

## MAGCS DIRECTORS COLUMN Winter Wonderland

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"So, what do you do in the Winter?" If one does any socializing at all, outside of the golf course business, this is a question that invariably comes up. I've struggled with different answers to this question over the years. I usually tried to tailor my response to the person and situation. **Before** I was married (now blissfully for six years), if a young woman asked me this, I would usually tell her I spent most of Winter sipping margaritas in the Caribbean and; would she like to accompany me in this activity. Of course no one ever took me up on this offer. Thank goodness, for I would have had a hard time living up to the image I had created.

The same inquiry posed by a three-piece suited, pencil pusher would naturally call for a different response. This type of person would be useless in the Caribbean anyway. Normally an answer of "nothing — but I still get paid" was enough to remove the smug look that had initially appeared.

Of course neither of these flippant remarks is indicative of what truly is involved in managing a golf course operation. An incident that occurred to me a few years ago really brought home the message that there is still misunderstanding about our profession outside of our own circle.

The situation occurred while vacationing at Disney World with my wife and daughter. It was a dreary afternoon after a rainy morning and I sauntered over the nineteenth hole to catch the Dallas-Green Bay game on the tube, while my family napped. While I was there a foursome came off the course and sat in close proximity to myself. As the game deteriorated, my concentration waned and I couldn't help overhearing parts of the conversation from the aforementioned foursome. It was apparent that three gentlemen were traveling together. They had all shot well over one hundred and were pleased about it. The fourth gentleman had joined them as a single. His golfing prowess far exceeded that of his new found playing partners. He had shot in the seventies. As one would expect the one hundred plus shooters were awed by the skills of their playing companion. After several rounds of drinks they were looking upon their friend as a golf deity, an ultimate authority on all phases of golf and the business of golf! At one point the "Pro", who was in reality an insurance salesman, was describing the many duties of a club professional including: running the pro shop, running the driving range, making tee times, organizing tournaments, giving lessons, and of course "supervising the greenskeeper"!

It was at this point, (having had one or two cocktails myself) I felt obliged to butt in, to enlighten my four barmates with the intricacies and complexities of being a golf course superintendent. I left my "friends" somewhat stunned but I was confident I had struck a blow for the betterment of my chosen profession.

Now when asked about my Winter activities, I am quick to explain the scheduling of equipment maintenance, the preparing and implementation of a budget, the development of new programs to enhance turf quality and playing conditions, the continuing educational process of seminars and conferences and of course taking a little R and R. After that lengthy explanation, I now hear "Gee that's great, but what do you do all Winter?"

## Spin Grinding

by Scott Weiler  
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### REED GRINDING

Spin grinding has taken off in the past few years as an alternative to proper reel grinding, offering "time savings" and "increased accuracy". The trend toward spin grinding is a result of the efforts of a few self-serving manufacturers telling you what you want to hear. Unfortunately, the whole story is seldom told for fear of rejection of the spin grind concept.

Everyone understandably looks for ways around undesirable tasks. Reel grinding has been in the undesirable category since day one, and finding a better way of sharpening has been a constant consideration.

Flat or spin ground reels have a tendency to be more accurate if they are set up properly. With the design of most reel mowers in the U.S. today, it is imperative that the reel be brought back to as perfect a cylinder shape as possible. Short cuts in this area (i.e., Touch Method from end to end) take away any benefits offered by the Spin Grind Method. NOTE: Touch Method may be used on units which adjust reel to bed knife since cutting is always done at the same point due to stationary bed knife.

Relief Angle: A question that comes up frequently in grinding conversations is, "Why is relief necessary?", or "Why is no relief required?"

No matter what your beliefs - spin grinding offers only a "flat" grind with no relief, it simply cannot be any other way. The manufacturers of most reel cutting units design relief into their mowers for the following reasons.

1) Ease of manufacture and assemble. 2) Ease of sharpening between grindings (lapping or back lapping). 3) Minimal contact between reel blade and bed knife.

DISCUSSION: POINT #1 — During assembly of reels, a perfect cylinder shaped reel is desired for proper reel to bed knife contact. To achieve this, Spin Grinding is used to true the reel containing pre-relieved reel blades before assembly. This virtually eliminates lapping when done correctly.

POINT #2 — Since the relief, which is built into each reel blade offers a smaller "land" or "flat" to be lapped during between grindings sharpenings, every bed knife and reel combination wears or dulls to some degree during use. The Back Lapping procedure is the procedure of applying fine compound while the reel is being turned backward (Back Lapped), and the bed knife is adjusted for contact with the reel. The Lapping Compound, along with contact between the reel and bed knife, removes a certain amount of steel on both cutting surfaces to expose a sharp cutting edge once again. With a relief grind on the reel blade, the process of lapping a reel unit is easily achieved. Without relief, the lapping process takes much longer since more surface to lap translates into more time to lap.

The statement came up, "With a flat grind your cutting edge holds up better and doesn't need lapping." Now we know better than that. Anything that cuts anything gets dull. If you're expected to spin grind when you're supposed to lap, where is the savings.

POINT #3 — Minimal contact between bed knife and reel is desirable. "Zero clearance" when the bed knife and reel are sharp is the ultimate goal.

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(Spin Grinding cont'd.)

Naturally, it is impossible unless grinding or lapping has just been done. After the two cutting surfaces start to dull, slight contact between the bed knife and reel is required to cut. A new cutting unit has no more than a narrow "land" on the reel blade to make contact with the bed knife. A half worn reel (flat on half the thickness of the reel blade) has half the blade in contact with the bed knife which also has a flat on it.

If all the relief is worn off, the full contact of the reel blade is in contact with the flat of the bed knife which is exactly what you start out with on a spin ground reel.

Minimal contact between the mating parts is desirable because of reduced heat build up, lower power requirements to drive reels and to held maintain a sharp cutting edge in addition to minimizing the wear of gears, bearings and seals. Excessive wear may not show up at first, but in the long run noticeably higher repair costs will be evident when a flat grind is used.

How much relief is enough? Too much?

Since there is no way of measuring precisely the amount of relief on a reel blade, it is enough to say that any relief is better than none. Conversely, too much relief will have adverse results including: a) Weak cutting edge and blade. b) Fast reel wear. c) Frequent bed knife to reel adjustment.

Too much relief is usually a result of placing a double relief on the reel blade.

Examples of reel cross sections - correct and incorrect applications.

#### BED KNIFE GRINDING

How the bed knife is ground does make a difference in overall performance of your cutting unit. When grinding (sharpening) a worn bed knife, always make sure that the relief angle is taken from the existing worn surface, 5° is usually adequate.

Grinding a new bed knife is very simple. After mounting the knife to the bed bar, a few passes are necessary to make sure the cutting edge is true before installation into the cutting unit. Follow the existing angles since relief has already been ground in at the manufacturer. Changing the relief angle is unnecessary and results in shortening the bed knife's useful life.

In a nutshell, spin grinding does have its place when used with RELIEF. It has been proven as an excellent way of truing a reel (when proper set up is used). Relief is important for prolonging cutting unit life right down to the bearings and seals. Relief is and always has been a necessary part of PROPER mower maintenance. Shortcuts taken in this area will mean higher costs in the future. Don't settle for half the job. Insist on relief.

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