



# OWNER'S MANUAL

**B 18**  
**AL / CC / DC**



# Owner's Manual

**Ockelbo®**  
**B18 AL/CC/DC**

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## WELCOME ABOARD!

WE WOULD LIKE TO congratulate you on the purchase of your new boat and thank you for the faith you have placed in the dealer and Ockelbo.

We stand behind every boat we build with pride of craftsmanship and always strive to deliver the best boats available in our market segment. Ockelbo boats are always built to be extremely durable and have absolute top-class handling characteristics. An Ockelbo is built to be driven.

This Owner's Manual is intended to help you become familiar with your new boat.

Your Ockelbo dealer will be happy to help you to maintain your boat and answer questions concerning operation, maintenance, warranty, performance, accessories, parts and service. Information and assistance is also available via our website [www.ockelboboats.se](http://www.ockelboboats.se).

Enjoy your boating. Enjoy Ockelbo. See you at sea!

*Information in this publication is based upon the latest production specifications available at printing. AB Ockelbo Aluminiumbåtar reserves the right to make changes at any time, without notice, in the colors, equipment, specifications, materials and prices of all models, or to discontinue models. Should changes in production models be made, Ockelbo is not obligated to make similar changes or modifications to models sold prior to the date of such changes. All figures are principal only.*



## I. INTRODUCTION

### I.1 ABOUT THIS OWNER'S MANUAL

The purpose of this owner's manual is to help you to use your boat in a safe and enjoyable way. The manual includes detailed information about the boat and its equipment and accessories, as well as instructions for use and correct maintenance of the boat. Please read the manual carefully and familiarise yourself with your boat before using it.

At Ockelbo, we believe that you shall be free to choose a suitable outboard engine for your specific needs. For this reason, the boat manual cannot be very detailed on engine related topics. Often, a reference to the engine manual or other specialized components is made. We advise you to read the engine and engine instrumentation manuals carefully, and do not hesitate to ask for help from experts.

Likewise, the boat may have been customized or modified by other party than Ockelbo, either when new or later in its lifetime. If your boat deviates from the data, standard equipment and optional equipment specified in this manual, this manual alone may not be sufficient. Please consult the party who modified the boat and any manuals provided by them.

The owner's manual alone is not a sufficient source of information on seamanship and boating safety. If this is your first boat or the boat type is not familiar to you, ensure your safety and comfort by obtaining sufficient experience in handling and using the boat before you assume the responsibilities of the boat master. Your boat dealer, local boating clubs and national motor boat and sailing associations will provide you with more information about local training in boating and will be able to recommend qualified instructors.

In some countries, operation of the craft may require a permit or authorisation, and special regulations may apply. Your boat may also have to be registered with the proper navigation authorities. A Declaration of Conformity is part of the documents that you receive with the boat and it must be kept aboard with other official documents at all times and may be mandatory when registering the boat.

This owner's manual is not a detailed service and troubleshooting guide. In case of problems please contact your local Ockelbo dealer. Modifications that affect the safety features of the boat are to be performed only with the builder's written authorization. The builder assumes no responsibility for unauthorized modifications. Always keep your boat in good condition and make allowance for the deterioration that may occur over time. Be careful to observe any signs of wear caused by age, heavy use or abuse. Any boat, no matter how strong it is, may sustain severe damage if used inappropriately.

Always adjust the speed and the heading of your boat to suit the prevailing sea conditions. Make sure the forecasted wind and sea conditions match the design category of your boat and that you and your crew can navigate the boat in the conditions that may arise. Wind and sea conditions for design category C range from storm to strong

wind with a danger of unusual waves and gusts. These are dangerous conditions that necessitate a skilled and fit crew and a well-maintained boat.

If your craft is equipped with a life raft, study its instructions carefully. The boat must be equipped with the appropriate safety equipment (life vests, safety harnesses, etc.) as required for the boat type and the weather conditions. In some countries, this equipment is compulsory. The crew must be familiar with the correct use and operation of all safety equipment and be able to handle the boat in emergencies (including rescuing a person who has fallen overboard, towing, etc.). Yachting schools and clubs arrange rescue training and practice opportunities on a regular basis. Everyone aboard the craft should wear a suitable personal flotation device (life vest or boating vest). Please note that in some countries national boating regulations may require everyone aboard to wear a personal flotation device whenever on board.

Finally, please pay respect to the environment by complying with good practise as well as local, national and international (Marpol) regulations. Thank you!

***Please retain this manual and provide it to the boat's next owner if you sell your boat.***

## **I.2 GENERAL DESCRIPTION**

The boat is primarily intended for private and leisure use. The boat is of open type and has a single hull type entirely made of aluminum, so are the handrails and cleats. The boat is designed and built according to standards for CE approval in category C and is designed to be propelled by a single outboard engine.

## **I.3 CRAFT IDENTIFICATION NUMBER (CIN)**

The Craft Identification Number is located on the starboard side of the transom. See chapter 7, drawing 1, position 14. The CIN must be included in all correspondence related to the boat, such as when buying parts or registering an insurance.

## **I.4 EXPLANATION OF SAFETY LABELS**

Mounted at key locations throughout your boat and duplicated in this manual are labels which advise the owner/operator of imperative safety precautions to follow when operating or servicing equipment. Study chapter 3.7 to learn their location. Learn to recognize the degree of precaution and understand the explanations of safety prior to reading this manual. These precautions are not all-inclusive. Always follow recommended instructions and think in general while operating your boat.

- Do not remove or obstruct any safety label.
- Replace any label which becomes illegible. Replacement safety labels can be obtained by calling your dealer

This manual includes labels explained to highlight particularly important topics. They are divided into 4 categories as explain below:

## **DANGER**

**DANGER**—Immediate hazards which with high probability will result in severe personal injury or death if the warning is ignored.

## **WARNING**

**WARNING**—Hazards or unsafe practices which can result in personal injury or death if the warning is ignored.

## **CAUTION**

**CAUTION**—Hazards or unsafe practices which could result in personal injury, product or property damage if the warning is ignored.

## **NOTE**

**NOTE**— Provides information which is important to make proper operation or maintenance.

## **1.5 DEALER RESPONSIBILITIES**

In addition to a pre-delivery check and service of the boat, your dealer is to provide:

- A description and demonstration of the safety systems, features, instruments and controls on your boat
- An orientation in the general operation of your boat
- A review of all warranty information and how to obtain warranty service
- The Owner Information Package

If you do not receive all these materials, or have any questions, contact your dealer.

## **1.6 WARRANTY**

The dealer who has sold you the boat will inform you of the product warranty terms and conditions. If for some reason such information is not provided, or any of the below steps fail, contact AB Ockelbo Aluminiumbåtar or any Ockelbo dealer.

### **Registration**

The boat shall be registered to ensure correct warranty management. Please contact the dealer from whom you have purchased the boat. If that is not possible, please contact AB Ockelbo Aluminiumbåtar or any Ockelbo dealer.

### **Transfer of Warranty**

Please contact the dealer from whom you purchased the boat to arrange the transfer. If that is not possible, please contact AB Ockelbo Aluminiumbåtar or any Ockelbo dealer.

## **I.7 INSURANCE**

Boat insurance is mandatory in most countries. We recommend you to contact a trusted insurance company in your country prior to taking ownership of the boat.

## **I.8 SECURMARK ANTI-THEFT MARKING AND TRACKING SYSTEM**

To prevent theft, and to locate boats after a theft, your boat has unique code number which is sprayed in various places of your boat. It's visible only by using special tools used by the authorities. The code was added already at the factory and will be able them to access boat and owner details from a database.

The SecurMark system requires a subscription, and it is pre-paid by Ockelbo for the first 12 months after registration of your owner details. We encourage you to activate SecurMark and, after the first 12 months of free service, continue to subscribe. You may also mark and register your engine. Ask your dealer for help to register and further information. Printed info from SecurMark is also provided in the Ockelbo bag.

## 2. OPERATING THE BOAT

### WARNING

Read and make sure you understand the operation and safety topics of this owner's manual before you operate the boat for the first time.

### **2.1 SAFETY ROUTINES BEFORE LEAVING SHORE**

Familiarize yourself with this owner's manual. Always check the following items before leaving shore:

#### **2.1.1 Weather and forecast**

Consider the wind, waves and visibility. Are the design category, size and equipment of your boat, as well as the skills of the skipper and crew, sufficient for the waters you are going to? In strong winds and rough seas all portholes, doors, hatches and vents must be closed to prevent water from getting into/onto the boat.

#### **2.1.2 Loading**

Do not overload the boat, distribute loads suitably. For stability, do not place heavy loads high up. See chapter 3.4, 3.5 and 3.6. You can also always check the maximum allowed loading from the CE-plate.

#### **2.1.3 Passengers**

Ensure that there are life jackets for everybody on board and instruct passengers to be seated while the boat is in motion. Location for passengers is described in chapter 3.6. Make sure all members of the crew understand their specific tasks, before leaving shore. It is recommended that at least 2 passengers knows to operate the boat.

#### **2.1.4 Fuel**

Check that there is enough fuel, plus a reserve tank for harsh weather etc. Look for any fuel leaks.

#### **2.1.5 Engine**

Check the functioning and condition of steering, electrical equipment and batteries, and carry out the routine checks specified in the engine instructions handbook.

#### **2.1.6 Fastening of objects**

Make sure everything on board is properly secured even in the event of high winds, fast maneuverers and rough seas.

#### **2.1.7 Nautical charts**

If you are not navigating on totally familiar waters, ensure that you have nautical charts covering a sufficiently large area. Even if you are having a chart plotter, you should carry

regular charts onboard. There is always a risk for technical malfunction of electronic devices; therefore, regular charts are important as well.

### **2.1.8 Safety check of the boat**

- Check that hatches are closed and watertight.
- Ventilate the stern sofa storage where the battery is installed. This is to remove any battery gases.
- Make sure that at least one person onboard knows the location of the firefighting equipment.
- Ensure that you have anchor with rope, emergency lights, communication equipment, fendering ropes and a knife (to cut tangled ropes) onboard.
- Check that bilge water is at minimum, and the electrical pump is working (test using manual operation).
- If darkness is expected, check navigation lights.
- Check for any leakage of water into the boat, or fuel from tanks or fuel lines.

### **2.1.9 Inform about your route**

Always inform someone on shore about your planned route, to enable fast support in case of problems.

## **2.2 EMERGENCY ENGINE SHUTDOWN SWITCH**

Your boat is equipped with an engine shutdown safety switch built into the engine control. The engine shutdown switch incorporates a shut-off switch and a lanyard. Before operating the boat, one end of the lanyard must be connected to the shut-off switch while the other end is connected to the operator (around the wrist or attached to a hook in the life jacket).

If an emergency arises where the engine must be shut down, pull the lanyard cord to release it from the shut-off switch, which in turn shuts down the engine. This switch is designed to shut the engine off when the operator of the boat leaves the control station, either accidentally by falling into the boat, or by being ejected overboard.

The lanyard should be long enough to prevent unintentional activation. Do not let the lanyard become entangled and replace it if worn.

### **WARNING**

Wear the lanyard always when operating the boat. Use it to stop only in an emergency. DO NOT use it to shut off the engine during normal operation. The boat may lurch heavily if underway at high speeds, and passengers may hurt themselves or even fall overboard.

## **2.3 MAN-OVERBOARD PREVENTION AND RECOVERY**

The passenger and working areas of the boat are described in chapter 3.6.

Other areas must not be occupied when underway due to the risk of falling, potentially into the water.

If a person has fallen into the water in calm seas, the person can use the rescue ladder located on the portside of the transom (see chapter 7, figure 1, position 21). Always turn off the engine using the emergency (dead-man) switch before using the ladder. The ladder can be pulled down by a person already in the water. In harsh weather, or if the person is physically not able to climb, it may be hard to use the ladder alone and help from a person onboard may be needed. It is therefore recommended to always be 2 persons onboard, especially in harsh weather conditions. The MOB rescue / swim ladder is further described in chapter 4.7.

## **WARNING**

A rotating propeller can be lethal for a swimmer or person who has fallen overboard, or a person using the ladder to board the boat or to enter water. Shut down the engine and activate the emergency switch (dead man's switch) if there is any person in the water behind the engine, and always before using the ladder.

## **2.4 FIRE PREVENTION**

Fire is a serious boating hazard. Boats will burn quickly. Do not remain onboard and fight a fire for more than a few moments. If the fire is out of control and cannot be put out with the fire suppression equipment onboard, abandon ship immediately.

It is the ultimate responsibility of the boat owner to inspect and maintain the boat's fire prevention and fire-fighting equipment. This chapter covers fire prevention and fighting measures related to the fuel-driven systems onboard the boat. For details of each system/component, please refer to their specific chapters.

### **2.4.1 Fire extinguisher**

The fire extinguisher is located in the storage box in front of the starboard pulpit. See chapter 7, figure 1, position 7. Make sure you know how to remove it and use it. The fire port (see below) can be used for fast fighting of fires below deck.

The boat, when in service shall always be equipped with the following portable fire extinguisher class:

Fire rating: **13A 89B C with a minimum of 2 kg capacity.**

The boat owner/operator shall:

1. Have the fire-fighting equipment checked at the intervals indicated on the equipment.
2. Replace portable fire extinguisher equipment, if expired or discharged, by devices of identical fire-fighting capacity.
3. Ensure that the fire-fighting equipment is readily accessible when the boat is occupied.

