

Advances in ready mixed concrete technology

Proceedings of the first International Conference on ready-mixed concrete held at Dundee University, 29 September–1 October 1975

Edited by R. K. Dhir

Published by the Pergamon Press, Oxford, 1976. Reduced typewriting, illustrated, hard-back. 257 × 182 mm. pp. xxiv, 492. ISBN 0 0802 1134 8. Price: £15.00 (US \$30.00).

The use of ready-mixed concrete by the construction industry in most industrialized countries is now well established; in the United Kingdom it presently accounts for over 60% of all in situ concrete used annually. This book comprises the proceedings of a conference on ready-mixed concrete which took place at Dundee University in the autumn of 1975.

The conference was organized to consider all the major fields associated with the production and use of ready-mixed concrete, and its aims were in the main two-fold. Firstly, to examine current practices and recent advances and to identify areas into which further research efforts should be directed. Secondly, to stimulate discussion between the ready-mixed concrete producers, their customers in the construction industry and their suppliers of concrete materials, plant and equipment.

There are forty papers grouped under seven themes, with verbatim reports of the discussion on each theme. Inevitably a conference of this type, with such wide aims, includes papers which are only indirectly linked to ready-mixed concrete. Fewer than one-quarter of the papers are directly concerned with

the production and economics of ready-mixed concrete, whilst more than half of the papers are of general interest only. The remaining quarter are concerned with overseas practice.

The papers can be categorized according to the approach taken by the various authors to their subjects. The plant and equipment papers are, broadly speaking, reviews of current practice, providing a useful updating for those who are out of touch with or new to the subject. Papers dealing with materials and testing are concerned with promoting the newer materials and elaborating new or so far unused test methods. Then there are 'interface' papers, notably on specifications, in which the communication of requirements, tests and compliance is fully discussed.

The book has been edited by Dr R. K. Dhir, who is to be commended for bringing together such a large collection of papers and discussion into a single volume. Almost every conceivable aspect of fresh concrete (production, transport, placing and testing) is covered; and as a book to dip into it is useful current reference.

T. W. KIRKBRIDE

Modern prestressed concrete design

G. S. Ramaswamy

Published by Pitman Publishing, London, 1976. Type-set, illustrated. 228 × 148 mm. pp. x, 175. A Pitman International Text. Cased edition: ISBN 0 273 00434 4. Price: £7.50. Limp cloth edition: ISBN 0 273 00455 7. Price: £4.50.

This book aims to present a brief description of what is new in prestressed concrete design, both for the student and for the practising engineer. The book is not long — it covers a wide field in only 170 pages. Whilst the presentation is straightforward and clear, making the book suitable for students, it contains descriptions of new developments which will be of interest to the experienced engineer.

The introduction of CP110, which is extensively referred to in the text, did not involve a radical change in design processes for prestressed concrete. Dual design criteria, control of serviceability and provision of ultimate strength were already required by CP115. The innovations in CP110 lay in the introduction of

references to partially prestressed members and in a more complete treatment of shear. These two topics are dealt with by Professor Ramaswamy in detail. The book also includes an exposition of basic beam design, both pre-tensioned and post-tensioned, and chapters on optimization and statically indeterminate structures.

It is unfortunate that a book of this type, acting as an introduction to new developments, does not include many more references. Despite this minor criticism, the book will be of use to a very wide readership, both at the student and at a more advanced level.

H. P. J. TAYLOR