

Yamarin 63 Day Cruiser

**Owner's manual** 



#### FOREWORD

Congratulations on choosing a Yamarin 63 DC! We are delighted to welcome you as a Yamarin owner.

The intention of this manual is to help you to operate your craft safely, with maximum enjoyment. The manual contains details of the craft, the equipment supplied or fitted, its systems and information on its operation, care and maintenance. Please read it carefully, and familiarise yourself with the craft before using it.

Naturally, the owner's manual is not a course on boating safety or seamanship. If this is your first craft, or you are changing to a type of craft you are not familiar with, for your own comfort and safety, please ensure that you obtain handling and operating experience before "assuming command" of the craft. Your dealer or national sailing association or yacht club will be pleased to advise you of local boating schools, or competent instructors.

This owner's manual is not a detailed maintenance or trouble shooting guide. In case of difficulty please contact the dealer. Always use qualified and competent people for the maintenance, repair and modification of the boat. Modifications that may affect the safety characteristics of the craft shall be assessed, executed and documented by competent people. The manufacturer is not responsible for modifications he has not approved.

Always keep your boat in a good condition and be aware that the boat requires maintenance and servicing. Any craft – no matter how strong it may be, can be severely damaged if not used properly. Always adjust the speed and direction of the craft to sea conditions.

All persons should wear a suitable buoyancy aid (Life jacket/Personal Flotation Device) when on deck.

#### We wish you many enjoyable times on-board your Yamarin 63 DC!

Konekesko Marine P.O. BOX 145 FIN-01301 VANTAA

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PLEASE KEEP THIS MANUAL IN A SECURE PLACE, AND HAND IT OVER TO THE NEW OWNER IF YOU SELL THE CRAFT.



#### Table of contents

1 General		
1.1 Declaration of conformity	7	
2 Definitions	9	
3 Warranty		
4 Before use	11	
4.1 Registration	11	
4.2 Insurance	11	
4.3 Training		
5 Characteristics and use of your boat	12	
5.1 General	12	
5.2 Basic data	12	
5.3 Maximum recommended number of passengers	15	
5.4 Loading	16	
5.5 Engine and propeller 5.6 Prevention of water incursion and stability	17 17	
5.6.1 Hull and deck thru fittings and closing valves	17	
5.6.2 Stability and buoyancy	18	
5.7 Avoiding the risk of fire or danger of explosion	19	
5.7.1 Refuelling	19	
5.7.2 Fire protection	19	
5.8 Main switch and fuses	20	
5.9 Operation	20	
5.9.1 Controls	20	
5.9.2 Emergency switch	21	
5.9.3 Gearshift and throttle	21	
5.9.4 Adjusting of trim angle	21	
5.9.5 Starting the engine	22	
5.9.6 Driving	22	
5.9.7 Approaching and leaving the dock	23	
5.9.8 Using the canopy	24	
5.9.9 Windshield front door	24	
5.10 Proper use – other recommendations and guidelines	25	
5.10.1 Man-overboard	25	
5.10.2 Securing loose equipment	25	
5.10.3 Respect for the environment	25	
5.10.4 Anchoring and mooring	26	
5.10.5 Towing	27	
5.10.6 Trailer transport	28	
5.10.7 Docking	29	



6 Servicing and maintenance	30
6.1 Washing and cleaning the boat 6.2 Care instructions for seat cushions	30 30
6.3 Care instructions for the canopy	31
6.4 Care instructions for the windshield	31
6.5 Care instructions for the stainless steel components	31
6.6 Care instructions for the remote control	32
6.7 Care instructions for the steering system	32
6.8 Care instructions for the electrical components	32
6.9 Care instructions for the teak deck	32
6.10 Minor superficial repairs	33
7 Winter storage	34
7.1 Measures before winter storage	34
7.2 Measures before launching	35
8 Lay-out	36
8.1 General lay-out	36
8.2 Fuel system	37
8.3 Steering system	38
8.4 Electrical system	38
8.5 Wiring diagram	39



#### **BEFORE YOU SET OFF**

Familiarise yourself with this owner's manual. Always check at least the following items before leaving:

#### - Weather conditions and forecast

Take the wind, waves and visibility into account. Are the design category, size and equipment of your boat, as well as the skills of the skipper and crew adequate for the water area you are aiming for? During use, hull windows and other hatches must be battened down to prevent water incursion

#### Loading and stability

Do not overload the craft and distribute loads appropriately. To avoid impairment of the craft's stability, do not place heavy items high up. Please consider that the stability of the boat is reduced if people stand up when on-board during use.

#### Passengers

Ensure that there is Personal Flotation Device or Lifejackets for all people on-board. Agree crew tasks before setting off.

#### Fuel and fuel system

Make sure that the boat has enough fuel. Keep in mind that rough conditions at sea impact on fuel consumption and that it can increase by more than 30% when compared to calm conditions. As a rule of thumb you should aim for there being at least 20% left in the tank when arriving at your destination. Regularly check the fuel filter to ensure that there is no water in the moisture trap located under the fuel filter itself. The fuel filter should be changed 1-2 times per year depending on engine hours and quality of fuel.

#### - Engine and manoeuvring equipment

Check the function and condition of steering, batteries and remote control and carry out routine checks according to the engine manual

#### Boat's seaworthiness

Check the boat's seaworthiness: no fuel or water leaks are permitted, safety equipment must be available on-board etc. Check that there is no water in the bilge!

#### - Fastening of equipment

Check that all equipment and heavy items are positioned so that they are held in place during travel at sea and high winds. Please note that the seat cushions may fly over board if they are not fixed properly with press studs.

#### Nautical charts

If you are not navigating in familiar waters, ensure you have nautical charts on-board that cover a large enough area. If your boat is equipped with a chart plotter, familiarise yourself with it before setting off. Ensure that the plotter charts are of the latest edition

#### Leaving the berth

Agree with the crew who will release each mooring line, etc. Be careful not to let mooring lines or the anchoring line to tangle in the propeller during manoeuvring.

#### Obligatory equipment

What is considered obligatory equipment varies from country to country. Find out what is required for your boat.

#### You will find additional instructions concerning the engine in a separate manual.



## 1 General

The owner's manual will help you to become familiarised with the properties and features of your new boat, as well as with its care and maintenance. Separate manuals for installed equipment are attached and are referred to in many sections of the owner's manual. You can, of course, complement this owner's manual by adding the manuals of devices which are installed afterwards. There is also space for your own notes at the end of this manual.

The craft has a running serial number, CIN-code (Craft Identification Number). The CIN-code can be found on the starboard side of the transom just below the rub rail. We recommend that you write down the CIN-code in the declaration of conformity in this book. When contacting the dealer, please provide the CIN-code and the type of craft. This helps in delivering the correct spare parts.



## 1.1 Declaration of conformity

#### Declaration of Conformity of Recreational Craft with the Design, Construction and Noise Emission requirements of Directive 2013/53/EU.

