### The Hook & Hackle Company

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# BUILDING YOUR OWN CUSTOM ROD

Everything You Need to Build Your Own Custom Rod ...

#### SIMPLE AND FUN!

It's very simple and a whole lot of fun to build your own custom fishing rod. Most everything you need is included in this kit.

Along with some household items you're already likely to have, you'll just need to add a little bit of time and patience. You'll be amazed at the results!

Please take a few minutes to read through these instructions. Familiarizing yourself with the components, tools and terminology will make the crafting of your first rod go smoothly.

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### **GETTING STARTED**

To put it succinctly, "it ain't that hard!" It just isn't.

Our thought is this: If you're already fishing, then building your own rod is easy. For your first project, you'll need 6-8 hours of time total over a couple of days. That's it! Oh, and you'll need to have a little patience too!

Before you start, you need to make sure you have the following items that are not included in this kit. They are:

- tape measure
- single edge razor blade, nail clippers or fine tip scissors
- 6" square aluminum foil
- denatured alcohol
- medium grit sandpaper
- plastic stirs or sticks
- small rattail file
- pencil, felt tip pen or grease pen
- roll of paper towels
- matches or lighter

You may be asking yourself, "can I get some other really cool and expensive stuff too", such as rod wrappers, drying motor, glue mixers and so on. The answer is yes . . . but not right now. We want your first rod building experience to be quick, clean, inexpensive, fuss free and most important of all, FUN! Read these instructions in their entirety before you actually begin construction!!

Here are the 6 basic steps for building your first rod:

- 1. Finding the spine (locating soft and stiff side of the blank)
- 2. Installing the grips and reel seat
- 3. Guide spacing
- 4. Guide wrapping
- 5. Finishing



Hook & Hackle has been a source for fishing need since 1975! Our rod blanks are made of the finest graphite materials available. All blanks that we sell have been built into rods and tested by our own staff and various other fishing professionals. Rods made from Hook & Hackle blanks have been fished successfully in over 30 different countries!

## LOCATING THE SPINE

This step confuses most beginners. Simply put, all blanks are tubular and hollow and due to the way they're manufactured, they have a stiff side called a spine which should be located in order to properly position the guides and reel seat.

There are two different methods that you can use:

Method 1: All you really need to do is put the butt section (of each part) on the tip of your shoe and lightly – did I say "lightly?" – Press down on the tip until the blank finds a natural curve. Mark the convex, or outside, curve of the blank to help you align guides. You can place a piece of masking tape on the butt and tip of each section to aid this process. Simply put the mark on the tape or use a grease pen/china marker

Method 2: Hold the blank section at a 45<sup>°</sup> angle with butt resting on a hard surface with fingers and press on the middle of the section with fingers of left hand, bending it slightly. Section will automatically roll with "soft" side of spine on the inside of the curve. Mark the inside of the curve (concave).

Congratulations! You've found the spine and it wasn't that difficult at all. That's all there is to it! We'll discuss where the guides go in relation to the spine a little later in Step 4.

### GUIDE SPACING

Below, you'll find the proper spacing of the guides. Note that all guide spacings are measured beginning from the tip section and that you'll need to assemble the blank prior to measuring for correct placement of guides. Also, different length rods have differing measurements and number of guides, so be certain to follow the chart applying to your particular blank. All spacing figures are measured in inches without tip top attached. Be sure to attach the tip top first! The sizes of the guides will vary according to the type of guides chosen by the builder.

