# 160 Dauntless



# "The mission of Boston Whaler® is to provide consumers with the <u>safest, highest quality, most durable</u> boats in the world"

Rev E 10/11/05

#### History

In 1958, company founder Richard T. Fisher introduced the first Boston Whaler boat in Braintree, Massachussetts. 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 40 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.

## 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.



Boston Whaler founder Richard T. Fisher demonstrating one of the features that has made Boston Whaler the "Unsinkable Legend" in this 1961 LIFE Magazine Photo.

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

### 160 Dauntless - Owner's Manual Introduction

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 Owner's Manual 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.

. . . . . . . . . . . . . . Table of Contents Section 1-160 Dauntless Section 5-Bilge System Bilge Pump Introduction 1 16 Operation Table of Contents 1 16 Maintenance Construction Standards 2 16 2 Livewell, (optional) 16 Our Hull Servicing your Boston Whaler 2 Operation 16 Maintenance 16 Hull Identification Number 2 Section 6-Propulsion System Section 2-General Arrangements Propeller Information 17 & Specifications Propeller Assembly 17 Specifications & Dimensions 3 Gear Shift/Throttle Control 18 Standard Features 4 Power Trim Operation 18 **Optional Features** 5 Steering Information 19 Standard Seating 5 Operation/Maintenance 19 5 Optional Seating Steering Pull Canvas Arrangement 6 Section 7-Getting to know your Boston Whaler Through-Hull Fittings 6 Mooring Points Label Locations 7 Lifting 7 20 Deck Occupancy Hull Maintenance 21 8 Trolling Motor Hull Maintenance, (Blisters) 21 Section 3-Fuel System **Bottom Painting** 22. 9 Fuel System Painted Hull Care, (Bottom) 22 9 Fuel Fill Vinyl Cushion Care 22 9 Fuel System Diagram Long Term Storage 23 9 Fuel Vent Engine 23 Empty Tank 10 Fuel System 23 Hoses & Fittings 10 Electrical System 23 Tank Cleaning 10 Drainage 23 Static Electricity and the Fuel System 10 Canvas Care & Maintenance 23 Section 4-Electrical System Trailer (Optional) 24 Electrical System 11 **Section 8-Anchoring Information** 11 Battery Information **Anchoring Information** 25 Battery Maintenance 11 Lowering 25 **Battery Options** 11 Setting 25 Electrical Schematic 12 Weighing 25 Instrument Panels 13 Section 9-Maintenance Log & Notes Multi-System Tachometer Display 14 Multi-System Speedometer Display 14 Maintenance Log & Notes 26 Battery Switch, (optional) 15 Ignition Shutdown Switch 15 **Navigation Lighting** 15

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Operation

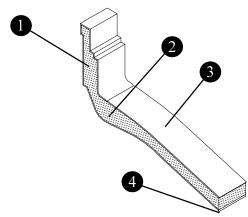
# 160 Dauntless - Owner's Manual Construction Standards

## "THE MISSION OF BOSTON WHALER IS TO PROVIDE CONSUMERS WITH THE <u>SAFEST, HIGHEST QUALITY, MOST DURABLE</u> BOATS IN THE WORLD".

We are dedicated to creating a superior product providing you with 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**

- No air voids
- 2 High density closed cell non-absorbent foam
- 3 High quality resins and gelcoats
- 4 Woven glass matting



Boston Whaler® hulls are constructed with our patented Unibond<sup>TM</sup> construction. This involves shooting high density foam into a closed mold system. The foam expands to fill voids in the hull, and when the finished product is pulled from the mold, the deck and the hull are chemically bonded to form a solid, inseparable unit.

## Servicing your Boston Whaler

When your 160 Dauntless needs to be serviced or regular maintenance is needed, 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

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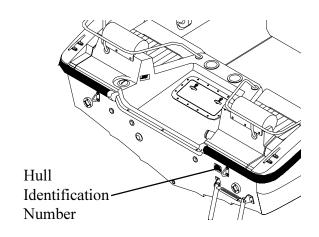
If a problem is not handled to your satisfaction:

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.

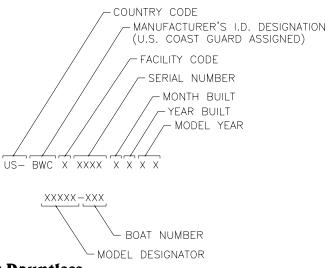
#### **Hull Identification Number**

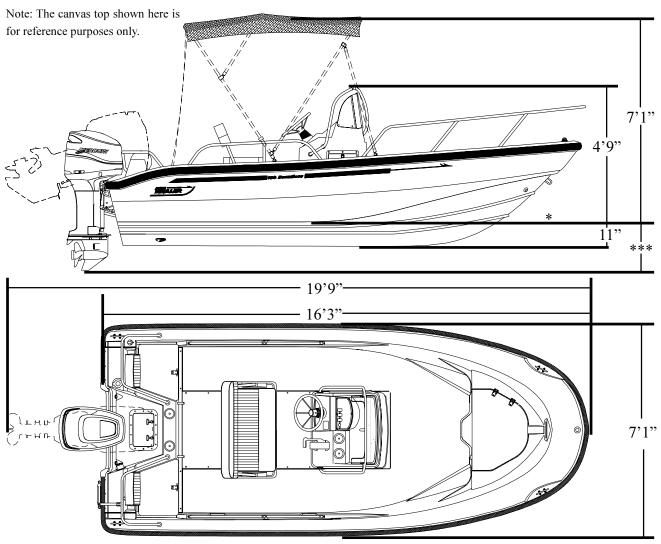
The "Hull Identification Number" is located on the starboard side of the transom wall.

This is the most important identifying factor and must be included in all correspondence related to your vessel. Failure to do so will only create delays. Also of vital importance are the engine serial numbers and part numbers when writing about or ordering parts for your engine.