4. Inform the members of the crew and passengers about the location and operation of the fire-fighting equipment, the fire port and the locations of escape routes and exits.
5. Unlock any deck hatches to be able to fight fires inside storage areas, and to keep fire port free.
6. Keep the bilges clean and check for fuel and gas vapors or fuel leaks frequently.

## WARNING

Never obstruct passageways to exits or hatches, obstruct safety controls (fuel valves, LPG valves, electrical switches, etc.), obstruct portable fire extinguishers and fire ports, or allow unqualified personnel to modify any of the boat's systems. Have the fire-fighting equipment checked at the intervals indicated on the equipment.

### **2.4.2 Refueling**

**Before you start to fill the engine fuel tank, turn off the engine and naturally any cigarettes or any other open flames like stoves, candles or lamps with flames. It's not allowed to use switches or appliances that can cause spark formation during fueling.**

When filling the fuel tank, do not use a plastic funnel between the fuel gun or fuel container and the boat, as it prevents discharging the electric charge difference between the fuel pistol and the filling fitting and could cause a spark.

Always clean up any spillage immediately after fueling.

If you keep loose reserve fuel containers onboard, they should be stored in one of the pulpit storages (chapter 7, figure 1, position 6 & 25). Never store them in the stern sofa, as electrical equipment may cause sparks. The pulpit storages are ventilated and drained, so any major leak will be visible on the deck. Always check fuel containers before each trip to detect leakages or smell of fumes.

## DANGER

Fuel and its vapors are highly explosive. Extreme caution must be exercised, and these instructions must be followed when refueling. The smell of fuel always means that there is vaporized fuel in the boat. Never store fuel close to electric circuits or batteries (so never in the stern sofa). Do not use plastic funnels when fueling.

### **2.4.3 Fire port**

The stern sofa storage is equipped with a fire port. The port makes it possible to detect and fight a fire below deck (bilge/tank area). The access to the fire port is through the sofa hatch. Make sure you know its location. The fire port has a transparent cover, and an opening suitable for the fire extinguisher nozzle. In case of fire inside the bilge/ below deck area, introduce the nozzle to the fire port opening and activate the extinguisher. Replace the fire port if worn or damaged.

## **2.5 STARTING THE BOAT**

### **2.5.1 Starting the engine**

Read the engine owner's manual carefully, as the boat may be equipped with several engine brands and models.

Ensure that there are no fuel or oil leaks in or around the engine.

Check that the main power switch is turned on (for location and function, see chapter 5.3).

Make sure the engine gear shift is in neutral position (propeller will not rotate when engine starts) and that the engine propeller is properly submerged in water and away from any objects or persons.

Start the engine according to the manufacturer's owner's manual. If the engine does not start, or function poorly, check for instructions in the manual. If unsuccessful, contact your engine dealer (in most cases it is your Ockelbo dealer).

### **2.5.2 After starting the engine**

Ensure that the cooling system is working properly, by visually checking the cooling water control beam (visible just below the engine hood, well above water level). If water doesn't flow out after start, the engine will be soon overheated which can cause serious engine damage.

Your engine is equipped with visual and sonic alarms for critical malfunctions such as overheating. Read the engine manual and make sure you understand these alarms. If alarm goes off, turn off the engine immediately and check the probable reason as per the manual. If the problem continues, contact nearest Engine Brand/Ockelbo dealer.

## **WARNING**

Do not turn off the main battery switch while the engine is running and ensure that no exhaust fumes get inside the boat or endanger others.

### **2.5.3 Ventilation and risk of Carbon Monoxide accumulation**

Carbon Monoxide (CO) can accumulate in dangerous concentrations anywhere in or around your boat when the outboard engine or other fuel-burning equipment is used. CO can remain in or around your boat at dangerous levels even if your engine is no longer running. CO is invisible and do not smell and is therefore hard to detect. CO can cause severe or lethal poisoning.

To minimize the risk of CO poisoning, consider the following:

- Make sure that there is good ventilation throughout the boat.
- Be extra careful when running the engine in neutral, when moving at low speeds and with tailwind, and when running with a high bow, as fumes can then easier accumulate in and around the boat.

- Never operate the engine with the canopy (option) in use, unless there is good ventilation throughout the boat (i.e. forward and aft canvas panels are opened to allow air flow through the boat). Never operate the boat with canopy on and with only the back/stern canopy panel opened (fumes could then enter inside the canopy and accumulate in dangerous concentrations).

## DANGER

Fumes from the outboard engine, heater, stove and other equipment that burns fuel contains Carbon Monoxide (CO) can kill you. Always ensure good ventilation. Study this chapter and the engine manual carefully.

### 2.5.4 Leaving shore

The crew releases each mooring rope etc. as per your instructions. Make sure mooring ropes or other ropes does not tangle with the propeller.

Ask crew to be seated as soon as possible after leaving mooring position. For seating positions see chapter 3.6.

#### **The emergency shutdown switch**

Attach the lanyard of the emergency switch (see chapter 2.2) to your wrist, ankle or lifejacket hook, immediately after loosening the mooring ropes. More specific instructions can be found in the engine manual. Especially when you are driving the boat alone it is crucial that the boat stops if you fall overboard or stumble on board.

Remember to unfasten the lanyard from yourself before coming ashore or moving around in the boat. If not, an abrupt engine stop will occur and may cause fast boat movements.

## **2.6 OPERATING THE BOAT AT SEA**

**Learn the seafaring rules and the COLREG provisions (International Regulations for Preventing Collisions at Sea) and follow them. Navigate with care and make sure your charts are up to date. Boating regulations are available in bookstores or from local authorities. Always adapt your speed to the prevailing conditions, your skills and the environment.**

This owner's manual is not a manual on good seamanship. The operator is always responsible to ensure that he/she has the right skills to operate a boat. Therefore, this manual does not substitute a course (or similar extensive experience) in boating and seamanship. Always take proper training if you lack such, or in any way feel unsecure on boat handling and seamanship. Operating a boat can often be more demanding than driving for instance a car.

- Always make sure that the boat and safety equipment is in a good and safe condition.
- Always maintain an unobstructed view of the area around the boat to detect dangers such as other boats or floating objects in your course, shallow waters

or challenging water and weather conditions. When running with a very high bow (typically when accelerating from non-planing to planing speed), the view may be partially obstructed. If so, ask a passenger for assistance with view or stand up if it helps you to see better. Minimize the time under such conditions.

- Always adjust the speed and trim to the prevailing conditions. Be particularly careful when driving at high speeds and waves. For instance, a low bow in high waves or in a tailwind may cause the bow to plunge into waves and fill the boat with water, or may cause sharp and sudden direction changes.
- Sharp turns, a too low bow or sideways waves at high speeds may be very dangerous due to the risk of fast changes of directions causing passengers and the operator to shift and loose grip, potentially be hurt and/or lose control of the boat.

## WARNING

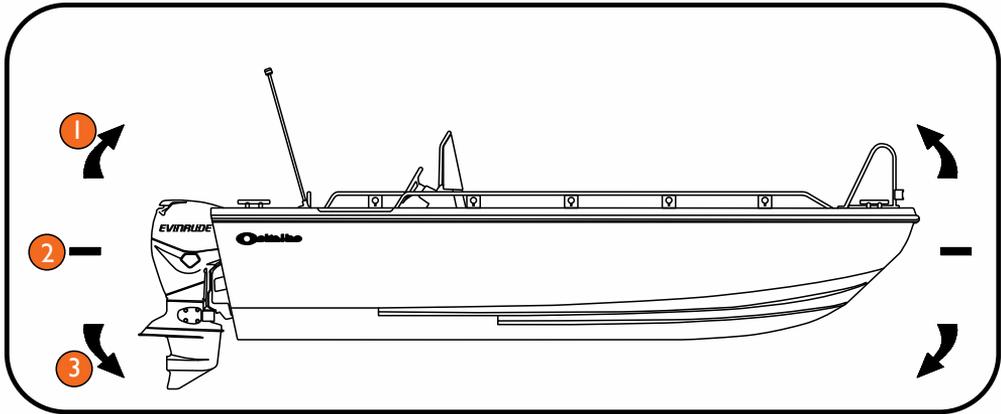
1. Adjust the engine trim with care – at high speed it significantly changes the behavior of the craft. Do not operate this craft with engine trim at negative angles (boat bow pushed down) at high speeds. Craft may lean over on side or dive/plunge into waves. Instability in turns may result.
2. Waves impair handling. Reduce the speed in rough seas.
3. Do not operate at high speed while in congested high traffic water ways or in weather and sea condition of reduced visibility, high winds or large waves. Observe and obey speed limit and no wake zones.
4. Handling is impaired as speed increases. Rapid turns can lead to loss of control. Slow down before sharp turns in either direction. Avoid rapid movements while driving at high speeds, in high waves and at strong winds.
5. Never operate the boat if the engine rated power exceeds the maximum recommended power.
6. Do not sit in the bow area (in front of consoles) when the boat is moving at speeds higher than approximately 10 knots, or in conditions with high waves. Sudden boat movements may cause injuries.
7. Always use the Emergency Engine Shutdown Switch when operating the boat.

## NOTE

1. Ensure sufficient seamanship and operator training as mentioned in introduction, as this book is not a training book for good seamanship.
2. The International Regulations for Preventing Collisions at Sea (COLREG) and national regulations requires a proper lookout be maintained at all times and observance of right of way be respected. Always be certain to have sufficient distance to stop or steer if required to avoid collisions.

## 2.6.1 Trim of the engine (boat pitch)

The outboard engine has a built-in trim and tilt function. The trim adjusts the angle of the propeller versus the boat transom. See also chapter 4.6.



1. Trim Up
2. Neutral
3. Trim Down

The engine trim is used to adjust the bow up or down (the so-called pitch) while the boat is under speed. A well-adjusted engine trim will maximize safety and comfort, and will minimize fuel consumption.

Mastering the trim will require some practise so if you are uncertain, ask someone experienced for help. Correct trim is very important for a safe, comfortable and fuel economic ride, and for fast acceleration.

The basic directions to find optimal trim are as follows, and shall be done during flat water conditions:

### **Accelerate to planing speed (approximately 10 to 15 knots depending on conditions):**

- Engine trim is used to help the boat accelerate as fast as possible from zero to planing speed, with an optimal pitch. Fast acceleration to planing saves fuel and improves the view.
- Engine trim shall be at maximum *trim down* position directly at start.
- As the boat accelerates and reach planing speed, the trim is changed from the *trim down* up to *neutral trim*, in order to keep the bow level or at a slight upward angle. Failure to do so will cause the bow to plow deep into the water, preventing the boat to pick up speed and run safely.

### **Trim when running at speeds above planing:**

- When the boat is running at speeds above planing, the trim also needs to be adjusted. As speed, direction, load, wind or wave conditions changes, new adjustments may be needed.
- Use the trim up to lift the bow up slowly without change of throttle position. Follow the log to notice for how long the speed is increasing. When the speed is not increasing anymore, the trim is in the most fuel-economic position. Then lower the bow slightly to avoid the propeller loose grip.
- In head sea (boat running against waves), you may have to use the trim to lower the bow down to soften the vertical motions but be careful not to lower it too much due to the risk of bow to plunge into waves.
- In following sea, you may instead need to raise bow up to prevent nose-diving.
- A safe ride is always more important than maximize speed/fuel consumption, so always trim for safety first.

### **Trim when lowering speed to below planing:**

- When you reduce speed below planning, or stop the boat completely, the trim should again be adjusted to a trim down position. This improves maneuverability and makes the boat ready to accelerate fast next time.

## **2.7 ANCHORING, MOORING AND TOWING**

Mooring, anchoring and towing require specific skills and good seamanship. Always ask for advice when needed.

It is the owner's and operator's responsibility to ensure that mooring, towing and anchor ropes, anchor chains and anchors are appropriate for the vessel's intended use and in good condition. Wear and impact of knots should be taken into consideration. Also see chapter 3.10 (strong points)

### **Mooring:**

When coming ashore or mooring to a quay the boat must be secured properly. The boat, when moored, should withstand high winds and rough seas. The boat should not be moored with temporary fastenings if the crew is not nearby. Make sure other boats cannot be damaged by your boat and consider the effect of the wake of passing vessels.

Mooring ropes should be long enough and as horizontal as possible. The boat should be able to rise and sway without moving sideways. You normally need two mooring ropes for both bow and stern. Only use the strong point cleats, not the stem eye or secure eye. The ropes for the bow should be equipped with elastic shock absorbers and the ropes for the stern should be about the length of the boat. The points of contact between the rope and the clasps should be checked regularly for wear and tear.

