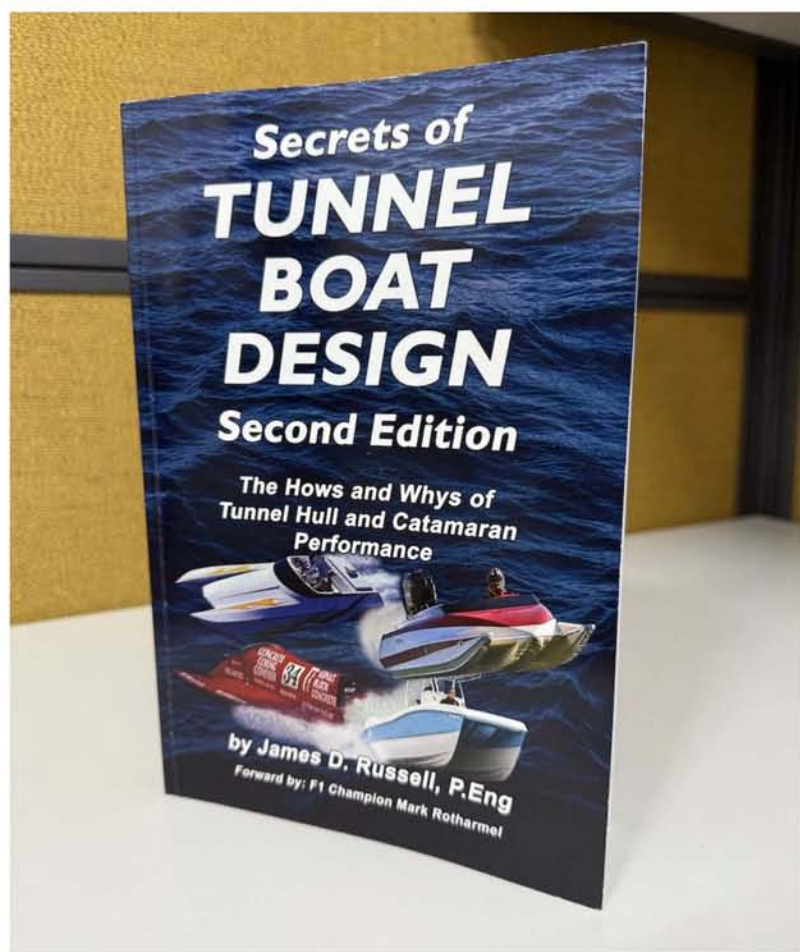


Secrets of Tunnel Boat Design

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Book Review: Secrets of Tunnel Boat Design – Second Edition by Jim Russell

Jim Russell, a celebrated designer, author, engineer, and race driver, returns with a fully reimagined and expanded edition of his seminal work in *Secrets of Tunnel Boat Design – Second Edition*. This new release stands as a definitive guide for both seasoned designers and performance boating enthusiasts, delving deeply into the science and art behind tunnel hull and catamaran performance.