Typical H.I.N. Description





## **Specifications & Dimensions**

Overall Length	16'3"	4.95	m		
Trailerable Length	19'9"	6.02	m		
Bridge Clearance	7' 1"	2.16	m		
Bridge Clearance (no top)4'9"		1.44	m		
Beam	7'1"	2.16	m		
Draft, (Hull Only)	11"	.27	m		
Weight (dry, no engine)	1500 lbs.	680	kg		
Swamped Capacity	4200 lbs	1905	kg		
Maximum Engine Weight	410 lbs	185	kg		
Maximum Weight, (passengers, engine-					
gear) **	1700 lbs	771	kg		
Persons	6				
Maximum Horsepower	115HP	85	kw		
Minimum Horsepower	50 HP	37	kw		
Fuel Capacity	45 gal.(U.S.)	170	L		
*	Waterline				
***	Engine Draft,(	See No	otice)		

## NOTICE

Specified measurements are approximations and are subject to variance.

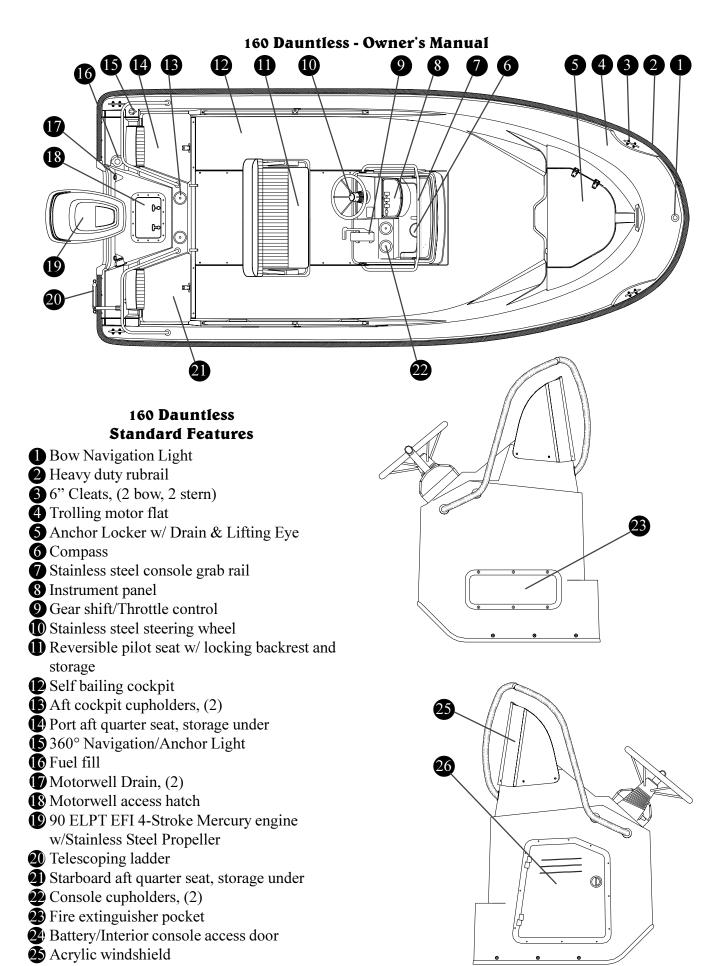
## NOTICE

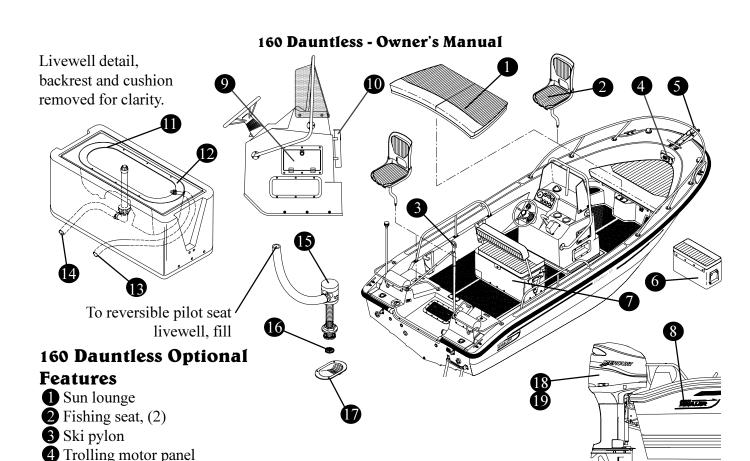
Exceeding this weight will affect the boat's performance. DO NOT Exceed the weights listed on the capacity plate.

\*\*\*

## NOTICE

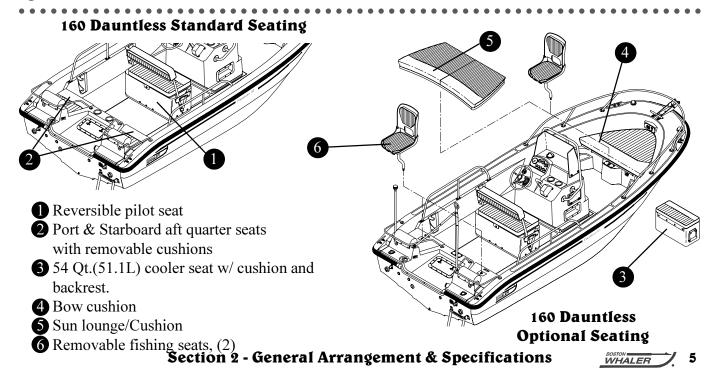
Optional equipment and loading of the boat will affect the draft measurements. Follow the recommendations listed on your capacity plate regarding the maximum amount of weight the boat can safely carry.

