

WELCOME TO WÄRTSILÄ CHINA

INVESTORS VISIT IN SHANGHAI (SEP. 23 2015)

James Han President of Wärtsilä China



Wärtsilä China Today

- 20+ years history in China
- Well positioned for SP and Service business
- One of Wartsila biggest market with annual revenues of ~10% of group sales





- Broad manufacturing footprint through JVs and fully owned companies.
- In the marine market, certain leading Chinese ship owners and shipyards are not only Wärtsilä customers, but also JV partners.



Major Milestone of Wärtsilä in China

1978 Signing of licensee agreement between Sulzer with CSSC

1982

agent

Kemklen

Industrial

Hong Kong

3

Developing

relationship with

Suppliers Ltd.,

1986 Establishing Wärtsilä Diesel (China) Ltd., Hong Kong as Joint Venture with Kemklen Hong Kong

> 1991 Wärtsilä Diesel (China) Ltd., Hong Kong became a wholly owned company under Wärtsilä Diesel Finland Oy, Helsinki

1994 Establishing Shanghai Representative Office, Beijing Representative Office, Wärtsilä Diesel Panyu Service Station (Joint Venture)

> 1995 Setting up Hong Kong Service Station

1997 Merging with New Sulzer **Diesel Hong**

Kong Ltd.

1996

in Taicang

ownership)

First Investment

Electric Power

Co., Ltd. (partial

1998 Establishing Dalian Representative Office

1999

Engine (Shanghai)

Ltd. with business

scope of trading and

servicing Setting up

Waigaogiao

Workshop in

Shanghai

Integration of John Crane-Lips operation in Shanghai following global acquisition in April 2002

2002

2004 Wärtsilä-CME Zhenjiang Propeller Co. Ltd. founded in June. In the JV Wärtsilä has 55% and CME has 45% ownership

Upgrading Shanghai Representative Office to Wärtsilä NSD



Major Milestone of Wärtsilä in China

2005

Wärtsilä acquired Deutz medium and high speed engine marine service business and started to handle the business from April.

Inauguration of Wärtsilä Propulsion (Wuxi) Co. Ltd. (wholly owned) in June

2006

Inauguration of Wärtsilä Qiyao Diesel Co., Ltd (Shanghai) (a 50/50 JV with CSIC SMDERI to manufacture marine auxiliary engines) in June 2006

2008 The top management of Wärtsilä Ship Power moved to China

2007

Inauguration of

Tangzhen Service

Station in March

2010 Wärtsilä China **Engineering Center** was setup

2009

Inauguration of Qingdao Qiyao Wärtsilä MHI Linshan Marine Diesel Co Ltd (QMD) in April.

(CSIC 50%, Wärtsilä 27% and Mitsubishi 23%) Inauguration of Wärtsilä Ship Design (Shanghai) Co. in June **Zhoushan Services Station** was setup in Sept.

Signing of Strategic Cooperation Framework Agreement with CSSC in Nov

2012

Wärtsilä acquired the Hamworthy plc group.

JV Contract Signed to establish Wärtsilä Yuchai Engine Company Ltd.

2011

Inauguration of CPP production at Wärtsilä-CME Zhenjiang Propeller Co., Ltd. In June

2014

Wärtsilä announced new joint venture with CSSC for manufacturing medium speed diesel engines in July

Wärtsilä and CSSC to join forces in 2stroke engine joint venture to take over Wärtsilä's 2-stroke engine business

Wärtsilä divested its shares in QMD 2stroke joint venture in July

Inauguration of Wärtsilä Yuchai Engine Company Ltd. In September



Wärtsilä Footprints in China

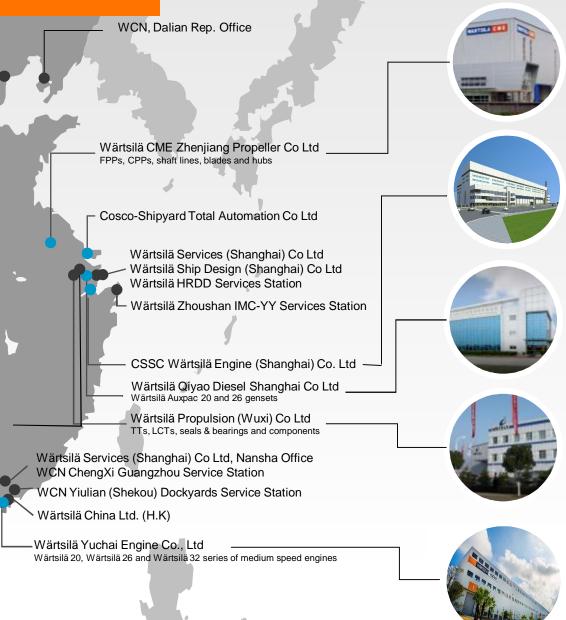
WCN Shanhaiguan Shipyard Service Station WCN, Beijing Rep. Office

Wärtsilä Services (Shanghai) Co Ltd Tianjin Representative Office

- Wärtsilä Ventures
- Joint Ventures

Wärtsilä (Suzhou) Ltd.
Formal name is Hamworthy (Suzhou) Ltd.
Sewage Water Treatment Plant, Inert Gas
System, Control Panel

