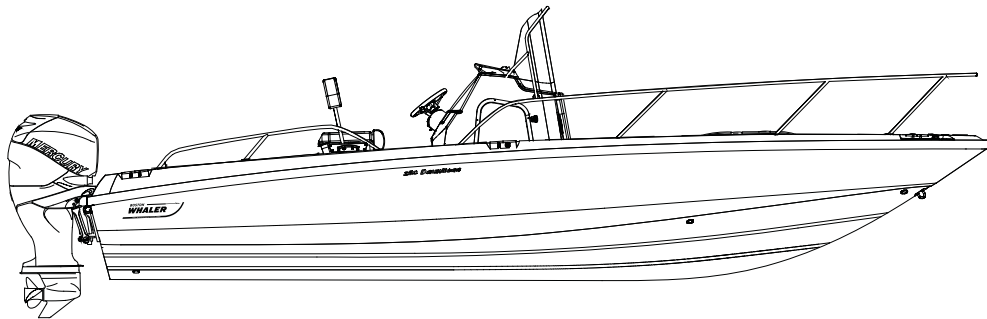

230 Dauntless



**“The mission of Boston Whaler®
is to provide consumers with the
safest, highest quality, most durable
boats in the world”**

Welcome to the Boston Whaler family! Congratulations on your purchase of a Boston Whaler boat.

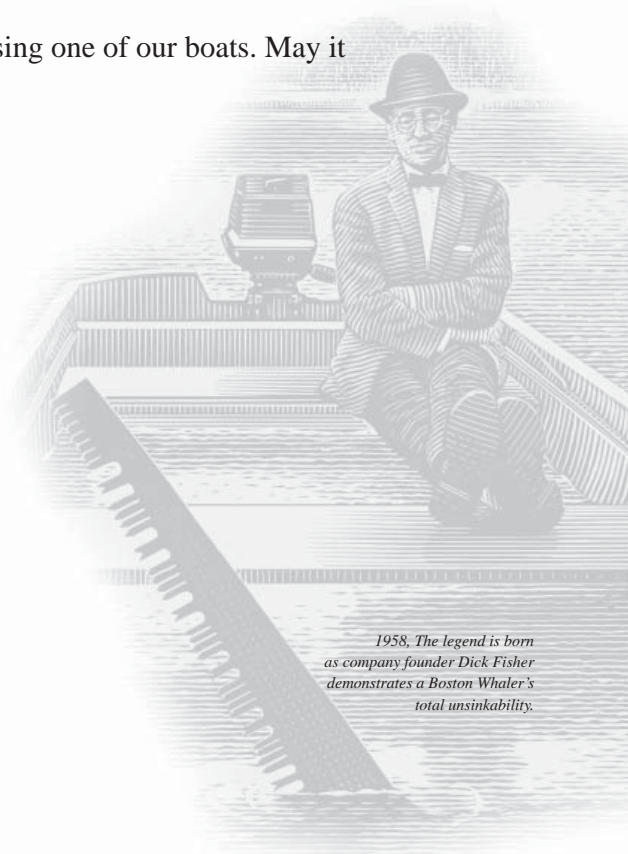
For over 50 years now, Boston Whaler has been represented by a select group of the best dealers in the boating industry. Boston Whaler depends on this extremely qualified network of dealers to provide you, our customer, with a truly exceptional boating experience.

Should you have any questions or concerns regarding your boat, please don't hesitate to contact your selling dealer. They will be more than happy to provide you with all the information and assistance that you require.

Information and assistance is also available at our corporate website, www.whaler.com. At whaler.com you will find information about upcoming events happening in your area. Things like fishing tournaments, rendezvous, boat shows, and many others are listed, as are maintenance tips and back issues of our e-newsletter, the *Whaler News*.

Since Boston Whaler's inception in 1958, we have been committed to providing customers with the safest, highest quality, most durable boats in the world. I am confident that you, as a Whaler owner, will also appreciate the quality and pride that is built into every Boston Whaler boat.

From all of us here at Whaler, thank you for purchasing one of our boats. May it bring you many years of boating enjoyment.



*1958. The legend is born
as company founder Dick Fisher
demonstrates a Boston Whaler's
total unsinkability.*

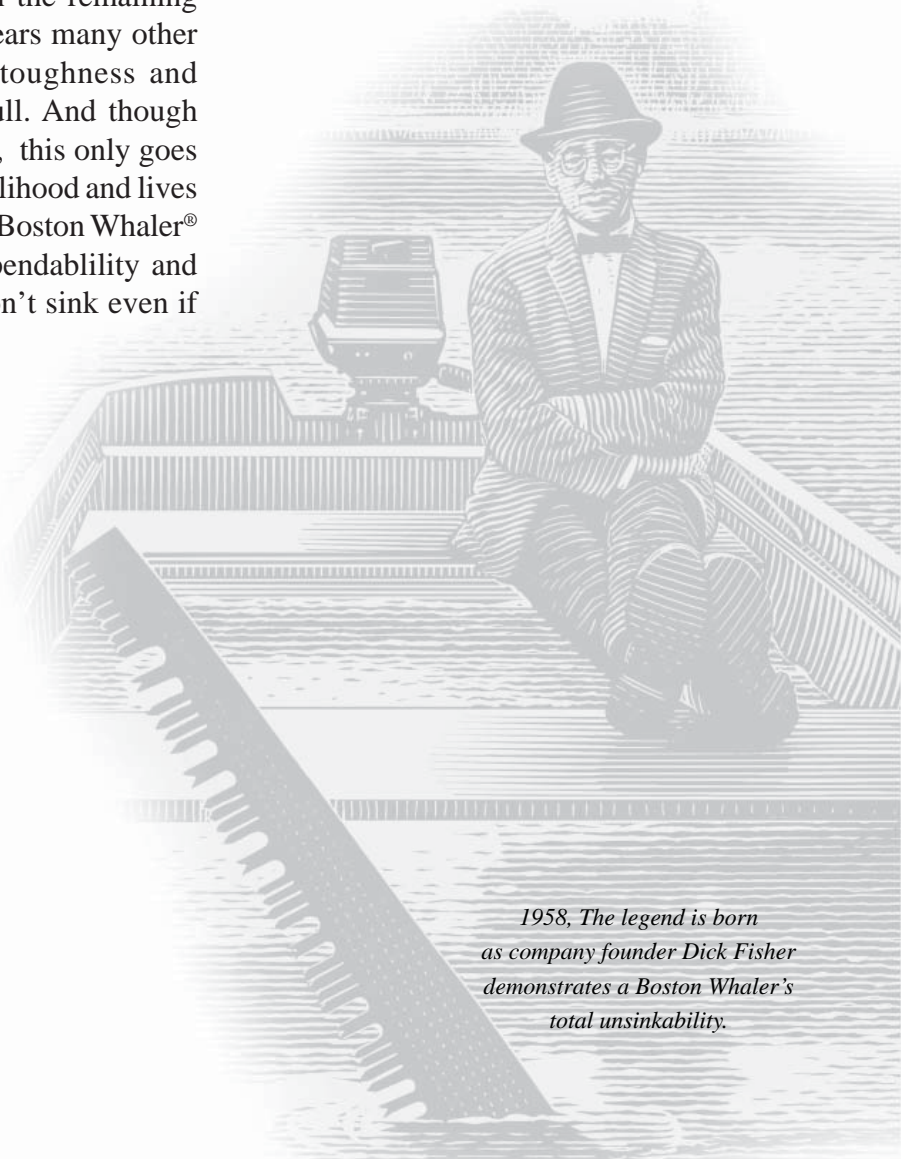
HISTORY

In 1958, company founder Richard T. Fisher introduced the first Boston Whaler® boat in Braintree, Massachusetts. It featured two significant innovations: first, its twin sponson hull design produced superior stability and a remarkably dry ride; second, its unique foam core construction made the boat not only durable, but unsinkable as well.

Fisher took every opportunity to illustrate the unique characteristics of the Boston Whaler®. His most famous demonstration was captured in 1961, by *Life Magazine*. The series of photographs showed the boat underway, the boat being sawed in half and ultimately Fisher motoring away in the remaining half of the boat. And through the years many other demonstrations have proved the toughness and durability of the Boston Whaler hull. And though you may never cut your boat in half, this only goes to show one thing, people whose livelihood and lives depend on boats consistently choose Boston Whaler® because of their seaworthiness, dependability and the inherent safety of a hull that won't sink even if severely damaged.

Boston Whalers are built to last. For over 50 years Boston Whaler® has strived to make each model better, providing you with a safe and fun boating experience. That is the reason we offer a 10 year limited transferable warranty. It is also an excellent reason why you can trust the safety of your family and friends to a Boston Whaler®.

On September 26, 1996, Richard T. Fisher was posthumously inducted into the NMMA (National Marine Manufacturer's Association) Hall of Fame for accomplishments made in marine engineering and construction.



*1958, The legend is born
as company founder Dick Fisher
demonstrates a Boston Whaler's
total unsinkability.*

**PLEASE KEEP THIS OWNER'S MANUAL PACKET IN A SECURE PLACE, AND BE SURE
TO HAND IT OVER TO THE NEW OWNER IF YOU SELL THE BOAT.**

TABLE of CONTENTS

Welcome Letter	iii	Fire	1-8
History	iv	To lessen the danger of fire	1-9
Preface	vii	Flooding, Swamping and Capsizing	1-9
Privacy Statement	viii	Flooding	1-9
Introduction.....	ix	Swamping	1-9
Owner's manual	ix	Capsizing	1-9
Your responsibilities.....	ix	Collision.....	1-10
Source of Information.....	ix	Propulsion, Control or Steering Failure	1-10
Warranties	ix	Grounding	1-10
Contact Phone Numbers and		Distress Signals.....	1-10
Internet Addresses.....	ix	Visual distress signals (VDS).....	1-10
		Audible distress signals	1-11
		Radio Communication.....	1-11
		Weather	1-11
		Swimming, Diving & Water Skiing	1-12
		Swimming	1-12
		Diving.....	1-12
		Water Skiing	1-13
		Water Skiing Signals	1-13
		Emergency Engine Stop Switch	1-14
		Float Plan	1-15
		Chart Your Course	1-15
		Environmental Considerations	1-15
		Fuel & Oil Spillage	1-15
		Excessive Noise.....	1-16
		Wake/Wash	1-16
		Homeland security restrictions.....	1-16
		America's Waterway watch.....	1-16
		Warning Label Locations	1-16
		Key To Symbols Used on Controls	
		& Prints	1-19
Section 1 • Safety			
Explanation of Safety Precautions	1-1		
Safe Boating means.....	1-2		
To Obtain These Skills.....	1-2		
In Addition.....	1-2		
Safe Boating Checklist	1-2		
Before departure	1-2		
Trailing (if applicable).....	1-2		
After Return	1-2		
Legally Mandated Equipment			
(Minimum Required)	1-3		
Personal Flotation devices	1-3		
Fire Extinguisher (Portable)	1-3		
Fire Extinguisher Location.....	1-3		
Whistle, Horn	1-3		
Visual Distress Signal	1-3		
Additional recommended Equipment for			
Safe Operation	1-3		
Impaired Operation	1-3		
Carbon Monoxide (CO)	1-4		
Lifesaving Equipment.....	1-5		
PFD Requirement	1-5		
PFD Classifications.....	1-5		
Boarding (Wear a PFD)	1-6		
Maintain Control.....	1-6		
General Considerations	1-7		
Emergency Situations	1-8		
Medical Emergency.....	1-8		
Water Rescue.....	1-8		
Returning to the victim.....	1-8		
Making contact	1-8		
Getting back on board.....	1-8		
		Section 2 • General Information	
		Construction Standards.....	2-1
		Our Hull.....	2-1
		Hull Identification Number.....	2-1
		Servicing Your Boston Whaler.....	2-1
		Manufacturer's Certification.....	2-1
		Certification design Category	2-2
		Power Capacity.....	2-3
		Specifications & Dimensions.....	2-4
		Passenger Locations	2-5
		Location Of Thru-Hull Fittings.....	2-6
		Features	2-7
		Deck Features	2-7
		Console Features	2-8

Console Switch Panel	2-9
Smartcraft™ Deluxe Gauges	2-10
Seating.....	2-11
Storage	2-12
Options	2-13
Fishing Package (option)	2-15
Ski Pylon (Option)	2-15
Trim Tabs (Option).....	2-16
Operation.....	2-16
Maintenance.....	2-16
Reversible Pilot Seat w/Livewell	2-17
Leaning Post w/cooler (option)	2-17
Canvas (Option)	2-18
12V/24V Trolling Motor Panel (Option)	2-19
"ALL ACTIVITY" Tower (Patent No. US 7,370,599 B1)	
(Option)	2-20
Reversible Pilot Seat w/Cooler	2-20
Stern Fold-Away Seat	2-21
Swim Ladder	2-21
Stowable Bow Table	2-22
Gear Shift & Throttle Control.....	2-23
Power Trim Operation	2-23
Navigation Lighting.....	2-24
Operating The navigation Lighting	2-24
Propeller	2-25
Docking, Lifting and Trailering	2-26
Docking	2-26
Lifting	2-26
Trailer (Option)	2-27
Trailer safety	2-27
Securing the Boat to the Trailer	2-27
Securing the Trailer to the	
Tow Vehicle	2-27
Trailer Description	2-28

Section 3 • Systems & Components Overview & Operation

Bilge Pump	3-1
Operation.....	3-1
Maintenance	3-1
Fuel & Oil Spillage	3-1
Power Steering.....	3-2
Filling & Maintenance	3-2
Fuel System	3-3

Fuel Tank	3-3
Fuel Vent	3-3
Fuel System Maintenance	3-4
Hoses and Fittings	3-4
Tank Cleaning.....	3-4
Static Electricity and the Fuel System	3-4
Ethanol-Blended Fuels.....	3-5
Battery Switch.....	3-7
Starting the Engine.....	3-8
Stopping the Engine	3-8
Livewell	3-9
Operation.....	3-9
Reversible Pilot Seat Livewell (Option)	3-10
Maintenance	3-10
Raw Water Washdown (Option).....	3-10
Operation.....	3-11
Maintenance	3-11
Fresh Water System (Option)	3-12
Fresh Water Pump	3-13
Fresh Water Shower	3-13
Maintenance	3-13
Head System	3-13
Environmental Consideration	3-13
Anchoring	3-14
Considerations.....	3-14
Lowering the Anchor.....	3-15
Setting the Anchor	3-15
Weighing the Anchor	3-15

Section 4 • Electrical

Electrical System	4-1
Battery	4-1
Battery Maintenance	4-1
Battery Switch.....	4-2
12 Volt Accessory Receptacle	4-2
Trolling Motor Receptacle (Option).....	4-2
Trolling Motor Installation	4-2
Trolling Motor Connection (12V)	4-2
Trolling Motor Connection (24V)	4-3
Component Breakers	4-4
Electrical Schematics & Harnesses	4-5
Wiring Identification Chart	4-5

Section 5 • care & Maintenance

Cleaning Your Boat	5-1
Hull	5-1
Windscreen	5-1
Stainless Steel/Metal Trim	5-1
Aluminum & Powder Coated Surfaces....	5-2
Hull Maintenance (Blisters)	5-2
Causes.....	5-2
Prevention	5-2
Bottom Painting	5-2
Painted Hull Care	5-3
Painted Hull Care (Bottom).....	5-3
Vinyl Cushion Care	5-4

Rubrail Care	5-4
Long term Storage	5-4
Engine	5-4
Fuel System	5-5
Electrical System	5-5
Drainage.....	5-4
Water System.....	5-5
Trailer Storage.....	5-5
Canvas Care & Maintenance	5-6
Reinforcement Location Diagram	5-7
Maintenance Log.....	5-8

Attachment product Registration Card

Preface

This Owner's Manual has been written to provide specific information about your boat and it should be read carefully. Keep this booklet with the Manuals in the Owner's Manual Packet. The Owner's Manual Packet has been compiled to help you operate your boat with safety and pleasure. It contains details of the boat, the equipment supplied or fitted, it's systems and information on it's operation and maintenance. Please familiarize yourself with the boat and it's operation before using it. If this is your first boat, or you are changing to a type of boat you are not familiar with, for your own comfort and safety, please ensure that you obtain handling and operating experience before "assuming command" of your boat. Your Boston Whaler® dealer or local Yacht Club will be pleased to advise you of marine safety classes and safe boating classes in your area.

INFORMATION IN THIS PUBLICATION IS BASED ON THE LATEST PRODUCT SPECIFICATIONS AVAILABLE AT PRINTING, BOSTON WHALER® BOATS, INC. 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 OR MODIFICATIONS TO THE MODELS BE MADE BOSTON WHALER® IS NOT OBLIGATED TO MAKE SIMILAR CHANGES OR MODIFICATIONS TO MODELS SOLD PRIOR TO THE DATE OF SUCH CHANGES.

BOSTON WHALER • A BRUNSWICK COMPANY

MRP #1943819

Printed in the U.S.A. © Boston Whaler, Inc. All rights reserved.

230 DAUNTLESS

April, 2008

THE FOLLOWING ARE REGISTERED TRADEMARKS OF THE BRUNSWICK CORPORATION:

DAUNTLESS, BOSTON WHALER®.



Specifications and standard equipment are subject to change. Boston Whaler is not responsible for changes to parts or accessories manufactured by companies other than Boston Whaler. Active Deck Suspension System, Boston Whaler, Whaler, the Boston Whaler logo, Conquest, Dauntless, Montauk, and Outrage are registered trademarks of Boston Whaler, Incorporated. Accutrack, Unibond, The Unsinkable Legend, Ventura, and Whaleboard are trademarks of Boston Whaler, Incorporated. Mercury and Optimax are registered trademarks of Mercury Marine, and SmartCraft and Verado are trademarks of Mercury Marine. Trademarks of others are the property of their respective owners. All mercury engine information provided by Mercury Marine, June 2007. Information contained within this publication is believed to be correct at the time of printing.

PRIVACY STATEMENT

Thank you for purchasing a boat or requesting information from Boston Whaler! This Privacy Statement is to inform you how we collect, use, disclose, and safeguard the personal information you provide to us through your purchases, requests for brochures, product registration cards, promotions, surveys, call centers, or other customer contacts. To see our full Privacy Policy and any updates, please visit www.whaler.com and select the Privacy Statement link.

“Personal information” may include your name, age, mailing address, residential phone number, or e-mail address. It may also include income ranges, marital status, product or lifestyle preferences, and information concerning dealer service.

How We Collect Personal Information: Our authorized dealer provided Boston Whaler or our company in the European Union with personal information collected at the time of your boat order/purchase with other product registration data and will continue to provide warranty and servicing information on your boat. We will send you customer satisfaction surveys which you may elect to return to provide us with information on your boat purchase and your servicing needs. Your personal information may be gathered by or shared with Boston Whaler’s marketing providers and affiliated companies, who have comparable levels of privacy protection, for the purposes described in this statement. Boston Whaler, your dealer, and our marketing providers collect personal information when you request information about our companies and from surveys, promotions, contests, correspondence, your e-mails, telephone inquiries, web forms, and other communications.

How We Use & Disclose Personal Information: Unless you advise us otherwise, Boston Whaler, our authorized dealers, affiliated companies, and our marketing providers may generally collect, use, disclose, hold, and file your personal information for the following purposes: (1) Providing goods, brochures, information, incentives, and/or services to you or on your behalf; (2) Fulfilling the terms of our limited warranty or other service obligation; (3) Facilitating recalls or service campaigns if necessary; (4) Reviewing goods and/or services provided to you in product, services, and marketing analyses; (5) Ensuring your satisfaction through surveys or other contacts; (6) Administration, billing, accounting, and collections; and protecting against fraud and error; and (7) Investigating a breach or a contravention of a law, complying with a subpoena, warrant, court order, or as required or otherwise permitted by law. **BOSTON WHALER WILL NOT SELL YOUR PERSONAL INFORMATION OR SUBJECT YOU TO TELEMARKETING OR UNSOLICITED E-MAIL.**

Safeguards: We use security safeguards appropriate to the sensitivity of personal information to protect it from loss or theft, as well as prohibiting unauthorized access, disclosure, copying, use or modification of your personal information. These safeguards include restricted access to offices and equipment, security clearances, the use of passwords and/or encryption, publishing our privacy policy to appropriate personnel with instructions to act in accordance with its principles, and contractual provisions with our marketing agents and authorized dealers to follow the principles of our privacy policy.

Access and Correction to Your Personal Information: Subject to the exceptions provided by applicable law, we will provide, upon written request, your specific personal information collected in a form which is generally understandable. Your Personal Information is held by us and for us by our marketing agency, AVALA, who has contractually agreed to protect your information according to our privacy policies at the following addresses: Boston Whaler Inc., 100 Whaler Way, Edgewater, FL 32141. Please direct corrections, withdrawal of consent for specific purpose, complaints or other inquiries regarding personal information to: Terry Domian, AVALA Marketing Group; 1078 Headquarters Park Drive, Fenton, MO, 63026; Phone: (636) 343-9988, Fax: (636) 326-3282, E-mail: terryd@MarketingAgencymarketing.com. You can withdraw consent for us to use your personal information at any time or provide corrections upon providing to us a 30-day notice, unless withdrawing consent would impede the performance of legal obligations. We are required by law to provide you with information for product recall and other product safety related purposes. The withdrawal of your consent may also adversely affect our ability to provide products and services to you and to maintain our relationship. Please note, notifying us will not result in withdrawing consent from your dealer, who should be contacted separately.

Obtaining Consent: If any supplementary disclosure is required, we will obtain your consent for disclosure to other persons or organizations and for other purposes than stated herein, unless otherwise permitted by law.

Thank you again for your business. We hope you have many years of wonderful boating experiences!

Owner's manual

The material here and in the rest of the Owner's Manual Packet:

- Gives you basic safety information;
- Describes the features of your boat;
- Describes the equipment on your boat;
- Describes the fundamentals of boat use; and
- Contains service and maintenance information.

You must learn to operate this boat as well as read, understand and use this manual.

What this manual **does not** give you is a course in boating safety, or how to navigate, anchor or dock your boat. Operating a power boat safely requires more skills, knowledge and awareness than is necessary for a car or truck.

Your responsibilities

For your safety, the safety of your passengers, other boaters and people in the water, you must:

- Take a boating safety course.
- Get instruction in the safe and proper handling of your boat.
- Understand and follow the "rules of the road".
- Learn how to navigate.

Source of Information

In North America, contact one of the following for boating courses:

- U.S. Coast Guard Auxiliary
- U.S. Power Squadron
- Canadian Power and Sail Squadrons
- Red Cross
- State Boating Offices
- Yacht Club

Contact the Boat/U.S. Foundation at 1-800-336-2628 or go to www.boatus.com/foundation

Outside of North America, contact your boat dealer and/or your governmental boating agency for assistance.

A comprehensive background in boating can be found in the book, *Chapman - Piloting, Seamanship and Small Boat Handling*, by Elbert S. Maloney, published by Hearst Marine.

Warranties

In addition to the Boston Whaler® Limited Warranty for your boat, each component and/or system on your boat has its own warranty that will be found with the specific information and manual for that component. The manuals are included with your Owner's Manual Packet. Locate and read the individual warranties; then keep them together for easy future reference.

Contact Phone Numbers and Internet Addresses

Boston Whaler, Inc.

Phone.....1-877-294-5645
Internetwww.whaler.com

United States Coast Guard

Phone.....1-800-368-5647
Internetwww.uscgboating.org

Boat US Foundation

Phone.....1-800-336-2628
Internet www.boatus.com/foundation

Canadian Coast Guard

Phone.....1-800-267-6687
Internet www.ccg-gcc.gc.ca/main_e.htm

THIS PAGE INTENTIONALLY LEFT BLANK

Explanation of Safety Labels

The most important aspect of boating is safety. Although every effort is made to address the numerous issues regarding the safe usage of your boat, it is strongly recommended that you avail yourself of the training and knowledge available through boating safety courses, etc.

Warning Labels

Mounted at key locations throughout your boat are warning labels (See page 19) which advise the owner/operator of imperative safety precautions to follow when operating and/or servicing equipment.

The examples below indicate the level of hazard by color and explanation.

DANGER

Denotes an immediate hazard exists that **WILL** result in severe personal injury or death.

WARNING

Denotes hazards or unsafe practices that **MAY** result in severe personal injury or death.

CAUTION

Denotes hazards or unsafe practices that **COULD** result in minor personal injury, product or property damage.

NOTICE

Denotes information that is important to know prior to operation and/or maintenance, but is not hazard related.

Safety Precautions

The examples below are of precautions which appear throughout this manual and must be observed when operating or servicing your boat. Learn to recognize the degree of hazard and understand the explanations of safety prior to reading this manual.

Always use common sense in the operation and servicing of your boat.

DANGER

Denotes an immediate hazard exists that **WILL** result in severe personal injury or death.

WARNING

Denotes hazards or unsafe practices that **MAY** result in severe personal injury or death.

CAUTION

Denotes hazards or unsafe practices that **COULD** result in minor personal injury, product or property damage.

NOTICE

Denotes information that is important to know prior to operation and/or maintenance, but is not hazard related.

SAFE Boating means:

- Knowing the limitations of your boat
- Following the “RULES of the ROAD”
- Keeping a sharp lookout for people and objects in the water.
- Not boating in water or weather conditions that are beyond the boat’s and operator’s capability.
- Never operating the boat while under the influence of drugs or alcohol.
- Being aware of your passengers safety at all times.
- Reducing speed when there is limited visibility, rough water, people in the water nearby, boats or structures.

In Addition:

- Maintain your boat and its safety and other systems as recommended in this manual.
- Have the boat inspected by a qualified mechanic or dealer, at least annually.
- Ensure that the Coast Guard required safety equipment is on board and functioning.

NOTICE

As a boat owner or operator, YOU are responsible for your safety and the safety of your passengers and other boaters.

Boating in beautiful weather and calm water conditions can be a wonderful experience. Boating however requires considerably greater skills than operating a land vehicle. Taking a boating course is the best way to prepare for a safe and enjoyable experience on the water.

- Take a Coast Guard, U.S. Power Squadron or equivalent boating safety course. (Call the Boat/U.S. Foundation at 1-800 336-2628 for information on available courses, or go to: “www.boatus.com/foundation” on the internet.)
- Get hands-on training on how to operate your boat properly.

Safe Boating Checklist

Before Departure

- ☐ Update checklists when equipment is added or modified.
- ☐ Weather-forecast safe
- ☐ Required documents-on board
- ☐ Navigation charts & equipment-on board
- ☐ Safety equipment-on board
- ☐ Safety training-passengers & crew instructed on procedures, location, and use of safety equipment.
- ☐ Drain plugs-installed
- ☐ Bilge pumps-working & clean
- ☐ Navigation lights-working
- ☐ Sound signal device on board
- ☐ Fuel system-no leaks or fumes
- ☐ Power steering fluid-filled (if applicable)
- ☐ Steering system-working smoothly & properly
- ☐ Battery-electrolyte level within range
- ☐ Float plan-filed with friend or relative

Trailer (if applicable)

- ☐ Boat position-secure on trailer
- ☐ Tiedowns-tight
- ☐ Winch-locked
- ☐ Trailer hitch-connected
- ☐ Safety chains-attached
- ☐ Swing tongue-secured with safety clip
- ☐ Engine clearance-in trailering position (See engine manual for recommended guidelines)
- ☐ Electrical-Lights, brake lights, turn signals working
- ☐ Mirrors-adjusted for trailering

After Return

- ☐ PFD’s & other safety gear-dry, stowed for next use
- ☐ Fuel tanks-filled (allow for expansion) to prevent condensation
- ☐ Fuel system-no leaks
- ☐ Bilge pump-operating properly
- ☐ Bilge-clean, no leaks
- ☐ Float plan-notify person with whom you filed plan

General Considerations

- Know how your boat handles under different conditions. Recognize your limitations and the boat's limitations. Modify speed in keeping with weather, sea and traffic conditions.
- Instruct passengers on location and use of safety equipment and procedures.
- Instruct passengers on the fundamentals of operating your boat in case you are unable to do so.
- You are responsible for passenger's actions. If they place themselves or the boat in danger, immediately correct them.
- Remember the "Rule of Thirds": one third total fuel usage for the trip out; one third total fuel usage while out; one third total fuel usage for the return trip.

Maintain Control

On the water there are no marked traffic lanes, no traffic signs or lights, and boats have no turn signals. The boat operator must keep her or his attention focused not only on what's ahead but what's on the left, right and behind the boat.

The operator must always be alert to approaching boats (from the rear, right and left sides, as well as those ahead). There can be people in the water, partially submerged debris, and other navigational hazards such as rocks, sand bars or dangerous currents, to name a few.

Your passengers are relying on you to operate and maneuver the boat safely so that they are not in danger of going overboard. If you turn too quickly, increase or decrease speed abruptly, your passengers are at risk of being thrown overboard or thrown about the boat.

When visibility becomes impaired because of weather, time of day or high bow angle you must slow down so that you have sufficient time to react if an emergency occurs. Nearby boats face similar risks in avoiding a collision with you.

Boarding

- Board only one person at a time.
- Never jump into boat. Step or climb into cockpit.
- Load gear after you are aboard. Carrying gear while boarding can cause you to lose balance.
- Distribute weight evenly.
- Instruct passengers where to sit during on-plane operation to reduce the possibility of falling overboard during high speed maneuvers.
- If gear is not immediately needed, stow it in secure areas.
- Safety gear must be immediately accessible at all times.

Impaired Operation

WARNING

CONTROL HAZARD-Federal laws prohibit operating a boat while under the influence of alcohol or drugs. These laws are vigorously enforced.

The detrimental effects of alcohol and drugs are increased by wind, waves and sun, and will decrease your response time and ability to act in critical situations. Give special attention to the effects of alcohol and drugs while boating. No other single factor causes as many marine accidents and deaths. Death or serious injury and damage to personal and private property can result from being impaired while operating a boat.

WARNING

A qualified operator must be in control of the boat at all times. Do not operate the boat while under the influence of alcohol or drugs. never operate your boat at speeds which exceed the operator's ability to react if an emergency develops. At night, turn on the appropriate navigation lights and cruise at a reduced speed that will allow you plenty of time to avoid dangerous situations.

WARNING

Death or serious injury can result if you fail to observe these safety rules:

- Anyone who controls the boat should have taken a boating safety course and have trained in the proper operation of the boat.
- Always operate the boat at speeds that will not put people or property in danger.
- Be constantly aware of conditions in all directions when underway and before turning.
- Reduce speed, use a lookout to identify possible hazards or difficulties, and turn on navigation lights when:
 - visibility is impaired;
 - in rough water; and
 - in congested waterways.
- Watch your wake. It can capsize a small boat or damage moored boats or other property. You are responsible for damage caused by your wake.

WARNING

NEVER operate a boat at a speed at which you do not feel in control.

WARNING

STABILITY HAZARD

- Load boat properly. The manufacturer's load rating is the maximum allowed under normal conditions. Adjust downward if weather, water or other conditions are adverse.
- Allow passengers to ride only in areas that do not pose a hazard to themselves or the boat.

DO NOT allow passengers to ride on the bow of a closed bow boat.

DO NOT allow several passengers to ride in the bow of a small open-bow boat, causing the boat to "plow" into the water.

DO NOT allow passengers to ride on the stern cushion or gunwales.

DO NOT overload the stern.

- Observe manufacturer's recommended on-plane seating locations.
- Passengers should remain seated while boat is moving.

PERSONAL INJURY HAZARD-Stay alert. Use of drugs, alcohol, or other substances which impair judgement poses a serious threat to yourself and others. The boat operator is responsible for the behavior of passengers.

DROWNING HAZARD-Boats must carry one wearable personal flotation device (PFD) for every passenger on board. Boats must have at least one throwable life preserver.

SLIPPING HAZARD-Wet decks are slippery. Wear proper footwear and use extreme caution on wet surfaces.

Legally Mandated Equipment (Minimum Required)

Consult your national and state boating law enforcement agency.

The following equipment is the minimum required by the U.S. Coast Guard for a boat less than 26' (7.9 meters) in length.

Personal Flotation Devices (PFD's)

- One (1) Coast Guard approved Type I, II or III PFD for each person aboard or being towed on water skis, tubes, etc.



WARNING

There is rarely time to reach stowed life jackets in time of emergency. Boaters should always wear a properly fitting, approved life jacket when on the water.

Children and non-swimmers MUST wear PFDs at all times when aboard.

NOTICE

Depending on the state or country of operation, the operator of a vessel may be fined for failure to comply with local or national rules regarding PFD usage.

Fire Extinguisher (Portable)

It is recommended that you carry one (1) A,B or C Type fire extinguishers on board and located near the helm for easy reach.

FIRE EXTINGUISHER LOCATION

A storage pocket for the portable fire extinguisher is located on the lower starboard side of the center console.

Whistle, Horn

You must have on board, some means of making a loud sound signal. Navigation rules require that a sound made by any audible device be capable of a four (4) second blast, and must be audible for 1/2 mi. (.80 Km).

Visual distress Signals

Boats operating in coastal waters, the Great Lakes & US owned boats on the high seas are required to carry approved visual distress signals for nighttime use. They must be readily accessible, in serviceable condition and not be expired.

Store all pyrotechnic signals in a well marked, waterproof container.

Additional Recommended equipment for safe operation

In addition to the legally mandated equipment, the following items are recommended for safe boating.

- First Aid kit
- Charts/Maps
- Visual distress signals (for day or night use)
- Marine VHF radio
- Moisture repellent
- Mooring Lines
- Fenders
- Waterproof flashlights
- High power spotlight
- Spare propeller
- Tool kit:
 - Screwdrivers, (phillips & flat)
 - Pliers, (regular, vise-grip, tongue & groove)
 - Wrenches, (box, open end, allen & adjustable)
 - Socket set, (metric and U.S.)
 - Electrical tape & duct tape
 - Hammer
 - Spare parts kit, (spark plugs, fuses, etc.)
- Compass
- Manual bilge pump
- GPS or LORAN
- Spare keys
- EPIRB-Emergency positioning-indicating radio beacon
- Boat hook
- Extra batteries
- Instruction manuals
- Lubricating oil

Carbon Monoxide (CO)

DANGER

- **Fumes from the engine(s), Generator(s) and other equipment and appliances that burn fuel contain Carbon Monoxide. Carbon Monoxide can kill you. Open all doors, hatches, curtains and windows to allow fresh air to circulate and dissipate the amounts of Carbon Monoxide present in enclosed spaces, especially when the boat is moored or anchored.**
- **Proper ventilation must be maintained, even during inclement weather to prevent dangerous levels of Carbon Monoxide build-up.**
- **Sleeping aboard a boat will require a working Carbon monoxide detection system, preferably in each sleeping quarter.**

Carbon Monoxide is an odorless, colorless, and tasteless, extremely toxic gas produced by engines, heaters, stoves or generators. When inhaled it combines with hemoglobin in the blood, preventing absorption of oxygen and is unlikely to be noticed until the person is overcome.

Prolonged exposure to low concentration or very short exposure to high concentrations can result in asphyxiation and death.

Symptoms of Carbon Monoxide poisoning include:

- Dizziness
- Headaches
- Ringing in the ears
- Nausea
- Unconsciousness

GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

Symptoms of CO poisoning are often confused with seasickness or intoxication, so those affected may not receive the medical attention they need.

The poisoning victim's skin often turns cherry red. If CO poisoning is suspected, have the victim breathe fresh air deeply. If breathing stops, resuscitate. A victim often revives, then relapses because organs are damaged by lack of oxygen.

Carbon Monoxide can accumulate in dangerous concentrations anywhere in or around your boat including on back decks, swim platforms, or in water around generator exhausts. CO can remain in or around your boat at dangerous levels even if your engine is no longer running.

Remember:

- If you can smell engine exhaust, you are inhaling CO.
- Changing course and speed to place boat heading into the wind can improve ventilation.

