

Congress | 13

Shanghai

MAY 13th - 16th, 2013

27th CIMAC World Congress on Combustion Engine Technology

for Ship Propulsion
Power Generation
Rail Traction

PRELIMINARY PROGRAMME



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Welcome Message



The Chinese Society for Internal Combustion Engines, as the National Member of CIMAC, has the pleasure of organizing the 27th CIMAC World Congress on Combustion Engines, scheduled for 13th – 16th May 2013 in Shanghai, China.

CIMAC is a vigorous and attractive organization, which brings together manufacturers, users, suppliers, oil companies, classification societies and scientists in the field of engine. With more than 60 years of diligent, effective and valuable work, CIMAC has become one of the major forums in which engine builders and users can consult with each other and share concerns and ideas.

The Congress will be devoted to the presentation of papers in the fields of marine, power generation and locomotive engine research and development covering state-of-the art technologies as well as the application of such engines. Moreover, the event will provide the unique opportunity to meet colleagues and customers from the industry around the world.

Located in the Yangtze River Delta and situated by the East China Sea, Shanghai is the biggest industrial and commercial city in China and also a famous international metropolis. Shanghai showing its own unique makings, ancient and modern, Eastern and Western, and traditional and fashionable, attracts more than 8 million visitors from all around the world every year. Shanghai is very easy to reach with thousands of flights in its two international airports every day, which connect more than 200 cities in the world. In fact, Shanghai hosts hundreds of international Exhibitions per year.

The Congress will be held at Shanghai Exhibition Center located in the heart of downtown, a perfect venue for conference, exhibition and large-scale event. A well developed transportation system in the city ensures you a convenient way to explore the fantastic and unusual places at your leisure.

With 194 papers to be published during 48 presentation sessions, 125 papers to be presented in three poster sessions and an exhibition covering an area of 2500 sq.m to be held simultaneously during the Congress, all the numbers will reach new records high.

The 2013 Organizing Committee sincerely invites you to the 27th CIMAC World Congress on Combustion Engine Technology and we are looking forward to meeting you in Shanghai.



Donghan JIN
President of the 27th CIMAC World Congress

Welcome Message



Confucius once said, "It is such a delight to have friends coming from afar!". The spring breeze brings warmth; flowers compete in splendor in May. In this beautiful season, Shanghai is ready to have the grand opening of the 27th CIMAC World Congress on Combustion Engine Technology and meets colleagues and customers from combustion engine industry around the world. As the president of Chinese Society for Internal Combustion Engines, I have great honor to take this opportunity to sincerely welcome you to Shanghai.

China has become the world's largest Internal Combustion Engine manufacturing country in recent years. The total annual production of internal combustion engines in 2011 is 77 million units, or 1.4 billion KW, which basically meet the needs of automobile, construction machinery, rail traction, marine, power generation equipment and large agricultural machinery etc.. In the future, China will become a strong combustion engine manufacturing country with multiple funds, different level products, advanced leading technology and manufacturing equipment as well as modern management. At the same time, it will be the largest market for combustion engines in the world. The 27th CIMAC World Congress will provide a good platform for technical cooperation and exchange.

Chinese Society for Internal Combustion Engines (CSICE) is a non-profit corporate social organization. It is a National Member Association (NMA) of CIMAC. It has ten sub-societies with over 15,000 members. Every year, CSICE holds dozens of academic activities and seminars with over 2,000 attendees. In addition, CSICE has been publishing three academic journals, with an annual average publication of more than 300 papers and total issue of over 35,000 copies. Those activities have made great contribution to the development of the China combustion engine industry.

I fully believe that experts, scholars, technicians and engineers from the combustion engine industry all over the world will get together in Shanghai to join in the 27th CIMAC World Congress and its Exhibition to discuss and exchange technologies on the issues of common concern in the world today, display state of the art products and technologies, which will make active contribution to the development of the world combustion engine industry.

I wish the 27th CIMAC World Congress and its Exhibition a great success!

Xiaoyu ZHANG
President of Chinese Society for Internal Combustion Engines

Introduction to CIMAC

What CIMAC is:

CIMAC is a worldwide non-profit association consisting of National Member Associations, National Member Groups and Corporate Members in 26 countries in America, Asia and Europe.

It brings together manufacturers of diesel and gas engines and gas turbines, users such as shipowners, utilities and rail operators and also suppliers, oil companies, classification societies and scientists.

The mission of CIMAC:

- Promote exchange of scientific and technical information via its Congresses and CIMAC Circles
- Improve understanding between engine manufacturers and users
- Improve understanding between manufacturers and suppliers
- Promote Working Group activities
- Focus upon and promote the work and activities of National Member Associations
- Issue publications and support work in the area of standardisation
- Collaborate with other International Associations
- Inform regularly about CIMAC activities

CIMAC Working Groups:

All CIMAC Working Groups are established to find solutions to technical problems and to publish Recommendations as well as press articles worldwide.

CIMAC Working Groups are presently active in the following areas:

- Exhaust Emissions
- Fuels and Lubricants
- Users
- Engine Specification
- Classification

CIMAC Structure:

The CIMAC Congress represents the culmination point of all CIMAC activities and takes place every 3 years each time in a different member country.

CIMAC Executive Board	President Past President Vice President Technical Programme Vice President Technical Programme Vice President Working Groups Vice President Users Vice President Communication Secretary General	Yasuhiro Itoh , Niigata Power Systems Co., Ltd. Karl Wojik , AVL List GmbH Christoph Teetz , MTU Friedrichshafen Paolo Tonon , Wärtsilä Corporation Christian Poensgen , MAN Diesel & Turbo SE Oyvind Toft , BW Fleet Management AS Axel Kettmann , ABB Turbo Systems Markus Heseding , CIMAC/VDMA
Organizing Committee of the 27th CIMAC Congress	Congress President President of the Organizing Committee Chairmen of Technical Committee Chairman of Operation Committee Head of Finance Committee	Donghan Jin , Shanghai Marine Diesel Engine Research Institute Xiaoyu Zhang , Chinese Society for Internal Combustion Engines (CSICE) Christoph Teetz , MTU Friedrichshafen Paolo Tonon , Wärtsilä Corporation Shuyi Yang , Chinese Society for Internal Combustion Engines (CSICE) Xiaobin Li , Shanghai Internal Combustion Engine Research Institute

General Information

The Congress will take place at Shanghai Exhibition Center (SEC).

Address: No.1000, Middle Yanan Road
Shanghai City

Language

The official language of the Congress is English and all presentations are to be made in English. There is no translation service.

Congress Proceedings

For all participants, all papers will be available in electronic form.

Lunch

After the Opening Ceremony on Monday 13th May lunch is included in all delegates' and accompanying persons' fees. From Tuesday 14th May to Thursday 16th May lunch is included in the delegate registration fee but not in the accompanying persons' fee.

Contact for Question

For question regarding Registration, Exhibition and Optional Tours for accompanying persons, please contact:

SHENSHI EXHIBITION SERVICE CO., LTD.

Rm A605 Sunshine Plaza, No. 1718 Daduhe Rd,
Shanghai

Tel : +86 21 5283 8700 ext. 815
Fax: +86 21 5250 0721
Contact person: Helen Zhang
E-mail: helen@21expo.net

For questions regarding Hotel Accommodation, please contact:

SHENSHI EXHIBITION SERVICE CO., LTD.
Rm A605 Sunshine Plaza, No. 1718 Daduhe Rd, Shanghai
Tel : +86 21 5283 8605
Fax: +86 21 5250 0721
Contact person: Annie Cheng
E-mail: annie@21expo.net

For questions directed at the local host, please contact:

SHENSHI EXHIBITION SERVICE CO., LTD.
Rm A605 Sunshine Plaza, No. 1718 Daduhe Rd, Shanghai
Tel : +86 21 5283 8605
Fax: +86 21 5250 0721
Contact person: Peggy Chin
E-mail: peggy@21expo.net

For questions regarding the Technical Programme, please contact:

CIMAC Central Secretariat
c/o VDMA e. V.
Lyoner Str. 18
60528 Frankfurt / Germany
Phone: +49 69 6603 1355
Fax: +49 69 6603 2355
E-mail: cimac@vdma.org
Internet: www.cimac.com

Contact Persons:

Mr. Peter Müller-Baum
Mrs. Dorothee Günther

Time Schedule Overview

Sunday, 12th May 2013

14:00 – 18:30 Registration Gate 2, Shanghai Exhibition Center (SEC)

Monday, 13th May 2013

Time	Activities	Venue	Remarks
08:00 - 10:00	Registration	Registration counter at Gate 2, SEC	
09:00 - 09:15	Exhibition Opening Ceremony	Fountain Square	
09:15 - 10:00	Visit CIMAC Exhibition		
10:00 - 11:40	Congress Opening Ceremony	Central Hall	Performances, VIP Congratulation Speech, Keynote Speech
12:00 - 13:00	Lunch	Central Hall	2 normal choices, 1 for vegetarian, 1 for Muslim
13:30 - 15:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
15:00 - 15:30	Coffee break	Exhibition Floor 1 st Floor of Hall E1, W1	
15:30 - 17:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
17:00	End of Technical Sessions for Monday		
18:00 - 21:00	Welcome Reception	JC Mandarin Banquet Hall JC Mandarin Hotel	Next to Gate 9, SEC

Tuesday, 14th May 2013

Time	Activities	Venue	Remarks
08:00 - 08:30	Congress Preparation		
08:30 - 10:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
09:00 - 17:00	Poster Session	2 nd Floor of Hall E1, W1 Poster Session Area	
10:00 - 10:30	Coffee break	Exhibition Floor 1 st Floor of Hall E1, W1	
10:00 - 16:00	Optional Tour	Ancient Town, Zhujiajiao	Departure from Fountain Square RMB 380 / person.
10:30 - 12:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
12:00 - 13:00	Lunch	Central Hall	2 normal choices, 1 for vegetarian, 1 for Muslim
13:30 - 15:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
15:00 - 15:30	Coffee break	Exhibition Floor 1 st Floor of Hall E1, W1	
15:30 - 17:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
17:00	End of Technical Sessions for Tuesday		
18:30 - 21:00	ABB Evening		

Time Schedule Overview

Wednesday, 15th May

Time	Activities	Venue	Remarks
08:00 - 08:30	Congress Preparation		
08:30 - 10:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
09:00 - 17:00	Poster Session	2 nd Floor of Hall E1, W1 Poster Session Area	
10:00 - 10:30	Coffee break	Exhibition Floor 1 st Floor of Hall E1, W1	
10:00 - 16:00	Optional Tour	Yuyuan Garden	Departure from Fountain Square RMB 380 / person. Booking at least one day in advance.
10:30 - 12:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
12:00 - 13:00	Lunch	Central Hall	2 normal choices, 1 for vegetarian, 1 for Muslim
13:30 - 15:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
15:00 - 15:30	Coffee break	Exhibition Floor 1 st Floor of Hall E1, W1	
15:30 - 17:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
17:00	End of Technical Sessions for Wednesday		

Thursday, 16th May

Time	Activities	Venue	Remarks
08:00 - 08:30	Congress Preparation		
08:30 - 10:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
09:00 - 16:00	Poster Session	2 nd Floor of Hall E1, W1 Poster Session Area	
10:00 - 10:30	Coffee break	Exhibition Floor 1 st Floor of Hall E1, W1	
10:30 - 12:00	Technical Sessions	2 nd Floor of Hall E1, W1 Room A, B, C, D	
12:00 - 13:00	Lunch	Central Hall	2 normal choices, 1 for vegetarian, 1 for Muslim
13:30 - 14:30	Collin Trust Lecture	Central Hall	
14:30 - 16:00	Final Panel Discussion	Central Hall	
16:00	End of Technical Sessions for Thursday		
18:30 - 21:00	Gala Dinner Party	Seagull Restaurant	Departure from 3-5 hotels with buses. Refer to information card in your congress bag.

Friday, 17th May

08:00 - 16:30	Technical Visits There are three different lines. Depart from JC Mandarin Hotel (next to Gate 9 of SEC). RMB 500/person. Booking at least one day in advance.		
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Conference Venue

The Congress will be held in Shanghai Exhibition Center (SEC) which was established in 1955. SEC is the first ever site for conference and exhibition in Shanghai. Over the past four decades or so, SEC has been the venue for quite a number of important political events and foreign affairs.

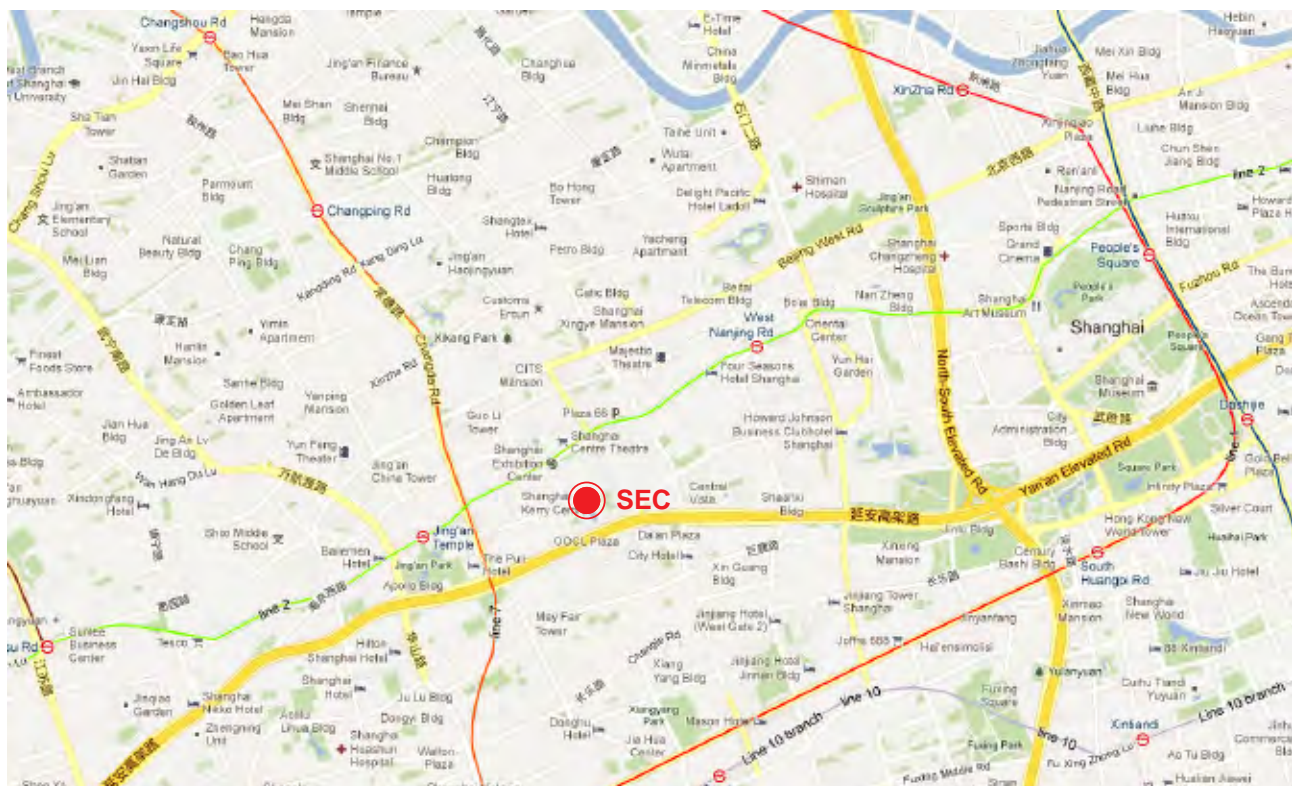
Architecturally, SEC is blessed with a unique characteristic. With its magnificent and elegant styles and exquisitely graceful decorations, SEC was awarded in 1989 the title of one of the "Shanghai Ten Best Architectures in the period of 1949-1989". In 1999, it is again ranked among "Shanghai Ten classic Architectures with Gold Medals".

According to their functionality, SEC is divided into two parts, the north part and the south part. With Front Hall, Central Hall, East Hall 1 (Hall E1), West Hall 1 (Hall W1), West Hall 2 (Hall W2), the southern part forms an exhibition and congress area; Friendship Hall together with East Hall 2 (Hall E2) in the north is designated as the conference area.

