

To Back-Lap or Not to Back-Lap

Lapping has been around for centuries. It is a way of polishing or shaping objects to fit properly. It is used to remove rough edges or to mate two pieces to create a precision fit. Back-Lapping, as we know it, is the same as lapping two metal objects to fit. The reason we call it BACK-LAPPING is because in order to lap a cutting unit we have to spin the reel in reverse to achieve our goal. What is our GOAL? That's a good question.

Our goal when back-lapping is not so much to mate two surfaces or edges. It is to maintain the sharpness of the edges. This maintains the best quality of cut between sharpening of these cutting edges. The entire back-lapping procedure can be completed in as little as 15 minutes. Most of today's equipment comes equipped with on board back-lapping capabilities, making the job much more efficient.

There are four important factors that you need to consider before you attempt to back-lap. When these factors are met, it will assure that back-lapping will be an effective practice.

1. How dull was the reel when you made the decision to lap?

Back-lapping is intended to be a maintenance practice not a repair.

2. How much relief was left on the reel blade?

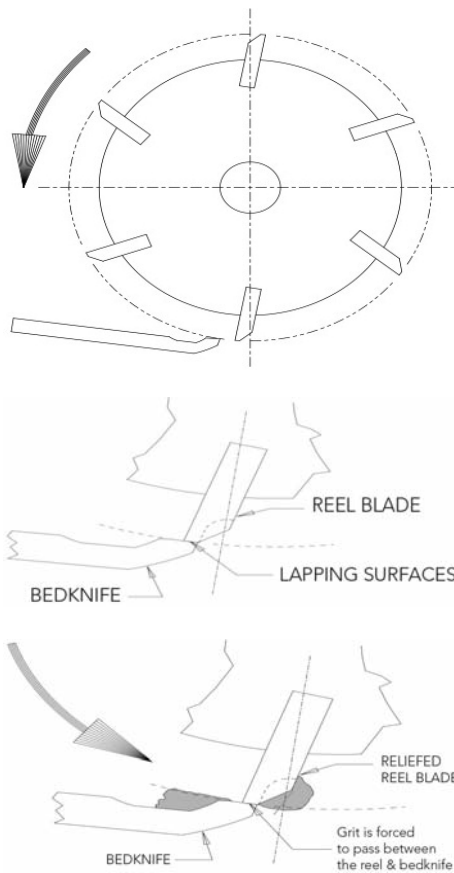
Relief is needed in order to back-lap, thus the efficiency will diminish as the relief angle diminishes.

3. How long ago did you back-lap? Did you lap long enough to effectively put an edge on?

The time needed to back-lap depends on the status of the relief angle and how often you back-lap.

4. What is your back-lapping procedure?

The effectiveness of the back-lapping process is best achieved by keeping the grit in suspension and dispersed evenly.



Once you've evaluated these factors, then you can begin your maintenance practice of back-lapping a cutting unit.

The correct procedure for back-lapping will be to make light contact between the reel and the bedknife, rotate the reel in reverse, and apply the proper grit compound.

The top face of the bedknife that lies in the path of the reel blade and the surface width of the blade is where the grit of the lapping compound will pass through. The thinner the blade width the less time it takes to back-lap, the wider, the more time is required in order for it to be effective. If the cutting edges are too rounded, this too will require more time.

Without a relief angle, back-lapping should not be considered an option as a maintenance practice. The relief area on the reel blade is where the lapping compound clings, allowing the grit to be suspended in the relief area, and then pushed between the reel blade and the bedknife, making it effective for removing metal.

To summarize, in order to have an effective BACK-LAPPING maintenance practice, you must maintain the original equipment manufacturer's specifications and maintain a relief angle. The thinner the blade width the less time is required to back-lap. As the relief angle diminishes so does the efficiency of back-lapping.

DON'T WAIT TO BACK-LAP – DO IT PERIODICALLY TO MAINTAIN QUALITY OF CUT. -OC