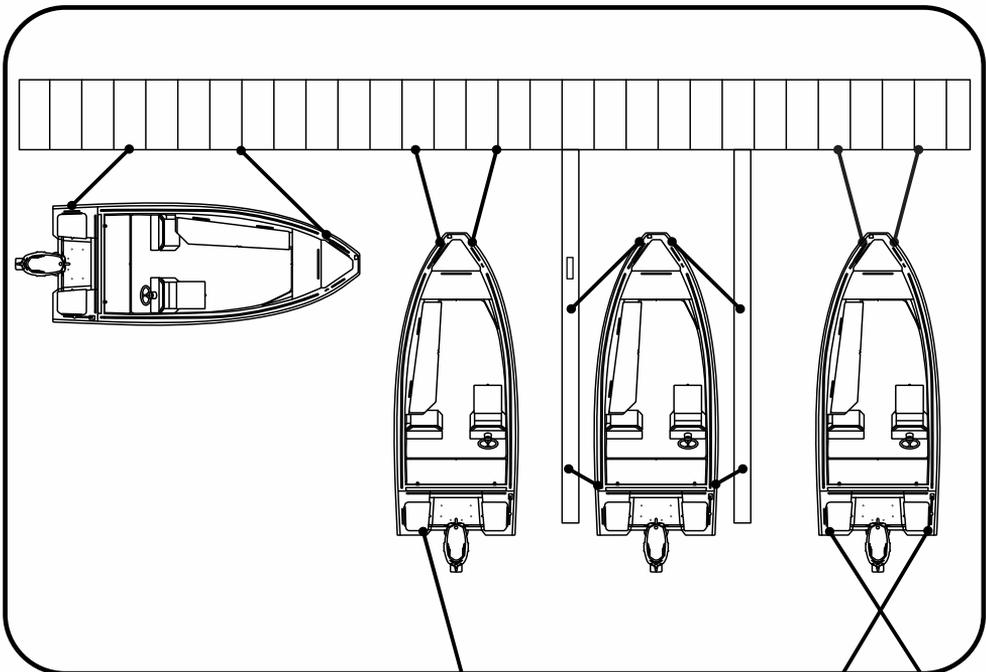
Moor your boat carefully, even in sheltered places, because weather conditions can change rapidly. Do not moor the boat with the stern facing the open sea, because high

waves could flood the boat and sink it. Use loose fenders between the boat hull and any close objects such as other boats when there is a risk of contact.

If the boat is left unattended, turn off the electric power using the main power switch (for location and function, see chapter 5.3).

Never leave your boat unattended for longer periods. Observe the floating position of the boat so that the water line is at a normal level. Check for any water in the bilge. If large volumes of water accumulate in the bilge or at deck (for instance due to leakage, broken bilge pump, lack of electric power, flooding or blocked deck drains), the boat may be seriously damaged or sink as the deck drain system may not work as intended.

Examples, mooring:

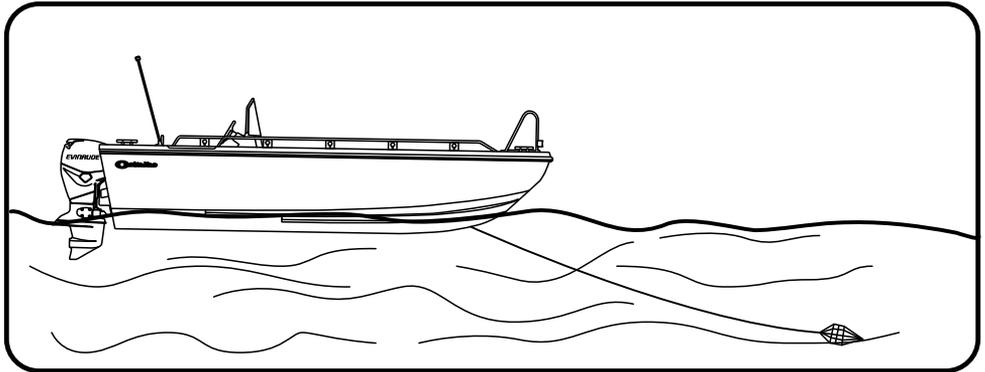


## Anchoring:

When you anchor or land temporarily in a natural harbor, ensure sufficient water depth. Drop the anchor at a sufficient distance from shore, allowing time for the anchor to drop and grip and to release enough anchor rope/chain. The anchor rope/chain length should be at least 4-5 times the water depth. Choosing the right type of anchor and anchoring method requires boating experience, ask for advice when needed.

### Storm anchor:

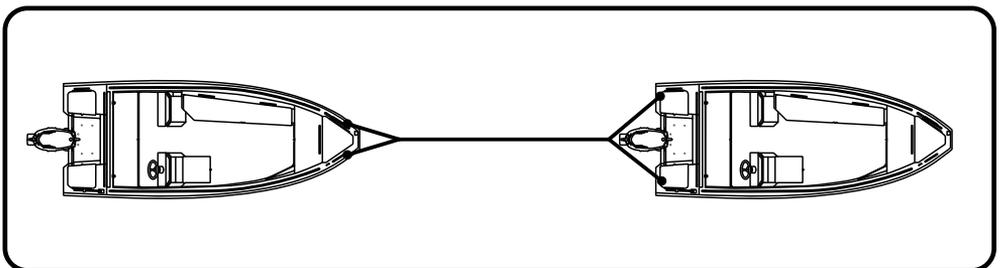
If you lose engine power at sea and waves are strong, keep the boat headed into the waves by rigging a sea anchor off the bow (below principal figure). If there is no sea anchor on board, use a canvas bucket or any object that will offer resistance.



### Towing:

Towing of boats is a very demanding and risky operation, requiring specific skills and experience. If possible use a professional towing company. If you have to tow, or be towed on your own, be very careful and operate at very low speed.

If you tow another boat, use strong, floating towing rope. Begin by towing very carefully, avoiding twitches, and do not overload the engine. Adjust the length of the rope so that the boat can be steered in all situations. Boat's stability may be reduced when towing. Owners/ operators should also consider what action will be necessary when securing a tow line on board.



## WARNING

1. Do not stop the boat by hand and don't put your hand or foot between the boat and the quay, bank, or other boat. Practice landing in good condition, use engine power moderately but not tentatively.
2. Towing or being towed can lead to fatigue of the boat's hardware and lines. Failure of any part can seriously injure people or damage the boat. Do not stand directly in line with the tow line. If the line were to break, it would "snap back" causing injury or damage to everything in its path.
3. It is the owners/operator's responsibility to ensure that mooring lines, towing lines, securing straps, anchor chains, anchor lines, anchors and methods used are adequate for the boat and situation.

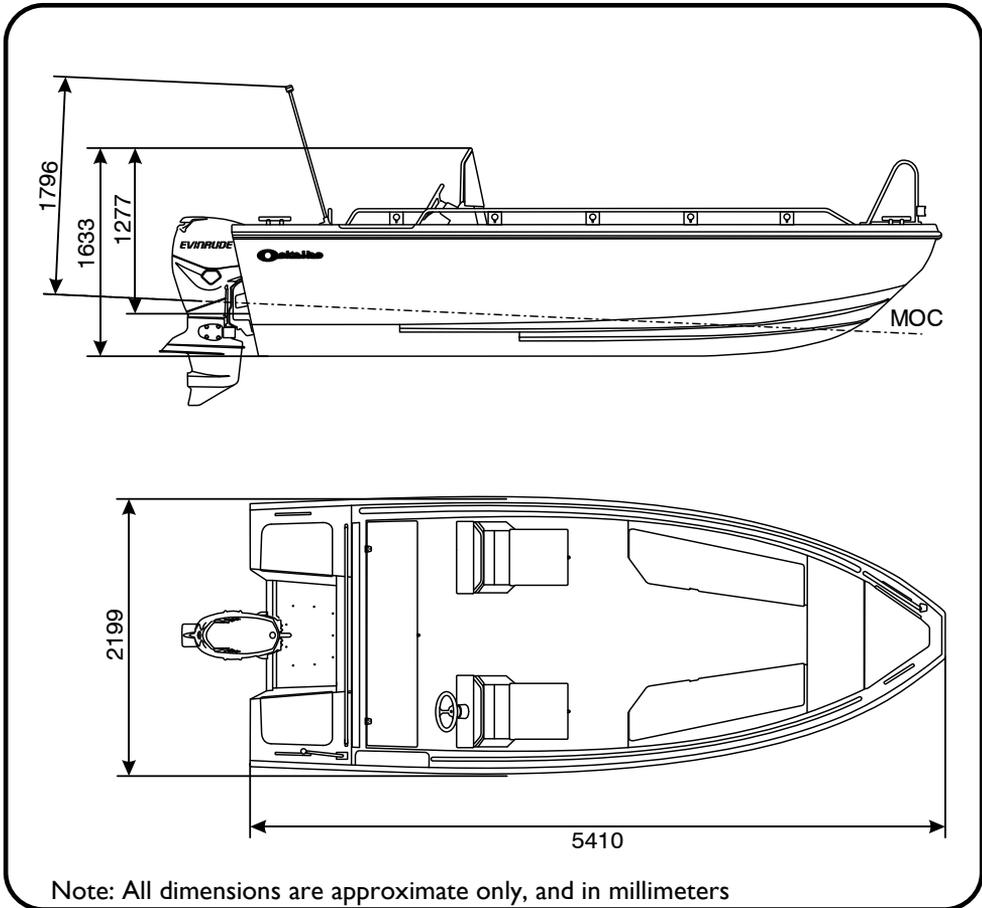
## CAUTION

1. Always tow or be towed at a low speed.  
Never exceed the hull speed of a displacement craft when being towed.  
A tow line shall always be made fast in such a way that it can be released or cut off when under load.
2. Always take possible changes in wind direction and the rise and fall of the water level, as well as the wake of other boats, into proper account.
3. Breaking strength of ropes and chains must not exceed 80 % of the breaking strength of the strong point in question. See chapter about strong points.
4. Never leave your boat unattended for longer periods. Observe the floating position regularly and ensure that the bilge is emptied by the bilge pump. Water accumulation in the bilge or at deck may cause severe damage.

## 3. GENERAL INFORMATION

### 3.1 DIMENSIONS AND SPECIFICATIONS

Length Over All, LOA	5600 mm
Length Water Line, LWL	4480 mm
Draft, Maximum with full load and largest engine, Tmax	759 mm
Draft, at maximum load, without propulsion in water	382 mm
Beam Maximum , Bmax	2200 mm
Free Height, water level to top lantern, Ha	1796 mm
Weight, empty boat without engine, mLT	578 kg
Weight for Trailering and Lifting (boat, engine, fuel, Ockelbo standard and optional equipment as per this manual, liquids), mT	864 kg
Weight Maximum (boat, engine, fuel, Ockelbo standard and optional equipment as per this manual, liquids, maximum crew, maximum luggage), mLDC	1314 kg
Maximum Crew (including driver), CL	6 persons
Engine Limitations	Single outboard, max 100 hp / 73,6 kW. Maximum engine weight 166 kg
Speed, Maximum allowed	Maximum 37 nautical knots
Fuel capacity, built-in tank	90 liters



Note: All dimensions are approximate only, and in millimeters

### 3.2 DESIGN CATEGORIES

There are four design categories of boats based upon their ability to withstand wind and water conditions; this boat is designed in accordance with **Category C**.

**Category A** – Designed for winds that may exceed wind force 8 (Beaufort scale – 40 knots) and a significant wave height of 4m and above.

**Category B** -- Designed for winds that include up to wind force 8 (Beaufort scale – 40 knots) and significant wave height up to and including 4m.

**Category C** – Designed for winds that include up to a wind force 6 (Beaufort scale – 27 knots) and a significant wave height up to and including 2m.

Category D – Designed for winds that include up to a wind force 4 (Beaufort scale – 16 knots) and a significant wave height up to and including 0.3m, with occasional waves of 0.5m maximum height.

## WARNING

Do not attempt to boat in severe weather conditions. Death or serious injury can occur. Get to shore before the weather turns bad.

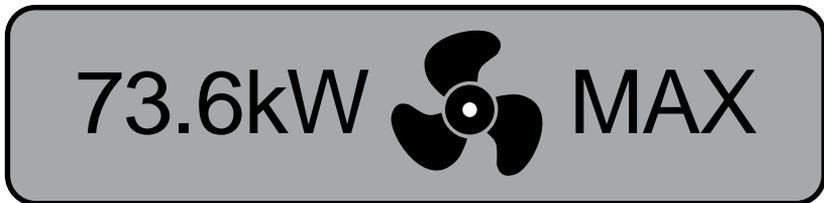
## NOTE

The significant wave height is the mean height of the highest 1/3 of the waves, which approximately corresponds to the wave height estimated by an experienced observer. Some waves will be double this height.

### 3.3 ENGINE REQUIREMENTS

Your boat is designed to be propelled by a single outboard engine. The maximum propulsion power rating for the boat is 73.6 kW. Do not operate this boat with an engine power rating higher than the maximum power rating rated by the Ockelbo. The said label is located at the console, under the Capacity plate. Unless the engine is installed by Ockelbo, it is the responsibility of the party installing the engine to comply with all specifications, rules and regulations related to outboard engines.

Do not hesitate to ask for an introduction to engine operation and maintenance, and always read the engine, engine control and engine instrumentation manuals thoroughly.



***Ockelbo strongly recommend that you fully comply with the owner's manual provided by the engine manufacturer.***

## WARNING

Do not operate this craft with an engine of rated power greater than that posted on the capacity label. Do not operate at maximum speed while in congested waterways, or in weather or sea conditions of reduced visibility, high winds or large waves. Reduce speed and wake as a courtesy to others. Observe & obey speed limits and no wake zones. Stud this manual carefully before starting the engine and operate the boat.

### 3.4 VESSEL STABILITY AND BUOYANCY

The following maximum load has been used for assessing the stability and buoyancy comprising:

Manufacturer's maximum recommended load per ISO 14946	646 kg
<i>This assessment has been made assuming that</i>	
Weight of crew (6 x 75 kg)	450 kg
Luggage / cargo	30 kg
Maximum engine outboard mass	166 kg

Your boat is manufactured to specific stability and flotation standards for the capacity shown on the certification plate. Maximum recommended load included the weight of all persons aboard, all provisions and personal effects, cargo (if any) and fuel. Any increase from the recommended load capacities will put your boat in jeopardy of capsizing, swamping and/or sinking.

