6. Andrew Steever, *Oars for Pleasure Rowing,* Mystic Seaport Museum, Inc., Mystic, Connecticut.

ROW TROLLING GUIDES

1. Patricia Strutz, Guides out of Eagle River; jimbehm@newnorth.net or call work number 715.477.2072..
2. Brian Long, Glidden, Wisconsin, 715-264-4974; brianlong@centurytel.net; Guides the Lac du Flambeau Chain, Flambeau Flowage, Vilas, Price and Ashland County.
3. Dave Schnell, Presque Isle, Wisconsin, 715-385-2565; Guides in Boulder Junction area, primarily Trout Lake. Dave also refinishes guide boats and occasionally has one for sale.
4. Howie Meyer's Seven Islands Guide service, 715-686-7155; e-mail info@sevenislandsguideservice.com; see www.presqueislewi.org for fishing reports and weather information. Guides out of Presque Isle.

OTHER RESOURCES

1. Shaw and Tenney make excellent oars. http://www.shawandtenney.com/
2. H.H. Perkins is a good source of cane for seats. http://www.hhperkins.com/
3. "We Tie It Fly Shop" in Boulder Junction, WI, 715-385-0177, often has a Cosine Wherry for sale.
4. Brunsell Lumber & Millwork in Madison usually has a good supply of western red cedar for making cedar strips and other lumber for gunwales and interior. 608-275-7171
5. Brightwork Boatworks in Westport has marine plywood for the transom. 608-244-8200.
6. McCormick Lumber and Cabinetry in Madison has West System Epoxy and fiberglass. They also have sitka spruce if you want to make oars. 608-244-4741. West Marine carries West System Epoxy.
7. Woodcraft in Madison has router bits for edging the cedar strips.
8. Adironadack Rowing, www.adirondackrowing.com occasionally has used rowboats for sale. It also has a rowing school.
9. Wooden Boat, http://www.woodenboat.com/, and Mystic Seaport Museum, Inc., Mystic CT. have classes for teaching wooden boat construction.
10. The best planer boards I have found are manufactured by the Church Tackle Co. www.churchtackle.com.

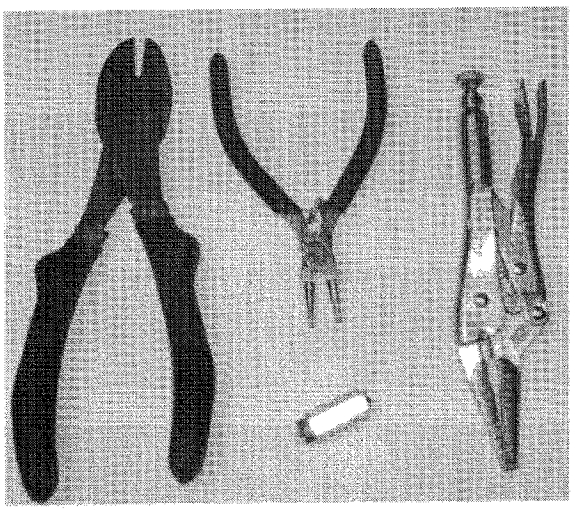
Jim Olson, 608-2334455; powjudy@sbcglob al.net; jolson@lawtoncates.com/

RM-50

How to make single strand leaders

By Gerard Hellenbrand

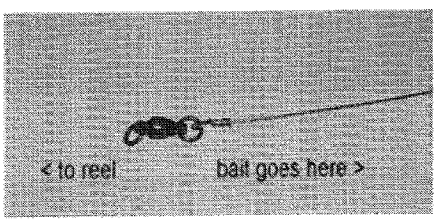
A list of tools needed for this project includes **small needle nose Vise Grips**, **diagonal wire cutters**, and **Du-Bro E/Z Twist** Standard Leader kit #1099. I also like to use the small vise grips to hold my hooks when I sharpen them – it keeps my fingers clear of the file & hook point. Another item that I use is looping pliers (also called round-nose pliers). You can use the Du-Bro E/Z Twist, but they make only one-size loop – small. The looping pliers may be hard to find and it will allow you make different size loops. Larger loops will allow some baits to swing more, like Reef Hawgs & Jackpots. I found mine in Sears a number of years ago & they are not available now.



R to L – **Tools** includes diagonal wire cutter, looping, pliers, Du-Bro E/Z Twist and a needle nose Vise Grips.

