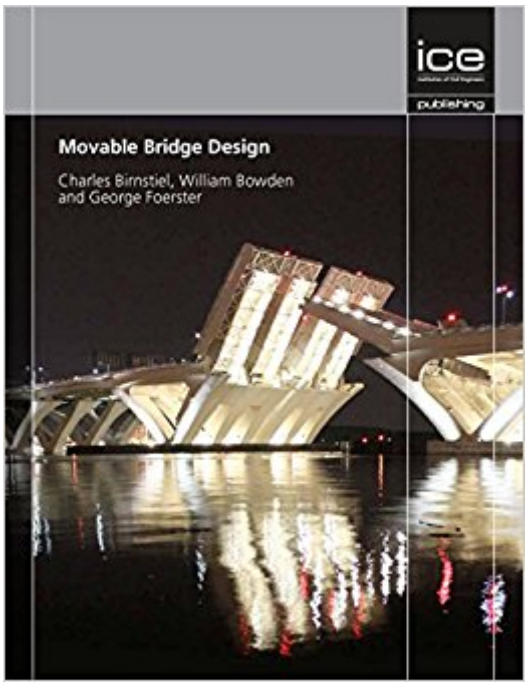
Movable Bridge Design



Synopsis

This is a comprehensive guide which focuses on the design of the most commonly found movable bridge varieties, and also provides information on the mechanical systems which generate the movement - an area with which most bridge design engineers are less familiar, but require knowledge of in order to design effective structures of this type. Movable Bridge Design is a unique reference on past and current structural, mechanical, electrical, and hydraulic design for engineers in, or about to enter, this interdisciplinary field. It offers comprehensive coverage of all of the most common movable bridge types, provides key information on the mechanical systems which drive the bridges and how this impacts on design considerations.

Book Information

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Customer Reviews

Charles Birnstiel is a highly accomplished civil engineer with 50 years of technical experience, 20 of which was spent in full-time university teaching and research, and 30 years spent in industry, mostly in the field of movable highway and railway bridges. He is the author of the chapter on movable bridges which appeared in the ICE manual of bridge engineering.

Who of us has not felt the rush of wonder as a draw bridge begins to open. The massive leaf of a bascule bridge ascending into the air or a swing bridge twisting to reveal daylight at its support or a lift span rising like a giant double hung window thrills us with what appears to be such effortless grace. Here is a historical record of the development of movable bridges, a compendium of the basic types of movable spans complete with their many variations and then the design parameters

that provide the explanation for how they work.Although intended primarily for the experienced engineer, the lay reader can also enjoy the explanations, albeit at different levels of understanding. This is due in large part to the clarity of the writing and the abundant illustrations. Further, the book is not cluttered with excessive detail. Rather there are copious references for those who wish to explore more deeply.The book progresses from a historical record to a comprehensive description of the various common forms that movable bridges can take to the rarer types of multiple spans or one-of-a-kind creations. The authors then explain the standards to which these structures are designed, the materials from which they are made, their structural form and their mechanical/electrical operational features. Here is a book that covers the subject from beginning to end, revealing the workings of movable bridges. A must for any bridge lover.Robert Silman, President Emeritus, Silman Structural Engineers (New York, Washington, Boston)

Meet the writer of the book!