In addition, any changes to the masses aboard may significantly affect the stability, trim, and performance of the boat. Stability can be considerably affected by loose fluids or weight within the boat. Keep the bilge area as dry as possible, and in rough weather or at planing speeds, keep all openings, hatches, lockers, doorways, and windows closed to minimize flooding. Breaking waves are a serious stability hazard. Finally, stability can be compromised when towing or lifting heavy weights using a davit or boom.

### 3.5 LOAD CAPACITY

The capacity plate, located on PS pulpit side panel, indicates the maximum weight and number of persons your boat can handle under calm sea conditions. Do not exceed the load capacities stated. A full explanation of this information can be found in the relevant sections of this manual.

The information present on the certification plate does not relieve the operator of responsibility. Use wise and sound judgment when placing equipment and/or passengers in your boat.

## WARNING

1. Do not exceed the maximum recommended number of persons. Regardless of the number of persons on board, the total weight of persons and equipment must never exceed the maximum recommended load. Always use the seats/seating spaces provided.
2. When loading the craft, never exceed the maximum recommended cargo /luggage load. Always load the boat carefully and distribute loads appropriately to maintain design trim (approximately level boat), and secure loose equipment when underway. Avoid placing heavy weights high up.



**AB Aluminiumbåtar**  
Magasinsgatan 7, SE-903 27 UMEÅ

Boat type	<b>Ockelbo</b>	<b>B18</b>
Design Category	<b>C</b>	Max no  <b>6</b>
Max load, kg  + 		<b>480</b>
Max load, kg  +  + 		<b>646</b>
		<b>CE</b>

### 3.6 PASSENGER LOCATIONS AND EMBARKING/DISEMBARKING

Ask passengers to be seated while the boat is moving, and to hold on to handrails both when seated and when embarking/disembarking. Passenger seats are located at the stern (stern sofa), and in front of the consoles and at the bow (below the elevated deck, which shall not be used as a seat). Boats of the model DC and CC have additional separate chairs for the navigator and operator. See chapter 7, figure 2).

Do not use the bow cockpit (area in front of consoles) when operating the boat at higher speeds than 10 knots, or in high wave conditions. Sudden and heavy boat movements can cause injuries to the passengers. Always adopt the speed to the conditions and ask passengers if they are comfortable.

The safest and recommended point of embarking/disembarking is the bow. The elevated bow deck is covered by anti-slip patterns and there are handrails to hold on to.

When moored steadily alongside a jetty, passengers may also use the SB and PS stern storages as a step area.

Be very careful as boat surfaces are narrow and may be slippery when surfaces, shoes or feet are wet or dirty. Be aware of that the boat may move due to shift of weight and waves. Make sure the distance to the jetty is short enough and the boat cannot move away from the jetty. Hold on tight to boat handrails and firm objects on the jetty and/or ask for support from fellow passengers.

## **⚠ DANGER**

Surfaces are slippery when wet or dirty. Use extreme caution when walking on wet surfaces. Never occupy the working decks while the boat is underway. Hold on to handrails and structures to the extent possible.

Be aware of your footing while the boat is underway. Slipping or falling could result in severe injury or death, especially if the boat is in motion or in rough seas. Keep the cockpits clean, so if movement is necessary, it will be free of obstructions.

## **⚠ WARNING**

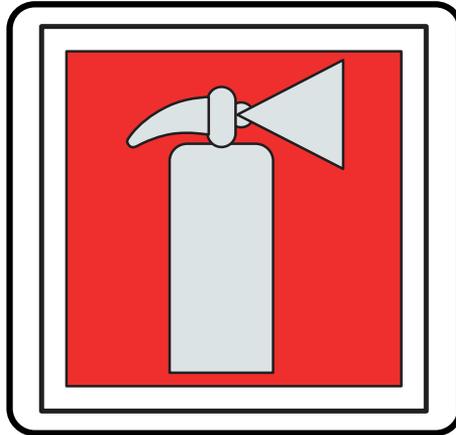
Do not sit in the bow area (in front of consoles) when the boat is moving at speeds higher than 10 knots, or in conditions with high waves. Sudden and heavy movements may cause injuries.

### **3.7 SAFETY LABEL LOCATIONS**

Mounted at key locations throughout your boat, and duplicated in this chapter, are labels which advise you of imperative safety precautions. Learn to recognize and understand the labels prior to operating the boat. These precautions are not all-inclusive.

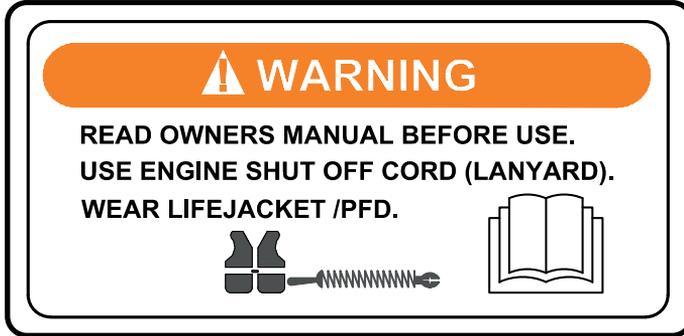
Location: On the storage box in front of operator's console.

Meaning: Shows location of fire extinguisher (location also shown in chapter 7, figure 1, position 7)



Location: At the dash, operator's console.

Meaning: Read this manual before using the boat. Always wear PFD/lifejacket, operator to use the engine shut-off cord when the boat is under way.



Location: Next to the fuel filling cap

Meaning: No open flames in boat when fueling. Inspect fuel system at least annually.



## **i NOTE**

Do not remove or obstruct any safety label. Replace any label which becomes illegible. Replacement safety labels can be obtained by contacting your dealer.

### **3.8 THRU HULL LOCATIONS**

The thru hull locations are shown on in chapter 7, figure 1. All openings except the bottom plug are located above water level even if the boat is fully loaded (max load acc. to this manual, mooring in flat water conditions).

The deck is self-bailing provided at a normal waterline position. Water on the deck can drain through 2 inlets located at the base of the stern sofa. The outlets are at the transom, and are equipped with 2 rubber membrane / non-return valves.

Inspect and test the function of the valves regularly, and always after periods with a lot of

rain and when the boat has been very dirty (leaves, branches, sea grass and so on). Never use sharp objects close to the valves.

In the case of faulty and open valves, and a heavy boat with larger draft than normal, water may enter the boat through the bailing system. The boat may then be filled with water and in worst case sink.

## WARNING

**This boat has an underwater fitting on the transom plate with a drain plug (see chapter 7, figure 1).** This plug must be in place and tightened before the boat goes into water. The boat will sink without this plug in place.

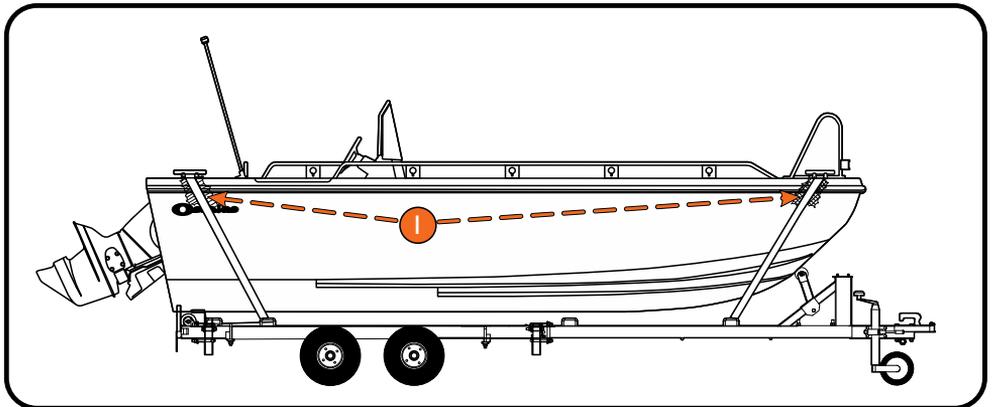
## NOTE

The deck drains provide self-bailing capabilities while the boat is static in the water. This prevents accumulation of water in the cockpit, for instance generated by rain. Make sure the inlets and outlets are free from debris and ice and inspect the valves regularly.

### 3.9 TRAILERING

Ockelbo do not offer a specific boat trailer for this boat. Your dealer can recommend or sell you a suitable trailer. Before placing your boat onto any trailer (or other support), make sure that it is designed for your boat weight and its shape.

- The trailer should have a bow rest, center keel rollers and keel guards/wobble rollers which will distribute the weight properly, offering good support for the keel and hull in both vertical and horizontal direction. Adjust the side supports so that the most weight of the boat rests on the keel supports and the side supports only offer lateral support.
- The mass of your boat in trailering condition is 864 kg. This includes the weight of the maximum size engine and a fully optioned boat along with full liquid loads. This does not include luggage/gear weight, any crew or any water inside the boat. Always remove any unnecessary weight such as loose accessories and luggage from the boat and drain the bilge water before trailering.
- Refer to the engine manual for any specific instructions on trailering, such as the best engine position and securing method.
- Make sure you secure all loose items in the boat. Do not use any canopy, boat covers or other similar top or cover on the boat during trailering. These can become detached at high speeds and damage the boat and cause a danger to traffic.
- Always secure the boat to the trailer using suitable straps attached to boat cleats and trailer strong points. Be careful to not damage the boat fenders. Apply cloths between fenders and straps and do not tighten straps so hard that fenders are deformed. If possible, try to fasten straps in an angle as shown in the figure below.



1. Soft material / clothes between fender & straps

## **i** NOTE

Tightening straps too hard across the boat fender may damage the fender. Be careful and use rags or other material between fender and straps/ropes.

### **3.10 STRONG POINTS**

#### **Cleats**

Your boat comes equipped with 4 cleats, two located at the bow and two located at the stern. The cleats are used for mooring, anchoring and towing.

The locations of the strong points that can be used for anchoring, mooring and towing is shown in chapter 7, figure 1, position 2 & 12. Never use the cleats for lifting the boat!

The break strength and intended use of the strong points are as follows:

Bow cleats (PS & SB), mooring/anchoring/towing:	11.9 kN
Stern cleats (PS & SB), mooring/anchoring/towing:	10 kN

#### **Bow Eye & Securing Eye**

Your boat includes a bow eye, which is used to haul and hold your boat onto a trailer. It also includes a Securing Eye, which is used for locking the boat with a padlock or similar. See chapter 7, figure 1, position 1 & 3. None of these are designed for lifting, mooring, anchoring or towing of the boat!

## WARNING

The bow eye and securing eye are not designed for lifting, mooring, anchoring or towing of the boat! The cleats are not designed for lifting the boat! Failure to comply with these warnings may lead to extensive material damages, injuries and death.

## CAUTION

Breaking strength of ropes and chains must not exceed 80 % of the breaking strength of the strong point in question.

### 3.11 LIFTING OF THE BOAT

Commission only a reputable lifting company or boat yard with sufficient lifting capacity to lift the boat. In addition to the boat's own weight, also consider the equipment, and other possible loads in the boat. Always empty any bilge water before lifting.

The positions of the lift straps are shown in the figure. When lifting the boat with lift straps, Ockelbo recommends using a forklift or lifting frame in order to separate the straps from the upper hull and fender. The straps need to be vertical. If these recommendations are not followed, there may be damages on both hull and fender and these are not covered by any warranty.

During the lift, make sure that the boat is well balanced and be careful with rails and other equipment. Ensure that lifting straps cannot slide in any direction either on the boat or on the lifting device.

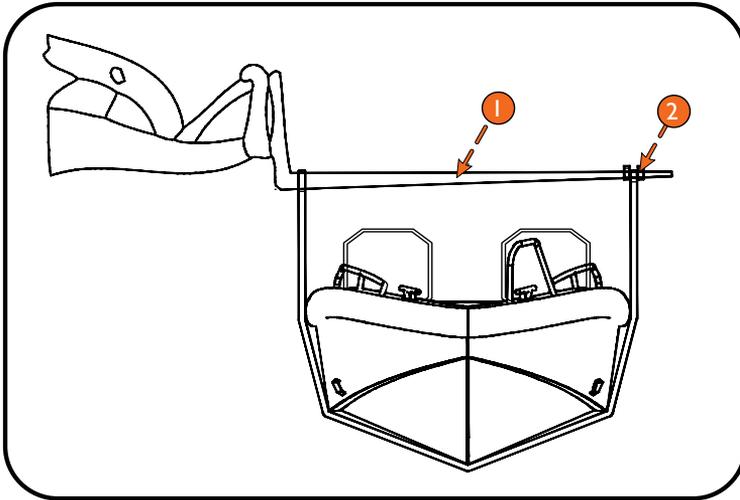
Cover hoist/lift devices with soft material to prevent scratches. Do not stand under the boat while lifted.

