to use the quality mark (except M with a new request. The formality), the certificate or license becomes void for this product, and it must be submitted

9/10 Only the Authority has the right to interpret the articles of this technical regulation, and all beneficiaries of the application of this technical regulation must adhere to the interpretations issued by the Authority.

### Article 11: Transitional provisions

From the date of its publication in the Official Gazette Taking 11/1 The provisions of this regulation shall be applied within a period not exceeding 180 days. 11/2  
 debt to correct their market positions, in accordance with these requirements into account the provisions of Paragraph 1 (A grace period shall be given to the supplier.

Official Raidah The technical regulations within a period not exceeding 365 days from the date of its publication in the country

3/11 This technical regulation - after its approval - repeals all previous regulations in the field of this technical regulation.

### Article (12) Publication

This regulation is published in the Official Gazette.



## Appendix (1)

## List of standard specifications subject to this regulation

a)

Specification number	The title of the specification is in English	# Specification title in Arabic: Inflatable	
SASO GSO ISO 6185-1	Inflatable boats -- Part 1: Boats with a Maximum motor power rating of 4.5 kW	boats - Part One: Boats with a maximum engine power rating of 4.5 kW	1
SASO GSO ISO 6185-2	Inflatable boats -- Part 2: Boats with a Maximum motor power rating of 4.5 kW to 15 kW inclusive	Inflatable boats - Part Two: Boats with a maximum engine power rating of 4.5 kW to 15 kW	2
SASO GSO ISO 6185-3	Inflatable boats -- Part 3: Boats with a Maximum motor power rating of 15 kW and greater	Inflatable boats - Part Three: Boats with a maximum engine power rating of 15 kW higher	3
SASO GSO ISO 6185-4	Inflatable boats -- Part 4: Boats with a Hull length of between 8 m and 24 m with a motor power rating of 15 kW and greater	Inflatable boats - Part Four: Boats with a hull length ranging between 8 meters and 24 meters and a power rating The engine is 15 kW and higher	4
SASO GSO ISO 7840	Small craft--Fire-resistant fuel hoses	Small boats - Fire resistant fuel hoses	5
EN ISO 8099-1	Small craft – Waste systems – Part 1: Waste water retention	Small boats - Waste Systems - Part 1: Wastewater Detention Systems	6
EN ISO 8099-2	Small craft – Waste systems – Part 2: Sewage treatment systems	Small boats - Waste Systems - Part 2: Wastewater Treatment	7
SASO ISO 8469	Small craft -- Non-fire-resistant fuel hoses	Systems Small Boats - Non-fire resistant fuel hoses	8

Specification number	The title of the specification is in English	# Title of the specification in Arabic:	
SASO GSO ISO 8665	Small craft -- Marine propulsion reciprocating internal combustion engines -- Power and measurements declarations	Small boats (boats) -- Marine propulsion with reciprocating internal combustion engines--Power measurements and advertising	9
SASO GSO ISO 8666	Small craft -- Principal data	Small boats - Basic data	10
SASO GSO ISO 8846	Small craft--Electrical devices-- Protection against ignition of surrounding flammable gases	Small boats - Electrical appliances - protection against ignition from ambient gases flammable	11
SASO GSO ISO 8847	Small craft--Steering gear--Cable and pulley systems	Small boats - Steering gears - systems Cables and pulleys	12
SASO GSO ISO 8848	Small craft -- Remote steering systems	Small boats - Remote guidance systems	13
SASO GSO ISO 8849	Small craft--Electrically operated direct-current bilge pumps	Small boats - DC electric sewage pumps	14
SASO-ISO-9093-1	Small craft -Seacocks and through-hull fittings -- Part 1: Metallic	Small boats - Sea valves - fittings Part 1: Metal frame attachments	15
SASO-ISO-9093-2	Small craft -Seacocks and through-hull fittings -- Part 2: Non-metallic	Small boats - Seacocks - Fittings attached to the hull - Part 2: Non-metallic	16
SASO GSO ISO 9094	Small craft --Fire protection	Small boats - Fire protection	17
SASO GSO ISO 10087	Small craft -- Craft identification -- Coding system	Small boats - Boat marking - coding system	18



Specification number	The title of the specification is in English	# Title of the specification in Arabic:	
SASO ISO 10088	Small craft -- Permanently installed fuel systems	Small boats - Permanently installed fuel systems	19
SASO ISO 10133	Small craft -Electrical systems -Extra-low-voltage dc installations	Small boats - Electrical systems – high voltage DC installations Decrease	20
SASO ISO 10239	Small craft--Liquefied petroleum gas (LPG) systems	Small boats - Liquefied petroleum gas systems	21
SASO GSO ISO 10592	Small craft -- Hydraulic steering systems	Small boats - Hydraulic steering systems	22
SASO GSO ISO 11105	Small craft -- Ventilation of petrol engine and/or petrol tank compartments	Small boats - Ventilation of gasoline engines and/or gasoline tank compartments	23
SASO GSO ISO 11192	Small craft -- Graphical symbols	Small boats - Schematic symbols	24
SASO GSO ISO 11547	Small craft--Start-in-gear protection	Small boats - Protection of starting equipment	25
SASO GSO ISO 11591	Small craft, engine-driven --Field of vision from helm position	Small boats - Field of view from the helm position Leadership	26
GSO ISO 11592-1	Small craft —Determination of maximum propulsion power rating using manoeuvring speed —Part 1: Craft with a length of hull less than 8 m	Small boats — capacity Determine the maximum Thrust using maneuvering speed - - Part 1: The full-length canoe Its body is less than 8 meters long	27
GSO ISO 11592-2	Small craft —Determination of maximum propulsion power rating using manoeuvring speed —Part 2: Craft with A length of hull between 8 m and 24 m	Small boats - capacity Determine the maximum Propulsion using maneuvering speed - Part 2: A full-length boat Its body is between 8 meters and 24 metres	28



