

# FLEET MAINTENANCE: MANUFACTURERS OFFER THEIR MONEY-SAVING ADVICE

# At a loss? Consult the Club Car manual

#### By RICK FARRIS

Having a good, working knowledge of your golf or utility vehicles, the proper tools, and consulting your service manual(s) — I personally prefer the Club Car model — can be the keys to maintaining your golf car fleet. Furthermore, your troubleshooting ability can ease identification of potential problems and stop you from over-reacting to what may indeed be a simplysolved problem.

Suppose, for instance, you're frustrated by a hard-starting engine. Let's follow a hypothetical situation from start to finish, illustrating how you can identify and possibly remedy a problem with your vehicle knowledge, the proper tools, and your maintenance and service manual. By applying the appropriate troubleshooting procedure, identifying the problem may be easier than you think.

Before attempting any troubleshooting or testing, check the oil in any fourcycle engine and determine its level and condition. Remember, crankcase oil is used for lubricating and cooling air-cooled four-cycle engines. Try starting the engine. Does it turn over with the starter/generator? If not, use the maintenance and service manual to help you locate the electrical circuit and components common to the starter circuit of the vehicle. The starter circuit in most gasoline golf or utility vehicles generally includes components such as a key switch, limit switches, fuses, solenoids, a starter, and a battery.

Use the troubleshooting guide in your manual to locate and test these Continued on page 45

Rick Farris is a senior technical training specialist with Club Car, Inc.

# E-Z-GO recommends preventative routine

#### By RON SKENES

At many courses, the golf car fleet is one of the top two or three revenue generators. Golf car rentals are one of the main sources of income for the course. At the same time, the fleet is one of the largest equipment investments for a course.

Yet, all too often golf car fleet revenues are not what they could be because a regular preventative maintenance program is not in place. To produce the expected revenue, a fleet must be kept in top operating condition. Time spent on regular, preventative maintenance will not only minimize down time, it will maximize revenue for the course.

Preventative maintenance begins with the crew who handles the golf car fleet every day. As cars are brought to the staging area, the tires, steering and brakes can be checked. Does the car run properly? How does it handle? Are the tires properly inflated?

A visual inspection should also be performed on the car as it is brought to the staging area. Is there any obvious damage? All of these items should be checked every time the car is brought out. At the end of the day, the same items are checked. This routine takes no extra time and can be performed by the crew as they handle the cars at the beginning and the end of the day. Any problems should be reported to a mechanic.

Like the automobile manufacturers, E-Z-GO provides a list of maintenance items with suggested frequencies for checking them. For the periodic maintenance recommended by the manufacturer, set up a regular rotation,

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Ron Skenes, is manager of Marketing Services for E-Z-GO Textron.

Tee & Green & In Between

## Long-term profitability the key, says Yamaha

#### By TOM O'CONNOR

Any golf car fleet is viewed, in two terms, during the course of its life: As a necessary evil when negotiating its purchase or lease; and later as a source of revenue often taken for granted.

However, no matter where you are in the course of your fleet's life cycle, one thing should remain constant: Maintenance should be considered of foremost importance.

Tom O'Connor is a product manager at Yamaha USA Golf Cars.

# ParCar design allows for safety and service

#### By SONJA SAUEY

Golf courses today are interested in safety, reliability and performance ultimately the bottom line. This is why Columbia ParCar designs all its vehicles with these issues in mind.

Insurance costs have risen tremendously, including liability. Features designed into Columbia ParCar vehicles for servicing, reliability and performance, focus on safety to keep golf courses from incurring these additional costs.

Preventive maintenance lists contain numerous safety equipment checks. Insurance costs can be controlled when these inspections are completed on a timely basis, and properly recorded for future reference.

Monthly checks should be made of the reverse warning buzzer for proper operation. Make certain the system is fully functional since this may be the Continued on page 46

Sonja Sauey is director of marketing and sales for Columbia ParCar.