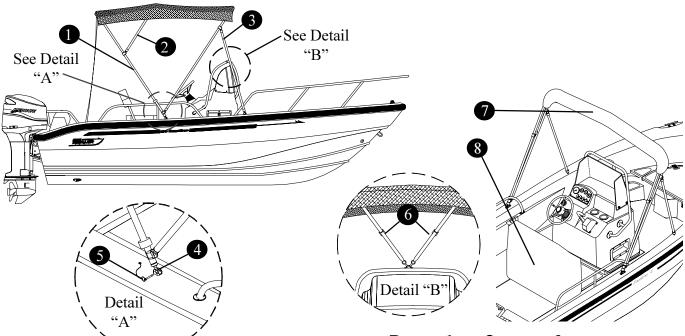




- **5** Anchor roller 6 54 Qt. (51.1L)cooler seat w/ cushion & backrest
- **7** Livewell in pilot seat, (see detail)
- **8** Red or Blue graphics
- Tackle box
- Console mounted rodholders, (4)
- **1** Livewell bucket
- **P** Splash guard
- B Livewell drain hose

- 4 Livewell fill from raw-water pump
- **15** 500 GPH raw-water pump
- 16 Pump filter
- Marelon strainer
- 18 115 ELPT EFI 4-Stroke Mercury Engine
- 115 ELPT OptiMax Mercury Engine





## 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 must be in place when underway.

## ! NOTICE

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

## ! NOTICE

An inspection of the through hull fittings is recommended. Through hull fittings should be checked for proper seal annually and repaired as required. 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.

## ! NOTICE

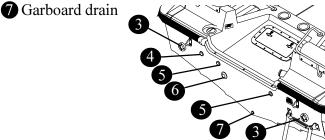
If the through hull fittings need to be replaced, it is recommended that an authorized Boston Whaler ® dealer perform this type of repair. Through hull fittings that are improperly installed can cause premature hull failure and may void the Boston Whaler® limited warranty.

## 160 Dauntless Canvas Arrangement

- 1 Stainless steel aft support pole
- 2 Stainless steel center support pole
- 3 Stainless steel forward support pole
- 4 Aft support base
- **5** Aft support base locking pin
- **6** Center support strap, adjustable
- 7 Canvas boot, (Blue or Black)
- **8** Reversible pilot seat cover, (Blue or Black)



- 1 Livewell pump inlet, (optional)
- 2 Anchor locker drain
- 3 Aft cockpit drain, Port & starboard
- 4 Bilge pump outlet
- Motorwell drain, (2)
- **6** Livewell drain, (optional)

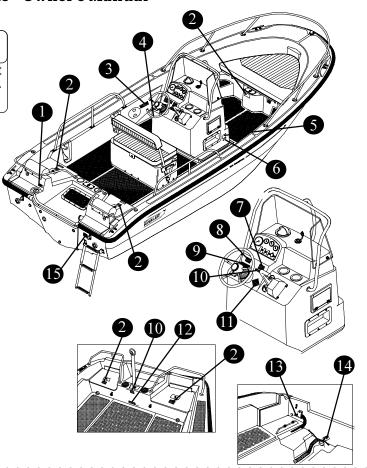


#### **Label Locations**

#### /!\ NOTICE

If your labels become worn or unreadable contact your nearest Boston Whaler® dealer for replacement labels. The part numbers are provided above.

- **1** Fuel hazard warning
- **2** Caution fishing ped seat position (Optional)
- 3 Vent hose do not drill
- 4 Prop 65 hang tag
- S NMMA Certification (CE-Int'l) (Canadian)
- **6** Maximum engine weight
- **7** Hi-Perf boat safety
- **8** Fuel gauge read warning
- 9 CO Warning, Helm
- 10 Ski pylon caution (Optional)
- Mercury Smartcraft Networked (Optional)
- **12** Fuel tank caution
- (B) Terminal block warning
- 14 Do not pull rigging tag
- CO Danger, Transom



#### 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.

#### 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.

## DANGER

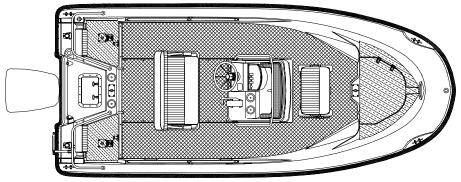
Be aware of your footing while the boat is underway, slipping or falling could result in serious injury or death, especially if the boat is in motion or in rough water. Keep the accommodation deck clean, so if movement is neccessary it will be free of obstruction.

## **WARNING**

Gelcoat surfaces are slippery when wet. Use extreme caution when walking on wet surfaces. Use care when waxing to ensure that walkways are not made dangerously slippery.

#### WARNING

Never occupy the working decks while the boat is underway. ONLY sit in areas that are designated for sitting. NEVER sit on the gunwales (vertical sidewalls), while the boat is moving.



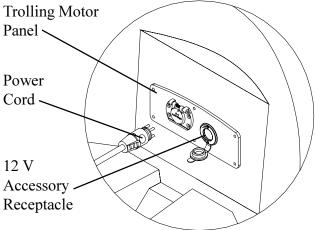
Section 2 - General Arrangement & Specifications

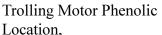
## Trolling Motor

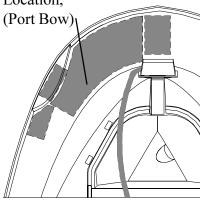
The 160 Dauntless can be equipped with an optional trolling motor panel and wiring. This option is part of the fishing package. It consists of:

- Trolling Motor Panel
- Spare Battery Box, (located in the console).
- Reinforced Deck, (port side of the 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-





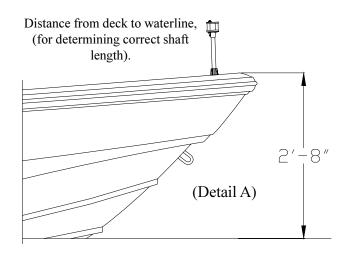


**NOTICE: Refer to the Troll-**ING MOTOR OWNER'S MANUAL for the correct size and type of battery.

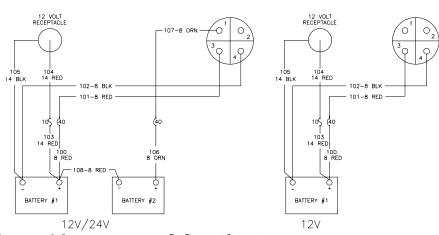
been reinforced with Phenolic to allow for securing the trolling motor base. The phenolic material can be drilled and tapped to hold machine screws. When looking for a trolling motor you will need to know the distance from the top of the deck to the waterline, (see Detail A). There is a spare battery box that has been secured in the console interior and can be accessed through the door on the port side. The wiring from the panel to the battery has been routed already, (final connections can be made by a qualified marine electrician or your Boston Whaler® dealer).