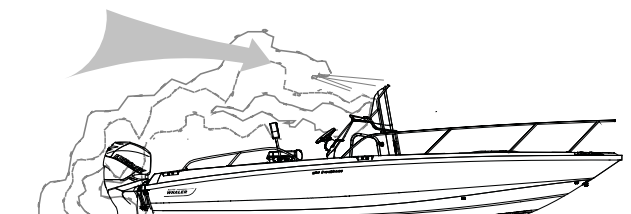
To minimize the danger of Carbon Monoxide accumulation when the Engine is running (or by use of fuel burning equipment.):

- Do not idle the engine without moving the boat for more than 15 minutes at a time.
- Inspect the exhaust system regularly.
- Operate all fuel burning appliances, such as charcoal, propane, LPG, CNG or alcohol cooking devices in areas where fresh air can circulate.

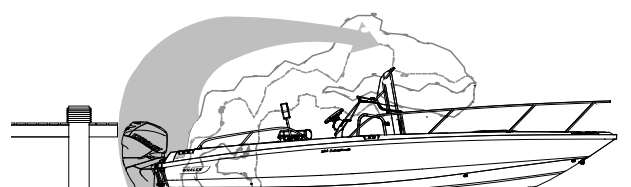
⚠ DANGER

Even in rainy cold weather, ventilation must be maintained to avoid Carbon Monoxide poisoning. You will get wet and/or cold.

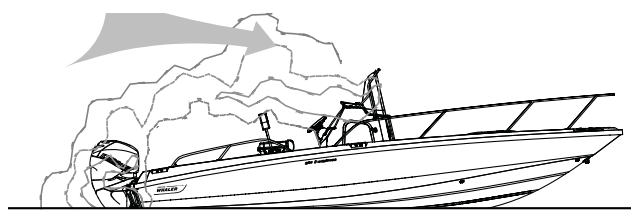
Examples of accumulation of Carbon Monoxide
Fig. 1.7.1



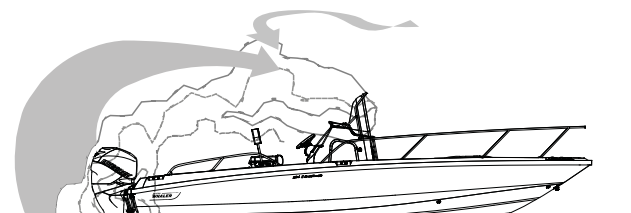
WINDS BLOWING EXHAUSTS TOWARD BOAT OCCUPANTS.



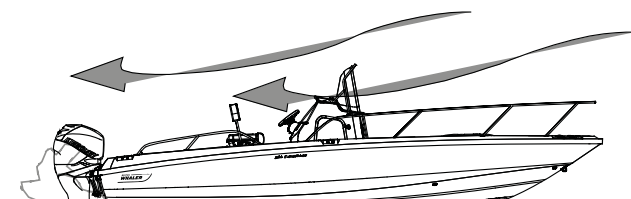
BLOCKING EXHAUSTS



OPERATING WITH "BOW HIGH"



OPERATING AT SLOW SPEED OR DEAD IN WATER



GOOD AIR FLOW

Lifesaving Equipment

Even strong swimmers can tire quickly in the water and drown due to exhaustion, hypothermia, or both. The buoyancy provided by a personal flotation device (PFD) will allow the person who has fallen overboard to remain afloat with far less effort and body heat loss, extending survival time necessary to find and retrieve them.

PFD Requirement

One (1) Coast Guard approved PFD, Type I, II or III for each person aboard or being towed on water skis, tubes, etc.

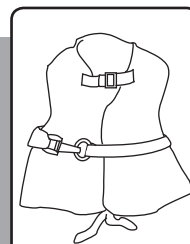
The law requires that PFDs must be readily accessible, if not worn. "Readily Accessible" means removed from storage bags and unbuckled.

NOTICE

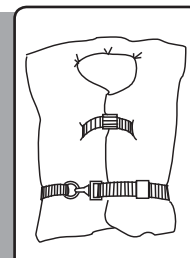
Children and non-swimmers **MUST** wear PFDs at all times when aboard.

PFD Classifications

Listed below are the several different types of PFDs, each life jacket has different purposes, choose one that will suit your purpose.

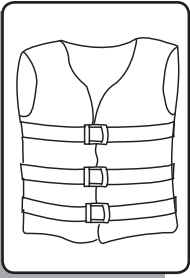


Type I, Off-shore Life Jacket is considered the most buoyant, it is designed to turn an unconscious person face up. Use in all types of waters where rescue may be slow, particularly in cold or rough water conditions.



Type II, Near-shore Life Vest, "keyhole" vest with flotation filled head and neck support is also designed to turn a person face up, but the turning action is not as pronounced. Use in calm inland waters or where quick rescue is likely.

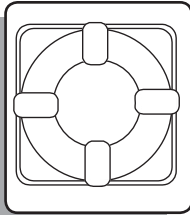
Section 1 • Safety



Type III, Flotation-aid Life vest is designed so that conscious wearers can turn face-up. Designed for comfort while engaged in water skiing or other forms of water activities.



Type V, Special-Use devices, sailboat harnesses, white water vests, float coats, and hybrid vests which have minimum inherent bouyancy and an inflatable chamber.



Type IV, Throwable Devices, horseshoe bouys, ring bouys and bouyant cushions are designed to be grasped, not worn.

Before purchasing PFDs, ensure that there is an attached tag indicating they are approved by the U.S.Coast Guard or by your National Boating Law Enforcment Agency.

The operator is responsible for instructing everyone onboard on their location and use. **The best precaution is to wear the PFD at all times while on the boat.**

Emergency Situations

NOTICE

The law requires the operator to assist any person or boat in distress as long as rendering assistance does not endanger the operator, the passengers or the boat.

Prevention is the safest approach. We hope that you are never involved in an emergency situation, but if you are it is imperative that you react.

Medical Emergency

You may be far from professional medical help when you are boating. At least two (2) persons on board your boat should be CPR certified, and should have taken a first aid course. Your boat should have a well stocked first aid kit on board. In many situations your radio will be your only link to reaching medical assistance. Keep the radio in working order and understand which channels are used for emergencies, these channels are constantly monitored and will be useful when situations arise. Cell phones are becoming more common and can help in some areas, but they are limited and unreliable and should not be used in the place of a good VHF radio.

Water Rescue

In most situations a person that has fallen overboard will succumb to hypothermia if not rescued immediately. Life expectancy decreases as rescue time increases in water temperatures below 70° (21.1°C).

There are three (3) steps that must be taken when a person has fallen overboard:

1. Returning to the victim:

- Immediately make everyone onboard aware that someone is overboard and keep the victim in sight.
- Slow the boat and keep pointing toward the person overboard. At night or in low light, point the best available light source at the person.

- Throw a life ring/preserver to the victim, even if they are wearing one it will serve as another marker.

2. Making contact:

- Stop or slow the boat and circle toward the person overboard. Never reverse your boat to pick up someone in the water.
- Try to approach heading into the wind or into the waves.
- Keep person overboard constantly in sight.
- When almost alongside, stop the engine in gear to prevent propeller “windmilling”.

3. Getting back aboard:

- Try to reach the person overboard with a pole, or by throwing a life preserver. NEVER swim to them except as a last resort.
- Assist the person in boarding. Boarding should be done at the stern of the boat.
- If the person is injured or incapable of boarding by themselves, a rescuer should don a life preserver with a safety line and enter the water to assist the person onto the boat.
- Handle the person carefully, spinal injuries might have occurred and could be worsened by rough handling.
- Check for other injuries, render medical assistance immediately.

Fire

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

The fumes released during a fire are toxic and should be avoided. Even after the fire has been extinguished, proper ventilation of the area is required to minimize exposure to these harmful fumes.

DANGER

- Fires can spread quickly. Your reaction to the fire is important. Have the proper fire fighting equipment close at hand, and in good working order to respond quickly.
- Small fire extinguishers have small discharge times. Aim at the base of the fire with a sweeping motion to maximize the use of the fire extinguisher contents.

To lessen the danger of fire:

- Extinguish all smoking materials, shut off blowers, stoves, engine(s) and generator(s).
- Keep bilge area clean, oil and fuel spills should be cleaned immediately.
- If possible throw burning materials overboard.
- If fire is accessible, release the contents of the fire extinguisher(s) into the base of the fire.
- If the fire is in an enclosed compartment, and you have an automatic extinguisher for the compartment, wait 15 min. before opening the compartment. Have an extinguisher handy in case of a flare up.
- If possible, signal for help. Radio, visual, or audible signal should be used as needed. You must render assistance to any boater requesting help.
- If fire is out of control, grab all necessary survival gear, distress signals, don your PFD and prepare to abandon ship.
- If you do abandon ship, make sure the passengers have PFDs. Take a head count before entering the water and take another head count when in the water. **STAY TOGETHER.**

Flooding, Swamping and Capsizing

In the event of Flooding, Swamping or Capsizing:

FLOODING

- Always wear your PFD, or have it within reach.

- If the bilge pump(s) have not automatically turned ON, switch them ON immediately.
- Find the source of the flooding and determine the best fix.
- Keep the bilge pump running until the flooding is under control.
- Call for assistance if the source of the flooding cannot be controlled.
- Head back to port if possible.

SWAMPING

- Always wear your PFD, or have it within reach.
- Swamping is usually a result of wave action, immediately get control of the helm and turn the boat into the waves.
- Swamping can also be caused by an overloaded boat.
- If the bilge pump has not automatically turned ON, switch it ON immediately.
- The deck scuppers on your boat are designed to drain the deck of water.
- Keep the bilge pump running until the flooding is under control.
- Take a head count of all passengers.

CAPSIZING

- “Capsized” is when a boat is on its side or completely upside-down (usually as a result of wave action, improper loading or load shifting).
- Always wear your PFD, or have it within reach.
- If the boat will not right itself, get out of the water and climb onto the exposed hull.
- Do a head count of all passengers
- **STAY TOGETHER**
- Usually a capsizing will happen quickly and without warning.
- Use whatever is at hand to signal for help.

The chances of flooding, swamping or capsizing can be reduced by being aware of:

- Weather
- Water Conditions
- Proper boat handling techniques
- Proper loading of the boat

Collision

In the event of collision:

- Cut the engine(s)
- Always wear your PFD, or have it within reach.
- Check on passengers
- If the bilge pump has not automatically turned ON, switch it ON immediately.
- Determine the amount of damage to your boats structure.
- Call for assistance
- In the event of collision you are required to file an accident report. Contact a state enforcement agency or the nearest U.S. Coast Guard office. If you are boating outside U.S. waters, consult the nation you are visiting for accident reporting requirements.

Propulsion, Control or Steering failure

If there is a propulsion, control or steering failure:

- Stop the engine, (shut off at Ignition or pull on the Emergency Engine Shut-Off Switch.)
- Drop anchor to prevent drifting.
- Determine if the problem can be fixed or will assistance be needed.
- Call for assistance if needed

When loss of propulsion or steering is noticed, your quick reaction is required to prevent further damage to your boat or injuries to your passengers.

Outboard engines require propulsion to control the direction the boat will take. Without propulsion, the

steering is virtually useless. If you are in a congested waterway you will need to react quickly to warn others that you have lost power, propulsion or steering control and that assistance will be needed.

Grounding

Running aground may be avoided by paying attention to marker bouys or observing the waves as they form into breakers when passing over a sand bar.

If you do run aground, the course of action depends on how hard the boat hits bottom and whether the boat remains stranded. If it is a simple touch, you may need only to inspect the lower drive of the engine and the hull of the boat. If possible do a thorough inspection before trying to get loose, throwing the boat into reverse before this is done may do more damage.

Distress Signals

VISUAL DISTRESS SIGNALS, (VDS)

- U.S. Coast Guard regulations require boats in coastal waters and the Great Lakes to carry a Visual Distress Signal (VDS) for day and night use, as well as appropriate for the time of operation. Exempt from the day signals requirement, but not night signals, are boats less than 16 feet (4.8 m), open sailboats less than 26 feet (7.9m), boats participating in organized events and manually propelled boats.
- If you are required to have visual distress signals, at least three safety approved pyrotechnic devices in serviceable condition must be readily accessible. They must be marked with a date showing the service life which must not be expired.
- Carry three signals for day use and three for night use. Some pyrotechnic devices such as red flares, meet both day and night use requirements.
- Store pyrotechnic signals in a cool, dry location. An orange or red watertight container prominently marked “DISTRESS SIGNALS” is recommended.

Other recognized visual distress signals include:

- Flames in a bucket
- Code flags November & Charlie displayed together.
- Black square & ball on orange background flag
- Orange flag (certified)
- Electric distress light (certified)-for night use
- Dye marker (any color)
- Person waving arms (slowly)
- U.S. ensign flown upside down

AUDIBLE DISTRESS SIGNALS, (ADS)

U.S. Coast Guard regulations require one hand, mouth or power operated whistle or horn, audible for at least 1/2 mile.

Other recognized audible distress signals include:

- Radio communication (see **Radio Communication** below)
- Radio-telegraph/telephone alarm
- Position indicating radio beacon (EPIRB)
- Morse Code S-O-S (3 short 3 long 3 short) sounded by any means.
- Fog horn sounded continuously.

Radio Communication

A radio is the boat operator's main method of receiving safety information and summoning aid. VHF-FM radio is the primary means of short range communication. Single sideband radio (SSB) is used for longer range communication.

VHF-FM channel 16 and SSB 2182 kHz are designated for emergency use. Such situations can be categorized as:

- **EMERGENCY-**
“**MAYDAY, MAYDAY, MAYDAY,**”- used when life or vessel is in imminent danger.

- **URGENCY-**

“**PAN-PAN, PAN-PAN, PAN-PAN**”

(pronounced PAHN-PAHN)-used when a person or vessel is in some jeopardy less than indicated by a “MAYDAY” call.

- **SAFETY-**

“**SECURITY, SECURITY, SECURITY**”

(pronounced SAY-CURE-IT-AY)-used for navigational safety or weather warning.

An emergency situation will be hectic and there will not be time to learn proper radio procedure. **LEARN WHAT TO DO BEFORE YOU NEED TO DO IT.** If you hear a distress call, stop all radio transmissions. If you can directly assist, respond on the emergency frequency. If you cannot assist, do not transmit on that frequency. However, continue to monitor until it is obvious that help is being provided.

Weather

DANGER

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

Getting caught in severe weather is hazardous. Bad weather and/or rough sea or water conditions can cause an unsafe situation. Consult local weather services for up-to-date forecasts on weather and sea conditions. Television, Radio, Internet can give you access to NOAA weather reports that will help you make a determination on where and when to get underway.

Following are some weather related rules:

- Understand the design limitations of your boat.
- Check the weather forecast and water conditions before leaving and while underway.
- Wear a Personal Flotation Device, (PFD).

WARNING

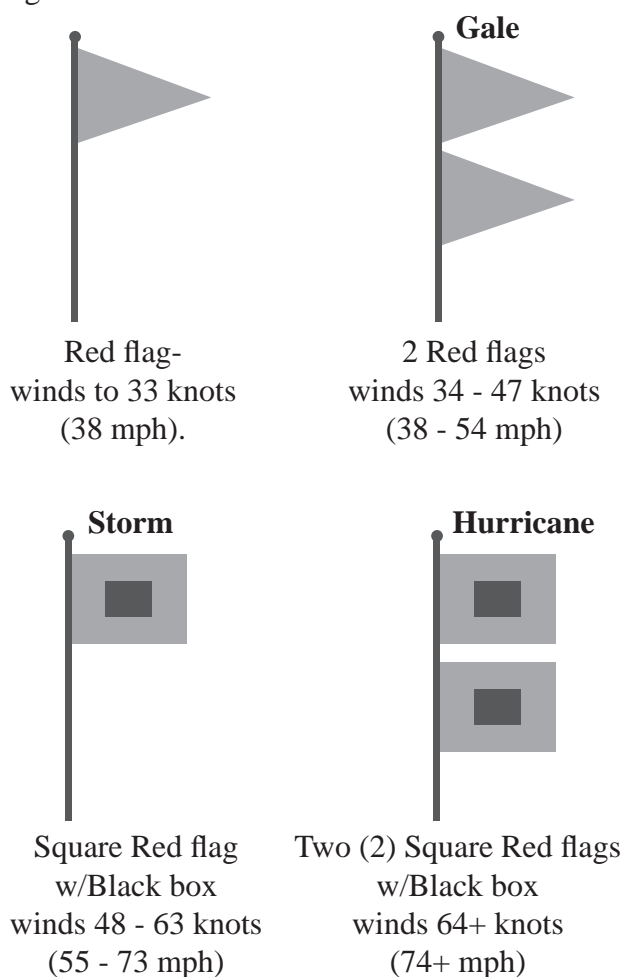
A sudden change in wind direction or speed or an increase in wave height indicates deteriorating weather.

NOTICE

Check the weather forecast and water conditions before leaving and while underway

Weather Warning Penants

Fig. 1.13.1



- If a storm approaches, immediately seek a safe harbor.
- If a storm hits have everyone sit in the cabin or cockpit deck in the boat. Head the bow into the wind with enough power to maintain slow headway.

- If you encounter fog, determine your position, set a safe course, slow down and alert other boats of your presence with a sound signal.
- If a lightning storm approaches, the safest action is to dock and disembark. If you cannot return to shore, have passengers go inside the cabin and remain there until the storm passes.
- Stay out of the water during a lightning storm. If caught swimming during a storm, get back into the boat and remain there until the storm passes. (remember that lightning can strike several miles away from the storm itself. Be aware of the storms location relative to your location and the direction the storm is moving).

Swimming, Diving & Water Skiing

Swimming

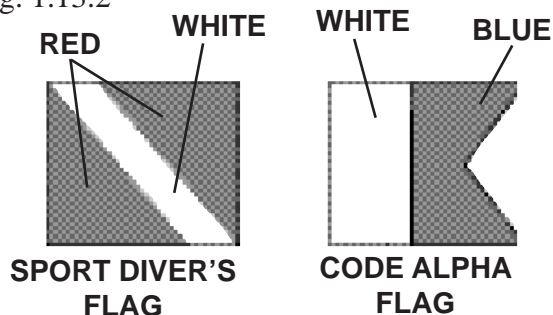
- Do not swim from a moving boat.
- Many areas prohibit swimming from a boat except in designated areas. Never enter swimming zones.
- Turn off engine in gear (to prevent propeller “windmilling”) before picking up swimmer.

Diving

Recognize and respect diving flags. Keep at least 100 feet (30 meters) away.

Diver's Flags

Fig. 1.13.2



SPORT DIVERS FLAG-Red flag with diagonal white stripe marks a diver in the water.

CODE ALPHA FLAG-Blue and white pennant designates boat being used in dive operations.

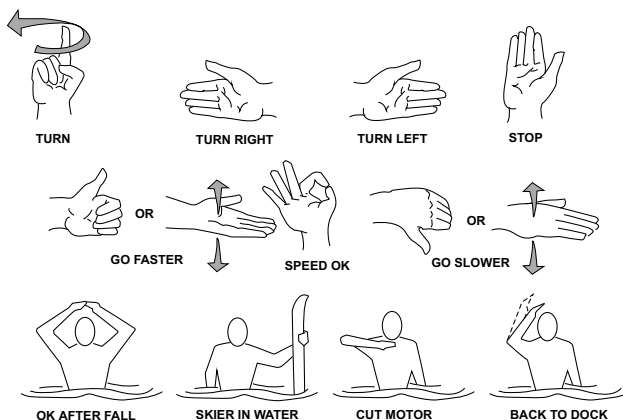
Water Skiing

- Always have at least two persons in the boat, one at the controls and one who can easily and continuously look at the skier.
- Insist that anyone who water skis must know how to swim.
- Insist that skiers wear approved Personal Flotation Devices (PFD's)
- Ski only in daylight when visibility is good.
- Never drive the boat directly behind a water skier. At 22 knots (25 m.p.h.) it takes only 5 seconds to overtake a fallen skier who was 60 meters (200 feet) in front.
- Ski only in areas where skiing is permitted.
- Observe local restrictions on length of tow line.
- Learn the signals to communicate with a skier. The skier is to control the boat through hand signals (Figure 1.14.1).
- Your boat will handle differently while towing a skier. Experiment carefully to learn the difference.
- Skiers may start from the shore or dock, if boat traffic allows. When returning, pick up skiers from water. Do not ski back to shore or dock.
- Give immediate attention to fallen skiers.
- Keep a downed skier in sight and on the operator's side of the boat when approaching the skier. **Never back up to anyone in the water.**
- Turn off engine in gear (to prevent propeller "windmilling") before picking up skier.
- If the skier suddenly releases the tow rope, it can backlash into cockpit. Spotters who are watching the skier must be aware of this fact and be prepared to take appropriate action to avoid injury.

Water Skiing Signals

Skiing Signals

Fig. 1.14.1



Turn – Arm raised, circle with index finger extended.

Turn Right – Extend arm out from body to the right.

Turn Left – Extend arm out from body to the left.

Stop – Raise arm with palm vertical and facing forward.

Faster – Thumb pointed up or palm up, move hand up and down.

Speed OK – Raise arm and form a circle with thumb and index finger.

Slow Down – Thumb pointed down or palm down, move hand up and down.

OK After a Fall – Clasp hands together overhead.

Skier in Water – Extend one ski vertically out of water.

Cut Motor – Draw finger across throat.

Back to Dock – Pat top of head.

! WARNING

Never allow anyone to board or exit your boat from the water when engines are on.

WARNING

SWIMMING/DIVING HAZARD

- Keep clear of areas designated only for swimmers and skin divers. Recognize markers used for such areas.
- Never swim when there is lightning in the area.

SKIING HAZARDS

- Skiers must use a safety approved Personal Flotation Device (PFD).
- Ski only during daylight and in good visibility.
- Avoid shallow water, other boats, navigational aids and other obstructions.
- Keep at least 100 ft. (30 meters) from other objects.
- Never drive directly behind a water skier.
- A competent observer must watch the skier at all times. A competent observer is a person that has the ability to assess when a skier is in trouble, knows or understands water skiing hand signals and is capable of helping a skier.
- Keep a downed skier in constant sight.
- Turn off engine in gear before you get close to person in the water.
- Never back up to anyone in the water.
- Use caution in boat when skier is being towed. Sudden release of tow rope can cause it to backlash into the cockpit.

PERSONAL INJURY HAZARD

Use transom tow ring only to pull water skiers. Unless specified by the manufacturer, any other use, such as parasailing, kite flying, towing other boats, etc. may create too much stress on the tow ring, resulting in personal injury and/or equipment damage.

DANGER

PROPELLER SAFETY

- Before starting your boat, walk to the stern and look in the water to assure there is no one near your propeller.

People near propeller may not be visible from helm.
- NEVER allow passengers to board or exit your boat from the water when engines are on.
- Educate passengers about the dangers of propellers
- Be especially alert when operating in congested areas. NEVER enter swimming zones.
- Take extra precautions near boats that are towing skiers or tubers.
- NEVER permit passengers to ride on the bow, gunwale, transom, seatbacks, or other locations where they may fall overboard.
- STOP! if someone falls overboard. Slowly turn the boat around, and keep the person in sight as you approach. Turn your engine off FIRST and then bring the person aboard.
- NEVER reverse your boat to pick someone up out of the water.

Ignition Shutdown Safety Switch

WARNING

Wear the lanyard at all times when operating the boat. Use it to stop only in an emergency. DO NOT use it to shut off the engine during normal operation

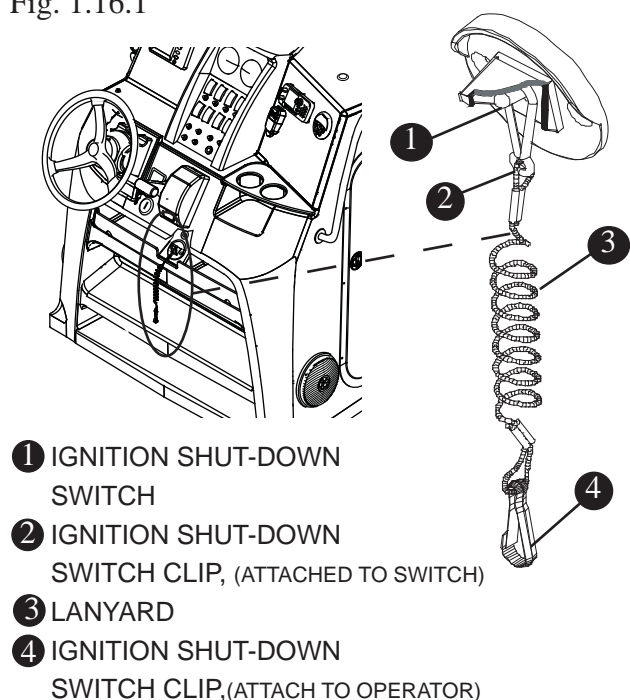
Your boat is equipped with an ignition shutdown safety switch. The switch is located aft of the gear shift/throttle control unit. The ignition shut down safety switch incorporates a shut-off switch, switch clip, lanyard and lanyard clip, which is clipped to the operator when running.

If an emergency arises and the engine must be shut down, a pull on the cord to release the clip from the shut-off will shut off 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. This would most likely occur as a result of poor operating practices.

Ignition Shutdown Safety Switch

Fig. 1.16.1



The lanyard should be long enough to prevent inadvertent activation. Do not let the lanyard become entangled.

Accidental loss of power can be hazardous, particularly while docking or in heavy seas, strong current or high winds. Passengers and crew may lose balance and the boat may lose steering control.

Should the operator fall out of the boat at planing speed, it may take several seconds for the engine and propeller to stop turning. The boat may continue to coast for several hundred feet, causing injury to anyone in its path.

Float Plan

Float plans are important to you should you encounter problems on the water. A float plan should contain a description of your boat along with any distinguishing features. It should describe where you will be boating, your departure time and estimated return. The number and names of passengers, and destination should also be noted.

The float plan should be given to a friend or relative, so they can give the information to a national boating agency like the U.S. Coast Guard, in the event you do not return at the time specified on the float plan.

If there are any changes to the float plan they should be conveyed to the person holding the float plan. Once you return you should contact the person holding the float plan to let them know you are back.

Chart Your Course

To avoid boating in unsafe areas where there are underwater obstructions, shallow water, unnavigable conditions such as dangerous currents, and others, you must chart a course. This means having and using National Oceanic and Atmospheric Administration (NOAA) charts for coastal waters, observing and understanding all navigational aids, using the knowledge and guidance of experienced boaters, and being aware of the tides and times where appropriate. If you are boating in an area you are unfamiliar with, proceed with caution and post a lookout to watch for hazards.

WARNING

Hitting an object in or under the water or boating in dangerous currents can cause serious injury or death to occupants in the boat.

You must know where the hazards are and avoid them. In uncharted waters, boat very slowly and post a lookout.

If an object is struck or if you run aground:

- Shut the engine OFF
- Check the hull for damage
- Check the propeller(s) for damage
- If aground, consider the bottom grade before moving off, (damage to the hull and propeller(s) could be worsened).
- Determine the tides and whether it will help or hinder you from the grounding.
- Do not have anyone other than a trained and competent service tow your boat.

Environmental Considerations

Fuel & Oil Spillage

Regulations prohibit discharging fuel or oily waste in navigable waters. Discharge is defined as any action which causes a film, sheen or discoloration on the water surface, or causes a sludge or emulsion beneath the water surface. A common violation is

bilge discharge. Use rags or sponges to soak up fuel or oily waste, then dispose of it properly ashore. If there is much fuel or oil in the bilge, contact a knowledgeable marine service to remove it. Never pump contaminated bilge overboard. Help protect your waters.

Excessive Noise

Many areas regulate noise limits. Even if there are no laws, courtesy demands that boats operate quietly.

Wake / Wash

Power boat wakes can endanger people and vessels. Each power boat operator is responsible for injury or damage caused by the boat's wake. Be especially careful in confined areas such as channels or marinas. Observe "no wake" warnings.

WARNING

SPEED HAZARD - Watch your wake. It might capsize a smaller craft. You are responsible for damage caused by your wake.

WARNING

Reduce speed in congested waterway. Be alert for No Wake markers.

Homeland Security restrictions

Recreational boaters have a role in keeping our waterways safe and secure. Violators of the restrictions below can expect a quick and severe response.

- **DO NOT** approach within 100 yards, and slow to minimum speed within 500 yards of any U.S. Naval vessel. If you need to pass within 100 yards of a U.S. Naval vessel for safe passage, you must contact the U.S. Naval vessel or the Coast Guard escort vessel on VHF-FM channel 16.
- Observe and avoid all security zones. Avoid commercial port areas, especially those that involve military, cruise line or petroleum facilities. Observe and avoid other restricted areas near dams, power plants, etc.
- **DO NOT** stop or anchor beneath bridges or in channels.

DANGER

DO NOT approach within 100 yards of any U.S. Naval vessel without first contacting the vessel on VHF-FM channel 16. To do so will result in a quick and severe response.

America's Waterway Watch

In March, 2005, the U.S. Coast Guard officially launched *America's Waterway Watch* to encourage the boating public to report suspicious activities in our nation's ports and waterways. *America's Waterway Watch* simply asks anyone who works, lives, or recreates on the water to keep an eye out for suspicious activities. Anyone who spots such activity is asked to call the National Response Center's 24-hour hotline, 800-424-8802 or 877-24WATCH (877-249-2824).

Warning Label Locations

Mounted at key locations throughout the boat (See figure 1.19.1), warning labels advise the owner/operator of imperative safety precautions to follow when operating and/or servicing equipment. **DO NOT REMOVE OR OBSTRUCT ANY WARNING LABEL.** Replace any label which becomes illegible.

Warning Label Locations

Warning Label Locations
Fig.1.19.1

Proposition 65

⚠ WARNING

A WIDE VARIETY OF COMPONENTS USED ON THIS VESSEL CONTAIN OR EMIT CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS AND OTHER REPRODUCTIVE HARM.

EXAMPLES INCLUDE:

- ENGINE AND GENERATOR EXHAUST
- ENGINE AND GENERATOR FUEL, AND OTHER LIQUIDS SUCH AS COOLANTS AND OIL, ESPECIALLY USED MOTOR OIL
- COOKING FUELS
- CLEANERS, PAINTS, AND SUBSTANCES USED FOR VESSEL REPAIR
- WASTE MATERIALS THAT RESULT FROM WEAR OF VESSEL COMPONENTS
- LEAD FROM BATTERY TERMINALS AND FROM OTHER SOURCES SUCH AS BALLAST OR FISHING SINKERS

TO AVOID HARM:

- KEEP AWAY FROM ENGINE, GENERATOR, AND COOKING FUEL EXHAUST FUMES
- WASH AREAS THOROUGHLY WITH SOAP AND WATER AFTER HANDLING THE SUBSTANCES ABOVE

CALIFORNIA RESIDENTS ONLY

THIS WARNING IS ATTACHED TO THE STEERING WHEEL PRIOR TO DELIVERY OF ANY BOATS SOLD IN THE STATE OF CALIFORNIA IN ACCORDANCE WITH CALIFORNIA HEALTH & SAFETY CODE §§ 25249.5-.13

Required under AB2222 for use on all boats in the State of California

⚠ WARNING

Carbon monoxide (CO) can cause brain damage or death.

Engine and generator exhaust contains odorless and colorless carbon monoxide gas.

Signs of carbon monoxide poisoning include nausea, headache, dizziness, drowsiness, and lack of consciousness.

Get fresh air if anyone shows signs of carbon monoxide poisoning.

See Owner's Manual for information regarding carbon monoxide poisoning.

NW-204-05

3

THIS BOAT HAS BEEN DESIGNED FOR A MAXIMUM OUTBOARD ENGINE WEIGHT OF

700 Lb / 317 kg

THIS LABEL DELETED WHEN AUSTRALIAN BUILDER'S PLATE IS USED.

NOTICE

It is important to replace any damaged or unreadable label. Call your Boston Whaler dealer for replacement labels.

4

⚠ CAUTION

AVOID DAMAGE TO ENGINE COWL. REMOVE SKI PYLON BEFORE RAISING ENGINE OR TRAILERING BOAT

MRP# 1752493

5

⚠ WARNING

DOOR MUST BE SECURED IN THE CLOSED POSITION WHILE VESSEL IS UNDERWAY.

MRP# 1754632

6

⚠ WARNING

FAILURE TO FOLLOW THESE GUIDELINES CAN RESULT IN INJURY OR DEATH

USE CAUTION WITH SKIER IN TOW AS THE TOW ROPE MAY SNAP BACK INTO COCKPIT WHEN RELEASED. TOWER RATED FOR WATER SKIING OR WAKE BOARDING USE ONLY. ALL OTHER RECREATIONAL TOWNALES USE TRANSOM STEERING. DO NOT TOW OTHER BOATS OR USE FOR PARASAILING. DO NOT JUMP OFF OR DIVE FROM TOWER. NEVER ALLOW LOOSE TOW ROPE ENDS TO HANG FROM TOWER. ENSURE STRUCTURAL INTEGRITY OF TOWER AND ATTACHMENT POINTS ON VESSEL PRIOR TO USE.

7

⚠ CAUTION

AVOID INJURY. BOAT MOVEMENT MAY CAUSE LID TO FALL. KEEP HANDS AND FEET CLEAR OF EDGES WHEN HATCH IS OPEN

MRP# 1836858

UNDERSIDE OF LID

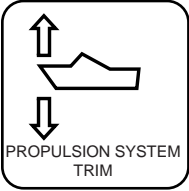

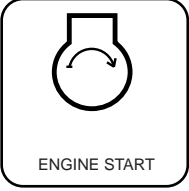




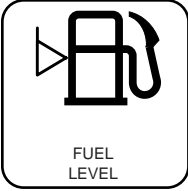

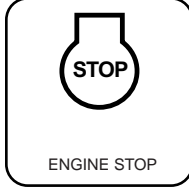
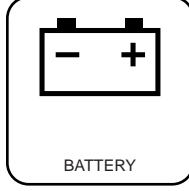
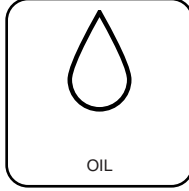







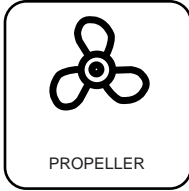
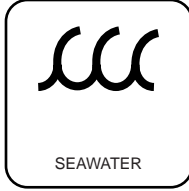
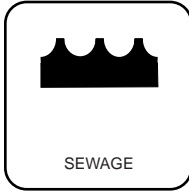
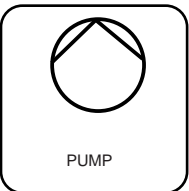


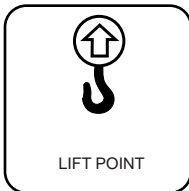
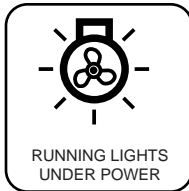
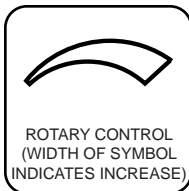

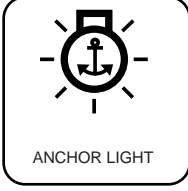



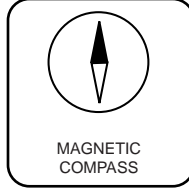
Replacement Part No.

- | | | |
|----------|--|------------------|
| 1 | PROP 65 HANG TAG | 1795087 |
| 2 | VESSEL CERTIFICATION PLATE | SEE FIGURE 2.2.1 |
| 3 | MAXIMUM ENGINE WEIGHT 700 LBS/317 KG | 1774307 |
| 4 | CAUTION, REMOVE SKI PYLON (OPTION)..... | 1752493 |
| 5 | WARNING, DOOR SECURED WHILE UNDERWAY | 1754632 |
| 6 | WARNING, ACTIVITY TOWER (OPTION) | 1851556 |
| 7 | WARNING, BOAT MOVEMENT | 1836858 |
| 8 | DANGER CO HELM..... | 1811368 |

Section 1• Safety

Key to Symbols on Controls & Prints

Although not used in this manual, some of these symbols may be found on the controls, gauges, and hardware on your boat. This page is to help you understand what the symbols mean.