Manufacturer/Marketer: Kon	ekesko Oy Marine	
Address: Vanha Porvoontie 24	5	
Post Code: 01300	Town: Vantaa	Country: Finland / FIN
Name of Notified Body for de	sign and construction a	assessment: VTT Expert Services Oy
Address: PL1000		
Post Code: 02044 VTT	Town: Espoo	Country: Finland / FIN ID Number: 0537
EC type-examination Certifica	te number: VTT-C-117	53-10-vene-001-16
Module used for construction	assessment:	Aa B+C B+D B+E B+F G H
Module used for noise emissi	on assessment: 🔲 A	Aa G H
Other Community Directives a	applied:	
DESCRIPTION OF CRAFT		
Craft Identification Nu	umber (CIN):	
	<b>I</b> !	] [
Brand Name of the craft: Yamarir	ו	Type or number: 63 Day Cruiser
Type of craft:		Type of main Propulsion:
🗌 sailboat	🔀 motorboat	☐ sail
inflatable		diesel engine electric motor
other (specify):	-	oars other (specify):
Type of hull:		Type of engine:
⊠ monohull □ other (specify):	🗌 multihull	⊠ outboard □ inboard
Construction material:	-	z or sterndrive without integral exhaust
aluminium, aluminium alloys	plastic, reinforced	z or sterndrive with integral exhaust
	plastic	other (specify):
steel, steel alloys	🗌 wood	Deck:
other (specify):		fully decked gartly decked
Maximum Design Category: A 🗌	B C C D	open other (specify):
Max. Engine power: 111 kW		
Length of hull L <sub>h</sub> : 6,25 m Beam of hull B <sub>h</sub> : 2,26 m		
<b>Draught T:</b> approx. 0,4 m (engine up)		

This declaration of conformity is issued under the sole responsibility of the manufacturer. I declare on behalf of the craft manufacturer that the craft mentioned above complies with all applicable essential requirements in the way specified and is in conformity with the type for which above mentioned EC type examination certificate has been issued.

Name and function: Peter Krusberg, Product Development and Production Manager, Konekesko Oy Marine (identification of the person empowered to sign on behalf of the Manufacturer or his authorized representative)

Pthy

Signature:

Place of issue

Date (yr/month/day): 2016/10/21



Essential requirements	Standards	Other normative Document/ method	Technical file	Pleace specify in more details (*Mandatory Standards)
General requirements (2)	$\boxtimes$			EN ISO 8666:2002 *
Craft Identification Number - CIN (2.1)	$\boxtimes$			EN ISO 10087:2006 *
Builder's Plate (2.2)		$\square$		RCD annex I, 2.2
Protection from falling overboard and means of reboarding (2.3)	$\bowtie$			EN ISO 15085:2003/DAM 2.3.2
Visibility from the main steering position (2.4)	$\boxtimes$			EN ISO 11591:2011
Owner's manual (2.5)	$\boxtimes$			EN ISO 10240:2004
Integrity and structural requirements (3)				
Structure (3.1)		$\boxtimes$		RSG Guidelines, NBS-VTT Extended Rule
Stability and freeboard (3.2)	$\boxtimes$			EN ISO 12217-1:2015
Buoyancy and floatation (3.3)	$\boxtimes$			EN ISO 12217-1:2015
Openings in hull, deck and superstructure (3.4)	$\boxtimes$			EN ISO 9093-1:1997, EN ISO 12216:2002
Flooding (3.5)	$\boxtimes$			EN ISO 15083:2003, ISO 8849:2003
Manufacturer's maximum recommended load (3.6)	$\boxtimes$			EN ISO 14946:2001/AC 2005
Liferaft stowage (3.7)				RSG Guidelines
Escape (3.8)	$\boxtimes$			EN ISO 9094:2015
Anchoring, mooring and towing (3.9)				EN ISO 15084:2003
Handling characteristics (4)	$\boxtimes$			EN ISO 11592:2001, EN ISO 8665:2006
Engines and engine spaces (5.1)				
Inboard engine (5.1.1)				
Ventilation (5.1.2)				
Exposed parts (5.1.3)				
Outboard engine starting (5.1.4)				
Fuel system (5.2)				
General – fuel system (5.2.1)	$\boxtimes$			EN ISO 11105:1997
Fuel tanks (5.2.2)	$\boxtimes$			EN ISO 10088:2013
Electrical systems (5.4)	$\boxtimes$			EN ISO 10133:2012, EN ISO 8846:1993/A1:2000
Steering systems (5.4)				
General – steering system (5.4.1)				EN ISO 10592:1995/A1:2000
Emergency arrangements (5.4.2)				
Gas systems (5.5)				
Fire protection (5.6)				
General – fire protection(5.6.1)				EN ISO 9094-1:2015
Fire-fighting equipment (5.6.2)				EN ISO 9094-1:2015
Navigation lights (5.7)				1972 COLREG
Discharge prevention (5.8)				
	_			nformity of the engine manufacturer
Annex I.C – Noise Emissions <sup>1</sup>				
Noise emission levels (I.C.1)				
Owner's manual (I.C.2)				

<sup>1</sup>Only to be completed for boats with inboard engines or sterndrive engines without integral exhaust.



## 2 Definitions

The warnings and cautions in this manual are defined as following:

- **DANGER!** Denotes an extreme intrinsic hazard exists which would result in high probability of death or irreparable injury if proper precautions are not taken.
- **WARNING!** Denotes a hazard exists which can result in injury or death if proper precautions are not taken.
- **NOTE!** Denotes a reminder of safety practices or directs attention to unsafe practices which could result in personal injury or damage to the craft or components.

The units used in this manual are in accordance with the SI-system. In some cases other units have been added in brackets. An exception is the wind speed, where the Beaufort scale is used in the recreational craft directive.



## 3 Warranty

The boat and the equipment installed at the boat factory are guaranteed for two year, starting from the first day of use. Please contact your dealer in relation to any potential warranty issues. Please remember to provide the CIN-code! If possible, please provide a digital photograph of the subject of your claim. This usually speeds up the claims process.



## 4 Before use

### 4.1 Registration

Registration regulations vary from country to country. Find out what is required in relation to your own boat.

## 4.2 Insurance

Boat insurance can compensate damage occurring on water or during transport and lifting. Check insurance liability separately when lifting the boat. Insurance also has an indirect effect on safety at sea: In the event of a serious accident or damage, you must, above all, concentrate on saving people. Insurance companies will be able to give more information about different insurance alternatives. Be particularly careful to check insurance liability when you lift and transport the boat!

## 4.3 Training

No one is a born sailor. There is plenty of boating literature available. Navigation courses are arranged by local yacht clubs or national boating associations where you can gain basic skills. However, please remember that you only become confident in boat handling, navigation, docking and anchoring after long practical experience.



## 5 Characteristics and use of your boat

## 5.1 General

The owner's manual is not meant to be a complete service or repair manual, but to guide the user to know the characteristics of the boat and to use his/her boat in a proper way.

Pictures and drawings of this manual might include optional or country-specific features.

## 5.2 Basic data

Recreational crafts can be constructed according to 4 categories (A, B, C and D) according to the recreational craft directive 2013/53/EU. Yamarin 63 DC is constructed according to category C. Below you will find information on what each category means:

**Category A:** The boat is built for conditions where the wind can exceed 8 Beaufort (approx. 21 m/s) and where the significant height of the waves (please refer to note below) can exceed 4m. In such circumstances the boats are largely self-sufficient. Category A does not include abnormal conditions such as hurricanes. Such conditions may be encountered on extended voyages, for example across oceans, or in coastal areas where there is an open expanse of sea for several hundred nautical miles off the coast.

**Category B:** The boat is built for conditions where the wind reaches a maximum of 8 Beaufort (approx. 21 m/s) and where the significant height of the waves (please refer to note below) does not exceed 4m. Such conditions may be encountered on offshore voyages of sufficient length or on coastal waters when unsheltered from the wind and waves for several dozens of nautical miles. These conditions may also be experienced on inland seas of sufficient size for the wave height to be generated.

**Category C:** The boat is built for conditions where the wind reaches a maximum of 6 Beaufort (approx. 14 m/s) and where the significant height of the waves does not exceed 2 m (please refer to note below). Such conditions may be encountered on exposed inland waters, in estuaries, and in coastal waters in moderate weather conditions.