## **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 adversly affect your trolling motors performance. Always use the correct circuit protection and wire gauge when installing an upgraded trolling motor wiring system.



**Trolling Motor Electrical Diagram** 



Section 2 - General Arrangement & Specifications

## **Fuel System**

## **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 gasolines can damage your engine seriously. Engine damage resulting from use of improper gasoline is considered misuse of engine and will void the warranty.

Follow engine manufacturer's reccomendations regarding the types of fuel and oil to use.

## **!** CAUTION

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

### ! CAUTION

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



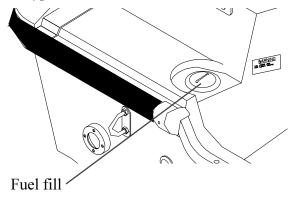
The 160 Dauntless is equipped with a gasoline fuel system. Please take time to read and understand all the fuel related information and warnings in the engine owner's packet. The diagrams

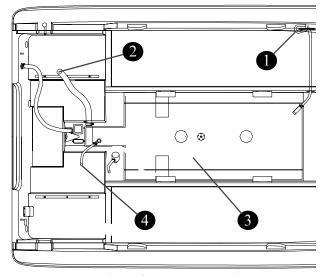
below show the location of the fuel fill, routing of fuel supply hose and the location of the fuel tank vent.

#### Fuel Fill

The 160 Dauntless fuel fill is located in the port side of the motorwell, it is marked "GAS", and is opened by a special key that is included in the owner's manual packet.

Follow the engine manufacturer's recommendation for the types of fuel and oil to use.



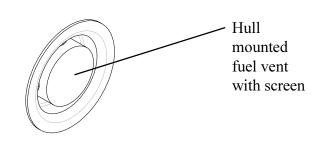


### 160 Dauntless fuel system diagram

- **1** 5/8" fuel vent
- **2** 1-1/2" fuel fill
- **3** 45 Gal.(170 L) polyethylene fuel tank.
- 4 Fuel supply line to engine.

#### **Fuel Vent**

The fuel tank has a fuel tank vent located amidship, 7-9" inches below the rub rail. The fuel tank vent serves as a pressure/vacuum release, safety overflow and flame arrestor. Access to the vent fittings is through twist-out plate located inside the cockpit opposite the fuel tank vent. Check the vent assembly regularily as part of a maintenance schedule for continued safe operation of your boats fuel system. The Vent assembly consists of a backshell, starwasher,nut and hose clamp. Remove the hose clamp, nut, starwasher and backshell and push the fuel vent fitting out. The fuel vent has four screens that are held in by a ring. Use a small pick to dislodge the ring to remove the screens and clean as required.



#### **EMPTY TANK:**

A fuel tank with levels less than 1/4 full can cause problems by stalling an engine due to fuel starvation or by allowing sediment and dirt to enter the fuel supply lines. Keeping the tank filled will reduce the chance of this occurance; since the residue will most likely settle to the bottom of the tank. Monitor the fuel level often to prevent this from happening.

#### **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(s). 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 frequently changing fuel filter/water seperators and notice a loss in power, consult a professional tank cleaning contractor regarding this procedure and proper disposal of residue and water.

## Static Electricity and the Fuel System

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(s), motors and fans prior to taking on fuel. Any ignition sources should be extinguished before filling the fuel tank(s).
- 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(s).
- Wipe any spillage completely and dispose of rags or waste on shore.
- Secure the fill cap tightly.
  - •Fuel tanks should never be filled to capacity. allow 2% for expansion.
- Portable tanks should only be filled while on the ground; never on-board the boat.

## **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.

### **CAUTION**

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.

### **CAUTION**

If equipped with a battery switch, you will need to stop the engine before moving the switch to the "OFF" position.

## NOTICE

Always store the battery in the the battery box. Use the straps and clamp to keep the box secure while underway.

## **Battery Information**

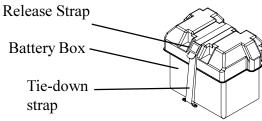


Your 160 Dauntless is equipped with an electrical system that provides power for the following:

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

The battery box is located under the aft starboard quarter seat. Your battery should always be enclosed in the covered battery box provided with your boat. The box will contain any spilled acid, as well as protect the battery terminals from damage or inadvertant

shorting from coming in contact with metal objects. The battery box should always be secured in place by using the straps and clamps provided, the straps will ensure that while underway the battery will not move around, causing damage to components stored in the same area.



### **Battery Maintenance**

The most life shortening experience for the battery is to 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.
- 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 Options**

The 160 Dauntless can be equipped with the wiring and connections for one (1) optional battery, with the power being routed to the trolling motor panel located in the bow of the boat, just forward of the anchor locker. The spare battery will be located inside the console. Check with the trolling motor manufacturer's recommendation on breaker size, If a larger breaker is needed, the wire size should accommodate such a change.