Specification number	The title of the specification is in English	# Title of the specification in Arabic:	
SASO GSO ISO 11812	Small craft -- Watertight cockpits and quick-draining cockpits	Small boats (boats) -- Airtight, quick-drying cockpits	29
SASO GSO ISO 12215-1	Small craft -- Hull construction and scantlings--Part 1: Materials: Thermosetting resins, glass-fibre Reinforcement, reference laminate	Small boats -  Construction of the structure and dimensions of the wood pieces used - Part One: Materials: hot-hardening resins, fiberglass reinforcement, and thin backing sheets	30
SASO GSO ISO 12215-2	Small craft -- Hull construction and scantlings -- Part 2: Materials: Core materials for sandwich construction, embedded materials	Small boats -  Construction of the structure and dimensions of the wood pieces used -  Part Two: Materials: Basic materials for the construction of the interlayer and materials included	31
SASO GSO ISO 12215-3	Small craft -- Hull construction and scantlings -- Part 3: Materials: Steel, Aluminum alloys, wood, other materials	Small boats -  Structure construction and cutting dimensions  Used wood - part  Third: Materials: steel, aluminum alloy, wood and other materials	32
SASO GSO ISO 12215-4	Small craft -- Hull construction and scantlings -- Part 4: Workshop and manufacturing	Small boats -  Structure construction and dimensions of used wood pieces - Part  Fourth: Workshop and manufacturing	33
SASO GSO ISO 12215-5	Small craft -- Hull construction and scantlings -- Part 5: Design pressures for Mono hulls, design stresses, scantlings determination	Small boats -  Construction of a structure and used lumber - Part 5:  Design stresses for a monocoque structure, design stresses, and dimensioning of used lumber	34

Specification number	The title of the specification is in English	# Title of the standard in Arabic: Small	
SASO GSO ISO 12215-6	Small craft -- Hull construction and scantlings -- Part 6: Structural arrangements and details	boats (boats) --  Construction of the structure and dimensions of the wood pieces used - Part Six: Structural arrangements  And the details	35
SASO GSO ISO 12215-8	Small craft -- Hull construction and scantlings -- Part 8: Rudders	Small boats -  Structure construction and dimensions of used wood pieces - Part Eighth: Rudders	36
SASO-ISO-12215-9	Small craft -- Hull construction and scantlings -- Part 9: Sailing craft appendages	Small boats -  Construction of ship hulls and dimensions of building materials - Part 9: Accessories for sailing boats	37
SASO ISO 12216	Small craft--Windows, portlights, hatches, deadlights and doors--Strength and watertightness requirements	Small boats--  Windows and lighting openings  Roof openings and skylights  and doors--requirements for durability and sealing	38
SASO ISO 12217-1	Small craft --Stability and buoyancy assessment and categorization -- Part 1: Non-sailing boats of hull length greater than or equal to 6 m	Small boats -  Evaluation and classification of stability and buoyancy systems - Part One : Non-sail boats in length  m Hull greater than or equal to 6	39
SASO ISO 12217-2	Small craft--Stability and buoyancy assessment and categorization -- Part 2: Sailing boats of hull length greater than or equal to 6 m	Small boats -  Evaluation and classification of stability and buoyancy systems -- Part Two: Sailing boats with a hull length  M greater than or equal to 6	40





Specification number	The title of the specification is in English	# Title of the specification in Arabic:	
SASO ISO 12217-3	Small craft --Stability and buoyancy assessment and categorization -- Part 3: Boats of hull length less than 6 m	Small boats - Evaluation and classification of stability and buoyancy systems - Part Three: Boats of shorter hull length p.mFrom 6	41
SASO ISO 13297	Small craft--Electrical systems-- Alternating current installations	Small boats - Electrical systems – AC installations	42
SASO GSO ISO 13590	Small craft -- Personal watercraft -- Construction and system installation requirements	Small boats - Personal water boats - Construction and installation requirements the system	43
SASO GSO ISO 13929	Small craft -- Steering gear -- Geared link systems	Small boats - Steering gear - geared linkage systems	44
SASO GSO ISO 14509-1	Small craft -- Airborne sound emitted by powered recreational craft -- Part 1: Pass- by measurement procedures	Small boats - Emitted from Airborne sound Motorized recreational craft -- Part 1: Scroll measurement procedures	45
SASO GSO ISO 14509-3	Small craft -- Airborne sound emitted by powered recreational craft -- Part 3: Sound assessment using calculation and measurement procedures	Small boats - Emitted from Airborne sound Motorized Recreation Vehicle - Part 3: Evaluating sound using calculation and measurement procedures	46
SASO ISO 14895	Small craft --Liquid-fueled galley stoves	Small boats - Liquid fuel ship kitchen stoves	47
SASO GSO ISO 14945	Small craft -- Builder's plate	Small boats - Creation board	48



Specification number	The title of the specification is in English	# Title of the specification in Arabic:	
SASO GSO ISO 14946	Small craft--Maximum load capacity	Small boats (boats) -- Maximum load capacity	49
SASO ISO 15083	Small craft - Bilge-pumping systems	Small boats - Pumping systems for dewatering	50
SASO GSO ISO 15084	Small craft -- Anchoring, mooring and towing --Strong points	Small boats - Anchoring, tying and towing -- strength point	51
SASO GSO ISO 15085	Small craft--Man-overboard prevention and recovery	Small boats - Preventing people from falling into the sea and rescuing them	52
SASO GSO ISO 15584	Small craft -- Inboard petrol engines -- Engine-mounted fuel and electrical components	Small boats - Inboard gasoline engines - Portable engine fuel and components electrical	53
EN 15609	LPG equipment and accessories -LPG propulsion systems for boats, yachts and other watercraft – Installation requirements	LPG Equipment and Accessories - LPG propulsion systems for boats, yachts and other craft - Installation requirements	54
SASO GSO ISO 16147	Small craft -- Inboard diesel engines -- Engine-mounted fuel and electrical components	Small boats - Inboard diesel engines - Portable engine fuel and components electrical	55
SASO GSO ISO 16180	Small craft -- Navigation lights -- Installation, placement and visibility	Small boats - Navigation lights - installation, proper placement and clarity	56
GSO ISO 16315	Small craft —Electric propulsion system	Small boats - Electric propulsion system	57
SASO ISO 18854	Small craft -- Reciprocating internal combustion engines exhaust emission	Small boats - Measurement of exhaust emissions of engines	58



Specification number	The title of the specification is in English	# Specification title in Arabic:	
	measurement --Test-bed measurement of gaseous and particulate exhaust emissions	Reciprocating internal combustion – Gas emissions measurement test Particles from exhaust	
SASO GSO ISO 19009	Small craft —Electric navigation lights —Performance of LED lights	Small boats - Electric navigation lights -- LED performance	59
SASO GSO ISO 21487	Small craft -- Permanently installed petrol and diesel fuel tanks	Small boats - Diesel and gasoline fuel tanks Permanently installed	60
EN ISO 23411	Small craft – Steering wheels	Small boats - Driving wheels	61
SASO ISO 25197	Small craft--Electrical/electronic control Systems for steering, shift and throttle	Small boats - Electrical/ electronic control systems for steering, transmission and throttle	62
SASO IEC 60092-507	Electrical installations in ships - Part 507: Small vessels	Electrical installations in ships - Part 507: Small craft.	63
SASO ISO 8178-4	Reciprocating internal combustion engines - Exhaust emission measurement – Part 4: Steady-state test cycles for different engine applications	Swapping combustion engines Internal - measurement of emissions Exhaust - Part 4: Test study Cycle status for different applications For the engine	64
SASO GSO ISO 4566	Small craft with inboard engine -- Propeller shaft ends and bosses with 1:10 taper	Small boats with inboard engine - straight shaft ends with tapered propeller and stern 10:1	65
SASO GSO ISO 8845	Small craft with inboard engine -- Propeller shaft ends and bosses with 1:16 taper	Small boats with inboard engine - straight shaft ends with tapered propeller and stern 16:1	66

