



Steven Tucker is the equipment manager at the Ritz-Carlton Members Golf Club in Bradenton, Fla., and the president of the International Golf Course Equipment Managers Association. He can be reached at 941-309-2913 or stephen.tucker@ritzcarlton.com.

SETTING THE CUTTING UNIT

Cutting units generate some of the most controversial questions in the turf equipment industry. Do you backlap? Do you spin grind? Do you relief grind? The real answer is ... whatever works best for you at your facility.

But when you analyze this answer, what can you learn from it? If you were learning how to set up a cutting unit properly, where would you find information about this procedure? Every property has its own unique challenges that require you to understand what cause and effect you have when setting up cutting units.

The most common problem with cutting unit setup is inconsistency. Many golf courses have more than 40 cutting units to maintain, and each one needs to be set just right to achieve accurate results. One of the biggest mistakes can be made when setting the height of cut. It's not necessarily as easy as it sounds.

Typically, when you have someone set the height of cut, you want the same person setting all the units of that type because each person who holds the gauge bar on the cutting unit might hold it differently or apply more or less hand pressure. While this seems minor, it can cause a slight inconsistency with cutting units.

Setting the attitude of the cutting unit also plays a large role. The attitude describes the position of the bed bar as it sits in the cutting unit in its working position. Typically, you can find the correct settings and procedures to this process in the operator's manual that comes with the equipment. Each cutting unit must be set up with the same attitude, or it will cause a different look on the turf.

Also, keep in mind the reel diameter plays a huge part in this process. If the reel on one cutting unit is more worn than the other, the attitude will need to be adjusted so they all match and are consistent. A good measuring device to check reel diameter is a Pi Tape, which provides the most accurate measurement of reel diameter.

Cutting units should be checked after each use to determine the proper setting for the next mowing. Using a cutting unit that's maintained regularly ensures the best quality of cut and maintains consistency and a sharp edge. The most common way to maintain cutting units is by using sheets of paper to check the quality of cut and a hand file to dress the front face of the bedknife. A hand file maintains the angle the bedknife as it was ground originally. You don't want to change that angle by using

It's important to realize that whether you relief grind, backlap or spin grind, you can achieve the correct look if you set up the cutting unit properly.



hand grinders that don't lock your angle in place.

Before you grind the cutting unit, execute a series of checks. First, look for any signs of reel damage: cracks, bends, nicks, etc. Then check all bearings from reel to rollers. If there's any play, they might need to be adjusted or replaced, depending on the type of cutting unit. Avoid grinding a cutting unit with bad bearings because this will impact the grind considerably.

Once you've determined your bearings are OK, it's a good idea to remove the bedknife and check the bushings to make sure you don't have significant wear that will affect the setup once you're finished.

Now you're ready to grind the cutting unit. It doesn't matter which method you use. The idea is to have a sharp reel. Whether you have relief or not, you can still have an excellent quality of cut either way. Once the grind is complete, check the bearings to ensure nothing is loose.

Once you double check the bearings, you're ready to install the bedknife. Read the manual to see how to install the knife properly. Some manufacturers have plastic washers that need to be set a certain way to prevent bed bar tweaking.

The final stage in setting up the cutting unit is to "parallel." This seems to be the most difficult process to understand. The sharpest, most correctly ground cutting unit in the world is ineffective if it's not parallel. This process aligns the reel and rollers, ensuring all three are on the same plane so the downforce of the cutting units and cut line remain the same across the length of the unit. If one roller is slightly off, the weight won't transfer evenly and will cause those dreaded dark lines and a mismatched cut. You can learn paralleling procedures in the operator's manuals or on www.igcema.org.

There are many ways to achieve great quality of cut. Achieving a consistent mowing pattern on every golf course is no big secret. It's important to realize that whether you relief grind, backlap or spin grind, you can achieve the correct look if you set up the cutting unit properly. **GCI**