



# Blackjack<sup>™</sup> 26 Super Sport Assembly Manual .18-Size Nitro-Powered Catamaran Boat



### **Specifications**

Total Length	
Beam	
Engine Pro Boat <sup>®</sup> .18 Marine w/	Tiger Drive and Tuned Exhaust
Radio System	Pro Boat AM 27MHz
Weight	6.3 lb (2.8 kg)
Fuel Tank Capacity	12 oz (0.35 l)

www.ProBoatModels.com

### Introduction

Congratulations on the purchase of your Pro Boat<sup>®</sup> Blackjack 26 SS Catamaran. You are just minutes from one of the most thrilling experiences that the radio control hobby has to offer.

The Pro Boat Blackjack 26 SS is a professionally built, ready-to-run Catamaran fiberglass composite model. Powered by the potent Pro Boat .18 marine engine, you will be able to race across the water at speeds in excess of 30 mph!

Read this owner's manual thoroughly. You also need to read the included Pro Boat .18 engine manual, along with the Pro Boat radio system manual.

It is very important that you operate this boat responsibly. With proper care and maintenance, you will be able to enjoy your Blackjack 26 SS for many years to come.

Carefully unpack your Blackjack 26 SS and examine the boat and its contents. The box should contain the Blackjack 26 SS RTR with radio installed, a boat stand and the Pro Boat radio transmitter. If you are missing any of these items or notice any damage, immediately contact the place of purchase.

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It is important that you read and follow this instruction manual, along with the radio system manual and the engine manual, before you run this exciting boat. Failure to read and understand the manual could result in personal injury, property damage or permanent damage to your boat. It is also important to run your boat responsibly. With proper care and maintenance, you will be able to proudly enjoy your Blackjack 26 SS for many years to come.

This boat has been designed to race in an oval path, just like its full-scale counterpart. At high speeds do not attempt turns to the left, as the boat may become unstable. If you have to turn left, do so in a large diameter turn and at slow speeds.

### Instructions for Disposal of WEEE by Users in the European Union



This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collections point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that (E) it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.

### **Limited Warranty Period**

Exclusive Warranty-Horizon Hobby, Inc., (Horizon warranties that the Products purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

### **General Guidelines**

When operating the boat, stay clear of people, full-scale boats, stationary objects and wildlife. It is preferable to operate the Blackjack 26 SS in low wake, low wind conditions and in areas free of people, wildlife and objects.

Before you operate your model, make sure that your frequency is clear. If someone is operating on the same frequency, both models could go out of control, possibly causing damage to the models or to others. Check all of the hardware, manifold, pipe and propeller for security before and after each run.

If at any time while operating your model you sense any abnormal function, end your operation immediately. Do not operate your boat again until you are certain the problem has been corrected. Always stay clear of the propeller.

### **Limited Warranty and Limits of Liability**

### Limited Warranty

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims. Further, Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

(c) Purchaser Remedy- Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect, these are the Purchaser's exclusive remedies. Horizon reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Horizon. Return of any goods by Purchaser must be approved in writing by Horizon before shipment.

### Damage Limits:

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.

If you as the Purchaser or user are not prepared to accept the liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase.

Law: These Terms are governed by Illinois law (without regard to conflict of law principals).

#### **Safety Precautions:**

This is a sophisticated hobby Product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the Product or other property. This Product is not intended for use by children without direct adult supervision. The Product manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or injury.

#### **Questions, Assistance, and Repairs:**

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to productsupport@horizonhobby.com, or call 877.504.0233 toll free to speak to a service technician.