Specification number	The title of the specification is in English	# Title of the specification in Arabic:	
SASO GSO ISO 9650-1	Small craft -- Inflatable liferafts -- Part 1: (Type I)	Small boats (boats) -- inflatable lifeboats-- Part One: (Type A)	67
SASO GSO ISO 9650-3	Small craft -- Inflatable liferafts -- Part 3: Materials	Small boats - inflatable lifeboats-- Part Three: Materials	68
SASO GSO ISO 10134	Small craft--Electrical devices-- Lightning-protection systems	Small boats - Electrical appliances - lightning protection systems	69
GSO ISO 10240	Small craft -- Owner's manual	Small boats - Owner's Manual	70
SASO GSO ISO 12133	Small craft -- Carbon monoxide (CO) detection systems	Small boats - Monoxide detection systems Carbon	71
SASO GSO ISO 13342	Small craft--Static thrust measurement for outboard motors	Small boats - Measuring the static thrust force of internal engines	72
SASO GSO ISO 13591	Small craft -- Portable fuel systems for outboard motors	Small boats - Portable fuel systems for outdoor vehicles	73
SASO GSO ISO 13592	Small craft -- Backfire flame control for petrol engines	Small boats - Adjusting the back burner flame for gasoline engines	74
SASO ISO 14227	Small craft--Magnetic compasses	Small boats - Magnetic connections	75

Verifying  
the authority's website without responsibility

**Note :** The list of standard specifications mentioned in this appendix is subject to review, and the supplier will undertake

They use the latest standards.




## Appendix (1)

## B) List of customs codes (Codes HS)

Customs item (Code HS)	Product category
8406	Turbines for powering
8407	watercraft, reciprocating or rotary piston engines with internal spark combustion (engines explosive)
8408	Compression piston internal combustion engines (diesel or semi-diesel engines) Cruise
8901	ships, pleasure boats and similar vessels intended primarily for the transport of persons; ferryboats of all types
8903	- Fitted or prepared to be fitted with a motor; Others are for fun or sports Yachts and boats a

**Note:** The products and customs codes found on the Saber electronic platform are the updated and approved version.




## Appendix (2)

## Basic requirements

## Basic requirements for the design and construction of watercraft products a(

## Watercraft design categories 1(

Wind strength, Beaufort scale (meters, height wave Significant)		Category
< 4	< 8	a
÷ 4	÷ 8	B
÷ 2	÷ 6	C
÷ 0,3	÷ 4	Dr

Explanatory notes:

- Design Category A recreational watercraft are designed to withstand wind force < 8 Beaufort scale and wave height < 4 metres.

This is with the exception of unnatural conditions such as severe storms and hurricanes, harsh sea conditions and high waves.

÷ Design Class B recreational watercraft are designed to withstand wind strength ÷ 8 Beaufort scale and wave height ÷

4 meters.

÷ Design Class C recreational watercraft are designed to withstand wind strength ÷ 6 Beaufort scale and wave heights ÷ 6

2 meters.

÷ Design Class D recreational watercraft are designed to withstand wind strength ÷ 4 Beaufort scale and a wave height of ÷ 4

Yes: 0.3 m Transverse waves with a maximum height of 0.5 m

Recreational watercraft of each category must be designed and constructed to meet the standards of stability, buoyancy and other basic requirements listed in this Appendix, taking into account that the watercraft be equipped with good handling characteristics.

## General requirements 2(

## 1/2 Watercraft identification number

- Each watercraft must bear a unique watercraft identification number (permanently affixed and separate from the "watercraft manufacturer's plate") in accordance with the relevant standard, provided that it includes the following information:

Identification code for the country of the watercraft manufacturer.

a(



b) An identification code for the manufacturer.

Serial number. C)

Month and year of manufacture.

D) Model year. H(

## 2/2 Watercraft manufacturer's plate

Every watercraft must have a permanently affixed plate separate from the "Watercraft Identification Number."

At a minimum, the following information:

Name of the manufacturer, registered trade name or trademark, and contact address.

A) B) Watercraft design category, referring to point (1) of item (A) of Appendix (2).

declared by the manufacturer, excluding the weight of the contents of fixed tanks at c) The maximum weight

Fill it.

The maximum load for the number of people authorized by the watercraft manufacturer. Dr(

## 3/2 Protection from falling into the sea and means of re-boarding the watercraft

watercraft must be designed in a way that reduces the risk of falling into the sea and facilitates reboarding. The

If you fall into the sea.

Means for reboarding a watercraft must be available and usable by anyone in the water without assistance.

4/2 Visibility from the position of the helmsman (the captain of the watercraft).

The pilot of a recreational watercraft must provide good visibility from all angles under normal conditions

of use.

## 5/2 Owner's Manual

Each product must be provided with an Owner's Manual, which contains all information necessary for the safe use of the

product with emphasis on setup, maintenance, regular operation, hazard prevention, and risk management.

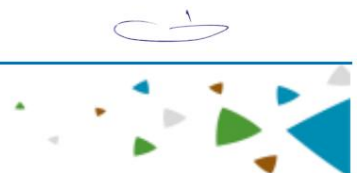
Safety requirements for the structure 3(

the structure 1/3

Class A is taken into account to a sufficient extent the - The selection, installation, and construction of materials for watercraft must be of

authorized by the manufacturer's design mentioned in Appendix (2) and the maximum weight

## 2/3 Stability



Its design class according to Appendix Figure (2) and the maximum load sufficiently taken into account. The water compound must be stable declared by the manufacturer are

### 3/3 Buoyancy and flotation

Buoyancy characteristics appropriate for its design category The watercraft must be constructed in a way that ensures the maximum load authorized by the manufacturer the availability of Appendix (2) and

All habitable recreational craft (multi-room) must be configured with sufficient capacity to resist capsizing and to remain afloat if capsized.

