OFFSHORE WEIGHT CONTROL: MANAGING DESIGN, INSTALLATION AND COST.

Process Division Seminar

23 September 2014
Marriott Hotel, Aberdeen
www.imeche.org/events/S1819
INTRODUCTION

The trend in offshore structures is towards larger, more integrated decks for new installations, which poses unique challenges since limits exist on lifting capacity.

Attend Offshore Weight Control, this September, in order to hear presentations from key industry leaders to enhance your understanding of weight control and learn how to manage conflicting demands from operators, designers and installers.

This seminar will introduce potential solutions for offshore weight control, including the use of new materials. It will also allow you to hear and learn from other industries, including aerospace, where weight control is critical.

WHO SHOULD ATTEND?
• Offshore Structure Designers
• Offshore Product Suppliers
• Offshore Project Engineers
• Project Managers
• Weight Control Engineers

Analyse an issue that has not been discussed in recent years and address the current issues arising from upgrades and modifications that are needed on current structures.

SPONSORSHIP & EXHIBITION OPPORTUNITIES

GET INVOLVED
Attending this event as either an exhibitor or sponsor will give you the opportunity to display your solutions, services and products to the right people at the right time.

This is an excellent way to enhance your company profile and communicate effectively to your target audience.

BENEFITS OF SPONSORING
• Showcase new products
• Raise awareness of your operation
• Improve perception of your brand
• Influence other organisations’ spending plans

For more information please call +44 (0)20 7973 1309 or email sponsorship@imeche.org
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:30</td>
<td>REGISTRATION AND REFRESHMENTS</td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>CHAIR’S WELCOME AND INTRODUCTION</td>
<td>Stuart Paterson, Project Manager, Saipem UK Ltd</td>
</tr>
</tbody>
</table>
| 10:10 | WEIGHT GROWTH AND ITS MANAGEMENT                                         | Kevin Price, Principal Weight Control Engineer, AMEC Group Limited  
• Weight growth – discuss the key drivers/sources/identification of weight growth with particular attention to separating growth from design development  
• Review the tools and methods of predicting growth and managing weight that are available to the weight engineer  
• How projects manage weight growth |
| 10:40 | NETWORKING BREAK                                                         |                                                                                                                                             |
| 11:10 | WEIGHT CONTROL FROM AN INSTALLATION CONTRACTOR’S PERSPECTIVE            | Vince McCarthy, Chief Operating Officer, Saipem Limited  
• Prioritising weight control from project commencement  
• Risks of being “overweight”  
• Managing uncertainties prior to “weighing” |
| 11:40 | WEIGHT CONTROL IN AN OFFSHORE BROWNFIELD DEVELOPMENT – THE ANDREW CASE STUDY | Nick Edwards, Structural Engineer, Andrew Area Development Project, North Sea, BP  
• The nature of the Andrew Area Development Project has necessitated a very significant focus on weight – why?  
• What happened on the project (“the weight story”), and why?  
• What were the key steps taken?  
• What was learnt? i.e. what can you do to deal with similar issues |
| 12:10 | NETWORKING LUNCH                                                         |                                                                                                                                             |
| 13:10 | ADVANCED MANUFACTURING PROVIDING WEIGHT SAVING SOLUTIONS                | Simon Eves, Technical Director, Pipex px  
• Fibre reinforced materials can offer ideal solutions for offshore fixed and floating structure weight issues  
• Demand for weight reduction resulting in innovative thinking, application of existing or new technology  
• Case history: Pipex px® MARRS® OFFSHORE Phenolic Handrails to NORSOK and DNV standards, Phenolic Access Structures and Grating |
| 13:40 | COMBINING PASSIVE FIRE PROTECTION WITH COMPOSITE GRATINGS - A STRUCTURAL CHALLENGE | Richard Holliday, Principal Consultant, MMI Engineering Ltd  
• Increased use of grated decks leads to unique challenges in Passive Fire Protection (PPF) design  
• Recent testing by HSE has raised questions on suitability of composite grating under fire conditions  
• This presentation will explain how these challenges can be combined to provide an optimised solution on weight sensitive designs |
| 14:10 | HOW IT’S DONE IN OTHER INDUSTRIES – HOW AIRBUS CONTROLS WEIGHT           | Judi Cheeseman, Airbus  
• Introducing Airbus & the Mass Properties role  
• Why weight matters in aerospace  
• The practicalities of how Airbus manages weight |
| 14:40 | PANEL DISCUSSION                                                        |                                                                                                                                             |
| 15:10 | CLOSING REMARKS                                                         |                                                                                                                                             |
| 15:20 | CLOSE                                                                   |                                                                                                                                             |
KEVIN PRICE
PRINCIPAL WEIGHT CONTROL ENGINEER, AMEC GROUP LIMITED
Kevin Price has over 30 years experience in the offshore oil & gas industry and is a member of the Royal Institute of Naval Architects. He has been involved in the weight management of fixed and floating offshore projects in many geographical regions and has experience of a large number of large deck lifts.