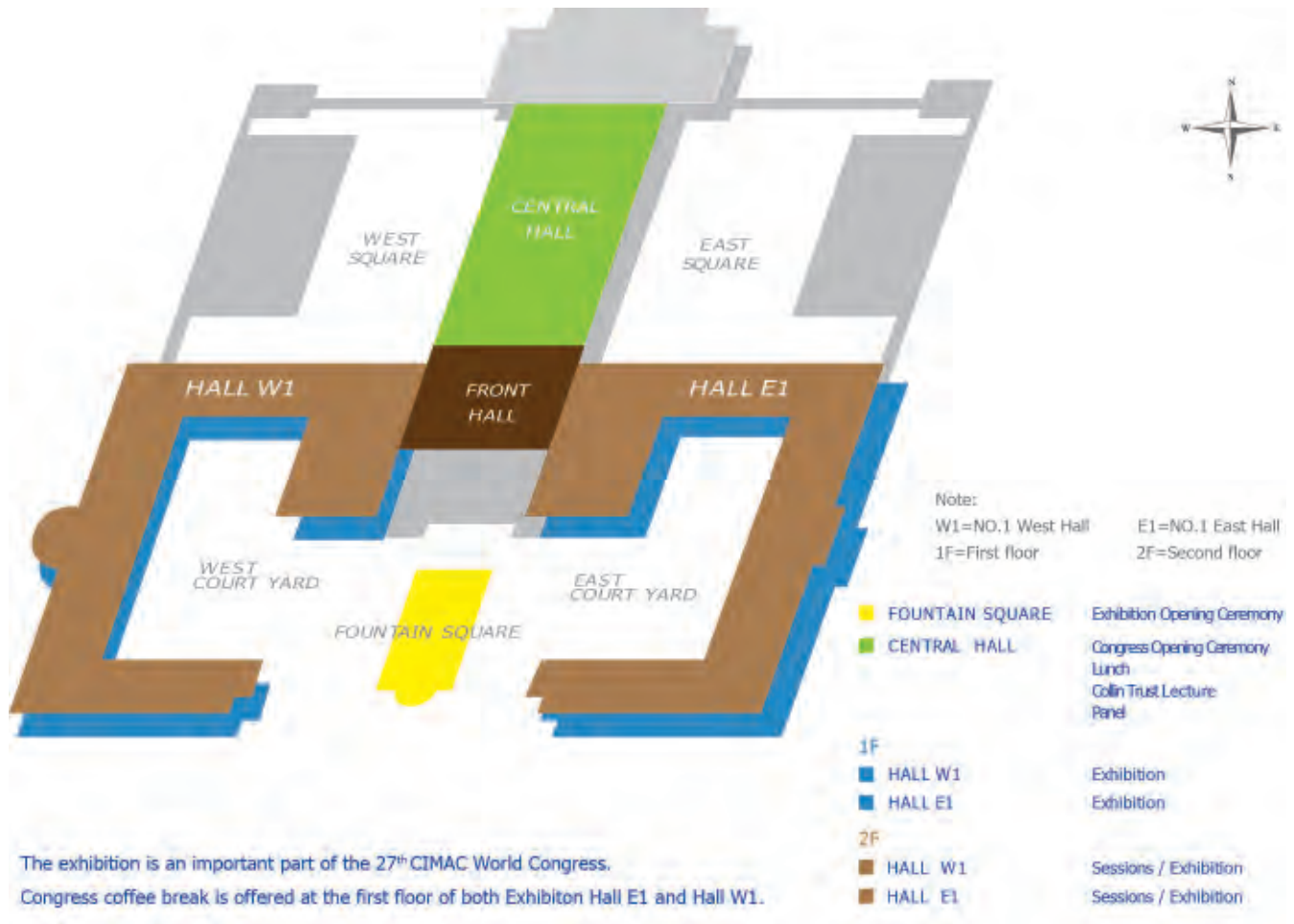


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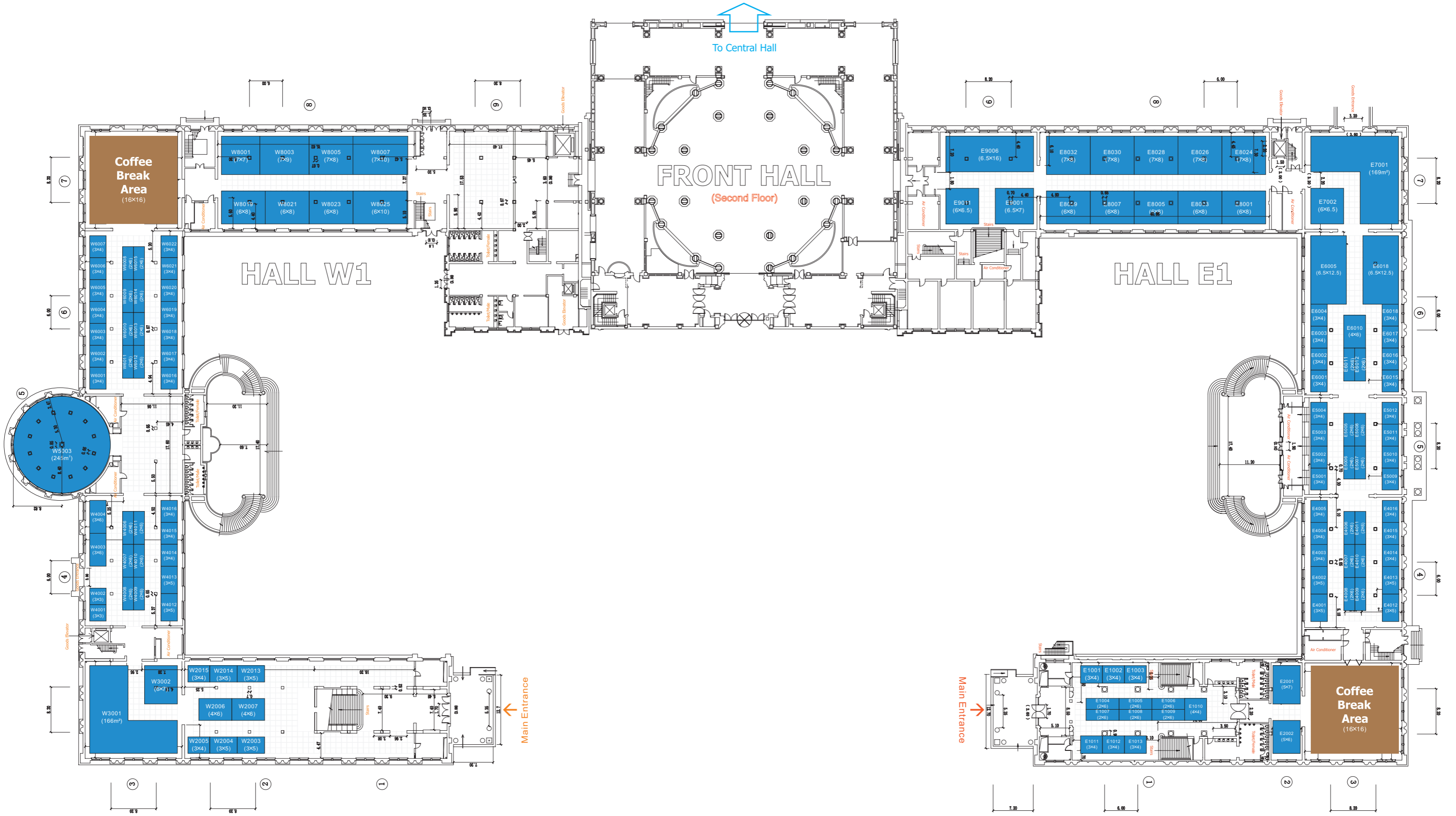
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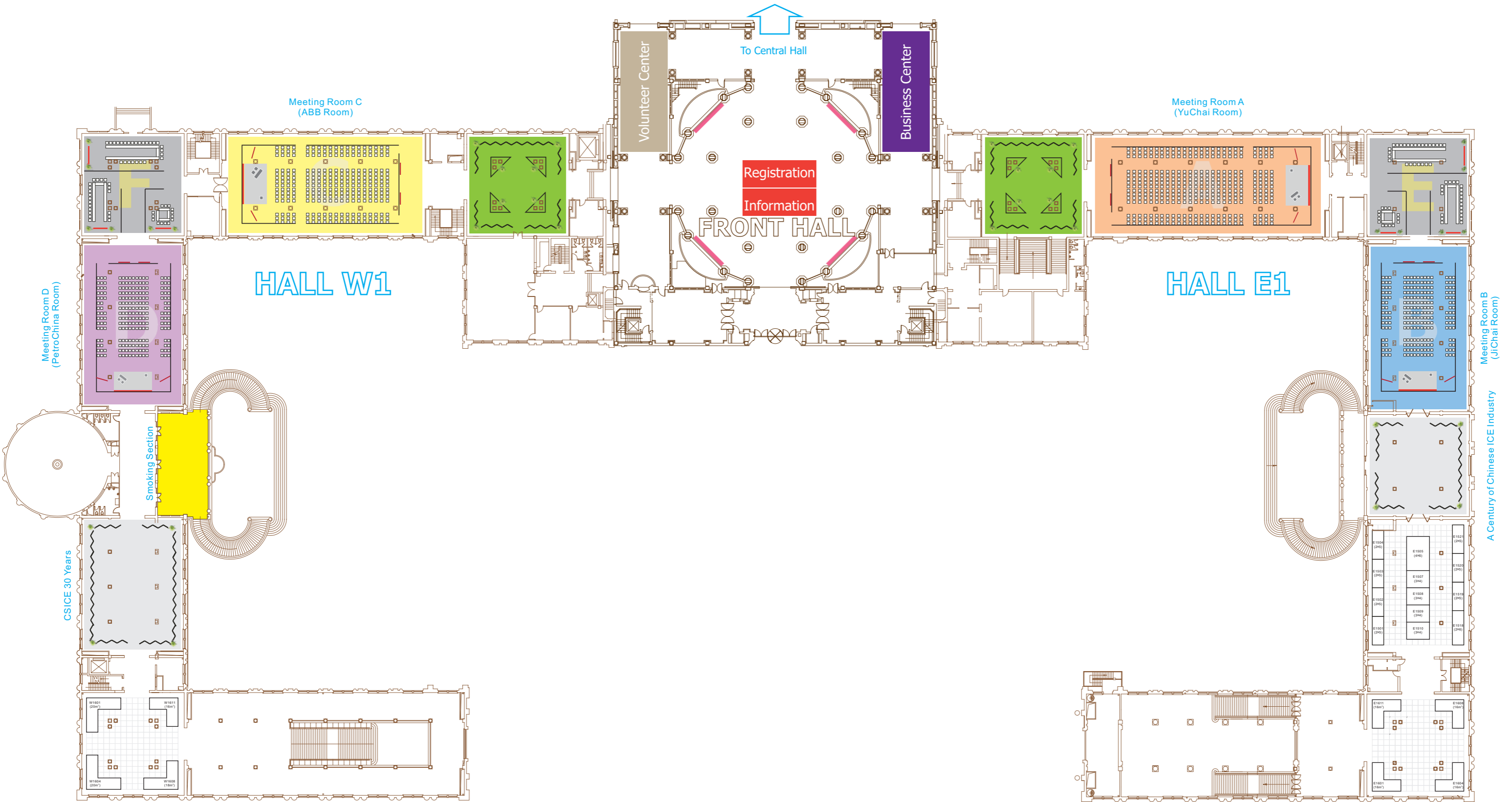
Layout for Congress and Exhibition

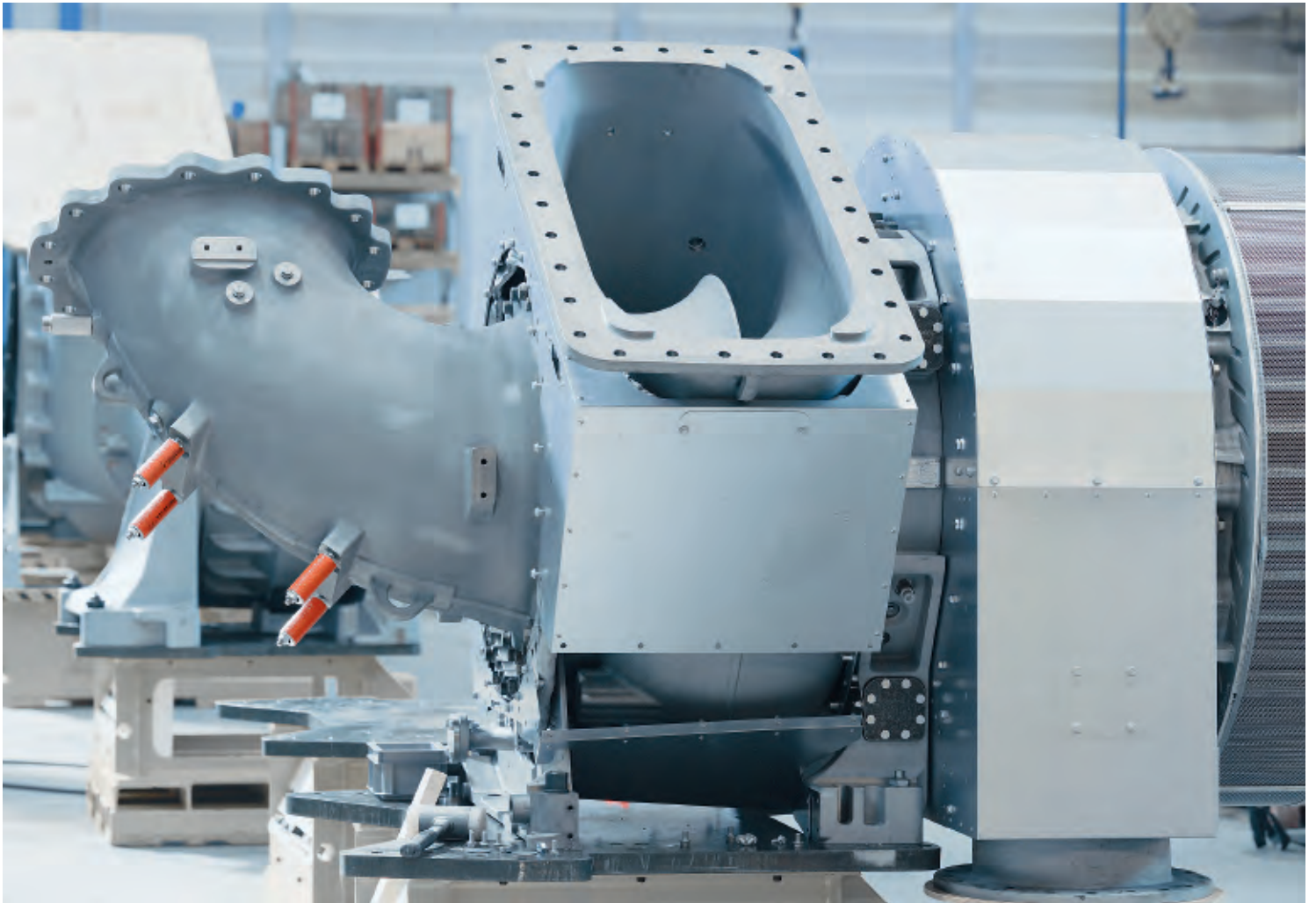


Layout of Exhibition (First Floor of Hall W1+E1)



Layout of Congress (Second Floor of Hall W1+E1)





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Preliminary Programme Monday, 13th May 2013

08:00	Registration at Shanghai Exhibition Center			
10:00 – 11:40	Opening Ceremony Keynote Speech by Prof. Wanhua Su, <i>Tianjin University</i>			
	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
13:30 – 15:00	(12) Users' Aspects – Land-Based Applications	(8-1) Component & Maintenance Technology – Bearings, Valves	(4-1) Environment, Fuel & Combustion – Diesel Engines – Fuel Injection 1	(7-1) Tribology 1
	Chairman: T. Callahan, <i>Southwest Research Institute, USA</i> Vice Chairman: S. Liang, <i>Dalian locomotive and Rolling Stock Co., China</i>	Chairman: F. Koch, <i>Schaffner, Switzerland</i> Vice Chairman: H. Feng, <i>Beijing Institute of Technology, China</i>	Chairman: N. Kjemtrup, <i>MAN Diesel & Turbo, Denmark</i> Vice Chairman: M. Yao, <i>State Key Laboratory of Engines of Tianjin University, China</i> , K. Li, <i>China FAW Group Corporation R&D Center, China</i>	Chairman: R. Aufischer, <i>Miba, Austria</i> Vice Chairman: X. Xu, <i>PetroChina Lanzhou Lube Oil R&D Institute, China</i> , Dr. X. Meng, <i>Shanghai Jiaotong University, China</i>
	<p>231: Impact of Pressure-Gain Combustors on Combined-Cycle and Simple-Cycle Powerplant Performance, by M. Rajagopal, R. Nalim, <i>Purdue University Indianapolis, USA</i></p> <p>27: Development of Mitsubishi Large Frame Gas Turbine for Power Generation - A new 1600°C, J Class Gas Turbine, by K. Takamura, S. Torii, S. Hada, J. Masada, <i>Mitsubishi Heavy Industry, Japan</i></p> <p>28: Upgrading Emergency Diesel Generators at Nuclear Power Plants, by A. Killinger, M. O'Connell, <i>MPR Associates, USA</i></p> <p>312: Achieving of Programmable Control & Management for the Emergency Diesel Generating Sets in Thermal Power Plant, by X. Chang, X. Yang, <i>Henan Diesel Engine Group Co., Ltd., China</i></p>	<p>420: New Bearing Concepts to Fulfill Application Related Challenges for Future Engines, by R. Aufischer, F. Langbein, L. Harreither, <i>Miba Bearing Group, Austria</i>, J. Qiang, O. Feng, <i>Miba Precision Components, China</i></p> <p>407: Quality Control of Welding Type Sn-Sb-Cu Plain Bearing for Marine Engine, by J. Hwang, <i>Hyundai Heavy Industries, Korea</i></p> <p>224: Improving Safety of Engines in Service by Continuously Monitoring Big End Bearings Temperatures, by P. Flot, A. Meslati, <i>CMR, France</i></p> <p>3: Future HFO/GI Exhaust Valve Spindle, by U. Bihlet, H. Hoeg, <i>MAN Diesel & Turbo, Denmark</i></p>	<p>101: New Platform Based Common Rail Injector for MTU Series 1163, by C. Senghaas, M. Ligensa, <i>L'Orange, Germany</i>, K. Reischmann, <i>MTU Friedrichshafen, Germany</i></p> <p>157: Multi-Injection & Advanced Miller Timing in Large-Bore CI Engine, by M. Imperato, J. Nurmiraanta, T. Sarjovaara, M. Larimi, <i>Aalto University, Finland</i>, C. Wik, <i>Wärtsilä, Finland</i></p> <p>143: Fuel Injection Concept for the Future Clean Diesel Engines, by R. Minamino, T. Kawabe, H. Omote, S. Okada, <i>Yanmar Co. Ltd., Japan</i></p> <p>384: Development Trend & Optimized Matching of Fuel Injection System of Diesel Engine, by Z. Gao, B. Yin, S. Liu, <i>Jiangsu University, China</i>, J. Zhu, Y. Ju, Y. Hang, <i>Wuxi Fuel Injection Equipment Research Institute, China</i></p>	<p>90: The Benefit of Using Group II Base Oils in Medium Speed Engines, by L. Gregory, <i>Infineum, UK</i></p> <p>177: Cylinder Liner & Piston Ring Lubrication Issues in Relation to Increase Stroke/Bore Ratio, by S. Miyake, K. Harada, M. Kotake, <i>Mitsui, Japan</i>, C. Felder, J. Fogh, <i>MAN Diesel & Turbo, Denmark</i></p> <p>211: Investigation of Microstructured Cylinder Liner Surfaces for Friction Reduction, by H. Ulmer, F. Dinkelacker, J. Kaestner, B. Denkena, C. Huebsch, F. Bach, <i>University Hannover, Germany</i></p> <p>266: Measurement of Piston Ring Lubricant Film Thickness in a Fired Engine using Ultrasonic Reflectometry, by P. Harper, <i>Tribosonics, UK</i>, M. Stark, <i>Wärtsilä, Switzerland</i></p>

