
LITERATURE ON PRESTRESSED CONCRETE

By

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(1) INTRODUCTION

Literature on prestressed concrete has now become so voluminous that it is no longer possible to compile a satisfactory and all-inclusive bibliography. However, there have been many requests from individuals interested in prestressed concrete to get some references, either at the beginner's level or for the pursuit of a specific subject. In order to meet these requirements at least partly, this list of literature is presented. While it does not give any titles of the articles, it should serve as a guide as to where to dig into the volumes and to locate the papers of one's choice.

It is hoped that readers will add information to this listing by calling to the attention of the author any important omissions. If warranted, an addendum to this listing may be printed in a future issue of this Journal.

Director, P. C. I.

Literature on prestressed concrete can be grouped under six headings:

- (A) Bibliographies
- (B) Treatises
- (C) Conference Proceedings
- (D) Journals and Periodicals
- (E) Pamphlets and Research Reports
- (F) Specifications

These will be separately listed as follows:

(A) Bibliographies — Some bibliographies are given. But, as can be noticed, recent ones are lacking. This is partly because of the difficulty in keeping up with the numerous new articles. It is believed that the Cement and Concrete Association of London is still trying to keep up a list of such references. But it is questionable how complete such a bibliography can be.

1. BIBLIOGRAPHY NO. 7 "Prestressing and Precasting Concrete for Highway Bridges and Structures." The Highway Research Board, National Research Council, 2101 Constitution Avenue, Washington, D. C., 1949.
2. BIBLIOGRAPHY NO. 2 "Bibliography on Prestressed Reinforced Concrete." The Engineering Society Library, 29 W. 39th Street, New York.
3. PRESTRESSED CONCRETE (bibliography), C.A.C.A. Library Records, Cement and Concrete Association, 52 Grosvenor Gardens, London SW 1, England.
4. BIBLIOGRAPHY ON PRESTRESSED CONCRETE, ACI Committee 323, 1954.
5. BIBLIOGRAPHY ON PRESTRESSED CONCRETE, E. M. Zwoyer and I. M. Viest, Eng. Exp. Station, University of Illinois, 1952.
6. ENGINEERING INDEX

(B) Treatises—Only treatises dealing solely with the subject of prestressed concrete are listed. It will be noticed that there are now at least nine such books available in the English language.

No attempt has been made to include all books in foreign languages.

1. PRESTRESSED CONCRETE by Gustave Magnel, Concrete Publications, Ltd., 14 Dartmouth St., Westminster, London, 3rd ed., 1954.
2. PRINCIPLES AND PRACTICES OF PRESTRESSED CONCRETE by P. W. Abeles, Crosby Lockwood & Son., Ltd., 39 Thurloe St., London S. W. 7, 1949.
3. PRESTRESSED REINFORCED CONCRETE by Kurt Billig, Knapp, Drewett & Sons., Ltd., London 1944, (later edition believed to be available).
4. PRESTRESSED CONCRETE STRUCTURES, A. E. Komendant, McGraw Hill, 1952.
5. PRESTRESSED CONCRETE, Y. Guyon, Wiley, 1953.
6. PRESTRESSED CONCRETE DESIGN AND CONSTRUCTION, F. Walley, Her Majesty's Stationery Office, London, 1953.
7. DESIGN OF PRESTRESSED CONCRETE STRUCTURES, T. Y. Lin, Wiley, New York, 1955; Spanish Edition, Editorial Continental, Mexico City, 1958.
8. THE THEORY OF PRESTRESSED CONCRETE DESIGN, H. J. Cowan, Macmillan, 1955.
9. PRESTRESSED CONCRETE, R. H. Evans and E. W. Bennett, Chapman and Hall, 1958.
10. SPANNBETON, W. Zerna, Werner-Verlag GMBH, Desselldorf, 1953.
11. SPANNBETON, Moll, Berliner Union Stuttgart, 1954.
12. VERBINDUNGEN VON STAHLBETON-FERTIGTEILEN, F. Eggeling, VEB Verlag Technik, Berlin, 1954.

13. SPANNBETON FUR DIE PRAXIS, F. Leonhardt, Wilhelm Ernst und Sohn, Berlin, 1955.
14. VORSPANNUNG MIT KONZENTRIERTEN SPANNGLIEDEN, Leonhardt-Baur, Wilhelm Ernst and Sohn, Berlin, 1956.
15. VORGESpanNTER BETON, M. Ritter and P. Lardy, Zurich, 1946.
16. BRUCKEN AUS STALHBETON UNDE SPANNBETON, E. Morsch, Konrad Wittwer Stuttgart, 1958.
17. DIN PRACTICA BETONULUI PRECOMPRIMAT, M. Halmagiu and L. Scripca, Editura Tehnica, Bucuresti, Rumania, 1957.
18. KONSTRUKCJE WSTEPNIE SPREZONE, W. Olszak, Warsaw, 1952.
19. CEMENTO ARMATO PRECOMPRESSO, C. Costelli-Guidi, Ulrico Hoepli Milano, 1956.

(C) Conference Proceedings—Many valuable papers are published in the Proceedings of several conferences on prestressed concrete. While some of these are out of print (including Proceedings, World Conference, San Francisco, 1957), many are still available. Especially recommended are the three Conference Proceedings of the International Federation for Prestressing.