					
PROPULSION SYSTEM TRIM	TRIM TAB TRIMMING OPERATION	ENGINE START	WARNING ELECTRICAL HAZARD	FIRE RISK	NO OPEN FLAME NO SMOKING
					
FUEL GENERAL	FUEL LEVEL	LEADED FUEL	ENGINE STOP	BATTERY	OIL
					
UNLEADED FUEL	FRESH WATER	GRAY WATER			
					
BILGE PUMP	OUTBOARD DRIVE	OUTBOARD DRIVE TILT	PROPELLER	SEAWATER	SEWAGE
					
PUMP	SINGLE LEVER CONTROL	LIFT POINT / SLING LOCATION	LIFT POINT	RUNNING LIGHTS UNDER POWER	ROTARY CONTROL (WIDTH OF SYMBOL INDICATES INCREASE)
					
ANCHOR	ANCHOR LIGHT	INTERIOR LIGHT	HORN	WINDSHIELD WIPER AND WASHER	MAGNETIC COMPASS

Construction Standards

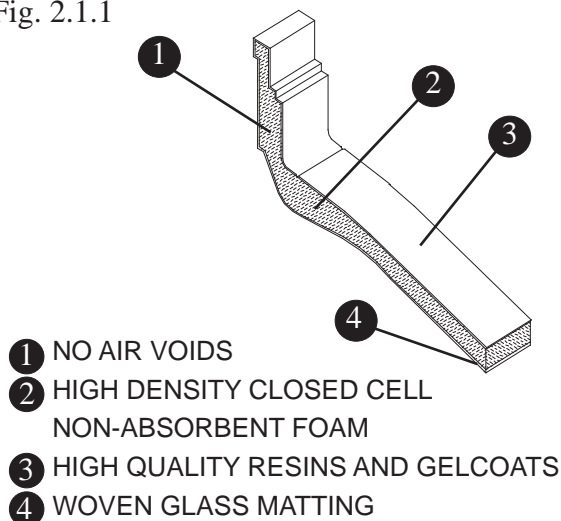
Boston Whaler® is dedicated to creating a superior product which will provide comfort, performance, safety and dependability. All of our boats comply with the safety standards set by the United States Coast Guard and are designed, engineered and manufactured in accordance with applicable recommendations and guidelines of the American Boat and Yacht Council (A.B.Y.C.) and certified by the National Marine Manufacturers Association (N.M.M.A.).

Our Hull

Boston Whaler® hulls are constructed with our patented Unibond™ construction process. This involves foam injection into a closed mold system where the foam expands to fill all voids in the hull. When the finished product is pulled from the mold, the hull and deck are chemically bonded to form a solid, inseparable unit.

Hull Construction

Fig. 2.1.1



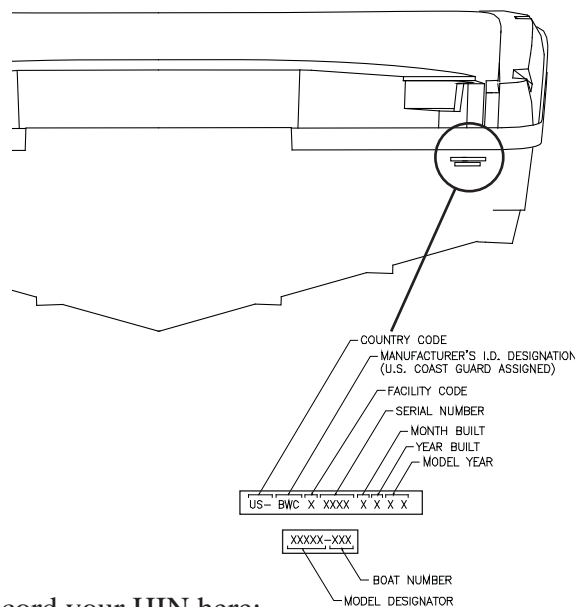
Hull Identification Number

The “Hull Identification Number” is located on the starboard side of the transom.

This is the most important identifying factor and must be included in all correspondence related to your vessel. Also of vital importance are the engine serial numbers, part numbers, etc. when writing about or ordering parts for your engine.

Hull Identification Number (HIN)

Fig. 2.1.2



Record your HIN here:

Servicing Your Boston Whaler

When your Whaler requires service or maintenance work, it should be taken to an authorized Boston Whaler® dealer.

To find a Boston Whaler® dealer in your area call: **1-800-942-5379** (Domestic/International).

In the unlikely event that a problem is not handled to your satisfaction, discuss any warranty related problems directly with the service manager of the dealership or your sales person. Give the dealership an opportunity to help the service department resolve the matter for you.

Manufacturer's Certification

All boats must comply with federal regulations regarding maximum capacities. The certification plate (See figure 2.2.1) located on your boat (See figure 1.17.1) indicates the maximum weight, number of persons, and horsepower your boat is rated to handle.

⚠ DANGER

NEVER carry more weight or passengers than indicated on the certification plate, regardless of the weather or water conditions.

The number of persons on board must be reduced if you go out in poor weather and rough water.

The information present on the certification plate does not relieve the operator from responsibility. Use common sense and sound judgement when placing equipment and/or passengers in your boat.

- Do not load to capacity in poor weather or rough water.
- The number of seats does not indicate how many people a boat can carry in poor weather and rough water
- Above idle speed, all passengers must be seated on the seats provided.

An **NMMA Certification** means that your Boston Whaler® has been judged by the National Marine manufacturers Association to be in compliance with applicable federal regulations and American Boat and Yacht Council standards.

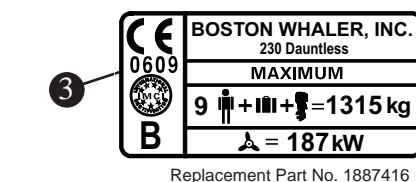
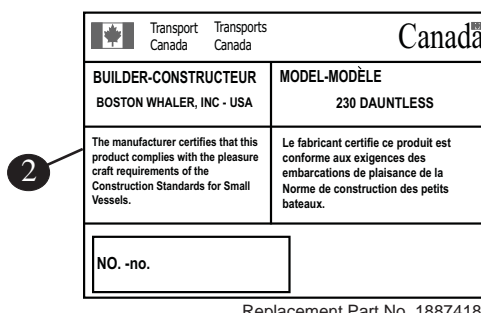
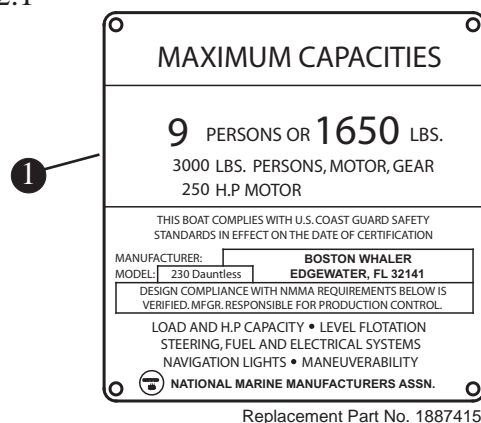
A **Canada Conforming Sticker** means that your Boston Whaler® has been certified to comply with construction standards for small vessels by Transport Canada.

A **CE mark** means that your Boston Whaler® has been certified with the applicable international Organization for Standardization directives.

An **Australian Builder's plate** means that your Boston Whaler® has been certified to comply with safety standards set by the National Marine Safety Committee.

Certification Plates

Fig. 2.2.1



- 1 NMMA CAPACITIES PLATE
- 2 CANADA CONFORMING STICKER
- 3 CE MARK (INT'L) BUILDER'S PLATE
- 4 AUSTRALIAN BUILDER'S PLATE

Certification Design Category

A (Ocean): Designed for extended voyages where conditions may exceed wind force 8 on the Beaufort scale (47 mph and above) and significant wave heights of 4 meters (13.12 feet) and above, and vessels largely self-sufficient.

B (Offshore): Designed for offshore voyages where conditions up to, and including, wind force 8 (39-46 mph) and significant wave heights up to, and including 4 meters (13.12 feet) may be experienced.

C (Inshore): Designed for voyages in coastal waters, large bays, estuaries, lakes and rivers where conditions up to, and including, wind force 6 (25-31 mph) and significant wave heights up to, and including, 2 meters (6.56 feet) may be experienced.

D (Sheltered waters): Designed for voyages on small lakes, rivers and canals where conditions up to, and including, wind force 4 (13-18 mph) and significant wave heights up to, and including, 0.5 meters (1.64 feet) may be experienced.

The significant wave height is considered to be the primary factor for determining design category. Other parameters (e.g. meteorological) are descriptions of when these wave heights may be expected to occur. Refer to page 1-11 for weather information.

NOTICE

Your 230 Dauntless is design category C

Power Capacity

The certification plate, as well as “Specifications & Dimensions” on the following page has the maximum rated power listed for your boat. **DO NOT EXCEED THIS RATING.** The various engine types offered today are more powerful and require constant maintenance to stay at optimal performance. It is required of the owner/operator to read all information regarding safety features, warning notices and maintenance schedules for continued safe operation of the engine.

The engine on the 230 Dauntless has been tested and proven to be best suited for general use under normal conditions and load.

If you are re-powering your Boston Whaler®, you should pay particular attention to the maximum/minimum horsepower and maximum safe engine weight load for which your boat is rated.

NOTICE

The 230 Dauntless is designed for a maximum outboard engine weight of 700 LBS (317 kg).

WARNING

- **DO NOT** Exceed the maximum engine power rating stated on the certification plate.
- Use caution while accelerating. Make sure passengers are safely seated in designated areas of the boat and all gear is stowed securely.

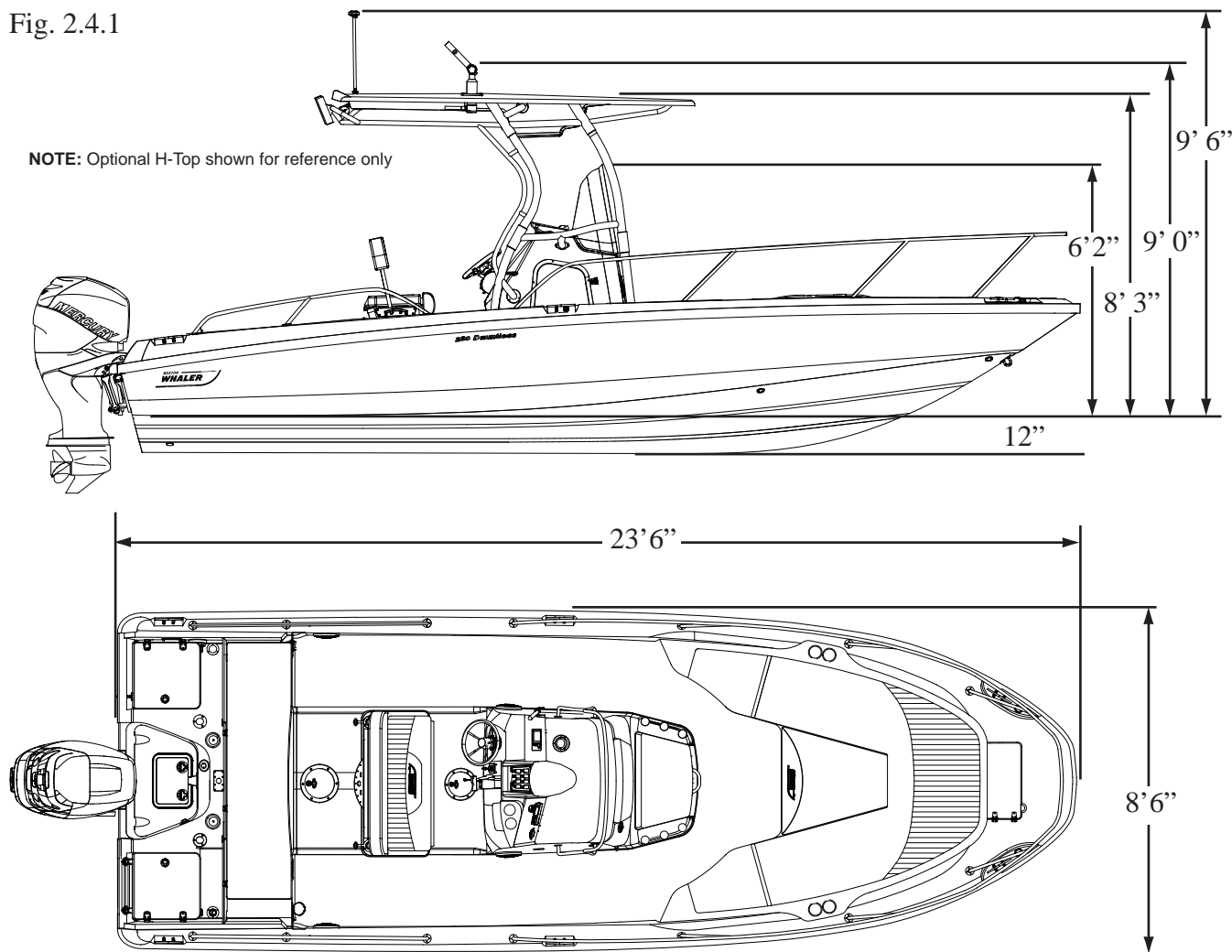
NOTICE

Always adjust the speed and direction of the craft to the varying sea conditions.

Section 2 • General Information

Dimensions & Clearances

Fig. 2.4.1



Specifications & Dimensions

(Specified measurements are approximations and are subject to variance.)

Overall Length	23' 6"	7.16 m	Weight (dry, no engine)	2900 lbs.	1315 kg
Bridge Clearance (no top)	6' 2"	1.87 m	Swamped Capacity	5300 lbs	2404 kg
Bridge Clearance (w/H-Top)	8' 3"	2.51 m	Maximum Engine Weight	700 lbs.	317 kg
with Radial Outriggers	9' 0"	2.74 m	Maximum Weight, (passengers, engine, gear ²)	2900 lbs	1315 kg
Bridge Clearance (w/all round light)	9' 6"	2.90 m	Persons	9	
Boat on Trailer	10' 6"	3.2 m	Maximum Horsepower	250 HP	187 kw
Beam	8' 6"	2.53 m	Minimum Horsepower	225 HP	168 kw
Draft, (Hull only) ¹	12"	.30 m	Fuel Capacity	90 gal.	340 L

¹ Optional equipment and loading of the boat will affect the draft measurements. Follow the recommendations listed on your capacity plate regarding the maximum amount of weight your boat can safely carry.

² Exceeding this weight will affect the boat's performance. **DO NOT** Exceed the weights listed on the capacity plate.

Passenger Locations

Deck Occupancy

Fig. 2.5.1

Working deck



This area is intended for occupation **ONLY** while mooring, anchoring, loading/unloading or when the boat is at rest. **NEVER** operate the engine while loading or unloading swimmers/divers from the swim platform/ladder.

Accommodation deck



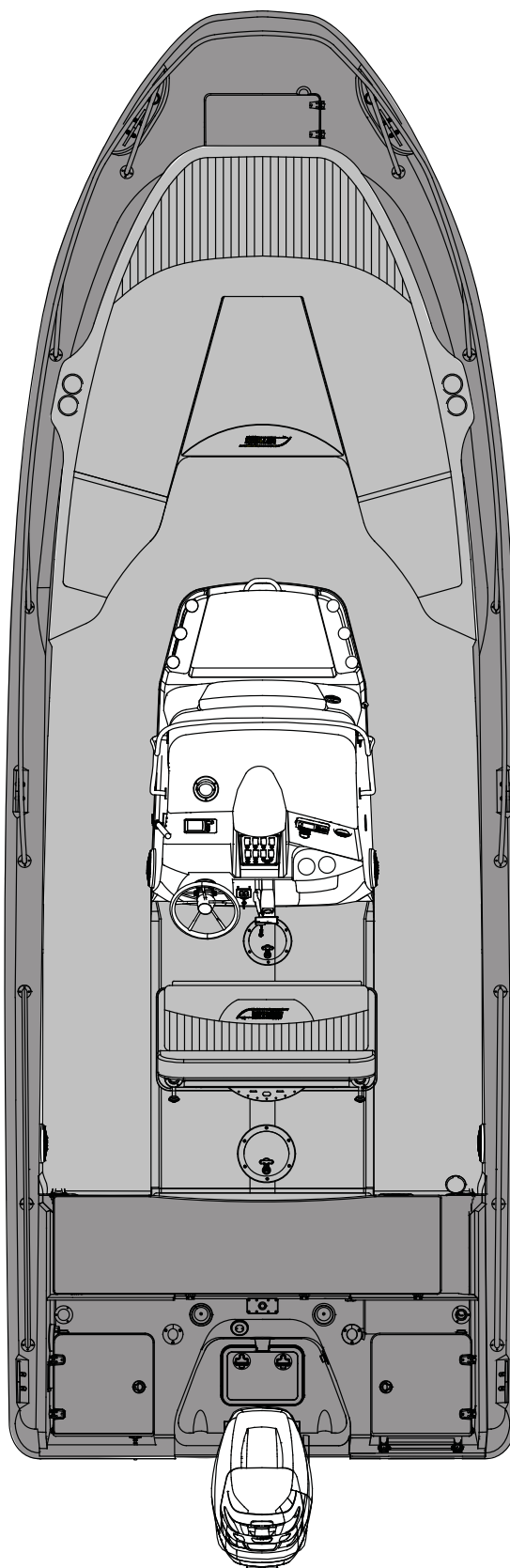
This area of the boat is inside the cockpit and includes helm seating. Movement in this area should be done with extreme caution while the boat is underway. A sudden shift in boat direction can cause a loss of balance and lead to injury or death.

DANGER

Be aware of your footing while the boat is underway, slipping or falling could result in serious injury or death, especially if the boat is in motion or in rough seas. Keep the accommodation deck clean, so if movement is necessary it will be free of obstruction.

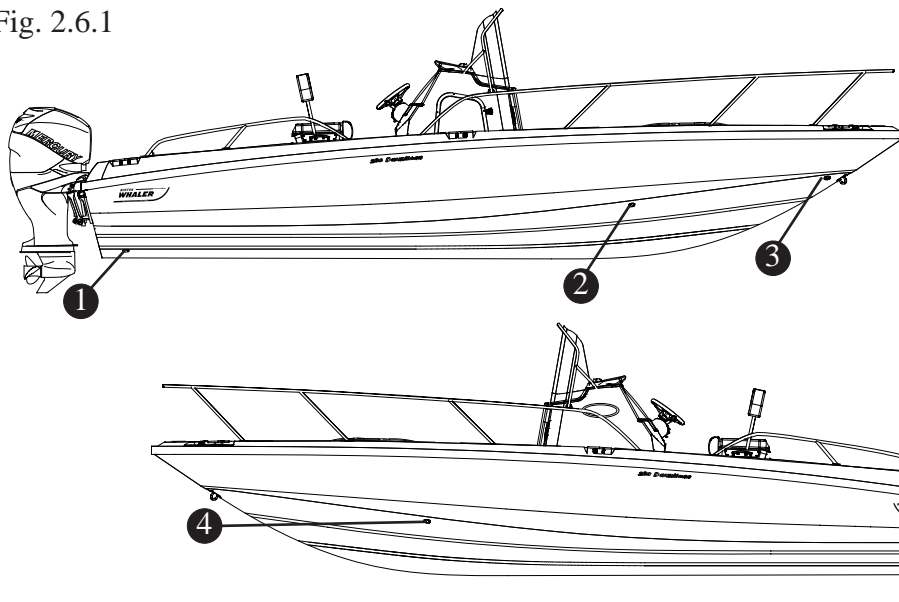
WARNING

- Gelcoat surfaces are slippery when wet. Use extreme caution when walking on wet surfaces.
- Never occupy the working decks while the boat is underway.
- Use care when waxing to ensure that walkways are not made dangerously slippery.



Location of Thru-Hull Fittings

Through Hull Fittings
Fig. 2.6.1



CAUTION

Failure to install anchor locker drain plug prior to using your boat may result in water entering the anchor locker while underway at slow speeds.

This condition will cause flooding of the locker and possible overflow onto the deck.

- | | |
|--|-------------------------------------|
| ① PEDESTAL SEAT LIVEWELL RAW WATER INTAKE (OPTION) | ④ PORT STORAGE DRAIN |
| ② STARBOARD STORAGE DRAIN | ⑤ CONSOLE LIVEWELL RAW WATER INTAKE |
| ③ ANCHOR LOCKER DRAIN | |

Through Hull Fittings, Aft
Fig. 2.6.2

- | | |
|--|--|
| ① PORT & STARBOARD DECK DRAINS | |
| ② BILGE PUMP OUTLET | |
| ③ MOTORWELL DRAINS | |
| ④ CONSOLE LIVEWELL DRAIN (STANDARD) | |
| ⑤ GARBOARD DRAIN | |
| ⑥ PEDESTAL SEAT LIVEWELL DRAIN & STERN SEAT FISHBOX DRAIN (OPTION) | |

NOTICE

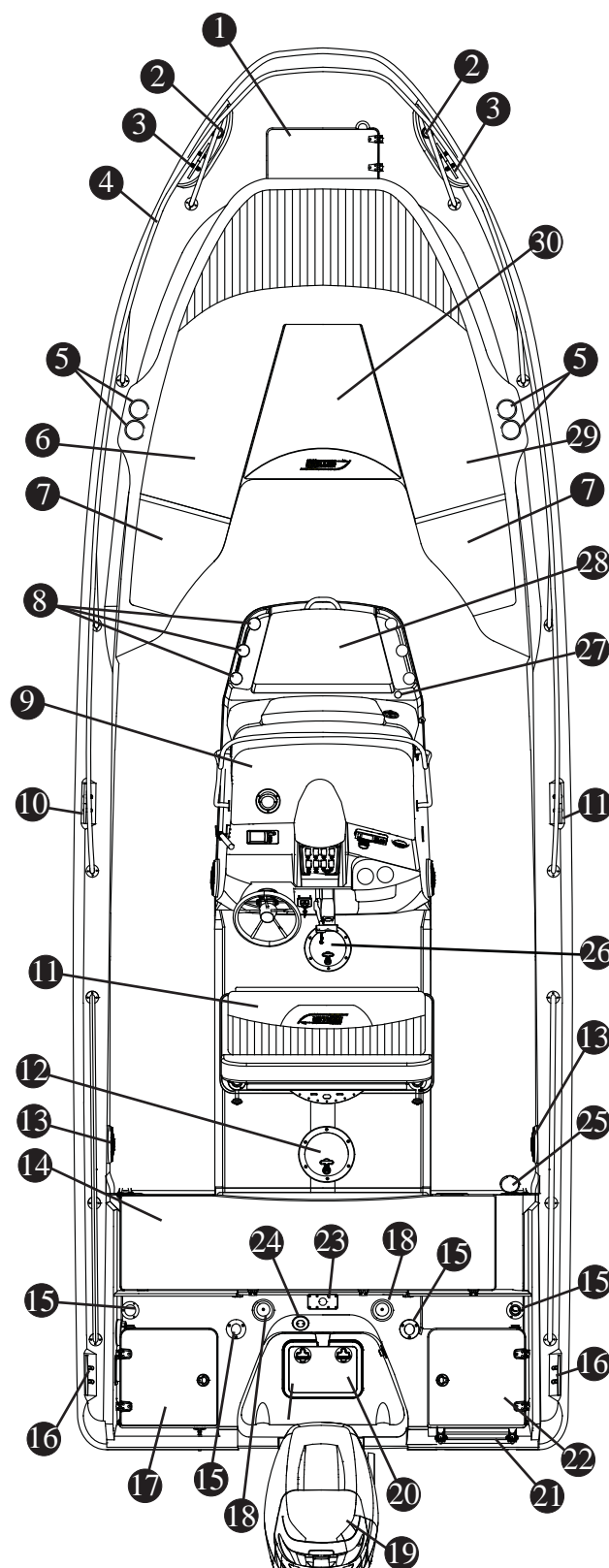
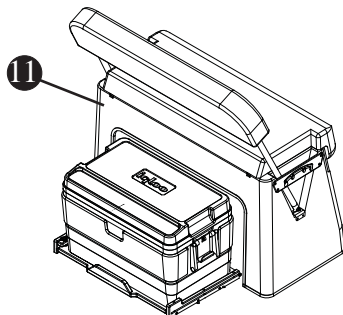
- The deck drain provides self-bailing capabilities while the boat is static in the water and no passengers on board. This feature prevents the accumulation of water in the cockpit. the drain plug must be in place when underway.
- Depending on the type of boat you have, you may have underwater fittings that need drain plugs. Garboard drain plugs and fishbox drain plugs need to be in place before the boat goes into the water. Any fitting that will be underwater needs to be plugged or the seacock needs to be closed
- Through hull fittings should be checked for proper seal annually. When the boat is in the water the underwater fittings can be checked for dripping. It is recommended that the underwater fittings be removed, cleaned and resealed every other year.
- If the through hull fittings need to be replaced, it is recommended that an authorized Boston Whaler® dealer perform this type of repair. Through hull fittings that are improperly installed can cause premature hull failure and may void the Boston Whaler® limited warranty.
- A standard 1" "Snap-Tite" plug can be used to replace the drain plug in your boat. It is recommended that you carry spare plugs to be used in the event that the drain plug becomes lost or damaged.

Features

Deck features

Fig. 2.7.1

- 1 ANCHOR LOCKER
- 2 NAVIGATION LIGHTS (P&S)
- 3 BOW CLEATS (P&S)
- 4 STAINLESS STEEL BOW RAIL
- 5 CUPHOLDERS (P&S)
- 6 PORT BOW CUSHION (ROD STORAGE UNDER)
- 7 FLIP UP BACKREST (P&S) (SEE PAGE 2-11)
- 8 CONSOLE MOUNTED ROD HOLDERS (P&S)
- 9 CENTER CONSOLE (SEE FIGURE 2.8.1)
- 10 SPRINGLINE CLEATS (P&S)
- 11 REVERSIBLE PILOT SEAT WITH 54 QT. (51.1 L) CARRY-ON COOLER
- 12 FUEL TANK - DECK ACCESS PLATE
- 13 WATERPROOF STEREO SPEAKERS
- 14 STERN SEAT W/FOLDING BACKREST
- 15 RODHOLDERS (P&S)
- 16 STERN CLEAT P&S)
- 17 PORT MECHANICAL ACCESS
- 18 AFT CUPHOLDERS (P&S)
- 19 225 XL DTS VERADO 4-STROKE MERCURY ENGINE W/POWER ASSIST STEERING*
- 20 MOTORWELL ACCESS HATCH
- 21 SWIM PLATFORM W/ TELESCOPING SWIM LADDER
- 22 STARBOARD TRANSOM STORAGE (BATTERY ACCESS HATCH UNDERNEATH)
- 23 SKI PYLON/PEDESTAL SEAT RECEIVER (OPTION)
- 24 FUEL FILL DECK PLATE
- 25 FRESH WATER COCKPIT SHOWER (OPTION)
- 26 DECK ACCESS PLATE
- 27 FRESH WATER FILL PLATE
- 28 INSULATED 15 GAL (56.8 L) LIVEWELL (UNDER CUSHION)
- 29 STARBOARD BOW CUSHION (INSULATED STORAGE UNDER)
- 30 BOW CUSHION (INSULATED STORAGE UNDER)

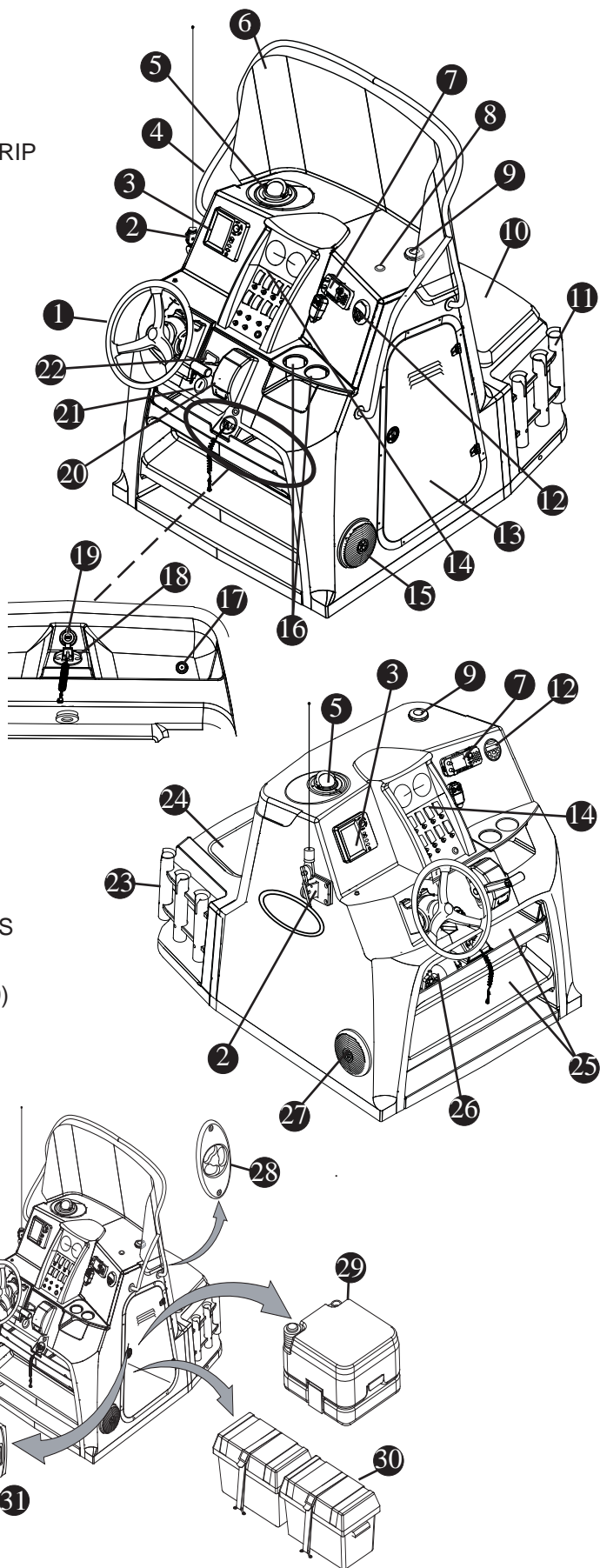


* Optional Engine availability:
250 XL DTS Mercury Verado® 4-stroke w/power assist steering

Console Features

Fig. 2.8.1

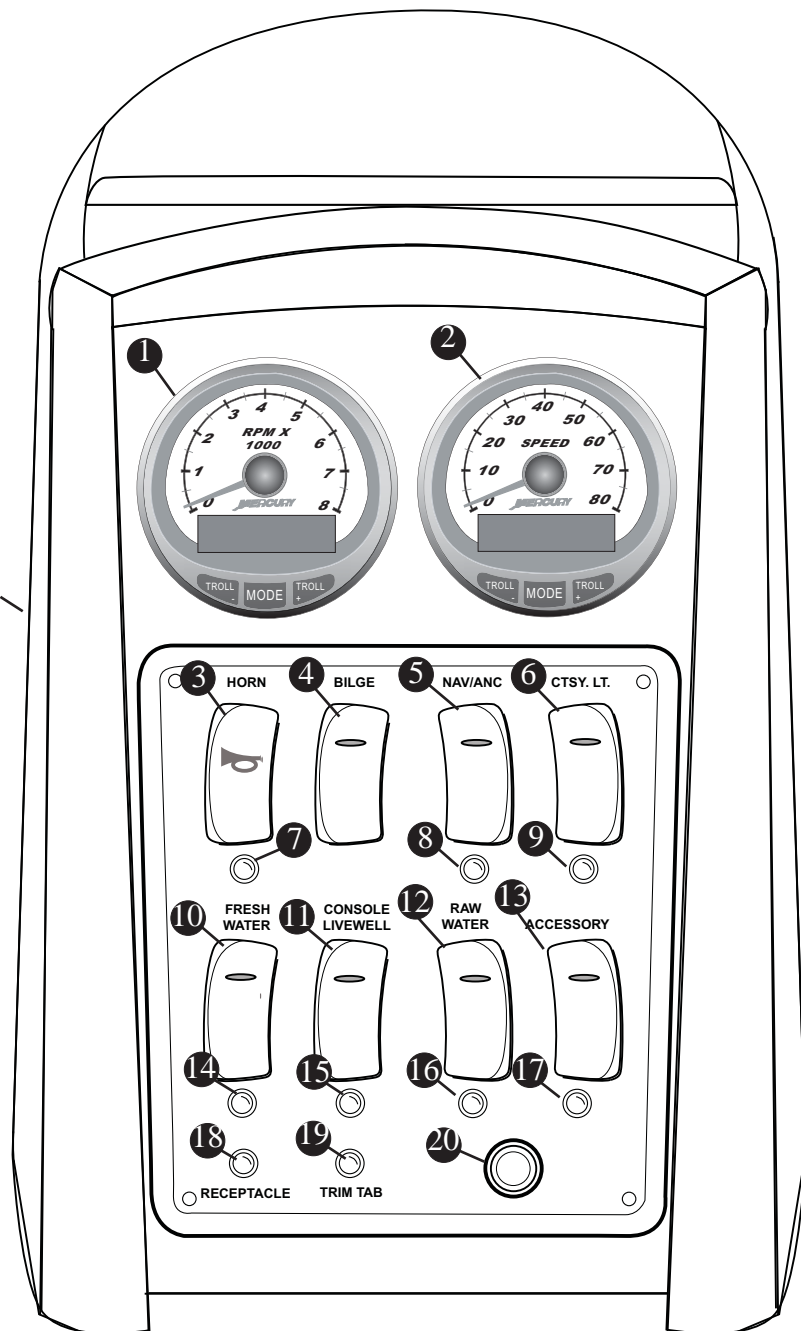
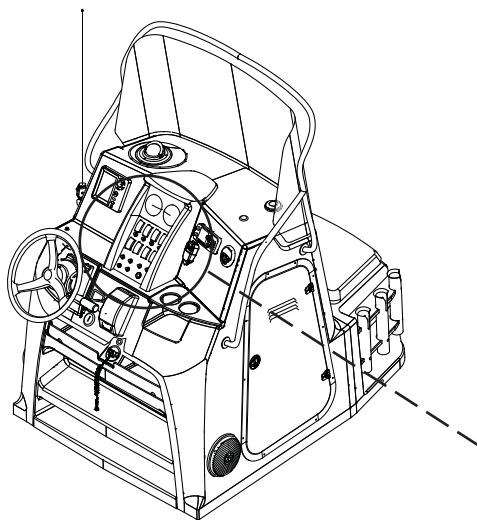
- 1 POWER ASSIST STEERING
(STAINLESS STEEL WHEEL W/URETHANE GRIP)
- 2 VHF ANTENNA (OPTION)
- 3 NORTHSTAR 650 COLOR
FISHFINDER/CHARTPLOTTER (OPTION)
- 4 CONSOLE GRAB RAIL
- 5 MAGNETIC COMPASS
- 6 WINDSHIELD
- 7 NORTHSTAR 710 VHF RADIO (OPTION)
- 8 ANCHOR LIGHT RECEPTACLE
- 9 SATELLITE RADIO ANTENNA (OPTION)
- 10 SEAT CUSHION W/BACK REST
(LIVWELL UNDERNEATH)
- 11 STARBOARD CONSOLE ROD HOLDERS
- 12 STEREO REMOTE (OPTION)
- 13 CONSOLE ACCESS DOOR
- 14 SWITCH & INSTRUMENT PANEL
- 15 STARBOARD STEREO SPEAKER (OPTION)
- 16 CUPHOLDERS
- 17 MP3 PLAYER RECEPTACLE (OPTION)
- 18 EMERGENCY STOP SWITCH
- 19 12 VOLT ACCESSORY RECEPTACLE
- 20 GEAR SHIFT/THROTTLE
- 21 IGNITION
- 22 ELECTRIC TRIM TAB SWITCH W/INDICATORS
- 23 PORT CONSOLE RODHOLDERS
- 24 INSULATED LIVWELL W/LID (SEE PAGE 3-9)
- 25 CONSOLE STORAGE
- 26 FIRE EXTINGUISHER POCKET
- 27 PORT STEREO SPEAKER (OPTION)
- 28 HORN (ON FRONT OF CONSOLE)
- 29 PORTABLE HEAD
- 30 BATTERY BOXES FOR
TROLLING MOTOR (OPTION)
- 31 CLARION AM/FM DIGITAL STEREO
W/CD PLAYER (OPTION)



Console Switch Panel

Console Switch Panel

Fig. 2.9.1



- | | |
|--|--|
| 1 DELUXE TACHOMETER | |
| 2 DELUXE SPEEDOMETER | |
| 3 HORN SWITCH | |
| 4 BILGE PUMP SWITCH | |
| 5 NAV/ANC LIGHTS SWITCH | |
| 6 COURTESY LIGHTS SWITCH | |
| 7 HORN BREAKER.....10 AMP | 14 FRESH WATER PUMP BREAKER10 AMP |
| 8 NAV/ANC LIGHTS BREAKER.....3 AMP | 15 CONSOLE LIVEWELL BREAKER3 AMP |
| 9 COURTESY LIGHTS BREAKER3 AMP | 16 RAW WATER PUMP BREAKER15 AMP |
| 10 FRESH WATER PUMP SWITCH (OPTION) | 17 ACCESSORY BREAKER.....3 AMP |
| 11 CONSOLE LIVEWELL PUMP SWITCH (OPTION) | 18 12 VOLT RECEPTACLE BREAKER.....10 AMP |
| 12 RAW WATER PUMP SWITCH (OPTION) | 19 TRIM TAB BREAKER.....20 AMP |
| 13 ACCESSORY SWITCH | 20 AMBIENT TEMPERATURE SENSOR |
| (HELMSEAT LIVEWELL) (OPTION) | |

Section 2 • General Information

Smartcraft™ deluxe Gauges

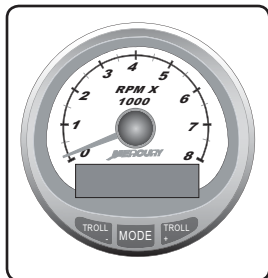
The standard gauge set on your 230 Dauntless includes the Smartcraft™ deluxe tachometer and speedometer multi-gauge system.