Preliminary Programme Monday, 13th May 2013

Time	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
15:30 – 17:00	<p>(11-3) Users' Aspects – Marine Application – Gas & Emissions</p> <p>Chairman: Ø. Toft, <i>BW Fleet, Norway</i></p> <p>Vice Chairman: Y. Huang, <i>Naval University of Engineering, China</i>, Z. Ji, <i>School of Power and Energy Engineering, Harbin Engineering University, China</i></p>	<p>(8-2) Component & Maintenance Technology – Injection</p> <p>Chairman: S. Laiminger, <i>GE Jenbacher, Austria</i></p> <p>Vice Chairman: H. Feng, <i>Beijing Institute of Technology, China</i></p>	<p>(4-2) Environment, Fuel & Combustion – Diesel Engines – Fuel Injection 2</p> <p>Chairman: N. Kyrattos, <i>National Technical University of Athens, Greece</i></p> <p>Vice Chairman: M. Yao, <i>State Key Laboratory of Engines of Tianjin University, China</i>, K. Li, <i>China FAW Group Corporation R&D Center, China</i></p>	<p>(7-2) Tribology 2</p> <p>Chairman: H. Gehring, <i>MAN Diesel & Turbo, Germany</i></p> <p>Vice Chairman: X. Xu, <i>PetroChina Lanzhou Lube Oil R&D Institute, China</i>, Dr. X. Meng, <i>Shanghai Jiaotong University, China</i></p>
	<p>249: Gas Engines at Sea – Experience from Ships in Service – Future Development from a Research Point of View, by P. Einang, <i>Marintek, Norway</i>, V. Aesoy, <i>Alesund College, Norway</i></p> <p>158: Operational Experiences of DNV classed Gas Fuelled Vessels, by T. Dirix, <i>DNV, Norway</i></p> <p>189: LNG as Ship's Fuel – Bunkering, Storage & Processing for Medium & Slow Speed Engines, by J. Harperscheidt, <i>TGE Marine Gas Engineering, Germany</i></p> <p>159: Tier III Technology Development & its Influence on Ship Installation & Operation, by C. Wik, <i>Wärtsilä, Finland</i></p>	<p>427: The 2200 bar Modular Common Rail Injection System for Large Engine Diesel & HFO Engines, by C. Kendlbacher, <i>M. Bernhaupt, D. Blatterer, C. Meisl, Robert Bosch AG, Austria</i></p> <p>223: Advanced HFO Common Rail Injector for Maximising the Performance of Medium Speed Engines, by M. Coppo, <i>C. Negri, M. Destro, K. Heim, OMT, Italy</i></p> <p>201: Fatigue Design of Autofrettaged Diesel Engine Injection Parts, by R. Thumser, <i>W. Wagner, MAN Diesel & Turbo, Germany</i>, J. Bergmann, <i>MFPA, Germany</i></p> <p>8: New Low Cost Common Rail System with Zero Static Leakage, by R. Fuechslin, <i>Lafei, Switzerland</i></p>	<p>171: 30 MPa Mixing Controlled Combustion, by M. Larmi, <i>A. Elonheimo, T. Sarjoavaara, M. Imperato, Aalto University, Finland</i>, I. Kallio, <i>Wärtsilä, Finland</i></p> <p>252: Characterization of Residual Fuel Compositions & the Effect on the Ignition & Combustion Performance, by C. Takahashi, <i>Y. Yamaguchi, T. Senda, National Maritime Research Institute, Japan</i>, S. Imai, <i>National Institute for Minamata Disease, Japan</i></p> <p>237: Measurements of Soot Particles in Single Spray Combustion with a Rapid-Compression Machine, by H. Okada, <i>Tokyo University of Marine Science and Technology, Japan</i>, C. Sugawara, <i>Ministry of Transport, Japan</i></p> <p>43: Alternative Marine Fuels & the Effect on Combustion & Emission Characteristics, by V. Aesoy, <i>Alesund College, Norway</i>, N. Bremnes, <i>E. Hennie, S. Ushakov, Marintek, Norway</i></p>	<p>78: Novel Trends in Journal Slide Bearing Technology - Active Use of Tribochemical Effects, by M. Offenbecher, <i>Miba, Austria</i>, H. Li, <i>Miba, China</i>, E. Laine, <i>Infineum, UK</i>, F. Gruen, <i>Montanuniversität Leoben, Austria</i></p> <p>94: System Oil for 2-Stroke Marine Engines - Current & Future Performance Requirements & Challenges, by J. Smythe, <i>Infineum, UK</i>, G. Bleimschein, <i>Wärtsilä, Switzerland</i></p> <p>108: Impact of Marine Lubricant Additives on SCR Catalyst Performance, by M. Boons, <i>P. van Houten, Chevron Oronite, Netherlands</i>, J. Fogarty, <i>ExxonMobil, USA</i>, M. Brandmair, <i>M. Ziesmann, J. McCarney, P. Anderson, Johnson Matthey GmbH, Germany</i></p> <p>196: Optimization of the Piston Ring - Cylinder Liner System in Gas-Engines for Power Generation, by J. Schiffer, <i>H. Krampf, I. Godor, F. Gruen, Montanuniversität Leoben, Austria</i>, M. Betz, <i>S. Laiminger, GE Jenbacher, Austria</i></p>
17:00	End of Technical Sessions for Monday			
18:00	Welcome Reception			

Preliminary Programme Tuesday, 14th May 2013

Time	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
08:30 – 10:00	(1-1) Product Development – Diesel Engines – 2-Stroke Low-Speed Engines	(2-1) Product Development – Gas & Dual Fuel Engines – New Gas Engine Types 1	(4-3) Environment, Fuel & Combustion – Diesel Engines – Optical Measurement – 2 and 3D simulation	(7-3) Tribology – 2-Stroke Cylinder Lubricant
	Chairman: A. Eklund, <i>Wärtsilä, Switzerland</i> Vice Chairman: F. Wang, <i>Shanghai Marine Diesel Engine Research Institute, China</i> , Z. Lin, <i>Guangxi Yuchai Machinery Co., Ltd, China</i>	Chairman: L. Nerheim, <i>Bergen University College, Norway</i> Vice Chairman: C. Yao, <i>State Key Laboratory of Engines Tianjin University, China</i> , L. Li, <i>College of Mechanical and Energy Engineering, Tongji University, China</i>	Chairman: K. Takasaki, <i>Kyushu University, Japan</i> Vice Chairman: M. Yao, <i>State Key Laboratory of Engines of Tianjin University, China</i> , K. Li, <i>China FAW Group Corporation R&D Center, China</i>	Chairman: J. Erdtmann, <i>NSB Niederelbe, Germany</i> Vice Chairman: X. Xu, <i>PetroChina Lanzhou Lube Oil R&D Institute, China</i> , Dr. X. Meng, <i>Shanghai Jiaotong University, China</i>
	326: Upgrade of Wärtsilä's Two-Stroke Engine Portfolio to Fulfil the Changing Marine Market Requirements , by H. Brunner, J. Constantin, B. Schumacher, <i>Wärtsilä, Switzerland</i> 71: State-of-the-Art MAN B&W Two-Stroke Super-Long-Stroke Engines , by S. Kindt, <i>MAN Diesel & Turbo, Denmark</i> 267: The New X Generation Low-Speed Engines from Wärtsilä , by M. Spahni, A. Kyrntatos, R. de Rong, <i>Wärtsilä, Switzerland</i> 209: Contribution of Turbocharging Solutions Towards Improved Fuel Efficiency of Two-Stroke Low Speed Engines , by P. Schürmann, M. Hubacher, C. Christen, R. Ryser, D. Brand, <i>ABB Turbo Systems, Switzerland</i>	291: The New Dual Fuel Engine 35/44 DF from MAN Diesel & Turbo SE , by A. Menage, <i>MAN Diesel & Turbo, Germany</i> , A. Gruand, <i>MAN Diesel & Turbo, France</i> 411: Caterpillar M46 Dual Fuel Engine with New Cylinder Pressure Based Control Strategies , by B. Ritscher, <i>Caterpillar, Germany</i> , M. Greve, <i>AVAT Automation, Germany</i> 284: Development of a Dual Fuel Technology for Slow-Speed Engines , by I. Nylund, <i>Wärtsilä, Finland</i> , M. Ott, <i>Wärtsilä, Switzerland</i> 289: GE's All New J920 Gas Engine – a Smart Accretion of Two-Stage Turbocharging, Ultra Lean Combustion Concept & Intelligent Controls , by C. Trapp, A. Birgel, N. Spyra, H. Kopecek, D. Chvatal, <i>GE Jenbacher, Austria</i>	53: Advanced Optical & Numerical Development Tools for Two-Stroke Marine Diesel Engines , by S. Mayer, J. Hult, K. Nogenmyr, <i>MAN Diesel & Turbo, Denmark</i> , S. Clausen, <i>Technical University of Denmark, Denmark</i> 299: CFD Simulation of the Working Process of Conical Spray Combined Swirl-Chamber Diesel Engine , by L. Feng, W. Long, <i>Dalian University of Technology, China</i> , W. Feng, <i>CNOOC Energy Development, China</i> 259: Development of Spray & Combustion Simulation Tools & Application to Large Two-Stroke Diesel Engine Combustion Systems , by R. Schulz, S. Hensel, B. von Rotz, A. Schmid, K. Herrmann, G. Weisser, <i>Wärtsilä, Switzerland</i> 243: Flame Temperature & Soot Concentration of Single Spray Flame of Bunker Fuel Oil in OCA (Optical Combustion Analyzer) Using Two-Color Method , by E. Tomita, K. Kawato, N. Kawahara, <i>Okayama University, Japan</i> , K. Morinaka, Y. Yamamoto, <i>Eiwa-Giken, Japan</i>	82: Field Trial Findings on Slow Steaming Cylinder Oil Selection , by P. Harrold, <i>BP Fuels & Lubricants Technology, UK</i> 84: Cylinder Lubrication - Utilising the Latest Findings on Low Speed 2-Stroke Diesel Engine Oil Stress from Field & Laboratory Engine Testing in the Development of a Wide Range Cylinder Lubricant – Shell Alexia S4 , by J. Garcia Ojeda, J. Hammett, J. Schakel, J. Moeller, <i>Shell Global Solutions, Germany</i> 120: Reliable Lubrication of Slow Speed Engines Operated with Varying Fuel Sulfur Levels , by L. Verbeeke, <i>Chevron, Belgium</i> 128: Multifunctional Marine Cylinder Lubricant , by N. Arimoto, S. Takeshima, <i>Nippon Oil Corporation, Japan</i> 233: Optimized Cylinder Oil for Today's & Tomorrow's Heavy Fuels – Field Experience in MAN Diesel & Turbo 2-Stroke Marine Diesel Engines , by K. Crouthamel, <i>ExxonMobil, USA</i> 392: The Efficient BASicity (EBAS): a Method to Assess the Performance Durability of Marine Cylinder Lubricants , by C. Amblard, S. Esson, <i>Total, France</i>

Preliminary Programme Tuesday, 14th May 2013

Time	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
10:30 – 12:00	<p>(1-2) Product Development – Diesel Engines – Medium Speed engines 1</p> <p>Chairman: A. Ludu, <i>AVL, Austria</i></p> <p>Vice Chairman: F. Wang, <i>Shanghai Marine Diesel Engine Research Institute, China</i>, Z. Lin, <i>Guangxi Yuchai Machinery Co., Ltd, China</i></p>	<p>(2-2) Product Development – Gas & Dual Fuel Engines – New Gas Engine Types 2</p> <p>Chairman: J. Hiltner, <i>Hiltner Combustion, USA</i></p> <p>Vice Chairman: C. Yao, <i>State Key Laboratory of Engines Tianjin University, China</i>, L. Li, <i>College of Mechanical and Energy Engineering, Tongji University, China</i></p>	<p>(4-4) Environment, Fuel & Combustion – Diesel Engines – Engine Simulations</p> <p>Chairman: H. Götze, <i>Germanischer Lloyd SE, Germany</i></p> <p>Vice Chairman: M. Yao, <i>State Key Laboratory of Engines of Tianjin University, China</i>, K. Li, <i>China FAW Group Corporation R&D Center, China</i></p>	<p>(10-1) Turbochargers – New Products 1</p> <p>Chairman: C. Roduner, <i>ABB Turbo Systems, Switzerland</i></p> <p>Vice Chairman: J. Zhang, <i>China North Engine Research Institute, China</i>, Q. Wang, <i>ABB Turbocharging china, China</i></p>
	<p>83: The CRISTAL Engine: ABC's New Medium Speed Diesel Engine, Developed to Comply with IMO III, by L. Vervaeke, T. Berckmoes, <i>Anglo Belgian Corporation, Belgium</i>, S. Verhelst, <i>University of Ghent, Belgium</i></p> <p>151: HiMSEN Full Line-Up by New H46 Model, by C. Seo, S. Kim, J. S. Kim, J. T. Kim, <i>Hyundai Heavy Industries, Korea</i></p> <p>282: Update on Wärtsilä 4-Stroke Diesel Product Development, by R. Ollus, P. Tonon, P. Aaltonen, M. Vaarasto, C. Roesgren, D. Delneri, <i>Wärtsilä, Finland</i>, A. Bochicchio, M. Dapinguento, M. Troberg, <i>Wärtsilä, Italy</i>, A. Hultqvist, <i>Wärtsilä, Switzerland</i></p> <p>198: MAN Diesel & Turbo Product Portfolio of Diesel Engines Adapted to Actual Challenges, by D. Kurth, S. Adorf, A. Grabmaier, L. Gruenstedel, S. Kolb, B. Offinger, <i>MAN Diesel & Turbo, Germany</i></p>	<p>421: MACH II-SI Achieved Higher Thermal Efficiency, by S. Hajime, Y. Hiroshi, I. Michiyasu, N. Shoji, O. Shinnosuke, <i>Mitsubishi Heavy Industries, Japan</i></p> <p>67: The New MTU Type L64 of Series 4000 Gas Engines, by U. Sander, <i>MTU Friedrichshafen, Germany</i></p> <p>406: Update on Wärtsilä 4-Stroke Gas Product Development, by M. Troberg, <i>Wärtsilä, Italy</i>, K. Portin, A. Jarvi, <i>Wärtsilä, Finland</i></p> <p>99: Advanced Development of Medium Speed Gas Engine Targeting to Marine & Land, by K. Watanabe, S. Goto, T. Hashimoto, <i>Niigata Power Systems, Japan</i></p>	<p>225: Recent Developments in the Understanding of the Potential of In-Cylinder NOx Reduction through Extreme Miller Valve Timing, by P. Kyrtatos, P. Obrecht, K. Boulouchos, <i>ETH Zürich, Switzerland</i>, K. Hoyer, <i>Paul Scherrer Institut, Switzerland</i></p> <p>74: Computational Analysis of Different Internal & External EGR Systems Combined with Miller Cycle Concept for a Medium Speed Marine Diesel Engine, by F. Mollo, M. Gianoglio Bernardi, <i>Polytechnico di Torino, Italy</i>, E. Servetto, <i>Powertech Engineering, Italy</i>, D. Delneri, <i>Wärtsilä, Finland</i></p> <p>253: Experimental Experience Gained with a Long-Stroke Medium-Speed Diesel Research Engine Using Two Stage Turbo Charging & Extreme Miller Cycle, by M. Fiedler, H. Fiedler, <i>FMC-Fiedler Motoren, Germany</i>, P. Boy, <i>Flensburg University, Germany</i></p> <p>301: Investigation on the Control Strategies of a Heavy-Duty Diesel Engine with High Efficiency & Low Emissions, by M. Yao, <i>Tianjin University, China</i></p>	<p>226: New Turbochargers for Modern Large Engines with Low Emissions & High Performance, by S. Risse, K. Buchmann, <i>Kompressorenbau Bannewitz GmbH, Germany</i></p> <p>134: Second Generation of Two-Stage Turbocharging Power2 Systems for Medium Speed Gas & Diesel Engines, by M. Kahi, T. Behr, A. Reichl, <i>ABB Turbo Systems, Switzerland</i></p> <p>206: TCX – The New High Pressure Turbocharger for Two Stage Turbocharging, by J. Klima, V. Hort, <i>PBS Turbo, Czech Republic</i>, M. Haidn, <i>MAN Diesel & Turbo, Germany</i></p> <p>69: Development of High-Pressure Ratio & High-Efficiency Type Turbocharger, by K. Matsumoto, <i>IHI Corporation, Japan</i></p>

Preliminary Programme Tuesday, 14th May 2013

Time	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
13:30 – 15:00	(1-3) Product Development – Diesel Engines – Medium Speed engines 2	(2-3) Product Development – Gas & Dual Fuel Engines – Controls & Emissions	(4-5) Environment, Fuel & Combustion – Diesel Engines – Combustion Simulations	(10-2) Turbochargers – New Products 2
	Chairman: H. Pleimling, <i>FEV, Germany</i> Vice Chairman: F. Wang, <i>Shanghai Marine Diesel Engine Research Institute, China</i> , Z. Lin, <i>Guangxi Yuchai Machinery Co., Ltd, China</i>	Chairman: I. Vlaskos, <i>Ricardo, Germany</i> Vice Chairman: C. Yao, <i>State Key Laboratory of Engines Tianjin University, China</i> , L. Li, <i>College of Mechanical and Energy Engineering, Tongji University, China</i>	Chairman: K. Boulouchos, <i>ETH Zürich, Switzerland</i> Vice Chairman: M. Yao, <i>State Key Laboratory of Engines of Tianjin University, China</i> , K. Li, <i>China FAW Group Corporation R&D Center, China</i>	Chairman: A. Rippl, <i>MAN Diesel & Turbo, Germany</i> Vice Chairman: J. Zhang, <i>China North Engine Research Institute, China</i> , Q. Wang, <i>ABB Turbocharging china, China</i>
	135: Development of New Environmentally Friendly Diesel Engines 6DE-18 & 6DE-23 , by K. Hanamoto, T. Okauchi, K. Sato, S. Ogura, M. Horikawa, J. Asano, Daihatsu, Japan 388: Development of the New Medium Speed Marine Diesel Engine CS21 , by G. Liang, Z. Chen, F. Wang, B. He, L. Li, Shanghai Marine Diesel Engine Research Institute, China, E. Reichert, S. Lauer, FEV, Germany 55: Development of Niigata Medium Speed Diesel Engine 17AHX , by J. Sato, K. Toda, T. Saito, Niigata Power Systems, Japan 22: Small Bore Four-Stroke Engines from MAN Diesel & Turbo , by F. Fjeldhoej, MAN Diesel & Turbo, Denmark	417: The New Bergen B35:40 Lean Burn Marine Gas Engine Serie & Practical Experiences of SI Lean Burn Gas Engines for Marine Mechanical Drive , by H. Solbakken, T. Eide, R. Nordrik, Bergen Engines AS, Norway 62: Development & Application of Low Concentration Mine Gas Engine , by S. Qu, China North Engine Research Institute, China, S. Mu, G. Zhang, Shengli Power Machinery, China, K. Deng, Shanghai Jiao Tong University, China 271: The Potential of Exhaust Gas Recirculation in Large Gas Engines , by A. Wimmer, G. Pirker, J. Zelenka, F. Chmela, Graz University of Technology, Austria, J. Zurlo, GE Energy, USA, C. Trapp, GE Jenbacher, Austria 45: Progress & Development of Next Generation Ignition Systems for Guascor Gas Engines , by M. Weinrotter, I. Oregui, L. Alonso, I. Iruretagoiena, D. Pérez de Larraya, Guascor, Spain	232: Computational Analysis of Switching Strategies for a Medium-Speed Diesel Engine EGR Concept Between IMO Tier II & Tier III Operation Modes , by C. Stoeber-Schmidt, Technical University Braunschweig, Germany 250: Potential Investigation of PCCI Combustion as NOx Reduction Measure at Low-load Operation with Low-CN LCO Fuel , by H. Tajima, Kyushu University, Japan 288: PPC Combustion for Low Load Conditions in a Marine Engine Using Computational & Experimental Techniques , by K. Shrestha, Aalto University of Technology, Finland 192: Combustion Development of New Medium-Speed Marine Diesel Engine , by W. Zhang, Shanghai Marine Diesel Engine Research Institute, China	116: VTG Turbocharging – a Valuable Concept for Traction Application , by P. Jacoby, ABB Turbo Systems, Switzerland, H. Xu, D. Wang, ABB Turbo Systems, China 214: TCS-PTG - MAN Diesel & Turbo's Power Turbine Portfolio for Waste Heat Recovery , by S. Mest, O. Loewlein, D. Balthasar, H. Schmuttermair, MAN Diesel & Turbo, Germany 15: Solutions for Better Engine Performance at Low Load by Mitsubishi Turbochargers , by Y. Ono, Mitsubishi Heavy Industries, Japan 258: Computational Investigation of Turbocharger Performance Degradation Effect on 2-Stroke Marine Diesel Engine Performance , by N. Sakellariadis, D. Hountalas, National Technical University of Athens, Greece

