JOBS YOU SHOULD LOOK AFTER ON YOUR CAR YOURSELF

Care of the Accumulators

"WINTER CONDITIONS IMPOSE MAXIMUM STRESSES ON THE ELECTRICAL SYSTEM OF YOUR CAR . . HELP YOUR BATTERY"

URGES

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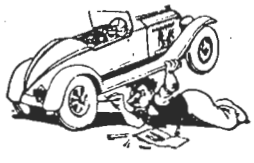
ACCUMULATORS nowadays are more important than they were. They are generally charged with the duty of providing the primary current for the coil and battery ignition which has, in so many cases, taken the place of the magneto.

It is of the greatest consequence, therefore, that they shall always be in good electrical order. And since this does not entail much trouble a few notes as to the simple things which must be attended to may be found useful and money-saving to the car owner. Most important of all is that the electrolyte in the battery should cover the plates. If any part of the area of the plate remains uncovered by the acid there will be a risk of sulphation. In nearly all cases the fall of the level below the top of the plates is due to evaporation. The water evaporates and not the acid, so the remaining solution is too strong. This undue strength, also, has the effect of conducing to sulphation. A sulphated battery will show a greeny-white chalky kind of deposit around the terminals and on the bars which connect the cells.

To keep the solution (electrolyte) at the right level the vent plug should be opened occasionally and the level ascertained by sight. It should be half an inch above the tops of the plates. If it has gone down below this level pure distilled water should be added. This will correct the level and bring the density of the solution—the proportion of water to acid—back to normal and prevent sulphation.



Never add an acid solution (sulphuric acid and water) to the battery unless the shortage is definitely known to be due to spillage or leakage. It is quite unlikely to be due to spillage. Leakage may be due to cracking of the ebonite case and would be evident by the condition of the bottom of the case. It could only be repaired by a battery service station.

In "topping up" the level be sure to have the same level in the three or six cells—according to whether the battery is a six- or twelve-volt unit. Avoid slopping the acid over when filling up, and wipe off any moisture from the top of the battery. Moisture is an electrical conductor and the leakage of current across from one to the other of the terminals (positive and negative) will cause current loss and conduce to sulphation. Leave everything quite dry and smear all terminals with vaseline liberally applied.

During the long Winter months, the drain on the accumulator always is enormously increased. The dynamo must be able to keep a current of electricity going through the accumulator more than equal to the drain of lamps, horn, windscreen wiper and starter. The latter takes a lot of current. It can run the accumulator down very quickly.

Starting being often more difficult in Winter, when the oil is cold and congealed, the load on the starter is excessive. Therefore when Winter weather comes it is well to start the engine by hand when starting from cold and use the starter only when the engine is warm through running. Careful attention to the carburetter and the plug points—do not have them too far apart—will be necessary to get easy starting by hand. If the engine is kept warm by having an electric bulb lamp burning under the bonnet, and the latter covered with a thick rug, the difficulty of starting in the morning will be reduced or eliminated and the accumulator need be used only for light and for services other than the heavy starting drain. This is the way to keep the accumulator in healthy condition.

If the starter switch is pressed and the starter cannot turn because the engine is stiff with cold there will occur what is practically a "dead short" in the battery circuit. The discharge will be rapid, and without resistance, and the plates of the battery will probably be buckled. The amperemeter needle will jump round to full discharge.

If one can hear the Bendix pinion engage and stop, or the pinion rotate with a grinding noise and then stop, it is an indication that the engine is too stiff to start due to the cold. Current should at once be cut off by releasing the starter switch. Keeping it in contact means sure

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