Leader hardware includes .022 wire (105# test) for bucktails & cranks and stiffer .029 wire (174# test) for jerkbaits & surface baits, snaps, & ball bearing swivels with solid rings. These items can be purchased from Moore's Lure's (715) 356-6834 or Rollie & Helen's 800) 453-5224. Call them for their latest catalogs of all their hardware.

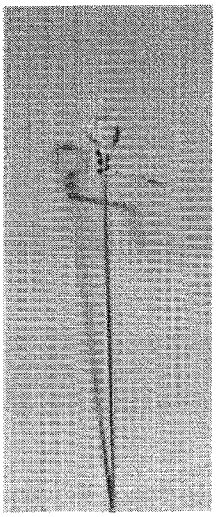
First you cut off about 16 inches of wire (for a 9-inch leader). Place the wire about 3 1/2 inches from the end in between the two pins in the end of the Du-Bro tool, we will call the short end, the tag end. Bend the main wire towards you about 15 degrees. This bend will place the eye in the center of the leader when it's done. Next grab the tag end and wrap it around the center pin (counter-clockwise) and keep bending till you pass the wire over the leader side of the wire till it's almost perpendicular. Add your hardware (snap or swivel). The correct way to put on ball bearing swivels is having the narrow side towards the leader if your line is attached to the swivel (see photo 1).



◄ Note: When installing a ball bearing swivel, the tapered end is towards the bait.

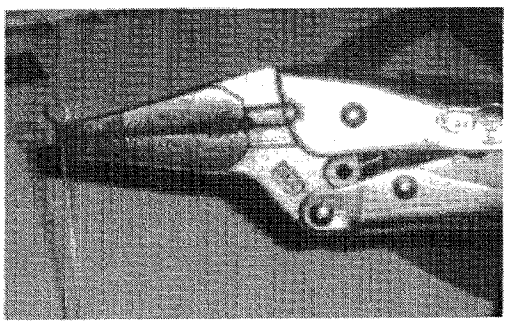
RM-51

If you put it on the other way, the swivel may catch weeds inside the bearing joint and fail. Then place the Du-Bro tool on leader shank and wrap the wire around the shank at least three times. If you place the tag end on the wrong side of the leader the Du-Bro tool will open up when you try to wrap the wire around the shank. I suggest that you hold the loop with a plier, as your fingers will not be strong enough. Next, **break** the tag end off. This is a very important step. If you just cut it, the tag end it will be sharp and will cut you when you remove weeds or even just grabbing the wire. To do this, bend a ninety in the tag end about a quarter-inch from shank.



Grab the tag end very close to the shank with the needle nose vise grip, lock on and twist on its end (like a screwdriver). The ninety-bend in the tag end of the wire allows the vise grip pliers to keep a hold of the wire when twisting. The wire should break at the last place it bent, which is close to the leader shaft. When done right, the break will be so close to the shank it will not cut you when you handle the leader. Repeat the steps to the other end. When using the looping pliers, the procedure is the same as using the Du-Bro tool pins. The closer to the bottom of the jaw of the pliers that you bend the wire, the larger the loop will be.

▲ Bend a 90 in the tag end to grip it better, like the photo to the ► and you break the tag off for a clean finish to the wrap.



I would **highly** recommend quality snaps like Roscoe & ball bearing swivels with solid rings. When using jerkbaits & cranks, I prefer to use split rings instead of snaps. I always use a minimal amount of hardware whenever possible. Like using no swivel if using a jerkbait – they seldom rollover and your bait will work better. The combinations of different type leaders are many. The ones I use most are the standard ball bearing/snap combo, ball bearing/plain loop, plain loop/snap, & plain loop on both ends. The bearing/snap combo I use for bucktails and rotating topwaters like Topraiders. The bearing/plain loop would be use for cranks with a split ring on the bait. The plain loop/snap would be use with jerkbaits without a split ring. The plain looped on both ends is use for jerkbaits and some topwaters like Hawg Wobbler, Creepers, & Jackpots. With no forward weight on the nose of the Jackpot and a split ring on the bait, you will get a better swing and jumping motion with this combination. I will also add that if you start using split rings, put them on your baits, you must leave them on the bait. If you start taking on & off the split ring from the eye of the bait, you will ruin the split ring in no time. The diameter of the leader wire will easily slip in & out of the split ring without causing fatigue to the split ring. The last thing I should mention and this goes with store bought leaders, inspect your snaps after long use. The lure eye will wear on the snap and cause the snap to become soft and/or break. The ball bearings can take years of use and can be reuse many times over.

