Officially approved for the Associate Membership Examination of the Institution of Production Engineers

PRODUCTION TOOLING EQUIPMENT

The design of Jigs, Tools and Gauges

Second Edition

S. A. J. PARSONS

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The Design of Jigs Tools and Gauges

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SECOND EDITION

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Preface

In this new edition opportunity has been taken to revise the sections on cutting tools and workshop and inspection gauges, to add something on 'throwaway' tool tips and some observations on automation, and to make one or more corrections at the instance of readers, to whom the writer expresses his gratitude. The new syllabus 'Tool Design' for the Associate Membership Examination of the Institution of Production Engineers replaces the former 'Jig and Tool Design' syllabus.

Based on lectures delivered to advanced students at the College of Technology, Birmingham, augmented by much additional information, the book aims to set out general principles concerning the efficient design of tooling equipment, for design and production engineers, lecturers and students. It has been written with due regard to recent research and development and with emphasis on the economic aspect wherever appropriate.

The first two parts deal with the design of drilling jigs and fixtures respectively. As far as possible, each jig or fixture is discussed relative to the component with which it is to be used with simple but clear diagrams.

The third part deals with cutting tools and tool layouts for various production machines. Special attention has been given to the design and application of cutting tools, a subject so often neglected or inadequately presented. A number of sections are included which are, it is thought, not generally found in similar books. These include a section on micro-drilling, the design of high rake milling cutters, broach design with special reference to surface broaching, and a comprehensive tooling layout for a Sliding Head Type Automatic. The final part is concerned with the design of practical gauges, such as are commonly used for production.

Apart from its function as a reference book in industry, the volume should provide ample material for the student studying Tool Design as a subject for examination, either for the Higher National Certificate in Production Engineering, or for the Associate Membership examination of the Institution of Production Engineers. The Appendices include a selection of recent examination questions set for the subject of Jig and Tool Design, and [illegible] may be [illegible] in the suggested syllabuses set out, for H.N.C. courses covering either one or two sessions.

Birmingham,
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