**Category D:** The boat is built for conditions where the wind reaches a maximum of 4 Beaufort (approx. 8 m/s) and where the significant height of the waves (please refer to note below) does not exceed 0.3 m and the height of the greatest waves is no more than 0.5 m. Such conditions may be encountered on protected waters on lakes and in coastal areas during fine weather conditions.



**Note:** Significant wave height is a term used when planning to build a boat. The significant wave height is the mean height of the highest one third of the waves, which approximately corresponds to the wave height estimated by an experienced observer. In the event that the significant wave height is 2.0 m the mean height of all waves is roughly 1.2 m.

#### Maximum recommended load: See technical specifications Please also refer to section 5.4 "Loading".

#### Main dimensions and capacities: See technical specifications

Craft length, width, total weight etc. as well as tank capacities are shown in technical specifications.

**Builder's plate:** Part of the previously mentioned information is given on the builder's plate, which is affixed next *to the driver's seat*. A full explanation of this information is given in the relevant sections of this manual.



Remote control

Reached speed at boat

cables

test

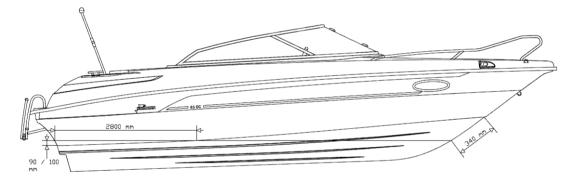
Technical specifications		
Model	YAMARIN 6	<u>іЗ DC</u>
Design category	C	
Overall length (swim	6.25 m	 I
ladder not included)		
Width	2.26 m	 I
Weight without engine,	approx. 91	.0 kg
fluids and equipment		
Weight on trailer with	approx. 1,24	48 kg
largest recommended	Includes the boat (approx. 910 kg), a	
engine	and the estimated weight of fluids ar	
	This is not the maximum weight	of fluids and equipment.
Weight on trailer with	approx. 1,29	-
the largest engine	Includes the boat (approx. 910 kg) a	
that complies with	and the estimated weight of fluids ar	
the standard	This is not the maximum weight	
Maximum weight of	555 kg	
load / Maximum	6 person	าร
number of		
passengers		
Maximum load	450 kg / 6 persons (75 kg e	
includes	personal equipment	
Maximum load on	450 kg	
builder's plate (CE	Includes passengers 6	x 75 kg = 450 kg
sign)		
Weight at full load	approx. 1,77	-
	Includes the boat 910 kg + batteri	
I	basic equipment 33 kg	0
<u> </u>	personal equipment 25 kg	
Maximum engine	111 kW / 15	50 hp
power		
Weight of largest	261 kg	)
recommended engine		
Fuel tank capacity	107 litre	
Maximum draught at	approx. 0.4	4 m
full load, engine up		
Maximum height	approx. 1.	5 m
from water line at		
light load		
Construction material	Reinforced p	olastic
Colour codes:	··· ··	
- Hull:	Ashland 10015	RAL 9016
- Deck	Ashland 10015	RAL 9016
Hydraulic hoses	5.5 m	
<b>D</b>	27 m	

3.7 m

approx. 45 knots



#### Yamarin 63 DC water line:



Water line:	
- At stern (B)	From chine 65 mm up with Yamaha F115 and 80 mm with
	Yamaha F150
- At bow (A)	From rub rail 1100 mm down

NOTE!

Water line dimension represents the upper limit for antifouling paint, not the actual water line.

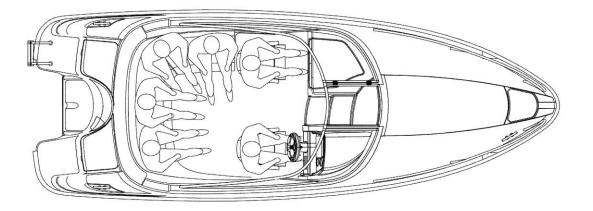
## 5.3 Maximum recommended number of passengers

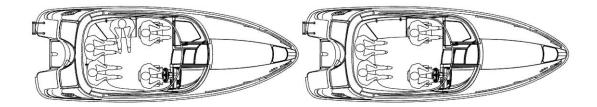
The maximum recommended number of passengers on board Yamarin 63 DC is 6 persons.

WARNING! Do not exceed the maximum recommended number of passengers. Regardless of the number of passengers the total weight of persons and equipment must never exceed the maximum recommended load (please refer to section 5.4 "Loading"). During the voyage all passengers must remain seated on the seats.



#### Seats of Yamarin 63 DC:





NOTE!

If you load the boat from stern to bow, you will have better fuel economy.

## 5.4 Loading

The maximum permitted load for the Yamarin 63 DC is 555 kg. This load includes the following weights:

- a) the total weight of passengers 450 kg (the default weight of an adult is assumed to be 75 kg and that of a child 37,5 kg)
- b) personal equipment (e.g. recreational and camping equipment) 25 kg
- c) consumable liquids (fuel) in fixed tanks 80 kg

NOTE!	The maximum permitted load includes only weights mentioned above.
WARNING!	When loading the craft, never exceed the maximum recommended load. Always load the craft carefully and distribute loads appropriately (roughly an even keel). Heavy equipment should usually to be placed in the storage compartment under the aft seat. Always avoid placing heavy weights high up.



## 5.5 Engine and propeller

The maximum recommended engine power for the Yamarin 63 DC is 150 hp (111 kW). The construction of the boat is not designed to bear more power than 150 hp. The manoeuvrability of the boat can be very dangerous if the boat has bigger than 150 hp engine. The warranty is not valid if boat is used with more power than 150 hp. Follow the dealer's instructions when choosing the propeller for your craft.

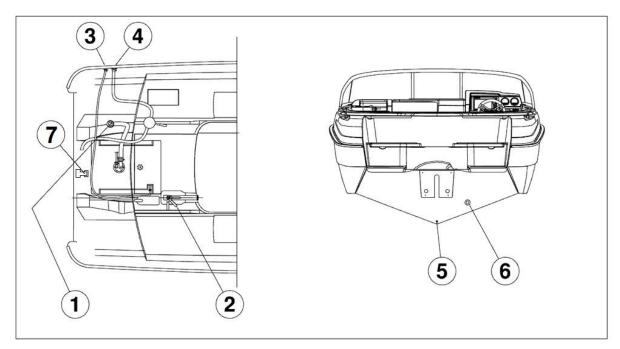
## 5.6 Prevention of water incursion and stability

#### 5.6.1 Hull and deck thru fittings and closing valves

The Yamarin 63 DC has a rainwater draining system, which means that rainwater is drained from the undecked part of the boat when the boat is on the water. The system also functions when the boat is out of water, provided that the bow is higher than the stern and closing valve is open. The closing valve (number 2 in the next picture) is located under the back seat. This drain valve is meant to be shut at maximum load to prevent potential water incursion. **In other loading conditions the drain valve should remain open.** 

The boat has a hand pump under the back seat. The hand pump has a capacity of 0.5 l/pull.

The boat is equipped with high bilge water alarm system. Alarm system includes a float switch located in the bilge and a warning light located on the dashboard.



- 1) Deck fitting for fuel tank
- 3) Fuel tank vent
- 5) Drain plug
- 7) High bilge water float switch
- 2) Rain water drainage valve
- 4) Thru fitting for hand pump
- 6) Shut-off flap

The owner of the boat is responsible for ensuring that there is at least one baler or bucket on the boat and that it has been secured.