Trailering your boat this summer? – Here's what you need to do to keep it on the road.

by: Mike Fisher

Each year thousands of boating enthusiasts, fishing guru's and summer vacationers trailer their boat to a nearby lake or head to their weekend get away cottage and each year accidents by the dozens occur from a variety of failures or malfunctions. You see them on the side of the highways every year; a blown out tire, a boat and trailer separated from the tow vehicle and in a ditch next to the highway or sometimes flipped over on the side of the road. Sometimes it's a multi-vehicle accident with cars, trucks and a boat all mixed up together. Someone usually gets hurt and sometimes there's fatalities.

Well, if you're planning to trailer your boat and it doesn't matter whether it's a pontoon boat, power boat, cruiser, a sailboat or even a small fishing boat, here's what you need to check and fix before you hit the road.

Tires- Tires are probably the most common things to fail and cause someone to get stuck on the side of the road. The reason is because a lot of people store their boats and trailers outside and they sit in storage a good deal of time. The rubber gets old, loses pressure, cracks and so on. So check your tires for wear and cracks. If you don't have at least an eighth of an inch of tread depth or if you see cracks in the tires and they should be replaced. Also, check the tire pressure. When your trailer sits in storage for long periods of time and the temperature rises and falls this causes the tire to lose pressure slowly over time. There should be inflation specifications on the side of the tire or check your boat and trailer owners manual. Make sure to inflate your tires to the proper tire pressure. Under inflated tires or over inflated tires can fail and keep you stuck on the side of the road for a long time.

Lights, wiring and connections - These can cause serious accidents if not working correctly. When they're not working properly the people behind you don't know when you're stopping or turning. On highways, this can cause fatal accidents. Check to make sure the lamps are not burned out and make sure both filaments are in tact. Check the lamp housings to ensure the seals are not broken or deteriorated. Check the lamp sockets for corrosion. Apply a light coat of electrical grease around the base of the lamp and socket to keep out moisture and reinstall the lamps. Check the wiring to insure the ground connections are not corroded or broken. Also, check the wiring along the frame. Make sure that it's in good condition and properly fixed to the trailer. Check the fittings and connections between the trailer and vehicle to make sure the male / female plugs are not corroded. If they are, they should be cleaned and reconnected. Have someone stand behind the trailer each time you hook up and make sure your running lights, brake lights and turn signals are working correctly.

Note: you should disconnect the trailer lights harness from the vehicle before backing the boat into the water. This will prevent the trailer lamps from shorting and blowing out.

Brakes – if your trailer is equipped with brakes, check the brake fluid. If it's low, fill to the appropriate level with approved brake fluid. Check the brake pads or shoes to make sure that they are not worn and replace them if they are. Check the brake wire connections between the trailer and vehicle are in properly connected. They control the braking mechanism to apply or release the brakes as needed. Always check that the brakes are working properly before on a short test drive before towing at your boat at high speeds. Have a friend or family member stand behind and to the side of the trailer. Confirm that the brake and turn signal lights are working. If you're not familiar with repairing brakes and replacing brake pads and shoes, take your trailer to your local boating center or trailer dealership.

Bearings - Bearings should be checked at least once per year to ensure they are properly greased. A frozen bearing can cause the wheel to lockup and the tire to blow out. Most trailer spindles have a dust cover that covers the bearing. Just remove the cover and inspect. Some have a zerk or grease fitting at the end of the spindle. You can add grease easily without disassembling the bearing assembly. If you don't have a zerk fitting, the bearings need to be removed and repacked the old fashion way. If you're not sure what I'm talking about then you need to take your trailer to your local boating center or a trailer sales and service company. The bearings should be checked and grease at least once per year. Always use a manual grease gun and replace the tang washer. They should not be reused. If you frequently use your boat and trailer,

RM-53

you should check them twice per year.