Recreational watercraft less than 6 meters in length must be provided with suitable flotation devices in the event of sinking.

### 4/3 The openings in the hull, deck and superstructure of watercraft

Safety - Openings in the hull, deck(s), or superstructure of the watercraft must not compromise the structural integrity of the watercraft, such as weather when closed. He should

Windows, navigation lights, doors, and hatch covers must withstand the water pressure likely to be encountered in all positions, as well as the loads and stresses arising from the weight of people on the deck of the watercraft.

Hull drainage fittings (hull fittings) designed to allow water to pass to and from the structure shall be provided. The structure and its location below the water level have easily accessible means of closure.

### 5/3 Immersion

All watercraft must be designed to minimize the risk of sinking, taking into account the following:

The cockpit and storage rooms must be self-draining or have other means of removing water from them.

A (B) Ventilation equipment.

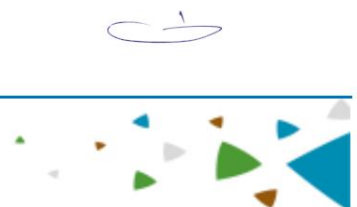
Water removal by pumps or other means. C(

For load authorized by the manufacturer Yes 6/3 maximum

The maximum permitted load on which the watercraft was designed must be determined by the company according to manufacturer, including: fuel, water, supplies, miscellaneous equipment, and people (in kilograms),

For the design category and requirements for stability, buoyancy and flotation referred to in Appendix (2).

### 7/3 location of lifeboats





All Design Class A and B recreational watercraft, and Design Class C and D recreational watercraft over 6 meters in length, must be provided with at least one dedicated lifeboat area.

At least one that can accommodate the number of people in the recreational watercraft in accordance with the design of the boat authorized by the manufacturer, provided that the lifeboat area is easily accessible at all times.

### 8/3 Eviction

All recreational watercraft that have cabins and are subject to capsizing must be provided with suitable provisions

To evacuate.

The evacuation device intended for use in the upside down position must not damage the structure, <sup>He should</sup> <sup>a.</sup> A or inverted stability, or buoyancy whether the recreational watercraft is level.

Recreational watercraft with cabins must be provided with adequate means of evacuation in the event of a fire a fire.

### 9/3 Anchoring, mooring, and towing

Watercraft must be equipped with at least one strong point that is equipped to safely withstand mooring, mooring and towing, taking into account their design class and characteristics.

### 4) Handling characteristics

The handling characteristics of the watercraft are compatible with the most powerful propulsion engine ever The manufacturer must ensure that the Engine power is specified in the owner's manual for all engines <sup>Yes</sup> vehicle is designed and built for what it is designed and built, as well as the maximum payment.

Installation requirements 5(

Engines and their compartments 1/5

### 1/1/5 Internal engines

All internal engines of a watercraft must be housed in a separate container Personnel They should be installed to minimize the risk of fire starting or spreading as well as the risk of toxic fumes, heat, noise, and vibration.

Requires frequent inspection and maintenance. <sup>accessible</sup> Engine parts and accessories must be easily

The insulating materials inside the engine compartment must be non-combustible or flammable.



## 2/1/5 Means of ventilation

The engine compartment must be ventilated, and water entering the engine compartment from the openings must be reduced.

## 3/1/5 Exposed parts

Unless the engine is protected, exposed or hot moving parts of the engine that could cause personal

injury must be protected.

## 4/1/5 Starting the outboard propulsion motor

Every outboard propulsion engine installed on any watercraft must have a device that prevents the engine from

operating in direct gear, except in the following cases:

When the engine produces less than 500 Newtons of static thrust. a(

To limit the thrust force to 500 Newtons when the engine starts. With a device When the engine is equipped B(

## 5/1/5 Safety requirements when the jet ski rider falls

Jet skis must be designed either with an automatic system to stop the propulsion motor or with an automatic device

that provides low-speed, circular, or forward motion in the event that the rider intentionally descends or falls into the water.

Manually using a drum equipped with an emergency stop device must be M 6/1/5 The external propulsion motors controlled

It can be linked to the boat captain.

## 2/5 Fuel system

## 1/2/5 year

Fuel filling, storage, supply and ventilation equipment must be designed and installed in a way that reduces the risk of fire

and explosion.

## 2/2/5 Fuel tanks

Fuel tanks, lines and hoses must be secured and separated or protected from any source of intense heat. The materials from which

the tanks are made and the method of their construction must be appropriate to their capacity and the type of fuel. as

The fuel tank spaces must be ventilated.

A of the structure and must be: fuel tanks shall not form a part Gasoline

Protected against fire from any engine and from all other sources of ignition

A (B) Separate from the whereabouts of people.

\*It is inseparable from the structure y Diesel fuel tanks may be part of...

### 3/5 Electrical systems

Electrical systems must be designed and installed in a way that ensures the proper operation of watercraft under normal conditions of use, and that the systems reduce the risks of fire and electrical shock.

All electrical circuits must remain safe under overload except the engine starter circuit connected to the starting batteries.

The electrical circuits designated for payment must not interfere with other electrical circuits in a way that hinders the operation of any of these circuits.

Ventilation must be provided to prevent the accumulation of explosive gases that may be released from the batteries.

Batteries must be securely secured and protected from water ingress.

### 4/5 Steering system

1/4/5 year

Steering and propulsion control systems must be designed, constructed and installed in a manner that allows steering loads to be transferred under expected operating conditions.

### 2/4/5 Emergency equipment

Sailboats and single-engine recreational watercraft must be equipped with

With steering systems that are remotely controlled by means of steering the recreational boat at low speeds.

### 5/5 Gas systems used inside waterways

- The gas cylinders used must be equipped with an overhead gas supply valve (vapour).  
.)withdrawal

leak or explosion. They must be designed and installed to avoid leakage and explosion risk and be capable of being tested to ensure that they do not

The presence of secret b.

The materials and components of gas systems must be suitable for the nature of the gas used and withstand the pressures and conditions of the marine environment.

It must be used for the purpose indicated by the manufacturer's instructions Every gas appliance must be installed as designed.



A special supply line must be provided for each gas appliance, branching off from the gas distribution system.

Each gas appliance must be controlled with its own separate shut-off device.

Proper ventilation must be provided for gas-operated devices to prevent the dangers of leaks and combustion products.

All watercraft equipped with a fixed gas system must be equipped with a compartment containing  
all gas cylinders.

The gas cylinder compartment must be separated from where people are, so that it can only be accessed from  
the outside and ventilated to drain any gas leaking outside the vehicle.