When budgeting new purchases and leases, club managers should overcome the temptation to look at initial cash outlays. Instead, long-term profitability and the car's ability to withstand the rigors of constant use with minimal maintenance and down time should be considered.

New technologies in golf car construction are gradually having a positive effect on the cost of fleet maintenance. A perfect example of this can be found in the 1996 Yamaha Ultima. Continued on page 45



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## **GOLF VEHICLE REPORT**

## **Club Car advice** Continued from page 43

components until you find the defective part. If your engine turns over, but will not start and run, the problem may be in the fuel system. Check the level and condition of fuel in the gasoline tank. If your vehicle has been stored for a long period of time, the fuel may be stale or water from condensation may have settled to the bottom of the tank. In either case, the tank, fuel lines, and carburetor must be thoroughly drained and cleaned and fresh fuel installed.

Check fuel filter(s) and air filter and replace, if needed. Also, check the function of the throttle and governor linkages. After making certain all are in proper operating condition, consult your maintenance and service manual, and check the items common to the engine's ignition circuit. Don't forget to include checking the ignition "kill" circuit in your troubleshooting procedure.

Next, perform a cylinder compression test. Remove the spark plug(s), ground the secondary ignition coil wire(s) and lock the throttle wide open. Using a standard compression gauge, turn the engine over at the RPM recommended in your maintenance and service manual and measure the cylinder compression. Low cylinder compression will cause hard starting and low power output in any engine. If your engine is equipped with solid tappets and runs rough, check the valve timing. Tappet clearance, which greatly affects valve timing, is crucial to engine performance. Remember, for every one-thousandth of an inch that clearance is out of specification, valve timing changes approximately four degrees.

If your vehicle's engine refuses to turn over or turns over very slowly after periods of normal running, there could be a problem in the charge circuit. First, check the starter/generator belt tension. Proper belt tension is an absolute must for proper generator function. Next, using your maintenance and service manual check the components in the vehicle's charge circuit. You could find the generator voltage output to be too low, the voltage regulator to be defective, or possibly discover a weak battery.

A good preventive maintenance program includes increasing your working knowledge of your vehicle(s), having the proper tools and manuals, and being able to troubleshoot in problem situations. By paying attention to detail and by sticking to your periodic maintenance and service schedule, you can (at minimal cost) reap the benefits a well-maintained fleet of golf or utility vehicles provide. If your have any questions or would like more information, please call the Club Car, Inc., Sales and Marketing Department, at (706) 863-3000.

GOLF COURSE NEWS



#### **DRIVING COURSE REVENUE**

E-Z-GO Textron has introduced two new refreshment vehicles: the Oasis and Grand Oasis. Both feature special modular refreshment centers manufactured expressly for E-Z-GO by Carts of Colorado, which specializes in designing, and manufacturing mobile and modular merchandising solutions that drive revenue. For more info, contact E-Z-GO at 404-798-4311.

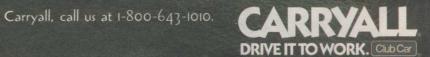
## Yamaha advice Continued from page 43

In an effort to reduce maintenance costs, Yamaha has designed a car that doesn't require regular maintenance. The pivoting and rotating parts on the chassis of the Ultima are made from materials that do not require lubrication. This advanced design results in considerable savings in maintenance costs over the life of the car.

Only the Ultima has a floor access panel that permits easy access to brake and throttle mechanisms, generally eliminating the need to jack up or go under the car to perform service. And most nuts that hold Ultima components together are captured, reducing the number of tools needed to perform service and resulting in faster disassembly and assembly.

These and other new technologies in golf car construction are changing the way fleet maintenance is viewed. Course managers can now realize increased profitability from their fleets in terms reduced parts and personnel costs, resulting in increased rentals due to greater reliability and extended service life.