- 5 JVs, 2 fully-owned factories
- 9 service centers
- 1500+ employees



Chinese Economy and Market Update

- China economy further slowed down with headwinds both externally and internally, despite 7% GDP expansion in H1.
- Export fell by 6.1% yoy in Aug and imports shrank by 13.6%. However exports to US and ASEAN increased by 6.1% and 5.6% respectively.
- PMI slipped to 49.7 in Aug from 50 for July, the lowest in 36 months since 8/2012.
 However, sub PMI for high tech manufacturing (52.2) and consumption sector (54.6) remain in expansion
- Medium and long term still look positive, as service sector now accounts for 50% of GDP and private consumption contributes more than 60% of GDP growth. Slowdown is necessary to make structural transition from export/investment to more sustainable consumption/service mode. Government has sufficient tools to stimulate economy to avoid hard landing.
- China shipbuilding industry facing huge challenges. First 8 months in 2015, new contract order dropped 68.3% yoy to 15 million DWT and order book decreased 12.1% to 135 million DWT. However total completion increased by 14.6% to 25.31 million DWT. In terms of order book, China still holds the largest market share (39.7 million CGT), followed by Korea (31.8 million CGT) and Japan (19.77 million CGT). Main challenges from weak demand, overcapacity, difficult for private yards to get financing, low oil price, etc.
- Power Market has great potential for gas and renewable energy. China's installed gasfired power capacity reached 55.67 GW in 2014, accounting for 4.1% of total power mix, increased from 3.4% in 2013. Gas consumption in H1 increased bit slow by 3.3%, but the continued decline of imported gas price could boost consumption. 13th five year plan will focus on further expansion of renewable energy. By 2020, wind power would be tripled from current 75 GW to 200 GW and solar would jump from 15 to 100 GW.

Growth opportunities in China

MOVE TO A SUSTAINABLE ECONOMIC GROWTH PATTERN



- Transform from Invest/export focused to domestic consumption
- Shift to a sustainable, quality & efficient growth (6-7 % GDP growth)
- Deepen economic and political reforms

URBANIZATION & SURGING OF MIDDLE CLASS



- ~ 70% of population will live in the cities by 2035
- ~ 200 cities > 1 million habitants
- 700 m middle class by 2020 and 1.4 b by 2030

FOCUS ON GREEN ECONOMY



- Shift to renewable and clean energy
- Increase energy efficiency and reduce pollution
- Invest > 8 trillion RMB (1.28 trillion USD) in green economy over the 12th Five-Year Plan Period (2011-15).

DRIVE FOR INNOVATION & HIGH END MANUFACTURING



- Move up the labor value chain
- Heavy investment in R&D and focus on domestic brand creation
- From "made in China" to "innovated in China"



The most important market for Marine Solutions



WORLD LEADING POSITION

- No.1 trading nation with biggest shipping fleets
- Largest shipbuilding country (37% of world order book by Jan-Aug 2015)



POSITIVE DEVELOPMENTS TO MEET CHALLENGES

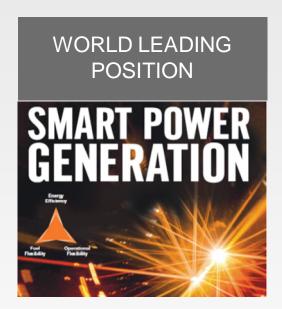
- Shift from Merchant to offshore and special, from standard low value to complex high value
- Increasing focus on fuel efficiency and environmental performance
- Strong demand from domestic ship-owners from offshore, special, and LNG



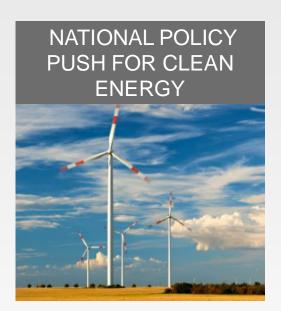
GOVERNMENT POLICY SUPPORTING MARINE INDUSTRY

- Drive technology innovation
- Accelerate industry restructure to reduce the overcapacity
- Develop "Green Ships" (high efficiency with low emission and fuel consumption.
- Push for 80% local content for marine equipment by 2015



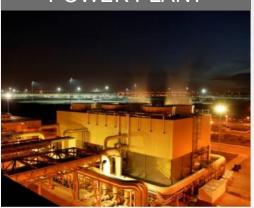


- Largest power production & consumption country
- Overtook US in 2009 as the largest investor in clean tech industries
- Leading position in renewable energy (wind and solar) creates potential for smart power generation



- Develop >1,000 NGDE projects with 50 GW new capacity by 2020
- Increase Gas-fired from 3.9% to 8.3%
- Construct a strong and smart national grid

STRONG GROWTH FROM GAS-FIRED POWER PLANT



- Current installed gas ~36 GW, will reach ~150 GW by 2020
- Gas projects are also driven by provincial, local level and big SOEs
- 1/3 of power in Beijing (38%) coming from gas-fired (3.5GW)
- Jiangsu Province installed 5.3 GW with 8 gas-fired GT and 10 CHP co-gen plants



Wärtsilä Services in China



10

Major Wärtsilä Services workshops in China







Shanghai

Established: 1999

• Location: Tangzhen Shanghai

Main activities:

- Reconditioning
- External Field Services
- In-situ and Afloat repair
- Automation
- Commissioning and Start-ups

Guangzhou

• Established: 1994

• Location: Nansha, Guangzhou

- Field service covering southern China
- Specialized in servicing Woodward governors and ABB/Napier Turbo Chargers
- Workshop reconditioning of entire gensets

Hong Kong

• Established: 1991

- Located in Hong Kong United Dockyards (HUD)
- Supporting visiting vessels, Hong Kong ship owners and ship management companies



Service cooperation with Chinese shipyards



In order to serve customers better, Wärtsilä China entered a cooperation with major shipyards in China.

A team of Wärtsilä experts is permanently stationed there and jointly provide a full range of field services.





