

Book Review

Rogers, G. F. C. and Mayhew, Y. R., *Engineering Thermodynamics Work and Heat Transfer*, Longman, Third Edition 1980, pp 667, £8.50 net.

The first edition of this textbook was published in 1957 and the second edition in 1966, with the introduction of SI units and the addition of some new material. This third edition, like the first two editions, can be described as a useful textbook covering the fundamentals of applied thermodynamics courses up to honours degree standard. As such it has been recommended to and used by undergraduate engineering students in universities and polytechnics throughout the past twenty years and this reviewer expects the same to occur into the future.

Rogers and Mayhew state in the preface to the third edition: 'Although minor additions and improvements have been made to the text and references to take account of recent work and current applications of thermodynamics no substantial changes have been made

in this third edition. Its prime purpose is to convey to students the outcome of much international effort to standardise nomenclature, units and methods of presenting technical data.'

The task thus defined by the authors is desirable and has been achieved. However, in going to a third edition one might have anticipated more changes in content. For example, in Part I some discussion on the desirability and significance of a Law of Stable Equilibrium for macroscopic thermodynamics could be included and in Parts II and III chapters 13 and 20 on heat pumps and direct conversion devices could be expanded. Finally, this reviewer has always felt that it is wrong to cover heat transfer as part of a textbook on thermodynamics. It is best for such a fundamental subject as heat transfer to be treated separately and only useful heat transfer formulae with their limitations included as an appendix in a thermodynamics textbook.

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