WARNING!	The bilge pump system is not intended to cope with a leakage caused by running aground or other equivalent damage.
PRECAUTION!	Regularly check to ensure that there is no debris at the end of the suction hose for hand pump. The bilge pump suction hose is located in the rear end of bilge. You have a service access through rear compartments inspection hatch (plywood plate).
WARNING!	Always keep the drainpipe shut when its inboard end is constantly below the waterline due to the load. The shut-off flap on the transom only prevents water from entering the boat when reversing!
NOTE!	Make sure that water can flow unobstructed through the drainpipe. For instance, autumn leaves may obstruct the water flow, which can cause the boat to fill with water and sink. The bilge pump system does not work in conditions below 0°C.
NOTE!	There is always some amount of condensed water in the bilge. As the boat ages, there is a risk that a small amount of water may come through the hull bushings. Always remember to check the bilge, via the inspection hatch under the aft seat, before you leave the boat at quay or buoy and always before setting off. Have an authorised repair shop check for possible leaks.
WARNING!	The boat's handling properties may become extremely dangerous, if there is water in the bilge.
WARNING!	In rough weather, the hatches and drawers should be kept shut to minimise the risk of them filling with water.

#### 5.6.2 Stability and buoyancy

Please note, that stability is reduced by any weight added high up. Any change in the distribution of the weight onboard may significantly affect the stability, trim and performance of your craft. However, please remember that large breaking waves always present a serious danger to stability.

The boat does not float if filled with water. In accordance with the Recreational Craft Directive boats with a length of 6 metres or more do not need to float if filled with water.



## 5.7 Avoiding the risk of fire or danger of explosion

#### 5.7.1 Refuelling

Shut off the engine and extinguish any cigarettes before starting to refuel. During refuelling, do not use switches or appliances that can cause a spark.

If the nozzle shuts off while you are refuelling, you should rotate the nozzle by 90 degrees to prevent the jet from landing directly on the chain mounting screw.

Always keep a spare can of fuel onboard. A suitable place for stowing the spare can, especially considering fire safety, is either of the anchor boxes in the stern. There is no risk of gasified fuel coming into contact with battery compartments or the electrical system from either of these boxes.

Do not stow any loose items under aft seat that, if moved, could prevent fuel from going to the engine. This is particularly important for items that may move against hoses running to or from the fuel filter. Check annually that the fuel hoses are not worn at lead-ins.

Please note that, depending on the trim of the boat or the boat's heeling angle, it might not be possible to use the full capacity of the tank.

#### 5.7.2 Fire protection

The boat is equipped with a portable 2 kg fire extinguisher class 8A68B. *The portable fire extinguisher must be serviced annually by an authorised inspector.* In the event that the fire extinguisher is replaced the capacity of the new one should be the equivalent of the old one.

Location of fire extinguisher in Yamarin 63 DC (1)

Ensure that fire-fighting equipment is readily accessible even when the boat is loaded. Inform members of the crew about the location and operation of fire-fighting equipment.



Remember:

- Never block passages to exits and hatches
- Never hinder access to safety equipment, for instance the switches to the electric system.
- Never hinder access to fire extinguishers located in a box
- Never make changes to any of the boat's systems (especially the electricity or the fuel systems) or allow an unqualified person to make changes to any of the boat's systems
- Never smoke when handling petrol or gas.

**NOTE!** In a new boat the fire extinguisher might go out of date in a short period of time.

## 5.8 Main switch and fuses

Electric circuits fuses are located beneath the main power switch and to the fuse panel which is part of the instrumental panel. Do not change the fuse amperages or install any components that exceed the nominal amperage of the circuit in the electric system.

When you leave the boat, switch off battery using the main switch. Switch the battery on before using the boat.

NOTE!	Never switch off the main switch when the engine is running! This could cause serious damage to the engine's electrical system.
NOTE!	When installing equipment afterwards use Extra circuit.
NOTE!	When connecting or disconnecting the battery do not touch cable mounts and hull of the boat simultaneously with tool.

## 5.9 Operation

If this is your first boat or a boat type new to you, take someone with experience from a similar boat with you the first few times.

NOTE!The maximum propulsion power for Yamarin 63 DC is 111 kW<br/>(150 hp). Do not use the boat with bigger engine power than<br/>marked on the builder's plate.

#### 5.9.1 Controls

You will quickly learn how to control your Yamarin 63 DC, but constantly changing weather conditions, like wind and waves, will always present new challenges for the driver. The remote control combines the functions of throttle, forward and reverse gears, and the adjusting of the engine trim angle. The boat has a hydraulic steering system.



#### 5.9.2 Emergency switch

The emergency switch is a device with one end attached to the switch under the remote control and the other end to, for instance, your life vest. The emergency switch automatically switches off the engine when detached from the remote control. It is very important that the boat comes to a halt in the event that the driver, for whatever reason, loses his/her balance and is flung from the helm.

NOTE!	Never take control of the boat without having attached the emergency switch to yourself. If you attach it to your arm, do not steer the boat with that hand, because the lanyard may twist around the steering wheel.
NOTE!	The engine will not start if the emergency switch is not attached to the switch on the remote control.
DANGER!	A rotating propeller presents a life-threatening danger to a swimmer or a person that has fallen overboard. Use an emergency switch to turn off the engine always when a swimmer or water skier is about to re-enter the boat from the water.

#### 5.9.3 Gearshift and throttle

The engine is put into gear by pushing the button on the gear/throttle handle upwards with your fingers, and by pushing or pulling the gear/throttle lever forward or backward depending on which direction you are planning to set out. When the engine is in gear, you adjust the boat speed with the same gear/throttle lever.

When the boat is travelling forward slowly, you can use the reversing gear for braking, for instance, when approaching the quay. Shifting into reverse must not be done if the boat is travelling at higher speeds, because it damages the engine.

#### 5.9.4 Adjusting of trim angle

The following are the main rules when adjusting the trim angle:

- -When bringing the boat to plane, keep the "bow down" position
- -When the boat is planing, and in the event that the sea is still, the bow is lifted until you can feel that both the engine and the boat move very easily. In calm water, the engine should normally be trimmed up at least 3 scale marks on the trim indicator on the rev counter If engine is trimmed up too much, the speed of the boat is reduced. If the boat is trimmed too low, both boat and engine run heavily. To achieve good fuel economy it is important to drive the boat with the right engine trim angle.
- In a heavy sea lower the bow to allow it to slice through the waves better, thus providing a smoother ride.
- In following waves, raise the bow to avoid "diving" into the waves.



WARNING!	Do not drive the boat at high speeds with the engine trimmed up (bow up) as there is a risk of sudden heeling when the propeller hits the water again after a flight in heavy waves. Likewise do not drive at high speed with the engine completely trimmed down (bow down) since this can cause the boat to pitch unexpectedly when it hits the water.
WARNING!	Waves reduce manoeuvrability and make the boat heel. Take this into account by reducing the speed when encountering heavier seas.

#### 5.9.5 Starting the engine

- 1. Switch on the engine using the main switch.
- 2. Lower the engine to the driving position by pressing the Power Trim button on the gear/throttle handle.
- 3. Check that the gear/throttle handle is in the neutral position and that the emergency switch is attached to the bottom of the remote control.
- 4. Switch on the current, using the start key, without starting the engine and wait a few seconds until the warning lights light up.
- 5. Start the engine by turning the ignition key clockwise, until it starts. If everything is correct the engine should start within 1-2 seconds. If the engine does not start you should not "crank" the starter engine for more than 10 seconds at any one time.
- 6. After the engine has started, let it idle for a few minutes before setting off. (Please refer to the engine manual!)