Preliminary Programme Tuesday, 14th May 2013

Time	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
15:30 – 17:00	(1-4) Product Development – Diesel Engines – High Speed Engines	(2-4) Product Development – Gas & Dual Fuel Engines – Mixture Formation	(4-6) Environment, Fuel & Combustion – Diesel Engines – Nox Reduction by O2 Reduction	(10-3) Turbochargers – Turbocharging & Components
	Chairman: C. Teetz, <i>MTU Friedrichshafen, Germany</i> Vice Chairman: F. Wang, <i>Shanghai Marine Diesel Engine Research Institute, China,</i> Z. Lin, <i>Guangxi Yuchai Machinery Co., Ltd, China</i>	Chairman: S. Goto, <i>Niigata Power Systems, Japan</i> Vice Chairman: C. Yao, <i>State Key Laboratory of Engines Tianjin University, China,</i> L. Li, <i>College of Mechanical and Energy Engineering, Tongji University, China</i>	Chairman: R. Turunen, <i>VTT, Finland</i> Vice Chairman: M. Yao, <i>State Key Laboratory of Engines of Tianjin University, China,</i> K. Li, <i>China FAW Group Corporation R&D Center, China</i>	Chairman: V. Hauelsen, <i>ABB Turbo Systems, Switzerland</i> Vice Chairman: J. Zhang, <i>China North Engine Research Institute, China,</i> Q. Wang, <i>ABB Turbocharging china, China</i>
	410: Aspects of a Tier 4 Development for a Multi- Application High Speed Diesel Engine , by K. <i>Foelzer, T. Kammerdiener, M. Zallinger, AVL List, Austria</i> 161: First High Speed HiMSEN Engine, H17V Model , by J. Kim, <i>Hyundai Heavy Industries, Korea</i> 239: Diesel Engine Development for Low Emissions at GE Transportation , by R. <i>Mischler, P. Flynn, GE Transportation, USA</i> 112: Series 1163-04 , by M. <i>Kurreck, W. Rimmels, MTU Friedrichshafen, Germany</i>	50: Optimization of Mixture Formation in Medium Speed Dual- Fuel & Gas Engines with Support of Advanced Optimization Techniques & Optical Measurements , by U. Waldenmaier, S. <i>Djuranec, G. Stiesch, MAN Diesel & Turbo, Germany, F. Unfug, U. Wagner, Karlsruhe Institute of Technology, Germany</i> 202: Functional Improvement of a Gas Metering Valve , by J. Hess, <i>Heinzmann, Germany</i> 429: The Power & Efficiency Upgrade Approach for the Development of the New Caterpillar 10 MW Medium Speed Gas Engine , by <i>Germany, I. Vlaskos, Ricardo, Germany</i> 113: Ported Fuel Injection for Maritime Gas Engines , G. Ranegger , by G. Kogler, <i>P. Steinrueck, Hoerbiger, Austria</i>	423: Reduction of NOx Emission by 80% Using the Newly Developed System with a Polymer Membrane in Marine Diesel Engines , by K. <i>Maeda, D. Yamanishi, National Fisheries University, Japan, H. Ohno, A. Shimizu, T. Niihama, M. Tsukamoto, Asahi Kasei Chemicals Corporation, Japan, A. Azetsu, Tokai University, Japan</i> 219: Development of Integrated EGR System for Two-Stroke Diesel Engines , by J. Kaltoft, <i>M. Preem, MAN Diesel & Turbo, Denmark</i> 200: Newly Developed Combined EGR & WEF System to comply with IMO NOx Regulation Tier 3 for Two-Stroke Diesel Engine , by M. Higashida, <i>T. Nakamura, I. Onishi, K. Yoshizawa, H. Takata, T. Hosono, Kawasaki Heavy Industries, Japan</i> 127: Demonstration of Emission Control Technology for IMO NOx Tier III , by Y. Murayama, T. <i>Tagai, T. Mimura, S. Goto, Niigata Power Systems, Japan</i>	156: Improvement of Aerodynamic Design for Marine Turbochargers , by F. Hiratani, <i>Mitsubishi Heavy Industries, Japan</i> 221: Containment Validation of Exhaust- Gas Turbochargers , by <i>T. Winter, F. Griesshaber, M. Gartner, MAN Diesel & Turbo, Germany, V. Hort, PBS Turbo, Czech Republic</i> 238: An Investigation of the Dynamic Characteristics of Sequential Turbocharging Thermal Power System , by C. Yang, Y. Wang, Y. <i>Feng, H. Wang, Harbin Engineering University, China</i> 213: Transient Performance of Three Phase Sequential Turbocharging with Unequal Size Turbochargers , by Y. <i>Cui, K. Deng, Z. Zhang, Shanghai Jiao Tong University, China</i>
17:00	End of Technical Sessions for Tuesday			
18:30	ABB Evening			

Poster Session Tuesday, 14th May 2013

Session 1:

- 64: Effects of Charge Density & Oxygen Concentration on Thermal Efficiency & Emissions in a Heavy-Duty Diesel Engine under High Load Operations**, by *W. Su, Tianjin University, China*
- 105: A Semi-Experimental Modeling Approach for a Large Two-Stroke Marine Diesel Engine Simulation**, by *K. Kharroubi, H. Chen, Wuhan University of Technology, China*
- 338: High Turbocharged Four Stroke Diesel Engine Performance is Further Improved – Split Turbocharged Exhausted System**, by *X. Xie, Shanghai Jiao Tong University, China, G. Xie, Shanghai Diesel Engine Co.,Ltd., China*

Session 2:

- 187: IMO Tier 3: Gas & Dual Fuel Engines as a Clean & Efficient Solution**, by *C. Christen, D. Brand, ABB Turbo Systems, Switzerland*
- 204: Dual-Fuel for Maritime Application**, by *A. Rendler, Heinzmann, Germany*
- 222: Introduction of the Performance Improvement of Kawasaki Green Gas Engine**, by *Y. Sakai, Kawasaki Heavy Industries, Japan*
- 295: The Effect of Miller Cycle on the Spark Ignition Combustion Gas Engine**, by *S. Tavakoli, N. Ghadimi, M. Gorji, D. Domairi, G. Javadirad, DESA, Iran*
- 297: The Investigation of Spark Plug Position on the Spark Ignition Combustion Performance**, by *N. Ghadimi, S. Tavakoli, M. Gorji, D. Domairi, G. Javadirad, DESA, Iran*
- 348: Development of the Gas Engine Based on AVL-Boost**, by *Y. Li, L. Han, X. Ren, Henan Diesel Engine Industry, China*

Session 4:

- 13: Simultaneous Reduction of Fuel Consumption & Toxic Emission of Exhaust Gases of Fishing Fleet Engines**, by *O. Klyus, Maritime Academy of Szczecin, Poland*
- 39: Sampling Method Evaluation for Measurement of Solid Particle Number Distributions from Marine Diesel Engines & Fuels**, by *J. Nielsen, Marintek, Norway, S. Ushakov, Norwegian University of Science and Technology, Norway*
- 44: Using the Fuel Combustion Analyzer to Evaluate the Particle Number Distribution from Different Marine Fuel Qualities**, by *J. Nielsen, Marintek, Norway*
- 81: Biodiesel Formulation for Optimum Engine Efficiency & Emissions**, by *M. Bannikov, GIK Institute of Engineering Sciences and Technology, Pakistan*
- 121: L'Orange Fuel Injection Systems in China & Asia – Past Experience, Today's Expertise & Examples for Tomorrow's Excellence**, by *M. Heller, T. Stelzer, M. Riegert, L'Orange GmbH, Germany, S. Li, Jinan Diesel Engine Co., Ltd., China*
- 124: Research on Upgrade of Existing Medium Speed Marine Diesel Engine for IMO Tier II**, by *X. Li, R. Zhang, T. Ping, Shanghai Marine Diesel Engine Research Institute, China*
- 247: Research on Diesel Engine Combustion Mechanism and Simulation of Engine In-Cylinder Combustion Process**, by *S. Zhou, P. Zhou, Y. Zhu, Harbin Engineering University, China*
- 257: Impact of Nozzle & Spray-Hole Design on Mixture Formation at Medium-Speed Diesel Engines**, by *F. Pinkert, I. Najar, C. Fink, H. Harndorf, University of Rostock, Germany, C. Schmalhorst, M. Frobenius, AVL, Germany*
- 261: Experimental Study on the Particulate Emissions & Unregulated Emissions of DI Diesel Engine Fueled with Ethanol-Biodiesel Blended Fuel**, by *L. Zhu, W. Zhang, Z. Huang, Shanghai Jiao Tong University, China*
- 264: Optimization of 2- Stroke Marine Diesel Engine Fuel Consumption via VIT Setting Using a Model Based Monitoring & Diagnosis Technique: On-Board Test Case**, by *D. Hountalas, N. Sakellariadis, G. Zovanos, National Technical University of Athens, Greece*
- 281: A Numerical Investigation of the Effect of Two Zones Fuel Injection on the Formation of Air-Fuel Mixture & Combustion in a DI Diesel Engine by a New Design of Nozzle**, by *H. Khatamnezhad, M. Mirsalim, DESA, Iran, S. Khalilarya, S. Jafarmadar, Urmia University, Iran, F. Ahmadi Mojaveri, Azad University of Sari, Iran*
- 309: Investigation on Combustion & Emissions Characteristics of Ethanol-Diesel**, by *L. Ye, P. Sun, Q. Wu, Jiangsu University, China*
- 310: Simulation & Analysis on Effect of Injection System Parameters to Double- Ω Combustion Chamber Performance**, by *S. Wei, H. Chen, Jiangsu University, China*
- 314: Fuel Injection System to meet Future Requirements for Large Diesel Engines**, by *Z. Gao, J. Du, B. Yin, Jiangsu University, China*
- 315: The Effects of Different Methanol Ratios on the Integrated Fuel Economy of a Heavy Duty Diesel Engine**, by *L. Bingshan, Wuhan University of Technology, China, L. Haiyan, L. Zhiming, Z. Ke, Y. Yong, Y. Songlin, Dongfeng Motor Company, China, Y. Chunde, Tianjin University, China*
- 325: Emission Characteristics of Common Rail Engine Fueled with Biodiesel Fuel from Waste Cooking Oil**, by *G. Mao, Z. Wang, Jiangsu University, China*

Poster Session Tuesday, 14th May 2013

Session 7:

- 42: Development of a New Electronically Controlled Cylinder Lubrication System**, by Y. He, Wuhan University of Technology, China
- 80: Extending Oil Life in Natural Gas Engines**, by F. Girshick, Infineum, USA
- 93: Development of Gas Engine Oils for Corrosive Gas Service**, by A. Bailey, Infineum, UK
- 100: Fibre Optic Sensor for Online Monitoring of Oil Film Pressure in Engine Main Bearing**, by H. Ronkainen, M. Kapulainen, A. Hokkanen, I. Stuns, S. Varjus, R. Turunen, S. Nyyssönen, J. Halme, VTT, Finland
- 118: Energy Efficient Gas Engine Lubrication**, by K. Tellier, ExxonMobil, USA, B. Murphy, GE Energy, USA
- 132: A Study on Wear Progress of Engine Bearing under Mixed Lubrication Condition**, by T. Sano, Daido Metal Co., Ltd., Japan
- 230: Effects of Environmental Conditions on the Lubricant Film Quality at the Cylinder Wall Using a Novel Lubricant Sampling Apparatus**, by S. Soechting, Wärtsilä, Finland, M. Hubler, Wärtsilä, Switzerland
- 322: "Black Sludge" in TPEO & Evaluating Sulfonate & Salicylate Detergents on Asphaltene Dispersancy**, by J. Piao, PetroChina Dalian Lube Oil R&D Institute, China
- 383: Lubrication & Friction Mechanism Research of Laser Surface Texturing Technology on Cylinder Liner of Diesel Engine**, by B. Yin, Y. Fu, Jiangsu University, China

Session 10:

- 77: Study on the Variable Geometry Exhaust Manifold Turbocharging System & Other Turbocharging Systems of 8170 Marine Diesel Engine**, by L. Shi, K. Deng, C. Wu, Shanghai Jiaotong University, China, S. Wang, Technology Center of the SAIC Motor, China
- 125: Experimental Study on the Operation Rules between Turbocharging System & 4-stroke Medium-Speed Marine Diesel Engine**, by J. Huang, Z. Yin, Y. Qiao, Jimei University, China
- 227: Concept, Design & Development of a Turbo-Expander for Charge Air Refrigeration**, by C. Whelan, WDL Ltd., UK
- 251: Marine Turbocharger Compressor Characteristics Map Prediction Using BP & Elman Neural Network**, by Y. Feng, D. Zhao, Y. Wang, Harbin Engineering University, China
- 334: A New Sequential Turbocharging System**, by G. Xie, Shanghai Diesel Engine Co., Ltd., China, X. Xie, Shanghai Jiao Tong University, China
- 342: Three-Dimensional Numerical Simulation & Analysis on Compressor Performance Predicting for Turbocharger**, by L. Shuqi, Z. Jizhong, Z. Junyue, W. Xiaochun, China North Engine Research Institute, China
- 353: Research on Dynamic Behavior of Ball Bearing-Rotor System with Damper for Turbocharger**, by M. Rixiu, S. Nawei, China North Engine Research Institute, China
- 375: The Effects of the Compressor Cascades Turning Angle on the Turbine's Performance**, by R. Shang, Harbin Engineering University, China
- 380: The Influence of Inter-Cooling on Total Efficiency of Two Stage Turbocharger**, by X. Huo, W. Ge, L. Hu, China North Engine Research Institute, China
- 391: Study on the Reliability Evaluation Method for Compressor Wheel with Blade Vibration Failure of Turbocharger**, by Z. Wang, Z. Wang, K. Guo, China North Engine Research Institute, China

Preliminary Programme Wednesday, 15th May 2013

Time	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
08:30 – 10:00	<p>(3-1) Fundamental Engineering – Mechanics 1</p> <p>Chairman: P. Frigge, <i>Wärtsilä, Switzerland</i></p> <p>Vice Chairman: E. Luo, <i>Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, China</i>, M. Feng, <i>Shanghai Marine Diesel Engine Research Institute, China</i></p>	<p>(5-1) Environment, Fuel & Combustion – Gas & Dual Fuel Engines – Status & Outlook</p> <p>Chairman: A. Dijks, <i>KEMA, Netherlands</i></p> <p>Vice Chairman: Z. Huang, <i>School of Energy and Power Engineering, Xi'an Jiaotong University, China</i>, K. Deng, <i>Shanghai Jiao Tong University, China</i></p>	<p>(4-7) Environment, Fuel & Combustion – Diesel Engines – Exhaust Gas Recirculation, EGR</p> <p>Chairman: G. Stiesch, <i>MAN Diesel & Turbo, Germany</i></p> <p>Vice Chairman: M. Yao, <i>State Key Laboratory of Engines of Tianjin University, China</i>, K. Li, <i>China FAW Group Corporation R&D Center, China</i></p>	<p>(9-1) Integrated Systems & Electronic Control – Piston Engines, Gas & Steam Turbines & Applications – Propulsion System Integration</p> <p>Chairman: M.Okabe, <i>Mitsubishi Heavy Industries, Japan</i></p> <p>Vice Chairman: T. Ping, <i>Shanghai Marine Diesel Engine Research Institute, China</i>, Q. Zheng, <i>Harbin Engineering University, China</i></p>
	<p>419: Integrated Design, Analysis & Development Processes Applied to the Design of a High Specific Output Gas Engine Cylinder Head, by I. Calvert, A. Zucchelli, <i>GE Jenbacher, Austria</i>, B. McCully, M. Krajicek, <i>Ricardo, UK</i></p> <p>103: Low Vibration Design of Large Diesel & Gas Engines by Predictive Simulation, by M. Wyzgala, P. Boehm, D. Pinkernell, <i>MAN Diesel & Turbo, Germany</i></p> <p>163: Structural Optimization Method & Low Vibration Design of HiMSEN Engine's Genset, by K. Jung, J. Lee, J. Son, Y. Ryoo, <i>Hyundai Heavy Industries, Korea</i></p> <p>292: Global Vibration Challenges for a V12 Medium-Speed Locomotive Engines Using a Post-Turbine Mounted After Treatment System to Meet the EPA T4 Emission Standard, by S. Lauer, <i>FEV, Germany</i></p>	<p>277: An Updated Survey of Gas Engine Performance Development, by T. Callahan, K. Hoag, <i>Southwest Research Institute, USA</i></p> <p>413: Current Status & Future Strategies of Gas Engine Development, by S. Murakami, T. Baufeld, <i>AVL List, Austria</i></p> <p>191: Advanced Spark Ignition Technology for Gas-Fueled Engines & its Impacts on Combustion Stability & Performance Optimization, by J. Lepley, <i>Altronic-Hoerbiger Engine Solutions, USA</i>, A. Gschirr, <i>Altronic-Hoerbiger Engine Solutions, Austria</i></p> <p>389: Valve Control Management - The Possibility of Improving Gas Engine Performance, by C. Mathey, <i>ABB Turbo Systems, Switzerland</i></p>	<p>176: EGR System Development on MES Test Engine 4S50ME-T9, by T. Shirai, S. Yokobe, S. Ibaragi, <i>Mitsui, Japan</i>, N. Kjemtrup, <i>MAN Diesel & Turbo, Denmark</i></p> <p>133: NOx Reduction by Combination of Charge Air Moisturizer & Exhaust Gas Recirculation on Medium Speed Diesel Engines, by H. Park, J. Park, M. Park, S. Ghal, S. Kim, <i>Hyundai Heavy Industries, Korea</i></p> <p>76: Combination of Post-Injection & Cooled EGR at a Medium-Speed Diesel Engine to Comply with IMO Tier III Emission Limits, by M. Pueschel, B. Buchholz, <i>FVTR Rostock GmbH, Germany</i>, C. Fink, <i>Rostock University, Germany</i>, C. Rickert, K. Ruschmeyer, <i>Caterpillar, Germany</i></p> <p>18: Ten Years After: Results from the Major Programme HERCULES A-B-C on Marine Engine R&D, by N. Kyrtatos, <i>National Technical University of Athens, Greece</i>, L. Hellberg, <i>Wärtsilä, Finland</i>, C. Poensgen, <i>MAN Diesel & Turbo, Germany</i></p>	<p>162: Benefits of Propulsion Integration on Fuel Efficiency of Marine Vessels, by E. Boletis, <i>Wärtsilä, Netherlands</i></p> <p>235: Analysis & Evaluation of Innovative Hybrid Powertrain Architectures Combining Gas Engines & Electric Propulsion for Tugboats, by I. Vlaskos, D. Gagliardi, <i>Ricardo, Germany</i></p> <p>146: Development of Turbo Hydraulic System on Large Marine Diesel Engine, by N. Sakairi, I. Tanaka, M. Kondo, A. Otsuka, K. Ohta, <i>Mitsui, Japan</i></p> <p>138: Development of the Hybrid Tugboat System, by S. Koichi, K. Kobayashi, M. Kodera, S. Minami, <i>Niigata Power Systems, Japan</i></p>