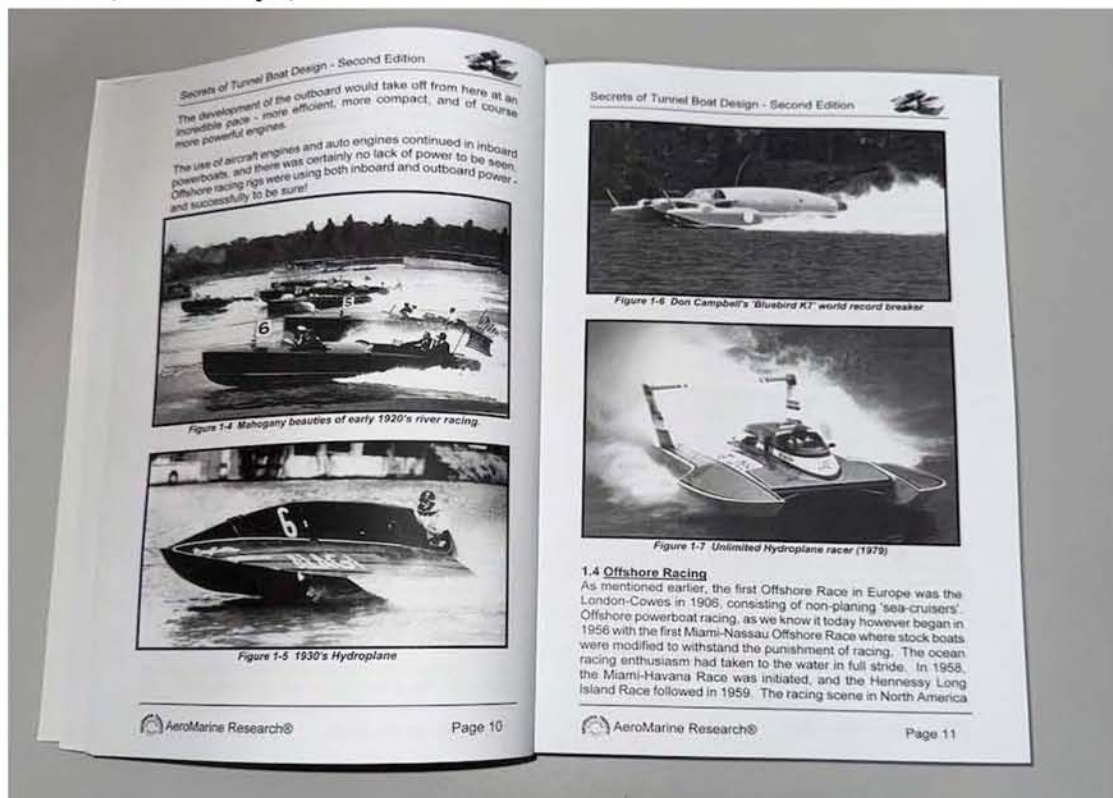


Spanning over 250 pages and enriched with more than 275 detailed photos and illustrations, this edition goes far beyond the original.

The book thoughtfully preserves the foundational knowledge from its first release in the early 1980s, yet it brings a wealth of new insights, research, and modern advancements to the forefront.

Russell meticulously outlines how tunnel hulls work, their evolution, and their application across all boat sizes and types—from recreational and utility vessels to high-speed offshore cats and even RC models.

One of the standout features of this edition is the detailed breakdown of the “Ten Design Steps” for performance analysis. These steps not only demonstrate the calculation process but also clearly show their real-world impact on hull performance and dynamic stability. Russell’s methods are grounded in proven aerodynamic and hydrodynamic research, supported by wind tunnel and water channel testing, as well as full-scale race trials. The inclusion of step-by-step design calculations for different hull types—recreational, utility/fishing, and racing—makes the book exceptionally practical.



Unlike most technical publications in the boating world, which often withhold proprietary insights, Russell’s book boldly shares decades of accumulated “secrets.” This transparency and thoroughness set it apart as a truly unique resource in marine design literature.

Divided into three well-structured sections—History of Tunnel Boat Design, Design of Tunnel Boats, and Calculations for Three Types of Tunnel Boats—the book provides a logical and highly readable progression from theory to application. Whether readers are aiming to build, modify, or simply better understand high-performance boats, this book equips them with the necessary tools and knowledge.

In summary, *Secrets of Tunnel Boat Design – Second Edition* is a must-read for anyone serious about performance boating. Rich in history, technical depth, and practical application, it is not just an update—it's a landmark publication in the world of marine engineering and design.

To get the book, visit the Aero Marine Research website
www.aeromarineresearch.com

Some testimonials..

“

Once I started reading it, I was hooked”...”Sure to interest the most dedicated and knowledgeable boating enthusiast....This fantastic book...is one of the most comprehensive covering tunnel boat design.

- Greg Terzian, *Scream & Fly Magazine*

“

Tremendous, terrific, great, and fantastic .. tremendous amount of research with an excellent writing approach....fantastic piece of work!

- Morley Smith, *Society of Naval Architects and Marine Engineers*

“

A must-read resource for boat builders... (Russell) combines practical experience with his extensive engineering, analytical and literary skills. Russell arms the reader with proven calculations... that remove much of the guesswork... He knows of what he writes... a person to be admired for his intelligence and devotion to high performance boating.

- Mark Rotharmel, *F1 Champion*

“

Essential Reading for Performance Boaters...Jim touches on almost every imaginable hull design and application...There is high quality information here.

- Jared Powell, *Wave-to-Wave Powerboat magazine*