For more detailed information, please refer to the engine manual.

#### 5.9.6 Driving

It is easy to drive when the weather is fine and the sea is calm. Do not, however, forget the importance of keeping an adequate lookout. In order for the visibility from the driver's seat to be as good as possible you should:

- ensure that passengers do not restrict your visibility
- do not drive near planing speed for long periods, as the bow up comes up and reduces visibility
- when visibility is poor, look over the windshield
- remember to also keep a lookout behind you, particularly in shipping lanes and heavily trafficked routes.

Use proper navigation lights after dark.

NOTE!



Always adjust your speed to the conditions and the environment. Take into account the following:

- waves (also consult the passengers about a comfortable speed)
- your own bow wake (greatest at planing speed, least at speeds under 5 knots)
- visibility (islands, fog, rain, driving against the sun)
- familiarity with the route (sufficient time for navigation)
- the width of the route (other traffic, noise and wash on shore)
- make sure, that there is always sufficient distance to avoid collision. Distance must be so big that there is time to stop the boat or to take evasive action.

When running at low speed, a planing boat's directional stability is poorer than at higher speed. So be careful in narrow passages and when meeting other boats. It is therefore important that you follow the international regulations on how to avoid collisions at sea = COLREG. Navigate with care and use new or updated nautical charts.

The running position of the boat greatly affects its driving characteristics and fuel consumption. The boat's best operational position may be achieved by:

- placing the load properly
- adjusting the engine's trim angle

The combination of the right operational position with the right speed also makes driving in open waters more comfortable and safer.

WARNING!	High speed and quick manoeuvring can lead to large heeling angles and loss of control over the boat.
NOTE!	The boat is not designed to be driven through conditions that cause it to jump waves. The warranty does not cover damage caused by air flight. By checking the engine history on the computer, you can find out if the boat has been airborne.

5.9.7 Approaching and leaving the dock

Practise boat manoeuvring skills where there is ample space to learn how to approach a dock before entering a crowded marina.

A very gentle throttle application does not generate sufficient steering power. Sharp but short throttle applications enable efficient steering movements.

Ensure that everyone on-board who does not have to stand up is seated when you are approaching the dock. Sudden steering movements may cause the boat to sway and someone to get injured.



Before docking, prepare the ropes at stern and bow. Approach the dock bow first at a narrow angle. Just before touching the dock, steer against the dock and shift into reverse. Apply throttle quickly and sharply. The boat will stop and turn parallel to the dock. If possible, make the approach into the wind or current, whichever is the strongest. This makes departing from the dock easier as the wind or current pushes the bow out from the dock. If there is no wind or current the easiest way to depart is by pushing the stern as far away from the dock as possible, and then slowly reversing away from the dock into open water.

The propeller is designed to give its best grip in forward gear. Therefore the propeller performance is weaker in reverse. Neither does the boat have a similar steering response in reverse as in forward gear.

WARNING!	Yamarin 63 DC is a fast boat. It does not stop instantly when at planing speed. Slow down in plenty of time before anchoring, beaching or docking. Learn to estimate the distance the boat needs before it stops. Remember that steering control is poor, if there is no traction.
WARNING!	Do not try to stop the boat with your hands, and do not put your arm or foot between the boat and the dock, the shore or another vessel! Practise beaching and docking under favourable conditions! Use moderate but firm engine power.
NOTE!	When you secure the boat you must take into consideration changes in wind direction, that the water level might rise or sink, any backwash that might occur, etc. You can get more information from insurance companies, etc.

#### 5.9.8 Using the canopy

The canopy is designed to take a maximum speed of 30 knots at sea, and 50 km/h in road transport. All press studs must be properly fastened when using the canopy. The canopy is designed so that it is possible to use just the front part if desired. We recommend that you remove the rear part of the canopy and roll the roof cover carefully and lay it down into the canopy box. It will work easily if you ensure that there is no fabric underneath the straight upper part of the canopy rail. Finally close the canopy box.

#### 5.9.9 Windshield front door

Windshield middle door must always be closed and locked when driving.

WARNING!	In heavy sea, strong wind or gusts keep the door closed even in port cause there is a risk of door could be thrown by it selves. Door is heavy and it can cause a serious damage if it hits person on-board.
WARNING!	When the boat is lying still the door can get closed by a blast or when big waves hit the boat. Because of that you are recommended to keep the door closed when no one is boarding.



## 5.10 Proper use – other recommendations and guidelines

#### 5.10.1 Man-overboard

It is always a serious situation when someone falls overboard. Rescue procedures should be practised in advance when the weather is good, because when someone has fallen overboard, there is no time for practising.

The boat is equipped with the fixed swim ladder that can be lowered down from the water. The swim ladder unfolds to the full length by pulling the extension ladder away from the boat.

It is always easiest to help a person climb on-board from the water at the stern of the boat. A rope loop attached to the boat helps lifting. The boat's swim ladder extends 30 cm into the water. If a child has fallen overboard, an adult with a life-saving device or a fender must always jump in after the child, however, someone must always remain on-board the boat.

It is very important to maintain visual and verbal contact in the event that a person falls overboard.

# DANGER! A rotating propeller presents a life-threatening danger to a swimmer or a person that has fallen overboard. Always turn off the engine when a swimmer or water skier is about to re-enter the boat from the water.

Recommended placement for possible life raft is under the back seat (please check paragraph 8.1 General lay-out).

#### 5.10.2 Securing loose equipment

Secure all loose equipment before setting off.

#### 5.10.3 Respect for the environment

Our seas, lakes and archipelago are unique and their conservation is a matter of honour for each boater. Therefore you should avoid:

- fuel and oil leakages
- emptying garbage and waste into the water or on the shore
- letting detergents or solvents get into the water
- loud noise both on the water and at the marina
- producing unnecessarily high wash in narrow passages and shallow waters

Service the engine well and run it at the most economical speed, which will also keep exhaust emissions low.

Please also consider other local environmental legislation and regulations. Please make sure to familiarise yourself with the international regulations on the prevention of pollution at sea (MARPOL) and respect these to the greatest possible extent.



#### 5.10.4 Anchoring and mooring

Always moor your boat carefully, even in sheltered places, because conditions can change rapidly. Mooring lines should be equipped with absorbers to dampen any jolts. To prevent abrasion, use fenders that are large enough. The location of the bollards is illustrated on the image in the section on towing.

The hook located at the bow of the boat is for fastening the boat to trailer. Hook at the deck is for locking the boat for example to the dock.

**NOTE!** Make sure that lock or chain does not scratch the boat.

The endurance of the front bollards forward is at least 20.9 kN, which is approximately 2,000 kg. Similarly, the endurance of the back bollards backward is 14.6 kN, which is approximately 1,400 kg.

The minimum anchor weight for the boats is 7.5 kg. When you land to a natural harbour, ensure that there is a sufficient distance from the shore. A moderate grip is attained if the anchor line length is 4-5 times water depth.

WARNING!	Do not try to stop the boat by hand and do not put your hand or foot between your boat and the dock, beach, or another boat.
NOTE!	When mooring your boat, take wind veering, raise or fall of water level, wake of other boats etc. into account. More guidance can be provided by insurance companies, for instance.
NOTE!	The owner / user of the boat is responsible for ensuring that the boat is equipped with suitable mooring and anchoring equipment.



