



# South African Maritime Safety Authority

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## Marine Notice No. 18 of 2015

### Small Vessel Construction – Application of the Merchant Shipping (National Small Vessel Safety) Regulations, 2007 to Personal Water Craft (Jet Ski's)

TO OWNERS of PWC's, IMPORTERS/RETAILERS OF PWC'S, AUTHORISED AGENTS, PRINCIPAL OFFICERS AND OTHER INTERESTED AND AFFECTED PARTIES

*Marine Notice No 11 of 2007 is cancelled*

#### *Summary*

This marine notice advises SAMSA's policy on the application of the Merchant Shipping (National Small Vessel Safety) Regulations, 2007 to Personal Water Craft (also referred to as "Jet Ski's")

- References:
- a. Merchant Shipping Act, Act 57 of 1951, as amended.
  - b. Merchant Shipping (National Small Vessel Safety) Regulations, 2007.
  - c. Marine Notice 13 of 2011.
  - d. Marine Notice 8 of 2012.
  - e. SANS 13590:2008 (ISO 13590:2003) – Small Craft – Personal Watercraft – Construction and system installation requirements.

Definitions: “**Personal Water Craft**” is a vessel of less than 4m length, which uses an internal combustion engine powering a water-jet pump as its primary source of propulsion. And is designed to be operated by a person or persons sitting, standing or kneeling on, rather than within, the confines of a hull.

“**Length**” or “**Length Overall**” means the horizontal distance measured between perpendiculars erected at the extreme ends of the outside of the hull of the vessel. It therefore includes solid bulwarks but excludes extensions such as dive platforms, engine out-mounts, bowsprits, rails, rollers, etc.

## 1. INTRODUCTION

The use of personal water craft (PWC's), also referred to as “Jet Ski's”, on South African waters has evolved from being a vessel used close inshore or in sheltered waters for recreational purposes to a point where larger vessels have been designed and fabricated with usage expanding to recreational fishing up to 5 nautical miles offshore.

In particular, the recreational fishing usage of these types of vessels has resulted in alterations/additions being made to the vessels, normally after importation (The majority of PWC's are imported).

This marine notice is accordingly issued to communicate SAMSA policy for the (safety) certification of these types vessel's.

## **2. COMPLIANCE WITH STATUTORY LEGISLATION**

PWC's are required to comply with applicable provisions of the Merchant Shipping Act, Act 57 of 1951, as amended, and the Merchant Shipping (National Small Vessel Safety) Regulations, 2007 (NSVR).

All PWC's are required to be surveyed for issue of a Local General Safety Certificate (Non-pleasure use) or a Certificate of Fitness (Pleasure use) by a SAMSA surveyor or safety officer. Inspection of PWC's will normally be requested by an owner following purchase of a PWC. The majority of PWC's are imported and it must be clearly understood that it is an offence for importers or retailers to sell a vessel which does not comply with the construction requirements of the NSVR except where such sale is accompanied by a letter or certificate detailing the extent to which the vessel does not or cannot comply.

Importer or retailers considering bringing models of PWC's on to the South African market are accordingly required to ensure that the PWC is in compliance with requirements of the NSVR and policy described in this marine notice.

## **3. AREA'S OF OPERATION**

### **3.1 PWC's less than 3m Length**

Section 72A of the Merchant Shipping Act prohibits the use of vessels less than 3m in length at sea except as prescribed by regulation:

- Regulation 8(4) of the NSVR prescribe that no vessel under 3 metres may go to sea except in an area designated for that use by a regulating authority, but in any event not more than 1000 metres offshore.
- Regulation 37(2) of the NSVR further prescribes that personal watercraft or jet-ski's under 3 metres may only operate in demarcated area's specifically set aside for that purpose by the regulating authority and in addition must not proceed further than 1000 metres offshore.

PWC's under 3 metres length must comply with the above legislation.

### **3.2 PWC's of Length greater than or equal to 3m but less than 4m**

PWC's of length greater than or equal to 3m may proceed to sea beyond the limits imposed on vessels of less than 3m length. The following key legislation/design standard prescriptions have been used to define the area of operation limits imposed on PWC's falling in this category.

- SANS (ISO) 13590:2008 only provides for PWC's of Design Category C (Inshore) or D (Sheltered waters). The maximum design category of PWC's is accordingly for Category C operations i.e. Boat designed for voyages in coastal waters, large bays, estuaries, lakes and rivers where conditions up to and including wind force 6 (Beaufort scale) and significant wave heights up to and including 2m may be experienced.

SAMSA has determined that boats manufactured in accordance with SANS (ISO) design category C may be certificated for operation up to a maximum of 15 nm offshore (NSVR Category C), however SAMSA is of the firm opinion that the PWC design and mode of operation is only suitable for operation up to a maximum of 5 nm offshore (NSVR Category D).

- Regulation 6, Annex 1(7)(4)(h) of the NSVR requires Category A, B & C vessels fitted with a single inboard petrol engine to be provided with an auxiliary outboard engine.

