Winter Storage for golf cars

Taking the right steps now can prevent 1001 headaches next Spring when many other jobs demand attention.

Golf cars going into wintertime storage in cold climates require a certain amount of care to protect the mechanical and electrical parts from deterioration. Moreover, this is an ideal time to get cars in good mechanical shape for the next golfing season. Here are some general points which apply to both gas and electric cars:

1. Cars should be parked in a dry garage or shed which will protect them from rain, snow and dust. Some amount of heating is desirable in colder areas. Bring the minimum temperature above 20 degrees to protect the batteries.

2. Check tires. Be sure they do not go flat because of a slow leak. Over-inflate by about 10 pounds of pressure before storing—especially with tubeless tires.

3. Any batteries to be used the following season should be removed from the cars before storing.

4. Remove any seats to be upholstered and send to an automobile trim shop to be recovered. Trim shops are less busy during the winter, and your cost will be less. Seats will be ready when needed.

5. If trading cars in the spring, insist your dealer pick up the trades at the close of the season. The fewer cars you have, the less work involved.

6. Cars should be checked over very carefully for loose or damaged parts—nuts, bolts, wiring, terminals, etc. Dirt and grease should be cleaned from all areas. Also, see that your cars have been updated according to manufacturer's specifications. These are jobs easier done now *before* spring, when the rush to start the next playing season begins.

Before storage, make certain that regular lubrication and maintenance checks have been performed. On both electric and gas cars:

- Check oil level in transmission drive unit, reverse gear box and differential housing.
- Oil brake and acceleration pedal bearings, oil steering chains and body hinge.
- Inspect and tighten all electrical connections.
- Check and adjust steering chain and brakes. Lubricate brakes.

On gas cars the following additional points should be noted:

a. Drain fuel from tank and line by removing hose from tank fitting. Start up engine and run until carburetor fuel is used up and engine stops. Replace fuel line on tank fitting. Remove air intake hose at carburetor. Operate engine with starter and hold throttle open while pouring approximately 4 ounces oil (see manufacturer's recommendations) into carburetor air intake. Replace air intake hose on carburetor. This will thoroughly coat cylinder, crankshaft and bearings with a corrosion resistant oil film and it will be necessary only to clean or replace the spark plugs before starting up in spring.

b. Oil throttle, governor and choke cables at conduit ends.

On electric cars, additional points would include:

a. Adjust drive belts and check pulleys.

b. Lubricate speed switch, check operation and condition of contacts.

c. Inspect motor brushes and motors. If mechanical work is needed, do it in the fall and winter—not in the spring when a hundred other tasks are pressing.

As regards batteries, these should first be tested for weak or dead cells. If they are in serviceable condition, store over the winter at temperatures between 20 degrees and 50 degrees F.

Batteries should be thoroughly washed and dried, and all corrosion removed. Apply a light coat of vaseline to battery terminals and battery hold-down frames. Charge batteries to 1280 degrees specific gravity before storing and do not allow them to drop under 1260 degrees S.G. during the winter.

A temperature-corrected hydrometer is very useful to establish the true specific gravity of the batteries. If you haven't got one, keep in mind that for every 10 degrees drop in acid temperature, the actual specific gravity reading will be four degrees lower. For instance, at zero degrees acid temperature, if the hydrometer reading is 1260 degrees, the *corrected* specific gravity is only 1228 degrees. A good rule of thumb is to charge batteries to 1280 degrees specific gravity once each month during the winter.

If you are charging batteries in *unheated sheds* during the winter, be sure to check the battery chargers the following day. During cold weather, timers frequently do not function properly and do not shut off automatically.

This is important. Many so-called automatic chargers are severely affected by temperature. Do not depend on them to automatically charge batteries fully. After charging, check batteries with a hydrometer to make absolutely certain specific gravity is at least 1280 degrees.

While on the subject of chargers, make certain that electric car batteries are charged with the correct 36-volt charger. Do not charge for longer than 12 hours at a time. Use a regular 12-volt automotive-type charger to charge gasoline car batteries. Do not exceed 10 ampere charge rate.

A final tip: Any reliable golf car dealer will help you prepare your cars for the winter. Many offer storage at nominal prices. Others will arrange to periodically check your cars wherever stored, and at minimum cost. •

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