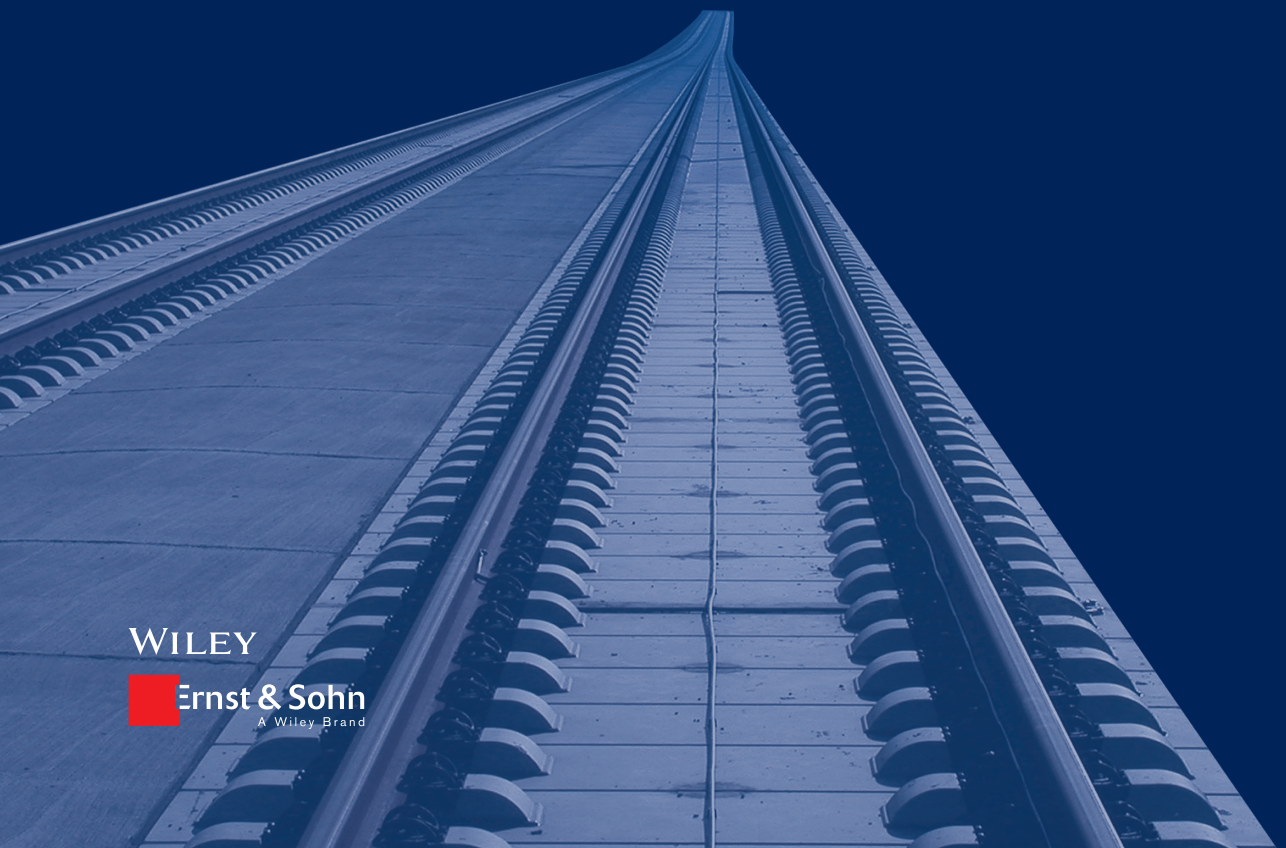
BetonKalender

Ballastless Tracks

Stephan Freudenstein, Konstantin Geisler, Tristan Mölter,
Michael Mißler, Christian Stolz



WILEY
Ernst & Sohn
A Wiley Brand

Stephan Freudenstein
Konstantin Geisler
Tristan Mölter
Michael Mißler
Christian Stolz

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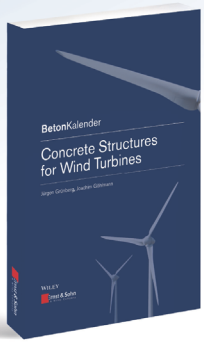
Since it was founded in 1906, the Ernst & Sohn "Beton-Kalender" has been supporting developments in reinforced and prestressed concrete. The aim was to publish a yearbook to reflect progress in "ferro-concrete" structures until – as the book's first editor, Fritz von Emperger (1862-1942), expressed it – the "tempestuous development" in this form of construction came to an end. However, the "Beton-Kalender" quickly became the chosen work of reference for civil and structural engineers, and apart from the years 1945-1950 has been published annually ever since.



JÜRGEN GRÜNBERG,
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Concrete Structures for Wind Turbines

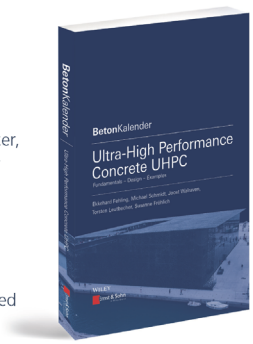
Beton-Kalender Series

Series editor: K. Bergmeister, F. Fingerloos, J.-D. Wörner (eds.)