PWC's do not currently appear to be designed to facilitate/allow the fitment of an auxiliary engine. Fitment of an auxiliary engine will additionally require the specific approval/endorsement of the PWC manufacturer (See paragraph 4.4 below).

It is accordingly SAMSA policy that the maximum NSVR category of operation of PWC's is as Category D; viz, Vessel operating less than 5 nautical miles from shore.

PWC's which are presented for survey for certification as (NSVR) Category D or E vessels must further be confirmed as being designed to SANS/ISO Design Category C or equivalent. The Design Category of the PWC must be indicated on the Builders Plate permanently affixed to the PWC (See paragraph 3.4 for Summary of Operational Limits for PWC's).

### 3.3 PWC's of Length greater than or equal to 4 metres

SAMSA is not aware of PWC's of length greater than or equal to 4 metres. In any event a PWC of length greater than or equal to 4 metres falls outside of the definition of a PWC and must accordingly be surveyed as a small vessel complying with all applicable provisions of the NSVR.

### 3.4 Summary of Operational Limits

PWC Length	SANS (ISO) 13590 Design Category	Allowed NSVR Operational Category	Remark
<3m	C or D	R	Inland and sheltered waters; including operation within the regulating authorities designated areas (1000m from shore)
3m ≤ Length < 4m	D	R	Inland and sheltered waters; including operation within the regulating authorities designated areas (1000m from shore)
	C	D, E or R	Depending on construction, buoyancy certification and provisions of statutory safety equipment.
Length ≥4m	By definition not regarded as a PWC. Full compliance with NSVR required.		

## 4. PWC CONSTRUCTION

### 4.1 Design, Construction and Testing

PWC's are required to be designed, constructed and tested in accordance with the provisions of SANS/ISO 13590 or equivalent standard e.g. ABYC or USCG.

The provision of Builders Plate permanently affixed to the PWC may be regarded as confirmation of the vessels design, construction and testing.

### 4.2 Alterations and/or Additions

No alterations or Additions may be made to the PWC which affect the vessel's compliance with SANS/ISO 13590 or equivalent standard.

Where alterations/additions to a PWC are made, it shall be the responsibility of the importer, retailer, builder or owner to prove to the satisfaction of SAMSA that the design and construction of the vessel remains in compliance with the applicable standard with regard to:

- Hull strength.
- Vessel built-in buoyancy.
- Fuel arrangements.
- Electrical arrangements.
- Vessel manoeuvrability.

Where alterations or additions are made to a PWC, an endorsement must be attached to the owner's manual of the PWC by the manufacturer/person making such changes clearly identifying the scope of the change and confirming that the alteration/addition do not affect the inherent design of the vessel.

Alterations/additions made to the PWC may not result in the maximum recommended load, as specified on the builder's plate, being exceeded.

It is the responsibility of the owner of the PWC to maintain the owner's manual together with any records of alterations/additions for presentation at the time of survey and to ensure that the owner's manual accompanies the PWC in the event of it being sold.

#### **4.3 Fitment of Side Attachments ("Tubbies")**

Fitment of side attachments must comply with the provisions of paragraph 4.2. In particular the construction must be such that the PWC must be able to pass a "Drop Test" as specified in SANS/ISO 13590; viz, fully loaded PWC dropped horizontally from a height of 2.5m with no structural failure occurring.

#### **4.4 Fitment of Auxiliary Outboard Engines**

The fitment of an outboard engine on a PWC potentially affects all elements of the vessels design. SAMSA is accordingly of the opinion that the design of a PWC precludes the fitment of an outboard engine as an alteration or addition.

The fitment of outboard engines to PWC's is accordingly specifically prohibited unless accompanied by an endorsement by the manufacturer of the PWC to the effect that the PWC design and construction remains in accordance with SANS/ISO 13590 or equivalent standard.

### **5 PWC STABILITY AND BUILT-IN BUOYANCY/FLOATATION**

#### **5.1 As built Stability and Built-in Buoyancy/Floatation**

PWC's designed and constructed in accordance with SANS/ISO 13590 are:

- a. Designed to keep part of the PWC above the surface of the water when it has been submerged for a period of at least 18 hours.
- b. Designed so that when the PWC is floating upside down, the operator must be able to return the PWC to the upright position, and go on board again.

It is recognised that PWC's designed in accordance with SANS/ISO 13590 comply with NSVR requirements for Category R operations (Retain positive buoyancy when fully flooded, swamped or capsized) but not with NSVR requirements for Category D or E operations (float the vessel when fully flooded swamped or capsized and when capsized, provide a level platform onto which the full complement of the vessel can be secured).

The inherent design of a PWC is however such that it must be able to be returned to the upright position when floating upside down and allow the operator to go on board again. SAMSA policy for PWC's certificated for Category D or E operations is accordingly that the vessel buoyancy/floatation is sufficient if the provisions and construction is in accordance with SANS/ISO 13590.