Any fixed gas system should be tested and inspected after it is installed.

#### 6/5 Fire protection

1/6/5 year

The devices and equipment installed on the vessel must be compatible with the risk of fire spread and the design of the  
watercraft structure.

- It must be ensured that the equipment surrounding open flame devices, hot areas, engines, auxiliary  
machines, uncovered oil and fuel flows and pipes, and electrical wiring paths are designed in a way  
that keeps them away from heat sources and hot areas.

#### 2/6/5 Fire-fighting equipment

Recreational watercraft must be provided with firefighting equipment appropriate to the fire hazard, or the location and  
capacity of firefighting equipment appropriate to the fire hazard shall be clearly stated.

Recreational watercraft should not be operated unless appropriate firefighting equipment is available.

Fuel engine compartments must be protected by a fire suppression system that prevents the need to open the compartment in  
the event of a fire.

Portable fire extinguishers must be placed in an easily accessible area, with at least one of them being in a  
place easily accessible from the place of the recreational boat captain.

#### 7/5 Navigation lights, shapes and sound signals

All other laws and regulations in force in the Kingdom relating to navigation light systems, shapes and  
sound signals must be adhered to when installed in watercraft.



8/5 Waste disposal

Watercraft must be constructed in such a way as to prevent unintentional discharge of pollutants into the sea such as oil, fuel, etc.

independently connected to a Any toilet installed on a recreational watercraft must be wastewater storage or water treatment system.

Recreational watercraft equipped with septic tanks must be equipped with a vacuum connection to connect the vessel's pipes to the drainage facilities.

Drain pipes running through the hull must be equipped with valves that can be locked in the closed position.



## Appendix (2)

### b) Basic requirements for exhaust emissions from propulsion engines

Propulsion engines must comply with the basic exhaust emission requirements set forth in this part of the Appendix.

Distinguishing the propulsion motor

1(

1/1 Each engine must be clearly marked with the following information:

a) Name of the engine manufacturer, registered trade name or trademark and address

Contact.

b) Engine type and engine class, if applicable.

c) A unique serial number for the engine.

d) Conformity badges (if any).

to the engine and must be clearly legible

Y 1/2 Engine identification marks must be durable throughout their expected life

And it is not removable.

Y life in such a way that the installation is durable.

1/3 If used, labels or panels must be attached throughout their intended

The engine stickers/plates cannot be removed without damaging or defacing them.

1/4 Engine identification marks must be installed on a part of the engine so that it does not require replacing that part during the life of

the engine. Y Assumption

5/1 The engine identification marks must be placed so that they can be easily seen after the engine is installed with all necessary components.

to turn it on.

Exhaust emissions requirements

2(

1/2 Propulsion engines must be designed, installed and assembled so that they do not exceed emissions when installed correctly and in a

For normal use, the values indicated in the following tables:

Table (1)

Emission limits for propulsion engines manufactured before 2016

particles (PT)	oxides Nitrogen Nitrogen( oxides NOx )"	Hydrocarbons (Hydrocarbons "HC") $HC = A + B/PN^n$	Carbon monoxide )monoxide "CO" $CO = A + B/PN^n$	Engine type
-------------------	---	--	--	-------------

		n	B	A	n	B	A	
Not applicable	10.0	0.75	100.0	30.0	1.0	600.0	150.0	Spark ignition Two-stroke Two-stroke ( ) spark ignition
Not applicable	15.0	0.75	50.0	6.0	1.0	600.0	150.0	Spark ignition Four-stroke Four-stroke ( ) spark ignition
1.0	9.8	0.5	2.0	1.5	°	°	5.0	Compression ignition Compression ( ) ignition

Where (A), (B), and (n) are constants according to the table, and (PN) is the motor power estimated in kilowatts (kW).

Table (2)

Exhaust emissions limits for compression ignition engines (ignition compression)\*\* ( )

Hydrocarbons + oxides (HC + NOx) Nitrogen  grams/kWh  (g/kWh)	Particles (PT),  Gram/kWh (g/kWh)	Rated engine power (PN),  kilowatt(kW)	Swept  ,)volume  liters/cylinder (cyl/L)
The values indicated in Table (1)		37 < Rated engine power	0.9 < offset size
4.7	0.30	75 < Rated engine power ≤ 37 (*)	
5.8	3700 <	Rated engine power ≤ 75 0.15	
5.8	0.14	3700 < Rated engine power	1.2 < displacement volume
5.8	0.12		≤ 0.9 2.5 < displacement
5.8	0.12		volume ≤ 1.2 3.5 <
5.8	0.11		displacement volume ≤ 2.5
7.0 < displacement volume ≤ 3.5 (*) if the particulate matter emission limit (PT) does not exceed a value of 0.20 g/kWh, and the combination of hydrocarbons + NOx ( NOx + HC (a value of 5.8 grams per kilowatt-hour, for engines whose capacity ranges between 37 - 75 kilowatts, with a displacement of less than 0.9 liters/cylinder.			
(**) The carbon monoxide (CO) emission limit must not exceed 5.0 g/kWh for all compression ignition engines.			



Table (3)

## Exhaust emission limits for spark ignition engines

Hydrocarbons + oxides (HC + NOx) Nitrogen  grams/kWh (g/kWh)	carbon monoxide (CO),  Gram/kWh (g/kWh)	Rated motor power (PN),  kilowatts (kW)	Engine type
5	75	373 ÷ Rated engine power	Internal engines And semi-interior Inboard and stern ( ) drive engines
16		485 ÷ Rated engine power > 373	
22		Rated engine power < 485	
30	500 – (5.0 x rated engine power)	4.3 ÷ Rated engine power	Outboard engines Outboard engines ( ) and PWC engines
$\frac{50}{(\text{Engine power})^{0.9}} + 15.7$	500 – (5.0 x rated engine power)	40 ÷ Rated engine power > 4.3	
$\frac{50}{(\text{Engine power})^{0.9}} + 15.7$	300	Rated engine power < 40	

## 2/2 Tests

- Standard Specification No. (ISO-SASO-8178-4) must be used, taking into account the values shown in the table in the item "Test cycles for marine applications" referred to in the specification.

Y. 3/2 Category of propulsion engines and selection of the main propulsion engine

÷ The engine manufacturer is responsible for defining engines and classifying them within the engine category.

The primary engine for the engine class must be selected in such a way that the emission characteristics of the class are representative.

(expressed as) An engine should be selected that has emissions characteristics that are expected to have the highest value

Engine category My boss (in grams/kWh), when measured in a test, motor

In grams/kWh, of which It is the engine that includes emission characteristics, the main expressive usually

It is expected to be the highest when measured in the applicable test cycle.