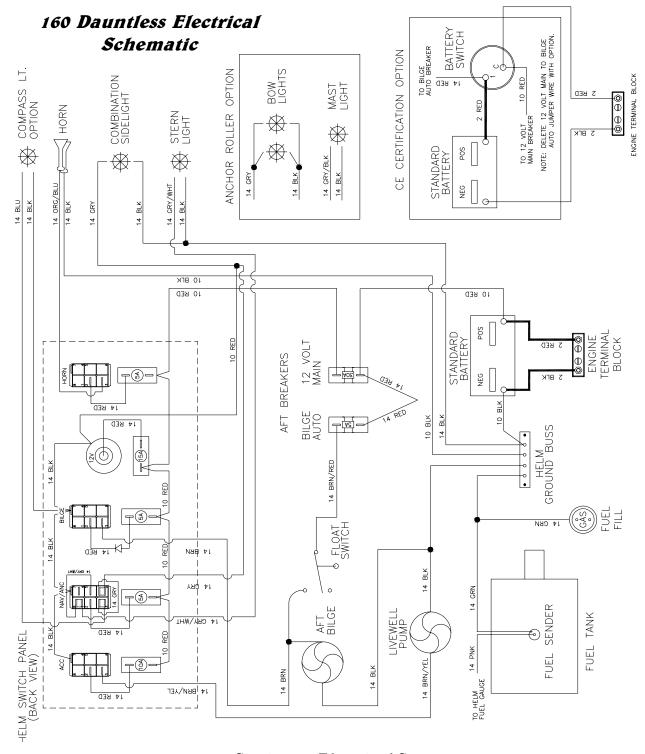
Please have an authorized Boston Whaler  ${\bf @}$  dealer install the trolling motor to ensure safety and reliability.

## **Electrical System**



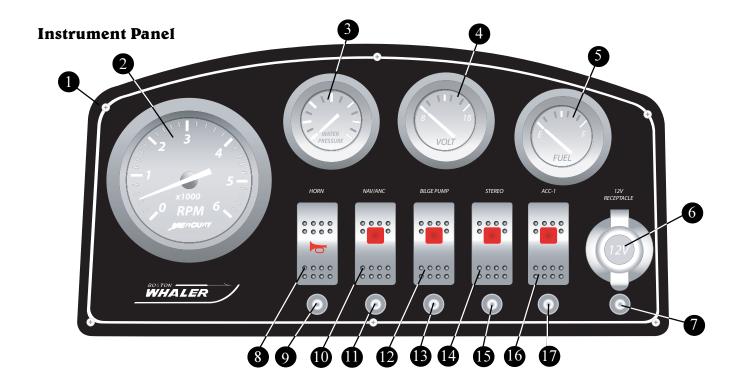
This owner's manual contains schematics for your boat. These electrical schematics were generated by technicians in our Engineering Department and are for reference and to be used by service technicians.Boston Whaler® does not recommend that you attempt to work on the electrical system yourself, instead we suggest that you take it 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 consumer and is not obligated to make any updates to units built prior to the changes. This schematic is to be used for reference only. If you should need to have your electrical system serviced, please take it to an authorized Boston Whaler® dealer.



Section 4 - Electrical System

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#### **160 Dauntless Instrument Panels**

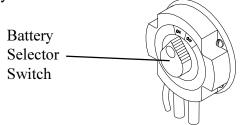
- Instrument panel, Analog
- **2** Tachometer, Analog
- **3** Water Pressure Gauge, Analog
- 4 Voltmeter, Analog
- **5** Fuel Gauge, Analog
- **6** 12 Volt Receptacle Plug
- 7 12 Volt Receptacle Plug, 10 Amp Breaker
- 8 Horn
- **9** Horn Switch, 5 Amp Breaker

- Nav/Anc Switch
- Nav/Anc Switch, 5 Amp Breaker
- Bilge Pump Switch
- Bilge Pump Switch, 5 Amp Breaker
- (2) Stereo Switch
- Stereo Switch, 15Amp Breaker
- 16 Accessory 1 Switch
- Accessory 1 Switch, 10 Amp Breaker

### **Battery Switch (optional)**

The 160 Dauntless has the option of using a battery switch. The switch; located aft starboard under the sterndeck hatch opposite the livewell, allows you to control the delivery of DC power from the battery(ies) to the engine as well as allowing the alternator to charge the battery(ies). Your battery selector switch has two settings, "ON" and "OFF", "ON" gives you power from the number one (1) battery only. Remember to turn the battery selector switch to "ON" before you attempt to start your engine.

Note: The auto bilge pump cannot be turned off with the battery selector switch

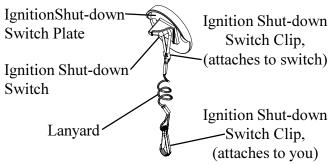


## Ignition Shutdown Switch

## **CAUTION**

Wear your lanyard at all times while operating the boat. It is for emergency stopping only. Do not use it to shut off the engine during normal operation. The lanyard should be long enough to prevent inadvertent activation.

The 160 Dauntless is equipped with an ignition shutdown safety switch. It is located starboard of the steering wheel, below the ignition switch. The ignition shut down safety switch incorporates a shut-off switch, switch clip, lanyard and lanyard clip, which is clipped to the operator. If an emergency arises where the engine must be shut down, a pull on the cord to release the clip from the shut-off will shut down the engine. This switch is designed to shut the engine off when the operator of the boat leaves the control station, either accidentally by falling into the boat, or by being ejected overboard. This would most likely occur as a result of poor operating practices.



## **Navigation Lighting**

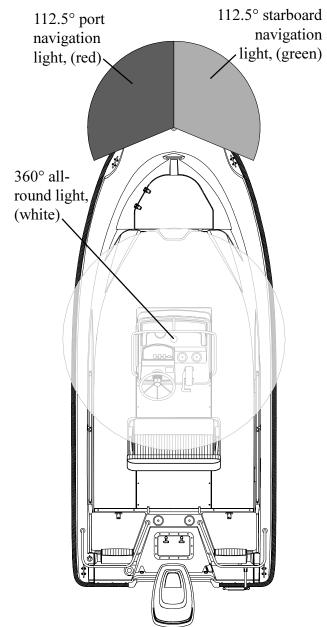
#### NOTICE

While underway the aft pole light may be obscured by the angle of the hull or by having the canvas top in the open position

Your 160 Dauntless comes equipped with navigation lighting for your safety. Regulations state that all boats no matter the size must display navigation lights.

