Part 1 Basic Craft Studies

Engineering Base

Name.....

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Macmillan Engineering Craft Studies

Part 1 Basic Craft Studies

Engineering Base

C E Comber G W Holmes J K Millington R Payne J B Pratley

Macmillan Education

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EDITOR'S NOTE

This series of books is specially designed to meet the requirements of students taking the new Council of Technical Examining Bodies Craft Studies Courses. The texts are arranged in semi-programmed form and presented with great clarity. The large format provides space for written work and sketches by the student, thus reflecting the progressive nature of the new syllabus in which student participation is encouraged.

There are two important aspects of the new CTEB Engineering Craft Studies courses.

(a) They are specially designed for students undergoing planned training, usually on programmes following the recommendations of the Industrial Training Boards.

(b) They form the further education complement of industrial training, involving the students in workshop and laboratory activities, investigations and projects, rather than relying on conventional listening and note taking. The technical studies of the Part I course, which extend over a year, are designed to suit both day release and block release students. The course consists of a common engineering syllabus of the basic elements applicable to a number of engineering crafts, and an appropriate complementary syllabus biased towards a particular trade or craft. There are five distinct Part I courses, for which the following books will be used:

1. Mechanical—Engineering Base and a Mechanical Complement;
2. Electrical—Engineering Base and an Electrical Complement;
3. Vehicle Body—Engineering Base and a Vehicle Body Complement;
4. Fabrication and Welding—Engineering Base and a Fabrication and Welding Complement;
5. Shipbuilding and Metal Users—Fabrication and Welding Complement and Shipbuilding Base.
(In 1 and 2 above the Shipbuilding Base may be substituted for the Engineering Base.)

This Engineering Base contains all the work common to the Part I courses. Mechanical Engineering students will require, in addition, the Mechanical Complement to complete their texts for the course, and electrical students, the Electrical Complement.

These two complements are now available and the remaining Part I books for other subjects will follow.

I am sure all who use these texts will find their stimulating approach a valuable aid to their work.

May 1970

ABOUT THIS BOOK

This book will become your own complete record of your progress. Important facts are set out on the left-hand side of each page, and the right-hand side has space for you to answer questions and make extra notes and sketches.

The practical investigations are spread throughout the book, but can be carried out as and when equipment is available. By setting out the book in this way we hope to save you a lot of tedious note-taking and make your course more interesting.

NOTE TO TEACHER

Active student participation is encouraged throughout this series of books. This approach will enable you to cover the large amount of material in the new syllabus by releasing, for productive and constructive work, time which would otherwise be spent in note-taking.

Information is presented in parallel with material for student activity:

questions to be answered and instructions for sketches and practical investigations. The material is intended to be at a level which will neither bore nor overwhelm the student, but which will nevertheless demand an effort on his part. These investigations are proposed at the ideal stage of the course but could well be carried out as and when facilities are available. The books will become the comprehensive record of the student's progress and will reflect his particular interests.

A great deal of space is available for extra teaching notes which you may wish to give and for additional work by the students. These books cannot replace the teacher but provide a framework within which he can present information, ideas and principles in his own way. The authors already know how satisfying this student-centred course can be and hope that you and your students will find it equally rewarding.

C.E.C.
G.W.H.
J.K.M.
R.P.
J.B.P.

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These section numbers correspond to those of the syllabus published by the Council of Technical Examining Bodies for Course 500 (Basic Engineering Craft Studies Part I). Several courses come under this heading, each consisting of a selection of topics from the complete syllabus, for which the student requires the **Base** plus a **Complement** in his own special field of study. This book contains all the work common to the Part I courses and should be used in conjunction with the appropriate complement book.