Preliminary Programme Wednesday, 15th May 2013

Time	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
10:30 – 12:00	<p>(3-2) Fundamental Engineering – Mechanics 2</p> <p>Chairman: U. Schlemmer-Kelling, <i>FEV, Germany</i></p> <p>Vice Chairman: E. Luo, <i>Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, China</i>, M. Feng, <i>Shanghai Marine Diesel Engine Research Institute, China</i></p>	<p>(5-2) Environment, Fuel & Combustion – Gas & Dual Fuel Engines – Performance & Diagnostics</p> <p>Chairman: R. Beran, <i>AVL List, Austria</i></p> <p>Vice Chairman: Z. Huang, <i>School of Energy and Power Engineering, Xi'an Jiaotong University, China</i>, K. Deng, <i>Shanghai Jiao Tong University, China</i></p>	<p>(6-1) Aftertreatment – 4-Stroke Systems</p> <p>Chairman: F. Wang, <i>Shanghai Marine Diesel Engine Research Institute, China</i></p> <p>Vice Chairman: S. Shuai, <i>Department of Automotive Engineering at Tsinghua University, China</i>, S. Zhou, <i>Harbin Engineering University, China</i></p>	<p>(9-2) Integrated Systems & Electronic Control – Piston Engines, Gas & Steam Turbines & Applications – Automation Systems</p> <p>Chairman: E. Boletis, <i>Wärtsilä, Netherlands</i></p> <p>Vice Chairman: T. Ping, <i>Shanghai Marine Diesel Engine Research Institute, China</i>, Q. Zheng, <i>Harbin Engineering University, China</i></p>
	<p>164: Needle Chattering Effects in Common Rail Injectors for High Pressure Injection, by J. Wloka, G. Wachtmeister, <i>Technical University München, Germany</i></p> <p>181: An Approach for Dimensioning Case Hardened Components through Utilisation of Sophisticated Fatigue Analysis with the Finite Element Method, by M. Savolainen, <i>Wärtsilä, Finland</i></p> <p>318: The Valve Seat Ring Interference Stress Simulation Methods in the Finite Element Modeling of the Cylinder Head Stress Analysis, by X. Guo, Y. Cheng, <i>Beijing Institute of Technology, China</i></p> <p>414: Visualization of the Combustion in Wärtsilä 34SG Pre-Chamber Ignited Lean Burn Gas Engine, by J. Duong, J. Hyvonen, <i>Wärtsilä, Finland</i>, R. Wellander, O. Andersson, M. Richter, <i>Lund University, Sweden</i></p>	<p>296: Large Gas Engines – 75 mg/m³ NO_x, by G. Tinschmann, A. Birgel, C. Trapp, <i>GE Jenbacher, Austria</i>, E. Schnessl, C. Redtenbacher, A. Wimmer, <i>Graz University of Technology, Austria</i></p> <p>142: Newly Updated Combustion System for HiMSEN Gas Engine, H35/40G, by Y. Lee, H. Park, J. Park, K. Kim, J. Son, C. Jung, <i>Hyundai Heavy Industries, Korea</i></p> <p>109: Method to Quantify & Visualize Abnormal Combustion of a SI Engine, by H. Snuis, <i>MWM, Germany</i></p> <p>79: High-Speed Flame Chemiluminescence Investigations of Pre-Chamber-Jets in a Large-Sized Gas Engine, by C. Disch, P. Huegel, H. Kubach, U. Spicher, <i>Karlsruhe Institute of Technology, Germany</i>, J. Pfeil, <i>MOT GmbH, Germany</i>, B. Dirumdam, <i>MAN Diesel & Turbo, Germany</i></p>	<p>212: High Performance Solutions for IMO TIER III - System Integration of Engine & Aftertreatment Technologies as Element of Success, by P. Steffe, M. Bugsch, R. Losher, P. Toshev, <i>MAN Diesel & Turbo, Germany</i></p> <p>2: U.S. EPA Exhaust Emissions Certification of the Bombardier ALP-45DP Locomotive, by S. Fritz, <i>Southwest Research Institute, USA</i>, B. Kunz, <i>Bombardier Transport, Switzerland</i>, W. Sonnleitner, <i>Bombardier Transportation GmbH, Germany</i></p> <p>308: Development of Selective Catalytic Reduction System for 4st-Marine Auxiliary Diesel Engine, by C. Lee, R. Heehwan, S. Kim, D. Seol, <i>STX Heavy Industries, Korea</i></p> <p>179: Design Aspects of SCR Systems for HFO Fired Marine Diesel Engines, by N. Soikkeli, M. Lehtikoinen, K. Ronnback, <i>Wärtsilä, Finland</i></p>	<p>52: A Self-tuning Engine Concept, by F. Oestman, T. Kaas, <i>Wärtsilä, Finland</i></p> <p>104: Modular Automation Platform for Efficient Integration of New Technologies & Flexible Adaption of Customer Requirements, by T. Brendle, J. Ammer, R. Hirt, <i>MAN Diesel & Turbo, Germany</i></p> <p>205: Efficient Ship Controls Ready to Meet the Challenges of the Future, by N. Suedekum, A. Ruether, <i>Bosch Rexroth, Germany</i></p> <p>374: Machine Test on Fuzzy-PID Control Strategy of Diesel Engine basing on Microautobox, by G. Liu, F. Xu, X. Zhu, <i>Shanghai Institute of Space Propulsion, China</i>, E. Song, <i>Harbin Engineering University, China</i></p>

Preliminary Programme Wednesday, 15th May 2013

Time	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
13:30 – 15:00	(3-3) Fundamental Engineering – Simulation	(5-3) Environment, Fuel & Combustion – Gas & Dual Fuel Engines – Abnormal Combustion	(6-2) Aftertreatment – 2-Stroke Systems	(9-3) Integrated Systems & Electronic Control – Piston Engines, Gas & Steam Turbines & Applications – Integrated Machinery Systems
	Chairman: P. Böhm, <i>MAN Diesel & Turbo, Germany</i> Vice Chairman: E. Luo, <i>Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, China</i> , M. Feng, <i>Shanghai Marine Diesel Engine Research Institute, China</i>	Chairman: R. Nordrik, <i>Rolls-Royce Marine AS, Norway</i> Vice Chairman: Z. Huang, <i>School of Energy and Power Engineering, Xi'an Jiaotong University, China</i> , K. Deng, <i>Shanghai Jiao Tong University, China</i>	Chairman: K. Heim, <i>O.M.T., Italy</i> Vice Chairman: S. Shuai, <i>Department of Automotive Engineering at Tsinghua University, China</i> , S. Zhou, <i>Harbin Engineering University, China</i>	Chairman: K. Sugiura, <i>CMD, China</i> Vice Chairman: T. Ping, <i>Shanghai Marine Diesel Engine Research Institute, China</i> , Q. Zheng, <i>Harbin Engineering University, China</i>
	207: Advances & Challenges in Simulating Combustion & Emission Formation in Large Diesel Engines , by A. Wimmer, G. Pirker, M. Engelmayer, M. Gufler, F. Chmela, <i>Graz University of Technology, Austria</i> , G. Hirschl, <i>Kompetenzzentrum Das virtuelle Fahrzeug, Austria</i> 274: Combustion & Radiation Modeling of Laminar Premixed Flames Using OpenFOAM: A Numerical Investigation of Radiative Heat Transfer in the RADIADe Project , by S. Haider, K. Pang, A. Ivarsson, J. Schramm, <i>Technical University of Denmark, Denmark</i> 136: Flow & Pressure Simulation of Cooling Water, Lubricating Oil & Fuel Supply Systems , by A. Hjort, <i>Wärtsilä, Finland</i> 373: Prediction & Optimization Design of Medium Speed Marine Diesel Engine Surface Vibration Characteristics , by W. Tao, T. Yang, H. Zhang, M. Li, <i>Shanghai Marine Diesel Engine Research Institute, China</i>	36: Understanding the Influence of Heat Transfer & Combustion Behavior on End Gas Knock in Heavy Duty Lean Burn Engines , by J. Hiltner, <i>Hiltner Combustion Systems, USA</i> 139: Ranking the Knock Resistance of Gaseous Fuels by their Physical & Chemical Properties , by G. van Dijk, S. Gersen, H. Levinsky, A. Dijks, <i>DNV KEMA Nederland, Netherlands</i> 37: Predicting Autoignition Caused by Lubricating Oil in Gas Engine , by S. Yasueda, <i>GDEC, Japan</i> , L. Tozzi, D. Martinez, <i>Prometheus, USA</i> 185: Technical Challenge for the 2-Stroke Premixed Combustion Gas Engine , by T. Hirose, <i>Diesel United Ltd., Japan</i> , Y. Masuda, T. Yamada, Y. Umemoto, <i>IHI Corporation, Japan</i> , H. Furutani, <i>National Institute of Advanced Industrial Science and Technology, Japan</i>	178: Continuous Development of Tier III SCR for Large 2-Stroke Diesel Engines , by H. Christensen, <i>MAN Diesel & Turbo, Denmark</i> 29: Development of Marine SCR System for Large Two-Stroke Diesel Engines Complying with IMO NOx Tier III , by T. Fujibayashi, S. Baba, H. Tanaka, <i>Hitachi Zosen Coporation, Japan</i> 174: New Design Concept of NoNOx™ SCR for Marine Application , by J. Yu, H. Yang, J. Ko, J. Han, B. Kim, J. Kim, <i>Hyundai Heavy Industries, Korea</i> 75: Advanced Exhaust Emission Abatement – 144 MW Diesel Based Power Production with NOx, SOx, & PM Abatement – Design – Commissioning – Early Production Experience , by L. Ellegaard, K. Rasmussen, C. Albrechtsen, <i>BWSC, Denmark</i>	129: Development of NIIGATA New Gas Turbine Pump Drive Unit “CNT-4002MN” , by S. Tarui, S. Watanabe, T. Uchino, <i>Niigata Power Systems, Japan</i> 279: Modelling Marine Engine Energy Flow with Multi-Domain Simulation , by G. Zou, A. Kinnunen, K. Tammi, <i>VTT, Finland</i> , K. Tervo, <i>ABB Marine, Finland</i> , M. Elg, <i>Deltamarin, Finland</i> 254: Carbon & Fuel Reduction at Sea & Ports – Development of a New Cogeneration Concept with Ship Engine Exhaust Heat Driven Cooling Generation/Storage System , by D. Wu, G. Tian, J. Heslop, T. Roskilly, <i>University of Newcastle, UK</i> 387: Performance Analysis of the Cooling Package Used by Rear Mounted Engine Coach under Full Vehicle Environment , by L. Zhu, <i>Tongji University, China</i>

Preliminary Programme Wednesday, 15th May 2013

Time	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
15:30 – 17:00	<p>(3-4) Fundamental Engineering – Thermodynamics 1</p> <p>Chairman: G. Weisser, <i>Wärtsilä, Switzerland</i></p> <p>Vice Chairman: E. Luo, <i>Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, China</i>, M. Feng, <i>Shanghai Marine Diesel Engine Research Institute, China</i></p>	<p>(5-4) Environment, Fuel & Combustion – Gas & Dual Fuel Engines – Combustion Aspects</p> <p>Chairman: A. Wimmer, <i>Graz University of Technology, Austria</i></p> <p>Vice Chairman: Z. Huang, <i>School of Energy and Power Engineering, Xi'an Jiaotong University, China</i>, K. Deng, <i>Shanghai Jiao Tong University, China</i></p>	<p>(6-3) Aftertreatment – Particulate Filters</p> <p>Chairman: P. Flynn, <i>GE Transportation, USA</i></p> <p>Vice Chairman: S. Shuai, <i>Department of Automotive Engineering at Tsinghua University, China</i>, S. Zhou, <i>Harbin Engineering University, China</i></p>	<p>(9-4) Integrated Systems & Electronic Control – Piston Engines, Gas & Steam Turbines & Applications – Energy Management & Control Systems</p> <p>Chairman: P. Hupperich, <i>FEV, USA</i></p> <p>Vice Chairman: T. Ping, <i>Shanghai Marine Diesel Engine Research Institute, China</i>, Q. Zheng, <i>Harbin Engineering University, China</i></p>
	<p>91: Optimal Utilization of Air- & Fuel-Path Flexibility in Medium-Speed Diesel Engines to Achieve Superior Performance & Fuel Efficiency, by A. Knafl, G. Stiesch, M. Auer, T. Kremser, <i>MAN Diesel & Turbo, Germany</i></p> <p>144: Experimental & Numerical Studies of Swirling Flow in a Model of a Large Two-Stroke Diesel Engine, by K. Ingvorsen, K. Meyer, J. Walther, <i>Technical University of Denmark, Denmark</i>, S. Matlok, <i>MAN Diesel & Turbo, Denmark</i></p> <p>272: Investigation of Extreme Mean Effective & Maximum Cylinder Pressures in Medium Speed Diesel Engines, by P. Eilts, C. Stoerber-Schmidt, <i>Technical University Braunschweig, Germany</i></p> <p>173: A Fundamental Study on Improvement of Ignition Behavior of Low Ignitability Fuel with Pilot Injection, by S. Kawachi, M. Takagi, <i>National Maritime Research Institute, Japan</i></p>	<p>424: The MAN ME-GI Engine: From Initial System Considerations to Implementation & Performance Optimization, by L. Juliussen, S. Mayer, M. Kryger, <i>MAN Diesel & Turbo, Denmark</i></p> <p>12: High-Pressure Natural Gas Injection (GI) Marine Engine Research with a Rapid Compression Expansion Machine, by D. Imhof, D. Tsuru, H. Tajima, K. Takasaki, <i>Kyushu University, Japan</i></p> <p>412: Improvement of Dual-Fuel-Engine Technology for Current & Future Applications, by H. Mohr, T. Baufeld, <i>AVL List, Austria</i></p> <p>278: Solutions for Meeting Low Emission Requirements in Large Bore Natural Gas Engines, by E. Sotiropoulou, L. Tozzi, <i>Prometheus, USA</i>, D. Lepley, <i>Altronic-Hoerbiger, USA</i></p>	<p>255: Development of DPF [Diesel Particulate Filter] with a Regenerator for Marine Diesel Engines, by M. Tsuda, K. Maeda, D. Yamanishi, <i>National Fisheries University, Japan</i></p> <p>122: Verification Testing of the L-CCRT(TM) Particulate Control System on a NREC 3GS21B Gen Set Locomotive, by J. Hedrick, S. Fritz, <i>Southwest Research Institute, USA</i>, P. Anderson, J. Ramirez, <i>Johnson Matthey, USA</i></p> <p>137: Newly Developed Diesel Particulate Filter for Marine Diesel Engine – Electrostatic Cyclone DPF, by M. Furugen, <i>Furugen and Makino lab. inc., Japan</i>, H. Sasaki, T. Tsukamoto, <i>Tokyo University of Marine Science and Technology, Japan</i>, A. Ohashi, Z. Xu, <i>National Maritime Research Institute, Japan</i></p> <p>386: Study of DPF Technology to Meet China IV Emissions Regulations, by D. Yulong, H. Fuchen, Z. Suying, W. Fengshuang, M. Lei, <i>Weichai Power, China</i></p>	<p>183: Model-Based Techno-Economic Assessment & Optimisation of Marine Waste Heat Recovery Options, by N. Kakalis, G. Dimopoulos, I. Stefanatos, <i>DNV, Greece</i></p> <p>175: Performance Test Results of EGSS on Large Sized Test Engine, by K. Ohta, <i>Mitsui, Japan</i></p> <p>87: Energy Management for Large-Bore, Medium Speed Diesel Engines, by R. Kudicke, <i>Technical University München, Germany</i></p> <p>193: New Approach for ECS Software Development, by A. Hoepfner, I. Koops, A. Przymusinski, <i>AVL Software and Functions, Germany</i>, G. Hrauda, R. Strasser, <i>AVL List, Austria</i></p>
17:00	End of Technical Sessions for Wednesday			

Poster Session Wednesday, 15th May 2013

Session 5:

- 10: Numerical Study of Natural Gas/Diesel Oil Dual Fuel Heavy Duty Diesel Engine Combustion using Detailed Chemical Kinetics**, by J. Yang, Leeds University, UK
- 102: Simulating the Combustion & Near-Wall Flame Extinction of a Methane Gas IC Engine by Employing a Zonal Cylinder Model**, by A. Ratzke, C. Hennecke, F. Dinkelacker, Hannover University, Germany
- 145: Combustion & Exhaust Emissions Characteristics of Pilot-Ignited Engine Fueled with Digester Gas**, by E. Tomita, N. Kawahara, Y. Sunada, Okayama University, Japan, M. Kondo, Mitsui, Japan
- 170: Development of an Ethanol E100 Combustion Engine**, by J. Fernandez de Landa Magarin, Dresser-Rand, Spain
- 234: An Investigation of Fuel & Operating Condition Impacts on Dual-Fuel Engine Emissions & Performance**, by S. Drennan, Reaction Design, USA
- 236: Optimization of a Reduced Methane Combustion Chemical Kinetic Mechanism for CFD Simulations of High BMEP, Lean-Burn Natural Gas Engines**, by D. Martinez, L. Tozzi, Prometheus Applied Technologies, USA, A. Marchese, Colorado State University, USA
- 269: A Numerical Investigation of the Effect of Swirl Ratio & Piston Bowl Design on Combustion Process & Emissions in a Spark Ignition Gas Engine**, by F. Ahmadi Mojaveri, F. Farzad, Azad University of Sari, Iran, H. Khatamnezhad, M. Pourfallah, M. Mirsalim, DESA, Iran
- 270: Numerical Investigation of the Effect of Pilot Injection Characteristics on Combustion & Pollutant Formation of a Dual Fuel (Diesel/Natural Gas) Engine**, by B. Jafari, M. Mirsalim, H. Khatamnezhad, DESA, Iran, D. Domiri, Noshirvani University, Iran
- 390: Investigation of an Exhaust Gas Recirculation System for a Stationary Natural Gas Engine**, by D. Neher, F. Scholl, M. Kettner, Karlsruhe University, Germany
- 395: Numerical Investigation into the Effect of Reformer Gas Addition on Performance & Emission in Heavy Duty Diesel Engine**, by M. Pourfallah, M. Mirsalim, DESA, Iran, A. Ranjbar, Noshirvani University, Iran, S. Jazayeri, Toosi University, Iran
- 397: The Potentials of Ammonia as Carbon-Free Fuel for IC Engines**, by M. Lai, Wayne State University, USA