Delivery Centre – Thrusters, Seals, Bearings / Wuxi





Delivery Centre - Auxpac 20 & 26 / Shanghai Wärtsilä Qiyao Diesel Company Ltd. (Shanghai) Inaugurated in 2006 Employees: 141 (April 2013) Joint Venture (Wärtsilä 50%, CSIC1 50%) Note: CSIC¹ = China Shipbuilding Industry Corporation

Delivery Centre- Environment & Safety Product / Suzhou

- Inauguration in 1998 (former Hamworthy Suzhou)
- Employee: 103 (April 2013)
- Products: sewage water treatment plants, inert gas systems, control panels





Wärtsilä Yuchai Engine Co., Ltd / Zhuhai

- 50/50 Joint venture owned by Wärtsilä and Yuchai Marine Power Co., Ltd (YCMP), a subsidiary of Guangxi Yuchai Group.
- Location: Zhuhai, Guangdong Province, China
- Products: Wärtsilä 20, Wärtsilä 26, Wärtsilä 32 series of engines and generating sets.
- Total annual capacity(engine): 400
- Total annual capacity(MW): 1,000
- Production area (square meters): 22,616









Wärtsilä China Growth Strategy

- Launch key initiatives to support long term growth
- Strengthen high level customer contacts and external relationships (government, JV partners, etc) to ensure business success.
- Simplify operating model with entrepreneurial driven organization to be more agile and react faster
- Create a strong China organization by introducing best practices, professionalism and high performance culture
- Attract develop and retain the best talents to create highly motivated workforce



Development of partnership in China continues: CWEC, a new 4-stroke engine Joint Venture between CSSC and Wärtsilä

Joining the forces of two major players in marine business sector



- Largest shipbuilding group in China and in the world
- ➤ 10 shipyards covering over 25% of China shipbuilding order book





- Global leader in complete lifecycle power solutions for marine industry
- Market leader in 4s marine engines and gas, DF technologies and solutions, optimized for offshore, LNGC, C&F