### Limited Warranty and Limits of Liability (continued)

#### **Inspection or Repairs**

If this Product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. A Service Repair Request is available at www.horizonhobby.com on the "Support" tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

### Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

#### **Non-Warranty Repairs**

Should your repair not be covered by warranty the repair will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Please advise us of your preferred method of payment. Horizon accepts money orders and cashiers checks, as well as Visa,

D	MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly. Please note: non-warranty repair is only available on electronics and model engines.	
	United States	
	Electronics and engines requiring inspection or repair should be shipped to the following address:	
	Horizon Service Center 4105 Fieldstone Road Champaign, Illinois 61822	
	All other Products requiring warranty inspection or repair should be shipped to the following address:	
	Horizon Product Support 4105 Fieldstone Road Champaign, Illinois 61822	
	Please call 877-504-0233 or e-mail us at productsupport@horizonhobby.com with any questions or concerns regarding this product or warranty.	
	United Kingdom	
	Electronics and engines requiring inspection or repair should be shipped to the following address:	
	Horizon Hobby UK Units I-4 Ployters Rd Staple Tye Southern Way Harlow Essex CM18 7NS United Kingdom	
u	Please call +44 (0) 1279 641 097 or email sales@ horizonhobby.co.uk with any questions or concerns regarding this product or warranty.	
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### Limited Warranty and Limits of Liability (continued)

#### Germany

Electronics and engines requiring inspection or repair should be shipped to the following address:

> Horizon Technischer Service Otto Hahn Str. 9a 25337 Elmshorn Germany

Please call +49 4121 46199 66 or service@horizonhobby.de with any questions or concerns regarding this product or warranty.

### **Additional Required Items**

Although the Blackjack 26 SS comes fully assembled and ready for action, you will need a few tools to get your boat ready to run. You will need the following:

Blue Thunder<sup>™</sup> 20% Fuel (quart) (DYN2320) 500cc Fuel Bottle (DYN2003) or Fast Tap<sup>™</sup> Quart Bottle Spout (DYN2009) Glow Plug Wrench (DYN2510)

Ni-Cd Glow Driver (DYN1925)

12 AA alkaline batteries (8 for the transmitter and 4 for the receiver)

7.2V Battery (DYN1000) for electric starter Battery Charger (DYN4051) for electric starter

### **Suggested Field Equipment and Supplies**

In addition to the items needed to run the Blackjack 26 SS, we recommend that you carry the following in your field box:

Engine Tuning Screwdriver (DYN2775) Replacement Glow Plugs (DYN2508 or DYN2500) Hex driver/Allen wrench (2.5mm) Cable grease to lubricate drive shaft (PRB0100)

Clean towels AA alkaline batteries Adjustable wrench (small) Extra propellers



### **Section 1: Building the Boat Stand**

- **O** I. There are 4 plywood pieces. The 2 short plywood pieces are the ends of the boat stand.
- O 2. Attach the 2 long plywood pieces of the interlocking boat stand to the end of one of the short plywood pieces. Repeat with the remaining short plywood piece.
- **O** 3. Secure the interlocking boat stand with thick CA or epoxy.

### Contents

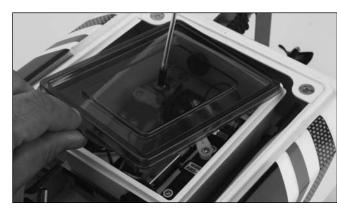


### **Section 2: Installation of Receiver and Transmitter Batteries**

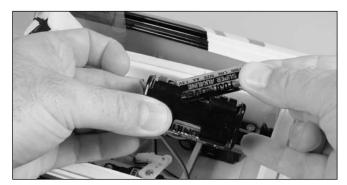
#### **Receiver Batteries**



**O** I. Lift the cockpit off the boat from the rear.



O 2. Remove the clear lid on the radio box.



- 3. Remove the dry cell battery holder from the radio box and unwrap the foam from around the dry cell battery holder. Install 4 AA alkaline batteries as shown. Note the proper polarity. Wrap the battery box in foam.
- O 4. Re-install the battery holder into the radio

box and secure the radio box. Be sure the antenna wire is extended through the antenna tube.

#### **Transmitter Batteries**

- **O** I. Remove the transmitter from the box.
- O 2. Remove the battery cover on the bottom of the transmitter.



O 3. Note the proper polarity and insert 8 AA batteries into the transmitter.



- **O** 3. Secure the batteries using the battery cover.
- 4. Turn on the radio and confirm that all LEDs illuminate, indicating proper installation of fully charged batteries.
- O 5. Turn the radio off.

### Section 3: Range Checking the Pro Boat Radio System

Before the first run of the Blackjack 26 SS, you should check the radio for proper operation and to ensure proper control movement of the rudder and throttle. Also ensure that the antenna on the boat is extended properly and that all batteries are in working condition.