#### **5.2 Alterations and/or Additions**

Alterations or additions must comply with the following:

- a. Alterations/additions made to the PWC may not result in the maximum recommended load, as specified on the builder's plate, being exceeded. Additions made to a PWC may accordingly result in the number of persons for which the PWC is certified being reduced for example.
- b. Where alterations or additions are carried out to the vessel which increase the weight of the vessel with weight(s) which will not fall free of the vessel in the event of capsize and where this additional weight is in excess of 5% of light weight of the PWC, it must be ensured that additional built-in buoyancy is provided for the PWC to:
  - i. Ensure that the vessel will remain positively buoyant when submerged for a period of at least 18 hours.
  - ii. Ensure that when the PWC is floating upside down, the operator is still able to return the PWC to the upright position, and go on board again.

The additional buoyancy may be provided on the PWC or as part of the additional fitting/component e.g. Side attachment(s) could be provided with sufficient buoyancy to support the weight which they are designed to carry.

### 5.3 Buoyancy Certificates

#### 5.3.1 PWC's operating on Sheltered Waters or in an Area Designated by a Regulating Authority

PWC's operating on sheltered waters or in an area designated for that use by a regulating authority are not required to be provided with buoyancy certificates, provided that they have not been modified in any way and are provided with a boat builder's plate permanently affixed to the PWC.

#### 5.3.2 PWC's certificated for NSVR Category D or E Area of Operation

PWC's certificated for Category D or E operations which are not provided with alterations or additions which increase the vessel lightweight by more than 5% are not required to be provided with buoyancy certificates, provided that they have not been modified in any way and are provided with a boat builder's plate permanently affixed to the PWC.

PWC's certificated for Category D or E operations which have been subjected to alterations or additions which increase the lightweight by more than 5% are required to be provided with a Buoyancy certificate in accordance with the NSVR and Marine Notice 8 of 2012. The buoyancy certificate must include:

- a. SAMSA buoyancy certificate identifying the specific PWC and referencing the supporting buoyancy/flotation information (e.g. Appendix 1 and/or Appendix 2).
- b. Appendix 1 - Manufacturers buoyancy/flotation certificate attesting to the buoyancy/flotation installed and the standard applied.
- c. Appendix 2 - Manufacturers buoyancy certificate for attachments such as side attachments or "Tubbies".

## 6 PROVISION OF SAFETY EQUIPMENT

### 6.1 Category R Operation

NSVR Regulation 7 requires all vessels to be equipped with certain pieces of statutory equipment, as listed in Annexure 2.

PWC used on inland and sheltered waters (Category R) are exempt from being provided with all the statutory equipment listed in annexure 2 table (1); provided that these PWC are equipped as below:

Item	Description of safety appliances and equipment	Cat R	Additional Remarks
1.	Approved buoyancy aid*	X	*Buoyancy aid to be tested to the compulsory performance standard and comply with quality standard specification SANS 12402-5 or the equivalent CE or ISO standard.
4.	Suitable tow line	X	Minimum of 10 meters in length.

### 6.2 Category D or E Operation

PWC operated at sea (Category D or E) and outside of a regulating authorities designated area are required to show full compliance with the applicable provisions of the NSVR, Annexure 2, Table 1 (See paragraph 7 for applicable exemptions).

## 7 NSVR EXEMPTIONS FOR PWC'S

PWC's are exempted, in terms of NSVR regulation 32(2), from the following provisions to the Merchant Shipping (National Small Vessel Safety) Regulations, 2007:

Regulation	Provision	Remarks	Expiry Date
Reg 6(1) (c) Annex 1 7 (4) (b)	Fitment of manual bilge pump in the engine compartment	Exemption <u>not</u> applicable to Category D or E when PWC usage involves stopping for periods of time when at sea. Eg. When fishing	Until further notice
Reg 6(1) (c) Annex 1 7 (4) (c)	Batteries must be stowed in a separate compartment that is protected from sea spray and adequately ventilated.	Provided that no modifications are made to the manufacturer's original design except as specified in this marine notice.	
Reg 6(1) (c) Annex 1 7 (4) (f)	A flameproof extractor fan set to operate for a minimum of 30 seconds before the engine starts must be fitted in the engine compartment		
Reg 6(1) (c) Annex 1 7 (4) (g)	A remote controlled fire extinguishing system must be fitted in the engine compartment.		
Reg 6(1) (c) Annex 1 8 (6)	All fuel tanks holding petrol must be fitted or stored outside engine and battery compartments.		
Reg 6(1) (c) Annex 1 10	A means of emergency steering must be provided.	Emergency steerage by shifting of body weight or use of a body appendage accepted as satisfactory means of emergency steering.	
Reg 7(1) Annex 2 Table (1)	Provisions of safety appliances and equipment listed in the table	Exemption only applicable to Category R PWC; provided that the equipment listed in paragraph 6.1 of this marine notice is carried.	

### CONCLUSION

The marine notice is published in the interests of safety of persons at sea and may be reviewed from time to time.

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