CWEC Video







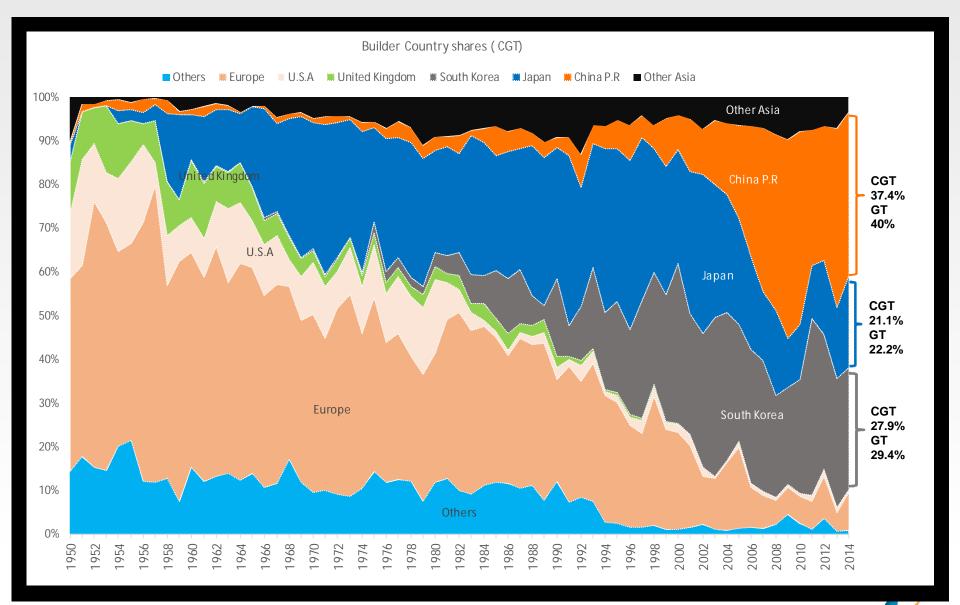
WÄRTSILÄ MARINE SOLUTIONS

Hans Laheij, Area Sales Director, Marine Solution Sales, Middle East and Asia



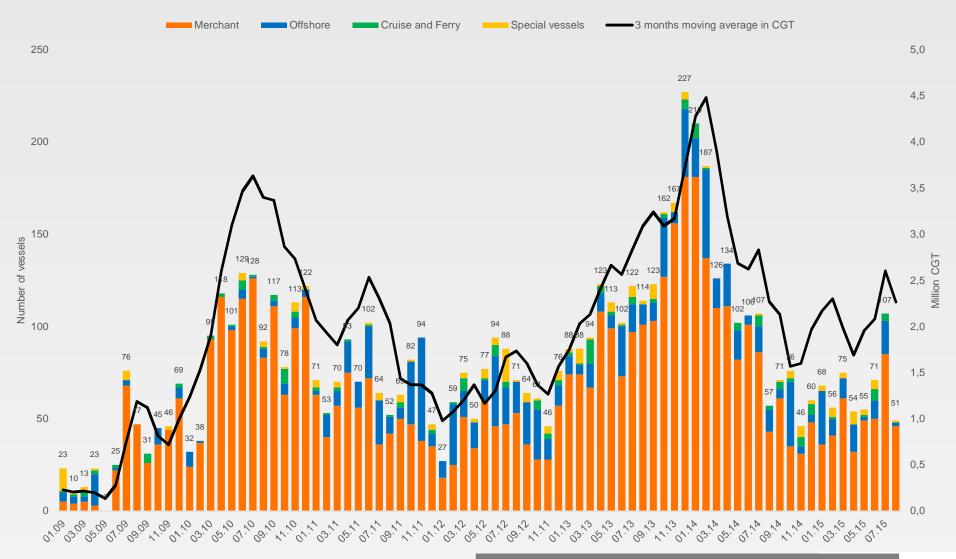


China, South Korea and Japan dominate in the shipbuilding market



Source: Clarksons

Contracting Activity Development – All vessels

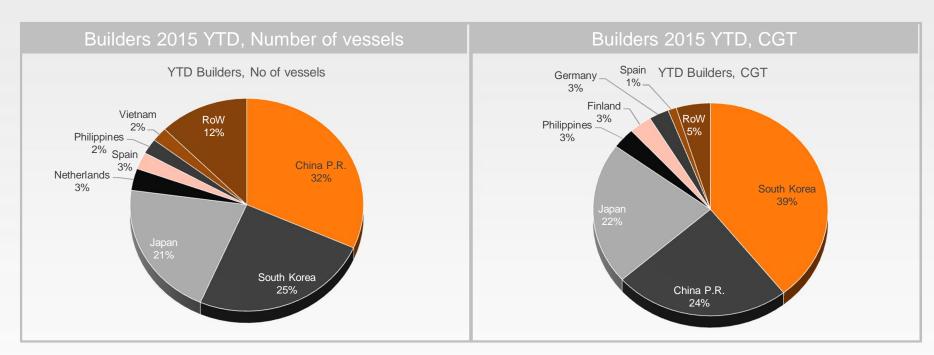


August 2015 contracts: 51 vessels and 1,4 million CGT

Source: Clarksons

Contracting Activity - Builders

2015 total contracting activity = 692 vessels and 19,0 Million CGT



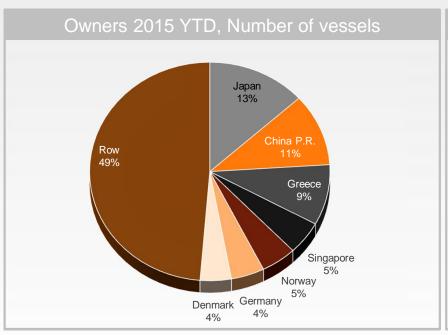
Intensifying competition in China

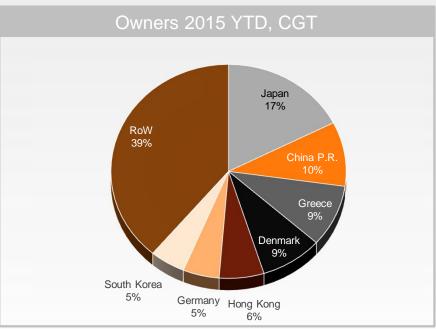
It is becoming increasingly difficult to operate as a private-owned shipyard in China in recent years due to growing competition especially from China's state-owned shipyards, in addition to Japan and South Korea.



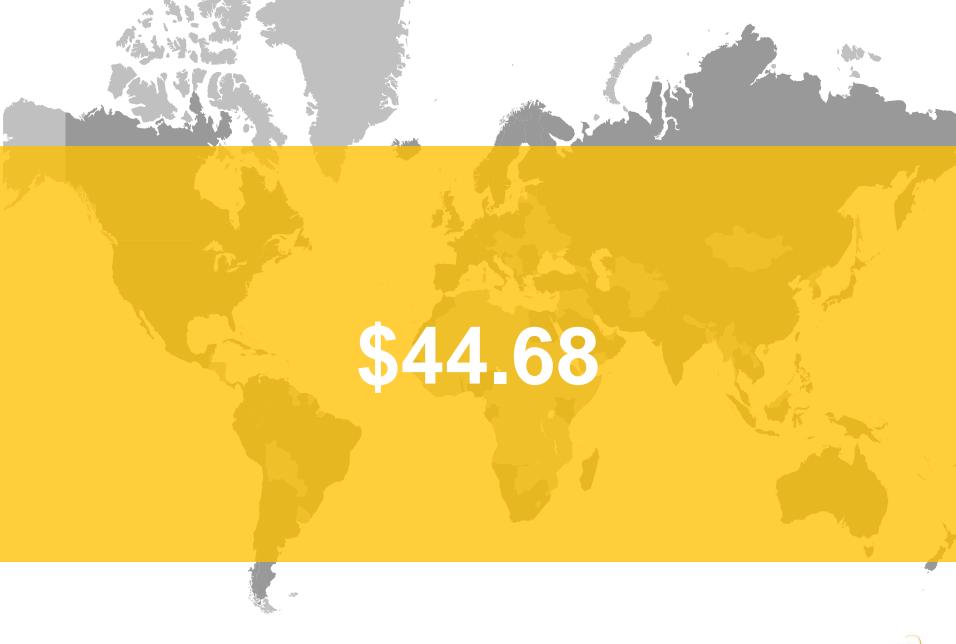
Contracting Activity - Owners

2015 total contracting activity = 692 vessels and 19,0 Million CGT





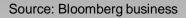






Oil Price Development

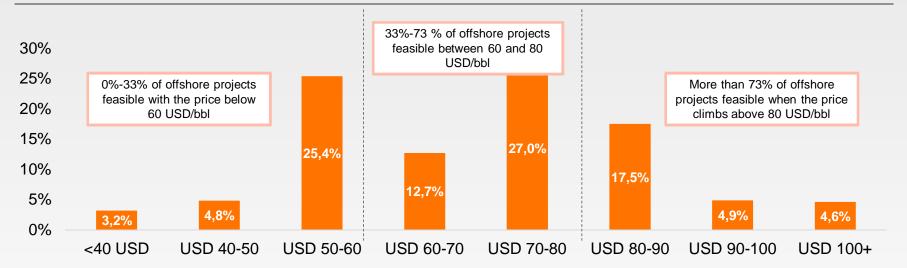




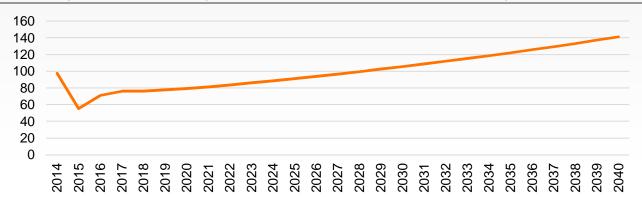


Offshore is Highly Sensitive to Oil Price Development

Break-even oil price for offshore projects (fields not yet in production, Q1 2015)