1. PRESTRESSED CONCRETE, Proceedings of Conference held at Institution, Institution of Civil Engineers of London, 1949.
2. PROCEEDINGS, INTERNATIONAL CONGRESS ON PRESTRESSED CONCRETE, Ghent, Belgium, 1951.
3. FIRST U. S. CONFERENCE ON PRESTRESSED CONCRETE, PROCEEDINGS, M.I.T., 1951.
4. SYMPOSIUM ON P. C. CONTINUOUS AND FRAMED STRUCTURES, Sept. 24, 1951. CACA Publications.
5. WESTERN CONFERENCE ON PRESTRESSED CONCRETE, PROCEEDINGS, U.C.L.A., 1952.
6. CANADIAN CONFERENCE ON PRESTRESSED CONCRETE, PROCEEDINGS AND DISCUSSIONS, Univ. of Toronto, 1954.
7. UTAH PRESTRESSED CONCRETE CONFERENCE, Univ. of Utah, 1955.
8. CONFERENCE PROCEEDINGS, INTERNATIONAL FEDERATION FOR PRESTRESSING, C.A.C.A., London
 - (a) First Congress, London, 1953
 - (b) Second Congress, Amsterdam, 1955
 - (c) Third Congress, Berlin, 1958
9. WORLD CONFERENCE ON PRESTRESSED CONCRETE, PROCEEDINGS, San Francisco, 1957.

(D) Pamphlets and Research Reports—Pamphlets on construction and design are obtainable from various organizations in the field of prestressed concrete. Research reports are published by some of the universities in this country. These are listed below. In addition, brochures describing production of standard products are available from numerous pretensioning plants, especially from Active Members of the Prestressed Concrete Institute. Post-tensioning methods and procedures are described in pamphlets by various post-tensioning systems.

1. Portland Cement Association, 33 West Grand Avenue, Chicago 10, Illinois.
2. Cement and Concrete Association, 52 Grosvenor Gardens, London SW 1, England.
3. Institute of Engineering Research, Univ. of California, Berkeley, D. of A.
4. Fritz Laboratory, Lehigh Univ., Bethlehem, Pa.
5. Talbot Lab. and Dept. of Civil Engineering, Univ. of Illinois, Urbana.
6. Dept. of Civil Engineering, Univ. of Florida, Gainesville, Florida.

(E) Journals and Periodicals—Articles on prestressed concrete now appear in almost every magazine in the field of civil, constructional, and concrete engineering. It is intended to list only the main sources of information, both in the U.S.A. and in foreign countries.

1. PRESTRESSED CONCRETE INSTITUTE, Journal (also PC Items)
2. JOURNAL ACI
3. ENGINEERING NEWS RECORD
4. CIVIL ENGINEERING
5. CONCRETE AND CONSTRUCTIONAL ENGINEERING (London)
6. CIVIL ENGINEERING (London)
7. STRUCTURAL ENGINEER (London)
8. CONCRETE CONSTRUCTION METHODS AND EQUIPMENT
9. MODERN CONCRETE
10. CONCRETE INDUSTRIES YEARBOOK
11. CONCRETE PRODUCTS
12. CONSTRUCTION REVIEW (Australia)
13. ASCE SEPARATES AND TRANSACTIONS
14. ROADS AND ROAD CONSTRUCTION
15. ROADS AND BRIDGES
16. INSTITUTION OF CIVIL ENGINEERS, JOURNAL (London)
17. MAGAZINE OF CONCRETE RESEARCH, C.A.C.A. (London)
18. MILITARY ENGINEER
19. REINFORCED CONCRETE REVIEW
20. TRAVAUX (France)
21. BAUTECHNIK (German)
22. ZEMENT (German)
23. BETON AND EISEN (German)
24. SCHWEIZERISCHE BAUZEITUNG (Switzerland)
25. PRESTRESSING-PRECONTRAINT (Belgium)
26. DER BAUINGENIEUR (Germany)
27. BETON Y GELEZOBETON (U.S.S.R.)

(F) Specifications—Specifications for prestressed concrete have appeared in various countries. Some of these are listed below.

1. FIRST REPORT ON PRESTRESSED CONCRETE, Inst. of Structural Engineers, London, 1951.
2. INSTRUCTIONS PROVISOIRES RELATIVES A L'EMPLOI DU BETON PRECONTRAIT, Ministere des Travaux Publics, des Transports et du Tourisme, 1953.
3. INSTRUCTIONS RELATIVES AU BETON PRECONTRAIT, SECO, Bruxelles, 1954.
4. CRITERIA FOR PRESTRESSED CONCRETE BRIDGES, BPR, Wash., D. C., 1954.
5. DIN 4227—Spannbeton, Germany, 1953; also Explanatory Notes to DIN 4227 translated into English by PCA, Chicago, 1954.
6. British Standards, Institution, Draft Code for Comment, THE STRUCTURAL USE OF PRESTRESSED CONCRETE IN BUILDINGS, Institution of Structural Engineers, 1957.
7. TENTATIVE RECOMMENDATIONS FOR PRESTRESSED CONCRETE, ACI-ASCE Joint Committee, 1958.
8. SPECIFICATIONS FOR PRETENSIONED PRESTRESSED CONCRETE, 1957 and SPECIFICATIONS FOR POST-TENSIONED PRESTRESSED CONCRETE, 1958, Prestressed Concrete Institute.