## DANGER

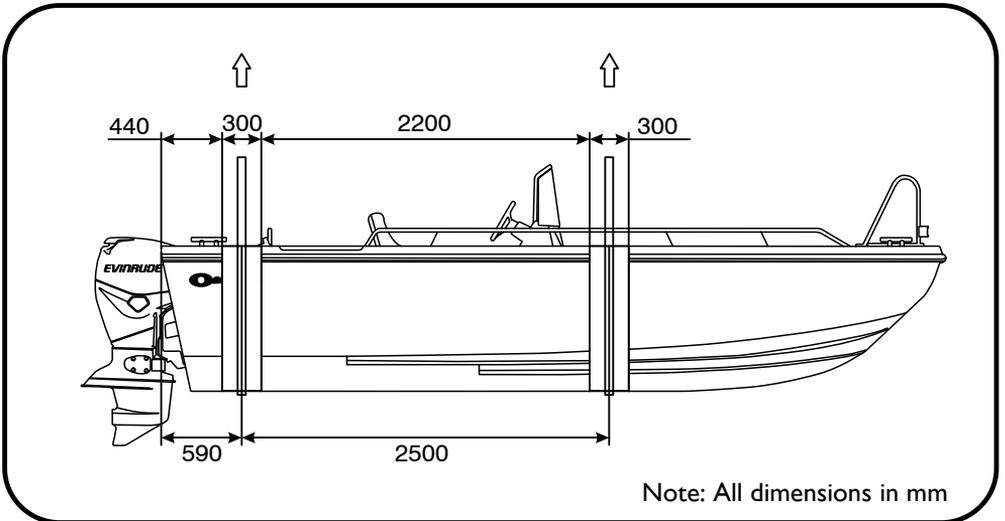
**Never stand below the boat when lifted.** Use only the lifting procedure specified in this manual. Using the cleats, secure eye, bow eye, handrails or other parts of the boat for lifting is dangerous and could cause severe injury or death.

## WARNING

Lifting heavy items is always risky and requires specific skills. If you lack that, or in any way feel uncertain, always contact a professional lifting company or other experienced persons.



1. Front loader forks
2. Anti-slip locks



I. Areas for positioning of lifting straps, to ensure good balance.

## 4. SYSTEMS & COMPONENTS

### **i** NOTE

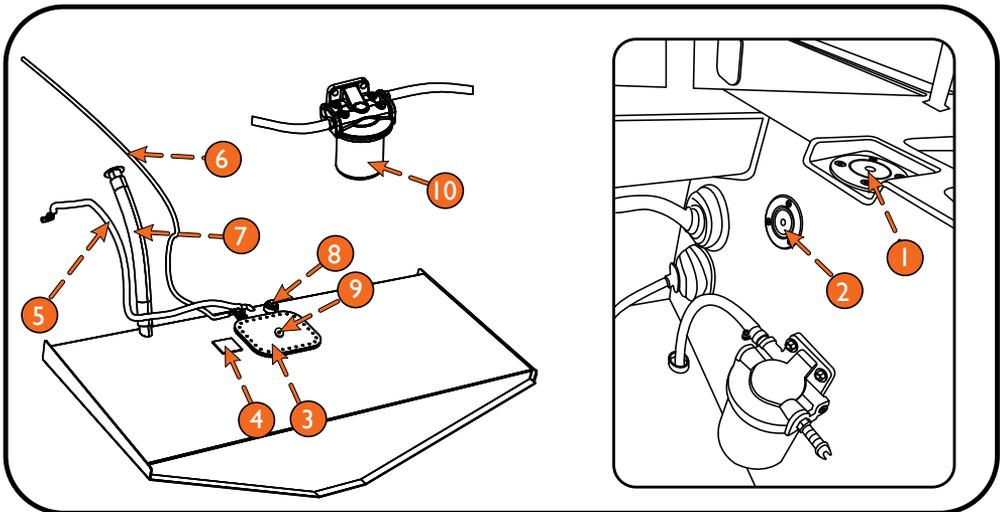
This chapter is based on Ockelbo-listed standard and optional equipment. Any other equipment or systems added (custom-made boats, aftermarket products and so on) are not covered here.

Furthermore, outboard engine and engine control instrument details are not included. The engine can be of multiple brands and models, in the choice of the dealer and customer. Please check the manuals provided with that engine or consult the dealer who installed it

### 4.1 FUEL SYSTEM

The main parts of your boat's fuel system are shown in the below figure.

The factory-mounted boat fuel system (excluding engine) is designed to handle regular gasoline as well as ethanol-blended gasoline with ethanol content not greater than 10 % (E85 is not allowed). However, **the engine may not be designed for ethanol-blended gasoline**. Before introducing fuel with ethanol into your fuel tank, ask your dealer if an engine or any components have been added or replaced that may not be ethanol-compatible.



- |                          |   |
|--------------------------|---|
| 1. Fuel fill             | 6. Fuel line /hose                      |
| 2. Fuel vent outlet      | 7. Fill hose                            |
| 3. Inspection cover      | 8. Level sensor                         |
| 4. Pressure test marking | 9. Plug for external pump (emptying)    |
| 5. Ventilation hose      | 10. Fuel filter (part of engine system) |

### **4.1.1 Fuel tank**

The boat is equipped with an aluminum fuel tank with a capacity of 90 liters. As a precaution, all the capacity may not be useable due to trim and loading conditions, so consider keeping at a minimum 20% of reserve fuel in the tank.

Fuel tanks with levels less than 20% capacity can cause engine stalling problems due to fuel starvation or by allowing sediment and dirt to enter the fuel supply lines. Keep the tank full and monitor the fuel level often to prevent this from happening.

### **4.1.2 Filling the tank**

When filling the tank, do not attempt to top off the tank. When the nozzle shuts off, the tank is full, and continuing to fill past the fuel fill shut-off will cause the system to spit fuel back.

**Before fueling, carefully read the chapter on Fire Prevention in this manual!**

### **4.1.3 Phase separation**

Humidity and condensation creates water in your fuel tank which can adversely affect the function, with ethanol blended fuel. A condition called phase separation can occur if water is drawn into the fuel beyond the saturation point. The presence for water in the fuel beyond the saturation level will cause most of the ethanol in the fuel to separate from the bulk fuel and drop to the bottom of the tank, significantly reducing the level of ethanol in the fuel mixture in the upper level (phase). If the lower level (phase), consisting of water and ethanol, is deep enough to reach the fuel inlet, it could be pumped directly into the engine(s) and cause significant problems. Engine problems can also result from the reduced ethanol/fuel mixture left in the upper phase of the tank, or just from the water contamination.

If phase separation does occur, your only remedy is to drain the fuel, clean and dry the tank completely and refill with a fresh, clean tank of fuel. Also, clean or replace fuel filters (see chapter 4.1.4)

The best method to avoid these problems is to avoid water from accumulating in the tank. Try to maintain a high fuel level in the tank, in particular when the boat is not in use for longer periods. This will reduce the air flow in and out of the tank due to changes in temperature as well as limiting fuel exposure to humidity and condensation.

### **4.1.4 Fuel filter**

As a part of the fuel system, a fuel filter is installed in-between the tank and the engine.

There is always an external filter mounted in the boat. The exact location varies between engine brands and engine installation companies. Some engines also have a filter under the engine hood.

Maintenance of the fuel filter is essential to secure a reliable operation. For some engines, the filter can also be connected to the instrumentation and provide a warning if it need maintenance.

Please check the instructions provided by the dealer who installed the engine.

## DANGER

Fuel vapors can explode. Never smoke while handling or filling up the fuel tank. Leaking fuel is a fire and explosion hazard. Inspect the fuel system annually to make sure that there are no leaks and corrosion in the system.

## WARNING

1. Do not obstruct or modify the fuel ventilation system, as that could cause fires or explosions.
2. Do not store any equipment containing fuel (outboard engines, portable tanks, etc.) in any unventilated storages, or where electrical systems and batteries are installed. These compartments were not designed to store fuel and do not have adequate ventilation.

## CAUTION

Gasoline fuels with ethanol or other additives/gasoline replacements, like E85, could seriously damage your engine and void warranty. Always check the engine owner's manual for fuel recommendations and any approved additives prior to the first use.

***For complete instructions on operation and maintenance, we refer to the separate OEM owner's manual that was developed specifically for this equipment. It is provided with the Ockelbo document bag.***

## 4.2 STEERING SYSTEM

As standard, this boat comes equipped with a hydraulic steering system consisting of a steering wheel, a hydraulic helm pump, hydraulic hoses and a hydraulic steering cylinder. However, depending on the engine brand and model, the steering system may have been upgraded to either:

- A hydraulic steering system as above, but with power servo for easier turning.
- Or a system with electronic steering control combined with hydraulic servo and cylinder. The steering wheel controls the power servo by wires instead of hydraulic hoses.

For any support you may need, please contact the company who installed this system (in most cases it is your Ockelbo dealer). Maintenance may include check of oil levels at servo, check for leaks and lubrication of open parts/joints.

***For complete instructions on operation and maintenance, we refer to the separate OEM owner's manual that was developed specifically for this equipment. It is provided by the party who installed the engine.***

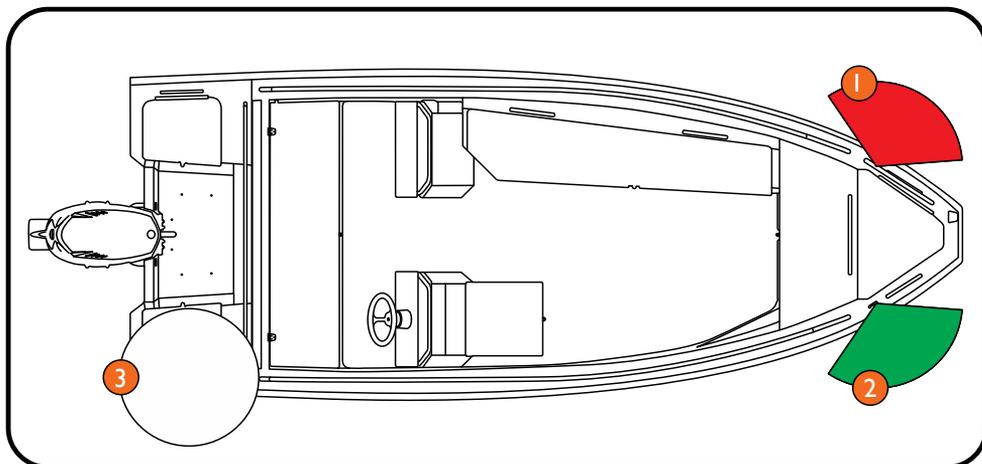
### 4.3 NAVIGATION LIGHTS

Your boat comes equipped with navigation lighting for use at night or in low visibility conditions. The use of navigation lights at low visibility conditions is mandatory in most countries and waters and is always important for your own, as well as others, safety at sea. Local regulations may vary.

The navigation light switch is located at dash switch panel.

To turn on the Navigation Lights, press “Navigation light” button (see chapter 7, figure 3, position 5). This illuminates the port (red), starboard (green) and all-around/anchor light (white) showing other vessels that you are underway. To turn off the Navigation Light, press “Navigation light” button again.

Prior to running at night, make sure that all navigation lights are working well.



1. 112.5° Portside lantern, red
2. 112.5° Starboard lantern, green
3. 360° Top/anchor lantern, white

*For complete instructions on maintenance, we refer to the separate OEM owner's manual that was developed specifically for this equipment. It is provided with the Ockelbo document bag.*

### 4.4 BILGE PUMP

Your vessel is equipped with an electrical bilge pump with automatic and manual switch.

The pump is in the bilge near the transom. Access to the bilge pump is via the motor well access plate. The pump is rated for 2271 liters/hour and is activated automatically by free float switch when water in the bilge reaches a predetermined level. In normal conditions there shall not be any water in the bilge. If there is water, it is caused by leaks from above (deck, fitting, inspection covers) or damage to the hull (seawater leaks). The

reason for the leakage is to be determined and corrected soonest possible!

The bilge pump can provide you with crucial extra time if your boat is taking in water, allowing you to find and deal with the source of a leak or, in extremes, to put on life jackets and hopefully keep your boat afloat long enough for help to arrive. Please however note that the pump capacity cannot keep up with major leaks.

You can also manually activate the electrical bilge pump at the console switch panel by pressing and holding the bilge pump button (see chapter 7, figure 3, position 5). Push this button **and hold it** to operate the bilge pump.

## **WARNING**

The bilge pumping system is not designed for damage control.

## **CAUTION**

Check the function of the bilge pump at regular intervals. Try to empty the bilge manually with the spring-loaded switch located on the switch panel every time before boat use, and make sure the pump works. Bilge pump failure could potentially cause the boat to sink if there is an unnoticed water leakage.

*For complete instructions on operation and maintenance, we refer to the separate OEM owner's manual that was developed specifically for this equipment. It is provided with the Ockelbo document bag.*

## **4.5 TRANSDUCER AND PLOTTER/DEPTH FINDER**

### **B18 AL:**

This model is delivered with a GT-20 transducer installed at the lower end of the transom. The boat is therefore ready for an optional installation of a bracket-mounted Garmin plotter/depth finder.

### **B18 CC & DC:**

These models are delivered with a GT-20 transducer installed at the lower end of the transom. They are also delivered with a Garmin 72dv plotter/depth finder, flush mounted on the dash.

For all models, be careful to not damage them when the boat is lifted or winched to a trailer or cradle, or at very shallow waters. The transducer is mounted on an adjustable Ockelbo aluminium mount plate, for easy height adjustment without a need for tools.

