Reviews and describes both the fundamental and practical design procedures for the ultimate limit state design of ductile steel plated structures.

The new edition of this well-established reference reviews and describes both fundamentals and practical design procedures for steel plated structures. The derivation of the basic mathematical expressions is presented together with a thorough discussion of the assumptions and the validity of the underlying expressions and solution methods.

Furthermore, this book is also an easily accessed design tool, which facilitates learning by applying the concepts of the limit states for practice using a set of computer programs, which can be downloaded.

*Ultimate Limit State Design of Steel Plated Structures* provides expert guidance on mechanical model test results as well as nonlinear finite element solutions, sophisticated design methodologies useful for practitioners in industries or research institutions, and selected methods for accurate and efficient analyses of nonlinear behavior of steel plated structures both up to and after the ultimate strength is reached.

- Covers recent advances and developments in the field
- Includes new topics on constitutive equations of steels, test database associated with low/elevated temperature, and strain rates
- Includes a new chapter on a semi-analytical method
• Supported by a companion website with illustrative example data sheets

• Provides results for existing mechanical model tests

• Offers a thorough discussion of assumptions and the validity of underlying expressions and solution methods

Designed as both a textbook and a handy reference, *Ultimate Limit State Design of Steel Plated Structures, Second Edition* is well suited to teachers and university students who are approaching the limit state design technology of steel plated structures for the first time. It also meets the needs of structural designers or researchers who are involved in civil, marine, and mechanical engineering as well as offshore engineering and naval architecture.

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