NICK EDWARDS
STRUCTURAL ENGINEER, ANDREW AREA DEVELOPMENT PROJECT, NORTH SEA, BP
Nick Edwards worked at Atkins for six years across various industries, but with a focus on fatigue of structures. Since then he has worked with BP on major offshore projects with a Structural focus.

SIMON EVEES
TECHNICAL DIRECTOR, PIPEX PX
Simon Eves is a Technical Director for Pipex px®. He has been with the company for over 10 years and leads the promotion and development of FRP for Offshore and Subsea applications.

RICHARD HOLLIDAY
PRINCIPAL CONSULTANT, MMI ENGINEERING LTD
Richard Holliday is a recognised subject matter expert on Passive Fire Protection (PFP). A Mechanical Engineer with 29 years’ experience, he joined MMI Engineering almost six years ago and heads up their PFP business on a global basis.

JUDI CHEESEMAN
AIRBUS
Judi Cheeseman has worked in the aerospace industry for several years in the field of Mass Properties and has worked on aircraft projects ranging from replacement supersonic transports research projects to the current state of the art large civil aircraft.

Offshore Engineering Organising Committee:
• Stuart Paterson, Project Manager, Saipem Ltd
• James Bridge, Chair, Offshore Engineering and Upstream Committee, IMechE

The organising committee would like to thank:
• Pressure Systems Group
• Manufacturing Industries Division
• Tribology Group
• Safety and Reliability Group
• Energy, Environment & Sustainability Group
• Structural Technology & Materials Group
• Management Group
REGISTRATION Please complete in capitals.

Family Name ____________________________ Title (Mr, Mrs, Miss) ________________
First Name _______________________________ Job Title ________________________
Membership No ___________________________ Institution ________________________
Name of Organisation (for name badge) __________________________ Address for correspondence __________________________

Town/City ____________________________ Postcode ____________________________
Contact Telephone ______________________ Email ___________________________

Do you have any special requirements?

How did you hear about this event? [ ] Direct mail [ ] Website [ ] Colleague [ ] Other
We would like to keep you informed of relevant services that may be of benefit to you. Please tick the boxes below to let us know what you’re interested in:
[ ] Events and training opportunities
[ ] News and updates from the Institution
[ ] Services and offers from our preferred partners

FEES AND CHARGES Please complete the appropriate box.

Registration fees include entry to the sessions, refreshments, lunch and a copy of the event proceedings.

<table>
<thead>
<tr>
<th>FEE</th>
<th>VAT</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member, Institution of Mechanical Engineers</td>
<td>£308.00</td>
<td>£61.60</td>
</tr>
<tr>
<td>Member, supporting organisation</td>
<td>£308.00</td>
<td>£61.80</td>
</tr>
<tr>
<td>Non-member</td>
<td>£385.00</td>
<td>£77.00</td>
</tr>
<tr>
<td>Invoice charging (if applicable)</td>
<td>£10.00</td>
<td>£2.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PAYMENT DETAILS

Payment must accompany this registration form. Registration will be confirmed only on receipt of full payment.

PLEASE INDICATE METHOD OF PAYMENT:

[ ] Cheque Cheques should be made payable to IMechE and crossed. Please note international delegates may pay only by credit card, BACS or banker’s draft. A copy of the draft must accompany this form. It is the delegate’s responsibility to pay any bank charges.

[ ] Credit Card
Card type: [ ] Visa [ ] MasterCard (please note we cannot accept American Express, Diners Club or Maestro)
Card No ____________________________ Valid From / Expiry Date /
Name of Cardholder ____________________________ Billing Address of Cardholder (if different from above) ____________________________

[ ] Cheque
Account No: 00817767 Bank Sort Code: 60-40-05
Bank Swift Code: NWKGB2L
BACS bank transfers can be made to:
IMechE Current Account, NatWest Charing Cross Branch
Acc No: 00817767
Street: GB96NWKB60400500817767
A copy of the draft must accompany this form.

[ ] Invoice (UK residents only) Delegates wishing to be invoiced must provide an order number.

If your company does not use order numbers please include a formal request for invoicing on your company’s letterhead. A charge of £10 +VAT will be made to cover additional administration costs. Invoices are payable on receipt and no alterations to these terms will be accepted.

Name and Address for Invoicing ____________________________ Postcode ____________________________

Tel ____________________________ Fax ____________________________

CONDITIONS OF BOOKING

Completed application forms should be returned to the address above, along with the correct payment. Attendance at the event will be confirmed on receipt of the full balance. All participants are advised to bring a copy of their confirmation with them on the day, to ensure the fastest possible entry.

SPECIAL REQUIREMENTS

Please inform us of any special requirements, ie. dietary or access, on the relevant section of this form.

CANCELLATION

For a refund (minus £25 +VAT admin charge), cancellations must be received at least 14 days prior to the event. Replacement delegates are welcome at any time. The Institution reserves the right to cancel any event. In this case, the full fee will be refunded unless a mutually convenient transfer can be arranged. In the event that the Institution postpones an event for any reason and the delegate is unable or unwilling to attend on the rescheduled date, they will receive a full refund of the fee paid.