## 4/2 Fuel test





The characteristics of the fuel used for exhaust emissions testing must comply with the following characteristics:

Gasoline fuel				
RF-02-03 Unleaded		-02-99RF Unleaded		Property
Maximum	Minimum	Maximum	Minimum	
Research Octane Number (RON) – 95 – 95 Engine		Octane Number (MON) – 85 – 85 Density at 15°C,		
754	740	762	748	Kilogram/cubic meter
40	24	40	24	Initial boiling point, °C Mass fraction
10	–	100	–	of sulfur,
5	–	5	–	Milligram/kg
–	–	60	56	Lead content, mg/L Reid vapor
60	56	–	–	pressure pressure vapor), kilopascal
Dry vapor pressure equivalent, kPa				
Diesel fuel				
RF-06-03 Unleaded		-06-99RF Unleaded		Property
Maximum	Minimum	Maximum	Minimum	
54	52	54	52	cetane number (52) Density at 15°C, kg/m3
837	833	837	833	
370	–	370	–	Final boiling point, degrees Celsius.
–	55	–	55	Flashpoint, degrees
10	–	(50) 300	To be reported	percentage Mass fraction of sulfur, Milligram/kg
0.01	–	0.01	beTo reported	Mass fraction of ash,%

5/2 Electric propulsion engines are excluded from exhaust emissions requirements.

## Sustainability 3(

The engine manufacturer must provide installation and maintenance instructions, which confirm that engine performance will continue to comply with the limits set forth in point (1/2) of this part of the Appendix throughout the expected life of the engine and under normal conditions of use.

Installation and maintenance information must be obtained from the engine manufacturer using tests It calculates the stress components so that instructions on the necessary maintenance operation endurance during operating cycles can be prepared by the manufacturer and issued with all new engines when they are first placed on the market.

• The expected life of the engine is as follows:

For compression ignition engines: 480 hours of operation or 10 years, whichever comes first.

For spark ignition engines (internal and semi-internal) engines drive (with or without integrated exhaust):

- For engine category with rated engine power less than or equal to 373 (kW): 480 hours of Operation or 10 years, whichever occurs. First

• For the engine category that has a rated engine power greater than 373 (kW) and less than or equal to 480 (kW): 150 hours of operation or 3 years, whichever occurs first

- For engine category with rated engine power greater than 480 (kW): 50 hours of operation or One year, whichever occurs. First

Jet ski motors: 350 operating hours or five years, whichever occurs.

First. Engines Outboard: 350 operating hours or 10 years, whichever occurs

Dr(




4) Owner's Manual

Each engine must be provided with an owner's manual in Arabic, with vocabulary that consumers and end-users in the

Kingdom can easily understand.

It must contain the following:

Instructions for installation, use and maintenance necessary to ensure proper engine performance meet

A) Sustainability requirements.

Engine when measured according to the relevant standard specifications. Determine capacity

B(



## Appendix (2)

## Basic requirements for noise emissions C(

Watercraft and propulsion engines included in the scope of this regulation must comply with the basic requirements for noise emissions set forth in this part of the Annex.

Noise emission levels 1(

1/1 Watercraft and propulsion engines included in the scope of the regulation must be designed, built and assembled in such a way that their emissions do not exceed

Noise limits the values mentioned in the following table:

sound pressure level (LpASmax), dB	Maximum	Rated motor power (single motor), kW
	67	≤ 10 Rated engine power
	72	40 ≤ Rated engine power < 10
	75	Rated engine power < 40

- For twin-engine and multi-engine watercraft (all types of propulsion engines), an increase of the sound pressure level of 3 dB may be applied maximum

As an alternative to sound measurement tests, recreational watercraft with engines stern and inboard 2/1 propulsion (without integral exhaust) must be considered compliant with the noise requirements of point 1/1 if they have a Froude number (less than or equal to 1.1) and the engine power-to-displacement ratio is less than Installation of the engine and exhaust system is in accordance with the manufacturer's specifications

For the engine.

speed of the watercraft (V), 9.8 m/s 1/3 The Froude number (Fn) should be calculated by dividing the maximum (g) by the gravitational acceleration constant multiplied Meters/second, over the square root of the length of the water line (|w|), metres, square.

$$= \frac{\text{Maximum speed of the watercraft (V)}}{\sqrt{\text{Length of the water line (|w|)}}}$$

4/1 The "power-to-displacement ratio" must be calculated by dividing the motor's rated power (PN), in kilowatts, by the displacement (D) (Engine displacement) in tons

Power to displacement ratio =



Owner's manual 2(

The complete owner's manual must include information necessary to maintain the watercraft and exhaust system in good condition and ensure compliance with the noise limit values specified in this part of the Appendix in the normal use of watercraft covered by this scope.

The list.

Sustainability 3(

The provisions on sustainability (referred to in the "Basic requirements for exhaust emissions from propulsion engines" part of this Annex apply, subject to compliance with the noise emission requirements set out in this part of the Annex.



## Appendix (3)

For product categories according to Conformity assessment procedures

The design category and length of water vehicles are as shown in the table below. The required conformity assessment procedure must be adhered to

Conduct the required conformity assessment	Design Class
<p>It is obligatory to obtain a certificate of conformity</p> <p>To the requirements of this regulation and specifications According</p> <p>Relevant Saudi Standard; coming from</p> <p>For conformity One of the acceptable bodies, according to assessment forms (Type 3)</p>	<p>Design Class A and B Recreational Watercraft: Length between 12 and 24 feet</p> <p>meter</p>
<p>D must obtain a certificate of conformity</p> <p>To the requirements of this regulation and specifications According</p> <p>Relevant Saudi Standard; coming from</p> <p>For calendar forms One of the acceptable bodies, according to (Type 1a) conformity</p>	<p>Design Class A and B recreational watercraft: between 2.5 and 12 in length</p> <p>meter</p>
	<p>Design Class C and D recreational watercraft: length between 2.5 and 24</p> <p>meter</p>
	<p>All water bikes</p>
	<p>Components of watercraft included in the scope of the regulation</p>
	<p>Propulsion engines</p>

Note: The length of the watercraft hull should be calculated with reference to Standard Specification No. (ISO-GSO-SASO-8666).



