

**PRO BOAT**

# **BLACK JACK**

**26**

## BlackJack 26 Assembly Manual .15-Size Nitro-Powered Catamaran Boat



### **Specifications**

Total length.....	26 in (660mm)
Beam .....	11.5 in (287mm)
Engine.....	DYN .15 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 liter)

# Introduction

Congratulations on the purchase of your Pro Boat™ Blackjack 26 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 is a professionally built, ready-to-run Catamaran fiberglass composite model. Powered by the potent Dynamite® .15 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 Dynamite .15 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 for many years to come.

Carefully unpack your Blackjack 26 and examine the boat and its contents. The box should contain the Blackjack 26 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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## General Guidelines

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 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.

When operating the boat, stay clear of people, full-scale boats, stationary objects and wildlife. It is preferable to operate the BlackJack 26 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 Period

Horizon Hobby, Inc. guarantees Pro Boat™ products to be free from defects in both material and workmanship at the date of purchase.

## Limited Warranty and Limits of Liability

Pursuant to this Limited Warranty, Horizon Hobby, Inc. will, at its option, (i) repair or (ii) replace, any product determined by Horizon Hobby, Inc. to be defective. **In the event of a defect, these are your exclusive remedies.**

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 an authorized Horizon Hobby, Inc. service center. This warranty is limited to the original purchaser and is not transferable. In no case shall Horizon Hobby's liability exceed the original cost of the purchased product and will not cover consequential, incidental or collateral damage. Horizon Hobby, Inc. 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 Hobby, Inc. Further, Horizon Hobby reserves the right to change or modify this warranty without notice.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. HORIZON HOBBY, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

**As Horizon Hobby, Inc. 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.**

### 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 Hobby, Inc. directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance.

## Limited Warranty and Limits of Liability (continued)

### Questions or Assistance

For questions or assistance, please direct your email to [productsupport@horizonhobby.com](mailto:productsupport@horizonhobby.com), or call 877.504.0233 toll free to speak to a service technician.

### Inspection or Repairs

If your 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 Hobby, Inc. is not responsible for merchandise until it arrives and is accepted at our facility. Include your complete name, address, phone number where you can be reached during business days, RMA number, and a brief summary of the problem. Be sure your name, address, and RMA number are clearly written on the shipping carton.

### Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Providing 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 and the expense exceeds 50% of the retail purchase cost, you will be provided with an estimate advising you of your options. You will be billed for any return freight for non-warranty repairs. Please advise us of your preferred method of payment. Horizon Hobby accepts money orders and cashiers checks, as well as Visa, 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.

**Electronics and engines requiring inspection or repair should be shipped to the following address (freight prepaid):**

**Horizon Service Center  
4105 Fieldstone Road  
Champaign, Illinois 61822**

**All other products requiring inspection or repair should be shipped to the following address (freight prepaid):**

**Horizon Product Support  
4105 Fieldstone Road  
Champaign, Illinois 61822**

## Additional Required Items

Although the BlackJack 26 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™ 20% Fuel (quart) (DYN2320)  
500cc Fuel Bottle (DYN2003) or  
Fast Tap™ 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, 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 (2.5 mm)  
Cable grease to lubricate drive shaft

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

## Contents

- Assembled BlackJack 26 Nitro RTR
- Pro Boat™ radio transmitter
- Boat stand
- Electric engine starter



## Section 1: Building the Boat Stand

- 1. There are 4 plywood pieces. The 2 short plywood pieces are the ends of the boat stand.
- 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.
- 3. Secure the interlocking boat stand with thick CA or epoxy.



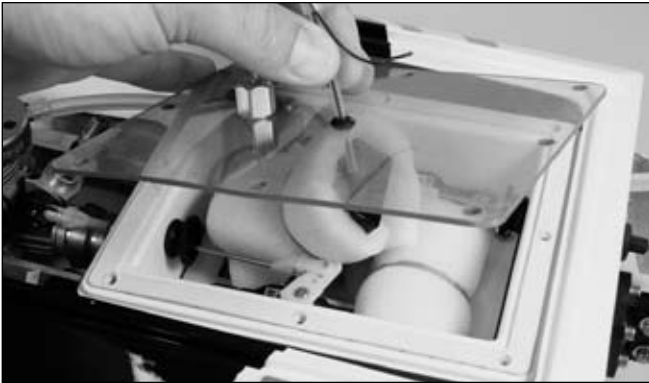
## Section 2: Installation of Receiver and Transmitter Batteries

