## **Book reviews**

Scheer, J.: Failed Bridges, Case Studies, Causes and Consequences. Berlin: Ernst & Sohn, 2010. 321 pages, 170 figures, hardcover, 17 × 24 cm. ISBN 978-3-433-02951-0 € 79.—



This book is the English version of the original German edition, which was published 10 years ago under the title of "Versagen von Bauwerken. Bd. 1: Brücken", completed with new cases. The author was director of the Institute of Steel Structures of Technische Universität Braunschweig (1976-1992) and checking engineer; beyond it he worked as editor-in-chief of "Bauingenieur" (1976–1997), a leading civil engineering journal in Germany. Over those long years he had observed many cases of accidental failure in construction engineering in Germany and elsewhere. Based on this valuable experience he decided to publish a book in order to prevent a recurrence of such failures in construction engineering in the future. Structural engineers will gain plenty of valuable lessons, suggestions and advice on structural safety for their profession.

The main content of this book comprises nine failure categories, classified according to the causes of accidents as follows: Failure – (1) during construction, (2) in service without external action, (3) due to impact of ship collision, (4) due to impact from traffic under the bridge, (5) due to impact from traffic on the bridge, (6) due to flooding, ice floes, floating timber and hurricane, (7) due to fire or explosion, (8) due to seismic activity, (9) of falsework. Some 536 cases in total. Each failure category is listed in a table with the same format: Case No. - Year - Bridge (location/type) -Country (over/for) – Failure (with brief description) - Dead/injured - Collapse -Length/span - Sources/Fig. Such a table makes it very easy to compare the structures examined.

The causes of failures in the same categories are classified, summarized and indicated in a compact table with the total number. The valuable suggestions for all practising engineers represent the most important contribution of this book to preventing future accidental failures of bridges anywhere in the world. The description in each category, with photographs and figures, provide us with further important, detailed information.

At the end of this book the author gives us a number of very important suggestions aimed at preventing a recurrence of accidental failures of bridges based on his experience gained over many years. Bridge engineers should certainly study this book before putting their designs into practice!

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