

As life grows increasingly complex for mechanics, the old maintenance mantra will change. Where a guy in the shop once said, "Don't worry, we can fix that," his new slogan may be, "If it's broke, don't fix it."

Fairway mowers fall into the hard-to-repair category: As the machines become more advanced, a mechanic's job shifts focus to preventative maintenance.

Ron Amorelli, service manager at Golf Ventures in Lakeland, Fla., agrees troubleshooting has become more difficult.

"It's harder because of the evolution of the machine," he says. "It's gone from



Tangled Up in Fairway Mowers

In this high-tech age, it's complicated, but you can keep your equipment rolling down the fairway

By Bruce Allar

a mechanical machine to a hydraulic piece of equipment driven by electronics."

Golf Ventures sells Textron Turf Care And Specialty Products, including Jacobsen fairway units, and Amorelli cautions that certain repairs are best left undone at the course.

"Anytime you need to open up a hydraulic system, you need to contact a dealer because contamination can ruin it quicker than anything — and maintenance shops aren't the cleanest places," he advises. "Some mechanics can do it, but they're few and far between."

Let's face it: Most mechanics, who trained on gas rather than diesel engines

Fairway mowers, because of their complexity, force mechanics to focus on preventive maintenance to keep them cutting properly.

and are stumped by solenoid switches, are like doctors trying to diagnose on a hunch in the age of the MRI. They're often shooting in the dark.

And misdiagnoses can do even more harm to equipment. John Oldenburg, manager of technical services at Textron's home offices in Racine, Wis., says incorrect assessments can cost several hundred dollars in fruitless repairs. "Customers spend a lot of time changing parts needlessly," he adds.

The "reel" truth

So what to do? You have a trio of \$35,000 mowers, and you want to keep them churning down the fairways.

One answer might be to obsess over the cutting units. When they're not properly height-adjusted or when they aren't cutting well, golfers notice immediately. Brad Humphreys, assistant superintendent at Oxmoor CC in Louisville, Ky., removes all five reels from each fairway mower twice a year, replaces the bed-knives, sharpens the new ones and checks the bearings. Any drag in the bearings calls for a replacement.

He tries to avoid the common prac-

tice of backlapping with the reels still attached to the mower.

"I don't like to (backlap) because I don't feel like I'm doing a good job of getting the reel and bedknife adjustment on both sides," Humphreys says. "I like to take the reel off and put it on its side so I can look down at the face of the bedknife and the reel to get my true adjustment."

Even sharp reels and bedknives may remain out of adjustment because of previous encounters with rocks or a sprinkler head — or even from previous shop work.

To test for misalignment, Tim Cunningham, superintendent at The Country Club at Fox Meadow in Medina, Ohio, folds up a newspaper and runs it lengthwise along the bedknife. If it doesn't cut all the way across the newspaper, Cunningham rehones by backlapping.

"The reels tend to get cone-shaped," he says. "Backlapping brings them back into good cutting form."

To achieve all-important uniformity in cutting height among the reels, Oldenburg advises daily greasing and adjustment, plus regular bearings checks. Daily servicing is a dream for most, but reels not inspected regularly risk throwing off cutting adjustments.

Oldenburg also stresses blade sharpness. Many crews stretch the time between sharpenings and compensate by tightening down the reels closer to the knives, eventually pinching grass instead of cutting it. This also heats up the blades and the hydraulic system, shortening the life of components.

A hydraulic lift

Operators form the first line of defense against grass-killing hydraulic leaks.

"Some guys I've seen mow two or three fairways with a broken hydraulic hose until they're out of oil and it quits," Humphreys says. By then, pumps, transmissions, reel motors — and your reputation with the membership — may be on the line. "So I tell them when they see a hydraulic leak, stop the machine, wait and someone will call me," he says.

Humphreys instructs his workers to drive 5 mph to 6 mph and set the reel

speed at wide open to keep the hydraulic fluid coursing through the unit. He changes hydraulic fluid and filters every 200 hours, a full day of service. He greases every 40 hours (or once a week), replaces the oil and oil filter every 50 hours and the air filter anywhere from 20 hours to 150 hours.

"You can't blow the air filter out with an air hose because you're just digging that dust right back into that filter, and it's putting little holes in it," he notes. "It's going to eventually draw that dust through the filter into the engine."

Humphreys purchased an auto mechanic's hydraulic lift for less than \$4,000 and customized it in his shop for narrower wheel bases, saving himself several thousand dollars off the turf lifts that he priced at about \$10,000. He has also discovered

MOWER MAINTENANCE

Here are a few tips that will help you keep your fairway mowers running at peak performance:

1. Inspect the cutting units on a regular basis.
2. Sharpen dull blades to keep them cutting evenly.
3. Grease the arms to prevent the switches from getting out of adjustment.
4. Train your workers in all aspects of mowing.
5. Add a 12-volt test light and an ohmmeter to your toolbox.

during his two years at Oxmoor and previous service at Desert Mountain Properties in Scottsdale, Ariz., that some of the fluids and oils sold by manufacturers are "either regular Dexron transmission fluid or 10W30, 10W40 with pink dye in it." His solution: Buy 55-gallon drums of "spec" oil and save some money.

Train and test

As with all other aspects of equipment maintenance, training workers is vital. "Start with a good operator training pro-

gram and have an experienced individual work with new operators," Oldenburg suggests.

Teachers should demonstrate how to mow hillsides, around bunkers and in other problem areas. Consider partnering with other local courses to bring in an expert for a seminar. Above all, teach workers to be observant.

"I always say, 'Sight, sound and smell' — if any one of those is different, make note of it," Oldenburg says. "Also, define who is really responsible for daily maintenance — and make sure that person does it each day."

Humphreys upgraded his tracking system, putting it on a computer software program. He enters the hours a machine has been run and the program cues him when service is needed.

But in this computer age, it's often difficult to determine what you can repair yourself. Humphreys gets frustrated by "black box" problems on his mowers and the guesswork involved with the solenoid switches. (With certain newer models, mini-computers are being supplied by manufacturers that aid in troubleshooting, according to Cunningham: "Green means OK; red means trouble.")

"You'll see more diagnostic uses of [computers] rather than to power equipment," Amorelli says. "The environment is too harsh for a computer to function. It's not a spaceship."

He recommends two simple devices for the technologically challenged: a 12-volt test light and an ohmmeter. The test light indicates whether a circuit is grounded or has a hot wire, and the ohmmeter measures voltage. Most electronic hydraulic valves need 12 volts to turn. These electronic devices can pinpoint a problem area.

If you're like many superintendents and golf course mechanics, you're not armed with these tools. It's time you add them to your trade. ■

Bruce Allar, a freelance writer from Floyds Knobs, Ind., says that even Mr. Goodwrench would have a helluva time fixing a fairway mower.