## Appendix (4)

## Conformity assessment form (A1 Type) according to IEC/ISO 17067

## Approval Type

Model approval 1(

C. He defined model approval as one of the conformity assessment procedures, whereby the approved body reviews the technical design of the product.  
product. C. It meets the requirements of the relevant Saudi technical regulation. Verify its validity, then confirm the technical design of the relevant

Type approval can be done in one of the following two ways:

No to the expected production, (production model): Then C is complete, so that M Examination of a representative sample of the product a(

C. By reviewing technical documents and evidence (design model), and examining a sample to evaluate the conformity of the technical design of the product. B(

C (Combining the production model and the design model) One or more risky parts of the product Zam, for one The hope of production Then M

Type approval procedures 2(

## 1/2 Submit an application for approval of the type to one of the approved authorities

The application must contain the following: submit an application for approval of the model to an acceptable body of his choice. The manufacturer must

1/1/2 Name and address of the manufacturer.

2/1/2 A written acknowledgment that the same application has not been submitted to any other acceptable body.

n of evaluating the extent of the product's compliance with the requirements of Saudi technical regulations, and containing an analysis and evaluation. MK Technical documents c 3/1/2

Suitable for risks.

What the calendar requires - design - It's enough C; Technical documentation must include requirements that apply to the product 4/1/2

C. Manufacturing and operating (use) of the product

5/1/2 Technical documents must include - at a minimum - the following elements:

C. For the mint A general a description

A) B) Design and manufacturing drawings, horizontal projections (charts), elements, units and subdivisions,

etc...

C referred to. Description and explanations necessary to understand graphics, graphs, and operate (use) the site

It was applied A list of Saudi standards or any other appropriate technical specifications approved by the Authority, whether to fulfill the grandfather(

basic requirements of the Saudi technical regulations, in the event that they are not fully or partially, and a description of the solutions adopted.



Applying the aforementioned standard specifications, and in the case of partial use of Saudi standards, the applicable provisions

H must be clarified in the technical document.

Boldness, etc. The results of reports (graphical calculations) for design, monitoring operations and tests are provided H(

Test reports.

The notified body may request more samples if necessary.

Information on production Examples of M samples g)

Evidence (evidence) that supports the suitability of the technical solutions taken in the design, as this evidence must indicate each h)

defect, especially in the case of not applying the Saudi standards and/or the appropriate technical specifications carried Documents hope

out in the laboratory The above-mentioned test results must include supporting evidence, whenever necessary.

Appropriate testing shall be carried out by the manufacturer, or in another laboratory under his responsibility.

## 2/2 Tasks of the approved body

For the mint 1/2/2

C of the technical design of the product Study technical documents and supporting evidence for the purpose of evaluating the suitability

## 2/2/2 for samples

For standard specifications According to Sam Documents and the identification of the necessary elements ensure that the manufacturing of samples conforms to the technical verification a(

For other specifications. Name according to Sam Saudi Arabia, and the elements are helpful

b) Conducting appropriate examinations and tests, or appointing someone to carry them out on behalf, to ensure that the technical solutions **adopted** by the manufacturer meet the main requirements specified in the standard specifications, in the event

that the relevant specifications are not applied.

Conducting appropriate tests, or appointing someone to carry them out on behalf, to ensure - in the event that Saudi standards and/or C(

other appropriate specifications are not applied - that the technical solutions adopted by the manufacturer meet the basic requirements

of Saudi technical regulations.

Agree with the manufacturer on where to conduct the tests. Dr(

## 3/2/2 Regarding the decisions of the approved body

The approved body must issue an evaluation report on the procedures it has taken and their outcomes. The approved body must not a(

This report shall be published, in whole or in part, only after the approval of the manufacturer.

Export. The concerned party, the accepted party if the model conforms to the requirements of the Saudi technical regulations applicable to the product B(

A certificate of approval for the manufacturer's model. The certificate must contain the name and address of the manufacturer, the results of the tests, and the

terms and conditions for it. The certificate may also contain updated information and the information necessary to identify the model in question. and Validity -

Attachments.



Oh The certificate, along with its attachments, must contain all appropriate information to evaluate the conformity of the manufactured products. C(

to And for monitoring during operation http or the model Amal According

C. If the model does not comply with the requirements of the Saudi technical regulations applicable to the product, the entity must Dr(

Inform the applicant of its decision, giving him detailed justifications. Issue a type approval certificate, and c Acceptable only

Not issuing a model approval certificate.

After all known technical developments, and whenever these developments indicate the acceptable possibility of The authority must H(

certify it according to the requirements of the Saudi technical regulations. The approved authority must notify the appearance of non-conformity with the exported model.

The manufacturer does so Determine the extent of the need to conduct additional tests, and in this case challenge

the manufacturer must inform the approved body - which maintains the technical documentation for the type approval certificate - of all

requirements of the Saudi Item matching Changes have been made in the approved style; Which would T

technical regulations, or the conditions for the validity of the type approval certificate, as such changes require Additional

approval of the initial model approval certificate.

She loved, and she must issue or Notify the Authority of the type approval certificates and any additions A Every acceptable party must: g)

Issuing or distributing R The model and any additions may periodically - or upon request - provide a list of approved certification

certificates in any form or qqt Those that may ar

Dismiss R Notify other approved bodies of type approval certificates and any additional additions that may be required. Every acceptable party must: h)

issued - upon request - for type approval certificates Also, yes You may use it in any way, and you must Yqqt or qqt Issuance or those that may be

exported. Any addition may be added

i) The Authority and other approved bodies can - upon request - obtain copies of the model approval certificates and/or the additions introduced to them. The Authority

can - upon request - obtain copies of the technical documents and the results of the tests carried out by the approved body, and the Authority must - upon

request - obtain copies of the technical documents and the results of the tests carried out by the approved body. The approved entity must keep a copy of

the model approval certificate, its attachments and additions made to it, as well as the technical documents, including the documents attached from the

manufacturer, until the date the certificate expires.

j) The manufacturer must keep a copy of the type approval certificate, its attachments, and the additions made to it along with the documents

in the market. Technical information, and making it available to regulatory authorities and market survey authorities for a period of ten years after the development of the product

1/2) above, and to carry out the duties referred to previously in the name of the manufacturer, submit the application referred to in clause k) The supplier may

provide this with the approval of the manufacturer.



## Appendix (5)

## Conformity assessment form (Type 3) according to IEC/ISO 17067

## Conformity to model based on evaluation of the production process

## To evaluate the production process conforming to the model built 1(

- through him - the obligations contained in the items set forth below, and then confirms and acknowledges - under full <sup>Dr</sup> The matter is classified X It is a model procedure for evaluating conformity Approval Type (the products in question comply with the requirements of the regulations and are identical to the model specified in the type approval certificate) That I hope His responsibility -

Related technical.

