

Side Edging – “Where the rubber meets the road”

By Dave Peszek

This is the fourth in a series of articles on ski and snowboard tuning that will appear this season in Ski Racing. Each issue, we'll tackle different topics that arise in the preparation and maintenance of alpine and nordic skis and snowboards. The author will attempt to answer any tech questions that you may have – Pez@holmenkol.us.

Last issue we tackled the process of ski shaping. Hopefully, you have had a successful experience with all of your skis and now it is time to set your side edge angles. The first thing to determine is what angle would you like to run on your side edges? Most prefer 3 degrees; check with your local shop, rep, or coach to learn about your particular ski brand's optimal angle. In World Cup today, most all athletes are running 3 degrees on all skis, all disciplines. A few very strong male SL skiers may choose 4 or even 5 degrees, but in my opinion – this is left for the very best in the world.

According to Jonathon Weyant, USST Women's EC Speed Serviceman, “back-filing is the most important thing to be certain of achieving the correct angles.” Back filing should be your first step, and perform this “on the entire length of steel, from the very tip to the very tail” says Jonathon. Choose a body file (a.k.a. panzer or cross file), and place it securely in a file guide that is 1-2 degrees more than your intended final side angle. With a very sharp body file, it will take about 4-5 passes along the length of the ski.

“Pay special attention to how you secure your files & stones to your file guides” says Weyant. “Most juniors simply use a spring clamp, which allow the file or stones to wobble and will change the angle. I prefer to use a very strong thumb wheel clamp or c-clamps to fully secure the file for the most accurate results.”

Between each pass, be sure to clean the ski, your file guide, and the file completely to avoid grinding shavings in to the ski. Use an inexpensive paintbrush to keep things clean, and a small copper toothbrush for the file. Many servicemen will also apply a layer of ski tape to the base of the ski to help prevent any filings from contaminating the plastic base material.

Next, choose a high quality finer grade file, and secure it properly to the file guide. Continue to file the entire piece of steel from top to bottom, until you achieve the desired angle. How to tell? There are a two methods: use your true bar atop your file guide and check in several spots along the length. If the true bar sits flat on the guide & the side steel, you have the angle. An even easier method is using a magic marker – simply rub a black marker over the side edge, pull the file, and check to be sure the black is gone across the width of the side steel.

Many professional servicemen are beginning to use shorter file sections for today's skis, or simply breaking off the longer files into short sections. Either way, be sure your file is completely straight & true, clean, and sharp. The shorter file sections help to prevent the “laddering effect” that can happen on today's shorter, radically shaped SL skis.

At this point you will have quite a burr, or “curl” built up. This “curl” wraps over the side edge towards the base, and needs to be removed. I like to pass a medium grade Arkansas (or ceramic) stone over the base steel at this time to cut that curl – it usually takes just one smooth pass with even pressure to do the job.

Next, polish the steel edge. "All you need are two stones to polish, 1 medium and 1 more fine" says Jonathon Weyant of the USST. Be sure to use these stones wet with either water or some type of cutting oil/solution. Secure the stone to your file guide for accuracy, and work the edge back and forth with even pressure. I like to mentally divide the ski into three sections, and perform as many smooth, even pulling strokes on each section to ensure a good finish. Repeat this with the fine stone on the side edge, then take the fine stone and remove the final "curl" from the base edge side once again (light pressure this time).

When asked about how sharp to leave today's skis, Weyant responds with a short answer: "full length for the inside edge, all the time. You can soften the edge slightly on the extreme tip & tail on the outside edges if desired; a little more so for speed, less for technical racing." Use a gummi block or soft stone to lightly soften the outside edges at the extreme tip & tail, if you choose.

Your edge should now be completely sharp, burr free, and comfortable to the touch (no fear of ripping your hands open, yet very sharp). Make a mental note of how this feels – you'll want to keep your edges in this condition all season for the best training & racing results possible. Perform a hot wax scrape cleaning to remove any debris from the base and give your skis another coat of training wax to keep them fast!

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