

SERVICE INFORMATION

LAND-ROVER

Vol.2 Issue 12



ROVER TRIUMPH BRITISH LEYLAND UK LIMITED
 SERVICE DEPARTMENT
 COVENTRY
 ENGLAND CV4 9DB

May, 1975

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ITEM 25

Division : 86

Subject : Battery maintenance — stored vehicles

Models : All

Remarks :

In the present economic situation, with the increased possibility that new vehicles may be stored for longer periods than usual, attention is drawn to the responsibility of franchise holders to ensure adequate maintenance during these periods.

An unused battery which does not receive proper care and attention will irretrievably deteriorate over a period of time due to hydration and sulphation causing loss of capacity and ultimate failure. Battery manufacturer's Warranty does not apply to failures of this nature.

Storage

The battery should be fully charged when installed. The state of charge can be checked by specific gravity (S.G.) or by open-circuit voltage (O.C.V.).

The indications are :—

| | S.G. | O.C.V. |
|--------------------------------|------|--------|
| Battery fully charged | 1.28 | 12.70 |
| Battery three-quarters charged | 1.24 | 12.50 |
| Battery half-charged | 1.20 | 12.30 |
| Battery quarter-charged | 1.16 | 12.10 |
| Battery discharged | 1.12 | 11.90 |

Batteries should be clean and dry on top and the terminal posts thinly coated with vaseline or petroleum jelly. This will ensure freedom from corrosion and sound electrical connections at all times. Electrolyte levels should be periodically checked.

Appropriate recharge current rates can be calculated as 1/10th of the battery capacity (10hr. rate) and 'boosting' or any other form of rapid recharging is unnecessary and should be avoided.

Maintenance

Recharge each month (battery gases are explosive — keep sparks or naked lights away from batteries on charge).

The recharge should be continued until the specific gravity no longer rises and all cells are gassing freely. Four hours' charging each month should be sufficient. Distilled or demineralised water should be added if required at the start of the recharge period.

Fully charge and adjust electrolyte levels just before sending battery out into service.

It is useful to chalk on the battery side the date on which the recharge was given.

For reliability of checking good grade hydrometers should be used for specific gravity reading, or an extended scale voltmeter for taking open-circuit readings.



LAND ROVER

Dry-charged batteries

To put into service, break the seals and fill the cells in one operation to the top of the separators with pure dilute sulphuric acid. The temperature of acid and battery should be between 16°C (60°F) and 38°C (100°F) and the acid specific gravity at 16°C (60°F) as below.

1. In temperate climates having shade temperature ordinarily below 27°C (80°F), use acid of specific gravity 1.260.
2. In tropical climates having shade temperatures frequently above 27°C (80°F), use acid of specific gravity 1.210.

Twenty minutes after filling, the specific gravity and temperature of the acid should be checked, and unless there is a fall of more than 10 points in specific gravity, or a rise of more than 5.5 C (10°F) in temperature, the batteries are ready for service.

Should these limits be exceeded, batteries should be charged at the normal rate for the type until the specific gravity values remain constant for three successive hourly readings and all cells are gassing freely.

Keep the acid level up to the separator guard or to the indicated line by adding distilled water only.

| Temperature (°C) | Specific Gravity |
|------------------|------------------|
| 15.0 | 1.260 |
| 15.5 | 1.258 |
| 16.0 | 1.256 |
| 16.5 | 1.254 |
| 17.0 | 1.252 |
| 17.5 | 1.250 |
| 18.0 | 1.248 |

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