By pressing the “mode” button to change displays, the operator is able to gather important data critical to the safe operation of the boat and boat systems.

Tachometer:

Information displayed by the tachometer gauge includes:

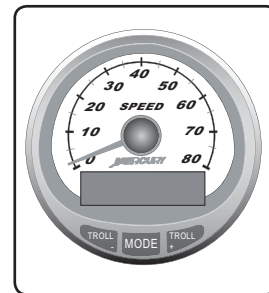
- Engine Break-in Time
- Water Pressure
- Fuel Flow
- Temperature
- Battery Voltage
- Power Trim Angle-Water Pressure
- Power Trim Angle
- Digital Tachometer
- Hour Meter



Speedometer:

Information displayed by the speedometer gauge includes:

- Clock-Temperature
- Fuel Level
- Oil Level
- Traveling Range
- Fuel Economy
- Trip Odometer
- Digital Speedometer
- Barometer

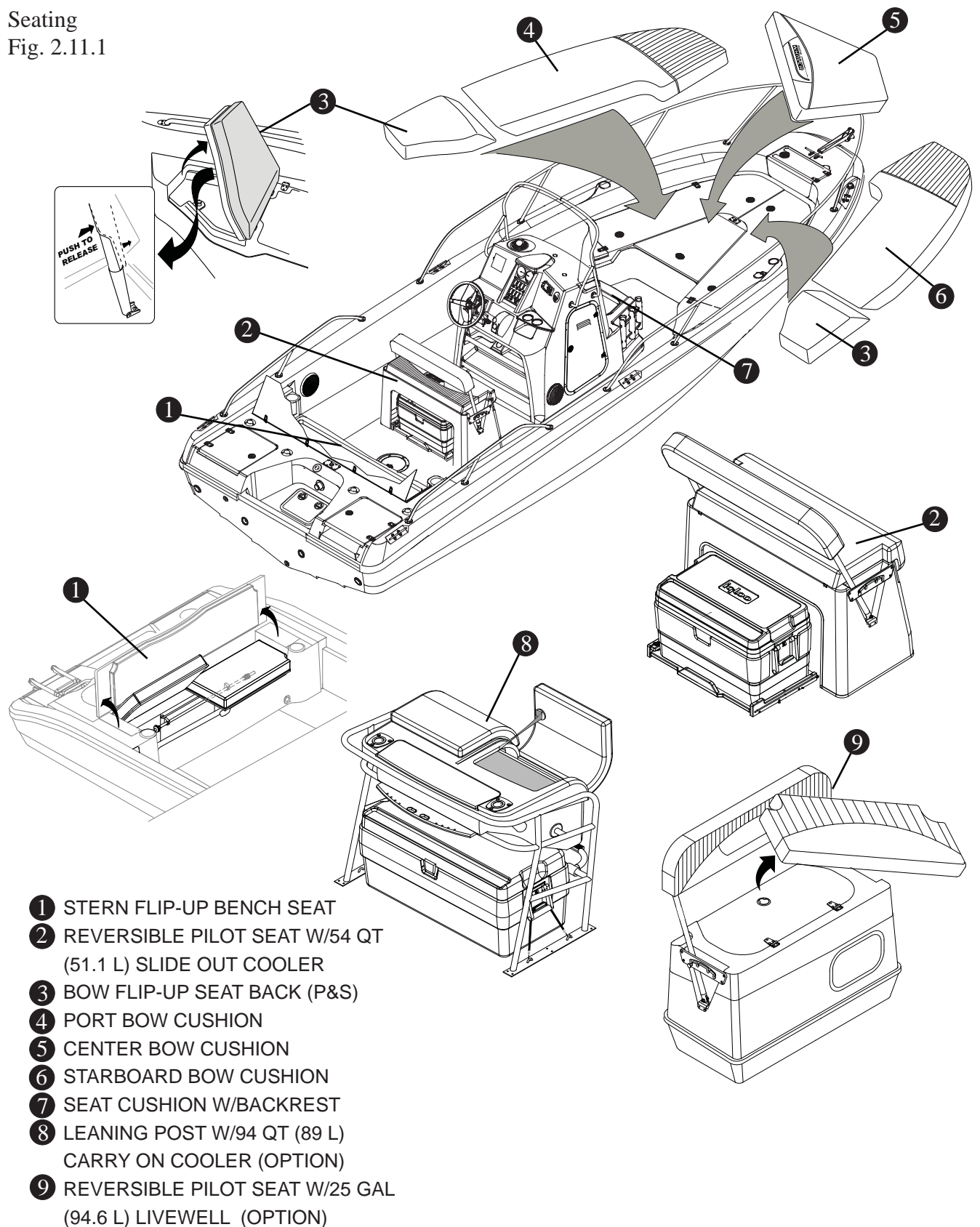


To get the most out of your Multi-system display features, you must read the manual, in your owner's packet, which is provided by the system manufacturer. The manual will give you information important for the proper operation of the Smartcraft™ deluxe Tachometer and Speedometer multi-gauge system.

REFER TO THE MANUFACTURER'S MANUAL IN YOUR OWNER'S MANUAL PACKET FOR COMPLETE INSTRUCTIONS, INFORMATION AND WARRANTY.

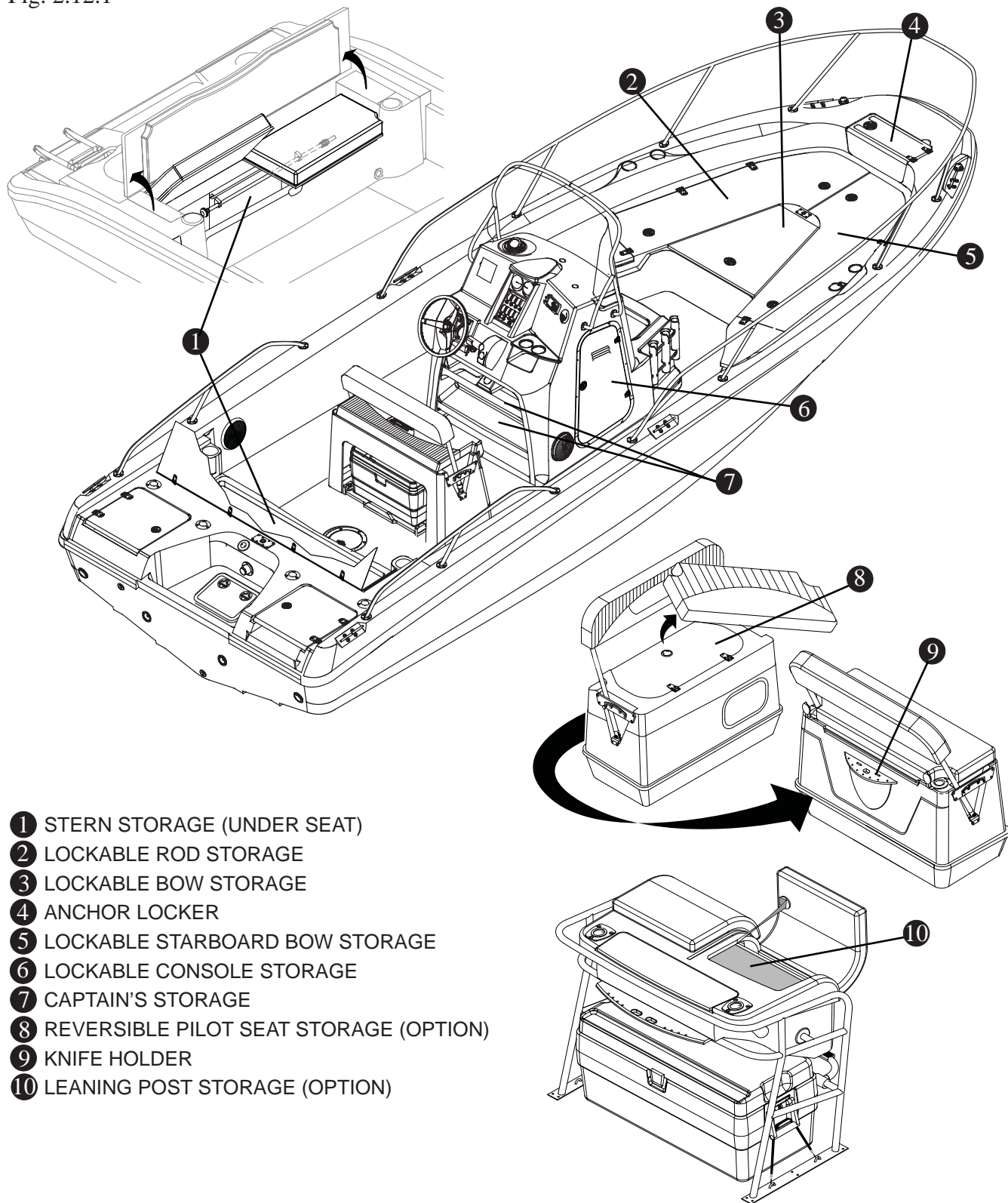
Seating

Seating
Fig. 2.11.1



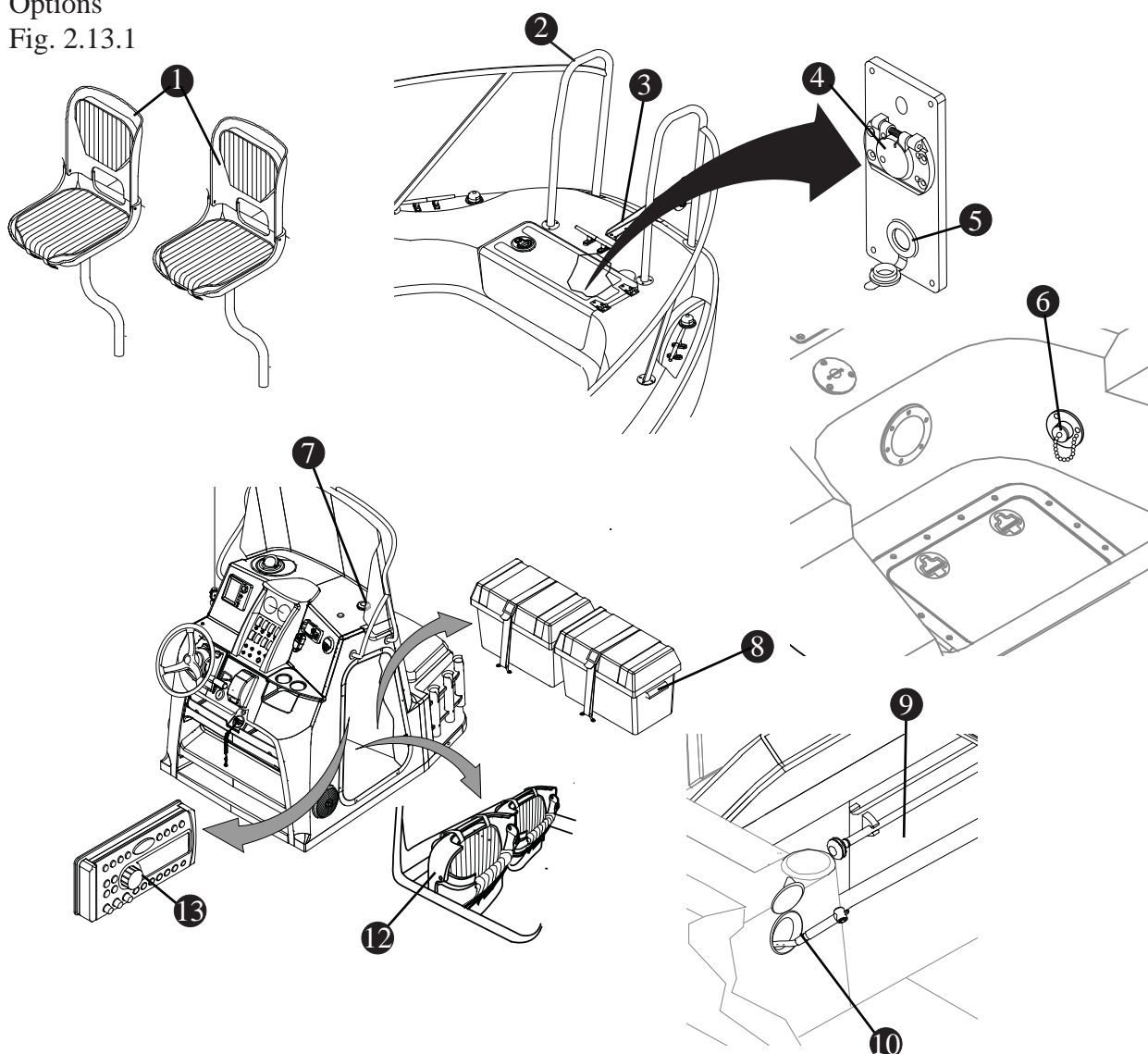
Storage

Storage
Fig. 2.12.1



Options

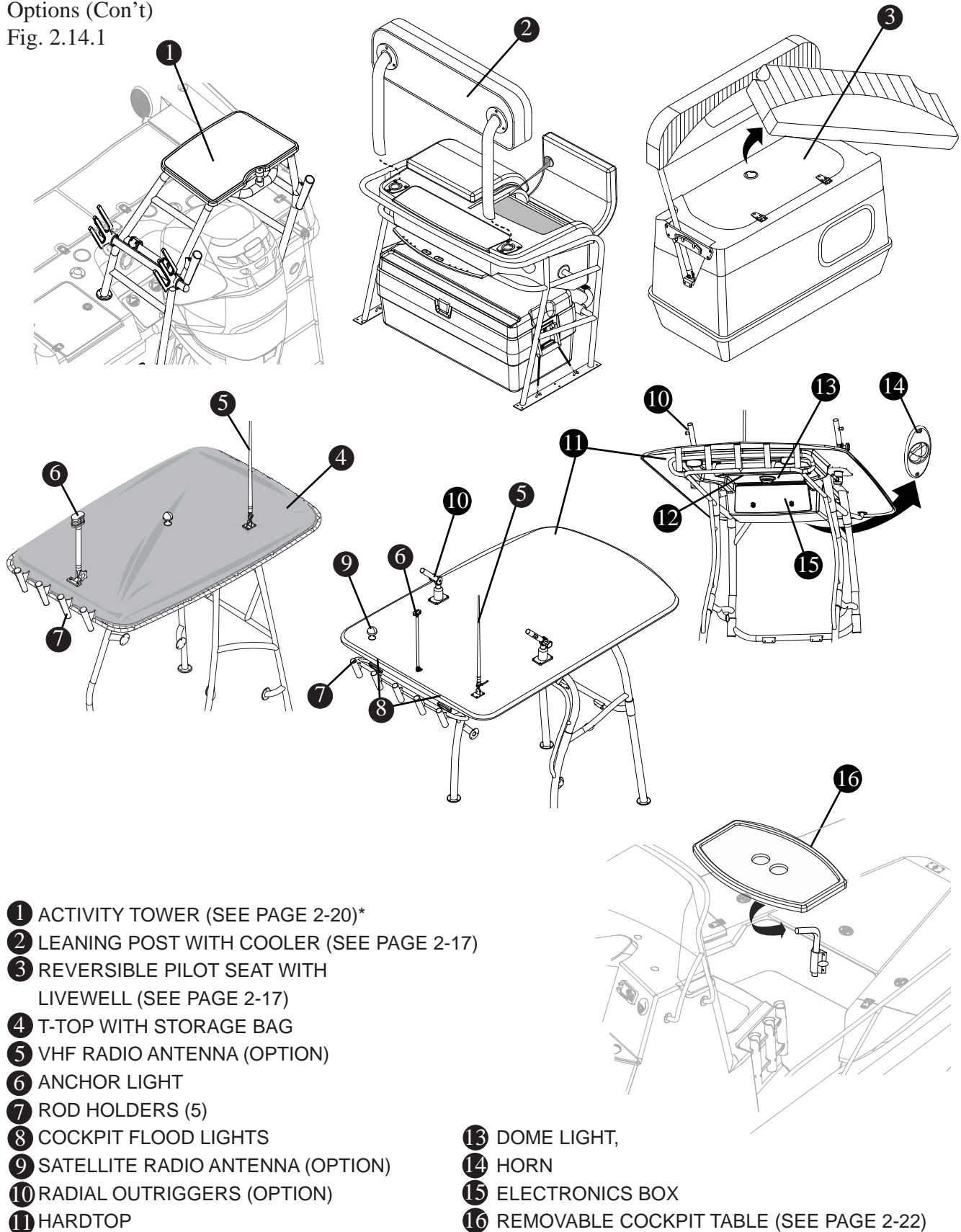
Options
Fig. 2.13.1



- ① PEDESTAL FISHING SEATS
- ② SPLIT BOW RAIL
- ③ ANCHOR ROLLER W/CLEAT
- ④ TROLLING MOTOR PANEL (DELETES STANDARD BOW RAIL)*
- ⑤ 12V RECEPTACLE
- ⑥ RAW WATER WASHDOWN*
- ⑦ SATELLITE RADIO ANTENNA**
- ⑧ BATTERY BOXES FOR TROLLING MOTOR*
- ⑨ FISHBOX UNDER STERN SEAT
- ⑩ FRESH WATER SHOWER WITH 12 GAL. (54.6 L) TANK
- ⑪ SKI PYLON
- ⑫ PEDESTAL FISHING SEATS (STOWED)
- ⑬ CLARION® DIGITAL STEREO WITH CD PLAYER, REMOTE AND MP3 INPUT

* Part of fishing package.
** Must order stereo option with satellite radio

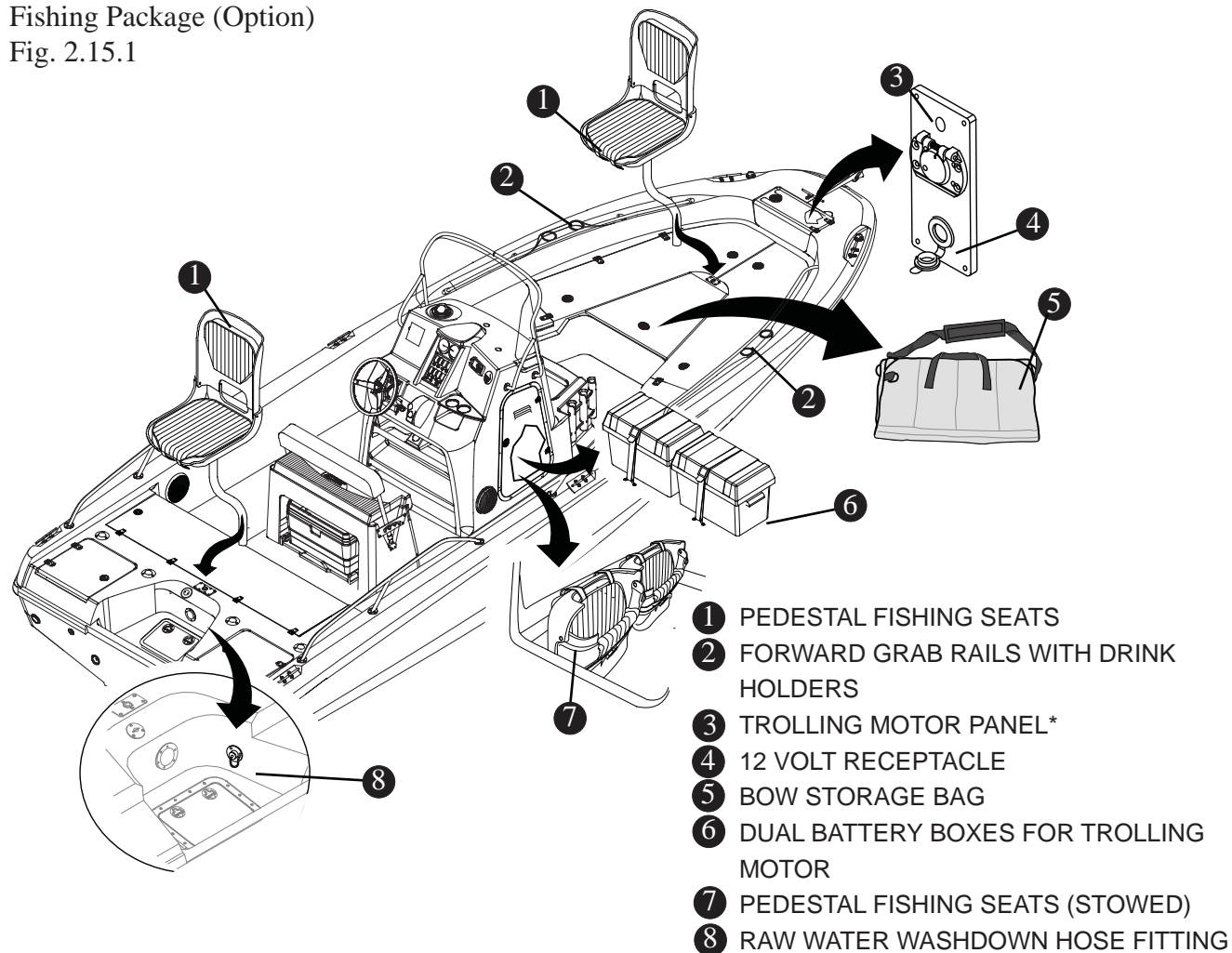
Options (Con't)
Fig. 2.14.1



* Not compatible with ski pylon

Fishing Package (Option)

Fig. 2.15.1



*Deletes standard bow rail.

Ski Pylon (Option)

To install the ski pylon:

- Place the pylon into the receiving bracket on the stern of the boat above the motorwell and twist it into place until it is fully seated into the bracket. Assure that the pylon is facing (angled) aft.
- Using the four (4) pins, attach the braces to the brackets at the top of the pylon and too the brackets on the transom.

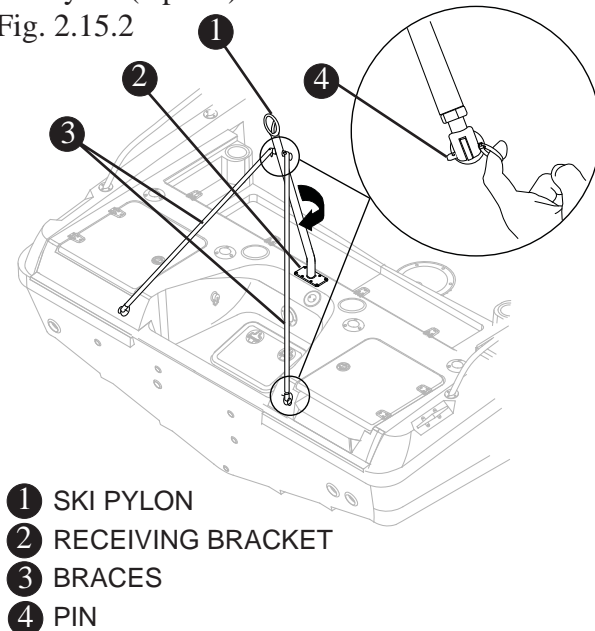


CAUTION

DO NOT trim the engine while ski pylon is installed. To do so may damage the engine cowling or pylon.

Ski Pylon (Option)

Fig. 2.15.2



Trim tabs

NOTICE

Ensure continuous visibility of other boats, swimmers and obstacles during bow-up transition to planing. Adjust engine to an intermediate trim as soon as boat is on plane to avoid possible ejection due to boat spinout. Do not attempt to turn boat when the engine is trimmed extremely down/under/in.

The 230 Dauntless is equipped with electrically powered trim tabs.

The trim tabs are located on the lower section of your transom and are used to trim the list of your boat caused by uneven weight distribution, too many persons on one side of the boat, or strong cross winds.

An untrimmed boat will:

- Decrease operator visibility
- Reduce fuel economy
- Increase wear on your engine.

While accelerating there is some loss of forward visibility before the boat is on plane, the trim tabs can be used to adjust for forward visibility while underway.

Operation

The trim tabs are controlled by rocker switches located on the center part of your console above the throttle control. Short momentary bursts of the rockers will achieve proper attitude of the hull. The trim tab switch is marked “bow up” and “bow down”.

Using the trim tabs will:

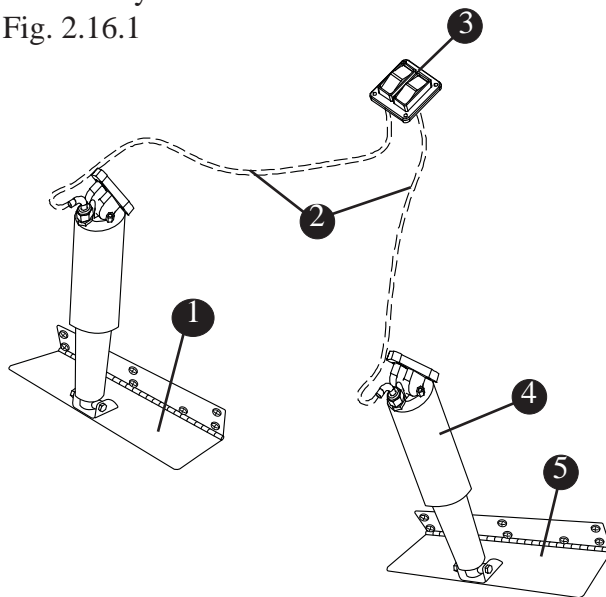
- Level the boat fore and aft.
- Reduce resistance in the steering system.
- Give you a smoother more stable ride.
- Speed will increase and there will be less strain on the engines.

Maintenance

The trim tabs are a completely sealed unit and are waterproof and maintenance free. Aside from a general cleaning when the boat is out of the water you should also inspect the planes and hinges for marine growth; remove as necessary.

Electrically Powered Trim Tabs

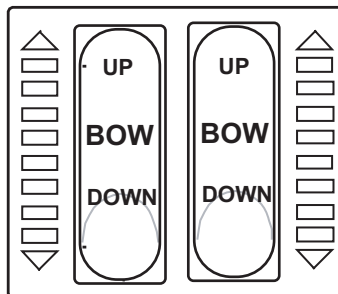
Fig. 2.16.1



- ① PORT TRIM TAB PLATE
- ② WIRING TO HELM SWITCH
- ③ HELM SWITCH W/INDICATOR
- ④ LOW VOLTAGE ELECTRIC MOTOR
- ⑤ STARBOARD TRIM TAB PLATE

Trim Tab switch w/indicators

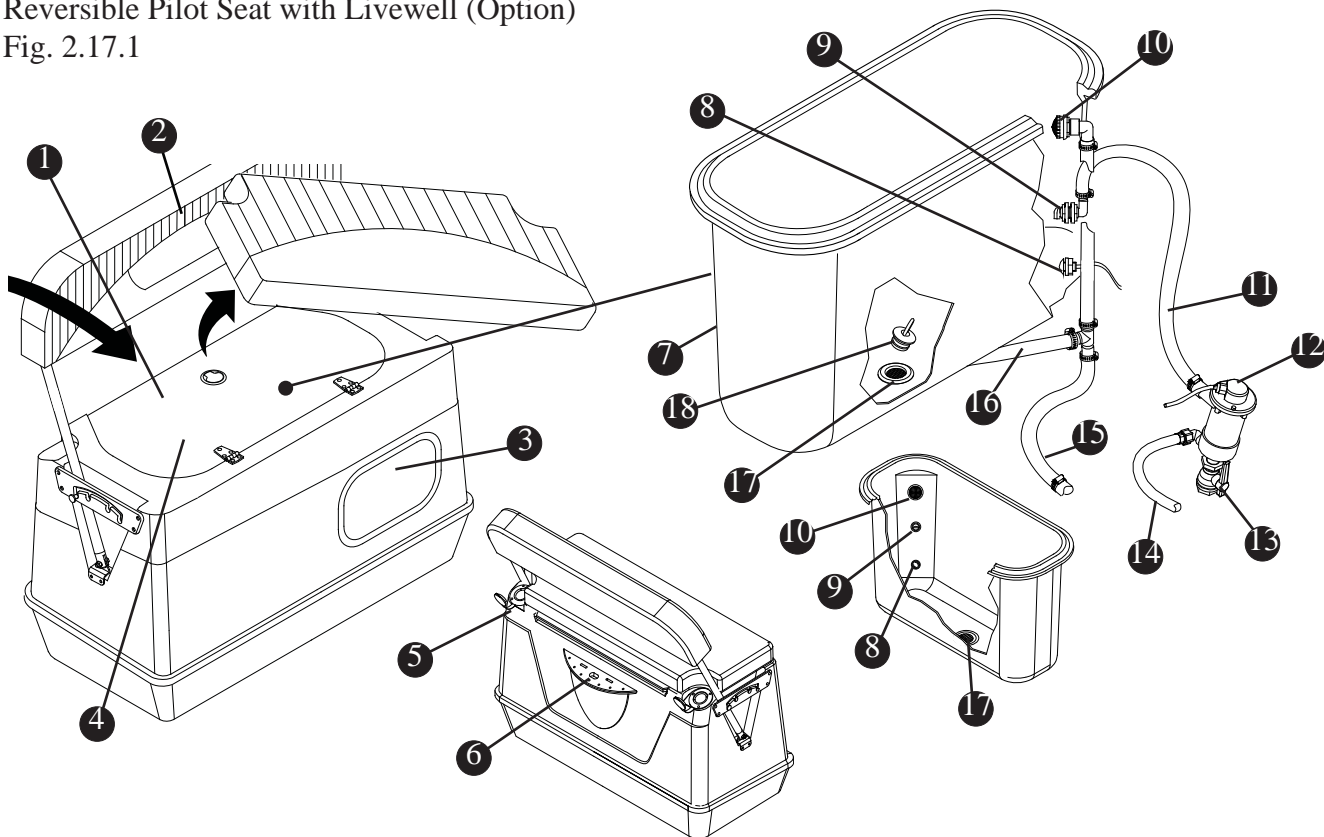
Fig. 2.16.2



REFER TO THE MANUFACTURER'S MANUAL IN YOUR OWNER'S MANUAL PACKET FOR COMPLETE INSTRUCTIONS AND WARRANTY.

Reversible Pilot Seat with Livewell (Option)

Fig. 2.17.1



① REVERSIBLE PILOT SEAT WITH LIVEWELL

② REVERSIBLE BACKREST

③ LIVEWELL FITTING ACCESS

④ LIVEWELL ACCESS

⑤ ROD HOLDER (P&S)

⑥ INTEGRATED KNIFE HOLDER

⑦ 25 GAL. (94.6 L) LIVEWELL

⑧ LIVEWELL LIGHT

⑨ LIVEWELL WATER INLET

⑩ OVERFLOW DRAIN

⑪ WATER INLET HOSE

⑫ SEACOCK PUMP

⑬ SEACOCK

⑭ TO RAW WATER PUMP

⑮ THRU-HULL DRAIN HOSE

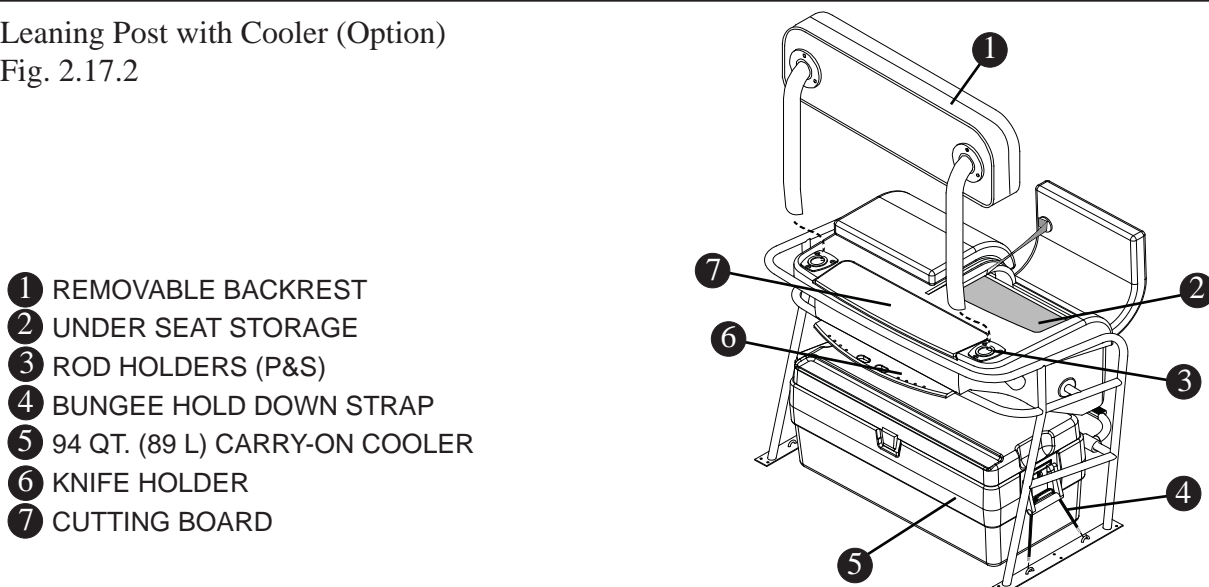
⑯ LIVEWELL DRAIN HOSE

⑰ LIVEWELL DRAIN

⑱ DRAIN PLUG

Leaning Post with Cooler (Option)

Fig. 2.17.2



① REMOVABLE BACKREST

② UNDER SEAT STORAGE

③ ROD HOLDERS (P&S)

④ BUNGEE HOLD DOWN STRAP

⑤ 94 QT. (89 L) CARRY-ON COOLER

⑥ KNIFE HOLDER

⑦ CUTTING BOARD

Canvas (Option)

The optional canvas covers and sun top will keep their appearance and maintain proper working order provided you follow a few simple steps for cleaning and maintenance of the canvas and frame (See “Canvas Care & Maintenance”, section 5 of this manual).