- O I. With the radio system turned on (transmitter and receiver) and the transmitter antenna down (engine off), walk off 40 to 50 paces from the Blackjack 26 SS.
- 2. Have an assistant remain with the boat to check for proper control movement of the rudder from your transmitter input.

### **Section 4: Filling the Fuel Tank**

We recommend that you use Blue Thunder 20% fuel. For maximum performance, we recommend Blue Thunder Race Formula. Blue Thunder fuels are specifically formulated for excellent power and engine protection.

Locate the fuel tank inside the cockpit area and unscrew the lid. Use either the DYN2009 Fast Tap quart bottle spout that has been attached to the

	${f O}$ 3. If everything appears to be operating
С	correctly, raise the antenna and start the engine
d	(refer to Section 8 of this manual and to the
	separate Pro Boat .18 engine manual). Place
	the boat in the water and run it (at about $1/3$
er	throttle) close to the shoreline. If the radio
	system is operating properly, you can begin to
n n	run the boat faster and farther away from the
1	shoreline.
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**Note**: It is a good idea to range check prior to operating your boat after any repair, installation of new batteries, or at the beginning of each boating season.

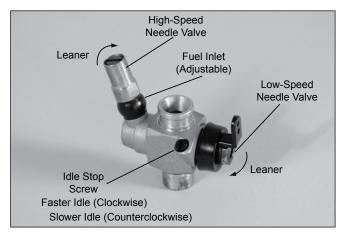
quart of fuel or the DYN2003 Fuel Bottle to fill the fuel tank with your selection of Blue Thunder fuel. After you have filled the fuel tank and re-installed the lid, wipe away any excess fuel that may have spilled inside the hull or elsewhere on the boat. Immediately seal the fuel container by putting the lid back on after refueling in order to protect the fuel from moisture.

### Section 5: The Pro Boat .18 Marine Engine

#### Water-Cooled Engine

Because the Pro Boat .18 engine is water-cooled and not air-cooled, make sure that you do not run the engine for an extended amount of time outside of the water. Continuously monitor the water outlet when the boat is running in the lake to make sure that water is flowing through the engine head. If the water does not reach the head to cool it, the engine will overheat and fail. This will cause permanent damage to the engine.

#### Carburetor



The carburetor is adjusted at the factory. This setting should be approximately  $1\frac{3}{4}-2\frac{1}{2}$  turns open for the high-speed and  $2\frac{1}{2}$  turns open for the low-speed needle. This should give you a slightly "rich" mixture of fuel to the engine. This setting is the safest way to break in your engine. For further details regarding the carburetor, see the engine instruction manual.

### **Section 6: Starting the Engine**

#### Hand-Held Starter



• I. Fully charge a 7.2V sub-C battery pack and install it in the starter as shown.



 2. Slide the starting wand (which is stored inside the battery cover) into the end of the starter, then replace the battery cover.

#### Operation



Attach a fully charged glow driver to the glow plug.

Turn on the radio system and insert the starting wand into the Tiger Drive; actuate the starting switch until the engine begins to run.

> **Note**: Stop operation immediately if the engine enters a hydro-locked condition as serious engine damage may occur if operation is continued. Remove the glow plug, invert the boat and operate the starter to remove raw fuel before resuming normal operation.

You may have to "blip" the throttle on the transmitter (applying throttle on/off) while trying to start the engine. New engines are harder to start because of the tight piston/sleeve fit. Never start an engine at 1/2 to full throttle, as this will cause over-revving which may cause premature wear and breakage.

During the first tank of fuel, advance the idle via the idle adjustment screw more than normal to prevent stalling at idle due to the rich fuel mixture for break-in. Pinch the fuel line nearest the carburetor to stop the engine.

### **Section 6: Starting the Engine (continued)**

#### **Breaking in Your Engine**

The first start-up of the engine is the most critical moment of the engine's life, dictating how the engine will perform from that time forward. Turn on your radio system and attach a fully charged glow igniter (DYN1925) to the glow plug. Start the engine with the electric starter as described in Section 8.