### Receiver Batteries

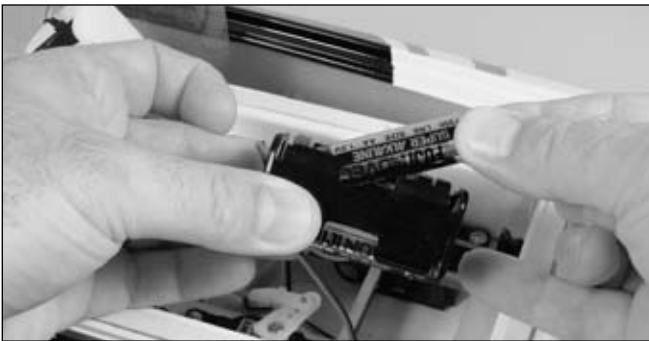


- 1. Remove the knurled aluminum nut securing the cockpit. Pull the cockpit off the boat.

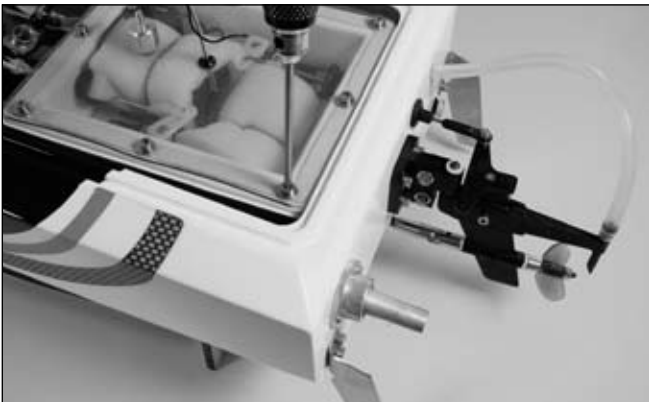
## Section 2: Receiver and Transmitter Batteries (continued)



- 2. Remove the hex screws that secure 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.



- 4. Re-install the battery holder into the radio box and secure the radio box lid with the hex screws. Be sure that the gasket is not pinched. Failure to properly seal the radio box could result in damage to your radio equipment. Insert the receiver antenna tube into the clear lid.

### Transmitter Batteries

- 1. Remove the transmitter from the box.



- 2. Remove the battery cover on the bottom of the transmitter.



- 3. Note the proper polarity and insert 8 “AA” batteries into the transmitter.



- 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.
- 5. Turn the radio off.



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

Before the first run of the BlackJack 26, 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.

- 1. 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.
- 2. Have an assistant remain with the boat to check for proper control movement of the rudder from your transmitter input.

- 3. If everything appears to be operating correctly, raise the antenna and start the engine (refer to Section 6 of this manual and to the separate Dynamite .15 engine manual). Place the boat in the water and run it (at about 1/3 throttle) close to the shoreline. If the radio system is operating properly, you can begin to run the boat faster and further away from the shoreline.

**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.

## 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 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: Hull Care

The hull of the BlackJack 26 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

BlackJack 26 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.

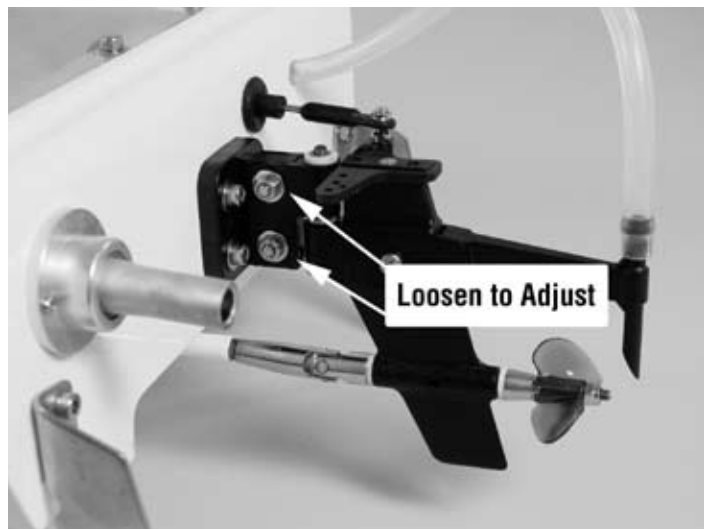
## Section 6: Propeller Balancing

For optimum performance, propeller balancing can add several mph and lower vibration. There are several different propeller balancing tools available. Read the instructions that accompany the propeller

balancing tool as removing material from the correct part of the propeller is crucial. Contact a local hobby retail store for assistance.