The V-straps at the front of the Sun-Top must be attached to the console grab rail to give the Sun-Top proper support. **DO NOT** trailer your boat with

NOTICE

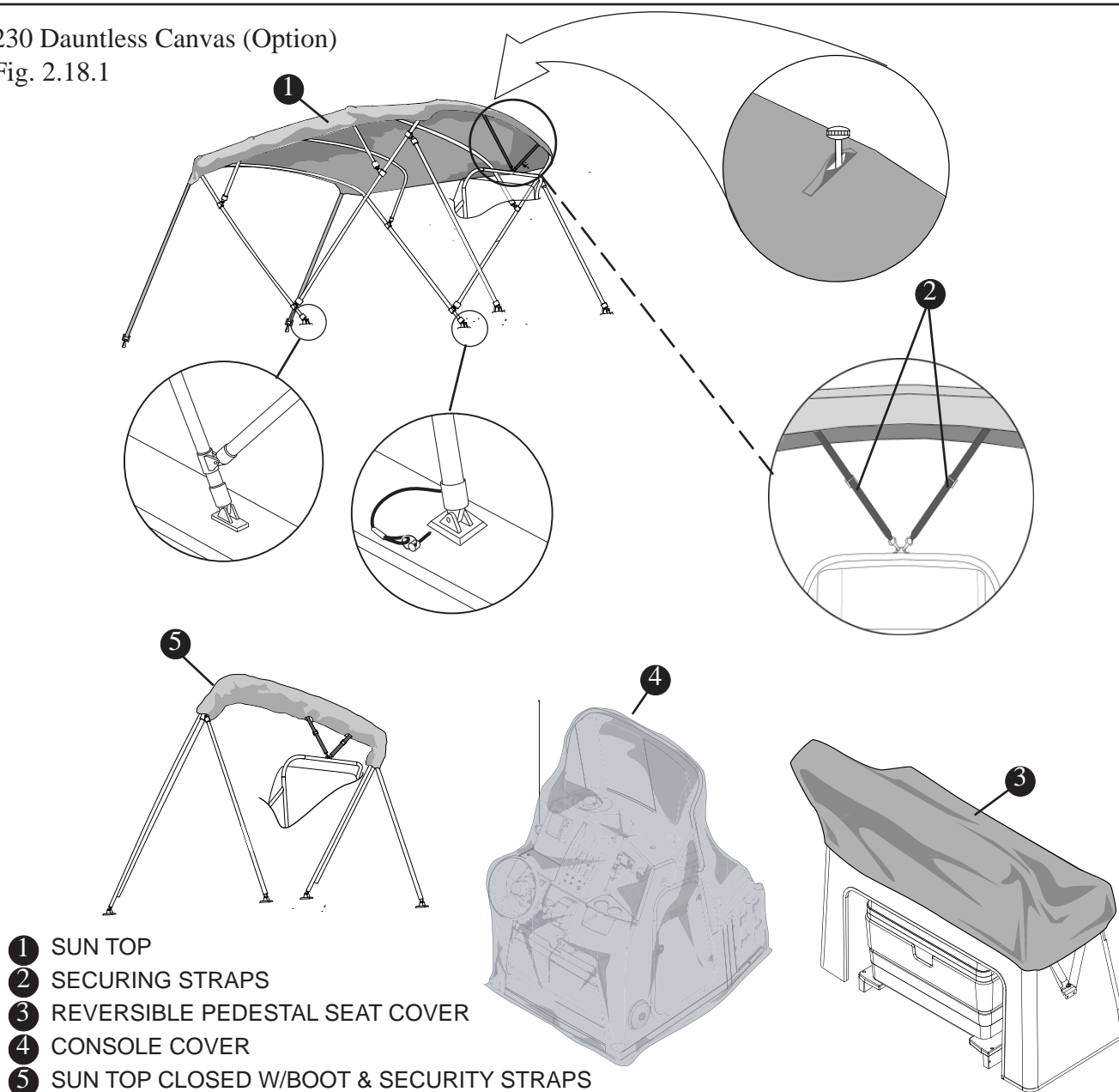
NEVER TRAILER THE CANVAS SUN-TOP IN THE OPEN POSITION.

The sun-top canvas must be secured in the canvas boot and the security v-straps secured to the console grab rail before trailering.

the Sun-Top up or the V-straps unattached from the console grab rail.

230 Dauntless Canvas (Option)

Fig. 2.18.1



- ① SUN TOP
- ② SECURING STRAPS
- ③ REVERSIBLE PEDESTAL SEAT COVER
- ④ CONSOLE COVER
- ⑤ SUN TOP CLOSED W/BOOT & SECURITY STRAPS

NOTE: Canvas option is available in blue or black

12V/24V Trolling Motor Panel (Option)

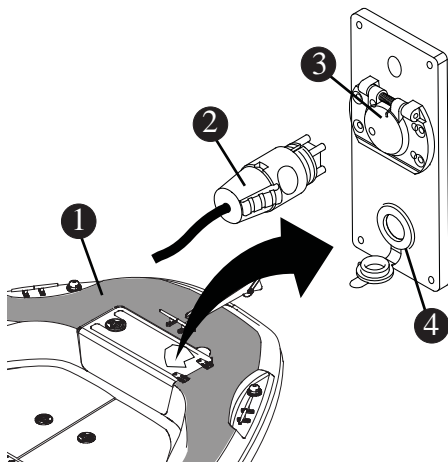
The 230 Dauntless can be equipped with an optional trolling motor panel and wiring. This option is part of the fishing package which consists of:

- Trolling Motor Panel
- Two (2) Spare Battery Boxes, (stored in the console).
- Two (2) 40 amp breakers (in the console).
- A 12V/24V plug w/12' extension cable.
- Reinforced Deck, (bow).

There are a variety of trolling motors and mounts that can be fitted to your boat. See your Boston Whaler® dealer or talk to a reputable trolling motor dealer for the right type and size of trolling motor and battery that will work best with your boat. There is a section of the port bow that has been reinforced with Phenolic (Figure 2.19.1) to allow for securing the trolling

Trolling Motor Panel (Option)

Fig. 2.19.1



- ① REINFORCED BOW
- ② TROLLING MOTOR POWER CORD
- ③ TROLLING MOTOR RECEPTACLE
- ④ 12V ACCESSORY RECEPTACLE

⚠ WARNING

There is a risk of electrical shock. Always have a qualified marine electrician install any system upgrades that are not already installed on your boat. There are a variety of wiring configurations up to 36Volts. Incorrect wiring will adversely affect your trolling motors performance. Always use the correct circuit protection and wire gauge when installing an upgraded trolling motor wiring system.

NOTICE

The addition of the trolling motor receptacle will delete the standard bow rail.

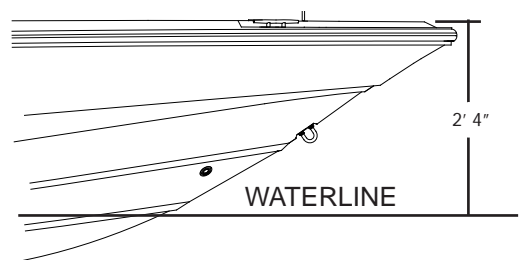
motor base. The phenolic material can be drilled and tapped to hold machine screws. When looking for a trolling motor you will need to know the distance from the top of the deck to the waterline, (Figure 2.19.2).

There are two battery boxes that have been secured in the console interior and can be accessed through the door on the starboard side. The wiring from the panel to the battery has been installed. See your Boston Whaler® dealer or a qualified marine electrician to make final connections to your trolling motor panel.

See *Section 4-Electrical*, page 4-3 for wiring setup for 12V/24V trolling motor electrical power.

Deck to Waterline Reference

Fig. 2.19.2



REFER TO THE MANUFACTURER'S MANUAL IN YOUR OWNER'S MANUAL PACKET FOR COMPLETE INSTRUCTIONS, INFORMATION AND WARRANTY.

“All Activity” Tower (Option)

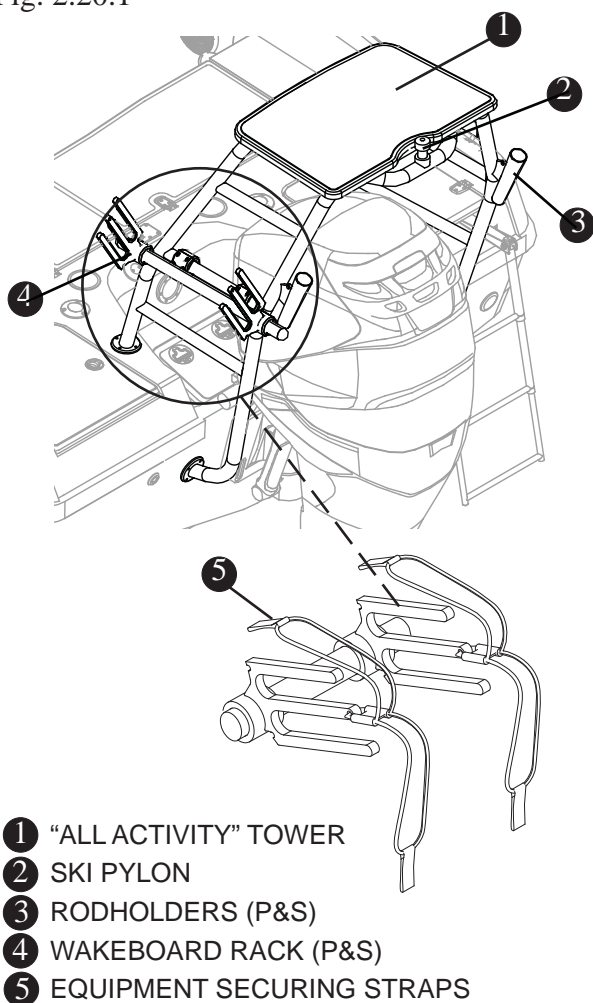
When equipped with the optional “ALLACTIVITY” Tower (Patent No. US 7,370,599 B1), your 230 Dauntless becomes one of the most versatile of watercraft.

This unique aluminum tower provides storage for wakeboards, skis and fishing rods and the integrated ski pylon is ideal for recreational skiing. The large topside platform provides solid non-skid footing for fishing or poling your boat through the shallows.

Recreational Safety

Be sure to read and understand the safety rules for recreational activities presented in Section 1, pages 1-12 thru 1-14 of this manual.

All Activity Tower* (Option)
Fig. 2.20.1



* (Patent No. US 7,370,599 B1)

⚠ CAUTION

DO NOT USE THE SKI PYLON WITH ANY EQUIPMENT WHICH IS TIED TO THE TOW ROPE!

The ski pylon is for skiing and/or wakeboarding **ONLY**.

If engaged in tubing or such other recreational towing, it is recommended that you attach the tow rope to the stern eyes at the transom of your boat.

⚠ WARNING

DO NOT use the topside platform for any activity when engine is running. Wait for propeller to completely stop before occupying the platform.

Reversible Pilot Seat w/Cooler

The cooler under the reversible pilot seat on your boat should be secured to the slide-out base with the attached bungee style tie down straps on either side of the cooler. In addition, the slide out base should always be locked into position, under the seat, when not in use.

⚠ CAUTION

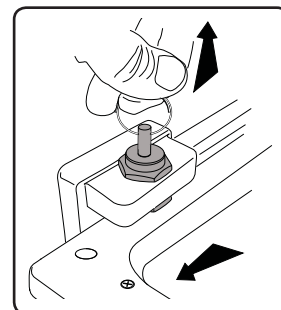
ALWAYS secure cooler to base and assure that the base is locked into place under the seat while underway.

Operation

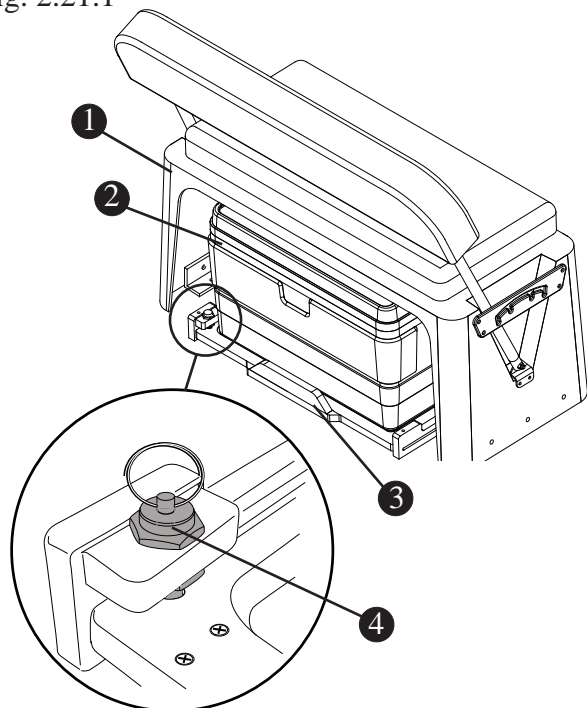
To lock the cooler base under the reversible pilot seat, push the base all the way under the seat so that the locking pin snaps into the receiver and is seated completely.

To unlock the cooler base, pull the locking pin up.

Access the cooler by pulling the cooler tray out from under the seat.

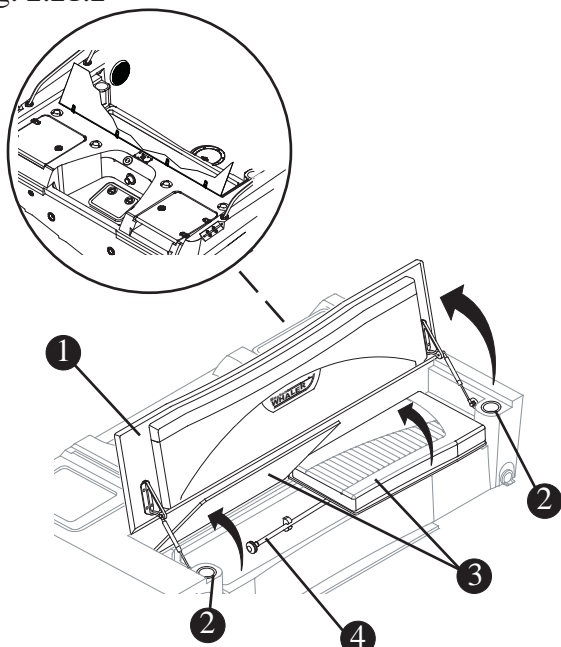


Reversible Pilot Seat
Fig. 2.21.1



- ① REVERSIBLE PILOT SEAT
- ② 54 QT (51 L) COOLER
- ③ SLIDE-OUT BASE
- ④ LOCKING PIN

Stern Foldaway Seat
Fig. 2.21.2



- ① STERN FOLDAWAY SEAT (RAISED)
- ② CUPHOLDERS (2)
- ③ SEPARATE HINGED SEATING
- ④ ANCHOR LIGHT (STOWED)

Stern Fold-Away Seat

Folded away, the stern seat provides a generous working deck area. When raised into position, the working deck becomes a comfortable aft seating area for your cruising comfort. Under the split cushions is a generous storage area which can be utilized for dry storage or equipment storage (skis, tow ropes, etc.).

WARNING

No ventilation is provided. DO NOT store fuel or flammable products under the fold away seat.

CAUTION

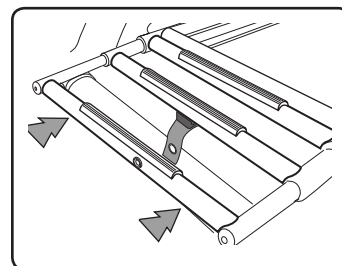
DO NOT trailer your boat if seat back is not fully closed and secured.

Swim Ladder

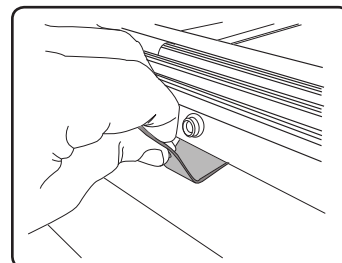
When not in use your swim ladder should be retracted and secured.

To secure the swim ladder:

- Lift the ladder and fold it into itself.



- Secure the ladder by attaching the strap to the first rung of the ladder.



Stowable Bow Table (Option)

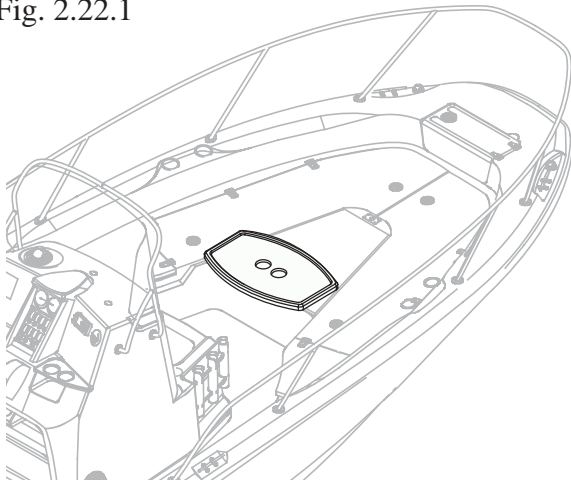
Your 230 Dauntless can be equipped with a bow table for entertaining. The table is removable and can be stowed in brackets on the forward wall inside the console.

To set up the table (Figure 2.22.1):

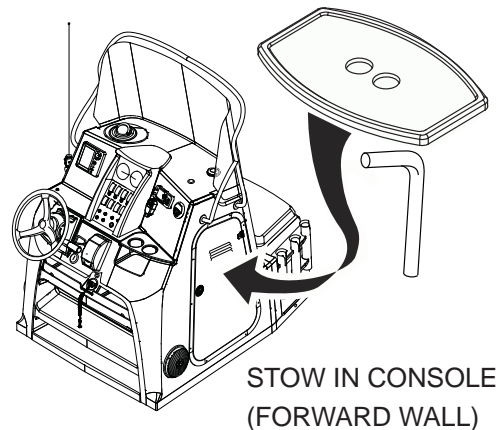
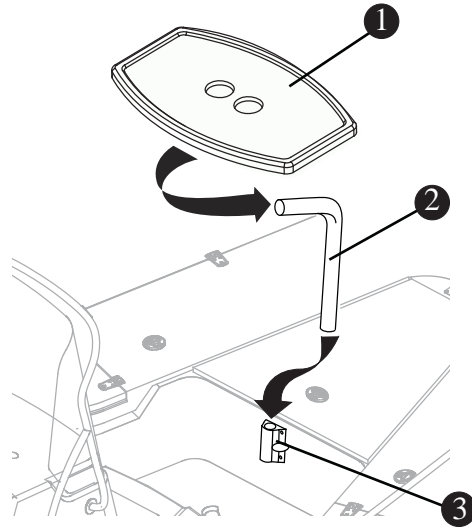
- Remove the table top and brace from the brackets in the console and set aside in the bow.
- Slide the bottom of the brace into the bracket on the aft wall of the center bow locker and tighten the knob.
- Slide the table top onto the brace and tighten the knob on the bracket located on the bottom of the table top. •

Stowable Bow Table (Option)

Fig. 2.22.1



Bow Table Installation & Storage (Option) Fig. 2.22.1



- 1 BOW TABLE TOP
- 2 BRACE
- 3 BRACKET

Gear Shift & Throttle Control

CAUTION

Shift controls into **NEUTRAL** before starting engine. Shift only when engine is at idle. Reversing at high speeds can cause flooding/swamping due to water being pushed over the transom.

NOTICE

Wind and sea currents can change how your boat responds while in motion. Understanding your boat and its reactions at speed will make your boating safer and more enjoyable.

Your 230 Dauntless is equipped with a state of the art “drive-by-wire” gear shift and throttle control system. The Digital Throttle/Shift (DTS®) is the latest technology in recreational boating. Located on the console, starboard of the helm. The gear shift/throttle control unit controls both the shifting mechanism and throttle.

The throttle control regulates the RPM of the engine. Regulating the RPM of the engine will control the speed of the boat. Moving the lever forward engages the forward gear. Continuing to move the lever forward will increase the forward speed of the boat.

Likewise, to reverse power, bring the control lever back to engage the reverse gear and increase the

reverse thrust by continuing to pull back on the throttle control..

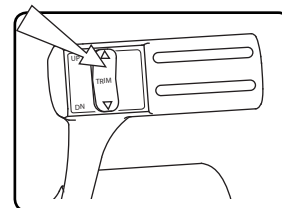
The control must be in the “NEUTRAL” position to start your engine. Neutral is the most central position of the control unit and acts as an idle (you will hear and feel a click when neutral is engaged). While in this position, the propeller is not rotating.

There is a “THROTTLE ONLY” button (Figure 2.23.1) on the throttle control that when depressed will disengage the shifting mechanism and will allow you to operate the throttle without engaging the propeller. The button will automatically engage the shifting mechanism once the throttle control has been moved back to its center position.

Power Trim Operation

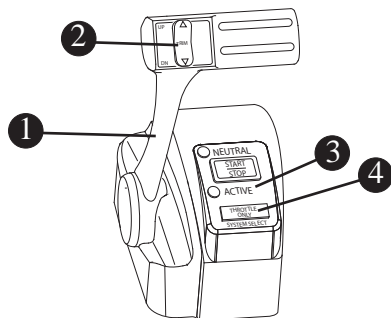
The power trim & tilt system located on the shift control lever allows you to raise and lower the engine for optimum performance in the water and for trailering, launching and beaching. The switch is a momentary switch; which means that constant pressure must be applied to the switch during the raising and lowering cycle.

Use the trim switch to obtain an ideal boat angle (in relation to the water surface) for a given load and water condition. In most cases, best all around performance is obtained with the engine adjusted so that the boat will run at a 3° to 5° angle to the water.



Throttle/Shift Control

Fig. 2.23.1



- ① SHIFT /THROTTLE CONTROL LEVER
- ② POWER TRIM SWITCH
- ③ CONTROL FUNCTION PAD
- ④ THROTTLE ONLY BUTTON

It is recommended to have the engines trimmed all the way down or in for best visibility and reduced planing time. Once on-plane adjust trim angle for maximum engine RPM and efficiency.

NOTICE

Boats can be operated in a manner and speed resulting in trim angles that cause visibility to be obscured. Motor trim, hull trim plane and speed are factors that affect a boat's trim angle.

REFER TO THE MANUFACTURER'S MANUAL IN YOUR OWNER'S MANUAL PACKET FOR COMPLETE INSTRUCTIONS, INFORMATION AND WARRANTY.

Navigation Lighting

NOTICE

The improper sequence of navigation lighting may be as dangerous as no lighting at all.

Your boat comes equipped with navigation lighting for your safety. Regulations state that all boats, no matter the size, must display navigation lights. The lights must be displayed at night (sunset to sunrise) or in low visibility conditions. It is the responsibility of the operator to ensure that the navigation lights are in good working order and that the proper lighting is shown. It is important that you understand navigation lights and their usage for your safety and the safety of others.

When operating in reduced visibility or at night it is only prudent to slow the boats speed and keep a “proper lookout”.

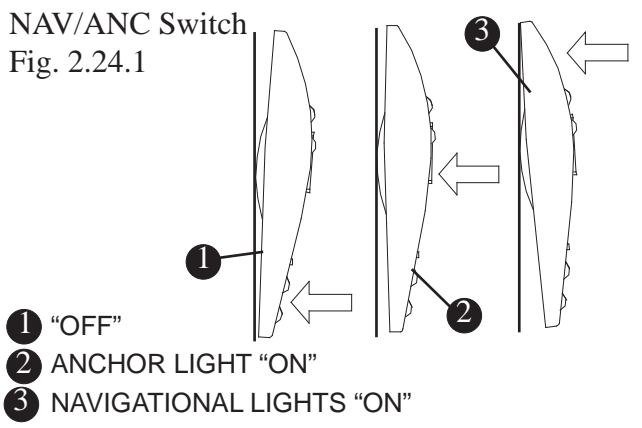
The optional T-top & hardtop have a collapsable all-round light located on the aft of the top.

Operating the Navigation Lighting

A three-position switch, located on the console switch panel marked “NAV/ANC” (Figure 2.24.1) controls the navigation and anchor lighting. In the “Navigation Lights” position the port (red), starboard (green) and all around lights will illuminate. These lights let other vessels know the approximate size and direction of travel of your boat, depending on which lights they can see. In the “Anchor Lights” position, the white, 360-degree light will illuminate, showing other boaters your location while at anchor.

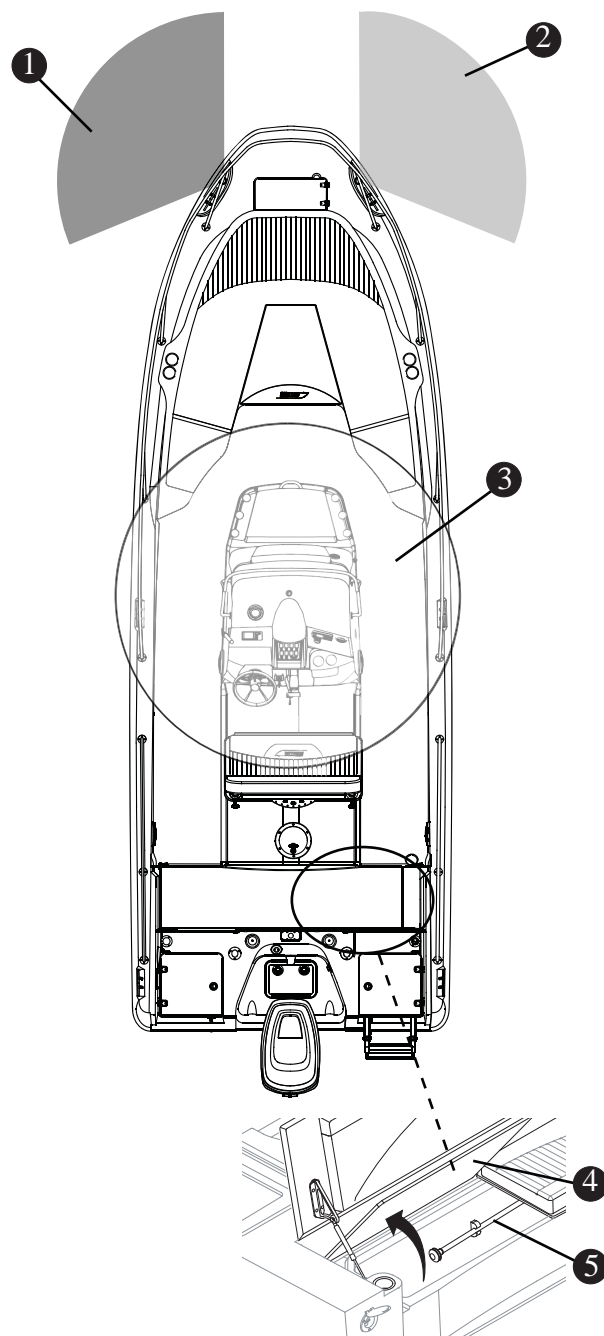
NAV/ANC Switch

Fig. 2.24.1



Navigation/Anchor Lighting

Fig. 2.24.2



- 1 PORT NAVIGATION LIGHT (RED)
VISIBLE 1 NAUTICAL MILES
- 2 STARBOARD NAVIGATION LIGHT (GREEN)
VISIBLE 1 NAUTICAL MILES
- 3 360° ALL ROUND LIGHT (WHITE)
VISIBLE 2 NAUTICAL MILES
- 4 STERN FLIP-UP SEAT
- 5 ANCHOR LIGHT (STOWED)

Propeller

NOTICE

- It is advised that you always carry a spare propeller, propeller hardware and propeller wrench on board. Should your propeller become damaged it can then be easily replaced.
- Under no circumstance should you use a propeller which allows the engine to operate at a higher than recommended RPM.

The engine on your 230 Dauntless has been equipped with a propeller which our tests have shown to be best suited for general use under normal conditions and load. In some situations you may wish to change the propeller to give your boat slightly different performance characteristics or if bottom painted.

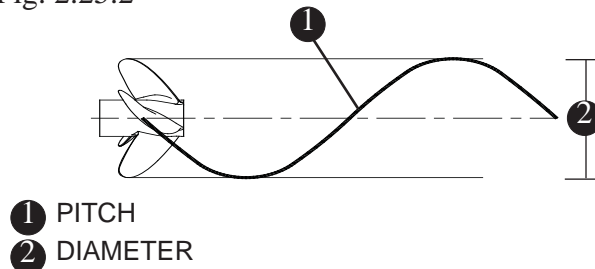
In general, changing to a lower pitch propeller will increase acceleration and load pulling capability, with a slight decrease in top end speed. If you choose to change propellers, the type should be discussed with your Boston Whaler® dealer. All propellers are designed to provide maximum forward thrust, consequently, the reverse thrust of the propeller will not be as efficient.

Propellers have two basic characteristics, diameter and pitch.

Diameter is that distance measured across the propeller hub from the outer edge of the 360° that is made by the propeller's blade during a single rotation. Pitch is that distance in inches that a propeller will travel if rotated one revolution without any slippage.

Propeller Pitch & Diameter

Fig. 2.25.2



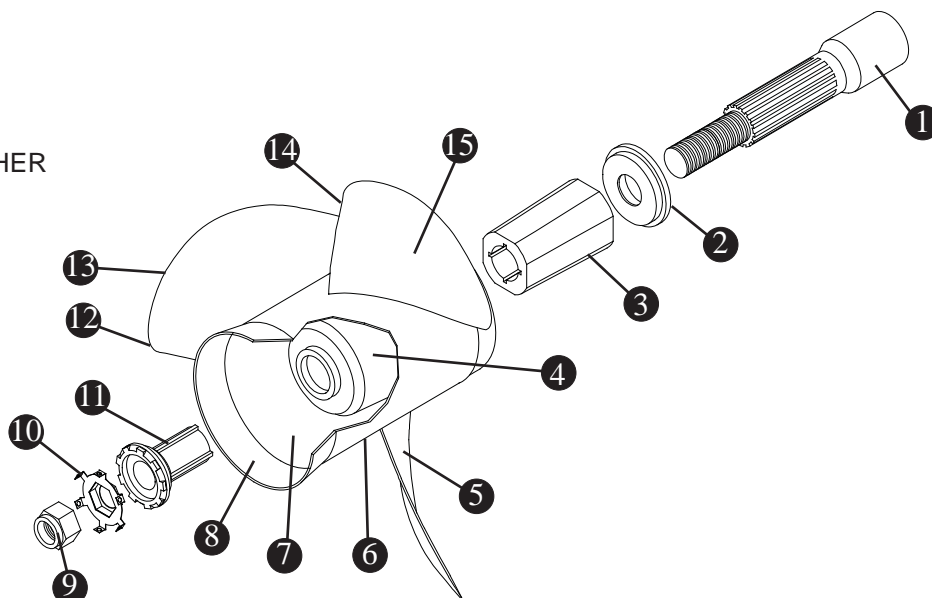
⚠ DANGER

Disconnect power by moving the battery switch to the "OFF" position prior to removing the propeller.

Propeller Assembly

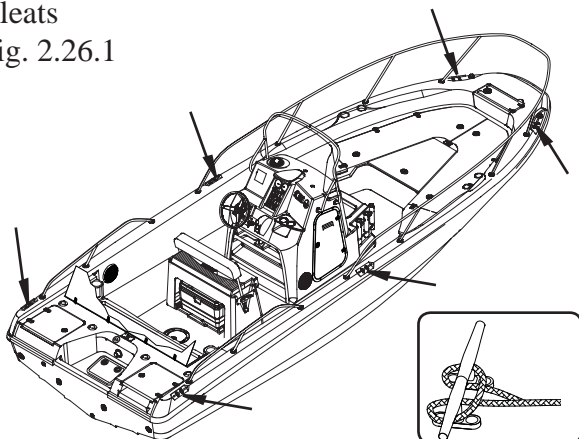
Fig. 2.25.1

- 1 ENGINE SHAFT
- 2 FORWARD THRUST WASHER
- 3 DRIVE SLEEVE
- 4 INNER HUB
- 5 BLADE BACK
- 6 OUTER HUB
- 7 EXHAUST PASSAGE
- 8 DIFFUSER RING
- 9 PROP NUT
- 10 LOCK RING
- 11 DRIVE SLEEVE ADAPTER
- 12 BLADE TIP
- 13 LEADING EDGE
- 14 TRAILING EDGE
- 15 BLADE FACE



Docking, lifting and trailering

Cleats
Fig. 2.26.1



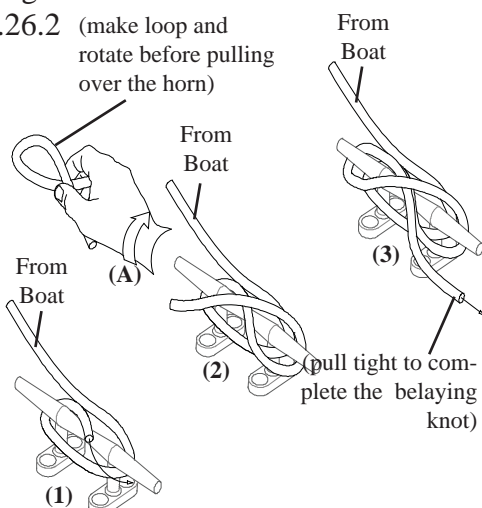
Docking

Your 230 Dauntless has six (6) 8 inch cleats, two located at the bow, two located amidship and two located at the stern. The cleats are used to secure the boat to the dock while loading/unloading or mooring. Please learn the proper way to secure the boat and how best to use the mooring points of your boat.

Figure 2.26.2 shows the correct method for tying a belaying knot, commonly used to secure a boat to a dock. This knot will hold fast and is simple to release when needed.

Belaying Knot

Fig. 2.26.2 (make loop and rotate before pulling over the horn)



⚠ DANGER

Use only the lifting points specified. Using the cleats for lifting is dangerous and could cause serious injury or death.

⚠ CAUTION

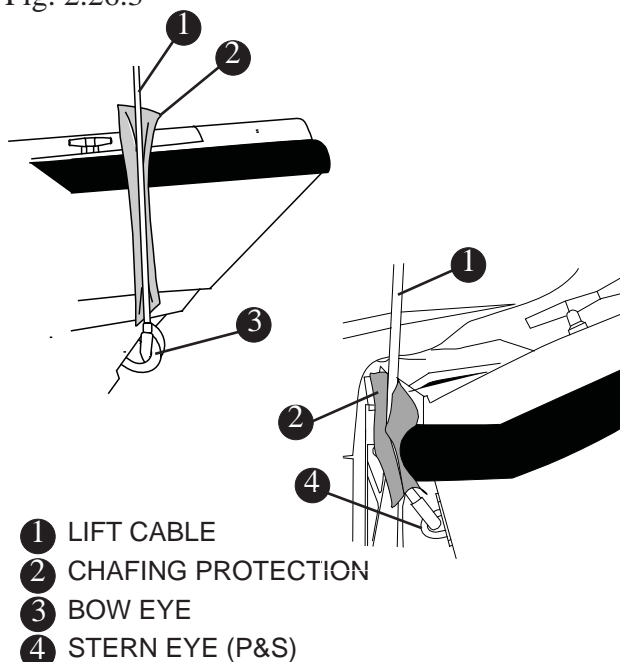
Long term lifting with the bow and stern eyes can cause stress on the fiberglass and gel coat and is not recommended.

Lifting

The bow eye is used to haul and hold your boat onto a trailer. The stern eyes are used as tie down points while trailering the boat. The bow and stern eyes may be used only for short term lifting of the boat such as service. **Long term lifting with bow and stern eyes will cause stress on the fiberglass and gel coat.**

For long term lifting or storage, use flat, wide belt-type slings and spreaders long enough to keep pressure from gunwales. DO NOT place slings where they may lift on underwater fittings.

Proper Short Duration lifting
Fig. 2.26.3



Section 2 • General Information

Whether you are lifting your boat out of the water for routine maintenance or long term storage, consider the following:

- If you are using a professional lifting service, it is prudent to check all credentials and ask for proof of insurance to protect your investment.
- Use a wide, flat, belting sling for lifting ,to minimize stress on the gunwales. Careful location of the sling is required. **DO NOT PLACE SLINGS WHERE UNDER WATER FITTINGS WILL BE IN CONTACT.**
- If using a lifting hook, attach to bow eye and the stern lifting eyes mounted on the transom. Always use a spreader bar on the stern eyes and use chafing protection on the top of the transom.
- All drain plugs (i.e. transom, fishwell, deck, etc.) should be pulled out and the boat positioned with the bow slightly higher than the stern so that any water which is allowed to accumulate in the cockpit and/or bilge can easily drain from the boat.

Trailer (Option)

The 230 Dauntless has the option of being fitted with a trailer which is determined to be best suited for the boat's length and width. If you have a trailer or plan on purchasing a trailer separately, there are some points you need to consider, such as:

- Having a center roller and keel guards will help provide good support for the keel, also provide good fore and aft support.
- Trailers equipped with rollers instead of bunks can damage the foam sandwich hull of your boat and should never be used.
- Bunks provide a more even weight distribution.

NOTICE

Your warranty may be void if you use a trailer with rollers. Use a trailer with bunks ONLY

Trailer Safety

Securing the Boat to the Trailer

Safety Chain - There is a safety chain that attaches to the bow eye and will keep the boat from sliding off the trailer in the event that the winch strap or cable breaks. Hook this up first.

Tie-Down Straps - Can be used to secure the boat from the stern. The tie-down straps hook into the tie-down loops on the trailer frame and to the stern eyes on the transom. Padding (or similar) chafe protection should be used wherever the tie-down straps come in contact with the hull.

