

LUCAS

TECHNICAL SERVICE

OVERSEAS TECHNICAL CORRESPONDENCE COURSE

GENERAL INFORMATION



JOSEPH LUCAS (SALES & SERVICE) LTD · BIRMINGHAM 18

Printed in England



Introduction to the Course

This educational programme has been designed to teach the Trade how to render a more complete service by increasing their technical knowledge of Lucas equipment. It aims to improve the ability of the service engineer in a review of basic principles, normal maintenance service and up-to-date testing procedure.

It aims to improve the status of the stores operator, the salesman, the representative and all the others essential to a service organisation, whether administrative or not, by promoting a means whereby they can gain technical knowledge, which is the principal function of all service operations.

Apart from its practical application, the education provided is the same as given to hundreds of traders, service managers, supervisors, electricians and garage hands who have passed through our Schools in Britain.

The Course, produced and printed in the English language only, is limited to whole-time Motor Trade personnel, for as the accompanying syllabus will show — it is directed solely to assisting the Trade towards a simple and practical approach to everyday service problems.

COPYRIGHT

*All rights reserved. No part of this
publication may be produced
without permission.*

JOSEPH LUCAS (SALES & SERVICE) LTD., BIRMINGHAM, ENGLAND.

How the Course is Administered

ON ACCEPTANCE FOR ENROLMENT—

1. The student will first receive Sections 1 and 2 of the Course. Question papers, with separate answer forms will be included with each section.
2. After studying the first Section the student will give his answers to the question papers on the forms provided and return them for marking.
3. The corrected paper will then be returned to the student, together with Section 3.

This procedure will be followed throughout the Course.

Students who wish to raise any queries — which must be on subjects in the Course — should write them clearly and concisely *on the form provided*.

THE LUCAS TECHNICAL CORRESPONDENCE COURSE.

Student's Name.....
Address.....
Serial No.:

**STUDENT'S QUERY PAPER.
LEAD/ACID BATTERIES**

If you have any queries arising directly from the Lead/Acid Battery paper they may be entered on this sheet.
Before doing so however, please study carefully that part of the paper connected with your query, making certain that you have not missed any relevant point.

Query No. 1 *Will you please explain
acid is poured
and th*

Fac-simile of Query Paper.

The Correspondence Course Syllabus

SECTIONS 1 to 9

BATTERIES	Working principles of the Lead/Acid battery. Battery types, construction and application. Putting batteries into service. Batteries in service and storage. The result of ill-treatment.
STARTERS	Principles of operation. Types of Starter Motors and their characteristics. Starter Drives. Starter Switches and Starter Circuits. Test procedure for the vehicle starting system.
COIL IGNITION	Ignition Coils — various types, their construction and function. Distributors, their function, construction and application. Auto-Advance mechanism. Maintenance and Service. Fault-finding on the vehicle.
GENERATORS	Principles of operation. Types and application. Testing of the machine on the vehicle. Service testing of generators.
GENERATOR OUTPUT CONTROL	The control of generator output. The compensated voltage regulator. Control Boxes, types and application. Test procedure for the vehicle charging system. Current/Voltage control.
VEHICLE WIRING CIRCUITS	Wiring systems — positive and negative earth. Cables, their size and application. The Lucas "Colour Code." The Starter and Battery circuit. Lighting and Auxiliary circuits. The complete vehicle wiring circuit.
LIGHTING	Lighting Circuits, lamps and the dipping system. Testing the circuits on the vehicle.
ACCESSORIES	Windscreen wipers, horns, trafficators, four lamp direction indicators and interior light circuits. Service testing and fault-finding.
ELECTRICALLY CONTROLLED OVERDRIVE	Overdrive — mechanical operation and control. Electrical components. Test procedure.

For Prospective Students

GENERAL NOTES

1. When you receive Sections 1 and 2, you should read through the whole of the first Section in order to gain a general idea of the subject matter. Not more than one hour's study at a time should be undertaken.
2. Then study the whole section again carefully, making sure you fully understand each part before proceeding to the next.
3. Answer the questions applicable to each Section. You are strongly advised to write your answers out first in pencil, in case you wish to revise them later.
4. Read through the whole Section again and then reconsider your answers.
5. When you are satisfied with the result, send in your completed answer paper excluding the Question Paper which you retain.
6. The paper will then be corrected and returned to you, recommending, when necessary, further study — together with the next Section of the Course.
7. While you are waiting for your examiner to return the corrected paper proceed with the study of the next Section ; you will thus always have one Section in hand.
8. You are urged not to undertake the Course unless you are determined to finish it ; otherwise you are wasting *YOUR TIME AND OURS*.
9. If, after full consideration of the time and effort which the Course will require, you decide to undertake it, please complete and send in the application form which you will find overleaf.
10. Upon completion of the " Full Course " a Certificate will be awarded to students who have attained the required standard.
11. All Sections of the Course remain the property of Joseph Lucas Ltd., until the Student completes his final Section. Should you for any reason fail to complete the full Course, all Sections must be returned to Joseph Lucas (Sales and Service) Ltd., Service Bulletin Department, Great Hampton Street, Birmingham, England.