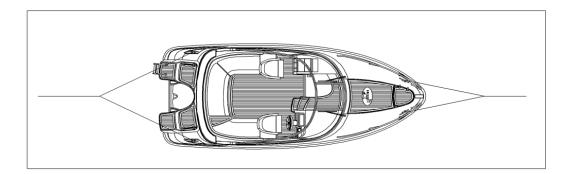
#### 5.10.5 Towing

If you tow another boat, use adequately strong, floating line. Begin the towing carefully, avoid jerks, and do not overload the engine.

The owner of the boat should consider the measures necessary for securing the boat's towrope.

If you are towing, or if your boat has to be towed, attach the towline to bollards as per the image.

The location of the anchor bollards during towing, anchoring, and mooring:



WARNING!	When towing, the towline is under high tension. If it breaks, the speed of the end that has snapped off may rebound and cause serious injury or death. Always use a thick enough rope and do not get in the way of the rope extension.
NOTE!	When towing another boat or being towed, always drive at a low speed. If the boat has a displacement hull, never exceed the hull speed while towing.
NOTE!	The towrope should always be loosely fastened so that it can be unfastened under load.



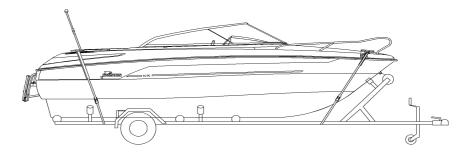
#### 5.10.6 Trailer transport

Weights on trailer can be found from Technical specifications. The keel support of trailer should carry the most of the weight of the boat. Adjust the side supports so that boat can not slide from side to side. For more information, please turn to your dealer.

Before you take boat on trailer clean the supports from sand and dirt, so they won't scratch the bottom of the boat. Check once again that trailer is mounted to trailer hitch.

The place where the boat will be taken on the trailer should be safe from the wind and waves and ramp should continue deep enough into water. Reverse trailer so deep that the rearmost keel support is just above the water level. Drive the boat carefully towards the rearmost keel support and fasten winch cable to trailer hook. Reel up the boat on trailer in a way that boat wont slide from side to side. Remember to trim up motor before reeling the boat on to trailer. Otherwise it can hit the bottom.

Yamarin 63 DC fastening on trailer:



Tie the boat properly before starting the transport. Fastening belts located at the bow should be directed "down-back" and fastening belts located at rear should be directed "down-front". Do not leave any loose equipment or extra load to boat when it's transported. Take seat cushion away and close the hatches properly.

When transporting the boat the motor should be on its driving position. Make sure that there is the needed road clearance.

The fastening belts must be loosened up if the boat is kept on trailer between transportations and tightened up before next transportation.

**NOTE!** The trailer should be slightly front-weighted. Appropriate nose weight is 4 % of the total mass of the trailer, but not less than 25 kg. Nose weight must not exceed the maximum vertical load on tow ball. Maximum load is defined by car manufacturer of the towing vehicle. Make sure that the boat is fasten tight enough to trailer and the weight of the boat is divided equally on the both side supports. If the boat swings against the side support, it can damage the hull.

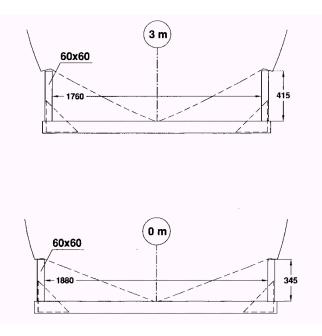
When letting down the boat from trailer, remember to fasten the bow rope to the boat in order to release cable from the trailer hook when boat is on the water. Look out the winch handle!



#### 5.10.7 Docking

The storage cradle should be sufficiently steady and suitable for the boat's dimensions. A sturdy plank (2x4"), should be placed between the V trestles to support the keel and to bear most of the weight of the boat. The side supports must not support the boat. The side supports should have cut outs at the bottom steps to avoid load points on the steps. The supporting structures at the transom should be strong enough to also support the weight of the engine. Storage cradle dimensions are shown picture below.

Storage cradle dimensions:



Only use reputable lifting companies or boat yards with sufficient lifting capacity. In addition to the boat's own weight (please refer to technical specification), also take into consideration the accessories and other possible loads on the boat.

When the boat is lifted, lines should be placed under the boat and, during lifting, the boat must remain horizontal.

**NOTE!** The boat cannot be lifted by the bollards.

**WARNING!** Never stand under a boat that is suspended from a crane.



## 6 Servicing and maintenance

Maintain your boat and its components clean. It will make your boat more comfortable to use and increases the real sale value of the boat.

Familiarise yourself with the service procedures shown in the engine manual (see attachment). Carry out the service carefully, or ensure it is performed by an accredited service company.

## 6.1 Washing and cleaning the boat

Normally it is sufficient just to wash and wax the deck and sides. A special boat cleaning agent is most suitable for the purpose. Mildly abrasive polishes can be used to remove chafings and embedded dirt. Fibreglass surfaces can be washed with a pressure washer.

Useful tips:	Washing the boat will be easier when it is done immediately after getting the boat off the water.
Useful tips:	When the boat has been washed using tap water, a thin chalk-like layer of lime and minerals will remain on the boat's surface after it has dried. The problem can be eliminated by adding a few drops of pine oil soap into a bucket of rinsing water, which will soften it.
Useful tips:	Water and lime stains on stainless steel rails and handles disappear when you apply some Lemon Pled furniture spray. The rails start shining just as nice as they did when the boat left the shipyard.
Useful tips:	If the boat's ropes smell bad after winter storage, immerse them for a couple of hours into a bucket of water and add a bottle of apple vinegar and a splash of fabric conditioner for clothes. Allow the lines to dry properly.

## 6.2 Care instructions for seat cushions

In order to ensure that the boat's seat cushions remain in good condition you are advised to always use the canopy or harbour cover when raining. Although they are made of water resistant material, their seams can let water in. It is advisable to protect the cushions by spraying them with Sunbrella -spray. If the cushions remain damp for any length of time, they may grow mouldy and become damaged. If the mattresses get wet, the fabric can be removed by unzipping the mattress and it can be dried, for instance, in the sun or at room temperature. The warranty does not cover cushions spoilt by rain or dampness.



NOTE!	During winter storage they must be stored in a dry and well- ventilated place.
NOTE!	The wet cushions should not be placed in a storage room because they gather mould easily.
NOTE!	Single seats must be covered with seat covers when boat is not in use. If seats have got wet during the use of the boat, they must be dried carefully before covering.

The press studs of the seat cushions should be sprayed with a silicon spray every now and then otherwise they may become so tight that the fabric is torn when trying to open them. The warranty does not cover ripped seat cushions.

## 6.3 Care instructions for the canopy

Store the canopy over winter in a dry and well-ventilated place. The press studs of the canopy should be sprayed with a silicon spray every now and then, otherwise they may become so tight that the fabric is torn when trying to open them. The warranty does not cover a canopy that has been damaged.

## 6.4 Care instructions for the windshield

The boat's windshield is made of tempered glass and it can be washed with ordinary glass cleaners.

Useful tips: When wiping the boat's windshield dry after cleaning avoid using circular motions. This can leave circular smudges on the windshield that become visible in sunlight impeding visibility. Wipe off any streaks with dry newspaper or cotton cloth first using horizontal motions and then vertical motions. Repeat this a few times and you'll bring the windshield to a brilliant shine.

## 6.5 Care instructions for the stainless steel components

To keep the boat's stainless steel parts, such as rails, handles and bollards, shining and as good as new, the owner of the boat should keep the parts clean and waxed. The edges of the mounting flanges of the rails should also be cleaned. Any dirt that remains under the edge of the flange will begin to look like rust. In the case of regular use (i.e. no damage), the parts should be cleaned and waxed at least twice every summer. In autumn, when the boat is stored for the winter, the rails should also be cleaned and waxed.