This book gives a comprehensive overview for planning and structural design analysis of reinforced concrete and pre-stressed concrete wind turbine towers, and hybrid structures as well. Focus is on the profoundly dynamical actions on both, onshore and offshore wind turbines.

236 pages,
Softcover.
€ 49,90

ISBN: 978-3-433-03041-7
September 2013



EKKEHARD FEHLING,
MICHAEL SCHMIDT,
JOOST WALRAVEN,
TORSTEN LEUTBECHER,
SUSANNE FRÖHLICH

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Beton-Kalender Series

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198 pages, 170 fig.,
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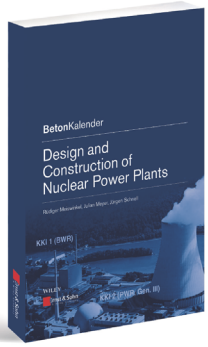
ISBN: 978-3-433-03087-5
Sptember 2014



RÜDIGER MEISWINKEL,
JULIAN MEYER,
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Beton-Kalender Series

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150 pages, 70 fig.,
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ISBN: 978-3-433-03042-4
April 2013

RAINER MALLÉE,
WERNER FUCHS,
ROLF ELIGEHAUSEN

Design of Fastenings for Use in Concrete – the CEN/TS 1992-4 Provisions

Beton-Kalender Series

Series editor: K. Bergmeister, F. Fingerloos, J.-D. Wörner (eds.)

The European pre-standard CEN/TS 1992-4 for the design of fastening by means of headed studs, anchor channels as well as post-installed mechanical and chemical anchors is ready for use.

170 pages, 81 fig.,
4 tab., Softcover.
€ 49,90

ISBN: 978-3-433-03044-8
April 2013.

Stephan Freudenstein, Konstantin Geisler,
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Ballastless Tracks

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The original German text is published in Beton-Kalender 2015, ISBN 978-3-433-03073-8 and titled “Feste Fahrbahn in Betonbauweise”. This is the translated and revised version.

Cover photo: Ballastless Track System “Feste Fahrbahn Bögl”
Photo credit: Chair and Institute of Road, Railway and Airfield Construction of the Technical University of Munich, Germany

Library of Congress Card No.: applied for

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library.

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the Internet at <http://dnb.d-nb.de>.

Cover Design: Hans Baltzer, Berlin, Germany
Typesetting: Thomson Digital, Noida, India
Printing and Binding :

Printed in the Federal Republic of Germany.
Printed on acid-free paper

Print ISBN: 978-3-433-02993-0
ePDF ISBN: 978-3-433-60690-2
ePub ISBN: 978-3-433-60691-9
eMobi ISBN: 978-3-433-60689-6
oBook ISBN: 978-3-433-60688-9

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Editorial

The *Concrete Yearbook* is a very important source of information for engineers involved in the planning, design, analysis and construction of concrete structures. It is published on a yearly basis and offers chapters devoted to various, highly topical subjects. Every chapter provides extensive, up-to-date information written by renowned experts in the areas concerned. The subjects change every year and may return in later years for an updated treatment. This publication strategy guarantees that not only is the latest knowledge presented, but that the choice of topics itself meets readers' demands for up-to-date news.

For decades, the themes chosen have been treated in such a way that, on the one hand, the reader gets background information and, on the other, becomes familiar with the practical experience, methods and rules needed to put this knowledge into practice. For practising engineers, this is an optimum combination. In order to find adequate solutions for the wide scope of everyday or special problems, engineering practice requires knowledge of the rules and recommendations as well as an understanding of the theories or assumptions behind them.

During the history of the *Concrete Yearbook*, an interesting development has taken place. In the early editions, themes of interest were chosen on an *ad hoc* basis. Meanwhile, however, the building industry has gone through a remarkable evolution. Whereas in the past attention focused predominantly on matters concerning structural safety and serviceability, nowadays there is an increasing awareness of our responsibility with regard to society in a broader sense. This is reflected, for example, in the wish to avoid problems related to the limited durability of structures. Expensive repairs to structures have been, and unfortunately still are, necessary because in the past our awareness of the deterioration processes affecting concrete and reinforcing steel was inadequate. Therefore, structural design should now focus on building structures with sufficient reliability and serviceability for a specified period of time, without substantial maintenance costs. Moreover, we are confronted by a legacy of older structures that must be assessed with regard to their suitability to carry safely the increased loads often applied to them today. In this respect, several aspects of structural engineering have to be considered in an interrelated way, such as risk, functionality, serviceability, deterioration processes, strengthening techniques, monitoring, dismantlement, adaptability and recycling of structures and structural materials plus the introduction of modern high-performance materials. The significance of sustainability has also been recognized. This must be added to the awareness that design should focus not just on individual structures and their service lives, but on their function in a wider context as well, i.e. harmony with their environment, acceptance by society, responsible use of resources, low energy consumption and economy. Construction processes must also become cleaner, cause less environmental impact and pollution.

The editors of the *Concrete Yearbook* have clearly recognized these and other trends and now offer a selection of coherent subjects that reside under the common 'umbrella' of a broader societal development of great relevance. In order to be able to