EIA oil price forecast (North Sea Brent crude, USD/bbl)



EIA predicts the price of Brent crude to stay below 80 USD/bbl until 2021



Examples of significant projects in China



GOTLAND ROPAX Ferry

Full scope on main equipment

Length 200m

LNG powered

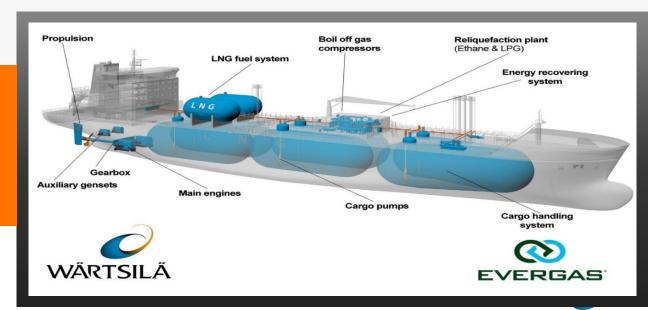
speed 28.5 knots

1650 PAX

1750 Lane m.

Evergas 27'500cbm LEG Carrier

Full SCOPE on main equipment





Wärtsilä Marine Solution's Strategic Goal

Marine Solution's strategic goal

To be recognized as the leading provider of innovative products and integrated solutions in the marine and offshore oil & gas industry.

LEADER IN





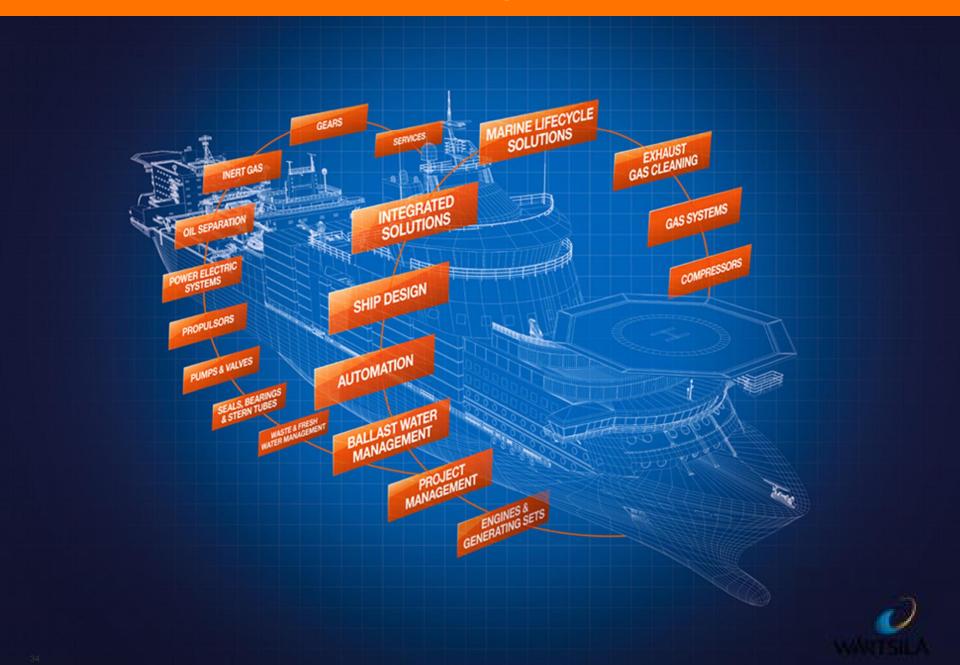


THROUGH OFFERING

- Lifecycle solutions for ship owners and operators
- Integrated solutions for the shipbuilding industry, owners and operators
- The most competitive products and delivery process for the marine industry



The most complete marine offering on earth



A Comprehensive Product Portfolio



Automation



Ballast water management



Compressors



Engines & generating sets



Exhaust gas cleaning



Gas systems



Gears



Inert gas



Oil separation



Power electric systems



Propulsors



Pumps & valves



Seals, bearings & stern tubes



Waste & fresh water management



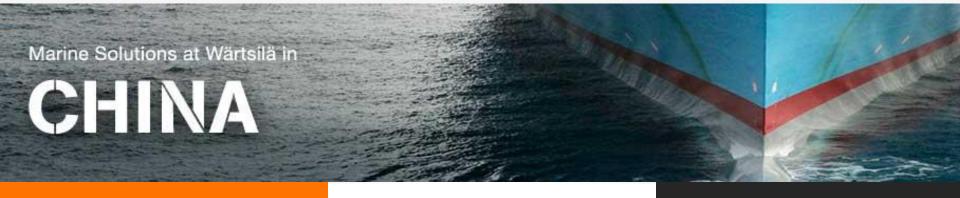
Ship design services

Zav.№ PAAE 072636

Wärtsilä Marine Solutions in China



Wärtsilä Marine Solutions has been growing fast in China. In order to further grow it is important to focus on key differentiators that will ensure Marine Solutions continued success in China.