## Section 7: Handling Adjustments

Operate your BlackJack 26 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.

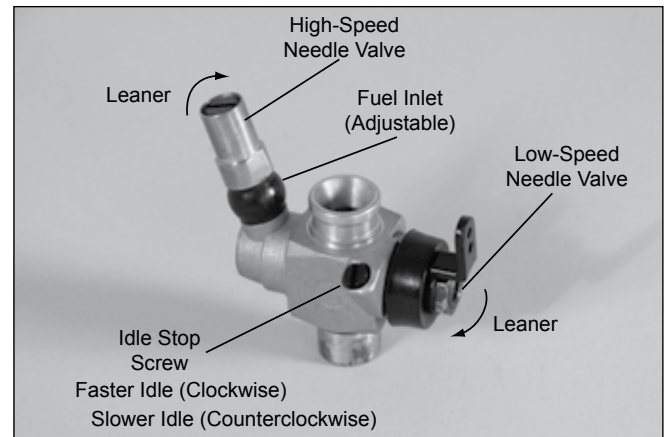


## Section 8: The Dynamite .15 Marine Engine

### Water-Cooled Engine

Because the Dynamite® .15 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 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 Dynamite 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 Dynamite .15 instruction manual.

## Section 9: Starting the Engine

### Hand-Held Starter



- 1. 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



Fill the fuel tank with 20% glow fuel and 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 9: 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 Dynamite® .15 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.

After you have attained the correct 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.

### Replacement Parts

In the event that you need to replace an engine part, there is a complete parts listing in the Dynamite .15 instruction manual. Exploded views will help you to select the correct parts and make minor repairs.

### Head Shims

Several head shims are added at the factory to make the engine easier to start when new. After break-in, you may remove all but one of these shims to increase compression and power.

### Maintenance

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

## Section 10: 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 11: Maintenance

The Pro Boat™ BlackJack 26 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

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

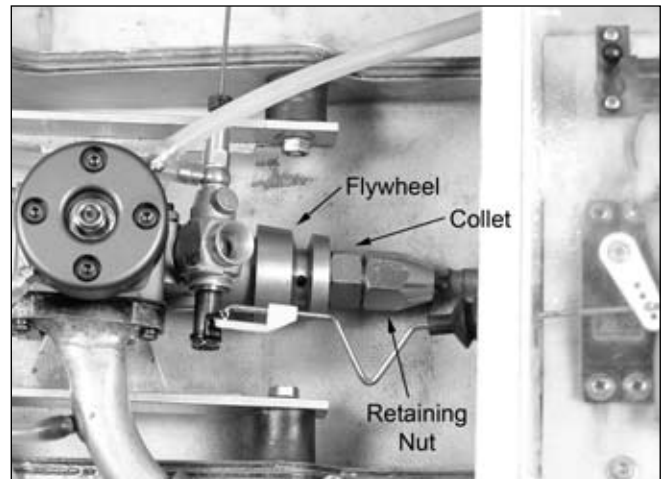
Wipe off any exhaust residue from the boat. If you operate the BlackJack 26 in salt water, it is suggested that you thoroughly rinse the deck, hull, and all the metal hardware with fresh water, then dry them with a clean towel. After cleaning, coat all metal parts with a silicone spray lubricant. This will help to prevent corrosion.

Ensure that the radio box and equipment inside is dry.

### Lubrication

It is important to lubricate the flex shaft of the BlackJack 26 with waterproof cable grease after every two hours of operation.

You can purchase this waterproof grease at your local hobby or automotive parts store. To lubricate the drive shaft, follow these simple instructions.