The Institution is not responsible for any loss or damage as a result of a substitution, alteration or cancellation/postponement of an event. The Institution shall assume no liability whatsoever if this event is cancelled, rescheduled or postponed due to a fortuitous event. Act of God, unforeseen occurrence or any other event that renders performance of this conference impracticable, illegal or impossible. For purposes of this clause, a fortuitous event shall include, but not be limited to: war, fire, labour strike, extreme weather or other emergency.

Please note that while speakers and topics were confirmed at the time of publishing, circumstances beyond the control of the organisers may necessitate substitutions, alterations or cancellations of the speakers and/or topics. As such, the Institution reserves the right to alter or modify the advertised speakers and/or topics if necessary without any liability to you whatsoever. Any substitutions or alterations will be updated on the event’s webpage as soon as possible.

ACCOMMODATION

For accommodation please visit:
http://www.corporateteam.com/events/84880wc

LIABILITY

The organisers do not accept liability for any injuries or losses of any nature incurred by delegates and/or accompanying persons, nor for loss or damage to their luggage and/or personal belongings.

ENQUIRIES

For event enquiries call +44 (0)20 7973 1258 or email eventenquiries@imeche.org

The Institution of Mechanical Engineers is a registered charity (no 206882) VAT No GB299930493.
MEMBERSHIP

Whether you’re a student, apprentice, graduate, qualified engineer or just have an interest in engineering, Institution membership offers the highest professional prestige.

Professional registration is a valuable investment for any engineer who is serious about their career.

Find out which level you’re best suited for at www.imeche.org/membership or email us on membership@imeche.org

GET INVOLVED

Whether you’re new to the profession or well established, volunteering is a great way to gain new skills, knowledge and experience.

As an Ambassador you have the chance to represent your profession and give something back to the engineering community as well as inspiring the next generation.

See www.imeche.org/volunteering for more information or go to http://nearyou.imeche.org

FORWARD THINKING

We are the market leader among professional engineering bodies. We’ve been supporting engineers since 1847 and have 100,000 members in over 140 countries, working in the world’s most dynamic and important industries. Our comprehensive events programme brings you the latest research and best practice from industry and academia.

OTHER EVENTS TO LOOK FOR:

11-12 November 2014
Aberdeen
PRODUCTION EFFICIENCY: REVERSING A DECLINING TREND

With greater investment needed to maintain ageing assets in order to increase their level of production, comes an opportunity for the offshore industry to share best practice and learn from their partners. The solutions to improve production efficiency are not quick but the initiative to action improvements are and need to be shared so that financial investment continues across the UKCS.

3 December 2014
London
AGEING PLANT: MINIMISING HAZARDS THROUGH BETTER DETECTION TECHNIQUES

To get the best out of structures that are highly susceptible to deterioration, a greater emphasis must be placed on detection. This event will provide case studies showcasing the various different types of detection techniques that ultimately are able to reduce operating costs, reduce hazards and ensure compliance with latest guidance.

8 December 2014
Aberdeen
PIPING AND PIPELINE RISK-BASED INSPECTION

The UK oil and gas industry is facing its greatest challenge yet as the demand for energy across the UK continues to grow. A consequence of this is the pressing need for operators to ensure greater asset integrity both on and offshore. With this pressure comes the need to instil effective risk assessment and mitigation measures.

www.imeche.org/events/C1419  www.imeche.org/events/S1826  www.imeche.org/events/C1420

If you’re interested in any of these events, please contact our enquiries team on +44 (0)20 7973 1238 or email eventenquiries@imeche.org

FOLLOW OUR WEEKLY UPDATES ON WWW.IMECHE.ORG

JOURNALS

Professional Engineering Publishing is the publisher for the Institution of Mechanical Engineers. For more information about our magazines, journals and conference proceedings visit www.uk.sagepub.com/imeche

To find out more contact Subscriptions on +44 (0)1952 214050 or email subscriptions@imeche.org

MEMBERSHIP

Whether you’re a student, apprentice, graduate, qualified engineer or just have an interest in engineering, Institution membership offers the highest professional prestige. Professional registration is a valuable investment for any engineer who is serious about their career.

Find out which level you’re best suited for at www.imeche.org/membership or email us on membership@imeche.org

GET INVOLVED

Whether you’re new to the profession or well established, volunteering is a great way to gain new skills, knowledge and experience.

As an Ambassador you have the chance to represent your profession and give something back to the engineering community as well as inspiring the next generation.

See www.imeche.org/volunteering for more information or go to http://nearyou.imeche.org

Keep up your CPD

Continuing Professional Development (CPD)

Our online Career Developer tool can help you:

• Plan  Create an Action Plan and identify targets
• Record  Download a record of your learning activities
• Review  Reflect on your professional development

Register for Career Developer and get more from your career at www.imeche.org/careerdeveloper

For tailored advice contact cpd@imeche.org

Institution of MECHANICAL ENGINEERS

1 Birdcage Walk
Westminster
London
SW1H 9JJ
T +44 (0)20 7222 7899
www.imeche.org

Improving the world through engineering