#### **OPERATION:**

Control of the navigation lighting is a switch on the instrument panel that is marked "NAV/ANC". The switch has 3 positions to operate the Navigation/Anchor lighting.



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## Bilge Pump

#### **NOTICE**

The bilge pump is wired directly to the battery. Be sure that the bilge pump float switch is clear of debris to prevent continuous operation and subsequent discharge of the battery.



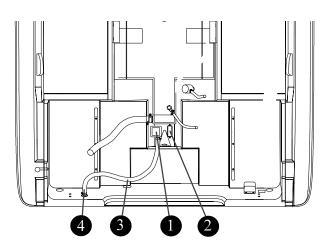
The 160 Dauntless is equipped with an 1100 GPH pump and is operated by a float switch that will activate automatically when water in the bilge reaches a certain level.

#### **OPERATION:**

There is a switch marked "BILGE PUMP" on the instrument panel. Depressing the switch will energize the pump regardless of the position of the float switch. The pump discharges water overboard via a thru-hull fitting.

#### MAINTENANCE:

The bilge pump is accessed through a utility hatch located in the transom motorwell. The bilge pump is a completely sealed unit and maintenance is very simple, but it will require you to check around the float switch for debris and gummy bilge oil that could impede the bilge pump from working properly. Check the bilge pump and hoses for wear; clean and repair if neccessary.



160 Dauntless Bilge Diagram

- 1100 GPH bilge pump
- 2 Float switch
- **3** Bilge pump hose
- 4 Bilge pump outlet

## Livewell (optional)

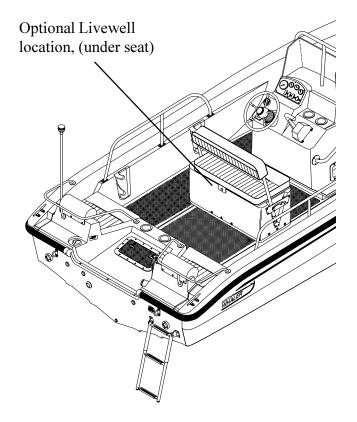
The 160 Dauntless can be equipped with a livewell that is located under Reversible pilot seat. The livewell's primary function is to keep baitfish alive by circulating fresh seawater into the tank.

#### **OPERATION:**

The livewell can be filled by pressing the switch marked "LIVEWELL" on the instrument panel. There is a tube in the livewell that will prevent the system from overflowing. Any excess water will be drained out through the transom.

#### MAINTENANCE:

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



## **Propeller Information**

## **DANGER**

Disconnect power by moving the battery switch to the "OFF" position prior to removing the 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 be easily replaced.

## NOTICE

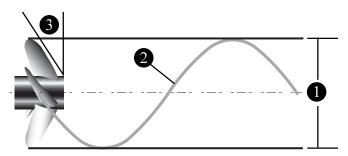
Under no circumstance use a propeller which allows the engine to operate at a higher than recommended RPM.



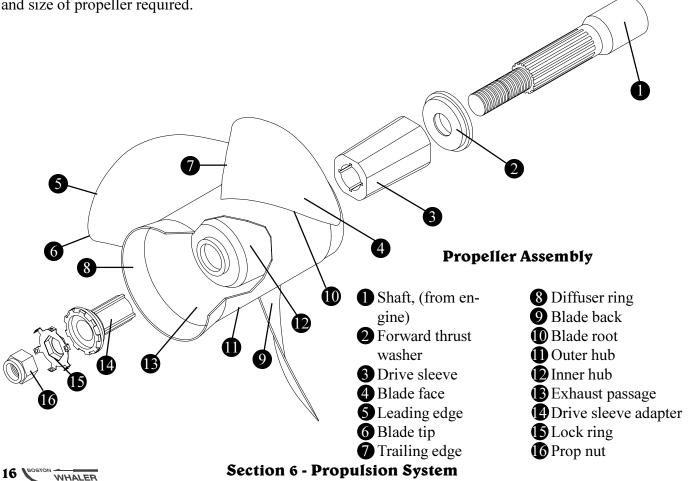
The engine on the 160 Dauntless has been equipped with a propeller; which our tests have shown to be best suited for general use under normal conditions and load. In some

situations you may wish to change the propellers to give your boat slightly different performance characteristics. Changing your boats running surface, such as the addition of bottom paint will affect the type and size of propeller required. 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, so the reverse thrust of the propeller will not be as efficient.



- 1 Propeller Diameter
- 2 1 Revolution, (Pitch)
- 3 Propeller Rake



#### **Gear Shift & Throttle Control**

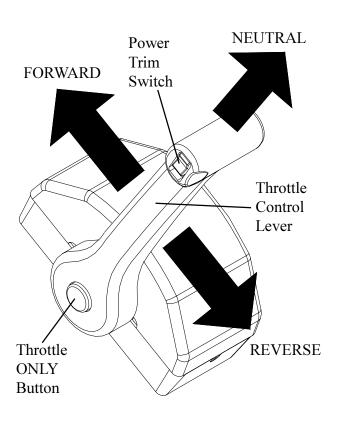
### **!** CAUTION

Shift only when engine is running. Pause in neutral while shifting, wait for boat to lose headway, and then shift quickly. Easing into gear can damage the engine.



The 160 Dauntless is equipped with a gear shift/throttle control unit mounted on the console directly starboard of the steering wheel. The gear shift/throttle control unit for the en-

gine activates both shifting mechanism and throttle. The control must be in the "NEUTRAL" position to start your engine. Neutral is the most upright position of the control unit and acts as an idle, the propeller is not rotating. There is a "throttle only" button at the center of the throttle control that when depressed will disengage the shifting mechanism and will allow you to operate the throttle without engaging the propeller. This button will automatically engage the shifting mechanism once the throttle control has been moved back to its center position (you will hear and feel a click when it is engaged). Moving the lever forward engages the forward gear and then the throttle advance.

