PARTS ROOTES SERVICE

SERVICE BULLETIN

ELECTRICAL
BATTERY

No. 198

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TO ALL ROOTES GROUP DEALERS

BATTERY ELECTROLYTE LEVELS

ALL MODELS

Some of our Dealers have been reporting low battery electrolyte levels on newly delivered vehicles and during the course of our investigations, the following information was offered by the Lucas technicians.

Whilst this may not supply the answer in every case, we think you will find the information of interest.

EXTRACT FROM LUCAS LABORATORY REPORT F.50.050, 2/5/1960

It is well known that battery electrolyte levels fluctuate and will be high while the batteries are charging, particularly in a fully charged state or at a high current rate : and low while the batteries are resting. This fluctuation is very noticeable on car batteries because plates and separators are so closely packed, and it occurs with all types of separators.

Because of this fluctuation, batteries are always designed with the separators taller than the plates so that there is some latitude below separator height at which the plates will still be covered. Despite this, with the old-fashioned wood separators and indeed with any kind of simple ribbed separators there will still be periods, if topping-up is neglected, when the tops of the plates will be left completely without acid and hence not able to function properly. Under this condition the performance of batteries, particularly for engine starting, is reduced and the bottom of the plates overworked.

The KG separator has been specially designed to take care of this condition, and its absorbent nature ensures that even though electrolyte levels fall below the tops of the plates the whole surfaces of all plates will remain in contact with acid held by the separators and will thus be able to function normally. At the same time the difference in height between plates and separators has been retained as an additional safeguard.

There has always been a risk that during the fluctuation acid levels

might rise until the acid overflowed from the cells. This is most objectionable because of the corrosive nature of the acid. For this reason advantage has been taken of the quality of the KG separator to reduce acid levels in batteries as they leave the works and they are now adjusted to splash-guard level while the batteries are on charge. This means that batteries which have been resting for a period will have levels below the splash-guard but - because of the difference in height of plates and separators above the plates. The levels may not be visible but there is no risk that the battery will not function correctly and there will be the added advantage that there will be no chance of electrolyte levels rising to such a degree that acid is forced from the cells.

It is realized that topping-up during the service life of the battery will need to be done to splash-guard level but it has been found that the degree of fluctuation in levels becomes less as the battery ages and there will still be no risk of acid loss even though the battery is topped-up while resting and in a low stage of charge always providing it is not topped above splash-guard level.

ROOTES MOTORS INCORPORATED

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