| Spinning Rod -                                | 6′    | Light/l           | Fast  |         | 4-piece               | 6 guides plus tip top |  |  |  |
|---|-------|-------------------|-------|---------|-----------------------|-----------------------|--|--|--|
| Distance from Tip Top in inches:              |       |                   |       |         |                       |                       |  |  |  |
| 4.5 9.75                                      | 16.00 | 22.75             | 31.25 | 40.50   |                       |                       |  |  |  |
| Guide sizes vary by kit selection and design. |       |                   |       |         |                       |                       |  |  |  |
|   |       |                   |       |         |                       |                       |  |  |  |
| Spinning Rod - 7' Medium/Fast                 |       |                   |       | 3-piece | 7 guides plus tip top |                       |  |  |  |
| Distance from Tip Top in inches:              |       |                   |       |         |                       |                       |  |  |  |
| 4.0 8.5                                       | 13.75 | 20.00             | 27.50 | 36.00   | 48.50                 |                       |  |  |  |
| Guide sizes vary by kit selection and design. |       |                   |       |         |                       |                       |  |  |  |
|   |       |                   |       |         |                       |                       |  |  |  |
| Spinning Rod -                                | 7′    | Medium-Heavy/Fast |       |         | 3-piece               | 7 guides plus tip top |  |  |  |
| Distance from Tip Top in inches:              |       |                   |       |         |                       |                       |  |  |  |
| 4.0 8.5                                       | 13.75 | 20.00             | 27.50 | 36.00   | 48.50                 |                       |  |  |  |
| Guide sizes vary by kit selection and design. |       |                   |       |         |                       |                       |  |  |  |
|   |       |                   |       |         |                       |                       |  |  |  |

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### INSTALLING TIP TOP

First, check to see that your tip top fits onto the blank's tip section, leaving just a little room for the tip top cement (or 2-part epoxy mix). In other words, you don't want the tip top to be a tight or snug fit ... there should be a little bit of 'wiggle room' for the cement/epoxy.

Carefully align the tip top with the convex side of the spine where you've determined you want your guides to be attached.

If using 'hot melt' tip top cement, using matches or a lighter, melt some of the cement onto the tip section of the blank and/or into the tip top. Attach the tip top quickly to the blank before the cement hardens. If it's not exactly aligned, you can simply apply a bit of heat and tweak the tip top until satisfied with its position.

If using 2-part epoxy instead of hot melt cement, from the batch you are about to mix for the installation of the grip(s) and reel seat (see below), attach the tip top with a small application of the mixture to the tip top and blank as above. Be sure that all is properly aligned when you set the tip section aside until ready to wind the rest of the guides.

## INSTALLING GRIPS

### AND REEL SEAT

First you install the reel seat. The first step is to install masking tape to be used as cylindrical bushings to center the reel seat on the blank. Wrap approximately two thirds of the area to be covered by the reel seat, leaving 1/8-1/4" gaps between tape wraps. At this point, you may also apply masking tape to all wooden, threaded and hooded parts of the seat to keep these parts free of excess epoxy during the gluing process.

Our kits include a "preformed" grip, but it still must be reamed to fit snugly on the butt section of the blank above the reel seat. Pay attention to the taper of the blank when reaming, noting that the diameter decreases as you proceed "up" the blank. Some folks lightly sand the section to which the grip will be epoxied for better adhesion, but be careful not to damage the blank.

Before applying the epoxy, preassemble the grip and entire reel seat on the blank without epoxy. Pay attention to how the hoods (parts that hold the reel in the seat) and any inlets line up. After the epoxy cures, it'll be difficult, if not impossible, to make adjustments.

With all parts laid out for assembly, mix the two-part epoxies in a small disposable cup or on aluminum foil with a small plastic stick. You only have 10-20 minutes to work with the epoxy! First apply epoxy over the masking tape bushings, including areas between the tape, and slide the reel seat up from the bottom of the blank. Gently rotate the reel seat into position. Note: if the reel seat sections are not pre assembled, you may wish to epoxy these pieces prior to final attachment to the blank.

Next, apply the epoxy to the part of the blank to which the grip will be attached. Be careful to make sure the application of epoxy starts "below" the area where the top of the grip will permanently sit. Rotate the grip as you are moving it into location.

### GUIDE WRAPPING

Smooth any rough edges found on the guide feet to prevent damage to the blank and to smooth the area over which the thread is wound. You may do so with a small file or other grinding tool. Most of the guides we sell will be "pre-ground," but it is still good practice to check.

It is common for most rod builders to place the guides on the "inside" or concave side of the blank for lighter rods and opposite for heavier rods. That's usually what I do, but know that this matter continues to be one of the great controversies among custom builders. (Some of the best known manufacturers that I've spoken with do just the opposite!)