During break-in, the low-speed needle should be slightly rich and the high-speed needle should be very rich. After a few tanks of fuel, begin to lean the engine out. It generally takes about five to six tanks of fuel before you want to lean out the engine until it supplies good power. Do not skip this process of break-in. Failure to follow this procedure could damage your new engine. For further details on breaking in your engine, please see the separate Pro Boat .18 instruction manual.

> **Note**: It is common for an ABC engine to require a replacement glow plug or two during break-in.

#### **Needle Settings**

When adjusting the settings, always adjust the needles in small increments, about 1/16 of a full turn at a time. Do not set the engine too lean, as it shortens the reliability of the engine.

The low speed needle effects the transition from idle to full speed. Lean out the low end until only a slight hesitation is noticed when transitioning to full power.

After you have attained the correct high-speed needle settings, the engine will have a strong sounding, high-pitched whine at full speed, and a thin trail of blue/white smoke will come from the exhaust.

#### Idle Adjustment

The last item to adjust is the idle screw. To obtain a higher idle, turn the idle screw clockwise; for lower idle, turn the idle screw counterclockwise. You may also adjust the idle speed using the throttle trim on the transmitter.

#### **Replacement Parts**

In the event that you need to replace an engine part, there is a complete parts listing in the Pro Boat .18 instruction manual. Exploded views will help you to select the correct parts and make minor repairs.

#### Maintenance

Lube the gears inside the Tiger Drive with waterproof grease every 30 hours of use. Check all screws for tightness after each run.

The hull of the Blackjack 26 SS is finished using the highest quality paints and the most advanced painting methods available. The base coat/clear cote technique delivers an amazing shine that is as durable as it is beautiful. To keep your

### **Section 8: Handling Adjustments**

Operate your Blackjack 26 SS in low to medium wake conditions to avoid having problems with the boat overturning. If the conditions are questionable, adjust the prop strut down a bit to reduce the likelihood of having the boat overturn.

### **Section 7: Hull Care**

Blackjack 26 SS looking new, you should apply a wax coating to the top of the hull as used on automotive finishes to prevent oxidation and to further protect against damage caused by fuel and other harmful chemicals.



### **Section 9: Troubleshooting Guide**

Problem	Solution
Engine will not start	Engine is not primed: put a few drops of fuel into the carburetor venturi and restart
	Out of fuel: fill fuel tank
	Improper fuel: use 20% Blue Thunder
	Improper glow plug: install proper glow plug
	Glow igniter not charged: charge igniter
	Dead glow plug: replace
	Flooded engine: remove glow plug, invert boat and engage the Tiger Drive to remove raw fuel from the engine
Engine starts, then dies	Pressure line blocked or unhooked: connect or replace fuel line
	Reset needles to baseline setting: see Section 9
Engine starts and runs for several minutes, then dies	Bad glow plug: replace
	Idle speed set too low: see Section 9
	Improper needle settings: see Section 9
	Glow plug failed due to lean engine setting: richen carburetor settings and replace glow plug

### **Section 10: Maintenance**

The Pro Boat Blackjack 26 SS should provide many hours of exciting high-speed racing fun with just minor maintenance. Preventative maintenance is very important. Taking the time to ensure that all the setscrews and bolts are tight before each operation of the boat will prevent many problems.

### **Before operating Blackjack 26 SS**

Check that all screws and hardware are securely in place. This is very important, as the manifold screws will occasionally vibrate loose during the first initial runs.

Check the propeller for damage in the form of chipping or cracking. If you find any damage, replace the propeller, as the damage will effect the performance of the boat and could also cause safety concerns.

When refueling, always wipe away any excess fuel that may have spilled into or on the boat.

### After operating the Blackjack 26 SS

Wipe off any exhaust residue from the boat with glass cleaner and a soft towel. After cleaning, coat all metal parts with a silicone spray lubricant. This will help to prevent corrosion.

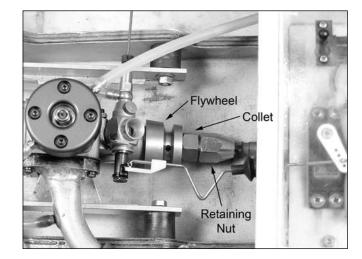
Ensure that the radio box and equipment inside is dry.

