

Small Engine Care

By Tom Harrison

We all have different problems maintaining our courses. Turfgrass diseases, irrigation, irate members, and employees are but a few of the areas that make our jobs very difficult. Our turf equipment, if properly maintained, can be an asset in making the season less hectic. But when a piece of equipment fails prematurely during the growing season, it just makes our jobs that much more aggravating.

The majority of the machinery used on golf courses today is powered by small engines from one to four cylinders in size. These small power plants are the backbone of the equipment we use. It is imperative that this equipment operate trouble free and continuously throughout our growing season. Mid-season breakdowns and the problems they cause are both unwanted and in most cases unnecessary.

Good equipment care starts with purchasing good, durable equipment; training your employees to operate and care for it properly; and servicing it regularly. Good preventative maintenance means thoroughly understanding each piece of equipment; following manufacturers recommendations on servicing; using good quality lubes and fuels; and having a trained person, who is given adequate time to care for the equipment.

Every golf course maintenance operation needs someone to service the equipment. Most of the larger golf courses with many pieces of equipment need a full time person in the shop while small operations can make do with a man in the shop half time or less. Large operations that need a man in the shop full time but who are constantly pulling him out of the shop to rake traps and mow roughs are asking for trouble. Eventually the equipment will start to fail prematurely and the superintendent will blame it on his inept mechanic. But no matter the size of the operation the fact remains that someone with training and the necessary time must care for each

piece of equipment.

Many clubs in the state have successful maintenance programs and consequently there are many ways to approach good equipment care. It would be difficult to write an article that details specifically "the" method to care for equipment. There are many superintendents who do a good job along these lines so what I have to say will not be of much value to them. But there are many superintendents who are great golfers and great agronomists, but are lacking in the area of equipment care. I would like to relate our experiences at Maple Bluff Country Club because we feel that we do a pretty fair job of caring for and repairing equipment.

The heart of any good maintenance program is the commitment by the superintendent to put some emphasis on his equipment repair. Secondly the level of service and the delegation of responsibility to an employee or mechanic must be made. The most basic part in taking care of equipment is following the manufacturers recommendations on servicing. More specifically, this means changing the oil, filter and chassis lubrication. The engine is the single most expensive part of any piece of equipment, which makes its care critical. Too many people extend oil and filter service intervals too far. An engine that has its oil and filter changed regularly will last a tremendous length of time.

At Maple Bluff Country Club all single cylinder engines are serviced every 25 hours. This includes oil, air filter, oil filter (every other lube interval on some engines, every interval on others) and a general inspection of the outside of the engine for any other problems. We use Cenex 518 #30 in all engines used during the warm months of the year unless the manufacturer requests use of a multi-weight oil. If a manufacturer specifically recommends a multi-weight oil then we use a 15W-40. We do not switch brands of oil,

from year to year. We will check our suppliers prices periodically to keep everybody honest and we let them know we are doing so, but we have no intention of switching brands. Many years ago different brands of oil had major differences in quality and additives. That is less so today which makes changing brands of oil in a repair facility less hard on the engines. But there are still differences among oils so it pays to settle on a good reliable supplier who sells a good quality product and stay with that company.

Single cylinder engines are serviced every 25 hours, 2 cylinder engines anywhere from 50 to 100 hours depending on the type of use and 4 cylinder engines every 100 hours or 2 months. At these service intervals it is common to get 1800 hours on a single cylinder Kohler cast iron block before we have to rebuild the engine. Briggs aluminum blocks (on Ransomes Motor 180's) are currently at 1130 hours with no failures. Cushman 2 cylinder engines have lasted 5000 hours before overhaul. Regular, frequent oil service intervals can give tremendous life to an engine. When the engines are finally ready for repair we do not discard them but rather rebuild them for more service life. It is amazing how you can cut the operating cost of a piece of equipment down drastically by merely extending service life by regular oil change intervals.

Air filters and the screens on flywheels on air cooled engines are checked very carefully. Air filters can be blown out with low pressure compressed air but care must be taken. Any chance of a filter not sealing properly or of a hole developing from too high air pressure used in cleaning and the filter is discarded. A filter that gets too plugged for cleaning, or oil or gas soaked, must likewise be discarded. The volume of air that an air cleaner handles and the importance of clean air to the life of an engine makes it

critical that air cleaners be cared for properly.

Flywheel screens can become plugged during seeding time and if ignored the effects are not known until the engine overheats and the valves and rings are damaged. A simple cleaning with an air gun will suffice to keep a flywheel screen breathing properly.

These simple items—regular oil and filter intervals, proper air cleaner care and keeping the air cooled engine cooling properly—will keep the operating cost of a piece of equipment down. It is a poor business practice to discard equipment because the engine needs repair due to poor servicing. If your equipment is cared for properly and gives you trouble free service it is one step in making your operation run a little smoother.

(Continued from page 15.)

covered with soft, woolly white hairs, forming a mat 8-12" tall. Plant Lamb's Ears along the front of an annual flower garden, 15-18" apart. It will fill in as a broad edging plant. Most Lamb's Ears

produce 12-15" upright stalks in July, with small magenta flowers, but gardeners often cut them back before the flowers develop. Lower-growing, non-flowering types such as 'Silver Carpet' are available.

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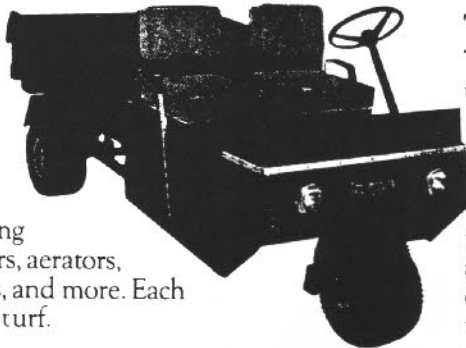
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