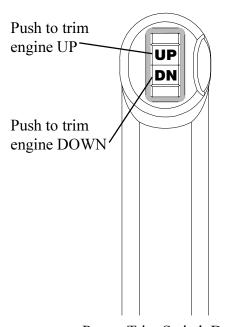


To reverse power, bring the control lever back to engage the reverse gear and increase the reverse thrust. The throttle control regulates the RPM of the engine. Regulating the RPM of the engine will control the speed of the boat. Pulling back on the gear shift/throttle control while moving at a high speed will cause a sudden slowing of the boat and will create a following wake which may rise above the transom and flood the boat. Understanding your boat and its reactions at speed will make boating for you safer and more enjoyable.

## **Power Trim Operation**

The power trim & tilt system allows you to raise and lower the engine outdrive for trailering, launching and beaching. This also allows for ideal boat angle (in relation to the water surface) for a given load and water condition. In most cases, best all-round performance is obtained with the engine adjusted so that the boat will run at a 3° to 5° angle to the water. The power trim is located on the inboard side of the gear shift/throttle lever handle.

NOTE: Boats can be operated in a manner and at certain speeds resulting in trim angles that could cause visibility to be obscured. Motor trim, hull trim plane angles (if equipped), boat load distribution and speed are factors that affect a boat's trim angle.



Power Trim Switch Detail

## **Steering Information**

## **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 without warning.



Your 160 Dauntless is equipped with a teleflex no-feedback steering system. The Teleflex no-feedback steering system has a clutch mechanism which prevents the engine torque

from being felt at the steering wheel. This reduces driver fatigue by eliminating the constant need to fight the wheel.

## Operation:

Steering the boat is based on applying thrust to the engine and turning the steering wheel. Because the engine is mounted at the stern of the boat, the turn will generate from there; whereas a cars turn is based around the front wheels. It is important to understand that thrust is required to make a turn. If engine maintenance neglected; it could stall at a critical time and cause injury and damage to your passengers and your boat.

### Maintenance:

The mechanical steering system should be checked periodically by your Boston Whaler® dealer for proper lubrication, alignment and to make sure there is no looseness or binding of the cable. Proper maintenance of this system will ensure worry-free usage for the life of your boat.

No-feedback steering system maintenance 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.
- Check all moving parts to be sure they are free of salt build-up and other foreign material. Such build-up will affect their operation.
- 1 No Feed Back (NFB) Steering Base
- 2 NFB Steering Cable
- 3 NFB Steering Link Rod
- 4 NFB Engine Cylinder

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**5** Steering Wheel Tilt Lever

## Steering Pull

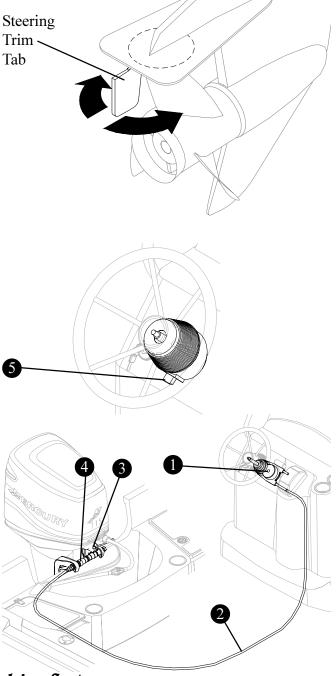
Steering pull is unnecessary and unsafe! Steering trim tabs provided on most engines are frequently improperly adjusted, (they work opposite to normal expectation).

To set steering trim tab for neutral steering:

There is a bolt on the underside center of the tab; loosen the bolt prior to adjustment.

If boat veers to the right, (hands off), move the aft end of the tab to the right.

If boat veers to the left, (hands off), move the aft end of the tab to the left.



## **Mooring Points**

## **DANGER**

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

### **WARNING**

Gelcoat surfaces are slippery when wet. Use extreme caution when walking on wet surfaces. Use care when waxing to ensure that walkways are not made dangerously slippery.



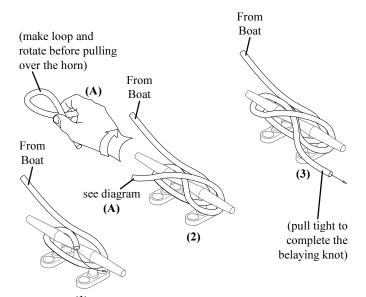
The cleat is used to secure the boat to the dock. The 160 Dauntless has two 6 inch cleats on the bow and 2 located on the aft port and starboard gunwales. There are stern eyes at the

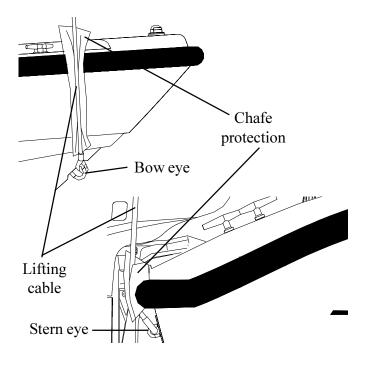
transom. While loading/unloading or mooring, please learn the proper way to secure the boat and how best to use the mooring points of your boat. The bow eye is used to haul and hold your boat onto a trailer. The stern eyes should be used as tie down points while trailering the boat.

The bow and stern eyes can be used for short term lifting such as for service. Long term lifting with the bow and stern eyes can cause stress on the fiberglass and gel coat and is not recommended.

Below is a simple diagram that shows a belaying knot; commonly used to secure a boat to a dock. This knot is will hold fast and is simple to release

This knot is will hold fast and is simple to release when needed





#### Lifting

Whether you are lifting your boat out of the water for routine maintenance or long term storage, there are some points to consider.