Our Offering

- Optimized solutions with local capabilities in project engineering and project management
- Standardized products for larger volume markets with lean delivery process through local factories

People

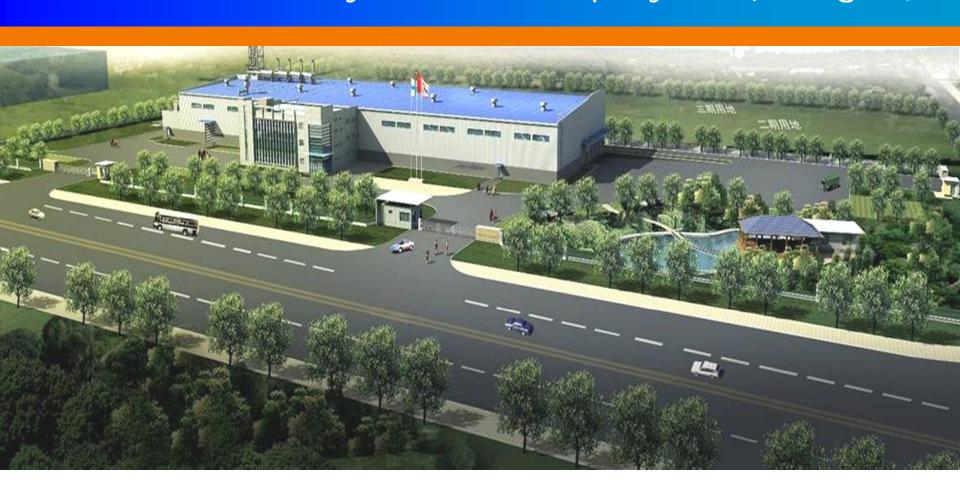
- Entrepreneurial mindset. Make things happen.
- Empower a qualified local organization in order to capture and deliver customer satisfaction towards (Chinese) customers.

Customer communication

- Fast response during delivery process
- Fast engineering documentation
- Local commissioning support and local site supervision
- Easy to deal with



Wärtsil ä Qiyao Diesel Company Ltd. (Shanghai)



Shareholder Information - Wärtsilä & SMDERI / CSIC



- Wärtsilä is a global leader in complete lifecycle power solutions for the marine and energy markets
- Wärtsilä's vision is to be the most valued business partner of all the customers.
- Business segment: Ship Power, Power Plant, Services with the support of an effective and flexile manufacturing structure designed to cope with varying market demand
- In 2014, Wärtsilä's net sales totaled EUR4.779 billion with 17,700 employees
- Wärtsilä has operations in 200 locations in 70 countries around the world.
- Wärtsilä is listed on the NASDAQ OMX Helsinki, Finland.

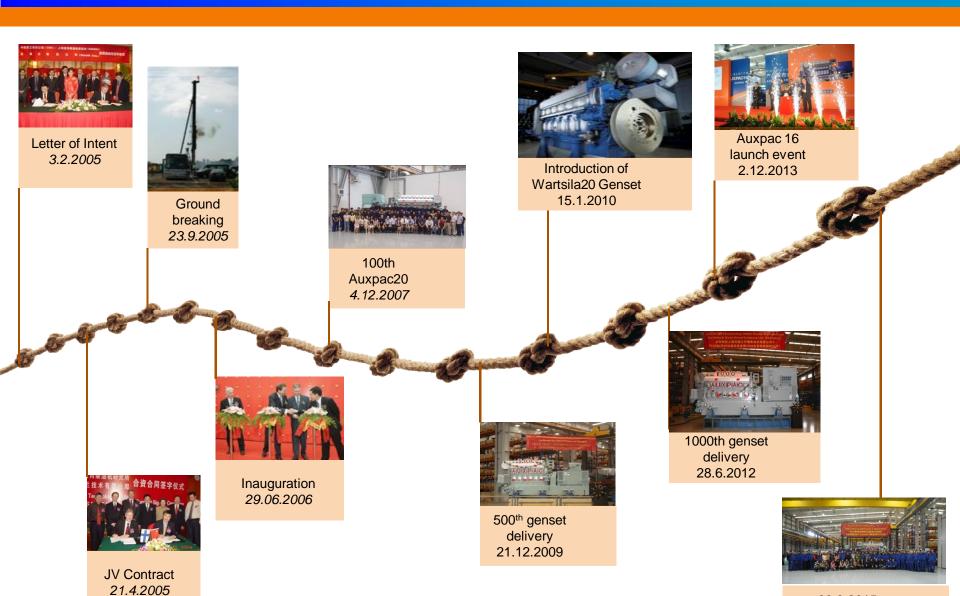






- CSIC (China Shipbuilding Industry Corporation): a state owned enterprise group and one of China's largest shipbuilding and ship repairing groups in China.
- CSIC has 3 listed companies, 28 nonlisted companies and 28 R&D institutes in China, with in total personnel of 150,000.
- 2014 CSIC sales revenue over USD. 32 billion (USD30 billion in 2013).
- SMDERI (Shanghai Marine Diesel Engine Research Institute): a subsidiary of CSIC with roughly 2000 employees, and is the only research institute on marine diesel engine in China.
- SMDERI is specialized in marine diesel engine, power plant, etc. and engaged in R&D, manufacturing, technical service, turnkey project.
- SMDERI's main business activities include diesel engine, special engine, power system solutions, engine-room automation system, thermal engineering and energy service

WQDC Mil estones 2005-2015



30.3.2015 Delivery 1st Auxpac 16

Business Scope

■ The scope of business is to produce, assemble and finish the AUXPAC generating sets and relevant parts and assemblies designed by Wärtsilä, and to sell & commission its own products in China.



