3rd Hull Performance & Insight Conference (HullPIC'18)

Redworth, England 12 – 14 March 2018

Editor:

Volker Bertram

ISBN: 978-1-7138-1893-9

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2018) by Numerical Towing Tank Symposium All rights reserved.

Printed with permission by Curran Associates, Inc. (2020)

For permission requests, please contact Numerical Towing Tank Symposium at the address below.

Numerical Towing Tank Symposium c/o Volker Bertram 121 Erdkampsweg 22335 Hamburg, Germany

Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA Phone: 845-758-0400 Fax: 845-758-2633 Email: curran@proceedings.com Web: www.proceedings.com

Index

Alex Noordstrand Experience with Robotic Underwater Hull Cleaning in Dutch Ports	4
Nicolas Bialystocki Reflecting Commercial Considerations in Vessel Performance Analysis	10
Jinmo Park, Boram Kim, Hunseob Shim, Kyoungsoo Ahn, Jin Hyoun Park, Donghoon Jeong, Seyong Jeong Hull and Propeller Fouling Decomposition and Its Prediction based on Machine Learning Approach	20
Yasuhiko Inukai, Yasuhiko Sudo, Hakuya Osaki, Tetsuo Yanagida, Masahiko Mushiake, Satoshi Kawanami Extensive Full-Scale Measurement on Propeller Performance of 14000 TEU Container Ship	27
Erik van Ballegooijen, Torben Helsloot, Marc Timmer Experience with Full-Scale Thrust Measurements in Dynamic Trim Optimisation	36
André Kauffeldt, Heikki Hansen Enhanced Performance Analysis and Benchmarking with CFD Baselines	48
Panos Deligiannis, Pavlos Zouridis Global Hull Performance: Propulsion Power Optimization and Operational Diagnosis Tool	62
Jørgen Abrahamsen Practical Experience with ISO 19030 at Chevron Shipping - Part 3	76
Dinis Oliveira, Lena Granhag, Lars Larsson Performance Values vs. Speed – A Declaration of Independence?	80
Jorinna Gunkel, Jesper Dietz, Nikolaj Purup Trim Optimization in an Operational Environment using Existing Sensor Installations	93
Carlos Gonzalez, Bjarte Lund, Erik Hagestuen Case Study: Ship Performance Evaluation by Application of Big Data	104
Johnny Eliasson Practical Experience with ISO 19030 at Chevron Shipping - Part 3	120
Toshiyuki Kano On the Effect of Navigation Support System – From Collecting Data to Operational Support	123
Daniel Schmode, Ole Hympendahl, Ditte Gundermann Hull Performance Prediction beyond ISO 19030	135
Jan Wienke Thrust Measurements during Sea Trials – Opportunities, Challenges and Restrictions	141
Antonios Tzamaloukas, Stefanos Glaros, Kerasia Bikli Different Approaches in Vessel Performance Monitoring, Balancing Accuracy, Effectiveness & Investment Aspects, from the Operator's Point of View	149
Bastian Gehnke Practical Approaches of Systematically Analyzing KPIs Before and After Maintenance Events with Alternative Methods	162
Irma Yeginbayeva, Lena Granhag, Valery Chernoray Experimental Quantification of Drag Change of Commercial Coatings Under the Effect of Surface Roughness and Soft Fouling	169

Beom Jin Park, Myung-Soo Shin, Min Suk Ki, Gyeong Joong Lee, Sang Bong Lee Ideas on How to Improve ISO19030 based on the Results of Applying to Field Data	178
Barry Kidd, Haoliang Chen, Yuhuai Seah, Wen Xiang Chue, Alistair Finnie Practical Experience with ISO 19030 at Chevron Shipping - Part 2	185
Vasileios Tsarsitalidis, Spiros Rossopoulos ISO 19030 - The Good, the Bad and the Ugly	194
Geir Axel Oftedahl ISO 19030 in 2018 and Beyond – Relevance of the Standard in this Period of Rapid Technological Change	207
Kelli Hunsucker, Cierra Braga, Caglar Ergodan, Harrison Gardner, John Hearin, Emily Ralston, Geoffrey Swain, Melissa Tribou, Ann Wassick The Advantages of Proactive In-Water Hull Grooming from a Biologist's Perspective	210
Rune Gangeskar, Gunnar Prytz, Vemund Svanes Bertelsen On-Board Real-Time Wave & Current Measurements for Decision Support	223
Dafni Sofiadi, Soren Hansen Effective Data Handling for Practical Vessel Performance Analysis	234
Knut Jarle Lysklett Underwater Drones as Efficient Tool for Hull and Propeller Inspections	244
Job Klijnstra, Mark Bakker, Adrien Greff, Frans Kremer Performance measurements on Propeller and Hull Coatings	254
Mark Bos An Ensemble Prediction of Added Wave Resistance to Identify the Effect of Spread of Wave Conditions on Ship Performance	265
Yasuhiro Sudo, Norihide Igarashi, Takashi Yonezawa, Masahiko Mushiake, Satoshi Kawanami, Takanori Hino Improvement of Measuring Accuracy of Ship's Speed through Water by using MLDS (Multi-Layered Doppler Sonar)	275
Sergiu Paereli, Manolis Levantis Quantification of Changes in Propeller Performance – Method Validation	285
Anders H. Møller From Measurement to Understanding, Insight and Decision	296
Michael Leer-Andersen, Sofia Werner, Keunjae Kim Skin Friction Database	305
Søren Hattel, Giannis P.S. Papageorgiou, Vivien Rieu Quantitative Comparison of Different Key Performance Indicators	319
Francesco Bellusci, Gilyong Han Tanker Operators' Perspective, Vessel Performance Monitoring	328
P. Arun Lakshmynarayanana, Dominic A. Hudson Is Wave Height Necessary to Determine Ship Performance in Calm Water from Measurements?	335
Jan Kelling Ultrasound – The Silent Revolution in Antifouling	346
Index of authors	354
Call for Papers for next HullPIC	