Session 4:

- 329: Study on Acoustic Characteristic & Noise Control Measure of Marine Diesel**, by Z. Wang, Shanghai Marine Diesel Engine Research Institute, China
- 330: Influence of EGR Rate on D30 Impure DME/Diesel Engine Performance Combustion & Emissions**, by T. Wang, D. Wang, Taiyuan University of Technology, China
- 336: Feasibility Research of Biomass Energy Adopted in Internal Combustion Engine**, by Z. Gao, D. Mei, Z. Wang, P. Sun, Jiangsu University, China, Y. Yuan, Nantong University, China, G. Elsbett, Guenter Elsbett Technologie, Germany
- 341: Study of Simulation & Experiment on Engine Emissions with DME & Non-Standard Diesel Blended Fuels**, by X. Yuan, T. Wang, Taiyuan University of Technology, China
- 343: Comparison of PM Emission from DME & Diesel Engine**, by S. Liu, J. Huang, Y. Wei, Xian Jiaotong University, China
- 378: Theoretical Study & Experimental Investigation on Augment High-Pressure Common-Rail System**, by O. Guangyao, C. Hailong, Naval University of Engineering, China
- 400: The Engine Combustion Performance of Ethanol-Biodiesel Fuel Blends in Compression-Ignition Engine**, by P. Lee, Wayne State University, USA
- 418: Exhaust Emission Control of Mitsubishi UE Diesel Engine**, by K. Imanaka, N. Hiraoka, A. Miyanagi, M. Sugihara, Mitsubishi Heavy Industries, Japan

Poster Session Wednesday, 15th May 2013

Session 9:

- 30: Cold State Engine for Utilising Air Thermal Energy to Output Work, Refrigeration & Water**, by J. Lew, Keronda Wines and Spirits, New Zealand
- 31: Modelling & Control of a Fuel Cell & Micro Gas Turbine Hybrid Power System for Ship Application**, by J. He, P. Zhou, D. Clelland, University of Strathclyde, UK
- 47: The Exergy Analysis of Marine Diesel Engine Waste Heat Recovery System**, by Z. Wang, Harbin Engineering University, China
- 88: The Design & Implementation of the Hardware In-The-Loop Simulation Comprehensive Test Bench of High Pressure Common Rail Electronic Control System for Large Low-Speed Marine Diesel Engine**, by Q. Wang, J. Yang, Y. Yu, Z. Wang, C. Shu, Wuhan University of Technology, China
- 117: Propulsion System (Dis)Integration**, by P. Kloppenburg, Techno Fysica, Netherlands
- 141: The Bosch Electronic Diesel Control System for Medium & High Speed Engines**, by G. Rehbichler, C. Kendlbacher, M. Bernhaupt, Robert Bosch AG, Austria
- 148: Development of Medium Speed EUP Electronically-Controlled Diesel Engines**, by K. Tsujimoto, T. Saeki, K. Kitagawa, Y. Takahata, Yanmar Co., Ltd., Japan, S. Kiechle, Woodward, Germany
- 165: Dynamic Feedback Linearization Control Synthesis for Boost Pressure Control of Two-Stage Turbocharged Gas Engines**, by O. Sarmiento, J. Huber, R. Burgmair, GE Global Research, Germany, M. Satria, P. Srinivasan, GE Global Research, India
- 263: Next Generation of Engine Control Systems**, by A. Levchenko, Heinzmann, Germany
- 287: A Woodward Engine Control & Safety System for Marine DF**, by R. Boom, Woodward, Netherlands
- 303: Development of Electronic Fuel Injection Controller of High Power Locomotive Diesel Engine**, by M. Guan, Z. Cai, S. Han, CNR, China
- 319: Modeling & Simulation Research of Electro-Hydraulic Speed Governing System of Diesel Engines**, by E. Song, Harbin Engineering University, China
- 362: Simulation & Analysis of Different Fan Clutches for Engine Cooling System**, by X. Niu, Tongji University, China
- 377: The Study of Real-Time Simulation Model on Marine Diesel Engine**, by J. Li, CSIC, China
- 402: Research on Feedforward – Feedback Control Strategy of Engine Cooling System**, by Z. Liu, Zhejiang University, China
- 409: Overview of Key Technology for the Integrated Ship Propulsion System Design & Production**, by Y. Ding, X. Ma, Harbin Engineering University, China, H. Grimmelijs, Delft University of Technology, Netherlands

Preliminary Programme Thursday, 16th May 2013

Time	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
08:30 – 10:00	<p>(3-5) Fundamental Engineering – Thermodynamics 2</p> <p>Chairman: S. Pischinger, <i>FEV, Germany</i></p> <p>Vice Chairman: E. Luo, <i>Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, China</i>, M. Feng, <i>Shanghai Marine Diesel Engine Research Institute, China</i></p>	<p>(11-1) Users' Aspects – Marine Application – Service Experience</p> <p>Chairman: E. Gust, <i>Zollern BHW, Germany</i></p> <p>Vice Chairman: Y. Huang, <i>Naval University of Engineering, China</i>, Z. Ji, <i>School of Power and Energy Engineering, Harbin Engineering University, China</i></p>	<p>(6-4) Aftertreatment – SCR Experience</p> <p>Chairman: M. Troberg, <i>Wärtsilä, Italy</i></p> <p>Vice Chairman: S. Shuai, <i>Department of Automotive Engineering at Tsinghua University, China</i>, S. Zhou, <i>Harbin Engineering University, China</i></p>	<p>(8-3) Component & Maintenance Technology – Filter & Crankshaft Development</p> <p>Chairman: Y. Itoh, <i>Niigata Power Systems, Japan</i></p> <p>Vice Chairman: H. Feng, <i>Beijing Institute Of Technology, China</i></p>
	<p>248: Hydraulic Measures to Improve Common-Rail Injection System Performance – Impact of Injection Rate Shaping on Emissions of a Medium Speed Diesel Engine, by C. Fink, J. Rabe, H. Harndorf, <i>University of Rostock, Germany</i>, M. Drescher, <i>FVTR Rostock, Germany</i></p> <p>379: Research on Heat Transfer Performance & Temperature Field Inspection Methods of Cylinder Head, by Z. Ping, O. Guangyao, L. Qi, <i>Naval University of Engineering, China</i>, L. Jianming, <i>Troop of Navy, China</i></p> <p>110: Acoustic Source Characterization of Medium Speed IC-Engine Exhaust System, by A. Hynninen, <i>VTT, Finland</i>, M. Abom, H. Boden, <i>KTH Stockholm, Sweden</i>, E. Nousiainen, M. Aura, <i>Wärtsilä, Finland</i></p> <p>339: The Effect of Piston Structure Parameters on the Lub-Oil Consumption, by J. Lei, X. Yu, Z. Liu, <i>Zhejiang University, China</i>, J. Wen, <i>Chendu Galaxy Power Co. Ltd., China</i>, L. Shen, <i>Kunming University of Science and Technology, China</i></p>	<p>6: Service Experience of MAN B&W Two Stroke Diesel Engines – An Update, by S. Jakobsen, <i>MAN Diesel & Turbo, Denmark</i></p> <p>276: Diesel Engines Optimisation & Marpol TIER I Low NOx Settings, by M. Karlsson, <i>Stolt Tankers BV, Netherlands</i></p> <p>166: Design & Field Experience of Hyundai-Wärtsilä 2-Stroke RT82 Family Engine, by J. Kim, B. Kim, J. Han, B. Kim, J. Kim, <i>Hyundai Heavy Industries, Korea</i></p> <p>404: Condition Based Maintenance of the 2-Stroke Propulsion Engine, by O. Toft, <i>BW Fleet Management, Norway</i>, H. Rolsted, <i>MAN Diesel & Turbo, Denmark</i>, P. Samuelsson, <i>Federal Mogul, Sweden</i></p>	<p>107: Testing SCR in High Sulphur Application, by K. Lehtoranta, R. Turunen, H. Vesala, S. Nyyssönen, <i>VTT, Finland</i>, N. Soikkeli, L. Esselstroem, <i>Wärtsilä, Finland</i></p> <p>220: Field Experience of Marine SCR, by J. Briggs, J. McCarney, <i>IACS, UK</i></p> <p>5: First Operational Experiences with a Combined Dry Desulphurization Plant & SCR Unit Downstream of a HFO Fueled Marine Engine, by R. Juergens, <i>Couple Systems, Germany</i></p> <p>172: Urea-SCR System for Pollution Control in Marine Diesel Engines, by Y. Izumi, <i>IHI Corporation, Japan</i></p>	<p>199: Influence of Filtration on Component Lifetime of Common Rail Injection Systems, by S. Schmitz, <i>Boll+Kirch Filterbau GmbH, Germany</i></p> <p>422: Fatigue Strength of Super Clean Solid Type Crankshafts, by R. Yakura, T. Shinozaki, H. Mori, N. Fujitsuna, M. Matsuda, <i>Kobe Steel Ltd., Japan</i>, T. Sakai, A. Ueno, S. Kikuchi, T. Miura, <i>Ritsumeikan University, Japan</i></p> <p>150: Adjustable Tuned Mass Damper Concept for Diesel Generator, by J. Keinaenen, K. Tammi, H. Sainio, <i>VTT, Finland</i>, A. Maekinen, P. Paloheimo, <i>ABB, Finland</i></p> <p>245: On the Design of a Single Cylinder Engine for Enhanced Functional & Reliability Validation, by S. Brewster, Ricardo, M. Weinrotter, A. Larralde, I. Iruretagoiena, <i>Guascor Power, Spain</i>, C. Burrell, Ricardo, <i>Czech Republic</i></p>

Preliminary Programme Thursday, 16th May 2013

Time	Room A (YuChai Room)	Room B (JiChai Room)	Room C (ABB Room)	Room D (PetroChina Room)
10:30 – 12:00	<p>(3-6) Fundamental Engineering – Engine Development, Modelling, Simulation</p> <p>Chairman: M. Larmi, <i>Aalto University, Finland</i></p> <p>Vice Chairman: E. Luo, <i>Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, China</i>, M. Feng, <i>Shanghai Marine Diesel Engine Research Institute, China</i></p>	<p>(11-2) Users' Aspects – Marine Application – Energy Efficiency</p> <p>Chairman: A. Wang, <i>ABB Turbo Systems, China</i></p> <p>Vice Chairman: Y. Huang, <i>Naval University of Engineering, China</i>, Z. Ji, <i>School of Power and Energy Engineering, Harbin Engineering University, China</i></p>	<p>(6-5) Aftertreatment – Specific Aspects</p> <p>Chairman: T. Bouché, <i>AVL List, Austria</i></p> <p>Vice Chairman: S. Shuai, <i>Department of Automotive Engineering at Tsinghua University, China</i>, S. Zhou, <i>Harbin Engineering University, China</i></p>	<p>(8-4) Component & Maintenance Technology – Liner Rings</p> <p>Chairman: F. Cantow, <i>Federal Mogul, Germany</i></p> <p>Vice Chairman: H. Feng, <i>Beijing Institute Of Technology, China</i></p>
	<p>35: 4-Stroke Opposed-Piston-Diesel-Engine with Controlled Shift-Liners for Optimized Scavenging, Low Heat Losses & Improved Thermal Efficiency, by G. Elsbett, <i>Guenter Elsbett Technologie, Germany</i>, Z. Gao, Z. Wang, P. Sun, D. Mei, <i>Jiangsu University, China</i></p> <p>331: Virtual Assemble Modeling & Motion Simulation Analysis of L21/31 Medium Speed Diesel Engine, by T. Zhang, <i>Zhenjiang CME, China</i></p> <p>381: Matching Character of Turbo-Piston Compound Engine Based 4-Stroke Diesel Engine, by X. Huo, Z. Wang, L. Zhuang, <i>China North Engine Research Institute, China</i></p> <p>126: The New FEV Single Cylinder Engine Family, the Efficient Tool for Engine Development, by E. Reichert, R. Stohr, T. Koch, T. Hamm, S. Lauer, <i>FEV, Germany</i></p>	<p>286: Maritime Fuel Performance Monitoring – Fuel MACS, by A. Andreassen, R. Utheim, <i>Data Process AS, Norway</i></p> <p>280: Power Optimization of a Marine Diesel Engine at Low Engine Speeds, by J. Kheyrollahi, M. Keshavarz, M. Fathi, M. Mirsalim, <i>Iran Heavy Diesel Engine (DESA), Iran</i></p> <p>240: Impact of a Waste Heat Recovery System in a Marine Diesel Engine on EEDI and CO2 Emission, by S. Zhou, Y. Liu, Y. Zhu, <i>Harbin Engineering University, China</i>, L. Guo, <i>China Mobile Group, China</i></p> <p>32: Systematic Evaluation of Performance of VLCC Engine, Comparing Service Monitored Data & Thermodynamic Model Predictions, by N. Kyrtatos, S. Glaros, E. Tzanos, <i>National Technical University of Athens, Greece</i>, S. Hatzigrigoris, F. Dalmyras, <i>MARAN Tankers, Greece</i></p>	<p>7: Aftertreatment Systems for Marine Applications: Practical Experience from the Perspective of a Classification Society, by F. Kock, <i>Germanischer Lloyd, Germany</i></p> <p>396: Simulation Based Development of the SCR Spray Preparation for Large Diesel Engines, by M. Frobenius, C. Schmalhorst, R. Fiereder, <i>AVL, Germany</i>, C. Rickert, J. Dreves, <i>Caterpillar, Germany</i></p> <p>147: Emission Monitoring – Development of Predictive Emission Monitoring, by J. Torrkulla, M. Loevholm, <i>Wärtsilä, Finland</i></p> <p>153: Total Marine Diesel Emission Control Technology Using Nonthermal Plasma Hybrid Process, by M. Okubo, T. Kuwahara, K. Yoshida, M. Kawai, T. Kuroki, <i>Osaka Prefecture University, Japan</i>, K. Hanamoto, K. Sato, <i>Daihatsu, Japan</i></p>	<p>97: SUMBore – The Powder Based Cylinder Running Surface Coating Solution Contributing to Emission Reduction, by P. Ernst, <i>Sulzer Metco AG, Switzerland</i></p> <p>33: Challenges for Cylinder Liner Development & How to Overcome These, by P. Ronnedal, <i>MAN Diesel & Turbo, Denmark</i></p> <p>149: Development of New Generation Long Life Piston Ring Coating for 2 Stroke Large Bore Marine Diesel Engines, by Y. Saito, <i>IHI Corporation, Japan</i></p> <p>367: Design Optimization in the Solution of Piston Ring Sticking and Carbon Deposit, by L. Zhu, <i>Weichai Power, China</i></p>
13:30 – 14:30	<p>Special Collin Trust Lecture¹: “Sources of Energy from a Chinese Viewpoint” by Prof. Dr. Li Jinghai, <i>Vice President of the Chinese Academy of Sciences, China</i></p> <p>Presentation of the Collin Trust Lecture Award, by Kurt Olsson, <i>Vice Chairman of the Collin Trust</i></p>			
14:30 – 16:00	<p>Final Panel Discussion: “Large Bore Engines in the Light of Changing Fuels”</p> <p>Chairman: Karl Wojcik, <i>AVL, Austria</i>.</p> <p>Panelists to be announced.</p>			
16:00	End of Technical Sessions for Thursday			
18:30	Gala Dinner Party			

¹ The Trust was set up 20 years ago by Prof. Lars Collin to broadcast information about the conversion of any type of fuel to energy for marine and rail transport and for power generation. More details are available at www.collintrust.com

Poster Session Thursday, 16th May 2013

Session 3:

- 72: Optimization & CFD Investigation of Geometrical Parameters of Heavy Diesel Engine Exhaust Manifold**, by *H. Naeimi, M. Mirsalim, M. Keshavarz, DESA, Iran*
- 89: Turbulence during the Compression Stroke**, by *E. Antila, VTT, Finland*
- 123: Simulation Study on the Overall Performance Optimization for 4190 Series Marine Diesel Engine Based on AVL Boost Software**, by *J. Huang, Y. Qiao, Z. Yin, Jimei University, China*
- 130: Further Validation of a Grid-Convergent Spray Modeling Approach Using X-ray Radiography Data**, by *S. Som, C. Powell, D. Longman, Argonne National Laboratory, USA, P. Senecal, E. Pomraning, Convergent Science Inc., USA*
- 154: Application of a Sensor System Based on Linear Raman Scattering for In-Situ Determination of Mixture Composition of Natural Gas at the Supply Line of a Dual Fuel Driven Diesel Engine**, by *S. Eichmann, Erlangen University, Germany, S. Schlüter, Siegen University, Germany*
- 195: Application of a Laser Based Sensor for the Fuel Composition Determination in the Gas Supply Line of a High Pressure Gas Injection Two-Stroke Diesel Type Engine**, by *S. Eichmann, A. Leipertz, Erlangen University, Germany, S. Seeger, S. Schlüter, Siegen University, Germany, J. Hult, M. Kryger, MAN Diesel & Turbo, Denmark*
- 242: Effect of Ambient Density on Spray Droplets near Diesel Injector Nozzle**, by *K. Komada, Y. Shohei, S. Daisaku, U. Hironobu, I. Masahiro, Nagasaki University, Japan, T. Hiroshi, Kyushu University, Japan*
- 246: The Influence of Intake Charge Temperature on Combustion & Emissions of Dual-Fuel HCCI Combustion Engines**, by *M. Fathi, M. Mirsalim, DESA, Iran, R. Khoshbakhti Saray, Sahand University of Technology, Iran*
- 273: Ultra-Downsizing of Internal Combustion Engines: Simultaneous Increasing of Efficiency and Power while Reducing Emissions**, by *V. Gheorghiu, Hamburg University, Germany*
- 283: Piston Bowl Optimization of a Diesel Engine to Reduce Emissions**, by *J. Kheyrollahi, M. Keshavarz, DESA, Iran, S. Khalil Arya, J. Samad, Urmia University, Iran*
- 293: Comparison of Torsional Vibration Measurement Techniques**, by *W. Hendricx, K. Janssens, L. Britte, LMS International, Belgium*
- 327: Simulating Acoustic Performance of Open & Enclosed Industrial Sources over a Broad Frequency Range**, by *M. Boyle, K. De Langhe, K. Vansant, LMS International, Belgium*
- 340: Influence Factors on Preload Deformation & Structure of Cylinder Line**, by *Y. Bi, L. Shen, J. Lei, D. Jia, Y. Xu, Kunming University, China*
- 350: Ideal Thermodynamics Cycle Analysis of Porous Media Engine**, by *Y. Wang, X. Shi, Tongji University, China*
- 360: Experimental Study on the Method for T.D.C. Determination of a Medium Speed Marine Diesel Engine**, by *X. Wu, H. Zhang, L. Ren, Y. Tian, F. Gu, Shanghai Marine Diesel Engine Research Institute, China*
- 363: Analysis & Optimal Design on Air Intake System of Controllable Intake Swirl Diesel**, by *G. Wang, X. Li, G. Liu, X. Yang, X. Niu, Harbin Engineering University, China*
- 394: Recent Research & Development Trends in Structural Strength & Reliability of Diesel Engine**, by *R. Liao, W. Li, Z. Zuo, Beijing Institute of Technology, China*
- 416: Structural Vibration Challenges of Marine Diesel & Gas Engines**, by *H. Solbakken, T. Eide, R. Nordrik, Rolls-Royce Bergen Engines AS, Norway*