Securing the Trailer to the Tow Vehicle

Safety Chains - Safety chains are also important; the chains are connected to the trailer and should be of sufficient length to reach the frame of the tow vehicle and should be long enough to allow the tow vehicle to turn without binding or tensioning .

Trailer Hitch - A properly matched trailer hitch ball and coupler is important.

Make certain that the coupler and the hitch ball are properly seated and locked.

⚠ DANGER

Tie-down straps should never be used by themselves, they are only used to help in keeping the boat secured to the trailer. Make certain that the safety chain is properly secured to the bow eye.

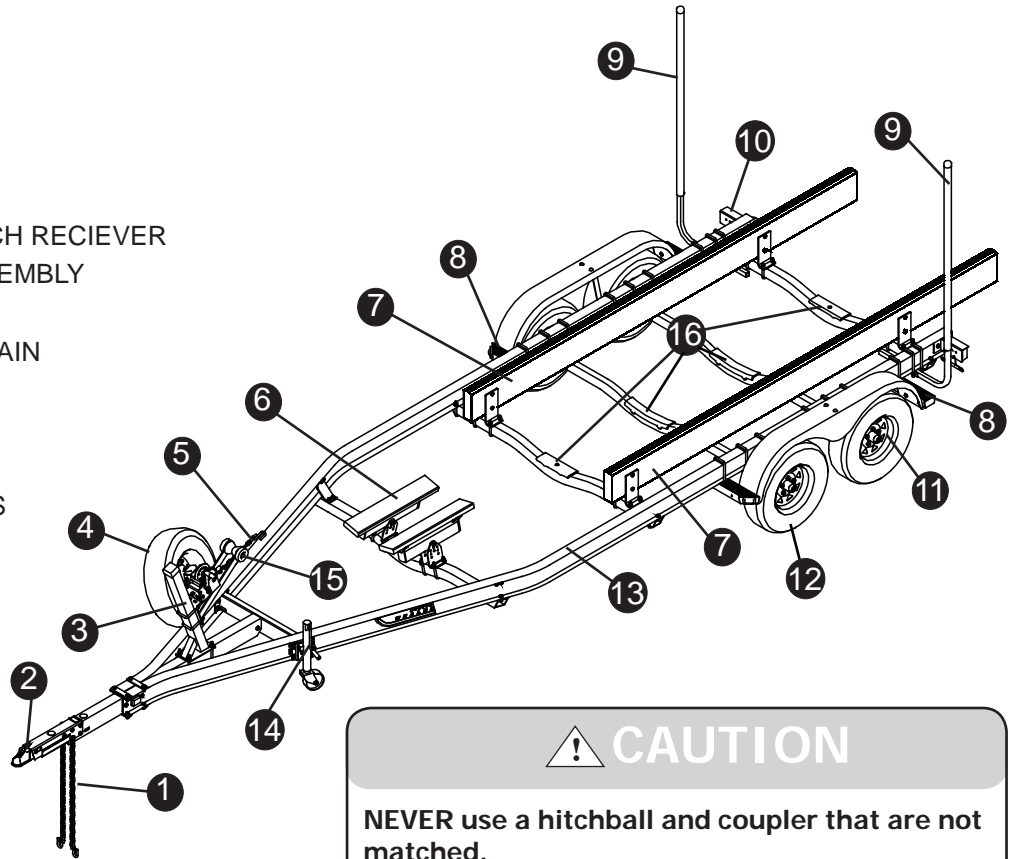
NOTICE

Refer to the engine manual in your owner's manual packet for proper engine support while trailering.

Trailer description

Bunk Trailer (Typical)
Fig. 2.28.1

- ① SAFETY CHAINS
- ② TONGUE/BALL HITCH RECIEVER
- ③ WINCH STAND/ASSEMBLY
- ④ SPARE TIRE
- ⑤ WINCH SAFETY CHAIN
- ⑥ KEEL GUIDE
- ⑦ BUNK ASSEMBLY
- ⑧ FENDER STEP
- ⑨ HULL GUIDE POSTS
- ⑩ LED TAILLIGHTS
- ⑪ DUAL AXLES
- ⑫ RADIAL TIRES
- ⑬ TRAILER FRAME
- ⑭ TONGUE JACK
- ⑮ CABLE ROLLER
- ⑯ KEEL PROTECTOR



CAUTION

NEVER use a hitchball and coupler that are not matched.



CAUTION

DO NOT secure the chains to the bumper of the tow vehicle.

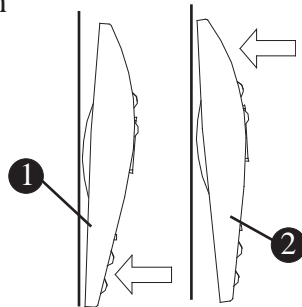
Bilge Pump

The bilge pump located under the motorwell hatch in the aft bilge is rated at 1100 GPH (4164 LPH). The pump is activated automatically by a float switch (non-mercury) when the water in the bilge reaches a predetermined level.

Operation

A switch on the console switch panel labeled “BILGE” (See figure 2.9.1) controls the operation of the pump. The switch should remain in the AUTO position while in use, unless the operator wishes to manually operate the pump by depressing the switch to the ON position.

Bilge Pump Switch
Fig. 3.1.1

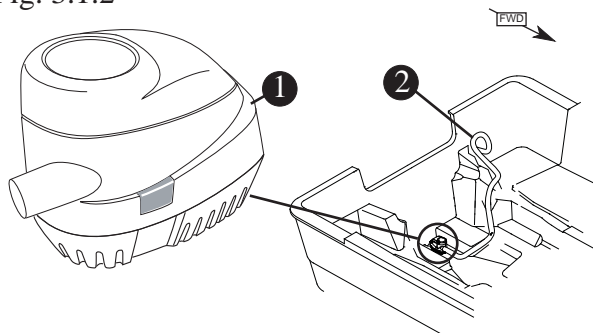


- 1 BILGE PUMP “AUTO”
- 2 BILGE PUMP “ON”

NOTICE

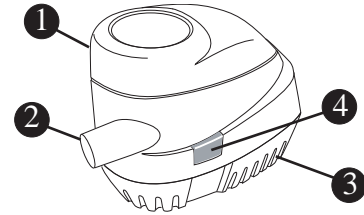
The bilge pump is wired directly to the battery. Therefore it is imperative that the float switch remain clear of debris to prevent continuous operation and subsequent discharge of the battery.

Bilge Pump
Fig. 3.1.2



- 1 BILGE PUMP (1100 GPH/4164 LPH)
- 2 DISCHARGE HOSE TO THRU HULL DRAIN

Bilge Pump Maintenance
Fig. 3.1.3



- 1 BILGE PUMP (1100 GPH/4164 LPH)
- 2 OUTLET
- 3 WATER INTAKE
- 4 LOCKING TAB (ON EACH SIDE)

Maintenance

Frequently inspect the area under the float switch to ensure it is free from debris and gummy bilge oil. To clean, soak in heavy duty bilge cleaner for 10 minutes, agitating several times. Check for unrestricted operation of the float. Repeat the cleaning procedure if necessary.

Inspect the bilge pump intakes and keep them free of dirt or material which may impede the flow of water through the pump.

To clean the pump strainer, depress the lock tabs on both sides of the pump and lift the pump motor.

If water does not come out of discharge hose:

1. Remove the motor module to see if the impeller rotates with the power on.
2. Remove any debris that may have accumulated in the nozzle section or strainer base.
3. Check hose and connection on hull side for debris and proper connections.

Fuel & Oil Spillage

Regulations prohibit discharging fuel or oily waste in navigable waters. Discharge is defined as any action which causes a film, sheen or discoloration on the water surface, or causes a sludge or emulsion beneath the water surface. A common violation is bilge discharge. Violators are subject to severe penalties and may also be responsible for the cost of clean up, which can be substantial.

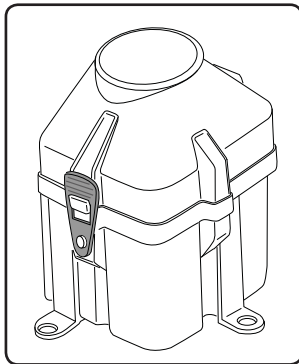
CAUTION

Oil and fuel spills can be dangerous and can subject offenders to severe penalties

Use rags or sponges to soak up fuel or oily waste, then dispose of them properly ashore. If there is a large quantity of fuel or oil in the bilge, contact a knowledgeable marine service to remove it. Never pump contaminated bilge discharge overboard.

Power Steering

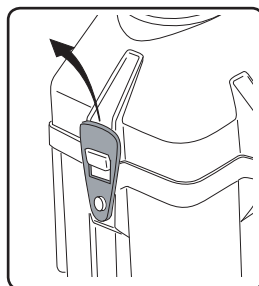
The Verado four-stroke engine uses an enclosed hydraulic pump unit. **The pump is electrically operated to provide hydraulic pressure to the steering system.** The pump is located in the aft portside of the bilge and can be accessed by lifting the equipment hatch in the aft cockpit deck.



Filling & Maintenance

The system is virtually maintenance free, aside from regular fluid checks and visually inspecting the outside of the unit for signs of leaks or damage.

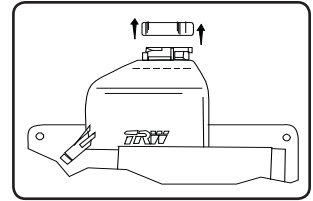
- Remove the pump cover by pulling up and out on the locking tabs on the sides of the unit.



CAUTION

Continuous kinking, rubbing and twisting may weaken hose(s) to a point of rupture. Visually inspect all hoses for wear and damage.

- Unscrew the cap and check the fluid level in the reservoir, fill **ONLY** with SAE 0W-30 Full Synthetic Power Steering Fluid if necessary.



- Replace cap and cover

Make a habit of checking the fluid level before each trip.

Proper maintenance of this system will ensure worry-free usage for the life of your boat. Steering system integrity is imperative when engaging in recreational water activities. Special care and attention must be taken to ensure proper performance of the steering system and should include the following:

- After the first few hours of operation and at regular intervals, check all fasteners and the complete steering system for security and integrity.
- Inspect for corrosion. Any part affected by corrosion must be replaced.
- When replacing parts, self locking hardware must be used.
- Check the fluid level in the helm pump unit.
- Lubricate slides on the engine cylinders.

All steering systems whether mechanical or hydraulic require regular inspections, periodic adjustment and occasional replacement may be necessary.

CAUTION

Do not cover cracks in the steering cable or fittings with tape or other sealants. This will create a hazard in which the cable can fail suddenly without warning.

REFER TO THE ENGINE MANUFACTURER'S MANUAL IN YOUR OWNER'S MANUAL PACKET FOR COMPLETE INSTRUCTIONS AND WARRANTY.

Fuel System

NOTICE

GASOLINE RECOMMENDATIONS

Minimum octane rating of 87 (R+M)/2

The 230 Dauntless is equipped with a gasoline fuel system. **Please take time to read and understand all the fuel related information and warnings in the engine owner's packet.**

The fuel fill, located on the upper section of the motorwell (See figure 2.7.1), is marked "GAS". There is a special key that is included in the owner's manual packet that will open the fuel fill cap. **Refer to the engine manufacturer's manual for recommended types of fuel and oil to use.**

Fuel tank

Your boat is equipped with a 90 Gal.(340.7 L) polyethelene fuel tank. It is recommended that you follow all instructions regarding the filling of fuel tanks.

Please take time to read and understand all the fuel related information and warnings in the engine owner's packet.

A fuel tank with levels less than 1/4 full 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.

Fuel Vent

The fuel tank vent is integrated into the fuel fill deck fitting (See figure 3.3.1). The vent serves as a pressure/vacuum release with anti-surge and flame arresting protection.

⚠ DANGER

Check for leaks in tubing, connections and hoses. Correct the cause of the leaks and ventilate the area to insure that no fumes remain, prior to energizing any electrical equipment and/or starting the engines.

⚠ CAUTION

Use of improper fuel can seriously damage your engine. Engine damage resulting from use of improper fuel is considered misuse of engine and will void the warranty. Follow engine manufacturer's recommendations regarding the types of fuel and oil to use.

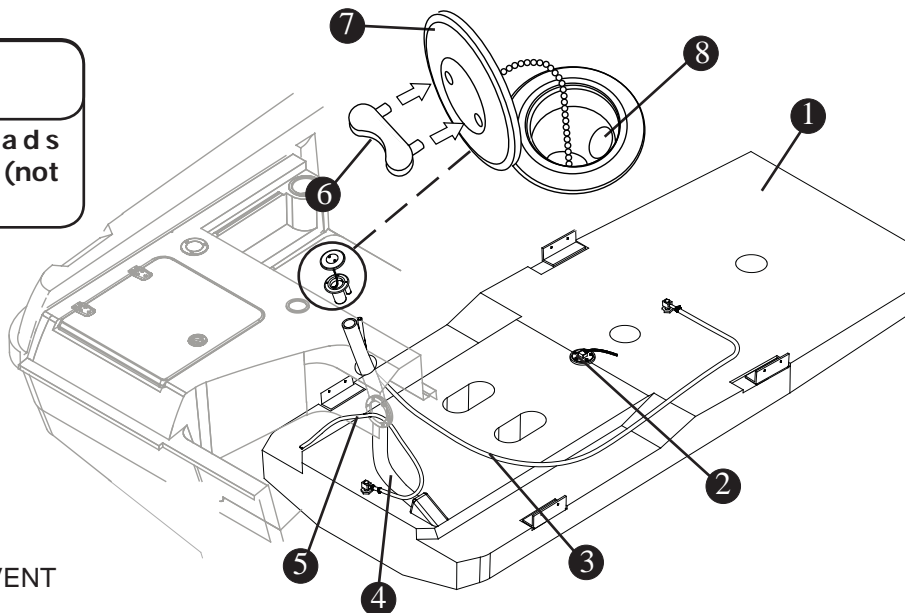
Fuel Tank

Fig. 3.3.1

NOTICE

FUEL GAUGE only reads accurately when boat is level (not underway).

- ① 90 GAL (340.7 L) FUEL TANK
- ② FUEL GAUGE SENDER
- ③ VENT HOSE
- ④ FUEL FILL HOSE
- ⑤ FUEL FEED TO ENGINE
- ⑥ FUEL CAP KEY
- ⑦ FUEL FILL W/INTEGRATED VENT
- ⑧ INTEGRATED VENT



NOTICE

it is your responsibility to read and understand the engine manufacturer's manual in your owner's manual packet for complete fuel and fueling information and warnings.

Fuel System Maintenance

Hoses and Fittings

Hoses and fittings should be inspected at least every 100 hours. Check the hoses for cracks, abrasions and deterioration and the strong smell of fuel prior to starting the engine. If the hoses or fittings are damaged or worn, replace them with only marine grade replacement parts. Your authorized Boston Whaler® dealer will have all the parts information you will need.

Tank Cleaning

Excessive water and sediment may force you to consider having the tank professionally cleaned. If you are experiencing engine stalling problems and/or notice a loss in power, consult a professional tank cleaning contractor regarding this procedure and proper disposal of residue and water.

! CAUTION

Leaking fuel is a fire and explosion hazard, inspect the system regularly. Examine fuel tanks and exposed lines for leaks and corrosion.

! CAUTION

Oil and fuel spills can be dangerous and can subject offenders to severe penalties

REFER TO THE ENGINE MANUFACTURER'S MANUAL IN YOUR OWNER'S MANUAL PACKET FOR COMPLETE INSTRUCTIONS AND WARRANTY.

Static Electricity and the Fuel System

! DANGER

Static electricity can ignite gasoline vapors causing serious injury/death and/or destruction of property.

There is a danger that static electricity can ignite gasoline vapors that have not been ventilated outside an enclosed area. Use extreme caution when fueling your boat from a source outside the regular venues, (e.g. marinas, fuel service stations.)

Your boat has safety features that can be circumvented by not adhering to standard fueling practices.

Your boats bonding system protects it from creating and discharging static electricity.

Your boat must be in contact with the water or a land based grounding system. Here are some helpful suggestions to keep you safe from static electricity while refueling your boat.

- NEVER fuel your boat in unsafe conditions such as: suspended on a sling or in a situation that increases the likelihood of static discharge.
- NEVER use homemade containers to fill your fuel tanks.
- Fuel carried on-board outside of a fixed fuel system should be stored in an approved container or in a portable tank such as provided for outboard engines and be stowed safely outside of the engine or living compartment(s).
- Shut down the engine, motors and fans prior to taking on fuel. Any ignition sources should be extinguished before filling the fuel tank.
- Close all ports, windows, doors and hatches.
- Fueling should never be done at night except in well-lighted areas.
- Always keep the fuel nozzle in contact with the fuel fill plate or the edge of the fuel tank opening throughout the filling process.
- Allow areas where gasoline vapors could collect to be ventilated before starting the engine.

- Wipe any spillage completely and dispose of rags or waste on shore.
- Secure the fill cap tightly.
- Portable tanks should only be filled while on the ground; never on-board the boat.

Your boat has safety features that can be circumvented by not adhering to standard fueling practices.

REFER TO THE “DO’S AND DON’TS AT THE GAS PUMP” DVD IN YOUR OWNER’S MANUAL PACKET FOR MORE INFORMATION.

Ethanol-Blended Fuels

Ethanol is an oxygenated hydrocarbon compound that has a high octane rating and therefore is useful in increasing the octane level of unleaded gasoline.

NOTICE

The use of improper gasoline or additives can damage your fuel system and is considered misuse of the system. Damaged caused by improper gasoline or additives WILL NOT be covered under warranty.

The fuel-system components of your Mercury engine(s) have been tested to perform with the maximum level of ethanol-blended gasoline (10% ethanol) currently allowed by the EPA in the United States.

Special precautions should be considered with the use of fuel containing ethanol in your system. Fuels with ethanol can attack some fuel-system components, such as tanks and lines, if they are not made from acceptable ethanol-compatible materials. This can lead to operational problems or safety issues such as clogged filters, leaks or engine damage.

Your boat was manufactured, and shipped from the factory, with ethanol-compatible materials. Before introducing gasoline with ethanol into your fuel tank, ask your dealer if any components have been added or replaced that are not recommended by Boston Whaler, Mercury or may not be ethanol-compatible.



CAUTION

The use of fuels containing ethanol higher than 10 percent (E-10) can damage your engine and/or fuel system and will void the warranty.

E85 FUELS COULD SERIOUSLY DAMAGE YOUR ENGINES AND MUST NEVER BE USED.

Filling The Tank

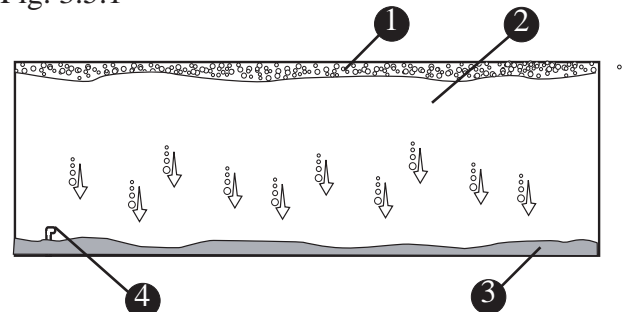
It is best to maintain a full tank of fuel when the engine is not in use. This will reduce air flow in and out of the tank due to changes in temperature as well as limiting exposure of the ethanol in the fuel to humidity and condensation.

Phase Separation

Humidity and condensation create water in your fuel tank which can adversely effect the ethanol blended fuel. A condition called phase separation can occur if water is drawn into the fuel beyond the saturation point. The presence of 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

Example of Phase Separation

Fig. 3.5.1



- 1 CONDENSATION
- 2 UPPER PHASE (WATER+FUEL+ETHANOL)
- 3 LOWER PHASE (WATER+ETHANOL)
- 4 FUEL INLET TO ENGINE

could be pumped directly to 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.

Additives

There is no practical additive known that can prevent or correct phase separation. The only solution is to keep water from accumulating in the tank.

If phase separation does occur, your only remedy is to drain the fuel, clean and dry the tank completely and refill with a fresh, dry load of fuel.

Fuel Filters

Mercury already provides the appropriate level of filtration to protect the engine from debris. The addition of another *in-line* filter to the system will create a possible flow restriction that can starve the engine(s) of fuel.

Maintenance

As a precaution, it is advisable to carry extra *on-engine* filters in case filter plugging from debris in the fuel tank becomes a problem during boating.

Periodically inspect for the presence of water in the fuel tank. If any is found, all water must be removed and the tank completely dried before refilling the tank with any fuel containing ethanol.

Storage

Long 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. If it is not possible to remove the fuel, maintaining a full tank of fuel with a fuel stabilizer added to provide fuel stability and corrosion protection is recommended.

- Add fuel stabilizer/treatment at manufacturers recommended dosage.
- Run engine(s) for 10 minutes.
- Shut OFF fuel valve.
- Allow engine to run until it stops.
- Top off fuel tank, leaving space for expansion. DO NOT fill to point of overflow.
- DO NOT cap the tank vent.

A partially full tank is not recommended because the void space above the fuel allows air movement that can bring in water through condensation as the air temperature moves up and down. This condensation could potentially become a problem.

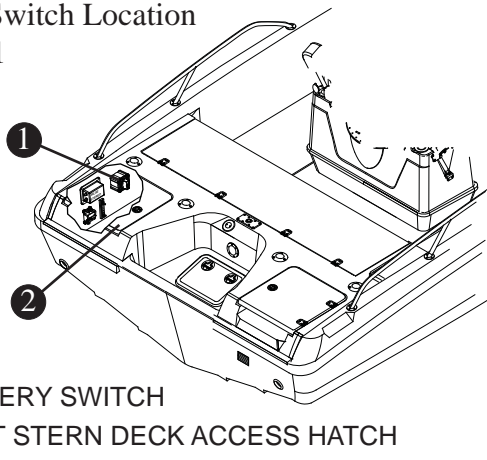
REFER TO THE ENGINE MANUFACTURER'S MANUAL IN YOUR OWNER'S MANUAL PACKET FOR COMPLETE INSTRUCTIONS AND WARRANTY.

Battery Switch

Your boat uses a dual battery selector switch located in the port sterndeck access to control the delivery of DC power from the two batteries.

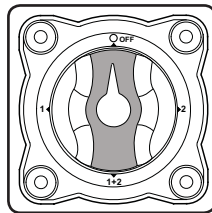
The dual battery switch has four (4) settings, “OFF”, “1”, “2” and “1+2”

Battery Switch Location
Fig. 3.7.1



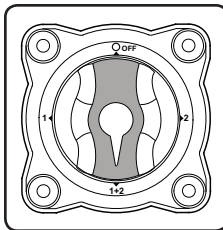
- “OFF” - you will have no power to the engine.

Be sure engine is stopped before switching to “OFF”.



CAUTION
You **MUST** stop the engine before moving the switch to the “OFF” position.

- “1+2” - you will have power from both batteries at the same time. This parallels the batteries to assist you, if necessary, in starting the engine. **Once the engine is started, the battery switch should be switched from the “ALL” setting, and set to charge either battery.**

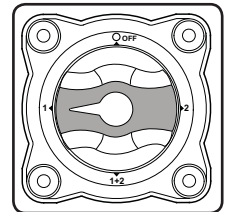


WARNING

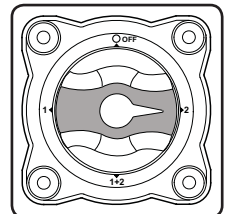
DO NOT operate the boat with batteries in “1+2” once the engine is started or serious engine electrical damage may result.

Use the “1+2” position only if both batteries are near the same voltage. If one battery is strong and the other weak, high current could cause battery damage.

- “1” - you will have power from battery “1” only.



- “2” - you will have power from battery “2” only.



When the engine is shut down or not providing a charge, the system allows for isolation of the number “1” battery. This will allow you to run all the boats functions without affecting the number “2” battery. In the event the number “1” battery discharges completely, you will still be able to start the engine by turning the battery switch to the number “2” position. This accesses the charged battery for engine starting. After the engine starts, return to the discharged battery (number “1” position).

NOTICE

The Bilge pump, stereo memory and clean power for the optional DTS system still draw power from battery #1, even if the switch is set to “OFF”. For this reason it is recommended that the boat be run on position #1 except when periodically charging battery #2.

Starting the Engine

CAUTION

NEVER start or operate your outboard (even momentarily) without water circulating through all the cooling water intake holes in the gearcase to prevent damage to the water pump (running dry) or overheating of the engine.

The ignition keyswitch located starboard of the helm on the console incorporates the following settings:

OFF = No power to engine, instrument panel, etc.

ACC = Power to instrument panel, gauges and other systems. No power to engine.

ON = Power to all boat systems including engines.

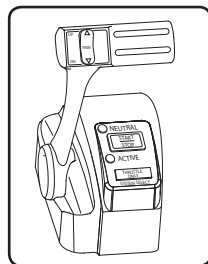
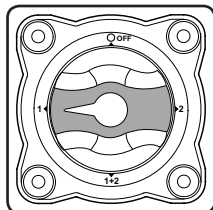
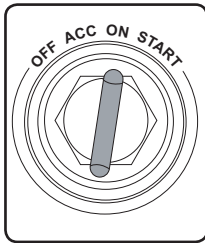
START = Power to start engine.

- Assure that battery switch is in the “1” position.

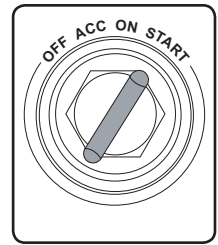
If the number “1” battery has a charge insufficient to start the engine, the battery switch may be set on the number “2” position.

Use the “1+2” position to start the engine **ONLY** if the batteries are not charged sufficiently to start the engine on their own.

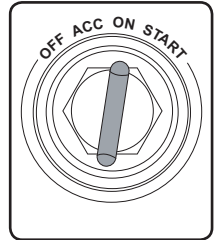
- Make sure that the lower unit of the engine is in the water.
- Make certain the gear shift/throttle control is in the neutral position. (The engine will not start if the control lever is in any other position than (NEUTRAL).



- Turn, and hold the key in the “START” position until the engine has started.



- When engine starts, turn the key to the ON position.



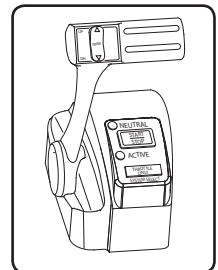
NOTICE

If equipped with the Verado® 4-stroke engine option turn the key to START and release it, the engine will start.

Stopping The Engine

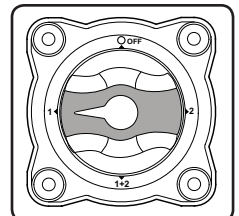
If docking, make sure the boat is securely moored to the dock before shutting down the engine.

- Shift gearshift/throttle control to the “NEUTRAL” position and turn keyswitch to “START”. This will stop the engine, and still give you power to trim the engine.



When trimming is complete turn the keyswitch to the “OFF” position to avoid discharging the batteries.

- Assure battery switch is in position “1”.



Livewell

Your boat is equipped with an insulated, 15 Gal. (56,8L), livewell that is located under the cushion on the front of the console. The livewell system's primary function is to keep baitfish alive by circulating seawater into the livewell bucket. The seacock, plumbing and raw water pump option that service the system can be reached through the port transom and motorwell hatch.

OPERATION

The livewell can be filled by using the switch marked "CONSOLE LIVEWELL" on the switch panel (See figure 2.9.1).

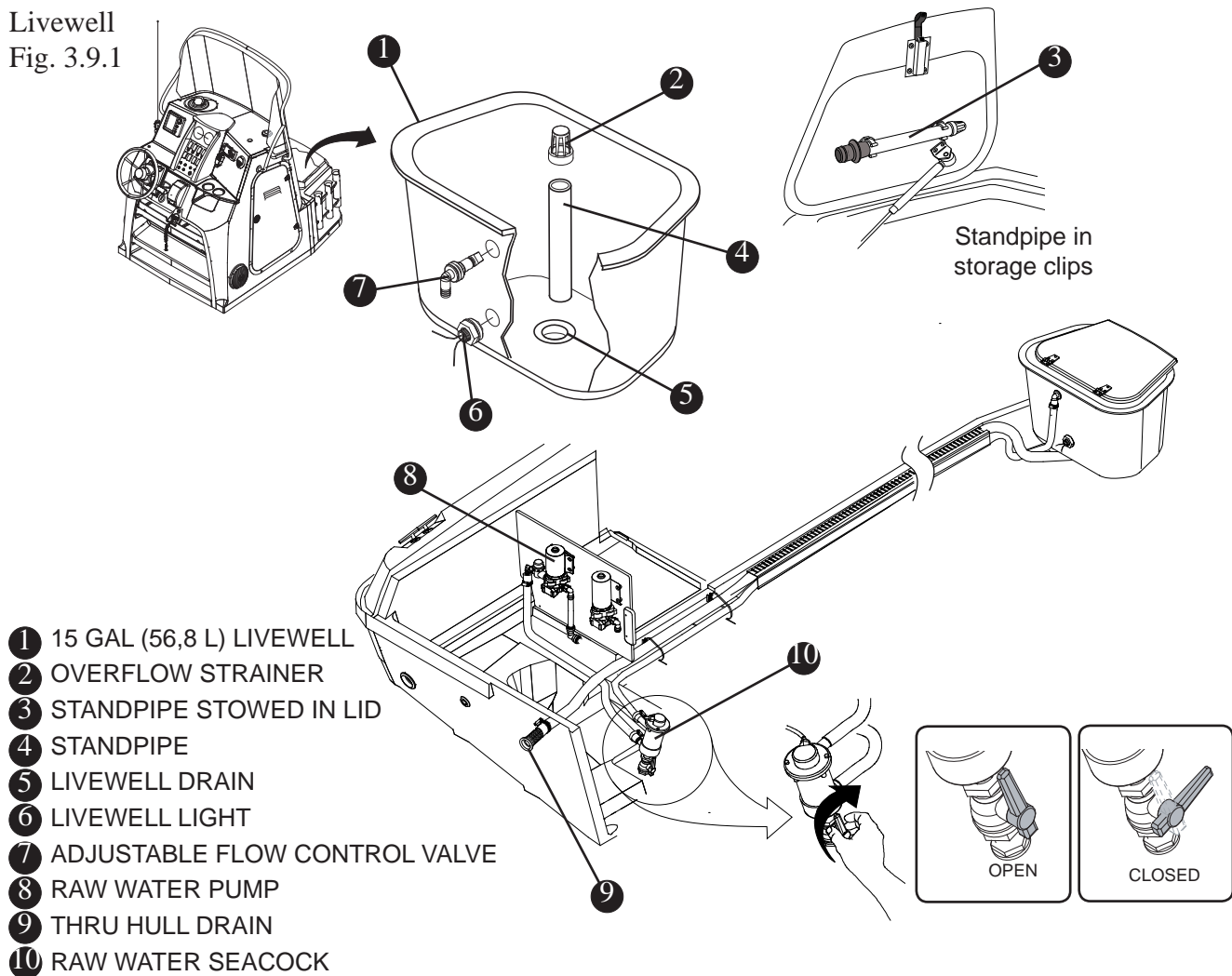
Before filling the livewell, you must make certain the hull seacock is in the open position. The hull seacock can be accessed through the motorwell hatch.

NOTICE

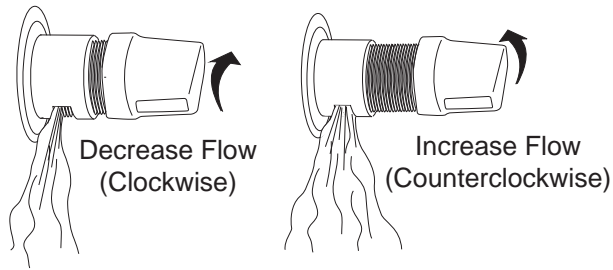
The seacock **MUST** be in the **OPEN** position. Running the pump dry may cause damage to the unit.

Place the removable standpipe (supplied) in the drain at the bottom of the livewell tank. The standpipe serves as an overflow drain to control the level of the water in the livewell while water is being circulated through the system. When not in use the standpipe can be stored in the clips on the underside of the livewell cover. A flow control valve (Figure 3.10.1) at the livewell water inlet controls the flow of water into the livewell. To increase the water flow, turn the valve counterclockwise. To decrease flow, turn the valve clockwise.

Livewell
Fig. 3.9.1



Livewell Flow Control Valve
Fig. 3.10.1



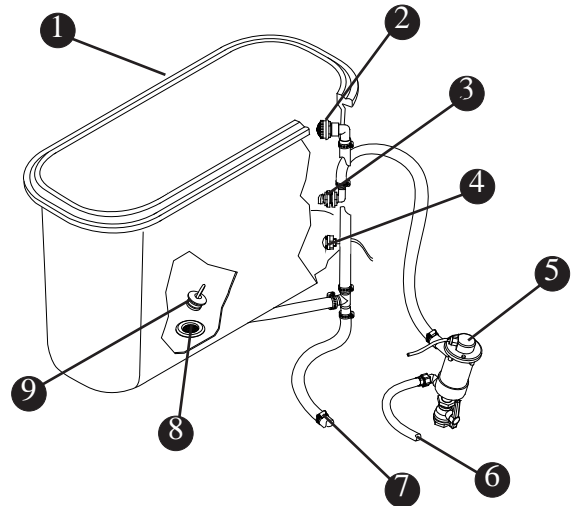
A standpipe with a strainer, directs overflow/excess water to the transom thru-hull drain.

NOTICE

Having both the raw water seacock and flow control valve open at the same time will fill the livewell with water.

If you wish to use the livewell for dry storage, make certain to **CLOSE** the raw water seacock and/or the flow control valve. Failure to do so will allow water to enter the livewell bucket.

Deluxe Leaning Post Livewell (Option)
Fig. 3.10.2



- 1 25 GAL (94,6 L) LIVEWELL
- 2 OVERFLOW DRAIN
- 3 RAW WATER INLET
- 4 LIVEWELL LIGHT
- 5 500 GPH (1893 LPH) PUMP
- 6 TO RAW WATER WASHDOWN
- 7 TO THRU HULL DRAIN AT TRANSOM
- 8 BOTTOM DRAIN
- 9 DRAIN PLUG

Reversible Pilot Seat Livewell (Option)

If equipped, the optional 25 Gal. (94,6 L) livewell is located in the optional deluxe leaning post under the seat cushion (See figure 2.17.1). This livewell can be filled by pressing the switch on the instrument panel marked "ACCESSORY". The livewell bucket has an overflow fitting attached to the drain.

Be sure the hull seacock is in the open position. The livewell seacock can be reached by removing the motorwell hatch. Turn the seacock counterclockwise to OPEN.

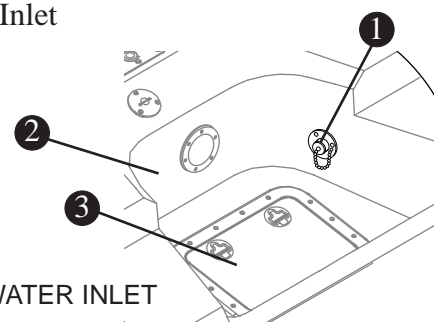
Maintenance

Maintenance of the livewell system will require you to check the seacock intake strainer for debris and impediments, this can be done visually on dry land. The intake strainer is located on the bottom aft of the hull on the starboard side.

Raw Water Washdown (Option)

The raw water deck fitting is located on the starboard side of the motorwell. A 3.5 GPM (13 LPM) pump supplies seawater to the deck fitting. The fitting allows for connection of a common garden hose. There is a cap that is tethered to the fitting and should be on the connection when it is not in use.

Raw Water Inlet
Fig. 3.10.3



- 1 RAW WATER INLET
- 2 MOTORWELL
- 3 MOTORWELL HATCH

Operation

NOTICE

The seacock **MUST** be in the **OPEN** position. Running the pump dry may cause damage to the unit.