Portfolio products:

Wärtsilä Auxpac 20

Wärtsilä Auxpac 26

Wärtsilä 20 genset

Wärtsilä Auxpac 16

Wärtsilä 20 main engine

Business Scope

- The Wärtsilä auxpac range is a pre-engineered generating set
 - WQDC manufactures A16, A20 and A26
- The Wärtsilä 20 "classic" genset is a custom designed generating set often used for special vessels and offshore
- Wärtsilä 20 Main Engine application for customers located in China

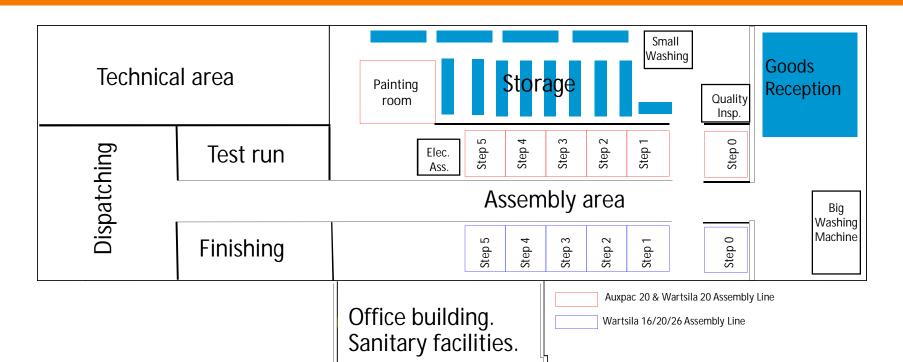
WQDC - State of the art factory

- □Our WQDC assembly & testing factory designed and build according to Wärtsilä best practices
- ☐ Engine assembly takes place by means of "Lean" production lines
- □WQDC has a high level of focus on EHS in all aspects of the factory design and operations
- ☐ Transport of engines in the factory takes place with "air cushions" to minimize lifting for the engines





WQDC Factory Layout

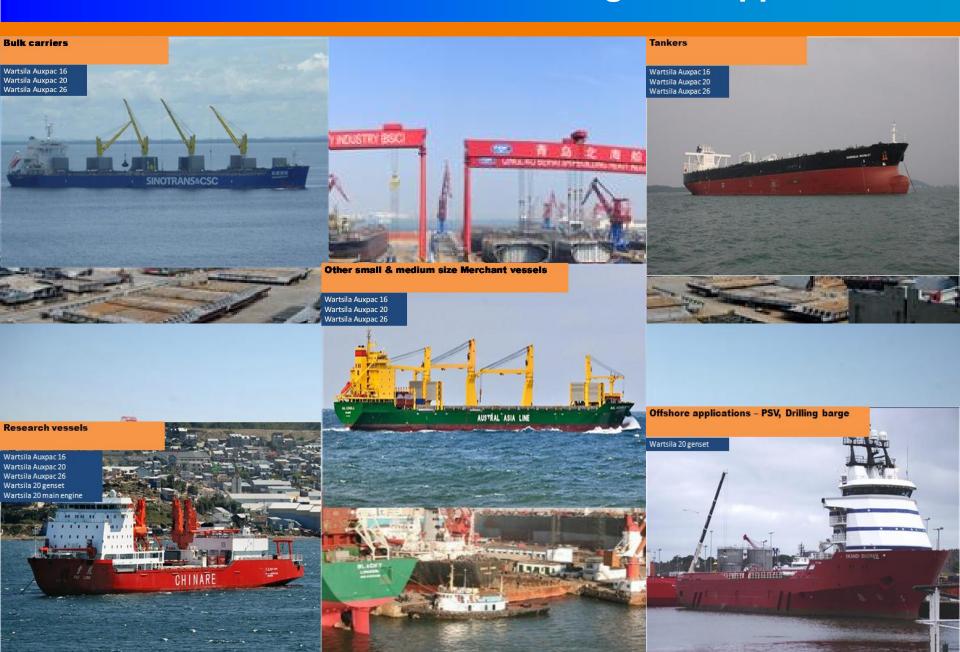




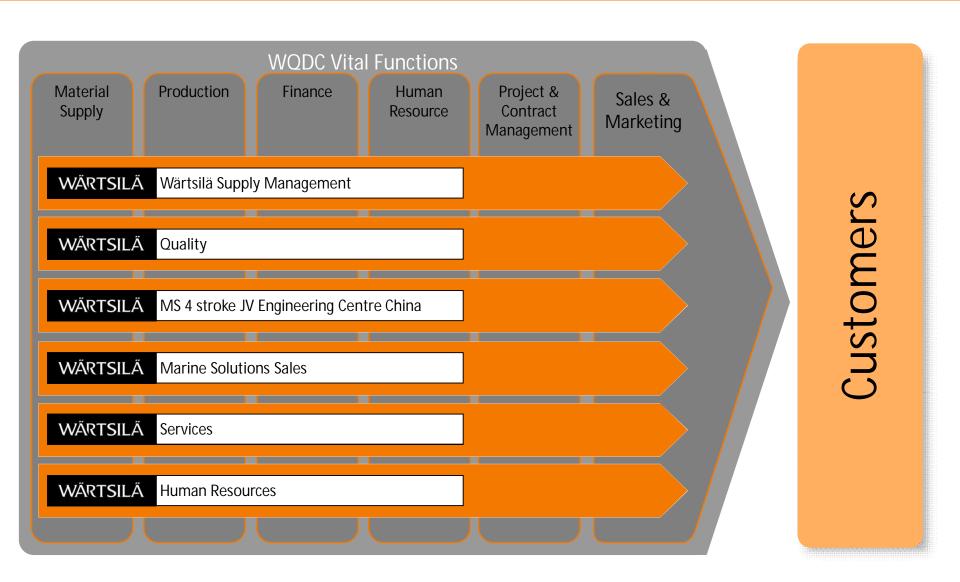
Total construction area: ~9800 m² Workshop: ~8000 m² Office: ~1800 m² Total site area: ~31000 m²