- 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.

#### **Hull Maintenance**

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 neccessary 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. When washing your windshield never use abrasive powders, gritty cloths or steel wool. Always use a damp cloth or a chamois when drying. 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. 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 cleaned easily with a good grade marine polish using a sponge, cloth or small bristled brush (for nooks and crannies).

Hull Maintenance, (Blisters)

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; 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 occurance). 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. 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-silecone 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 liklihood 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, light sanding with 80 grit paper is recommended. Proper ventilation and capture of the dust created by sanding is essential. The dust created is toxic and should not be breathed. A proper fitting respirator must be used. DO NOT use a paper filter mask. 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.

## Painted Hull Care (Bottom)

The painted hull bottom will need to be inspected annually. Any growth will affect the boats 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 that 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 boats hull.

## Vinyl Cushion Care

Your cushions on the 160 Dauntless 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; that if followed 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.

Notice: As the level of stain is increased; the liklihood 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.

## Long Term Storage

## ! 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.

## 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.

## /!\ NOTICE

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

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.

It is important that you follow all the recommendations

#### Canvas Care & Maintenance

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

#### **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.

#### FUEL SYSTEM:

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

If the fuel system will not be used for a long period of time it is recommended that the fuel tanks be removed from the boat and stored in a dry, cool area. 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 maintenence of you trailer.

#### **ELECTRICAL SYSTEM:**

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.

#### /!\ 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.

Chafing, fiber wear from dirt and grit and deterioration from ultraviolet light can cause your canvas sun top and covers 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 with your owner'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 fabric can be cleaned without removing the framework.

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. All metal components of the canvas frame should be rinsed with fresh cold water and exposed components wiped dry to maintain appearance and working order.

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.

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

## **Trailer (Optional)**

## **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

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

Your 160 Dauntless has the option of being fitted with a galvanized trailer. This trailer is best suited for your boats length and width. If you have a trailer or plan on purchasing a trailer separately; there are some points you need to consider. 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.

### **Bunk Trailer Terminology**

- 1 Tongue/Ball Hitch Reciever
- 2 Trailer light connection, (4-pin)
- **3** Safety Chains
- 4 Tongue Jack5 Winch Stand
- 6 Winch Assembly
- Winch Hook/Strap
- **8** Winch Safety Chain
- Step
- Sidelight
- **1** Frame
- **1** Crossmember
- **B** Fender w/ Steps
- **4** Keel Roller
- **S**Axle
- **16** Keel Protector
- Tire
- **18** Tail Light
- Bunk Assembly
- 20 Tie-Down Eye

## Trailer Safety:

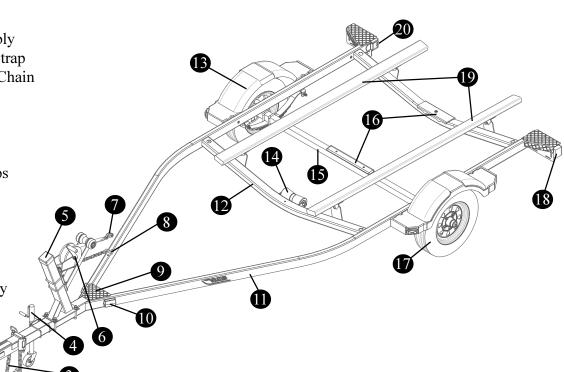
There are features that will keep your trailer secured to the tow vehicle: The safety chain attaches to the bow eye and will keep the boat from sliding off the trailer in the event that the winch strap or cable breaks, hook this up first.

# Refer to the engine owner's manual for proper engine support while trailering.

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 to the lifting eyes on the transom. Padding (or similar) chafe protection should be used where the tie-down strap come in contact with the hull. A properly matched trailer hitch ball and coupler is important. NEVER USE A HITCH BALL AND COUPLER THAT ARE NOT MATCHED.

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

## DO NOT SECURE THE CHAINS TO THE BUMPER



Section 7 - Getting to know your Boston Whaler

## **Anchoring Information**

#### **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.

## NOTICE !

There are a variety of anchors with a variety of uses. Discuss the types with your dealer to find the right type for your boat.



The 160 Dauntless is equipped with an anchor storage compartment located in the bow of the boat.

Note: before using the anchor be sure the anchor line's bitter end is secured

## to the eye in the bottom of the anchor locker.

Wind and sea conditions can affect the boat. The boat is not moving through the water, and without headway there is no control. STAY ALERT! 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. 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.

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

Since you want to know how much rode to use when anchoring, use this common formula.

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

\*Scope factor may range from 5 to 10 or more. Any number less than 5 and the anchor breaks away too easily.

## Lowering the Anchor

Be sure that there is enough rope for the depth of water you will be anchoring in, and secure rode to both the anchor and the boat.

- Stop completely before lowering the anchor.
- Keep feet clear of coiled line as it pays out.
- Turn the anchor light on at night or during reduced visibility.

## Setting the Anchor

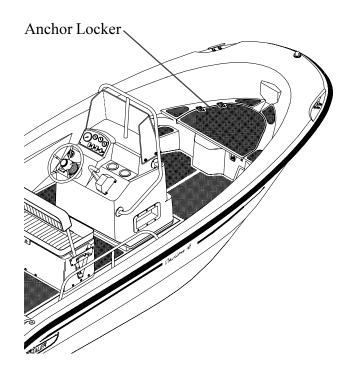
There is no best way to set an anchor. Experiment to see how it performs. One method is to turn the rode around a bitt or a cleat and slowly pay out as the boat backs from the anchor site. When the proper scope has been reached snub the rode quickly, causing the anchor to dig in to the sea bottom.

- 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.

## BE CAREFUL THAT THE TRAILING LINES DO NOT FOUL IN THE PROPELLER.



After the scheduled services are performed, fill out the areas below.				
Maintenance Record				
Date	Engine Hours	Serviced by	Maintenance Performed	
Notes				