Session 11:

- 218: An Attempt to Recompute ECN in the FCA Instrument**, by *L. Vedala, S. Chandrasekharan, R. Visweswaran, Viswa Lab, USA*
- 265: Alternative Fuels for Maritime Applications**, by *C. Chryssakis, S. Stahl, DNV, Norway*
- 316: Active Vibration Isolation for a Diesel Engine Generator in Marine Application**, by *T. Yang, J. Du, M. Zhu, X. Liu, Z. Liu, Harbin Engineering University, China*
- 415: Shipping under Hard Pressure in Challenging**, by *J. Erdtmann, NSB Niederelbe, Germany*
- 51: Onboard Fuel Oil Cleaning, the Ever Neglected Process How to Restrain Increasing Cat-fine Damages in Two-Stroke Marine Engines**, by *H. Rolsted, MAN Diesel & Turbo, Denmark, C. Rojgaard, DNV, Singapore, O. Jensen, NanoNord, Denmark, M. Englund, Alfa Laval Tumba AB, Sweden*

Poster Session Thursday, 16th May 2013

Session 6:

- 17: Numerical Simulation on Spray Atomization Characteristics & Mixing Performances for SCR System in a Marine Diesel,** by Z. Yuanqing, Z. Song, Harbin Engineering University, China, G. Lin, Jiangsu Nuclear Power Corporation, China
- 41: Investigation on Marine Exhaust Gas Desulfurization by Seawater Scrubbing,** by W. Dong, Harbin Engineering University, China
- 115: Compact DPF Housing System Design for Reducing Switcher Locomotive Exhaust Emissions,** by J. Hedrick, S. Fritz, Southwest Research Institute, USA, K. Plunkett, GTE Industries, USA, M. Allen, The Dow Chemical Company, USA, A. Guliaeff, Sud-Chemie Inc., USA
- 167: Selective Catalytic Reduction of NO_x with NH₃ over Ti_{0.9}M_{0.1}O_{2-δ} Nanocomposites Catalysts Prepared by Solution Combustion Synthesis,** by B. Guan, H. Lin, L. Zhong, W. Dong, Z. Huang, Shanghai Jiao Tong University, China
- 180: Developments in Catalytic After-Treatment for Methane Abatement in Natural Gas Engines,** by C. Heinisch, Johnson Matthey, Germany, P. Andresen, A. Reining, Johnson Matthey, USA, J. McCarney, Johnson Matthey, UK
- 188: High-Pressure SCR at Large Diesel Engines for Reliable NO_x-Reduction & Compliance with IMO Tier III Standards,** by R. Bank, B. Buchholz, FVTR, Germany, H. Harndorf, R. Rabe, U. Etzien, Rostock University, Germany
- 300: Experiment & Modeling of Urea Spray Impingement & Deposit for Diesel SCR,** by L. Hua, T. Tang, Y. Zhao, S. Shuai, Tsinghua University, China
- 304: Effects of Particulate Oxidation Catalyst on Particulate Matter emitted from Diesel Engine,** by X. Feng, Y. Ge, X. Han, L. Hao, J. Tan, L. Yu, J. Guo, Beijing Institute of Technology, China
- 23: Emission Monitoring from Landbased to Offshore,** by J. Béchu, Sick Mahak GmbH, Germany

Session 8:

- 4: Energy Efficient Hydraulic Systems for Large Engines,** by S. Fischer, Bosch Rexroth, Germany
- 20: Development & Application of a Monitoring & Fault Diagnosis System for Marine Diesel Engines,** by Y. Yu, J. Yang, Wuhan University of Technology, China
- 140: A Method for Determination of Filter Blocking Tendency of Residual Bunker Fuels,** by S. Ghosh, A. Talukder, R. Visweswaran, Viswa Lab, USA
- 217: Clean Energy with DUAP Fuel Injection – Results & Further Developments,** by M. Gutierrez, A. Marti, E. Vogt, Duap AG, Switzerland
- 345: The Research & Development on Parts Performance Improvement for Internal Combustion Engine,** by C. He, Shanghai Golston Shipping Fittings Co. Ltd., China
- 346: Evolution & Characterization of the Friction Condition Transition of Chrome-Plated Cylinder Liner & Two Typical Piston Rings,** by W. Jianping, China North Engine Research Institute, China
- 428: The new machining method of connecting rod spherical surface,** by X. Rongrong, D. Zongjiang, X. Shao, X. Hou, P. Zhou, Ningbo China
- 371: Development Design of Crank Oil Seal,** by Q. Liu, Ningbo, China

Session 12:

- 1: Prospect of Iran Natural Gas Export Projects,** by H. Omidvar, National Iranian Gas Company, Iran
- 294: Improvements & New Applications of the MAN 51/60 Gas Engine for Marine & Power Plant,** by N. Boeckhoff, H. Mögele, MAN Diesel & Turbo, Germany
- 305: Study of Total Energy Utilizing for Biogas Power Generation-Cogeneration based on the Energy Efficiency Analysis,** by S. Li, CNPC Jichai Power Equipment Company, China, S. Bai, Q. Zhang, G. Li, Shandong University, China

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Guangxi Yuchai Machinery Co., Ltd.

Guangxi Yuchai Machinery Co., Ltd, located in Yulin City, which is well known as "Jade in South of Five Ridges", and founded in 1951; it was restructured as a share-holding enterprise in 1992, and again restructured into a Sino-foreign joint venture share-holding enterprise in 1993. In 1994, Yuchai international stock was officially listed in New York Stock Exchange (NYSE stock code: CYD). Yuchai has over 9000 sets of major production equipment, with a total asset of RMB8.035 billion and a net asset of RMB4.083 billion. The annual engine production capacity is over 800,000 units.

Yuchai's main products cover six major areas such as truck, bus, passenger vehicle, construction machinery, agricultural machinery, power generator& gensets and marine, involving 15 engine series with 12 - 880kW power, covering heavy, medium and light-duty engine. Full product families are up to Euro 4 emission standard, and some products are up to Euro 5 Euro 6 emission standard. Yuchai has established 45 offices and more than 3,000 service outlets at home and abroad, has developed a market outlook of customer win-win, follows up products actively, and offers domestic and overseas customers most professional, prompt and satisfactory services through the YCSS service information management system and the call center with 45 operators.

Yuchai boasts a high-caliber research team of nearly 1,200 researchers, including five enjoying the special allowance of the State Council, 28 doctors and 201 masters, as well as more than 680 staff members with intermediate and senior titles. The expert committee has retained more than 30 experts, including two academicians and eight professor-level experts. The specialized technicians with undergraduate degree account for 61%, and the personnel with intermediate and senior professional titles account for 30% and young technicians account for 70%, thus constituting a team of specialized technical talents full with vigor and strong strength.



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Exhibition

The CIMAC Congress is one of the most important international events in the field of large diesel and gas engines, including turbine applications. The exhibition will make up the central part of the Congress and will contribute to communication within the industry.

Both the exhibition and Congress will be held in Shanghai Exhibition Center. The exhibition is on both first and second floor of Hall W1 and Hall E1. For details about exhibition, please refer to Onsite Guide in your congress bag.

The net exhibition area occupies about 3000 m² of floorage. Entrance to the exhibition is free of charge for all delegates, and coffee/tea will be served in the exhibition area during all breaks.

For further information on the exhibition and registration, please refer to the webpage: www.cimac.com under Congress 2013.

Exhibition Opening Times

Monday	13 th May	09:00 – 16:30
Tuesday	14 th May	09:00 – 16:30
Wednesday	15 th May	09:00 – 16:30
Thursday	16 th May	09:00 – 14:30



Optional Tours Tuesday, 14th May 2013

Shanghai is in the east of China. It has an area of about 6,340 square kilometer. Due to its rapid growth over the last two decades it has again become a global city, exerting influence over finance, commerce, fashion, technology and culture. Below you will find two traveling routes.

The start-point for all the tours is the Fountain Square.

The prices are quoted in RMB/per person and may be subject to change for reasons beyond the control of the Congress Secretariat (Shanghai Shenshi Exhibition Service).

Ancient Town of Zhujiajiao Tuesday 14th May (10:00-16:00)

Known as the “Venice in Shanghai”, it is a well-preserved waterside ancient town. It was already a country fair as early as the Warring States Period, 1,700 years ago. During the Wanli years of the Ming Dynasty (1573-1617), with merchants flocking to the place and a growing population, it had become a prosperous town. There, we can still see the traces of the antique markets and streets of the Ming and Qing Dynasties.

The antique buildings and simple life-style of the town’s people will give visitors a feeling of peace and rest.

Price per person RMB 380 including bus/guide and Lunch. The trip starts from the Fountain Square outside.



Optional Tours Wednesday, 15th May 2013

Yuyuan Garden
Wednesday 15th May (10:00-16:00)

A famous classical garden in south China, it was once famed as the “top beauty in southeast China”. First built during Ming Dynasty, 400 years ago, by a Sichuan minister of finance named Pan Yunduan, it has been several times renovated by the government since the Liberation and is now one the key relic sites in the country under state protection. The garden is divided into the scenic sections of “Mountains and Forests in the City”, “Magnificent Woods and Beautiful Valleys”, “Historical Relics of Heralding Spring”, “Water and Rockery Scenery”, “Top in the World” and the “Inner Garden”.

Price per person RMB 380 including bus/guide and Lunch. The trip starts from the Fountain Square outside.



Technical Tours Friday, 17th May 2013

Excursion to Shanghai VOLKSWAGEN

Volkswagen has been active in China since 1984. Today, the group has 14 representative companies in the country, undertaking parts delivery and service provision for both customers and industry in addition to vehicle production.

Shanghai Auto Museum, the first dedicated auto museum in China, is located in the Auto Expo Park of Shanghai International Automobile City. The museum covers an area of 28,000 m², and its exhibition area exceeds 10,000 m².



Schedule

08:00	Departure by bus from JC Mandarin Hotel
09:00	Arrival at Volkswagen in Anting. Welcome and tour
11:30	Lunch
13:00	Arrival at Shanghai Auto Museum
13:10	Guided tour and presentation
15:30	Departure by bus
16:30	Arrival at JC Mandarin Hotel

Price per person RMB 500 incl. bus, lunch, entrance tickets, tour guide.

Excursion to CSSC-MES Diesel Co.,Ltd

CSSC - MES Diesel Co., Ltd. is a company which manufactures high-power low speed marine diesel engines. The company is located in heavy equipment industrial zone of Shanghai Lingang town, covers an area of nearly 400,000 m².

Local Sightseeing at Nanhui. Shuyuan Village-converted by the original villages of farmers' houses into unique style of residential areas. Visitors can pound rice in a mortar, pedal water-wheel, pick vegetables. It is a real good place to feel the traditional agricultural practices.



Schedule

08:30	Departure by bus from JC Mandarin Hotel
09:30	Arrival at CSSC-MES Diesel Co., Ltd. Welcome and tour
12:00	Lunch
13:30	Shuyuan Village sightseeing
15:30	Departure by bus
16:30	Arrival at JC Mandarin Hotel

Price per person RMB 500 incl. bus, lunch, entrance tickets, tour guide.

Technical Tours Friday, 17th May 2013

Excursion to Wärtsilä Qiyao Diesel Company Ltd.

Wärtsilä Qiyao Diesel Engine Company Ltd. (WQDEC) is a joint venture between Wärtsilä Corporation and SMDERI (Shanghai Marine Diesel Engine Research Institute), an affiliate of CSIC (China Shipbuilding Industry Corporation) located in Lingang Industry Zone in Shanghai in Nanhui district.

China Maritime Museum is the only International maritime museum approved by the State Council of PRC and jointly built by the Ministry of Transport of China and Shanghai Municipal Peoples' Government.

Schedule

08:30	Departure by bus from JC Mandarin Hotel
09:30	Arrival at WQDEC. Welcome and tour.
11:30	Lunch
13:30	Arrival at Marine Museum
15:30	Departure by bus.
16:30	Arrival at JC Mandarin Hotel

Price per person RMB 500 incl. bus, lunch, entrance tickets, tour guide.





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ENERGY
ENVIRONMENT
ECONOMY

Optional Pre and Post Congress Tours

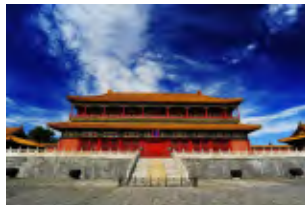
Explore the beautiful China Scene!



China is situated in the eastern part of the Asian continent on the western coast of the Pacific. Land area of about 9.6 million square kilometers. It is a large country with so many different landscape. Spring Tour will offer you the best service for you to enjoy the traveling.

Beijing City

Beijing is the cultural and political capital of the People's Republic of China. This ancient city has remained a constant throughout the many incarnations of the Chinese nation, a history stretching back over 5000 years.



The Palace Museum, known as the Forbidden City in the West, was the imperial palaces of the Ming and Qing dynasties. In early 15th century, large-scale construction involved 100,000 artisans and one million civilians. The Forbidden City is a national architectural treasure. The palace is the largest piece of ancient Chinese architecture still standing some of the buildings were damaged by lightning and rebuilt in the Ming and Qing dynasties. The palace had been expanded several times, but the original layout was preserved.

Round trip from Shanghai (four-days): Price per person RMB 4000.*

Hangzhou City

Hangzhou was founded approximately 2,200 years ago during the Qin Dynasty and is counted among the Seven Ancient Capitals of China. Marco Polo wrote that the city was undoubtedly the noblest and finest city in the world at the time. With its famous natural beauty and cultural heritage, it is one of China's most important tourist destinations. The West Lake, Longjing tea plantations, tasty local cuisine, and good shopping all make a trip to the city worthwhile.



Round trip from Shanghai (one-day): Price per person RMB 350*

Note*:

The prices are only for reference.

Booking and More Information:

For booking and more information about these or other round trips in China visit www.chinaspringtour.com.

Guilin City

Guilin is one of China's most attractive urban areas. Situated in the heart of Guangxi Zhuang Autonomous region, this pleasant city is a perfect base from which to enjoy south China's stunning natural scenery.



This region's characteristic limestone karst landscape draws visitors from all over the world. They are easily accessible by bike or river boat cruise from the urban centre of Guilin.

Round trip from Shanghai (two-days): Price per person RMB 2500*

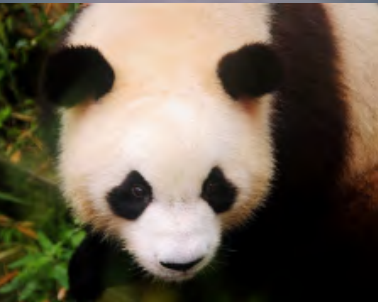
Chengdu City

The capital of Sichuan province, Chengdu is home to 15 million people and is one of Western China's fastest growing economies. In the West, Chengdu is best known for its adorable giant pandas; of the 1,500 currently in existence, 80 percent are in Sichuan province. The city is packed with rich history and culture, and you'll need a few days to explore all it has to offer. There are a number of beautiful, intricately designed monasteries and temples, including Wenshu Monastery, which dates back 1,300 years. The city's winter is short and mild, and summers are only somewhat hot and humid, making Chengdu the ideal year-round destination.



Round trip from Shanghai (five-days): Price per person RMB 3000.*

CHINA



The People's Republic of China, commonly known as China, is located in East Asia, is the most populous country in the world, with a 1.3 billion citizens. China is made of 56 distinct ethnic groups, with Han Chinese making the 92% of its whole population. It exercises jurisdiction over 22 provinces, five autonomous regions, four direct-controlled municipalities (Beijing, Tianjin, Shanghai, and Chongqing), and two mostly self-governing special administrative regions (Hong Kong and Macau). Covering approximately 9.6 million square kilometers, China is the world's second largest country by land area.

China is one of the world oldest civilizations, dating back more than 5,000 years and ruled by successive dynasties until 1912. During these times, many great discoveries in fields of science and technology were made, including the inventions of printing, paper, gun powder and compass. This period also saw the construction of many landmarks, such as the Great Wall which stretches over 4000 miles, equals to 30 return travels from London to Paris. After a period of foreign occupation and civil war, the Communist Party of China led by Mao gained control of mainland China in 1949 and established People's Republic of China. The modern China today is as much shaped by its past as its rapidly looking to the future.

Since the introduction of economic reforms in 1978, China's economy has grown 90 times bigger and become the world's fastest-growing major economy. China is also the world's largest exporter and second-largest importer of goods. It now has the world's second largest GDP at about 6 trillion US dollars, 40% of the United States.

China covers a large territory and has many nationalities, each region has its own local specialties with different but fantastic and mouthwatering flavor which the Chinese are often keen to introduce to others. Since China's local dishes have their own typical characteristics, generally, Chinese food can be roughly divided into eight regional cuisines, which has been widely accepted around. Certainly, there are many other local cuisines that are famous, such as Beijing Cuisine and Shanghai Cuisine. Chinese food is popularly healthy and often beautifully presented. Texture, flavor, color and aroma are key considerations for all Chinese cookings.

FACTS & FIGURES

General data:	
Capital	Beijing
National Day	1 st October
Largest city	Shanghai
Language	Standard Chinese
Currency	Renminbi (yuan) (CNY)
International Dialing Code	+86
Time Zone	China Standard Time (UTC+8)
Religion	Han 91.51% Other 8.49%
Drives on the	left, except for Hong Kong & Macau
Type of State	Presidential Republic Party

Shanghai

Shanghai, with a population of 23 million, is not only the largest city in China, but also one of economic, financial, trade as well as communication centers in the world. Also, Shanghai is China's outstanding tourist city, a well-known city in history and culture, and the financial, trade and shopping center. Thus, Shanghai has become a first stop in China for most overseas visitors. Shanghai's public transportation has developed rapidly with metro stations and public bus stops in almost every corner of Shanghai.