For the spinning guides included in your kit, place a 1/8" to 1/4" strip of masking tape securely on the back of the guide (closest to the ring) to hold the guide in place on the blank while you begin wrapping towards the foot. Know that you will be able to make adjustments to "perfectly" line up the guides after the wraps are finished as long as your first windings are generally in a straight line.

I start by putting my thread spool into a ceramic mug positioned about 18" in front of my work area, and then run the thread through a hard back book. You can adjust the tension on the thread by running it through lower sections of the book. We want the tension to be firm enough to securely hold the guide in place, and produce a nice smooth wrap. Note that very long wraps may stiffen the rod and should be avoided. You may wish to make a stand to hold the blank horizontally while you wrap. A simple method of doing this is to cut "V" notches into the sides of a medium sized box (i.e. shoe box) and lay the blank across.

#### **IMPORTANT:**

Before you start the wrap, cut a couple of 6" sections of thread that we'll need later! Consider using a thread color different from your wrapping thread in order to make it easier to see.

You can practice doing a wrap on a pen or pencil until you become reasonably confident.

Maintain constant tension between the blank for secure, consistent and good looking results.

Now we've come to the fun part! Position the thread to start about 1/4" from the guide foot. Then, to begin your wrap, pull the thread over the blank. As you pull the tag end around, keep rotating the blank and cross over the thread itself. It is best to wrap toward the center of the guide and the tag end of the thread should be facing toward the center of the guide. After about 5-6 turns, the thread should be fully secured and you can trim the tag end. At first it may feel awkward, but after a bit of practice, you'll get the hang of it. Eventually, you guide the thread with one hand and turn the blank with the other. For a clean look, be careful not to overlap the thread.

As you practice, you'll find that gaps can be smoothed out with the rounded end of your razor blade or clippers. I usually use my fingers, but make sure they're clean to avoid getting oil from your skin onto the thread as it may affect the finish. When you're about 3/16" away from the point at which the guide foot meets the vertical part of the guide, stop and proceed to next part.

continued next page

### GUIDE WRAPPING CONT.

Remember those 6" pieces of thread I told you to set aside earlier? Take one and form a single loop, and place it opposite the guide with the loop facing in the direction you're wrapping. Now continue your wrap over the loop up to the point where the vertical part of the guide foot starts. While holding the thread in place with one hand, cut the thread, being certain to have a few inches of tag end.

Grab the tag end you just cut and put it through the loop you just made. Pull the end of the loop and it will draw the tag end underneath the wrap and then out. This will secure your wrap and give it a smooth appearance. Trim the thread with a razor blade or clipper, as closely as you can without cutting into the wrap itself. For a professional look, you can burnish loose ends and fuzzies with a match or lighter, but be careful as the thread will easily burn. Try this on your practice wraps first!

In addition to wrapping the guides, you can use the above method for wrapping ferrules, hookkeepers and trim. Note that wrapping the female part of the ferrule will add strength and stability to your finished rod. The ferrule wrap will also help protect the end of the female ferrule from abrading. Wrap the ferrule to within 1/8" of the end. A 1/2" wrap on the ferrule will be fine, but you can add a bit more for heavier weight rods.

When you have completed your wrapping, you can carefully adjust the guide alignment. If you hold the rod up and look down the guides, you probably notice that they are not in a perfect straight line. Not to worry! You can move them a bit to the left or right in order to create better alignment. Don't put too much pressure on the guide or the wrap will unravel.

Currently, we are working hard to create our own YouTube resources to aid in wrapping and other aspects of rod building. Search YouTube under "Hook & Hackle" to find our resources.

## CUSTOM LABELING

Many of our kits come with a label that identifies the make and model of your custom fishing rod. You should apply it as per the instructions on the next page.

In addition to the label in your kit, you are eligible, free of charge, for a customized label of your own choosing from Decal Connection, manufacturer of the finest fishing rod labels available in the USA. For example, you may want a label with your name on it, honoring a recipient of your rod or to commemorate an important occasion such as a birthday, graduation, Christmas, Mother's Day and so on.

For exact instructions, email orders@decalconnection.com and let them know you purchased one of our kits. Once confirmed, they'll walk you through the process of ordering your free custom label.