Coupler - Couplers get worn and more frequently become misadjusted so that the fit between the coupler and the hitch ball becomes loose. If you're towing your boat and the coupler is loose it could bounce off the hitch ball and cause a serious accident. It's happened. I've seen it. To avoid this kind of catastrophe, make sure the under side of the coupler is free from dirt and debris. Spray lubricant on the lever and clasp mechanism and also on the hitch ball. Check to make sure you are using the correct size ball for the coupler. They should be stamped the size. Make sure they are the same. Attach the coupler to the hitch. Close the lever and insert the safety pin. Confirm that the fit is tight and the tongue of the trailer cannot move up or down at all. If you have a wheel type coupler you can adjust it to tighten the fit. If you have a lever type, some have a nut on the underside of the coupler that can be adjusted to tighten the fit. If not, you should take your trailer to a boating center or trailer dealership for repair. Note: the pin is very important on the lever type of couplers and needs to be inserted. If the pin is missing, it needs to be replaced.

Winch - Make sure the winch is working properly and spay lubricating oil on the gears. This will keep the winch working freely for the entire boating season.

Tongue jack – grease the jack through the zerk fitting or pop the top cap and insert grease. This should be done at least once per year. Make sure that the jack operates freely all the way up and down.

Safety Chains - These are extremely important, especially if the coupler fails. I've seen a lot of trailers without them, but they are very important to have. They should be securely attached to the trailer, one on each side of the tongue and attached to side of the hitch. They need to long enough to allow the trailer to turn, but short enough to prevent the tongue of the trailer from hitting the ground if the coupler comes off the hitch.

Rollers - If your trailer is equipped with rollers, spray a little lubricating oil on the spindles. This will keep them rolling freely.

Frame - Check the frame of the trailer for cracks, especially at the weld joints. There should be no signs of cracks or fatigue. Frame or weld crack are generally not a problem, but when towing a heavy boat they can be. If you see any signs of cracks in the frame, take your trailer to your nearest boating center or trailer dealer for service.

General - your trailer should be hosed off after each use to prolong it's appearance and to keep it in good working order. When storing or parking your trailer, you should never let the tongue rest directly on the ground. Use a cement block or wooden block to rest the tongue on. This will keep dirt and debris from accumulating in the underside of the coupler.

If you are unsure about any of the maintenance items or how to do them, take your trailer to your local boating center or your local trailer dealership. They will be able to assist you in servicing your trailer properly.

For more information on boat and trailer maintenance - check out http://www.boatfisher.com/boatMaintenance.cfm.

Always remember, it's better to be safe than sorry. Don't be one of those guys or families on the side of the road wondering what went wrong. Do the required maintenance and checks on your trailer before you hit the road and you'll be on the water in no time.

For more information on boat trailer maintenance visit http://www.boatfisher.com/boatMaintenance.cfm.
Enjoy Life ... Go Boating!

RM-54

How to winterize your outboard

Graciously submitted by Pete Burns.

To help keep your engine in tip-top condition for years to come, it is important that you "winterize" your outboard for off-season storage. By winterizing your outboard, you will help ensure that your outboard will be ready to go at the start of next year's boating season. Although you can winterize your outboard yourself, most dealers will perform this service for you at a very reasonable rate.

Step 1: Thoroughly flush your engine with clean, fresh water and let the water completely drain from the engine. Wash any dirt, grease, etc. from the exterior of the engine.

Caution: To avoid injury in the event of accidental starting, be sure and remove the prop and the stop switch lanyard cord from your outboard before proceeding.

If the outboard is water cooled; running your outboard without an adequate source of cooling water will result in severe damage to your outboard!

Smaller Horsepower Outboard (2.5 & 3.5 hp)
For smaller outboards, the simplest way to flush your outboard is by using a large bucket of water. Be sure the bucket is large enough to completely cover the water intake ports on the lower unit of the outboard. Also be sure that the bucket is wide enough so that no part of the motor will touch the sides/bottom of the bucket. Securely mount your outboard on a sawhorse or some other type of apparatus that will allow safe operation of your outboard.

5 hp and up:
The 5 - 140 hp comes equipped with a "flushing plug" which can be attached to a hose for flushing the engine with fresh water or purchase a set of "ear muffs" (available at your local marine dealer). This equipment attaches to your garden hose and clamps on to your outboard's lower unit, covering the water intake ports. Turn the garden hose on full before starting your engine. (Note: "ear muffs" will not work on some smaller 5 hp. With a 5 hp you will need to either use the flushing plug or use the "bucket technique" as described above).

Run your outboard at normal idle speed for 5-10 minutes to allow the engine to warm up and to ensure your outboard is thoroughly flushed with clean water.

