Editor: Richard Halfhide
Assistant Editor: Joseph Stewart
Design/Production Manager: Sandy Defraine
Advertisement Production Manager: Stephen Bell
Subscriptions & Publications Manager: Tasharna Francis
Publisher: Mark J Staunton-Lambert

Advertising Sales: J P Media Services Email advertising: jpayten@jpmediaservices.com

cseldon@jpmediaservices.com

Telephone: +44 (0)1737 852135

Published by:

The Royal Institution of Naval Architects Editorial Office: 8-9 Northumberland Street London, WC2N 5DA, UK Telephone: +44 (0) 20 7235 4622 Telefax: +44 (0) 20 7245 6959

E-mail editorial: editorial@rina.org.uk E-mail production: production@rina.org.uk E-mail subscriptions: subscriptions@rina.org.uk

Printed in Wales by Stephens & George Magazines.

The Institution is not, as a body, responsible for opinions expressed in *The Naval Architect* unless it is expressly stated that these are the Council's views.

Registered charity No. 211161

© 2018 The Royal Institution of Naval Architects. This publication is copyright under the Berne Convention and the International Copyright Convention. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted without the prior permission of the copyright owner. Permission is not, however, required to copy abstracts of papers or of articles on condition that a full reference to the source is shown. Multiple copying of the contents without permission is always illegal.

A 2018 subscription to The Naval Architect costs:

NAVAL ARCHITECT (10 issues per year)

 Naval Architect (10 issues per year)

 12 months
 Print only†
 Digital Only*
 Print + Digital

 UK
 £190
 £190
 £242

 Rest of Europe
 £199
 £190
 £251

 Rest of World
 £213
 £190
 £266

†Incudes p+p
*Inclusive of VAT

The Naval Architect Group (English & Chinese Editions) Average Net Circulation 16,694 (total) 1 January to 31 December 2016 ISSN 0306 0209



7 Editorial comment

Smarter thinking

8-17 **News**

8-10 News

12 News Analysis

14-17 Equipment News

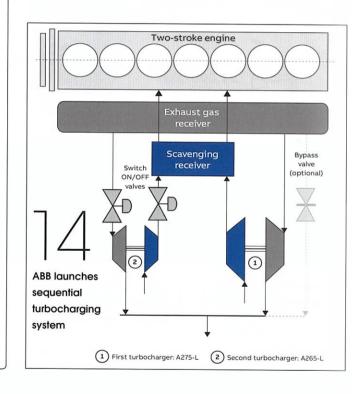


18-21 **In-depth**

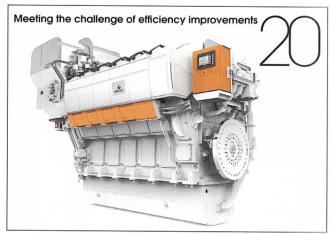
18-19 **China Ship News** | It's the right time for LNG shipping development

20-21 Efficiency | Meeting the challenge

46 Diary







22-41 Features

Feature 1 Ice class

22-24 Fast sailing in ice - the new goal of model studies

Feature 2 CAD/CAM/CAE

26-29 System analysis for design-side innovation to reduce a ship's carbon footprint

Feature 3 Ballast water treatment

- 30 Optimarin looks to guarantee satisfaction
- 31 Ballast testing criticial to Gulf access
- 32 Aqua-tools champions ATP tests
- 33 Survival of the fittest

Feature 4 Green ships

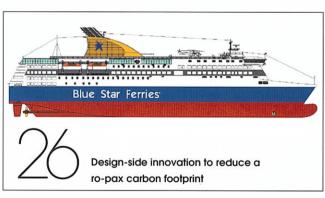
34-35 Two-year tanker trial confirms Selektope antifouling power

Feature 5 South Asia

36-39 Experience capture in shipbuilding

Feature 6 Foundation

40-41 Contracting and delivering SD14s









Digital Editions

The Naval Architect is published in print and digital editions. The current and archived digital editions (from January 2004) may be read on PC, iPad or other touchpad.

Visit http: www//rina.org.uk/Naval-architect-digital.html to read the digital editions, or download the free RINA Publications App.