### CUSTOM LABELING CONT.

Peel–N-Stick Decal - Application Instructions

Before you begin the application process, place a coat of epoxy on the blank where you will be placing the decal. Let this dry.

• THIS IS VERY IMPORTANT! This step provides a flawless surface for the decal to adhere to. Without this step, we do not guarantee decals.

• The decal will come pre-cut to size with excess decal material removed from it.

• The decal itself comes sandwiched between the backing and a top carrier sheet. This allows you to handle the decal without touching its adhesive side and only touching the carrier sheet.

To Apply the Decal:

1. Lift the carrier sheet from the backing. The decal will peel up with the top sheet.

2. Place the decal down on the rod in the desired position.

3. Start from the middle and rub the bubbles from there to the edge. You may rub firmly or take a finishing tool and rub over the carrier sheet.

4. Peel the carrier sheet away and the decal remains in place. Your fingers never need to touch the decal because you have the carrier sheet to hold on to it.

5. Once applied, you are ready to apply your finishing coat of epoxy over the decal.

### Unlimited Lifetime Warranty

We have the best warranty in the rod building business ... there is no close 'second' to our warranty! All Hook & Hackle Brand rod blanks are covered by a lifetime unlimited warranty. The warranty is limited to the blank only, subject to a S&H/replacement fee of \$40.\*

We are the ONLY company which warranties not only defects in the blank or materials used, but we also warranty slamming the rod in a car door, house door, cabin door, etc.; jamming the rod tip into the ground or other large, immobile object; cracking the rod over a tree limb, gunwale, overly excited dog, etc.; using the rod as a step to enter or exit a boat, float plane, helicopter, etc.; high-sticking or reefing on the rod while hung up, on a sounded fish, and so on; and any other abuses.

No other company can compete with our warranty!

\*Please note that in the case of blanks which have been discontinued by H&H, we maintain the right to substitute one of our other blanks in stock, if no 'original' blank is available.

### FINISHING

BEFORE YOU START - IMPORTANT - Two part rod finishing epoxy has two components, Resin and Hardener, which must be carefully measured and mixed. Use at least 3cc's of each to ensure proper proportions which will aid in the curing of the final finish. Occasionally, the Resin will harden a bit due to storing conditions. This is normal. In order to liquefy the resin, place the sealed bottle in hot water, not boiling(from a faucet) and let it set for 20 minutes or so until the resin has completely liquefied. Afterwards, let both the resin and hardener reach room temperature before mixing according to the directions below.

Start by mixing EQUAL amounts of parts A & B of the finish. Use a small plastic cup and plastic stir to combine the separate parts. These should be stirred slowly, to avoid air bubbles, for approximately 2 to 3 minutes. Pour the mixture on a small section of aluminum foil in order to extend the amount of 'working time' with the finish before it begins to thicken.

Apply the finish with the brushes included in the kit, being careful to keep oils from your fingers away from the thread, which can cause 'blotchiness.'

While continuously turning the blank with one hand, apply finish to thread. We suggest that you overlap the finish onto the blank by 1/8" to provide a good seal. A careful application is the best insurance for good guide and thread adherence to the blank. If the finish becomes too thick, stop and mix a new batch.

IMPORTANT - Continue to turn the rod 1/2 turn about every 5-8 minutes, for 2 hours. This will create a more even finish for the self-leveling formula. I just set a timer on my cell phone and this process goes rather quickly. Applying a second coat, after the first application has had at least 6-8 hours to dry, will create a sure bond and a nice thick look to the finish. As with the initial application of finish, turn the rod 1/2 turn again every 5-8 minutes, for 2 hours.

24 Hour Cure Time: Although the finish will 'set' in just a few hours, it will take 24 hours for the finish to cure properly. And after the wait, there is only one thing left to do:

Now it's time to GO FISHIN!

Notes

We know that these are basic and simple instructions and do not include information for every possible scenario. But we can tell you that thousands of people just like you have built rods with only the information presented above.

But don't worry! If you do have a problem or question, all you have to do is give us a buzz or an email. We answer concerns like the ones you have every day!

Warranty Info: most of the rod blanks we sell are covered by a LIFETIME limited warranty.

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