## Section 11: Maintenance (continued)

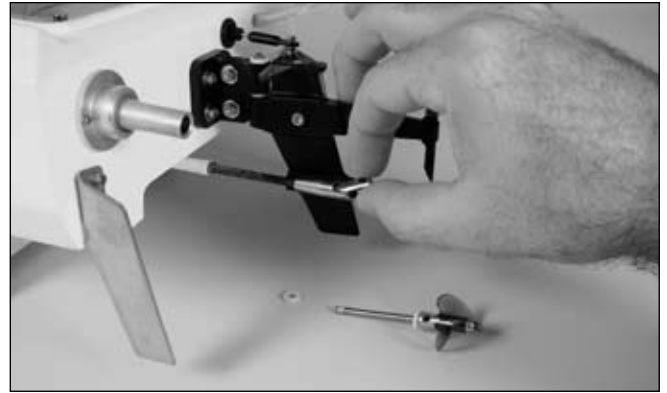


Loosen (do not remove) the retaining nut by holding the collet with a 10mm wrench and unscrew the retaining nut with another 10mm wrench or crescent wrench.

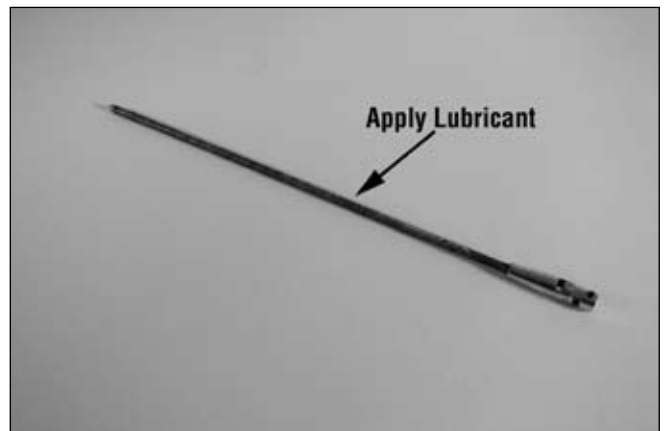
Carefully note how the drive shaft and prop are factory installed. This is important so that when you have finished lubricating the drive shaft, you can correctly re-install the drive shaft.



Remove the setscrew holding the drive in position. Remove the propeller and shaft..



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



Liberaly lubricate the entire length of the drive shaft with silicone cable grease as shown.

Carefully re-install the drive shaft, making certain that you insert the flex shaft 7/16" to 1/2" into the collet and secure.



## Section 12: BlackJack 26 Replacement Parts

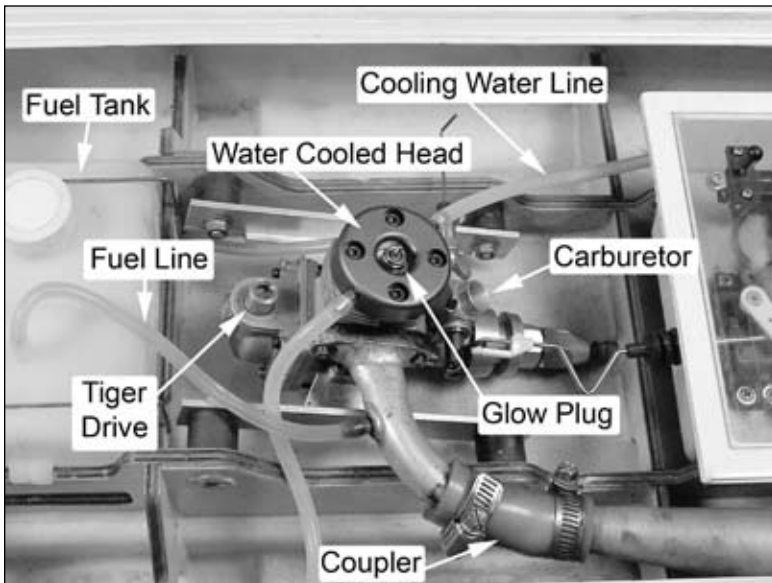
In the event that you need to purchase replacement parts for your engine or the BlackJack 26, please see your local hobby store.

