Ten Maintenance “Musts” for Your Watering System

Among the many economies proposed at courses this season is less lavish use of water. Quite properly, it is felt that golfers will not expect courses to be as well manicured as in former years. Fairways a little on the brown side will not be criticized.

But even if water is to be used more sparingly, course operators should remember that the irrigation system represents a substantial investment—one that should not be allowed to depreciate in operating efficiency, against the time when a full watering program can be reinstated.

Keeping a watering system in good repair is not difficult, providing the proper overhaul is given it at the start of the season. The “ten commandments” of the job are these:

**Pumping Unit**

1. If oil lubricated bearings are used, drain out all old oil, flush bearings with kerosene, and fill to required level with suitable lubricating oil.

2. If bearings are grease lubricated, do not attempt to force too much grease into the bearings; otherwise they are apt to heat up unduly. Oft too much grease is as bad as too little grease.

3. Where water is pumped from open channels or lakes, it might be well to remove top half of pump shell and examine impellers. Hickory nuts, small stones, etc., often become lodged here and greatly reduce pump efficiency; they are easily removed with a stiff wire. If shell gasket is damaged when removing top half of pump shell, a new one can readily be made; however, be sure paper used is the same thickness as original gasket.

4. Check packing boxes and renew packing if necessary, tightening all packing box glands evenly. When pump is running, a drip at each gland should be permitted every 5 to 10 seconds; this assures us that lantern ring, or water lubricating device, is working.

5. If footvalve is used, check same and renew leather disc if necessary; if multiple-disc type footvalve is used, check all discs for tightness.

6. Many golf course pumping plant installations are subject to freezing temperatures which often result in a slight frost heaval of concrete foundation. Check by placing spirit level across machined faces of bed plate in numerous directions;
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if bed plate is not level it will be necessary to shim it or shim the pump or motor until they are perfectly level.

7. It is imperative that the two halves of flexible coupling which connect pump and motor be in perfect alignment; check by placing straight edge across top of the two halves of the flexible coupling. Straightedge should be perfectly parallel with both surfaces; if not, pump or motor must be shimmed until this is assured. Clearance of \( \frac{3}{8} \) in. to \( \frac{1}{4} \) in. must be allowed between both faces of flexible coupling when the unit is running; this clearance can be checked with a thickness gauge and must be equal at all points.

Piping System

8. Before allowing water to enter pipe lines check all drain openings and make sure they are closed. Allow water to enter lines at reduced pressure. Open up all water valves at high points on the system and also at all "dead-ends"; flush these locations until all air is exhausted from piping system.

9. When piping system is thoroughly free of air, increase pressure to working pressure and examine all water valves for leaks. Repair any found, for numerous small leaks are cumulative on any golf course irrigation system and total leakage can be considerable.

Sprinklers

10. All slow-moving, long-range sprinklers should be dismantled each year. Remove old grease thoroughly, wash and clean all moving parts, replace any that are unduly worn, assemble and pack with a suitable grade of grease. Power lawn mower, tractor, or water-pump grease is not usually suitable, for it often congeals at low temperatures and eventually slows down or stops sprinkler. One suitable grade of grease is Texaco 904.

Check all sprinkler nozzle tips for indentures; if any are found, ream out inside of nozzle until they are removed, or replace with new nozzle of suitable size.

Has golf classes—Percy Jarvis, pro at Maplewood (N. J.) CC, is conducting his fifth annual adult golf class at the South Orange-Maplewood Adult School. This year the attendance has been cut by gas rationing to 20 who take the full course of 10 lessons. Class sessions are 1½ hours. Beside the course of golf instruction, water safety and lifesaving courses are the only athletic courses in the school's program of instruction.