When you have a full day of work, the last thing you need is a vehicle that quits at noon. Which is a good reason to consider Carryall turf utility vehicles. Golf course superintendents rated Carryall #1 in reliability, overall performance, and service/support among major brands.\* So your workday will end with a sundown, not a breakdown. To learn more about



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## GOLF VEHICLE REPORT

ParCar advice Continued from page 43

only warning golfers receive of an approaching car. The Columbia ParCar Safety Directional Key Switch helps ensure that drivers travel in the proper direction. The ParCar directional lever (gasoline) and Safety Directional Keyswitch (electric) is located on the dashboard where they are easily visible to the driver.

Charger plugs and receptacles should be regularly assessed for damage and a snug fit. This helps prevent loose-fitting electrical connections for recharging and possible sparking and arcing for fire prevention. One of the best ways to make sure a connection doesn't loosen is by properly attaching and removing the cord plug from the vehicle. With the receptacle location on ParCars, it is easy to access and properly remove the plug.

ParCar Foursome and Eagle model vehicles feature the patented Clam Shell-style rear body. This styling allows access to the power train by permitting each of the partial body sections to open without the need to unscrew or remove panels. Further, the Clam Shell body provides assured batterygas venting to prevent fire hazards in the cart barn and eliminates the likelihood of "driver take-off" while the charger is still plugged into the vehicle.

Chassis should be lubricated quarterly. Grease zerks should be lubed so the vehicle will ride smoothly and quietly. ParCar golf cars carry a lifetime warranty on the frame of the vehicle. See the Columbia ParCar Warranty Statement for further details.

Semi-annual checks should be made of front-wheel alignment and camber. ParCar golf cars offer turf and tire protection with independently adjustable front-wheel camber adjusters. Twice a year, check front-tire alignment to make certain tires are flat to the ground. If they are not aligned, they may be adjusted independently to eliminate fast-start turf damage and provide longer, even tire wear.

Clean or replace the Micro Clean air filter **annually**. ParCar gasoline vehicles feature a centrifugal airfiltering system. The system is better than 99-percent efficient in even the dustiest applications and is available with the exclusive Briggs & Stratton, 4cycle, 9-horsepower engine.

Columbia ParCar vehicles have been manufactured in full compliance with all applicable American National Standards Institute (ANSI) regulations. Safe use and proper operation of ParCar vehicles are important. Any vehicle alterations resulting in non-compliance with applicable ANSI standards is strictly prohibited.

Refer to the owner's manual for further details and specifications regarding adjustments and routine maintenance recommendations for particular vehicles.

## E-Z-GO advice

Continued from page 46

taking a few cars a day to check all of the necessary points. Organized recordkeeping and proper rotation of the fleet will ensure that the recommended maintenance is performed on each car. E-Z-GO even offers a PC-based computer program called the Maintenance Information Management System (MIMS) that tracks golf car usage and schedules the appropriate maintenance checks.

For courses that have onstaff mechanics, it is important to keep an adequate supply of tools and spare parts on hand. The local golf car representative can provide a recommended parts stocking list for the course.

Many courses have opted for a service contract with the golf car provider. E-Z-GO offers complete turnkey service contracts to interested customers.

Don't forget to keep the golf car clean! Clean cars add to the enjoyment of a round. A clean, well-maintained fleet makes a statement about a golf course. It says the course management cares about the impression it makes on its members and guests.

Effective fleet management and proper maintenance go hand-in-hand. Regular maintenance pays off while the course owns or leases the fleet and at trade-in time as well. A wellmaintained fleet will not only generate top operating dollars, it will also generate top tradein dollars.

The secret to a good maintenance program is establishing a system for checking each golf car on a regular basis. The contribution maintenance makes to the bottom line is not as obvious as that of, say, the snack shop. However, it should have the same priority. And, in the long run, the return on investment will be significant. GOLF COURSE NEWS

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Tony Jacklin is the winner of 14 PGA European Tour events (including the 1969 British Open) and 11 other international events (including the 1970 U.S. Open). Tony is also a four-time European Ryder Cup captain, and can be seen on the Senior PGA Tour.

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