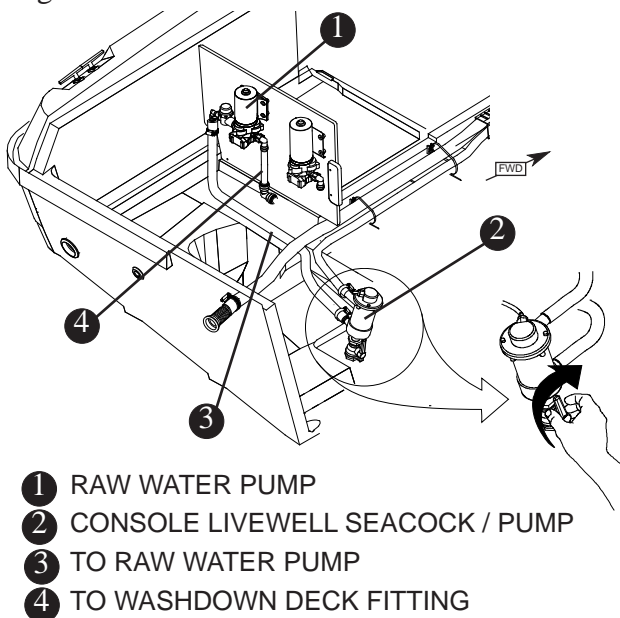
The raw water washdown pump is activated by the “RAW WATER” switch on the console switch panel (See figure 2.9.1).

The seacock for the pump must be in the **OPEN** position before using. The seacock can be accessed through the motorwell hatch.

The seacock which supplies raw water to the washdown pump will vary depending on how your boat is equipped.

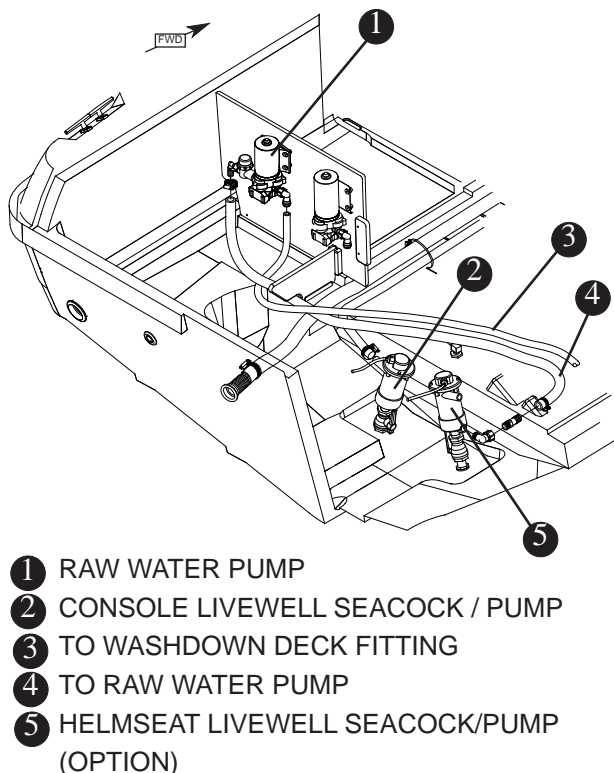
Standard equipped boats utilize the console livewell seacock which is located just port of the hull centerline in the bilge and can be accessed through the motorwell hatch (Figure 3.10.3).

Raw Water System
Fig. 3.11.1



The **Optional** deluxe leaning post livewell requires a second seacock to be located just starboard of the hull centerline in the bilge which can be accessed through the motorwell hatch (Figure 3.11.2). The raw water is routed from this second seacock to the raw water pump and then to the washdown deck inlet.

Raw Water System (Option)
Fig. 3.11.2



Maintenance

Maintenance of the raw water system will require you to check the fittings and hoses for system integrity to prevent leaks. The system should be run at least every other month to keep the pumps impellers in good condition. Clean the seacock intake(s), located on the bottom aft of the hull on the port and starboard sides, of any debris or build-up when the boat is in drydock or trailered.

Fresh Water System (Option)

If equipped, the freshwater system includes: Pump, plumbing, holding tank and connections for water service to the shower located on the starboard side of the aft cockpit.

The 12 Gal. (45.4 L) freshwater tank is located under the console and can be reached through an access plate on the console floor.

The fill cap is located on the forward starboard side of the console. Fill the tank only from a source known to provide safe, pure drinking water. Use only a plastic hose to fill the water tank. Using a rubber hose can give the water a disagreeable taste.

Before you fill the freshwater system it is vital that it be properly disinfected. Ask your dealer if this has been done.

The following procedure is recommended to disinfect the freshwater system:

1. Flush the entire system thoroughly by allowing potable water to flow through it.

NOTICE

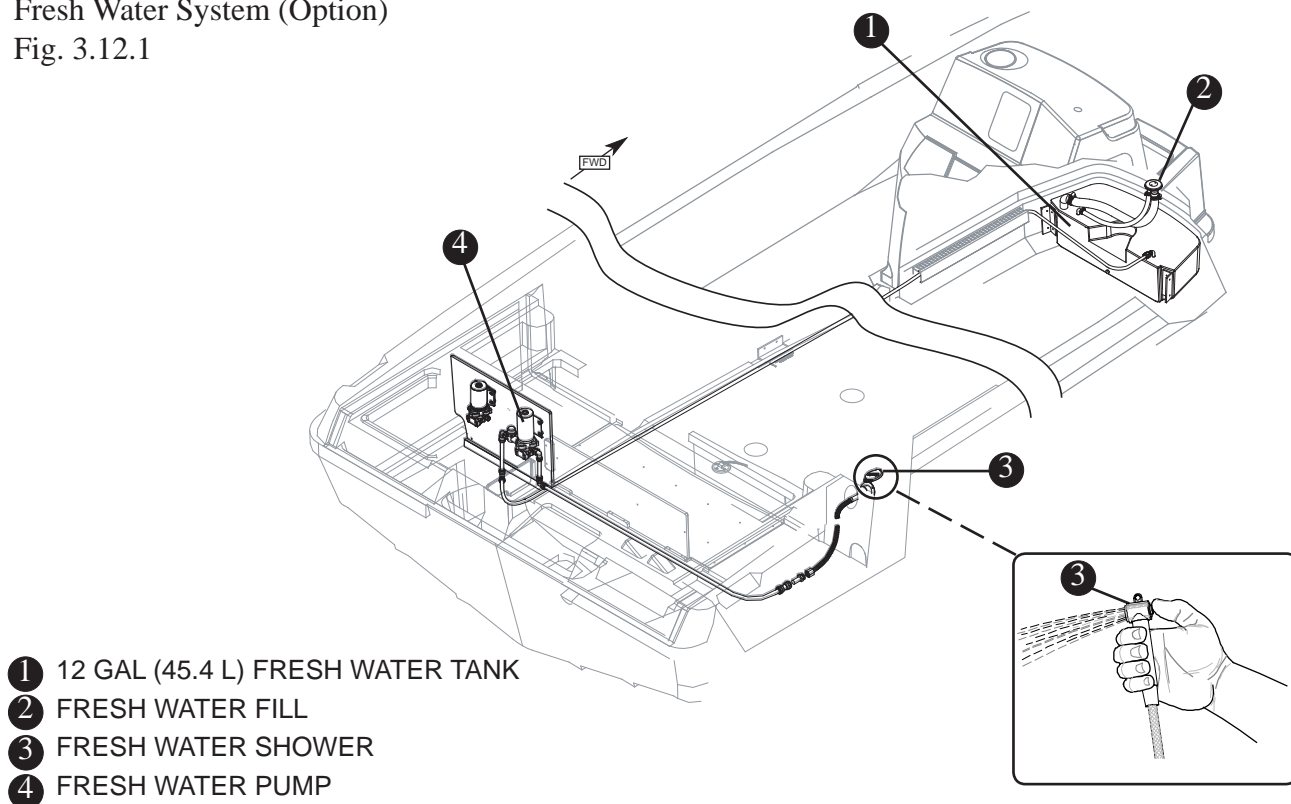
- Be sure to fill the water tank from a source known to provide safe, pure drinking water.
- If you do not use the freshwater system for long periods of time or only use it seasonally it is recommended that you follow the disinfecting practice before using it.

2. Drain the system completely.
3. Fill the entire system with an approved disinfecting solution (check with your dealer for recommendations) and follow the method prescribed by the manufacturer.
4. After disinfecting, drain the entire system.
5. Flush the entire system thoroughly several more times with potable water.
6. Now the system is ready for use, fill with potable water.

This should be done annually or before using the system if it has been laid up for an extended amount of time.

Fresh Water System (Option)

Fig. 3.12.1



Fresh Water Pump

The freshwater pump will need to be activated to provide pressure to the system. The freshwater pump is operated by pressing the switch marked “FRESH WATER” on the instrument panel. This draws water from the holding tank and provides pressure to the shower located in the aft starboard cockpit. You can reach the freshwater pump through an access hatch located port stern deck.

Fresh Water Shower

The freshwater shower is located on the starboard side of the aft cockpit and has an enclosure that the shower head and hose fit into. The shower hose extends about 6 ft. (1.82m). Once the system has been pressurized there is a button on the back of the shower head which, when pressed, will activate the shower (See fig. 3.12.1).

Maintenance

Very little maintenance is required for the freshwater system, other than annual disinfecting and winterizing. Periodically check the entire system to assure that the hose connections, tube fittings, electrical connections and mounting bolts are properly secured, and free of chafing

Head System

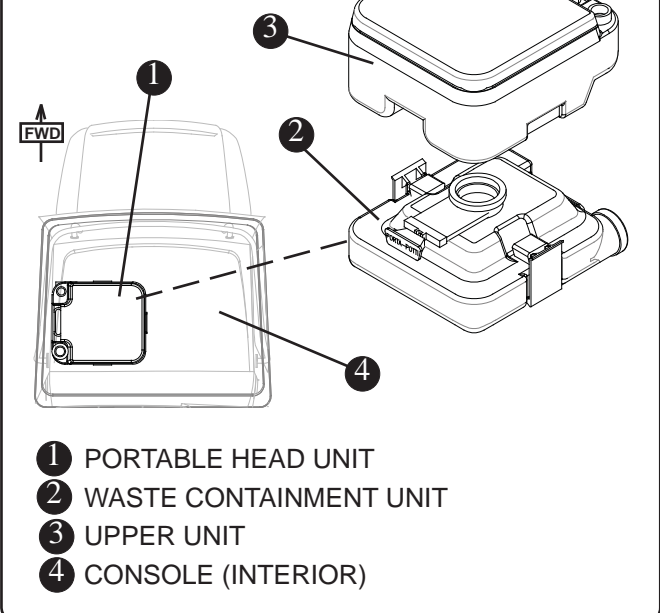
NOTICE

Severe state and federal penalties are levied for discharging raw sewage and/or solid waste in waters where it is not permitted.

Your 230 Dauntless is fitted with a portable waste containment system. The system has a lower tank and an upper tank. Waste is directed to the lower section of the tank which has a holding capacity of 2.8 gal. (10.6L).

Complete operating and maintenance instructions can be found in the manufacturers operations manual.

Portable Head Unit
Fig. 3.13.1



FOLLOW ALL INSTRUCTIONS PERTAINING TO THE OPERATION, CARE, AND MAINTENANCE OF THE WASTE SYSTEM IN YOUR MARINE TOILET MANUAL.

Environmental Considerations

The Environmental Protection Agency (EPA) standards state that in freshwater lakes, reservoirs, impoundments whose inlets or outlets are such as to prevent the ingress or egress by vessel traffic subject to this regulation, or in rivers not capable of navigation by interstate traffic subject to this regulation, marine sanitation certified by the United States Coast Guard (U.S.C.G.) installed on vessels shall be designed and operated to prevent the overboard discharge of sewage, treated or untreated or any other waste derived from sewage.

The EPA standards further state that this shall not be construed to prohibit the carriage of Coast Guard certified flow through treatment devices which have been secured so as to prevent such discharges. They also state that the waters where a Coast Guard certified marine sanitation device permitting discharge is allowed include: Coastal waters, Estuaries, The Great Lakes and Intercoastal waterways, Freshwater lakes and Impoundments accessible through locks and other flowing waters that are navigable interstate by vessels subject to this regulation. (40 CFR, 140.3)

Anchoring

The 230 Dauntless is equipped with an anchor storage compartment located in the bow of the boat. Because there are a variety of anchors, with a variety of uses, **discuss the types of anchors with your dealer to find the right anchor for your boat.**

WARNING

SWAMPING HAZARD - Anchor from the bow if using one anchor. A small current can make a stern anchored boat unsteady. A heavy current can drag a stern anchored boat underwater.

Considerations

- Wind and sea conditions can affect the boat.
- Because the boat is not moving through the water, there is no control.
- Be sure that the anchor will hold under all circumstances if you are leaving the boat.
- Understand the principles of rode and scope and their effect on anchor performance.

Proper anchoring requires knowledge of RODE and SCOPE and understanding the relationship between rode, scope and anchor performance.

The rode is the line connecting the anchor to the boat. Nylon line is ideal because it is light, strong

and stretches, it also can be stored wet and is easy to handle. Add a length of chain between the anchor and the nylon line to prevent abrasion of the line.

The scope is technically defined as the ratio of rode length to the vertical distance from the bow to the sea floor. Scope also depends on the type of anchor, tides, winds, sea conditions and type of sea floor the anchor is in. Since you want to know how much rode to use when anchoring, use this common formula:

Rode length = (bow height + water depth) X Scope

The minimum is 5:1 for calm conditions; normal is 7:1, and severe conditions may require a 10:1.

Example:

$$\text{Rode length} = (3 \text{ feet} + 10 \text{ feet}) \times 7^*$$

$$\text{Rode length} = 13 \text{ feet} \times 7^*$$

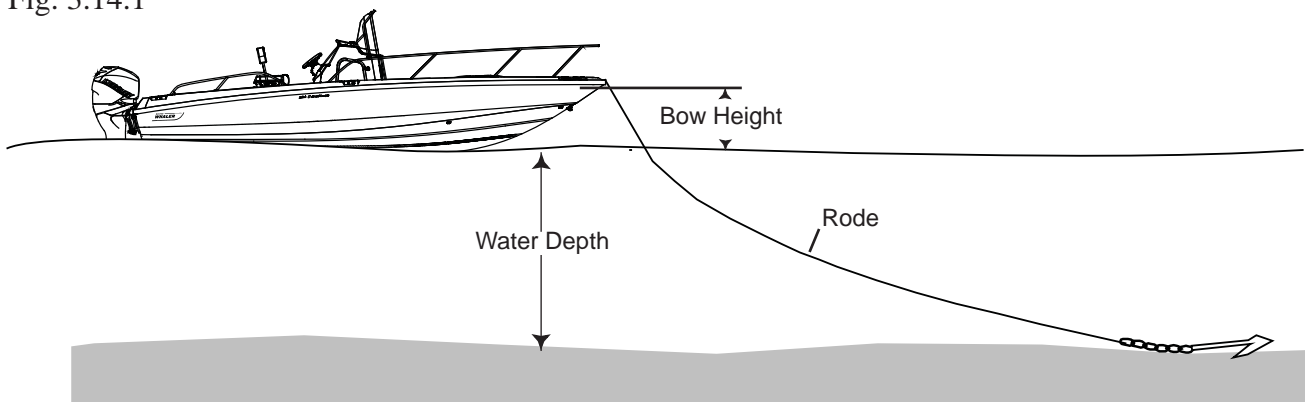
$$\text{Rode length} = 91 \text{ feet}$$

* Scope may range from 5 to 10 or more. However, less than 5, the anchor will break out too easily.

NOTICE

Before using the anchor be sure the anchor line is secured to the eye in the bottom of the anchor locker.

Proper Anchoring
Fig. 3.14.1



$$\text{Rode length} = (\text{bow height} + \text{water depth}) \times \text{Scope}$$

Section 3 • Systems & Components Overview & Operation

Lowering The Anchor

- Stop completely before lowering the anchor.
- Be sure there is adequate rode.
- Secure rode to both the anchor and the boat.
- Keep feet clear of lines.
- Turn on the anchor light when at anchor or drifting (not under power) at night or in low visibility.

Setting the Anchor

There is no best way to set an anchor. Experiment to see how it performs. One method is to turn the rode around a bitt or a cleat and slowly pay out as the boat backs from the anchor site. When the proper scope

has been reached snub the rode quickly, causing the anchor to dig in to the sea bottom.

- Reverse the engine slowly to drive the anchor in and to prevent it from dragging.
- Secure the rode to the bitt or cleat.

Weighing the Anchor

To weigh (or retrieve) the anchor, start the boat and run slowly up to the anchor, taking up the rode as you go. The anchor will usually break out when the rode becomes vertical. Coil lines to let them dry before stowing.



CAUTION

Be careful that the trailing lines do not foul in the propeller

THIS PAGE INTENTIONALLY LEFT BLANK

Electrical System

DANGER

Batteries contain sulfuric acid which is dangerous and can cause serious injury. AVOID contact with skin, eyes and clothing. If contact occurs, immediately flush the affected area with large quantities of water and call for medical assistance

CAUTION

- Never use an open flame in the battery storage area.
- Avoid striking sparks near the battery.
- A battery will explode if a flame or spark ignites the free hydrogen given off during charging.
- The battery should always be disconnected before doing any work or maintenance on the electrical system.
- Never reset a breaker without first determining and correcting the cause of the trip. Should a circuit repeatedly trip, have a qualified electrician determine and correct the cause.
- If equipped with a battery switch, you will need to stop the engine before moving the switch to the "OFF" position.

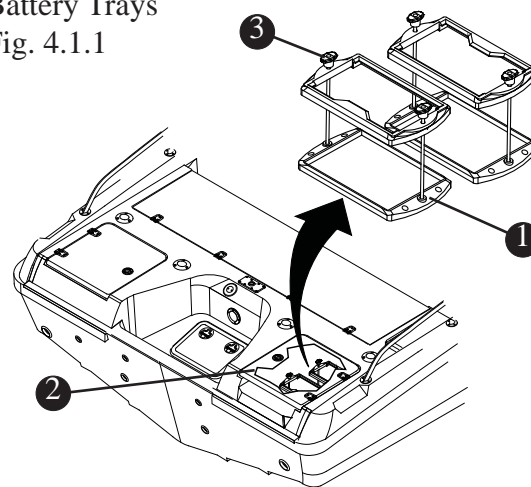
Battery

Your boat has an electrical system powered by two lead-acid batteries. The batteries are charged by the engine when the engine is running. Either, or both, batteries can be selected by the battery switch to power the following systems:

- Engine ignition
- Engine tilt trim system
- Helm switch panel & helm instrument panel
- Lighting/Navigation system
- Livewell system
- Add-on accessories and electronics

The batteries should always be kept in the battery trays provided with your boat. The trays are located

Battery Trays
Fig. 4.1.1



- ① BATTERY TRAYS
- ② STARBOARD STERN DECK ACCESS HATCH
- ③ TURN KNOB

NOTICE

Always store the batteries in the battery trays.

in the starboard stern bilge and can be accessed through the starboard stern deck access hatch (See figure 4.1.1).

The trays will ensure that while underway the batteries will not move around, thus causing damage to themselves, components fitted in the same area or the boat itself. The batteries can be removed by loosening the turn knobs at the top ends of the trays and removing the retaining lid on the battery tray.

Battery Maintenance

The most life shortening experience for the battery is too be drained to zero charge before recharging. When a battery discharges, the active material on both positive and negative plates converts to lead sulfate, causing the plates to become more alike in an electrical charge. The electricity conducting battery acid becomes weaker and the voltage drops. As the battery remains discharged, the process continues until recharging the battery becomes impossible. If the battery does become run down be sure to recharge it as soon as possible. Over charging the battery can be just as detrimental to its life as running it down too far.

Battery maintenance should include:

- Inspect the battery and charging system before each use for loose connections or wiring.
- If not using a sealed battery, check and maintain the water level. USE distilled water ONLY.
- Coat the terminals with dielectric grease.
- Keep the battery safe and dry.
- Remove the battery from the boat during cold weather or long term storage.

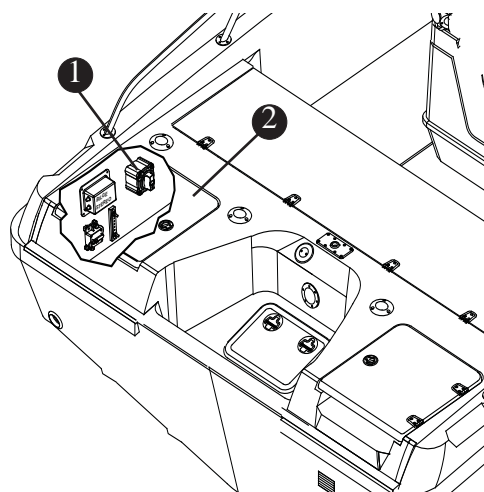
Battery Switch

Your boat uses a battery selector switch located on the component board in the port bilge. The battery switch can be accessed through the hatch in the port stern deck.

The battery selector switch allows you to control the delivery of DC power from the two batteries (See page 3-7 of this manual for proper operation).

Battery Switch Location

Fig. 4.2.1



① BATTERY SWITCH

② PORT STERN DECK ACCESS HATCH



CAUTION

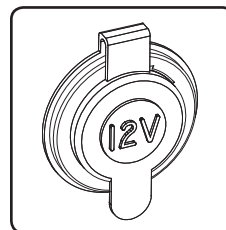
You **MUST** stop the engine before moving the switch to the "OFF" position.

12 Volt Accessory Receptacle

NOTICE

DO NOT insert a cigarette lighter into this receptacle. Damage to the unit & system could occur.

Your 230 Dauntless is equipped with a 12 volt accessory receptacle located below the helm on the control station console (See figure 2.8.1). It is a DC receptacle to be used with any 12 volt accessories using this type of plug. The receptacle



is made of corrosion resistant marine grade materials and has a moisture proof cap. There is a 10 amp breaker reset button located on the control station switch panel. **Be sure to use accessories that do not exceed the rated capacity of the circuit, (10 amps) or the breaker will trip.**

If equipped, the optional trolling motor panel also includes a 12V receptacle which provides accessory power at the bow of your boat.

Trolling Motor Receptacle (Option)

If equipped, the trolling motor receptacle is located inside the anchor locker on the starboard side (See figure 2.19.1). The receptacle is wired for 12V and 24V usage.

Trolling Motor Installation

Your trolling motor manual will have location and connection instructions for the motor wiring. Read and understand the manual before proceeding to connect the supplied plug to your motor and your boat's electrical system.

Trolling Motor Connection (12V)

Using the supplied plug (Figure 4.3.2), connect the **BLACK** and **RED** leads to your trolling motor wiring by crimping and heat shrinking the butt connectors.

Trolling Motor Connection (24V)

Using the supplied plug (Figure 4.3.2), connect the **BLACK** and **ORANGE** leads to your trolling motor wiring by crimping and heat shrinking the butt connectors.

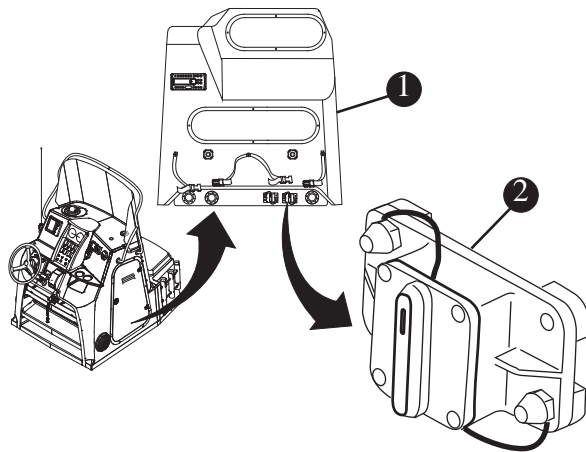
NOTICE

IT IS IMPORTANT to crimp and heat seal the unused butt connector on the plug to avoid damage to your trolling motor system.

Each system (12V & 24V) is protected by a 40 amp breaker located bottom aft in the center console (Figure 4.3.1).

In the event a breaker trips, determine the cause and correct the problem before resetting the breaker. A breaker which trips repeatedly should be examined by a qualified electrician to determine and correct the cause of the trip.

Trolling Motor Receptacle Breakers Fig. 4.3.1

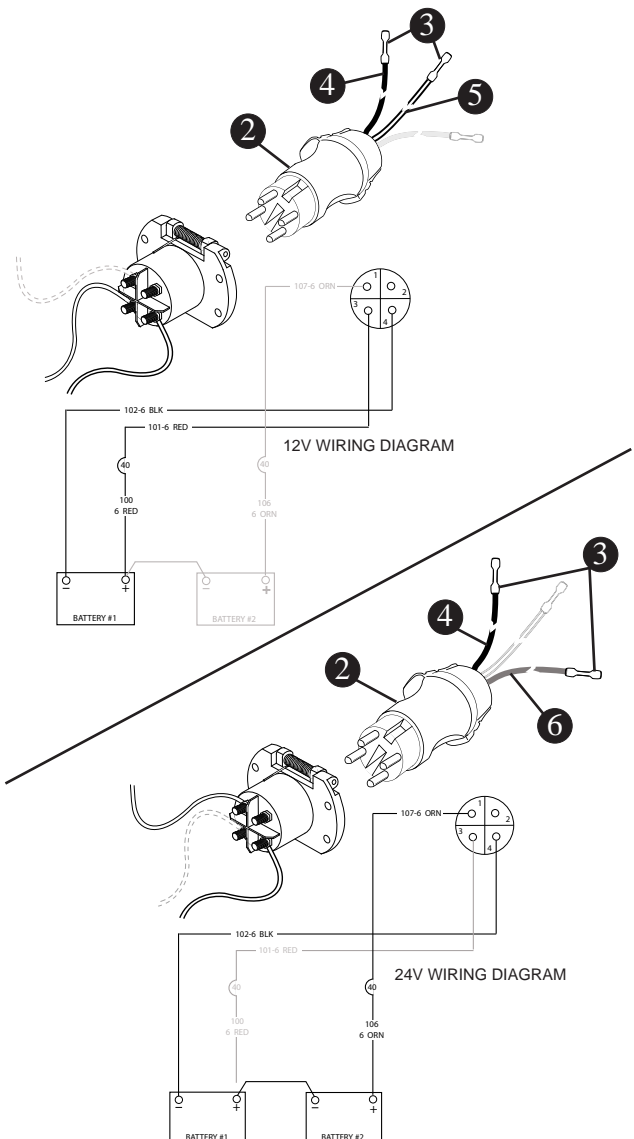
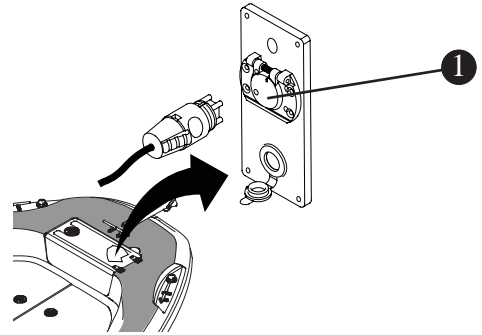


- ① AFT BULKHEAD INSIDE CONSOLE
- ② 40 AMP BREAKER (1 FOR 12V / 1 FOR 24V)

NOTE: See figure 4.7.1 for electrical schematic

REFER TO THE TROLLING MOTOR MANUFACTURER'S MANUAL IN YOUR OWNER'S MANUAL PACKET FOR COMPLETE INSTRUCTIONS, INFORMATION AND WARRANTY.

Trolling Motor wiring (Option) Fig. 4.3.2



- ① TROLLING MOTOR RECEPTACLE
- ② TROLL MOTOR PLUG
- ③ HEAT SHRINKABLE BUTT CONNECTORS
- ④ BLACK LEAD
- ⑤ RED LEAD
- ⑥ ORANGE LEAD

Component Breakers

Your boat has component reset breakers located on the control station switch panel and on the aft component board (Figure 4.4.1). The breakers can be reset if a trip occurs.

If a component breaker trips, determine and correct the problem before resetting the breaker. Should a circuit breaker trip repeatedly, have a qualified electrician determine and correct the cause of the trip.

In the event it is necessary to replace a breaker, use only the same amperage as the original. If a breaker is replaced with one of lower amperage, it will not be sufficient to carry the electrical load of the equipment it is connected to and will cause nuisance breaker tripping. Conversely, if a breaker is replaced with one of higher amperage, it will not provide adequate protection against an electrical malfunction and will create a fire hazard.

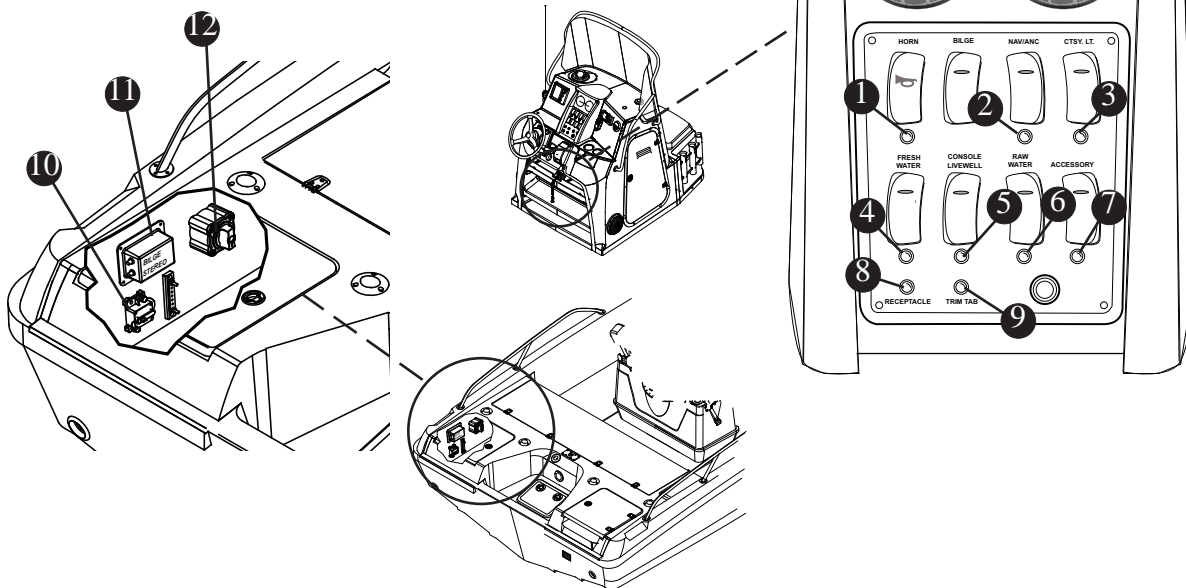
Component Reset breakers

Fig. 4.4.1

! WARNING

Use of higher amperage fuses or breakers is a fire hazard.

Use fuses and breakers having the same amperage rating as the original or as specified.



- | | | | |
|--|---------|--------------------------------|---------|
| ① HORN..... | 3 AMP | ⑧ 12V RECEPTACLE | 10 AMP |
| ② NAV/ANC LIGHTS..... | 3 AMP | ⑨ TRIM TABS..... | 10 AMP* |
| ③ COURTESY LIGHTS..... | 3 AMP | ⑩ MAIN DC BREAKER | 50 AMP |
| ④ FRESH WATER PUMP | 10 AMP* | ⑪ BILGE PUMP (AUTOMATIC) | 5 AMP |
| ⑤ CONSOLE LIVELWELL PUMP | 3 AMP | ⑫ STEREO MEMORY..... | 15 AMP |
| ⑥ RAW WATER PUMP | 15 AMP* | | |
| ⑦ ACCESSORY (HELMSEAT LIVELWELL) | 3 AMP* | | |

* OPTIONAL

Section 4 • Electrical System

Electrical Schematics & Harnesses

The following pages contain electrical schematics pertaining to the electrical system in your boat. These schematics were generated by technicians in the Boston Whaler® Engineering Department and are for reference and to be used by service technicians.

Boston Whaler® does not recommend that you attempt to work on the electrical system yourself. Instead, we suggest that you take your boat to an authorized Boston Whaler® dealer for electrical service.

Boston Whaler® reserves the right to change or update the electrical system on any model at any time without notice to the customer and is not obligated to make any updates to units built prior to the change.

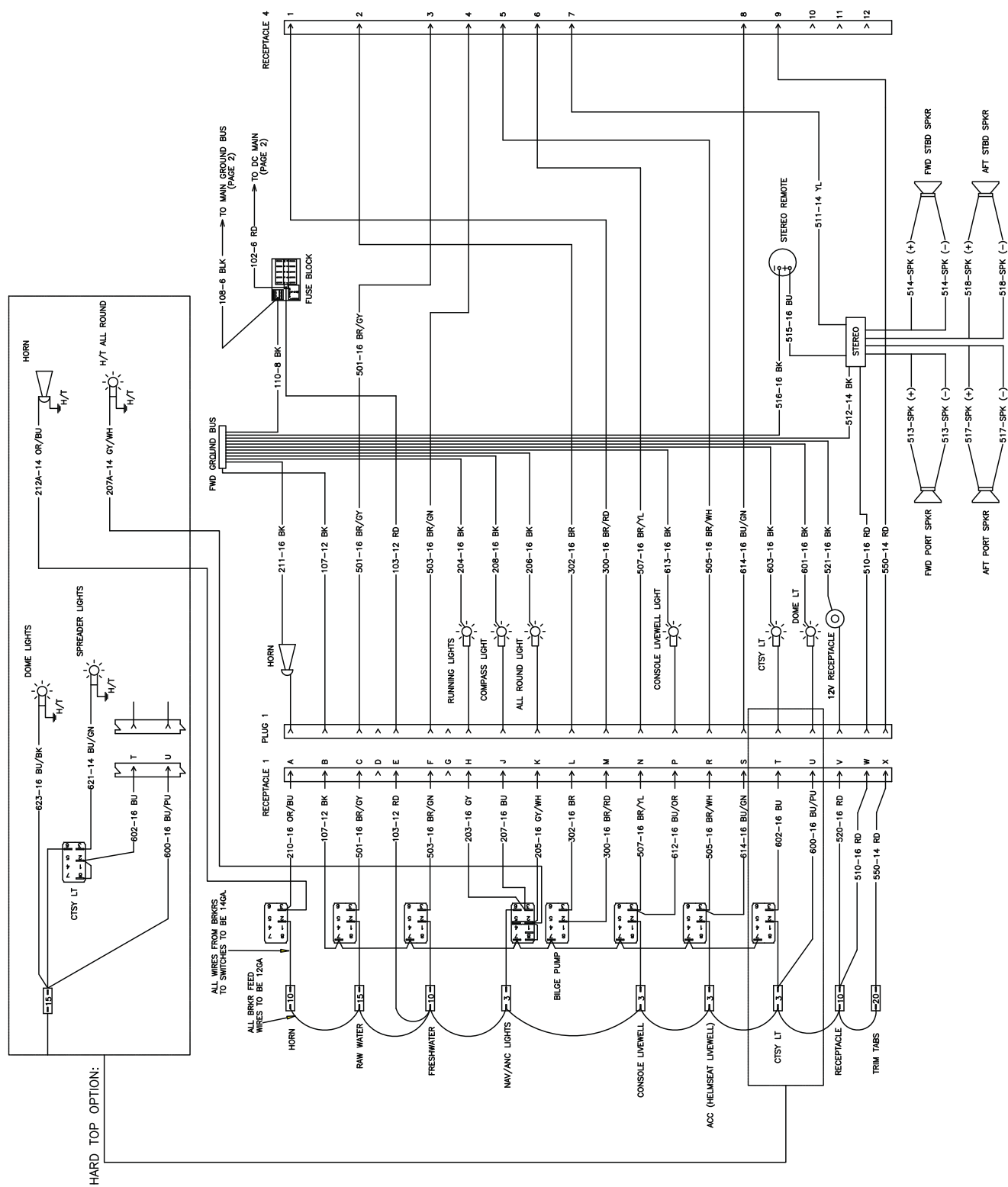
Wiring Identification Chart

Boston Whaler® adheres to electrical wiring requirements which meet all the ABYC-11 standards. The chart below outlines the gauge, color and function of the wiring used.

