Guidelines for finishing pocketed buttcap blanks.

G. P. Dabrowski
d.b.a. The Brookside Rod Co.
37 Brook Street
Naugatuck, CT. 06770-3101
(203) 729-1503
email: gdabrowski@yahoo.com
web catalog: http://brooksiderod.tripod.com

Bamboo Fishing Rods
Fly - spin - casting

The guidelines following are intended to provide some insight into finishing pocketed buttcap blanks. During processing these parts are annealed resulting with oxide formation on the part surface. This oxide will be removed by polishing after any machining that may be required.

As-drawn blanks:

As-drawn blanks will need to be machined to a finished height before polishing and buffing. In order to safeguard the part, this machining operation should be accomplished using work-holding devices that will support the outside diameter. The best solution is a special collet. Alternatively, a tool may be made to work like a collet but gripped in the chuck. Poor results will be had if one tries to grip the part in the chuck directly as the likelyhood of bending the unsupported part with the lathe tool against a chuck jaw and throwing it is good. This nearly always results with a ruined part and perhaps injury. See below for dimensions, polishing and buffing info.

Machined pocketed buttcap blanks:

Buttcap blanks are machined to a finished height of 9/16 inch. The forming process results with a slight angular setback of the hood which is intended to ease inserting the reel foot into the finished reel seat when on the rod. Those wishing a part having an all-flat end may either machine or sand the end as described below.

Start by de-burring the end of the part on both both the interior and exterior. This may be accomplished using a variety of means. However you choose to do it, be carefull not to scratch the exterior of the part and to keep the edges as square as possible. Scratches will be difficult to remove and may be evident after polishing and buffing. The mouth end of the part may be finished on abrasive paper. A new sheet of paper backed aluminum oxide abrasive may be placed on a hard flat surface such as a piece of steel plate with abrasive side up. Hold the paper in place with one hand, place the cap mouth onto the abrasive paper surface and manipulate it in a figure eight motion across the sheet untill the desired finish is accomplished. Rotate the part occasionally during this process. I prefer to start with a medium-fine paper and finish with a very fine paper. Alternatively the paper may be bonded to the plate using a contact adhesive. After finishing carefuly remove any burr that may have been created.

There are many methods and materials available for off hand polishing metal goods. Most common are the use of motor driven cloth polishing and buffing wheels. These wheels are charged with various polishing compounds at the time of use and the material to be polished is then appled to the rotating wheel. A tool to hold the part, bearing on the inside will be necessary. Select wheels and abrasives typically used for jewelry and other soft metal goods. Normally one would employ a medium and then a fine polishing compound followed by buffing compounds. Additional intermediate steps improve results. I have found that best results are had when I reserve a separate wheel for each compound or grit. Store these wheels in zip lock plastic bags.

A good finish takes good time. Be prepared to polish and buff carefully and be careful to avoid dwelling at the mouth end of the part so as not to round the edge over. A holding tool having a step up to cap O.D. will help.

Rev 11/4/02