After flushing the outboard, allow the water to completely drain from the engine (see Step 2 before you shut off your engine). Your outboard should be in a vertical position for the water to completely drain. While you're waiting for your engine to drain, wipe off any dirt, grease, etc. from the exterior of the engine.

Step 2: Drain all fuel from the fuel hoses, fuel pump and carburetor.

When you have completed the fresh water flush in Step 1, disconnect the fuel line at the motor and continue running the motor until it runs out of gas. It is extremely important to ensure that all of the fuel has been drained from the carburetor otherwise any fuel/oil mixture remaining will evaporate and leave deposits (also called varnish, gum, etc). in the carburetor.

RM-55

To drain the fuel from the carburetor you can use one of these techniques:

As the fuel begins to run out and the motor starts to "die", choke the engine a little until the RPM's pick back up. Continue choking the engine as the engine starts to die out until the fuel supply is finally exhausted.
-or-

Remove the drain screw from the carburetor bowl and allow all fuel to drain out. Replace the screw when finished. Although this technique requires a bit more effort than the first, it is recommended to use this procedure to fully ensure that all fuel has been removed from the carburetor.
If you have fuel left in your tank you may want to add some fuel stabilizer to it, so that it can be used the following season. Fuel stabilizer will also help prevent condensation from forming in your fuel tank.

If your outboard is not an oil-injected model (i.e. you mix your gas/oil manually), I highly recommend you do not store the petrol for extended periods of time. Over time, the petrol and oil will separate which will lead to a lack of lubrication to your engine.

Step 3: Treat your outboard with "storage oil" (also called "fogging oil").

Storage oil comes in an aerosol spray can and is used to prevent rust on the engine's cylinder, crankshaft, bearings, pistons, etc. and can be purchased at most local marine dealers. Follow the oil manufacturer's recommendation on the amount of storage oil to use (generally about 2 ounces for each cylinder).

First, remove the spark plug(s) and the stop switch lanyard cord from your outboard. It is also a good idea to disconnect the spark plug wires from the spark plugs to prevent accidental starting.

Manual Start Outboards: Slowly turn the engine over a few times using the pull cord while spraying the storage oil into the spark plug holes.

Electric Start Outboards: Be sure you have water hooked up to your water intakes before turning over your outboard to prevent damage to your water pump. While spraying the storage oil into the spark plug holes, turn the engine over in 5 second bursts using your electric starter. Do not over "crank" your engine or you could damage the electric starter.

Step 4: Apply water resistant grease to propeller shaft. Using a wheel bearing grease (or something similar), thoroughly grease the prop shaft and prop shaft threads.

Step 5: Change the gear oil in the lower unit (see Tech Talk tips for complete step-by-step instructions).

Step 6: Apply water resistant grease to all moving parts, joints, bolts, nuts, and plastic fittings.

Step 7: To help keep your factory finish looking new, apply a light coat of oil to the exterior. Or you can also wax the exterior of your outboard using a high grade automobile wax.

Step 8: Store the engine vertically in a dry area.

If you store your boat in the water there are several schools of thoughts regarding whether

you should store your engine in or out of the water. There are advantages and disadvantages of both ways and unfortunately there is no one "correct" or "best" way. Numerous factors such as temperature, salt/fresh water, algae growth, corrosion, etc. must be taken into account when deciding whether to leave your outboard in the water or tilt it up out of the water.

To find out which is "best" way I recommend you ask your local marina, fellow boaters in your area, etc. how they store their boat/outboard during the off-season.

Factors to keep in mind:

Storing in water allows algae and corrosion to affect your outboard.
Storing out of the water could cause damage if the outside temperature reaches freezing and there is water in your lower unit.
If you store your motor tilted up, I recommend you remove your prop to decrease the temptation of someone stealing your prop.
Storing down in the salt water drastically increases the potential for corrosion.
Battery Storage

Step 1: Disconnect the battery cables and clean the battery terminals using a wire brush.

Step 2: Recharge the battery to full strength. You should also recharge the battery once a month during the off-season to prevent electrical discharge and degradation of the electrolytes.

Step 3: Clean the exterior of the battery.

Step 4: Apply grease (Vaseline works nicely) to the battery terminals.

Step 5: Store your battery in a dry place.

(These are recommendations. CGOA makes no warranty on these procedures. Make your own final decisions as how to winterize your boat's motor)

RM-57