You can also purchase them from Horizon Hobby by calling 1-800-338-4639 or shop online @ [www.horizonhobby.com](http://www.horizonhobby.com)

<b>Part #</b>	<b>Description</b>
PRB2064	Turn Fin (2)
PRB2068	Water Outlet
PRB2207	Fuel Tank
PRB2209	Tuned Pipe
PRB2210	Manifold Pressure Fitting
PRB2211	Coupler Tubing
PRB2213	Propeller (2)
PRB2215	Flywheel
PRB2218	Prop Nut
PRB2219	Nylon Washer
PRB2223	Push Rod Connector
PRB2224	Silicone Tubing
PRB2225	Battery Box/Switch
PRB2226	Antenna Tube
PRB2228	Rubber Boot
PRB2229	Cockpit Securing Nuts
PRB2509	Cable Collet
PRB2511	Switch Mount
PRB2512	Motor Mounts with Hardware
PRB2758	Exhaust Port
PRB2801	Hull only
PRB2802	Hatch
PRB2803	Radio Box
PRB2804	Radio Box Cover
PRB2805	Manifold
PRB2806	Fuel Tank Strap
PRB2807	Throttle Pushrod
PRB2808	Rudder Pushrod
PRB2809	Servo Tray
PRB2810	Stuffing Box
PRB2811	Stuffing Box Liner
PRB2812	Flexshaft w/ U-Joint
PRB2813	Propeller Shaft
PRB2814	Hatch Screw Set
PRB2815	Steerable Drive System
PRB2816	Instruction Manual
PRB2817	Decals
PRB2818	Boat Stand
PRB8100	Marine Starting System .12-.15
SUL689	Tiger Drive .12-.15

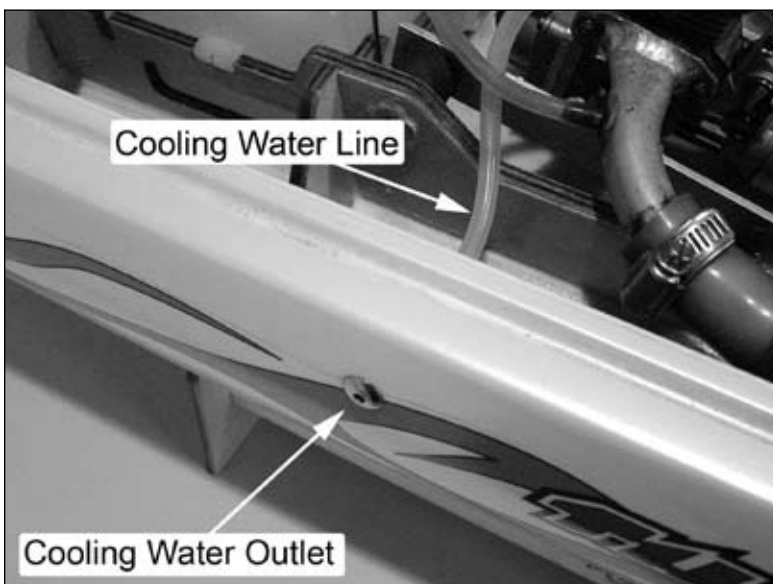
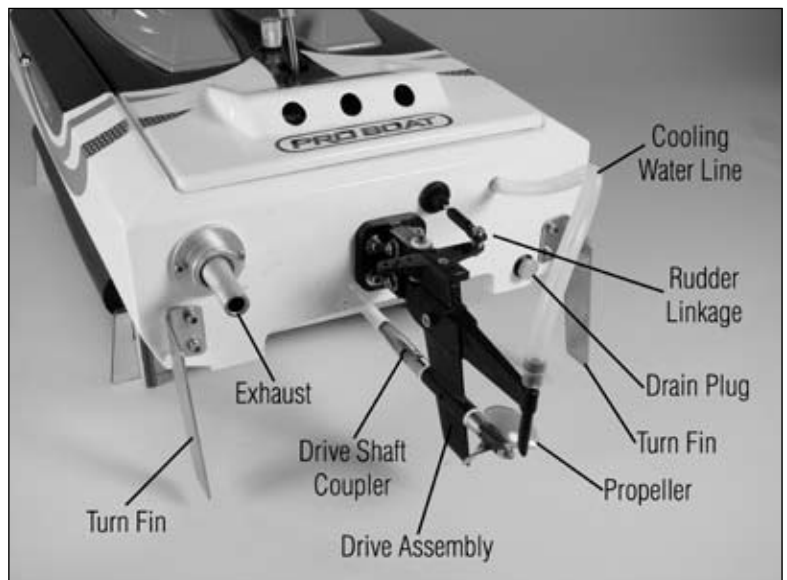


## Section 14: Appendix



**Engine compartment and components.**

**Transom and components.**



**Engine water cooling lines.**



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