*For complete instructions on operation and maintenance, we refer to the separate OEM owner's manual that was developed specifically for this equipment. It is provided with the Ockelbo document bag.*

## 4.6 ENGINE CONTROLS AND INSTRUMENTATION

The engine controls and the instrumentation will vary depending on the engine brand and model, thus it is covered by the engine owner's manual. Typical locations of controls and instruments are shown in chapter 7, figure 3.

### Gas and gear throttle

This control is used for controlling the gear and has 3 positions (forward, neutral, backward). To shift it in neutral while engine is running, the engine rpm must be at idle. In neutral, there is a lock button to allow the rpm to increased, for instance for engine warm-up or tests. See engine manual.

### Power trim and tilt

At one side of the tip of the throttle handle, there are 2 buttons. One will raise the engine, the other lower the engine. This function is a combined trim & tilt functions.

The power tilt (power lift) allows you to raise and lower the engine for trailering and launching the boat and to keep the engine out of water while moored at port. The power tilt is activated automatically when the engine is raised outside the trim (operation) angles.

The same control is also used for the power trim. At the lower range of the engine movement angles, the power trim allows you to adjust the engine angle to create the optimum boat trim (raise/lower the bow), see chapter 2.6.

### Engine Instrumentation

All modern engines are equipped with several sensors, allowing useful information and alarms to be displayed at instruments placed at the console. Examples are engine temperature, rpm, trim angles, fuel filter problems, oil levels and general alarms.

Depending on the engine brand, model and options, the information can either be displayed on a separate engine control display mounted on the console (standard) or be displayed on the plotter/depth finder display (option), or both.

Due to the different possibilities to install and customize the displays, you need to study the engine and engine instrumentation manuals. They are to be provided by the Ockelbo dealer or other company who installed engine and instruments. Understanding the instruments will ensure that you use the engine in the most optimal, economic and safe way.

***For complete instructions on operation and maintenance, we refer to the separate OEM owner's manual that was developed specifically for this equipment. It is provided with the Ockelbo document bag.***

## 4.7 SWIM LADDER / MOB RESCUE LADDER

The boat is equipped with a swim ladder which also serves as a MOB rescue ladder, see chapter 2.3.

It is located at the stern, at the PS of the transom. Always make sure the ladder is securely stowed after use so that it does not fall into water in case of heavy boat movements. It is important to check the function every season, see maintenance chapter 6.3.6.

### WARNING

1. A faulty or blocked ladder may jeopardize man-over-board rescue. It may be very hard or impossible to enter the boat from water without the ladder, which in turn may cause drowning.
2. A rotating propeller can be lethal for a swimmer or person who has fallen overboard, or a person using the ladder to board the boat or to enter water. Shut down the engine and activate the emergency switch (dead man's switch) if there is any person in the water behind the engine, and always before using the ladder.

## 4.8 CONSOLE CONFIGURATIONS

The B18 AL, CC and DC have different console configurations. See figures in chapter 7. There are minor differences between the consoles, therefore the figures are principal only.

## 4.9 CUSHIONS (OPTION)

The boat can be delivered with a tailor-made cushion set for the seats. It is also available as an aftermarket product. Store the cushions inside the storages when not in use. For maintenance, see chapter 6.3.1.

## 4.10 CANOPY FOR CONSOLE (OPTION)

All console versions can be equipped with a canopy, as weather protection. The canopy is a loose item which can be stored in the storage boxes when not in use. For maintenance, see chapter 6.3.7.

## 4.11 STERN CANOPY FOR CC/DC (OPTION)

The CC and DC versions can be equipped with a stern canopy, which offers good weather protection for the seats behind the console(s). It can be stored folded behind the sofa or dismantled and stored in the storages. For maintenance, see chapter 6.3.7.

#### **4.12 TARGA BOW (OPTION)**

The boat can be equipped with a targa bow/mast, attached across the engine bay. The targa can be used as a base for search lights, antennas, rod holders and more. There is also a towing hook for water sports.

It **MUST NOT** be used for towing of other boats or for mooring or anchoring. For such use, the strong points must be used. See chapter 3.10.

#### **WARNING**

Never use the targa bow/mast for anchoring, mooring or towing of other boats. It is not dimensioned for such use. Failure to comply with these warnings may lead to extensive material damages, injuries and death.

## 5. ELECTRICAL SYSTEM

### 5.1 GENERAL DESCRIPTION

Your boat is equipped with a 12 V DC electrical system, powered by a battery. The battery is kept charged by the alternator of the engine. The battery voltage is indicated by the engine instrument (optionally by a depth finder/plotter).

All cabling is done using pre-manufactured cable harnesses, adopted specifically for this boat model. All cable ends and consumers (e.g. bilge pump, winches, and lights) are coded and can be identified on the attached schematics.

All consumers are connected through circuit breakers to the battery. The breakers are of automatic type and can easily be reset when the cause of the problem has been identified. All are also individually marked on the boat for easy trouble-shooting.

The complete system is controlled by the main battery switch, installed on the battery box, and which can cut the power to all consumers with exception of the bilge pump. The bilge pump has a permanent power supply, to function at all times.

When leaving the boat for longer periods, always turn the main battery switch(es) to OFF to avoid battery drain caused by accidental activation of the remote switches.

Ockelbo has equipped the boat with an empty spare circuit where Auxiliary Equipment (aftermarket products) can be installed. It is marked as EXTRA on the fuse panel.

Any modifications to the electrical system must be made by experienced staff. Using the hull as one pole (positive or negative, for instance for earthing of consumers) will likely cause major issues including risk of corrosion damages to the hull and must be avoided at all times. Batteries can generate high currents that can be fatal and cause sparks and fires. Make sure you always understand how the system works before you do any maintenance or modifications, such as disconnecting batteries, adding AUX equipment or repair work.

### WARNING

Always disconnect the power using the main battery switch, before any work on the electrical system. Failure to do so may cause electric shocks, or sparks that can ignite fuel fumes. Always ventilate areas with fuel or batteries before any work, and never use open flames in these areas.

### CAUTION

When leaving the boat for longer periods, always turn the main battery switch off to avoid accidental battery drain. Failure to do so may hinder the bilge pump from working, potentially causing the boat to sink in case water leaks into the bilge. Never leave the boat unattended for lengthy periods, and check battery charge level regularly.

## 5.2 BATTERIES AND CHARGING

Refer to your engine owner's manual for exact battery requirements. The battery should always be installed in the battery box and properly secured to prevent it from shifting during voyage and potentially cause damages or even fires.

To remove the battery cables (for instance to replace battery or bring it to a charging station):

- Turn off all items drawing power from the battery.
- Turn the battery main switch to the OFF position.
- Remove the negative cable first, then the positive cable.
- When re-installing the battery, always install the positive cable first, then the negative cable.

## 5.3 BATTERY MAIN SWITCH

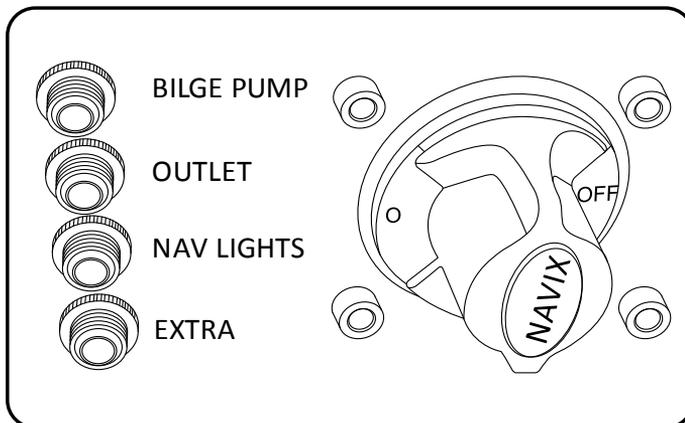
The complete system is controlled by the main battery switch, installed on the battery box inside the stern sofa. The switch can cut the power to all consumers with exception of the bilge pump. The bilge pump has a permanent power supply, to function at all times.

When leaving the boat for longer periods, always disconnect the battery using the switch, as it prevents battery drain caused by accidental activation of consumers.

To disconnect the battery, turn the switch so it shows the red-coloured area marked with 0 / OFF. See the figure in chapter 5.4.

## 5.4 CIRCUIT BREAKERS

Your boat is equipped with automatic circuit breakers protecting the DC electrical system. They can be reset if they trip, by pushing the button. They are individually marked with the name of the function they control (e.g. bilge pump). They are found on the outside of the battery box. See below figure.



## **5.5 ELECTRICAL DIAGRAMS**

Electrical diagrams are included as printed attachments to this manual. They can also be obtained from your dealer or from Ockelbo if they are lost. These diagrams can be used for technical reference and for professional service technicians. If you lack professional skills for this kind of electrical system, contact your local authorized dealer for help.

## 6. MAINTENANCE

Routine inspection, service and maintenance of your boat, systems and components are vital to assure your safety, and will prolong the life of your boat.

Maintenance of Ockelbo manufactured parts are described in detail in this chapter.

Other parts such as engine and navigation systems are manufactured by specialists. To ensure the best possible instructions, we sometimes refer to the specific OEM maintenance manuals. These are provided with the boat (please check the Ockelbo document bag). This applies to the following components (reference is given to the operations chapter in this boat manual):

Component/system with separate manuals	Brand /OEM to help you locate the manual in the Ockelbo bag	Reference chapter in this manual
Fire extinguisher	DAFO	2.4.1
Steering	Varierar, se väska	4.2
Navigation lights	Hella	4.3
Bilge pump	Jonson Pumps	4.4
Depth finder & plotter / transducer	Garmin	4.5
Engine controls	Varies with brand, see bag	4.6

The interval between necessary service and maintenance is highly variable, depending on the environment in which your boat will be used, and how much you use it. For example, corrosion of boat parts and components will occur far more rapidly in a salt water environment than on a boat which is used in fresh water.

This section provides only general guidelines for the care and cleaning of your boat. It is your responsibility to determine whether maintenance and care intervals need to be accelerated due to your boat usage and/or operating environment. If you have any question regarding maintenance of your boat, contact your local Ockelbo dealer for additional assistance.

### DANGER

While using chemicals, read all information from the manufacturer regarding safety and handling of the material. Wear proper protective equipment to ensure personal safety. Work only in well ventilated areas and keep all chemicals away from open flames.

## **i** NOTE

1. Refer to the individual manufacturer's manuals, which can be found in the Owner's Manual packet, for care and maintenance of equipment and components. In some cases, failure to do so could void the warranty.
2. If chemicals are used during maintenance, be careful to follow environmental regulations and good practices, in particular if they risk being released to water.

## **6.1 FUEL SYSTEM**

Lengthy periods of storage and/or non-use, common to boats, create unique problems. When preparing to store a boat for extended periods, of two months or more, it is best to completely remove all fuel from the tank. The fuel remove plug is installed on the fuel tank inspection hatch. You can use this hole for introducing a hose from any portable bilge pump used to remove the fuel. If it is not possible to remove the fuel, maintaining a full tank of fuel is recommended to prevent condensation of humid air.

If water enters the fuel system, it must be completely drained and refueled with fresh fuel. Water may be detected by inspecting the fuel water separator filter (optional) or by signs of uneven engine operation / jumpy rpm / starting problems.

At least once in a year, carefully inspect all fuel and ventilation lines and hoses. Check for signs of leaks along them and carefully check the connections at each end. See also chapter 4.1.

## **6.2 HULL, DECK, RAILS & SUPERSTRUCTURES**

Fresh water, saltwater and water temperature can all affect the types of growth that you will find on your boat's surfaces. Any growth will affect the boat's performance and overall look. Keep the surfaces clean using water and a soft sponge /brush, or mild detergents.

You might notice algae or slime growth on the hull below water level. The below-water growth should be cleaned immediately after the boat has been removed from the water. If the growth is allowed to dry it will be much harder to remove.

At least yearly, check for damages to hull and superstructures such as dents, cracks and corrosion. Carefully check that swim/rescue ladder, handrails, cleats and secure/bow eyes are not loose and has no cracks or corrosion damages.

### **6.2.1 Aluminum treatment M-400 maintenance & principle**

Ockelbo boats have a patented surface treatment on all aluminum surfaces, called M-400®. The treatment bonds to the aluminum and strengthens its already impressive characteristics, giving the boats hull a fantastic shine while preventing oxidation. M-400 chemical resistance is significantly higher than untreated aluminum.

We recommend regular rinse with clean fresh water on M400 treated surfaces. If you do not allow aggressive substances to "burn", the surface works relatively self-washing (hydrophobic) with fresh water. In that case, collections of salts and soils are washed

away. On an untreated aluminum, these salts oxidize the aluminum and thus bound to the surface. On surfaces that are in water (e.g. below the water line), a mild brush can be used regularly to easily remove algae and the like, which mostly cannot get a good grip on the M400, yet they are attracted by smooth/shiny surfaces. On other surfaces, a mild sponge can be used in combination with a mild (pH-neutral) shampoo, followed by a rinse. Regular car and boat shampoos work great. If desired, the M400 can be waxed and polished like a car. However always avoid abrasive rubbing as this may damage the thin layer's properties.

Despite the strong protection of the surfaces, please keep in mind that the protective layer is very thin. Just like a fine ceramic frying pan, you should choose the right tools and means for cleaning. Avoid aggressive chemicals and salt dries / burns in the surface, as they will become difficult to remove over time. The use of abrasive methods for washing (such as polishing discs or sponges) may gradually wear down the surface and its protection. Strong basic chemicals are directly oxidizing on aluminum and should therefore be avoided in any case, although the M400 is significantly better than pure aluminum. The acid resistance of the M400 is relatively high, despite the thin layer. But, as acids are also highly corrosive on pure aluminum, these should also be avoided.