WQDC genset applications



Wärtsil ä's support throughout WQDC operations



Wärtsil ä's support throughout WQDC operations

Wärtsilä Supply Management

Our entire supply base is managed by Wärtsilä. From supplier selection, making frame contracts, supplier quality, supplier development and sourcing of new suppliers

Wärtsilä Quality & EHS Management

Wärtsilä work processes and way of working are fully implemented in WQDC. WQDC uses the QDMS system and participates in Wärtsilä programs such as LEAN, ZIP, safety reviews and other continuous improvement programs

WÄRTSILÄ DESIGN, BRAND & QUALITY

Manufactured by WQDC

Wärtsilä Engineering

Engineering information for each order will be received from Wärtsilä engineering department. WQDC has on site Wärtsilä engineering support to facilitate trouble shooting and quick assistance

Wärtsilä Service

Full support for the lifecycle and operation of the vessel including the warranty obligations will be taken care of by Wärtsilä's global service network. Where ever, when ever!

Quality of the Components in our engines

The engine quality is largely defined by the quality of the components that are assembled together.

The selection of the supplier is done by Wartsila global sourcing as well as the continuous development of these suppliers

In WQDC our engines include approx 65% western brand parts

- •Imported from Europe
- •Western brands that have a factory in China

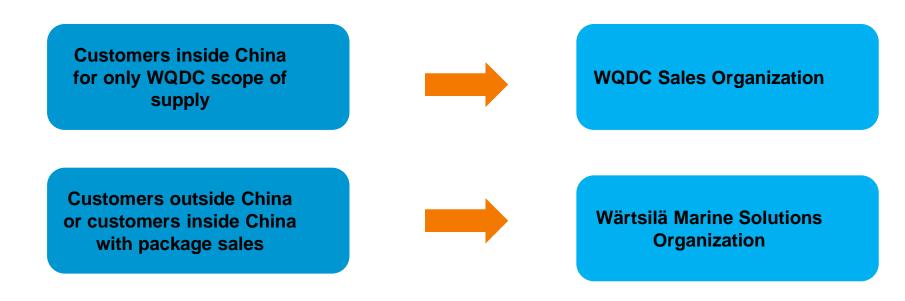


Sal es channel s

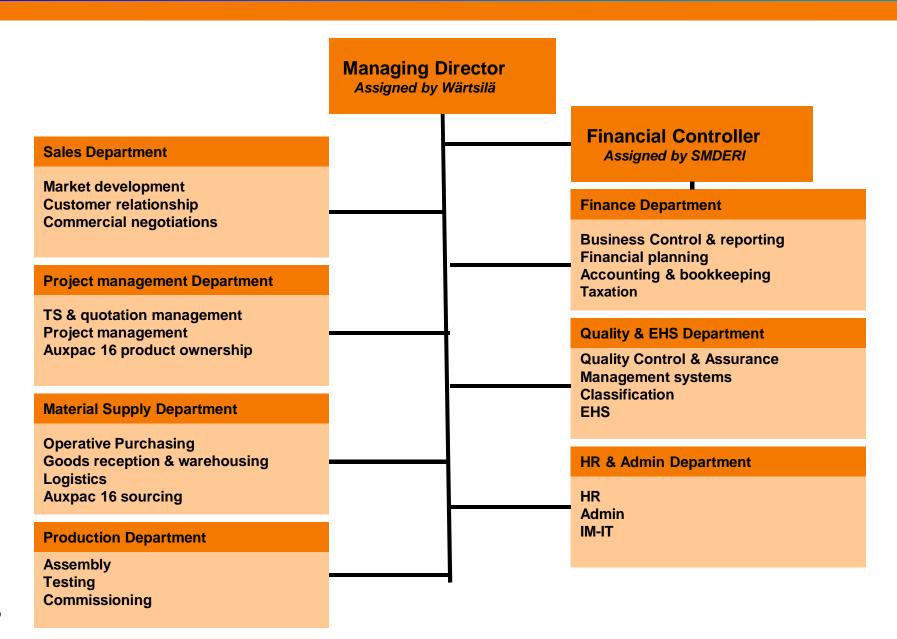
WQDC delivers engines worldwide depending upon customer needs

The majority of our products are delivered in China since most Merchant ships are manufactured in China

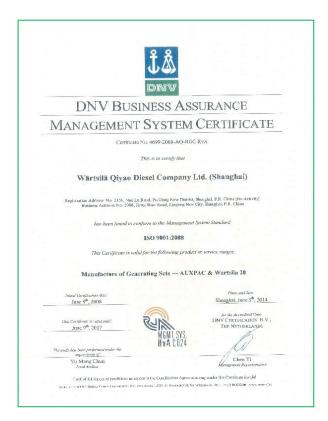
WQDC has 2 sales channels: our own WQDC Sales Team and Wärtsilä Marine Solutions Sales Team



WQDC organisation set-up



Management Systems







QUALITY, DELIVERY & COST - IN THAT ORDER!



Thank you for your attention!

Any questions or comments?



Factory tour

Rules for today's factory tour

- * No PPE's are needed since factory activities are temporarily stopped
- * Please walk through the middle of the factory
- * We will first walk to the goods reception area so that can start our tour by follow the production process