## 6.6 Care instructions for the remote control

Normally the remote control needs no other maintenance than greasing and adjustment during the winter service. If, for any reason, it becomes stiff to operate, it needs to be serviced immediately.

## 6.7 Care instructions for the steering system

Normally the hydraulic steering system does not need to be serviced. If the steering becomes "loose", there is a leak in the system. The leak must be repaired immediately!

## WARNING!A hydraulic system with leak, or one with trapped air is extremely<br/>dangerous.

## 6.8 Care instructions for the electrical components

Electrical components, like main switches, other switches and couplings does not normally need to be serviced if the boat is winter stored in dry and well ventilated place.

## 6.9 Care instructions for the teak deck

Clean as follows, depending on how soiled the teak deck is:

Slightly soiled: Wash with soapy water and a stiff sponge (e.g., a stiff green 3M sponge) or a scrubbing-brush.

Heavily soiled or scratched decks: Dry-sand the deck with an eccentric grinder using 120 grade sandpaper (use grade 80 paper used for the worst areas). Only about a 0.5 mm layer need be removed from the surface as teak, being a dense, oily wood, does not absorb dirt deeply. The teak batten and pegs should be around 8 mm and 5 mm thick respectively. Removing up to half or even one millimetre will not affect the durability of the teak deck, and will give it a brand new finish.

WARNING!Never use a pressure washer as this can damage the woodsurface and joints. Similarly, never use wire brushes on teak.

After cleaning, choose one of the following finishing options:

- 1) Leave the teak surface untreated. The surface will gradually gain an attractive silvergrey patina as it weathers in the sun.
- 2) Apply a thin coat of teak oil to bring out the beautiful reddish brown colour of the wood. Use teak oil containing tinting pigment or varnish. If you want the deck to keep its full reddish brown colour throughout the summer, it will need washing and oiling at least twice. If oil is applied without first washing the deck, dirt will be



absorbed into the wood causing it to darken. Washing is therefore vital to keeping the deck in its original condition. The deck must be totally dry when applying the oil. Avoid oiling the wood in direct sunlight.

## 6.10 Minor superficial repairs

Minor damages to the boat's gel coat surface can be repaired by yourself. However, a neat, unnoticeable repair requires a considerable amount of skill:

- 1. Tape off the area around the damage. This is to ensure that the area around the damage isn't accidentally damaged.
- 2. Bevel the edges sloping into the damaged area and clean with acetone.
- 3. In the event that the damage is deeper than 2 mm it can be advisable to fill it with an appropriate polyfiller.
- 4. Mix topcoat with 1.5-2% hardener.
- 5. Fill the repair with more topcoat than needed, so that its surface remains slightly proud of the surrounding area.
- 6. Carefully put a tape over the topcoat (masking tape or brown parcel tape).
- 7. After the topcoat has hardened, remove the tape and sand it using 600- and 1200paper applying water.
- 8. Buff using abrasive paste.

The colours used on this boat are specified in the section on Technical Specifications. One point to consider is that a paint called gelcoat has been used in manufacturing the boat but the surface is always repaired with a paint called topcoat. Gelcoat paint does not harden without a mould surface whereas paraffin has been added to topcoat to allow it to harden.

**NOTE!** Certain post delivery installations may cause damage to the structure of the boat or impair safety if not performed correctly. Please contact the dealer before any questionable works are carried out on the boat.



## 7 Winter storage

Preparing boats for winter storage is an annual routine. Have your boat lifted in good time before the water freezes. Your boat is not designed for use in ice and it is not meant to be used in below zero temperatures (for example, the rain water draining system will freeze). It is advisable to perform all maintenance repair and inspection procedures when lifting the craft.

Please familiarise yourself with the servicing instructions provided in the engine manual. We recommend that you leave them to an authorised service agent. Do not forget to service the remote control and steering system. Make sure to perform their maintenance according to separate instructions and manuals.

## 7.1 Measures before winter storage

Wash the bottom of the boat immediately after the boat has been lifted. Algae and slime will come off easier if they are not left to dry. Give the engine, and other accessories – following separate manuals, their winter service. If your boat is stored outside or in a humid place during the winter, remove the textiles and other equipment that may corrode or become mouldy in damp conditions. Wash the ropes in fresh water. Replace ropes that are worn. Leave bushing valves open. Remove drain plug for the winter.

Check the condition of the hull and rub down any scrapes to let possible moisture inside the laminate dry. Repair damages in spring before launching the boat.

Always cover your boat so that water or snow cannot gather inside. Always make sure, however, that there is adequate ventilation. As an optional extra there is a winter storage protector for your Yamarin 63 DC.

NOTE!

To avoid abrasion make sure that covering or ropes do not touch the aluminium hull.



## 7.2 Measures before launching

Repair possible damages to the gel coat surface according to section 6.10.

In coastal areas an antifouling paint should be used to prevent the hull from becoming covered. Fouling of the bottom and especially the propeller increases the fuel consumption remarkably. However, if the boat is anchored at the inlet of a stream, on a land locked lake, or if it is lifted out of the water at least once a week, it is normally not necessary to use an antifouling paint. Carefully follow the paint manufacturer's instructions when applying the antifouling paint. If you are sanding old antifouling paint, remember that the dust is toxic.

At lake areas antifouling is not needed and not recommended. However, we recommend using epoxy primer if the boat is left in the water for several months each year. Fresh water, especially warm fresh water is absorbed easier to laminate than seawater.

NOTE!Do not apply any paint to the zinc anodes, log sensor, or piston<br/>rods of hydraulic trim tabs. Do not apply paints containing copper<br/>on aluminium parts and remember to follow the paint<br/>manufacturer's instructions.

Useful tips: Do not throw away a used paint brush. A dried and hardened paint brush that has been used for antifouling paint can be reused if you first soak it for a couple of hours in a mix of 2 litres of hot water, 100 ml of vinegar, and 50 ml of baking powder.

Perform the necessary service procedures according to the engine manual. Check the function of electric equipment and remove possible oxidation from fuse connectors etc.

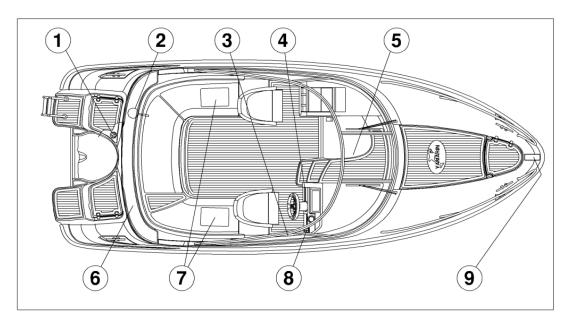
Remember that eventually, petrol turns stale in time, and that you should always use fresh fuel when starting the engine for the first time after winter storage.

When the boat has been launched you should open all hull bushings and check to ensure that there are no leaking hoses or connectors. Bring the safety equipment on-board before setting off.