After many years of use, or in case of damages to surfaces such as hull repairs, the treatment may be renewed. To get a good result, the complete hull should be polished and treated again. As a minimum, at least full outside surfaces and/or full inside surfaces should be treated. Partial treatments may result in a bad visual impression (color and surface variations). Contact your Ockelbo dealer for further details.

### **6.2.2 Hull below water, antifouling treatment**

The hull below water can be better protected by applying special hull antifouling, in particular when the boat is used in salt water areas. It is very important to choose the correct type of primer and top coat, suitable for aluminum hulls and for your local conditions.

If the boat was delivered with antifouling from the factory (optional), Ockelbo have used the following products:

- Primer: International Intergard 563 (white)
- Glue for anti-fouling: International Intergard 263 (grey)
- Anti-fouling: International Trilux 33 (black)

Consult with your local dealer as condition varies from water to water and is also regulated by local or national environmental regulations.

## CAUTION

Do not apply any paint to zinc anodes, log sensor or trim tabs. Do not apply paints or lubricants including copper on aluminum parts. Always follow the instructions of paint manufacturers.

## **i** NOTE

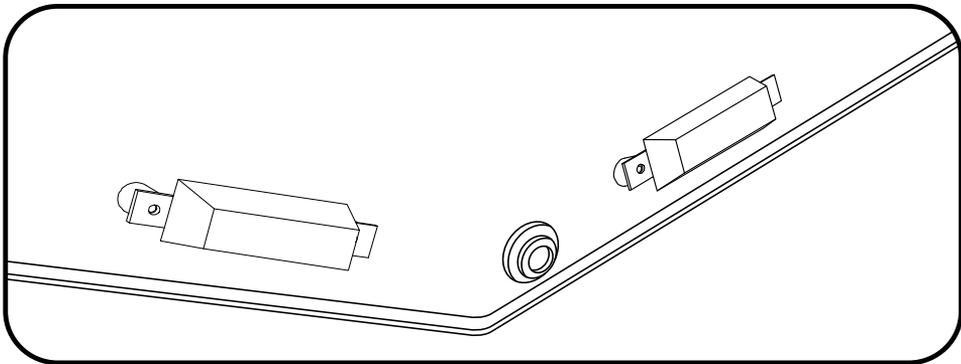
Type of antifouling paint allowed may vary by region and country, always check local regulations.

### **6.2.3 Anodes for prevention of galvanic corrosion**

One of the most important maintenance tasks when owning a boat is making sure you protect the hull and engine from electrolytic corrosion. This can otherwise quickly create serious damages. Ockelbo boats are therefore equipped with sacrificial anodes, made from zinc, which are designed to corrode instead of the boat and the engine. They are mounted at the bottom recess (see chapter 7, figure 1, position 19).

The anodes must be inspected annually and renewed if more than 50% are wasted. It is important to inspect the working surface of the sacrificial anode to ensure that it is free of paint and chalky corrosion deposits and particularly very important on the contact surface between the anode and the hull.

Your engine is likely also equipped with anodes that need to be maintained, see engine manual for further details.



## **6.3 COMPONENT MAINTENANCE**

### **6.3.1 Cushions and hook-and-loop fasteners**

Saltwater, salt residue, dirt, ultra-violet rays etc. will take their toll on vinyl and nylon products causing them to lose their luster and texture. To clean, remove ordinary dirt and smudges with a mild soap and water solution. Rinse cleaned area with fresh water and dry with a clean, soft, lint-free cloth or towel.

Your cushions are not waterproof. They are constructed of open-cell foam and will absorb and hold water. Do not leave the cushions in standing water or exposed to heavy, prolonged rain. If, in the event your cushions become waterlogged, remove the foam from the cushion, press as much water as you can from the foam and allow to air dry. To prevent mildew, keep the vinyl dry and make sure that moisture does not

accumulate between the cushions when stored. Do not store until they are completely dry.

The hook-and-loop fasteners are used to hold the cushions in place on the seat. They need to be cleaned by water and mild soap when dirty. Do not use jet / pressure water nozzles when cleaning them. Although they are of high quality, they will eventually wear out from use, sun exposure and wear from stepping on them. They are considered a consumable and need to be replaced as needed. A first roll of spare fastener tape is provided with the new boat.

### **6.3.2 Acrylic windows**

Acrylic windows are easy to form and strong against impact. The surface is however not as hard as glass, and therefore more sensitive to scratches than glass. To clean it, first soak/hose well with plenty of fresh water to remove particles. Then use a mild detergent and water solution, and a soft sponge while keep rinsing. Wash the sponge often to remove any sharp particles. If needed, wipe with a soft cloth.

NEVER USE any strong chemicals, glass cleaners, polish or wax, unless it is specifically developed for acrylic windows.

### **NOTE**

DO NOT use abrasives, harsh chemicals, or metal scrapers on glass.

### **6.3.3 Fender list**

The fender list has a D-shape and is mechanically attached to the hull. As a fender, it will eventually have physical contact with other boats, docks and so on. Such contact will result in scratches, small deformations and some friction marks. This is natural and could be left unattended if the fender is functional and well attached to the hull.

If the fender is dirty or discolored, use regular mild detergents like boat shampoo and a soft brush. If the fender looks faded, a treatment with “tire/bumper shine” or similar care products for rubber can be used. Ask your Ockelbo dealer for advice if you are uncertain.

### **6.3.4 Plastic panels**

Use only regular mild detergents like boat shampoo and a soft sponge or rag for cleaning. Do not use polish and other abrasive chemicals and tools as they may ruin the surface.

### **6.3.5 Hinges and latches**

The hinges and latches do not require any periodical maintenance and are grease-free. They can be cleaned with regular detergents. Some of the latches for storage hatches are adjustable to compensate for wear of seals of the hatches. Loosen the bolts that hold the latch in place and adjust it. The holes are oval to allow for easy adjustments. Adjust it so that the hatch closes firmly against the seal and thus is watertight. Adjustments may be

needed after lengthy periods of use, as the seal becomes compacted after time. When the adjustment is not enough to ensure tightness, it is time to replace the seal itself.

### **6.3.6 MOB rescue & swim ladder**

The ladder is a safety device, and lack of maintenance may make it hard or impossible to use safely. It is important to check the function of the ladder regularly. At least yearly, also check that it is properly fastened to the boat and has no cracks or corrosion damages. Check that the ladder stays in position during voyage but is still easy enough to pull down from water.

The ladder has anti-slip tape attached to the footsteps. It will be worn and may tear off as it ages and is considered a consumable. Replace it with high quality anti-slip tape (for instance brand 3M) for marine applications when needed, to ensure safe operation of the ladder.

### **6.3.7 Canopy**

#### **Canopy fabric**

Chafing, fiber wear from dirt and grit and deterioration from ultraviolet light can cause your canopy to degrade over time. The fabric should be cleaned regularly before substances such as dirt, pollen, etc. can accumulate on and become embedded in the fabric. The canopy can be cleaned without being removed from the installation.

After each use, especially if used in salt water areas; rinse the canopy completely with fresh water. On a regular basis, brush off any loose dirt, pollen, etc., and hose down with water and then clean with a mild solution of a natural soap in lukewarm water (maximum 38°C). Only use soft sponges and brushes. Allow the canopy to soak; however, do not let the soap dry. Let the canopy dry completely. Do not store any of the pieces while wet. In most environments, a thorough cleaning and fabric treatment will be needed every two to four years. The canopy is then removed and sent to a company specialized in canopy cleaning and restoring work.

The resistance to ultraviolet light and water can be improved by chemical treatments of the fabric. Consult your Ockelbo dealer or canopy experts for advice. Be careful to not treat canopy windows with such chemicals.

#### **Zippers & hardware**

Lubricate zippers and fasteners periodically with a clear silicone-based zipper lubricant, at least every season. In the absence of silicone lubricants, a wax candle can be used to lubricate the zipper track. Replace any missing fasteners or any fasteners showing signs of corrosion. Keeping the zipper lubricated is a straightforward way to extend the lifetime and make canopy operation easier.

#### **Canopy windows**

Rinse vinyl windows thoroughly with clean water to remove any dust, dirt particles, salt water or environmental agents. This should be done frequently to avoid buildup of salt

water, dirt and other environmental contaminants. After rinse, use a soft non-abrasive cloth and wash windows inside and out with a mild natural soap and water solution. Rinse completely with cool water before the soap dries. Dry the window with a soft cloth or chamois to prevent water spots. Polish with a separate cloth.

Do not use other chemicals unless these are specifically made for vinyl windows and well proven; consult your dealer for advice.

## NOTE

Never use regular window cleaners, detergents, abrasives, petroleum-based products, or alcohol to clean your canopy fabric or vinyl windows. Do not handle vinyl with sunscreen on your hands. Sunscreen may permanently cloud the vinyl.

## **6.4 WINTER STORAGE/ SPRING PREPARATIONS**

Preparing boats for winter storage is subject to your location. In cold climates, always have your boat hoisted in appropriate time before the water freezes. This is an appropriate time to perform all yearly maintenance, repair and inspection procedures. Even if your boat is used around the year, a yearly maintenance period is recommended and shall follow the same routines as specified below except when marked with a \*.

### **6.4.1 Measures before winter storage**

- Check the engine owner's manual and carefully follow the instructions.
- Lift your boat out from water in appropriate time before ice formation. Your boat is not dimensioned against sailing or storage in ice.
- Hoist the boat. Wash the bottom of the boat immediately afterwards. Algae and slime will come off easier if they are not let to dry.
- Remove the bottom drain plug (see chapter 3.10) and leave the drain open.
- Check the condition of the hull. Repair damages directly or the next spring before launching the boat.
- \*When preparing to store a boat for extended periods, please refer chapter 6.1 (Fuel System).
- Ensure that the hull has sufficient support to avoid damages or instability. If uncertain, always consult experts such as your dealer.
- Follow the maintenance instructions given in the engine manual. We recommend that you hire an authorized service company to ensure a safe and reliable operation of the engine. Do not forget to service the engine controls and steering system.
- Carryout maintenance operation on other accessories and equipment as described in this chapter and in the respective OEM manuals
- If your boat is stored outside or in a humid place during the winter, remove electronic instruments, the textiles, the canopy, cushions, seats and other

equipment that may corrode or become moldy in moist conditions, and store them in a dry place.

- Spray the electrical connectors with a suitable moisture repellent antioxidant.
- \*Remove the battery and store it in a warm, dry place. Charge it at least twice during the winter. Spray the electrical connectors with a suitable moisture repellent antioxidant.
- Check conditions of anodes (see chapter 6.2.3). Replace if needed. Clean the surface between anodes and hull to ensure good metallic contact. Never paint them!
- \*Cover your boat so that snow and water will not gather inside. Always make sure that there is enough ventilation and **avoid direct contact between the boat and the covering material** / canvas as it may damage the boat due to friction and oxidation.

#### **6.4.2 Measures after winter storage**

- Check the engine owner's manual and carefully follow the instructions.
- \*Reinstall a freshly charged battery and check the voltage.
- Refuel the boat
- \*Install any electronic instruments, textiles and other equipment that was removed before winter storage. Test them after installation or at first time in sea before leaving shore
- Reinstall bottom drain plug
- Check the condition of the hull. Repair damages directly. Refresh antifouling paint if it has been used before or consider adding new paint if the boat is moved to new waters (see chapter 6.2.2.)
- Inspect fuel and ventilation hoses and connectors, check for any signs of wear & tear and leakage.
- Inspect fire extinguisher as per separate owner's manual
- Carryout maintenance operation on other accessories and equipment as described in this chapter and in the respective OEM manuals

### **6.5 SPARE PARTS & SERVICE**

To ensure the best possible performance, safety and lifetime of your Ockelbo boat, it is important to only use high quality spare parts that are suitable and approved for your specific boat application. Failure to do so may jeopardize safety, lifetime and performance. Parts are offered by Ockelbo through the dealer network.

Parts and accessories fitted on the boat are subject to modifications without prior notice. Your dealer will be able to investigate if such is the case for your specific needs. Your dealer can also support you with qualified service, upgrade and modification work, using their own or Ockelbo specialists.