## Manufacturing 2(

resulting, including the production line and final inspection Produced, certified to ensure the safety of hope increase the operation of the safety management system R The products 3), and the system must be subject to periodic monitoring (Surveillance) according to what is stated in Clause (4). concerned must be in accordance with clause 6 of hope

## Product safety management system 3(

The results concerned, and <sup>Dr</sup> He may submit a request to the approved body of his choice, in order to evaluate the safety management system 1/3 The

application must include the following:

- When submitting the application from the official representative. For the official manufacturer A) D, the name and title of the example and address of the relevant authorities in the country of manufacture supplier b) The manufacturer must be officially licensed by the permissible not to submit the same application to any other acceptable body acknowledgment intended product category relevant information regarding the grandfather (H( system documents related to the product safety management H( D style. Q on it, and a copy of the blackout certificate Technical documents for the hunted model account

Products manufactured with the model specified in the model approval certificate, and with A hopeful match is produced The management system must ensure safety 2/3

Requirements of relevant technical regulations.

Approved by suppliers - in a systematic and organized manner, in the form of written policies 3/3 All elements of the system and its requirements must be documented -

safety programmes, plans, manuals and records, Water Produce an understanding of design Safety Management System documentation is available Procedures and instructions, which must be

The system documents must include - in particular - an adequate description of the following:

- \* safety regard to product Quality objectives, organizational structure, responsibilities and powers of management, with a(
- \* Sell it Products, processes and procedures involved manufacturing techniques, and procedures for monitoring the quality and safety of B(
- \* food, before, during and after manufacturing, and their repetition Inspections and tests: Records: C(
- such as inspection, test and calibration reports, qualification documents for the relevant employees, etc. Dr(



Producing and effectively operating the Amal Safety Management System Means of control to achieve the required safety in Amal H(

For requirements Evaluate the system to determine if it is satisfied Approval of the Amal Safety Management System 4/3 The approved body must approve the system for a period of three years referred to in Clause (3/3), during the validity period

- Whenever it is compliant with regard to the elements of the product safety management system Due to the requirements of technical regulations Amal must be assumed to 5/3 conform to standard specifications.

Someone - at least - with experience in evaluating... The product must be produced, and the team must include a member The audit team must have experience in Amal safety 6/3

The technical requirements contained in the relevant technical regulations. Produced, and complete Field and techniques of making hope

An evaluation of the factory, and the audit team must review the technical documents referred to in Clause 7/3. The audit must include a visit manufacturer's ability to determine the requirements contained in the technical regulations, and to conduct the necessary examinations and tests to (3/3), to ensure the produce those requirements. To ensure Amal matching

8/3 The manufacturer must be notified of the decision after the evaluation is completed, provided that the notification includes the results of the audit and the evaluation decision along with the justifications for that.

Check it, and maintain it so that it remains relevant and effective. He hunted Produced, as is not fulfilling the obligations of the Amal Safety Management System 9/3 The manufacturer undertakes

In a proposed management system With any modification Najj Which approved the Amal Safety Management System 10/3, the manufacturer must notify the conformity assessment body -

If I keep counting produces hope Evaluate any proposed modifications, then decide whether the safety management system works 11/3 The approved party must it conforms to the requirements referred to in Clause (3/3) or needs to be re-evaluated, the approved authority must notify the manufacturer of its decision, provided that the notification includes the results of the inspection and testing and the evaluation decision along with the justifications for that.

**Periodic monitoring is under the responsibility of the approved entity 4(**

Say it. The harvest is produce Provide safety management system commitment The purpose of periodic monitoring is to verify the extent to which requirements are being met 1/4

- During the validity period of the approval - to enter the manufacturing, inspection and testing sites, allow the approved body Things must 2/4 to produce, and safety records, such as storage and necessary for the evaluation, especially safety management system documentation


Inspection, testing and calibration reports, qualification documents for relevant personnel...etc.

the Amal Safety Management System is implemented and maintained That the manufacturer Periodic audits to ensure that 3/4 The approved body must conduct visits and the approved body must submit an evaluation report to the suppliers That T

The approved authority has the right to make surprise visits to the factory to hopefully conduct tests - if the approved authority requires that 4/4

Dr. the evaluation report be submitted to the supplier The product works properly, provided that...I hope that the safety management system Other verification and test reports - if tests are performed.

Certificate of conformity and declaration of conformity 5(



I hope you have a satisfactory management system. A This is the result. C if the matter is. The approved body must issue a certificate of conformity to the 1/5

endorser upon request, during the validity period of the certificate. It is valid whenever matters are presented

results in each application, clarified in the conformity certificate issued, and registered in the portal. The approved entity must specify the required data. 2/5

Electronic Compliance Authority (in the Authority).

Available to entities for the purpose of approval of the model), and to make it M Consistent with each model. Written An acknowledgment has been issued. It is necessary for the supplier 3/5

c in D for the mint. This is the best model. Limit (Years, that is.) 10 Survey the market for a period of not less than ten. Competent and supervisory authorities

Latat Certification of conformity, and a copy of the conformity certificate and acknowledgment of conformity must be provided to the competent and supervisory authorities and the supplier's approval

Market survey on demand.

For a period of not less than ten days of the market survey Powers for the competent and supervisory authorities Available I would like to make the documents below. The supervisor 4/5

must be 10 years old.

A) The documents referred to in clause (3/3).

thereof. Q, as stated B) The amendments referred to in Clause 9/3

Decisions and reports of the approved body referred to in Clause (7/3). C(

Results that Market acceptable. Any safety management system, and supervisory authorities and authorities 5/5

Natj that it has ratified, or which it has rejected, withdrawn, and must develop lists of safety management systems ratified or

suspended, restricted or withdrawn, by any means, either periodically or upon request, and each approved body must notify the other

approved bodies of the ratifications for Salam Management Systems. If it has rejected, suspended, withdrawn or withdrawn. Restrict

And notify these bodies - upon request - of the approvals of the systems they have issued.



Appendix (6)

Supplier Declaration of Conformity with the supplier Declaration Form D

The form is on the company's official letterhead This is

D data 1(

- Name: -----
- the address: -----
- Contact person: -----
- Email: -----
- phone number: -----
- Fax: -----

2) Product details:

- Product brand: -----
- Model: -----
- Payment or (serial number): -----
- Reference standards/technical specifications: -----
- Accepted body/admission registration number: -----

( that complies with the Saudi technical regulations. That the product mentioned in this declaration is a product Read

And the Saudi standards attached thereto.

Responsible person: -----

Company Name: -----

the signature: ----- the date: ----/--/--