It is not recommended to operate the Blackjack 26 SS in saltwater.

### Lubrication

It is important to lubricate the flex shaft of the Blackjack 26 SS with waterproof cable grease (PRB0100) after every two hours of operation.

To lubricate the drive shaft, follow these simple instructions.



### **Section 10: Maintenance (continued)**



Loosen (do not remove) the retaining nut by holding the collet with a 10mm wrench and unscrew the retaining nut with another 10mm wrench or crescent wrench.

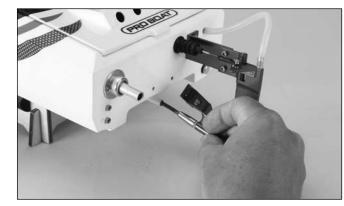
Carefully note how the drive shaft and prop are factory installed. This is important so that when you have finished lubricating the drive shaft, you can correctly re-install the drive shaft.



Remove the drive shaft by sliding it out of the stuffing box.

Wipe off all dirt or debris from the flexshaft and liberally lubricate the entire length of the drive shaft with silicone cable grease.

Carefully re-install the drive shaft, making certain that there is a 1-2mm gap between the prop strut and the drive dog to allow for flexshaft shrinkage under load.



Remove the hex screws holding the Prop. Strut in position. Remove the entire assembly with the flexshaft...

In the event that you need to purchase replacement parts for your engine or the Blackjack 26 SS, please see your local hobby store.

You can also purchase them from Horizon Hobby by calling 1-800-338-4639 or shop online @ www.horizonhobby.com

Part #
PRB0150
PRB2068
PRB2207
PRB2209
PRB2210
PRB2211
PRB2215
PRB2218
PRB2219
PRB2223
PRB2224
PRB2225
PRB2226
PRB2228
PRB2509
PRB2511
PRB2512
PRB2758
PRB2805
PRB2806
PRB2807
PRB2808
PRB2809
PRB2810
PRB2811
PRB2813
PRB2814
PRB2819
PRB2820
PRB2821
PRB2822 PRB2823
PRB2824
PRB2825
PRB3306
PRB3764
PRB8100
SUL689
JOE007

## Section 11: Blackjack 26 SS Replacement Parts

### ....Description

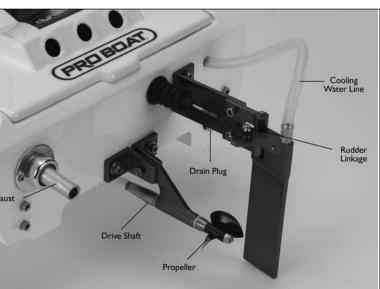
- .... Propeller
- .... Water Outlet
- . . . . . Fuel Tank
- .... Tuned Pipe
- .... Manifold Pressure Fitting
- .... Coupler Tubing
- .... Flywheel
- .... Prop Nut
- .... Nylon Washer
- ..... Push Rod Connector
- .... Silicone Tubing
- ..... Battery Box/Switch
- .... Antenna Tube
- ..... Rubber Boot
- .... Cable Collet
- .... Switch Mount
- ..... Motor Mounts with Hardware
- .... Exhaust Port
- .... Manifold
- .... Fuel Tank Strap
- .... Throttle Pushrod
- .... Rudder Pushrod
- .... Servo Tray
- .... Stuffing Box
- .... Stuffing Box Liner
- .... Propeller Shaft
- .... Hatch Screw Set
- .... Hull only
- .... Canopy
- . . . . . Decals
- .... Radio Box
- ..... Radio Box Cover
- .... Rudder and Strut Set (Red)
- ..... Prop Strut Set (Red)
- .... Boat Stand
- . . . . . Flexshaft
- ..... Marine Starting System .12-.18
- ..... Tiger Drive .12–.18

Section 12: Operating Note	S Section
	Fuel Tank Water Cooled Head Fuel Line Tiger Drive Glow Plug Coupler
	Transom and components.
	Cooling Water Line
	Cooling Water Outlet

## 13: Appendix



Engine compartment and components.





Engine water cooling lines.





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