

Keeping Fleet Cars And Vehicles Up To Par

By John Allison

Of the factors that impact overall golf course profitability, which ones can be controlled? Although the answers may differ from course to course, depending on such variables as location, course layout, membership base, and length of playing season, most club managers will tell you that golf car rentals are among their highest source of daily revenue, second only to playing fees.

As a prime source of a course's revenue, the golf car fleet, as well as turf vehicles, should be regarded as tremendous assets. And, with a little care, the fleet won't become a potential money pit. In fact, with today's state-of-the-art, virtually maintenance-free golf cars and turf vehicles, it's now easier than ever to reap optimum daily

profits and maximum performance from your fleet.

To the golf course manager, the real cost of fleet ownership is not restricted to the original terms in the lease or purchase agreements and the cost of everyday operating expenses. The real cost, or the real *value*, of any fleet is equated to its ability to maintain minimum downtime and maximize profits.

The first step in attaining optimum performance and reliability from your fleet is to develop a comprehensive maintenance schedule to keep accurate records of each individual car's use. Use the schedule to ensure equal use of all fleet cars by rotation. The most common pitfall is the "last car in, first car out" trap, which ultimately distrib-

utes the lion's share of work load on select cars.

Most course personnel are limited by the design of the fleet barn, which may have a less-than-nominal ingress/egress layout. Ideally, a front and back door design permits the first arrivals to be the first out the following day. Whatever solution works best for you, keep in mind that unequal up-time hours on select cars will eventually take their toll on overall fleet performance.

To monitor the ongoing maintenance costs on each vehicle, prepare a cost accounting maintenance chart that divides vehicle operations cost into two categories: *Maintenance* and *Upkeep*. Use the Maintenance category to log all expenses associated with daily operations, including the service time and cost of topping off the fuel tank, charging the battery, cleaning, and the routine replacement of minor parts-items and procedures needed to keep the car running on a day-to-day basis.

The Upkeep category, on the other hand, will be used to log-in the service time and costs of parts that contribute to vehicle longevity and long-term performance, like tire rotation, filter replacements, engine valve and steering mechanism adjustments, battery servicing, etc.

Often, as the daily rigors of maintenance are performed, vehicle upkeep is delayed or becomes relegated to the final item on a checklist. Don't underestimate the significance of a fleet's long-term upkeep schedule, as a single car down spells a three-way loss: lost revenue, expensive labor time, and the cost of replacing parts.

For gasoline cars, gas, oil, spark plugs, filters, battery fluid level, etc., are the usual items which must be attended to, added, or replaced to ensure day-to-day operation of a gas car fleet. If the fleet is coming out of



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winter storage, topping-off the gas tank—or partially draining old, stale gasoline and refilling the tank—will help the engine run smoothly. Elements in gasoline begin to break down immediately, and a fresh gas mixture will increase the octane level necessary for proper combustion.

Replacing a gasoline golf car's air filter will go a long way toward ensuring maximum engine horsepower. A dirty air filter upsets the air-to-fuel mixture, and in doing so will make the engine run rich. Left unattended, the car's spark plugs will quickly become fouled and the car will go down.

Refer to the manufacturer's suggested guidelines on filter replacement. Or, if the fleet is subjected to unusually heavy use, a simple visual inspection of the air filter will quickly tell you whether replacement is necessary.

Your gas fleet cars probably have 12-volt batteries, which require similar initial maintenance as do those on electric cars. Check the battery's specific gravity and fluid levels (use only distilled water), remembering not to overfill individual cells. Warm batteries cause the fluid levels to rise, and overfilling will result in battery terminal corrosion—or worse—as the sulfuric acid seeps out.

Implementing a program that equally distributes work load on the entire fleet is especially important for electric golf cars. Disproportional use on select cars severely impacts the depth of charge and a battery's ability to maintain a charge.

Make it a point to keep an electric car's battery at least three-quarters charged at all times. This not only improves performance, but keeping a battery at or near peak charge significantly extends its service life. Consistently discharging batteries to 50 percent or less of capacity will result in less than half the cycles generated in the life of the batteries compared with discharging 30 percent of capacity.

For the electric golf car fleet, controlling the depth of charge and the time at which charging occurs are probably your two most significant challenges. Batteries operate at peak performance when warm, immediately following a full charge. But often an electric fleet will come off-charge during early morning hours, permitting the batteries to cool down.

Timers enable your maintenance staff to control when batteries will come off-charge, but timers typically overcharge an average of 22 percent, wasting energy and damaging the battery. The maintenance staff may use automatic chargers, which can better

control the depth of charge, but lose the ability to regulate the timing of the charge. Whatever option is used, you should consider which system works best for your particular situation, taking into account such variables as seasonal temperatures, the number of early morning tee-times, and battery condition.

For any golf car fleet, tire pressure remains a key factor for obtaining the most

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rounds per gallon/charge. Too little pressure causes increased rolling resistance, inhibits handling, and requires more energy to run. Too much pressure causes premature tire wear. Look at the manufacturer's recommended figures for proper tire pressure. And at the same time you're attending to the wheels, check to make sure the brakes are correctly adjusted. An optimum adjustment ensures that just enough drag will safely stop the vehicle, while too much drag will inhibit rolling efficiency, waste energy, and cause premature wear of brake parts.

As basic as these practices may seem, not adhering to the specific maintenance procedures suggested by your fleet manufacturer can result in costly downtime. Once again, not only will you be faced with an inoperable car, but you will also dip into the maintenance budget with unanticipated labor and parts costs.

Apart from the financial advantages a well-running fleet affords, golf cars that are in consistent tip-top shape speak well for the course itself and help to foster a positive image—an important fact in our world of business.

Today's generation of golf cars, whether electric or gas, utilize the latest practical technology available and in doing so make a fleet manager's job easier than ever. But this technology does have its price, as the sophistication of most golf cars makes it impractical for the average golf course maintenance staff to perform many on-site repairs.

Like anything mechanical, periodic scheduled maintenance remains an absolute must. With a well-thought-out program enacted, you've ensured that your fleet will be a top money-maker and one of the golf course's top assets.

Editor's Note: As field service manager in the Golf and Utility Vehicle Division of Yamaha Motor Corporation, U.S.A., John Allison oversees all service activities for the firm's golf car line and functions as liaison between Yamaha and its network of more than 60 independent dealers nationwide.



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