The architecture in Shanghai is another landscape. The Bund, Shikumen house and various Shanghai-styles buildings, modern facilities represent all kinds of architecture styles, which are the products of the combination of Shanghai local culture and foreign culture.

In Shanghai, you can go to the luxury shopping malls to enjoy the attentive service and all great brands of the world. Or you prefer to wander at the streets and lanes to seek the appealing fashion stores. The dazzling antiques and painting make the visitors to have a full taste of the abundance and magnificence of China folk arts.

Besides the creative Shanghai flavors, the different cuisines from the other parts of China and most parts the world can be found in Shanghai. Eating in Shanghai is not only about enjoying delicious food, but also it's a social and culture experience. The fine-dining restaurant located in the European style buildings along the Bund, known as, "The Expo of World Architectures". The combination of historical architecture and delicious flavors enrich the intension of "Eating in Shanghai" greatly.

Night-time in Shanghai is full of color. You can enjoy this dynamic, metropolitan city from an observatory of an iconic building to get a bird's eye view of Shanghai at night, cruising at night along the Huangpu River, wandering at Xintiandi, or entering theatre to enjoy the new multimedia acrobatic show "ERA" and the operas and ballets presented by world famous troupes. These are all good choices.

Since Shanghai World Expo, Shanghai's tourism facilities have been more complete, and is trying to become a world famous tourist city. The people in Shanghai warmly welcome tourists from home and abroad.

Shanghai City Sightseeing Bus

Shanghai City Sightseeing Bus has two lines and both start from the Urban Planning Exhibition Hall.

Line 1 is for Puxi Tours which passes East Nanjing Road Pedestrian Street, the Bund, Garden Bridge, Yu yuan Garden, Xintiandi and Shanghai Museum.

Line 2 is for Pudong Tours which passes Oriental Pearl TV Tower and the Jinmao Tower.

The one day pass for Shanghai City tours is a magnetic card and the price is RMB 30. Each card allows an extra child who is below 1.4 meters. The card is valid for 24 hours after the first use and visitors can hop on and off randomly at any station during the operating hours.

There are also free headsets for use which provide the introduction of the views in eight languages, which are Chinese, English, Japanese, French, Spanish, German, Russian and Korean.





Balance in Ways, Lubrication in Silence



KunLun Lubricant from PetroChina

For years, KunLun has been devoting itself to providing more targeted and feasible lubrication solutions for vehicles running on every piece of land in China. KunLun sticks to the idea of balance and has established a complete set of product line. Its industry-leading salicylate process technology makes the high temperature carbon deposit suppression and anti-oxidation more beneficial. The balanced lubricant will always be at your service, no matter where and when you need it.



KunLun
Motorcycle Oil

KunLun
High-end Car Oil

KunLun
Commercial Vehicle Oil

Accommodation

A number of rooms in different hotel categories have been booked at special rates. All hotels are located in the city center with only a few minutes walk from the congress venue.

To secure accommodation of your choice, you should register as early as possible. Prices quoted are per room per night and include breakfast, service and VAT. All hotel reservations will be subject to availability and cannot be guaranteed after 1st April 2013.

There will be no organized shuttle service to the congress venue, because the Exhibition Center is located in the city center and can be easily reached either by foot or by public transport. The special room rates listed under Hotel Overview are only available if reservations are made through the Congress Secretariat (Congress-Conference AS) electronically on the Online Registration Form.

BOOKING AND CANCELLATION CONDITIONS

Hotel Deposit

A hotel deposit of the cost of one night's stay must be paid in advance together with the Congress fees. The hotel deposit will be deducted from the total cost

of accommodation. The remaining hotel payment will be charged at the hotel during the Congress.

Cancellation

The hotel deposit will not be refundable for any cancellations after 1st April 2013. All cancellations and changes to reservations should be made in writing by e-mail or fax. The cancellation policy for the accommodation is as follows:

Cancellation up to 1 st April 2013	Handling charge of CNY 200
From 1 st April 2013 arrival date	First night deposit
"No Show"	First night deposit

General Information

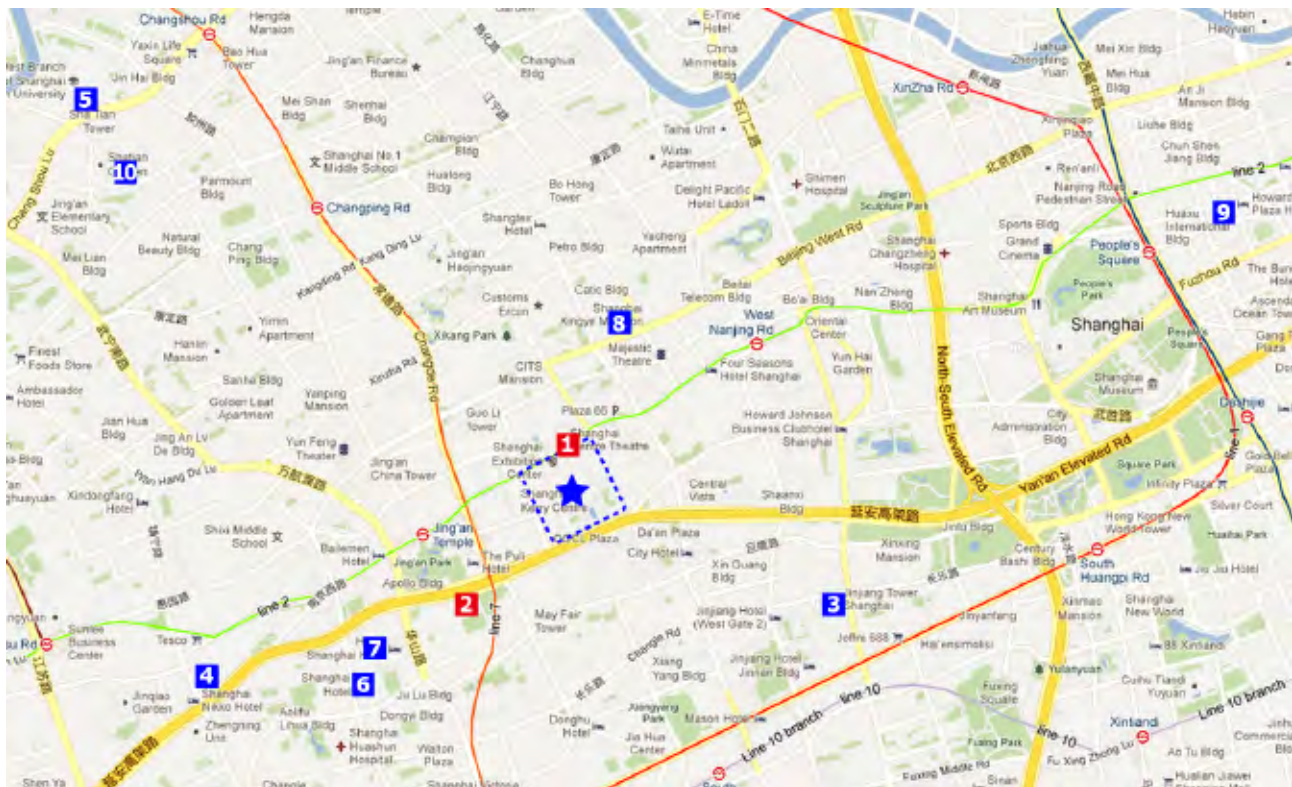
Confirmation of both hotel accommodation and participation at the Congress will be included in a confirmation letter. Participants are requested to pay

their personal expenses directly to the hotel when checking out.

Advice: Tipping is not a tradition in China, but to pay is also allowed.

Hotel Overview

			Add	Tel
1	Shanghai JC Mandarin Hotel	★★★★★	No. 1225 Nanjing West Road, Jing An District, Shanghai	+86 21 6279 1888
2	Yanan Hotel	★★★★	No. 1111 Yan An Zhong Road, Jing An District, Shanghai	+86 21 6133 1188
3	Shanghai New Jin Jiang Hotel	★★★★★	No. 161, Changle Road, Huang Pu District, Shanghai	+86 21 6415 1188
4	Rendezvous Merry Hotel, Shanghai	★★★★	No. 396, Yan An West Road, Jing An District, Shanghai	+86 21 6171 5588
5	Holiday Inn Shanghai	★★★★	No. 700 Changshou Road, Pu Tuo District, Shanghai	+86 21 6276 8888
6	Shanghai Hotel	★★★★	No. 505 Wulumuqi North Road, Jing An District, Shanghai	+86 21 6248 0088
7	Jing An Hotel, New Building	★★★	No. 370, Huashan Road, Jing An District, Shanghai	+86 21 6248 0088
8	Shanghai Yinfa Mansion	★★★	No. 1068, Beijing West Road, Jin An District, Shanghai	+86 21 6255 6600
9	Charms Hotel	★★★	No. 619, Jiu Jiang Road, Huang Pu District, Shanghai	+86 21 5359 4900
10	Motel 168		No. 678, An Yuan Road, Pu Tuo District	+86 21 6232 2228



Hotel Reservation

Please fill up the form in Capital letter & email/fax to:

Shanghai Shenshi Exhibition Service Co., Ltd.
Attn: Ms. Annie Cheng
Tel: +86 21 5283 8605
Fax: +86 21 5250 0721
Email: annie@21expo.net

(Please use block letters or attach business card.)

Contact Person: _____
Organization: _____
Address: _____
Country: _____ Postal Code: _____
Tel: _____ Fax: _____
Email: _____

	Hotel	Distance to Venue	Cost per room (single room or twin room) per night	Benefits
Official Appointed Hotels				
1	Shanghai JC Mandarin Hotel (5*) Deluxe room	400 meters	RMB 950	Incl. breakfast, service charge, free internet
2	Yanan Hotel (4*) Deluxe room	500 meters	RMB 618	Incl. breakfast, service charge, free internet
Official Recommended Hotels				
3	Shanghai New Jin Jiang Hotel (5*) Deluxe room	980 meters	RMB 900	Incl. breakfast, service charge, free internet
4	Rendezvous Merry Hotel, Shanghai (4*) Standard room	940 meters	RMB 680	Incl. breakfast, service charge, free internet
5	Holiday Inn Shanghai (4*) Standard room	2,000 meters	RMB 698	Incl. breakfast, service charge
6	Shanghai Hotel (4*) Standard room	570 meters	RMB 600	Incl. breakfast, service charge
7	Jing An Hotel, New Building (3*) Standard room	580 meters	RMB 418	Incl. breakfast, service charge
8	Shanghai Yinfa Mansion (3*) Standard room	1,100 meters	RMB 480	Incl. breakfast, service charge, free internet
9	Charms Hotel (3*) Standard room	1,500 meters	RMB 396	Incl. breakfast, service charge, free internet
10	Motel 168	1,800 meters	RMB 200	Incl. breakfast, service charge, free internet

Hotel Reservation

Notes:

- The a.m. preferential prices are negotiated for the exhibition/Congress period ONLY and can be only booked via this form. Number of rooms is limited.
- Booking deadline is April 1st, 2013.
- All hotel payment will be settled with the hotel directly upon checking out. Hotel will charge one room night fee as deposit.

Procedure:

1. Please fill in the Hotel Reservation forms and email/fax to contact details as above.
2. The confirmation letter will be sent to you within 5 days of receiving your application.

Terms and conditions:

Cancellation policy: any cancellation of confirmed booking must be informed 3 days in advance. Otherwise one night room charge will be applied.

No show: if no show for confirmed booking, one night room charge will be applied.

Hotel booking Details:

Guest Name: 1. _____ 2. _____
3. _____ 4. _____

Hotel Preferred (please select from "hotel list"):

1st choice _____ 2nd choice _____

Single/twin share room /double room with 1 king-size bed (circle accordingly) No of room(s): _____

Check in date and time (China local time zone) _____ check out date _____

We also provide below service with charge.

Airport Limousine service: (RMB450 per way for max. 3 persons)

I need for Arrival Departure, Number of person(s): _____

Arrival flight no. _____ Arrival date _____ Estimated arrival time _____

Departure flight no. _____ Departure date _____ Estimated arrival time _____

Interpreter service:

preferred language _____ with date from _____ to _____

Registration information

Congress participation is open to all persons who are interested in attending the Congress at the fees which are stated below.

How to register

You may register online by completing the registration form which is available on the Congress webpage, www.cimac.com/congress_2013_congress_2013.htm.

Registration Fees

Registration Fees incl.	Fees VAT/ TAX	
CIMAC members*	RMB 12300	Approx. €1500
Non-members	RMB 14760	Approx. €1800
Speakers**	RMB 8200	Approx. €1000
Students***	RMB 3280	Approx. €400
One Day Tickets****	RMB 4100	Approx. €500
Accompanying	RMB 1230	Approx. €150
Gala Dinner for One Day Participants	RMB 820	Approx. €100
Gala Dinner for One Day Exhibitors	RMB 656	Approx. €80

Exchange rate: €1= approximately CNY 8.2

* If you are uncertain about your membership status, please contact the CIMAC Central Secretariat (cimac@vdma.org).

** Please submit your abstract number on the online registration form, Please note that only one author per paper will be granted the reduced "speaker's fee".

*** Students are required to send a copy of their student ID to the Congress secretariat by e-mail. Email: helen@21expo.net. Students are required to present their student ID upon registration on site.

**** One Day Tickets will only be available on site at the Congress venue.

The registration fee for CIMAC-Members, Non-Members, Speakers and Students includes:

- Congress bag
- Congress badge (to be worn at all events)
- Admission to all sessions
- Admission to the exhibition
- Coffee/tea during coffee breaks
- Congress Proceedings in electronic form
- Opening Ceremony on Monday 13th May in Fountain Square
- Lunch on 13th-16th May in the Central Hall
- Welcome Reception on Monday 13th May in the JC Mandarin Hotel
- ABB Evening on Tuesday 14th May at 18:30
- Gala Dinner on Thursday 16th May in Seagull Restaurant

The registration fee for accompanying persons includes:

- Congress badge (to be worn at all events)
- Admission to the exhibition
- Coffee/tea during coffee breaks
- Opening Ceremony on Monday 13th May in Fountain Square
- Lunch after the Opening Ceremony in the Central Hall
- Welcome Reception on Monday 13th May in the JC Mandarin Hotel
- ABB Evening on Tuesday 14th May at 18:30
- Gala Dinner on Thursday 16th May in Seagull Restaurant

Registration information

How to register at the Congress (on-site)

The registration counters will be located at Gate 2 of Shanghai Exhibition Center.

No.1000, Middle Yanan Road
Shanghai City

Registration opening hours:

Sunday	12 th May	14:00 – 18:30
Monday	13 th May	08:00 – 16:30
Tuesday	14 th May	08:00 – 16:30
Wednesday	15 th May	08:00 – 16:30
Thursday	16 th May	08:00 – 14:30

The Congress badges will be handed over to you at the registration counter together with the Congress bag. All participants and accompanying persons are obliged to wear the official Congress badges on all Congress occasions. An additional fee will be charged for reproduction of lost Congress badges.

The Congress Opening Ceremony will take place at the Fountain Square on Monday 13th May, from 10:00 to 11:40. For those who intend to join the Opening Ceremony, we recommend that you register earlier in order to avoid a last-minute opening ceremony rush.

Payment Instructions

All payments must be made in CNY. No other type of payment will be accepted.

It's OK if you want to pay on-site. Bankcard is acceptable via POS Machine.

Confirmation of Registration

The confirmation of registration and receipt of payment will only be sent when both the registration form and payment are received in full. The confirmation will be sent to the participant by post, fax or e-mail.

Cancellation Conditions

The amount to be refunded will depend on the cancellation dates as follows:

Up to 8th April 90% refund
From 9th April to 4th May 50% refund
After 4th May No refund

Cancellation must be made to the Congress secretariat (China Society for Internal Combustion Engine) in writing either by letter, fax or e-mail. Refunds for cancellation received will be made after the CIMAC Congress.

Replacements

If you are unable to participate in the Congress and would like to send a substitute attendee, please contact the Congress Secretariat. Name changes are accepted at any time at an extra charge of CNY 150.

Congress Secretariat of the 27th CIMAC Congress 2013 in Shanghai:

China Society for Internal Combustion Engine
(CSICE)

Please contact:

Congress Operator

SHENSHI EXHIBITION SERVICE CO., LTD.
Rm A605 Sunshine Plaza, No. 1718 Daduhe Rd,
Shanghai
Tel : +86 21 5283 8700 ext. 815
Fax: +86 21 5250 0721
Contact person: Helen Zhang
E-mail: helen@21expo.net



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CNPC JPEC

Members of CIMAC

National Member Associations (NMAs):

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Internet: http://www.fmmi.at

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2500 Junhong Road
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e-Mail: cnmna211@yahoo.com.cn

Denmark

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FAX: ++35 89 62 44 62
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Internet: http://www.techind.fi

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c/o NTUA
P.O. Box 64070
157 10 Zografos, Athens
Phone: ++30 210 77 21 119
FAX: ++30 210 77 21 120
e-Mail: npk@gracimac.org
Internet: http://www.lme.naval.ntua.gr/cimac_gr

India

CIMAC India
c/o Indian Oil Corporation Ltd.
Research & Development Centre, Sector 13
(Haryana St.)
Faridabad 121 007
Phone: ++91-129 5 28 56 11
FAX: ++91-129 5 28 62 21
e-Mail: ramakumarssv@iocrd.co.in
Internet: http://www.indianoilcorp.com

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Korea

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(Marine Technology Research Institute)
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e-Mail: b.waernier@swissmem.ch
Internet: http://www.swissmem.ch

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Humphrey Niven (Heavy Duty Engine Specialist)
Humphrey Niven Engines Ltd.
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FAX: ++44 1903 60 06 21
e-Mail: h.niven@ntlworld.com

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e-Mail: mviele@drivven.com

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FAX: ++55 21 25 34-40 14
e-Mail: kremer@petrobras.com.br
Internet: http://www2.petrobras.com/br/ingles/
index.asp

Canada

Teekay Shipping (Canada) Ltd.
Suite 2000 Bentall 5
550 Burrard Street
Vancouver, B. C. V6C 2K2
Phone: ++1 604 6 09 29 80
FAX: ++1 604 8 44 66 50
e-Mail: derek.walford@teekay.com
Internet: http://www.teekay.com

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PBS Turbo s.r.o.
Vlkovska 279
59512 Velka Bites
Phone: ++420 566 8 22-2 18
FAX: ++420 566 8 22-2 72
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Internet: http://www.pbsvb.cz/NewWEBSITE/
index.php

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Internet: http://www.chevrontexaco.com

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FAX: ++31 78 69 10 3 31
e-Mail: btw.mestemaker@mtiholland.com
Internet: <http://www.mtiholland.com/>

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1781 AC Den Helder
Phone: ++31 223 65 75 14
FAX: ++31 223 65 73 19
e-Mail: d.stapersma@kim.nl
Internet: <http://www.kim.nl>

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Westerlaan 5 (Haven No. 190)
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