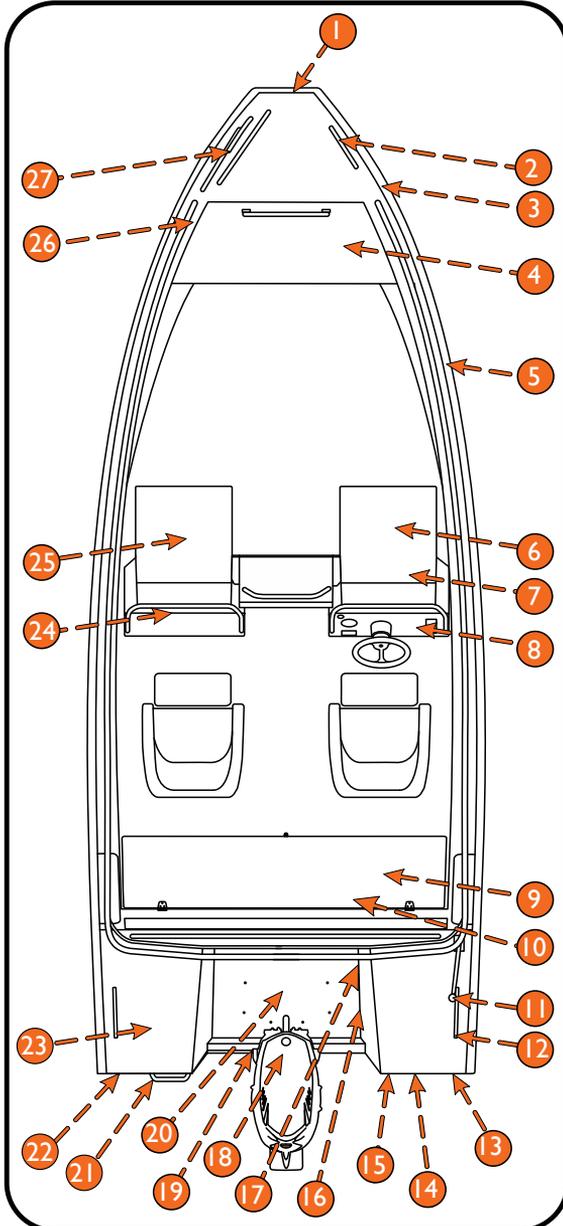


If you have any questions regarding parts, accessories or services, please contact an Ockelbo dealer.

For best possible service, **always provide your CIN number** (unique hull number) as it will assure that the parts and services are specific for your individual boat. For location of the CIN number, please see chapter 1.3.

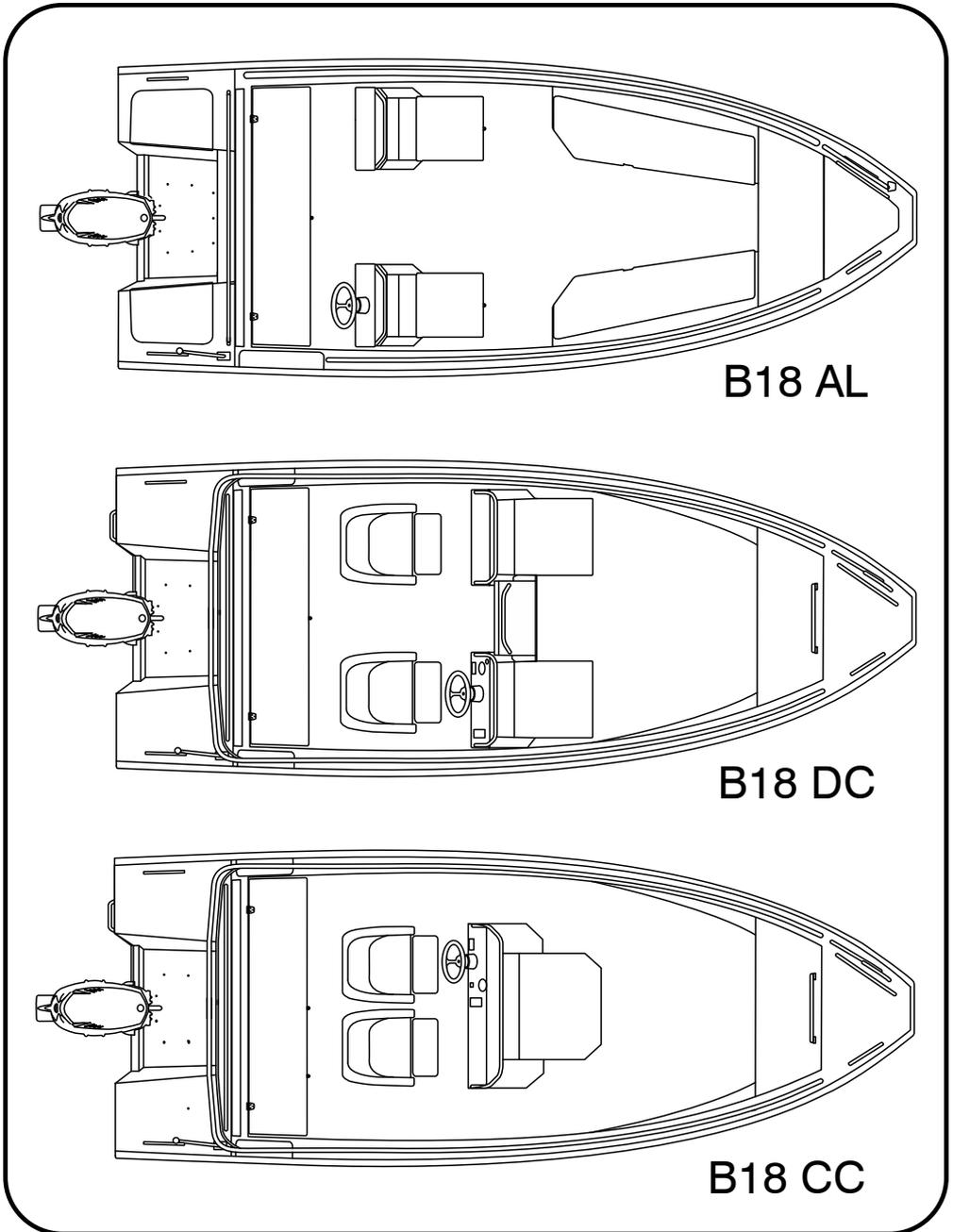
## 7. FIGURES

Figure 1: Layout of boat, with main equipment and functions identified. The manual refers to these positions. Figure 1 shows B18 DC, but there is no significant difference to AL and DC except the location of the consoles (for console positions, see figure 2).

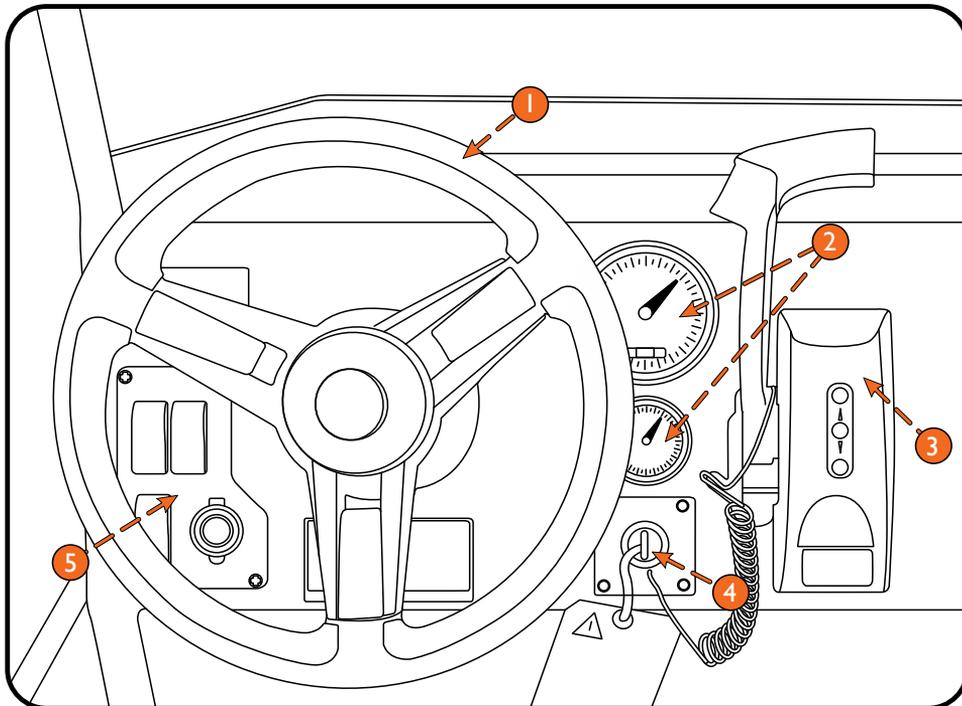


1. Bow eye
2. Bow cleats (SB & PS)
3. Securing/lock eye
4. Bow seat and storage
5. Handrails with fender cleats (SB & PS)
6. SB console storage and seat
7. Fire extinguisher (inside console storage)
8. SB console
9. Stern sofa
10. Inside stern sofa: Battery, circuit breaker panel, main switch, fire port and inspection cover for fuel tank.
11. Top lantern, white (removable)
12. Stern cleats (SB & PS)
13. Bilge pump outlet
14. CIN hull number plate
15. Depth finder transducer
16. Fuel filter
17. Fuel fill cap, and fuel tank ventilation
18. Bottom drain plug (at lowest point of transom)
19. Anodes (lower end of transom)
20. Service access cover for bilge/ bilge pump
21. MOB swim/rescue ladder
22. Outlets deck drains (SB & PS)
23. Stern stowage's (SB & PS)
24. PS console
25. PS console storage and seat
26. Bow handrail (PS)
27. Navigation lights (SB & PS)

**Figure 2:** Console configurations, B18 AL, CC and DC models



**Figure 3:** Principal layout, console and instrumentation. A minor variation between side and centre consoles occurs.



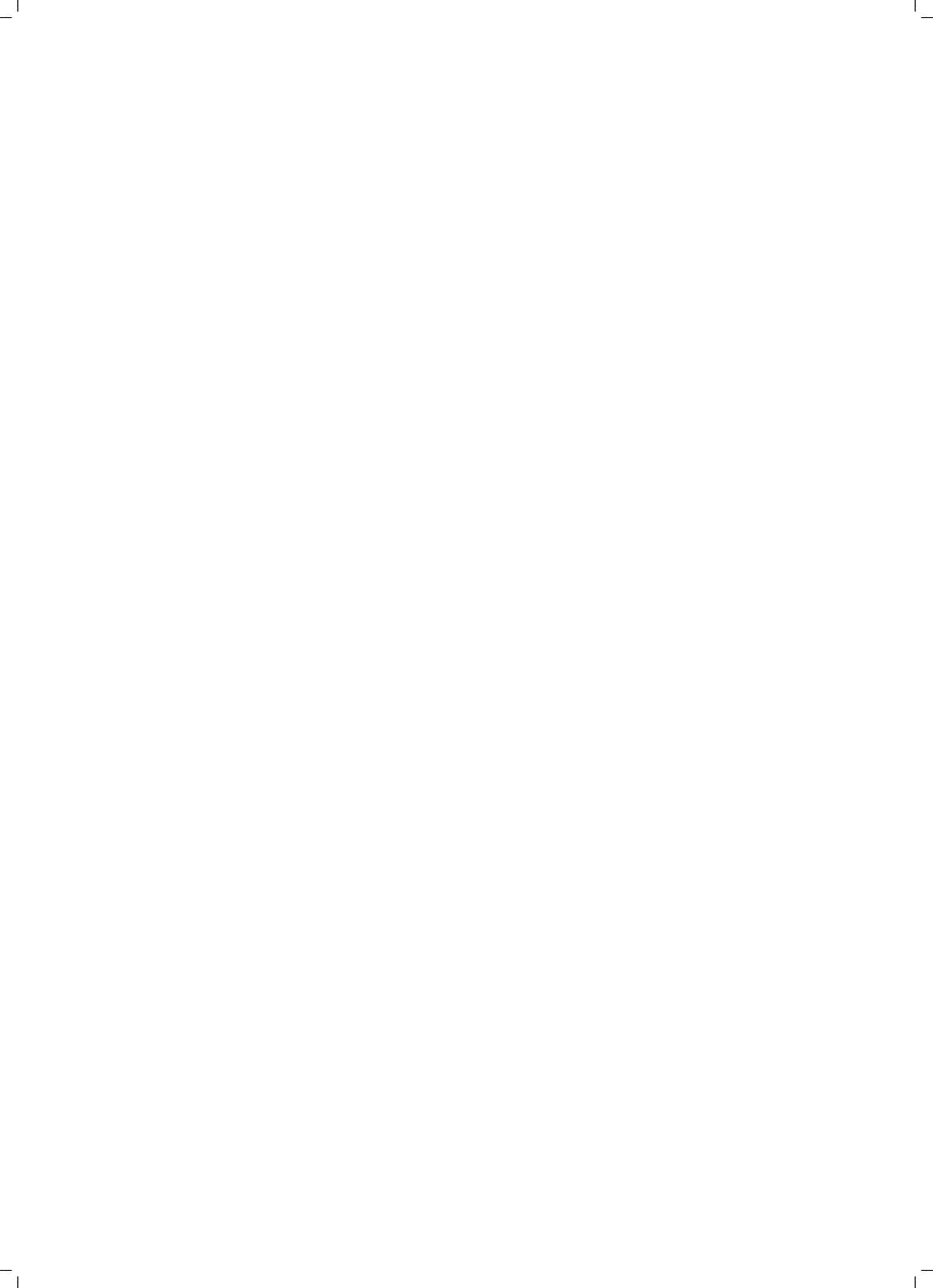
1. Steering wheel
2. Engine instrumentation (subject to engine brand)
3. Throttle and gear control
4. Ignition/start key and emergency/safety switch (minor variations may occur between different engine brands)
5. Electrical switches for navigations lights, bilge pump and any EXTRA/AUX equipment. Outlet socket 12V.

## 8. ATTACHMENTS

List of attached documents/drawings, to be found in the Ockelbo document bag:

- Electrical diagrams
- Owner's manuals for components (as referenced to in the Ockelbo owner's manual)
- Final Quality Approval
- Authorized Installation Certificate
- Declaration of Conformity of recreational craft
- Delivery note with SecurMark bar code







OWNER'S MANUAL OCKELBO B18 AL/ CC/ DC 2018

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