TECHNICALLY SPEAKING WITH TETA

It's all in the Details

Ted Soenksen, *Wilmette Golf Course*

Is winter detailing worth the extra time and effort? We in the Midwest or northern states with off-season "down time" should take advantage of the ability to tear aged equipment down to the bare bone when possible. I have had the opportunity to clean and detail a 6 year old Toro 3500D. It has been a trouble-free unit, cutting banks for an average 350 hours each season.

While following the manufacturer's periodic maintenance (PM) program and annual maintenance schedule you will find hidden areas that are not mentioned in any manual. Since these manuals are printed without the projected wear areas listed, we as technicians have to try to anticipate and find these areas that may cause havoc. While I was deep cleaning and detailing the traction unit, I was able to pinpoint wear points that I could never see during mid-season. One area I found through detailing the machine was:

The slide mechanism that allows the cutting units to move left to right. The bearing caps that support the entire lift of the cutting units are made of plastic and run on steel. After looking into this, I found there are no specifications or wear limits to these plastic bearing caps. I decided to see how much play this wear had caused the cutting units to move. With the cutting units off the machine and in the lift I was able to teeter the assembly over 1 ½" in the furthest right position. Visually I could see the gaps between the bearing caps and the round steel axle!

Naturally I ordered a set of bearing caps and slides right away. Upon closer inspection I found the solid hydraulic tubing that is mounted on this assembly was very close to rubbing against traction unit frame because of the slop in the bearing cap slides.

I would have never seen this if we didn't take the time to strip and clean the unit. The dividends from a thorough cleaning and inspection translate to smooth operations during the growing season.

Fixes are Easy Once the Problem is Found

Glenn Peters, Sunset Ridge Country Club

We've all had them; the problem that leads us one way, when the real cause is something else.

Case in point: a 1991 Cushman with the Diahatsu engine.

The Problem: the engine starts, and runs, but acts as though is running out of fuel.

What I did: I checked the fuel supply, fuel filter, carburetor, and found nothing wrong. Next, I checked the ignition system, replaced breaker points, condenser, and checked the plug wires, but still had the same problem. I put the vehicle on the lift to check the plug wire again and noticed the wire loom on the right side of the vehicle sagging. I repositioned it to its proper place, put the vehicle down and tried to start it. The vehicle would start, but same problem – it would not stay running. I put the Cushman up on the lift again and decided to check the wire loom again.

Eventual Solution: I peeled back the covering to discover the wires had been cut by the frame of the vehicle. *(See photos for location)* The wire for the ignition run position broke when I put the loom back in its proper position. In addition, the wire to the carburetor fuel valve was grounding intermittently causing the hesitation and the perception that it was starved for fuel. The repair of the wiring was simple and corrected the problem completely. **-OC**