## 8 Lay-out

## 8.1 General lay-out

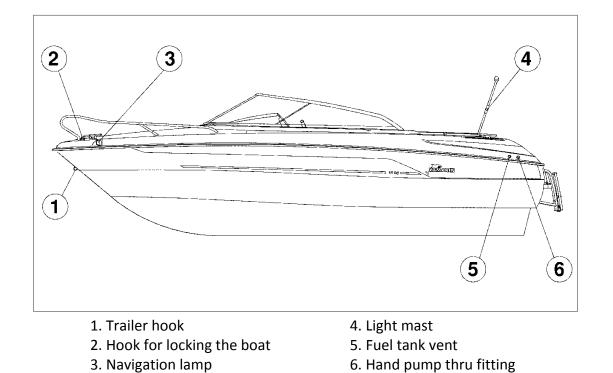


- 1. Fuel refill
- 2. Hand pump
- 3. Remote control
- 4. Instrument panel
- 5. Windshield/door to front deck
- 6. Canopy storage compartment
- 7. Placement for cool box
- 8. Placement for trim switch
- 9. Placement for anchor roll

#### WARNING!

Treat the boat's hatches with care and watch your fingers and toes. **Be especially careful with the forward anchor box hatch which is equipped with an elastic strap.** 



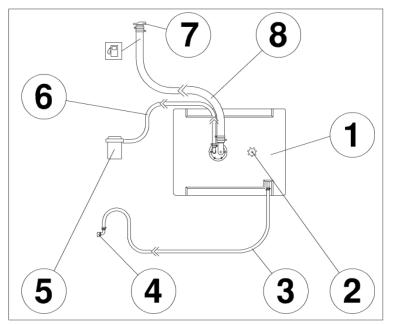


#### 8.2 **Fuel system**

3. Navigation lamp

Yamarin 63 DC is equipped with a built-in-fuel tank. There is a fuel filter, which also serves as a transparent water separator. The filter must be changed at least once a year. When a new or removed filter has been mounted, the fuel line must be filled with a ball pump before starting the engine.

NOTE! The condition of the fuel hoses has to be inspected at regular intervals and every effort should be made to prevent damage to them. Damaged fuel hoses must be changed. If you change fuel hoses, make sure they have an ISO 7840 label.



- 1. Fuel tank
- 2. Fuel tank sensor
- 3. Fuel tank vent hose
- 4. Fuel tank vent
- **Fuel filter** 5.
- 6. Fuel delivery hose
- 7. Deck fitting for fuel tank
- 8. Filling hose for fuel tank

The deck fitting for fuel tank is mounted under the BB anchor boxes latch. It is marked with B - symbol.



## 8.3 Steering system

Yamarin 63 DC is equipped with a hydraulic steering system as standard. One of the features of the hydraulic steering system is that the position of the steering wheel changes continuously. For this reason, the boat has a symmetrical steering wheel. The lengths of hydraulic hoses are 5.5 meters.

Hydraulic steering does not normally require maintenance. If the steering becomes "loose" the system has a leak. Any leaks must be repaired immediately!

NOTE!	If you want to replace a component in the steering system, please note that all components must be in conformity with the ISO 10592 standard and carry the CE mark.			
WARNING!	Hydraulic steering system, which has a leak or air, is highly dangerous.			

## 8.4 Electrical system

The electrical system installed in the Yamarin 63 DC includes the following main components:

- 1. BATTERY
- 2. WIRE HARNESS
- 3. MAIN SWITCH
- 4. FUSE PANEL
- 5. 3 PCS SWITCHES WITH AUTOMATIC FUSES
- 6. 2 PCS 12-V POWER OUTLET
- 7. NAVIGATION LIGHTS
- 8. WINDSCREEN WIPER
- 9. CABIN LIGHT

In addition, the engine is an essential part of the boat's electrical system, which functions both as a power source and a power consumer.

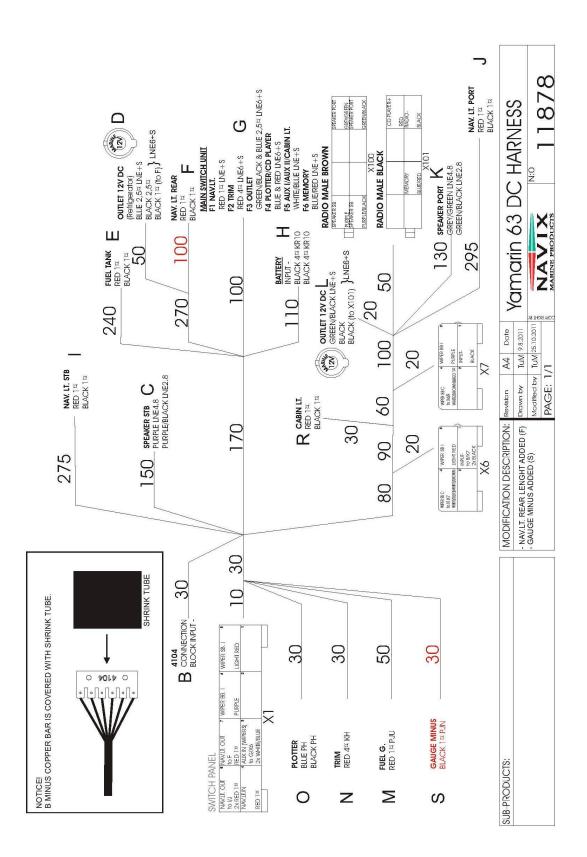
Switch off the main switch when leaving the boat for a long period of time. Remember also to switch off the main switch before electrical installations are made.

If you connect or disconnect batteries, take care not to touch both battery terminals with a metal object at the same time.

Do not alter the onboard electric system or relevant drawings; changes and maintenance work have to be carried out by a professional.

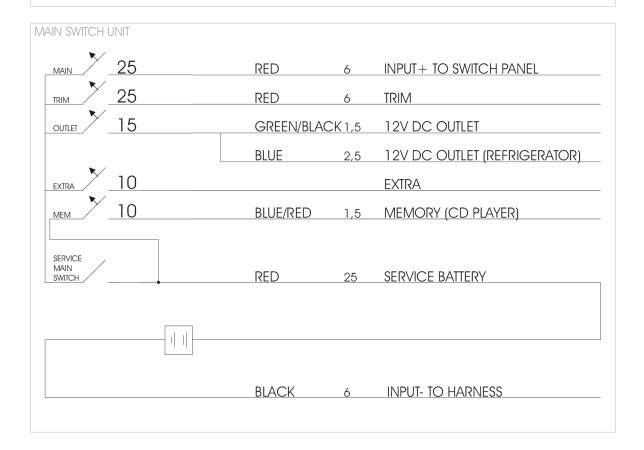


## 8.5 Wiring diagram



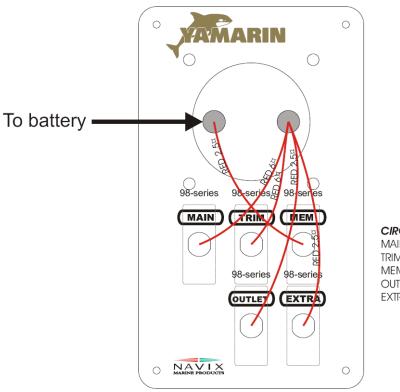


	CIRCUIT BRE N:O		SWITCH CONN.	CABLE N:O/COLOR	SIZE mm2	FUNCTION
S١	WITCH PANEL					
		10		RED	1,5	NAVIGATION LIGHTS
	F2	10		PURPLE	1,5	PLOTTER
				RED	1,5	CD PLAYER
	F3	10			1,5	AUX
	F4	10			1,5	AUX
				RED	6	INPUT+ FROM MAIN SWITCH UNIT



MODIFICATION DESCRIPTION:	Revision	A2	Date		Yamarin 63 BR
	Drawn by	PE	23.6.2009		DIAGRAM
	Modified by	RN	17.9.2009	T	
	PAGE: 1/1			MARINE PRODUCTS	8961 DRA







CIRCUIT BREAKERS: MAIN 25 A TRIM 25 A MEM. 10 A OUTLET 15 A EXTRA 10 A