Wire Color Chart for DC and Special Circuit

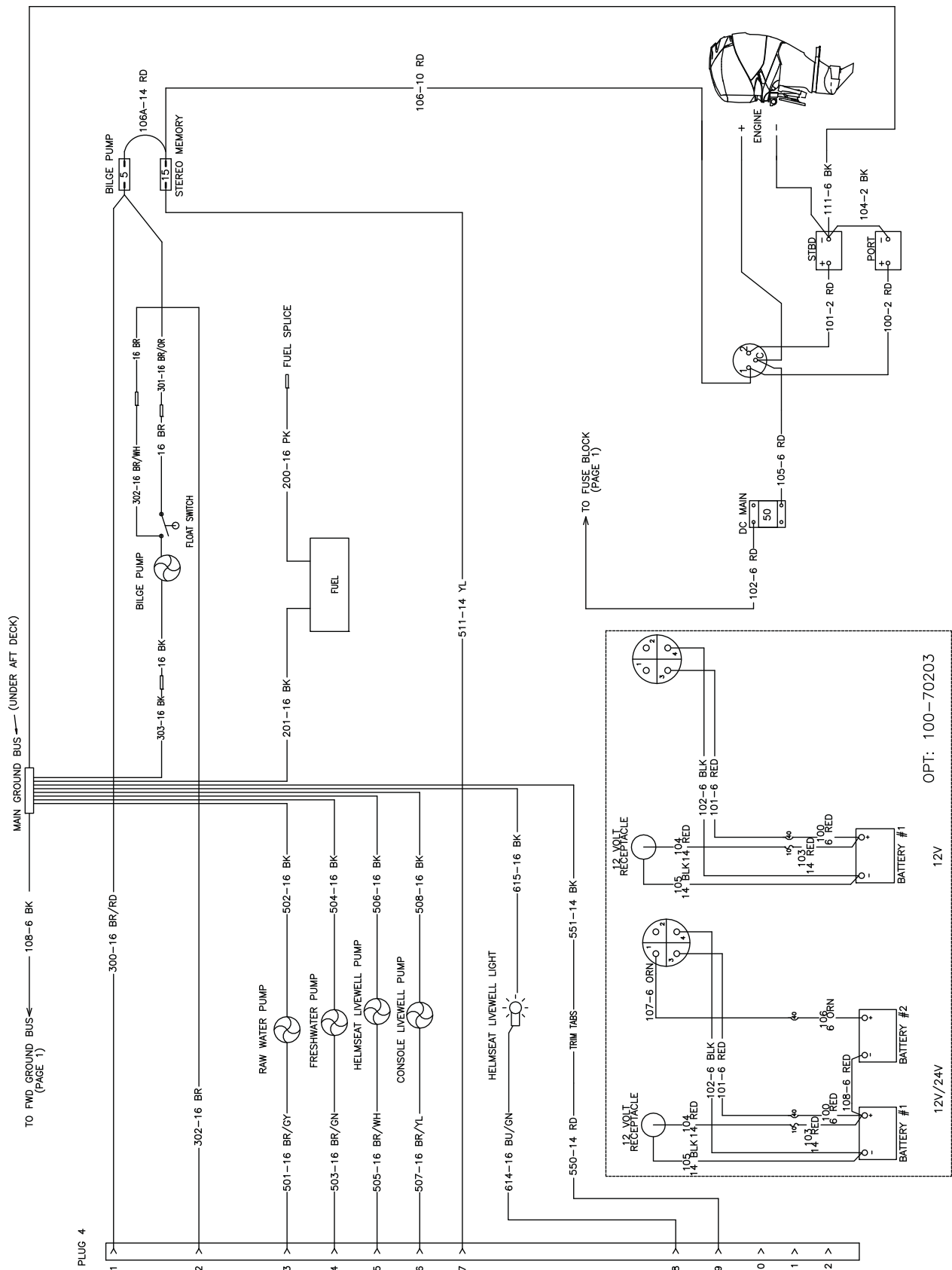
GAUGE	COLOR	FUNCTION	GAUGE	COLOR	FUNCTION
6 AWG	GRN	GROUNDING MAIN/TOWER & ALUMINUM FUEL TANKS	14 AWG	BRN/ORN	SUMP PUMP
8 AWG	GRN	GROUNDING	14 AWG	BRN/RED	BILGE PUMP (UNSWITCHED)
8 AWG	ORN	STARBOARD 30 AMP RECEPTACLE	14 AWG	BRN/VIO	FORWARD FISHBOX PUMP
8 AWG	RED	MAIN FEEDS/PORT 30 AMP RECEPTACLE	14 AWG	BRN/WHT	MACERATOR
12 AWG	BRN/BLK	STARBOARD FISHBOX PUMP	14 AWG	BRN/YEL	LIVEWELL PUMP
12 AWG	BRN/VIO	FORWARD FISHBOX PUMP	14 AWG	GRY	RUNNING LIGHTS
12 AWG	BRN/YEL	LIVEWELL PUMP (HIGH CURRENT)	14 AWG	GRY/BLK	ACC 1
12 AWG	BRN/BLU	PORT FISHBOX PUMP	14 AWG	GRY/BLU	ACC 2
12 AWG	BLK	GROUND	14 AWG	GRY/GRN	ACC 3
12 AWG	RED	+12V MAIN	14 AWG	GRY/RED	AFT MAST/ACC 4
14 AWG	BLK	GROUND	14 AWG	GRY/WHT	ALL ROUND/FWD MAST LIGHT
14 AWG	BLK/YEL	STOP CIRCUIT	14 AWG	GRN	GROUNDING
14 AWG	BLK/WHT	GEN SHUTDOWN	14 AWG	ORN	REFRIGERATOR or CENTER WIPER
14 AWG	BLU	COMPASS	14 AWG	ORN/BLU	HORN
14 AWG	BLU/BLK	DOME LIGHT	14 AWG	ORN/BRN	STARBOARD WIPER PARK
14 AWG	BLU/GRN	SPREADER LIGHT	14 AWG	ORN/GRN	STARBOARD WIPER
14 AWG	BLU/ORN	LIVEWELL LIGHT	14 AWG	ORN/RED	PORT WIPER
14 AWG	BLU/RED	COURTESY LIGHTS	14 AWG	ORN/VIO	VACUUM PUMP
14 AWG	BLU/VIO	CABIN LIGHTS	14 AWG	ORN/WHT	CENTER WIPER
14 AWG	BRN	BILGE PUMP (SWITCHED)	14 AWG	PINK	FUEL SENDER
14 AWG	BRN/BLK	STARBOARD FISHBOX PUMP	14 AWG	RED	12V RECEPTACLE
14 AWG	BRN/BLU	PORT FISHBOX PUMP	14 AWG	VIO	IGNITION
14 AWG	BRN/GRY	RAW WATER	14 AWG	WHT	CO MONITOR/ELECTRIC TRIM TAB (SWITCHED)
14 AWG	BRN/GRN	FRESH WATER	14 AWG	YLW	BLOWER/STEREO MEMORY START
			14 AWG	YLW/RED	

DC Wiring Diagram (1 of 2)
Fig. 4.6.1



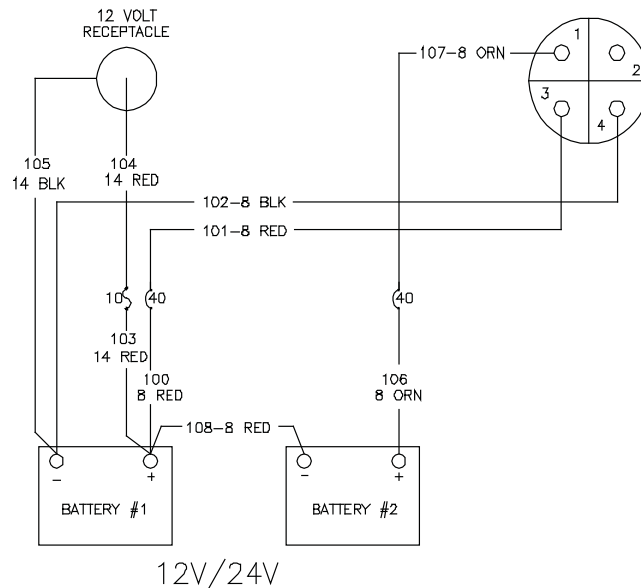
Section 4 • Electrical System

DC Wiring Diagram (2 of 2)
Fig. 4.7.1



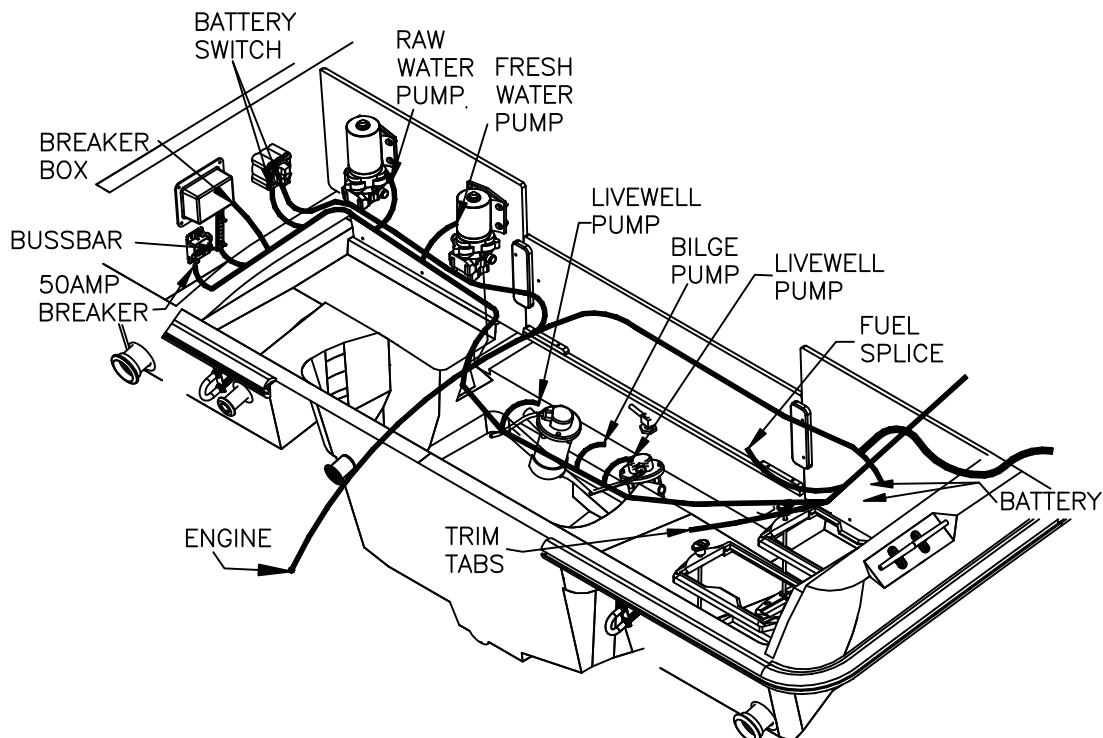
Trolling Motor Panel Schematic (Option)

Fig. 4.8.1



Electrical Harness (Transom)

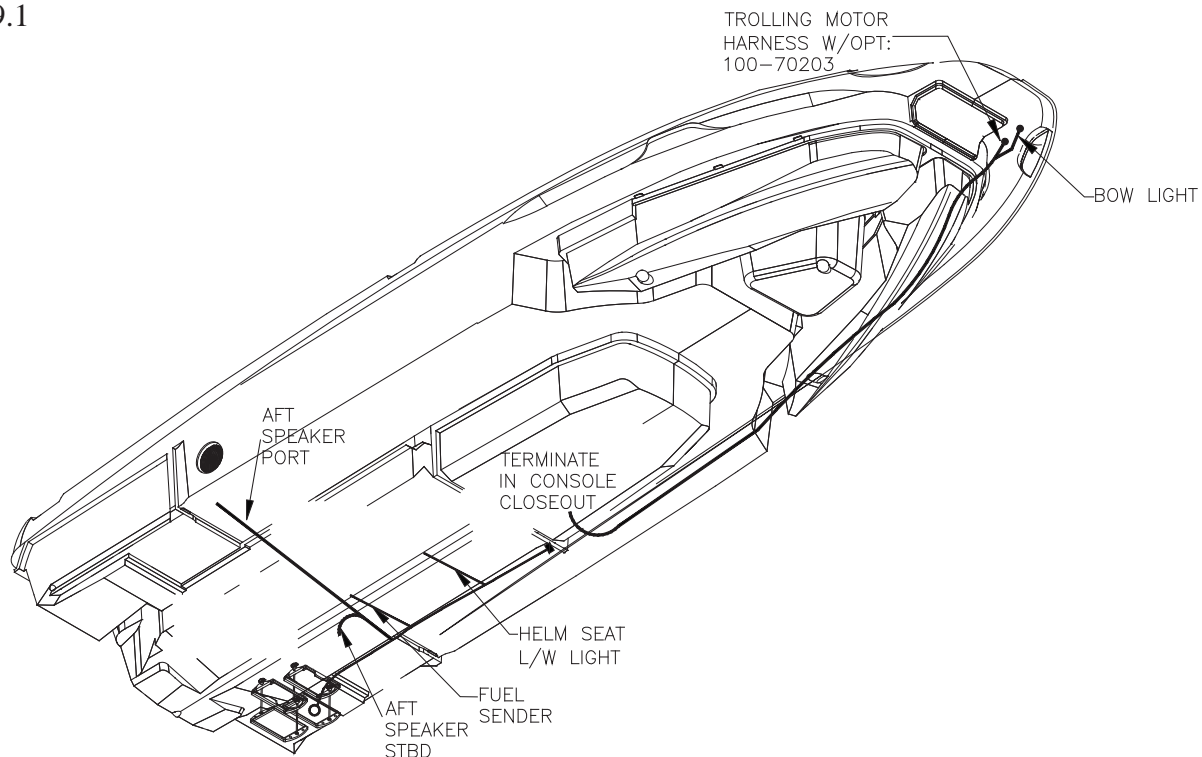
Fig. 4.8.2



Section 4 • Electrical System

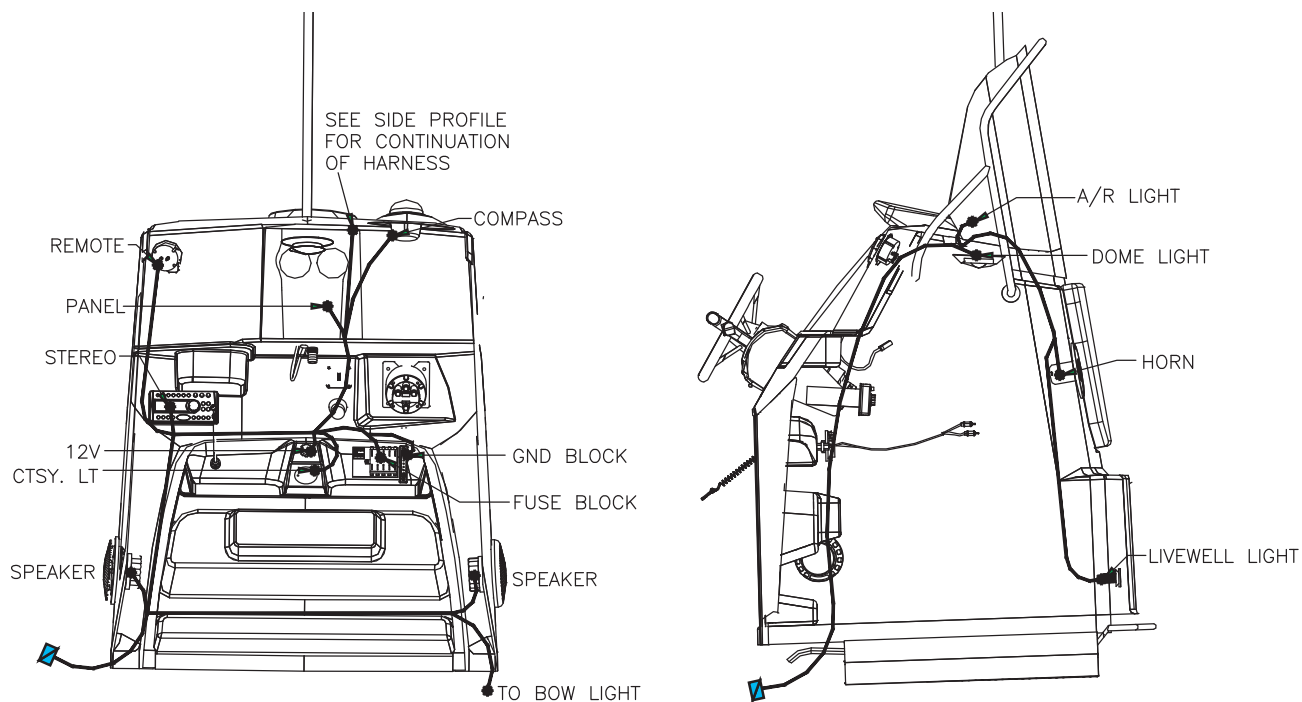
Electrical Harness (Hull)

Fig. 4.9.1



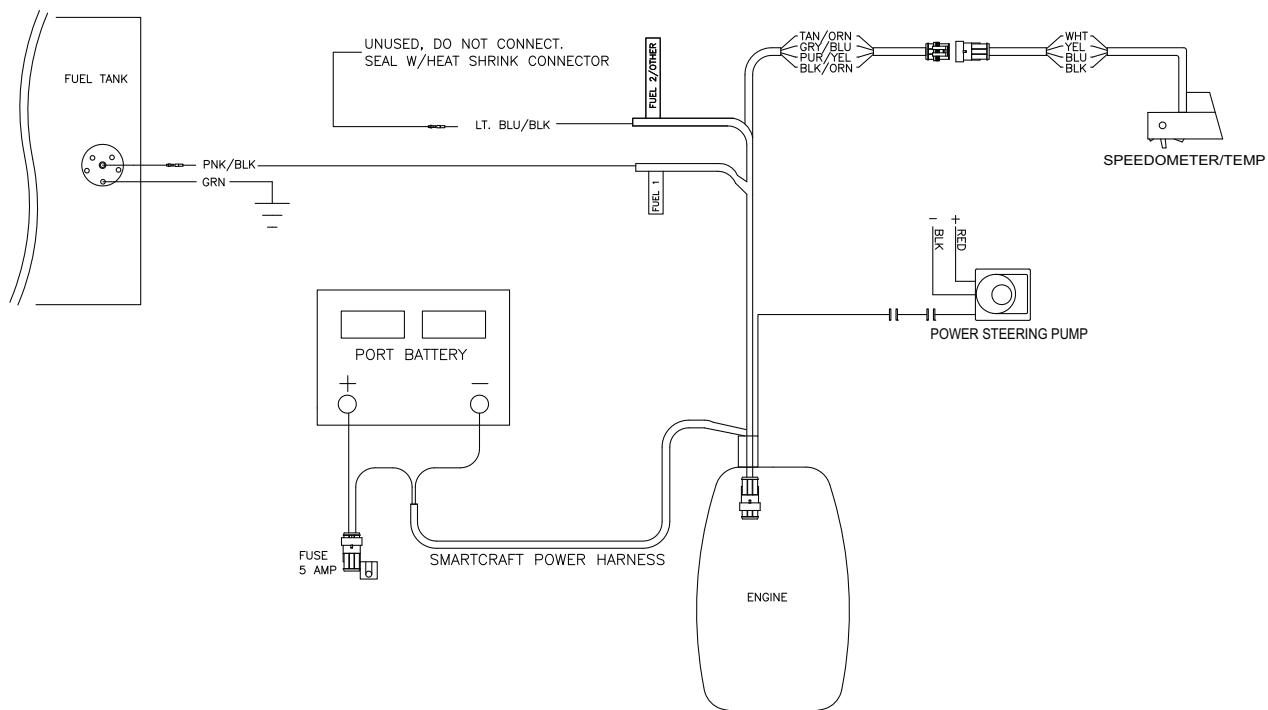
Electrical Harness (Console)

Fig. 4.9.2



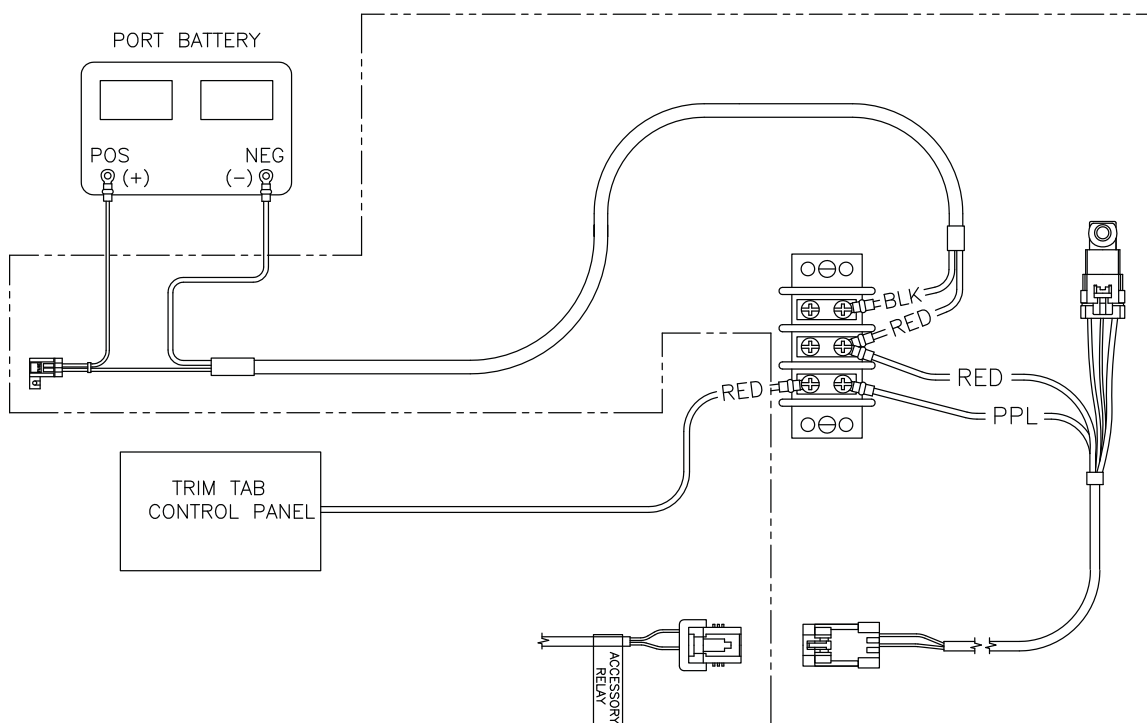
SmartCraft™ Diagram

Fig. 4.10.1



Trim Tab Diagram

Fig. 4.10.2



Routine inspection, service and maintenance of your boat, boat systems and components are vital to assure your safety, as well as prolonging the life of your boat. You should develop regular routines for inspecting and servicing your boat.

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

This section provides general guidelines for 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.

NOTICE

Refer to the individual manufacturer's manuals for important information regarding service, care and maintenance of your boat, equipment and components. Failure to do so may in some cases void the warranty.

Owner's Manuals for your boat and each of the various components and equipment can be found in your Owner's Manual Packet.

DANGER

When using solvents read all information from the solvent manufacturer regarding safety and handling of the material.

Wear proper protective equipment to insure your personal safety.

Only use solvents in a well ventilated area and keep all solvents away from open flame and any other forms of ignition.

Cleaning Your Boat

Hull

Clean the bottom of your boat of marine growth immediately. If the debris dries it will harden and will make its removal very difficult. Waxing of the exterior surfaces is recommended to be done at least

twice a year to protect the gelcoat of your boat. Compounding may be necessary to remove more stubborn stains and chalking from the surface of your boat, compounding must be done after washing and prior to waxing. Check with your Boston Whaler® dealer on a compatible rubbing compound for your boat.

Windscreen

NEVER use abrasive powders, gritty cloths or steel wool when washing the windscreen. Always use a damp cloth or a chamois when drying.

Stainless Steel/Metal Trim

Your metal trim and fittings will stay bright if coated with a good grade metal polish or paste wax after washing.

Stainless steel is strong and corrosion resistant, but still requires maintenance to keep its appearance. Frequent routine cleaning of your stainless steel with a mild soap, water and cleaning wax will help maintain the finish.

- Wash with mild soap and cold or lukewarm water.
- Dry THOROUGHLY.
- Apply cleaning wax with soft, dry cloth.
- Allow wax to dry, then polish and buff.

DO NOT USE:

- Abrasive cleaners, detergents or abrasive pads, brushes or sponges.
- Chemicals, acids or cleaning products containing corrosive agents (no bleach!).
- Silver cleaners

Crevice corrosion, a brownish coloring; occurs where two pieces of stainless hardware meet. This condition is caused by impurities in water and air and can be easily cleaned with a good grade marine polish using a sponge, cloth or small bristled brush (for nooks and crannies).

Aluminum & Powder Coated Surfaces

Wash down completely with soap and fresh water and wipe dry after each use.

Wash completely using a soft cloth and mild detergent to remove salt particles. Hosing alone will not dislodge all particles. **DO NOT** allow soap to dry as it may cause stains on coated surface. Make sure to wash and dry full circumference of bows (bimini and sun tops).

Wash and apply an aluminum protectorant twice each year. Inspect and repair or replace all damaged nylon bushings, washers or other hardware designed to prevent contact with dissimilar metals.

Whenever electrical or electronic changes are made to the boat, a qualified marine technician should check aluminum parts for stray currents. Make sure all electronic equipment is properly grounded with adequate sized wire.

Preventative maintenance is essential to life of the metals on your boat. The presence of salt particles and moisture is the major cause of white spots, pitting and corrosion. The use of harsh chemicals can also cause deterioration. Manufacturers and applicators of protective coatings will not warranty protective coatings on metals in the marine environment. Proper owner maintenance is required to reduce deterioration which will result in most case by failure to wash down and wipe dry after each use and/or the use of abrasive, acidic or other improper cleaners.

Hull Maintenance (Blisters)

Causes

The fiberglass and resin structure of your boat is porous (intrusion of water into the gelcoat will take some time). Blistering is caused by water soluble materials in the hull laminate. The effect of osmotic pressure allows water to impregnate below the gelcoat and substrate thus forming a blister. There have been extensive university studies funded by the United States Coast Guard regarding the cause and effect of blisters forming in the gelcoat of fiberglass boats. Fiberglass blisters can form in near-surface

layers of the gelcoat to very deep into the fiberglass structure. The damage can range from cosmetic to catastrophic, (although the latter is a very rare occurrence). The studies seemed to point toward long term immersion of the hull in warm water as a primary cause of hull blisters. Stress cracks on the hulls below the waterline also contributed to the formation of blisters on the hull.

Prevention

There are a variety of ways to prevent the formation of hull blistering. Epoxy coatings can be applied to the hull, followed by hull painting. An alkyd-urethane-silicone marine paint can also be used to aid in the prevention of hull blisters.

Reducing the amount of time that your boat stays in the water also helps prevent hull blisters from forming. Use of a trailer or boat lift will reduce the likelihood of hull blisters forming. Be sure to use a bunk type lift or trailer for long term storage of the boat out of water. If blisters are present in the hull, they need to be properly cleaned and dried out before any barrier protection can be applied. Contact your Boston Whaler® dealer for more information on prevention and treatment of hull blisters.

Bottom Painting

DANGER

There are risks and dangers inherent with the use of paints and solvents. Dispose properly of all rags, rollers and trays used for painting. Follow all the precautions and regulations listed by the manufacturer before and after painting your boats hull.

Painting the bottom of your boats hull is a good way to slow the formation of hull blisters, and also keeping bottom growth (fouling) under control. To determine the waterline, you will need to place the boat in water and with a full load of fuel and gear, mark the waterline. Measure above the marked line 1 to 3 inches for placement of the tape line. Masking tape is not recommended for the types of

paint you will be using. Preparation is the key to a successful hull painting. If the hull is bare, the gelcoat will have to be dewaxed before sanding can begin, otherwise the wax will be dragged into the scratches and will reduce the adhesion properties of the paint. After the dewaxing is complete, a light sanding with 80 grit paper is recommended. Proper ventilation and capture of the dust created by sanding is essential. The paint can be applied after sanding and cleaning is complete. Follow the manufacturer's recommendation for applying the paint. Humidity and weather will play a role in how and when the paint is applied. Several thin layers are better than one thick layer.

Make sure that there is enough paint left to cover areas that were not accessible, (slings, jackstands etc.) and paint accordingly. Follow the manufacturer's recommendation for do's and don'ts after the painting is complete. If the hull bottom is already painted, you must be sure to test the paint's adhesion to the already painted surface. If the paints are incompatible, the new paint will not adhere to the hull bottom or the paint will "Lift" the old paint. **NEVER** apply paint without first preparing the old painted surface. The paint is designed to resist algae growth which means it has chemicals embedded in the paint that are harmful if ingested. Take all necessary precautions required before painting or repainting your boat's hull. Painting your boat's hull will adversely affect the boat's speed and performance. If your boat will spend most of its time in the water, it might be a good idea to paint the hull bottom, if you will be trailering the boat to and from the water, you might want to forgo the painting. This is an abbreviated section on painting your hull bottom. Your Boston Whaler® dealer should have information on properly painting your boat's hull or recommendations on businesses that will paint your hull for you.



WARNING

The dust created by sanding is toxic and should not be breathed. A proper fitting respirator must be used.

DO NOT use a paper filter mask.

Painted Hull Care

The painted hull of your boat needs to be cleaned regularly to prevent the build-up of dirt, grease and other contaminants. When staining from build-up does occur, there are cleaning agents that are recommended by the paint manufacturer for use on these stubborn stains.

NEVER use an abrasive cleaner to wash your boat's hull.

NEVER use an abrasive pad to attempt to remove stubborn stains.

NEVER use strong solvents to clean.

Use care when covering your boat's painted surfaces, tarps and other such covers can trap dirt and cause chafing. Tape or any other type of adhesives should not be applied directly to the painted surface. More information on care and maintenance of your boat's painted hull can be found in the owner's manual packet.

Painted Hull Care (Bottom)

The painted hull bottom will need to be inspected annually. Any growth will affect the boat's performance and overall look. If it has been a while between inspections you might notice algae or slime growth. This can be cleaned with a coarse towel or soft bristle brush. The 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. If the growth is more severe, you may need to enlist the services of a professional hull cleaning company. Fresh water, salt water and water temperature can all affect the types of growth that you will find on your boat's hull.

Vinyl Cushion Care

The vinyl cushions on your boat will keep their appearance and suppleness if cared for properly. Salt water, salt residue, dirt, ultra-violet rays etc. will take their toll on vinyl products causing them to lose their luster and texture. A thorough cleaning with a good vinyl upholstery cleaner will keep the vinyl soft. Keep the vinyl dry to prevent mildew, make sure there is no moisture between the cushions.

The cushions on your boat are made of a durable vinyl material called OMNOVA and is protected by a finish called PreFixx.

This protective finish is designed to be cleaned easily, over and over without showing signs of wear. The PreFixx finish gives you the freedom to remove stains with ease that were not possible before.

The vinyl material and superior finish has been tested to resist heavy abrasion. There is a 3 step cleaning process recommended by the manufacturer. Following this procedure will ease in cleaning the vinyl cushions.

Complete cleaning instructions are included in the owner's packet. Read all information provided by the cushion manufacturer regarding the proper cleaning and maintenance.

Note: As the level of stain is increased, the likelihood of using solvents may be necessary.

Read all information from the solvent manufacturer regarding safety and handling of this material.

Wear proper protective equipment to insure your personal safety. Only use solvents in a well ventilated area and test the solvent in a conspicuous section of the affected vinyl. Keep all solvents away from open flame and any other forms of ignition.

Rubrail Care

The rubrail on the your boat is made of an injected high density foam material. Laboratory tests have proven this material to be highly resistant to staining, fading and cracking.

As resilient as this material is, you will still need to follow some basic maintenance precautions. General

maintenance requires a thorough cleaning with mild soap & water. **DO NOT** use any cleaning agents that contain chemicals.

The Soft side rubrail system is similar in composition. Although the outer shell is tough and durable, there is a chance that it can be breached. Use care when docking or exposing the rubrail to conditions that might damage it, (e.g.-docking against heavily barnacled pilings.) Tears can be repaired using "Super Glue".

Thoroughly clean and dry the affected area; apply glue, and hold the surfaces together. This will work when the areas have been cleanly sliced. Areas affected by heavy abrasion can have sections replaced. Please see you Boston Whaler Dealer® if this needs to be done.

Long Term Storage

NOTICE

Periodically haul the boat out of the water and scrub the bottom with a bristle brush and a solution of soap and water. For better protection paint the hull below the waterline with a high grade anti-fouling paint.

Storage or winter lay-up will require you to make sure that your boat and its systems are properly conditioned for extended periods of non-usage.

Engine

Protecting your engines vital moving parts from corrosion and rust caused by freezing of trapped water or excessive condensation due to climatic changes is very important. Internal engine parts can be effected by rust due to lack of proper lubrication. Freezing water in the engine can cause extensive damage to the internal moving parts.



CAUTION

Never start or run your outboard (even momentarily) without having water circulating through the cooling water intake holes in the gear case. This will prevent damage to the water pump (running dry) or overheating of the engine.

It is important that you follow all the recommendations set by the engine owner's operations manual. It will give you a schedule of when these important functions need to be done.

Fuel System

Tank(s), hoses, fuel pump and carburetor should be treated to help prevent the formation of varnish and gum. Temperature extremes cause condensation to accumulate in the fuel tank(s). Empty gas tanks collect condensation which could lead to fuel contamination and/or premature wear of your system

Long 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. If it is not possible to remove the fuel, maintaining a full tank of fuel with a fuel stabilizer added to provide fuel stability and corrosion protection is recommended.

Electrical System

NOTICE

Store the batteries in a cool, dry location. Keep the batteries in their plastic boxes. Periodically check the batteries during storage.

The battery should be removed from the boat. Remove the negative (-) cable first, then the positive (+) cable and the battery given a full charge. Clean the external surface of the battery and check all water levels before and after charging. Grease both terminals and bolts on the cable ends.

Drainage

It is important to raise the bow of the boat enough to allow for proper drainage of water from the deck and bilge area. Make sure all the drainage fittings are clear and free of debris. Store the engine in an upright position to promote adequate drainage of water.

Water System

If the water system will not be used for an extended amount of time it is recommended that it be drained. Draining the freshwater system will require you to energize the freshwater pump switch on the instrument panel, press the button on the shower head and empty the freshwater tank, disconnect the hoses to and from the water pump to allow as much water as possible to drain out. De-energize the fresh water pump switch.

Trailer Storage

If you will be storing the boat for an extended amount of time on its trailer, you will need to lift the trailer off of its wheels. Use care when raising the trailer. The surface should be level and conditioned to accept the weight of the boat and trailer and allow for adequate drainage. Covering the wheels will protect them from harmful UV rays. Repeatedly immersing the trailer in water during boat launching can cause a variety of problems. Water seeping into the wheel hubs will cause the grease to emulsify and can prematurely corrode the bearings. Check with the trailer manufacturer for scheduled maintenance of you trailer.

Canvas Care & Maintenance

NOTICE

NEVER trailer the boat with the sun-top in the open position. Damage to the frame, canvas and securing straps can occur. Use the protective boot when the sun-top is being trailered or stored.

NOTICE

Do not use detergents, bleach or solvents to clean the canvas material.

Chafing, fiber wear from dirt and grit and deterioration from ultraviolet light can cause your canvas to degrade over time. The effects of ultraviolet light can sometimes be reduced by chemical treatment of canvas items. Consult your Boston Whaler® dealer or check your canvas manufacturer's manual before using any chemical treatments on your canvas. To keep the canvas and metal parts in good working

condition and keep a good appearance, you will need to keep them clean. The fabric should be cleaned regularly before substances such as dirt, pollen, etc. are allowed to accumulate on and become embedded in the fabric. The canvas can be cleaned without being removed from the installation.

Simply brush off any loose dirt, pollen, etc. hose down and clean with a mild solution of a natural soap in lukewarm water (no more than 100° F / 38° C). Rinse thoroughly to remove soap. Allow the canvas to completely air-dry. After each use especially in salt water areas, rinse the canvas completely with fresh cold water. Let the canvas dry completely before stowing.

DO NOT fold or store any of the canvas pieces while wet. All canvas should be rolled or folded when dry and store in a clean, dry space.

Lubricate the snaps of the canvas with petroleum jelly, use a parafin wax on the zippers to keep them in proper working order. If you have stubborn cleaning cases call your Boston Whaler® dealer for proper cleaning procedures.

Section 5 • Care & Maintenance

Fill out the log below after scheduled service or maintenance is performed.

MAINTENANCE LOG			
DATE	ENGINE HOURS	SERVICED BY	MAINTENANCE PERFORMED

NOTES