



Building Gas Carriers in  
China after the Crisis

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Carriers &  
Offshore Units

## Record of Gas Carrier Production in China

- 35 gas carriers with TGE gas plant have been built since 1988 or are under construction
  - Fully pressurized LPG: 2,000 m<sup>3</sup> up to 5,000 m<sup>3</sup>
  - Semi-pressurized LPG: 3,750 m<sup>3</sup> up to 22,000 m<sup>3</sup>
  - Ethylene: 4,200 m<sup>3</sup> up to 22,000 m<sup>3</sup>
- 175 cargo tanks with a total steel weight of > 56,000 tons have been fabricated in cooperation with TGE or are under construction for Chinese and foreign shipyards
  - High yield strength material
  - Low temperature carbon steel
  - Nickel-Steel
  - Stainless Steel

## Record of Gas Carrier Production in China

- Gas carriers with TGE gas plant have been built in China by
  - Jiangnan
  - Shanghai Edwards
  - Hudong-Zhonghua
  - Sinopacific (incl. Zhejiang)for shipowners including
  - Anthony Veder
  - Schulte Group
  - Hartmann
  - Naftomar
  - Navigator
  - Formosa Petrochemical Corp.



## Record of Gas Carrier Production in China

- Only very few newbuilding projects without TGE supplies
  - Some small fully pressurized LPG carriers for domestic trade
  - Four small fully pressurized LPG carriers for Kosan under construction at Kejin shipyard
  - A Norwegian owner has built one Ethylene/Chemical tanker with Wuzhou shipyard. Two more vessels of this type and an unclear number of LNG/Ethylene carriers are to be delivered
  - (Three LNG carriers built at Hudong)



## Recent Developments

- Prior to the financial crisis
  - CSSC was reluctant to quote for any gas carrier except for repeats of already built ships – booming market for other types of vessels
  - many newcomer yards showed interest in the gas tanker market, but often lacking technical capabilities or financial strength (refund guarantees)
- After financial crisis
  - Government is heavily supporting the shipbuilding industry (mainly state owned yards)
  - Newcomer yards may hardly attract owners when competing with experienced yards, which are now also hungry for orders

## Recent Developments

- Jiangnan Shipyard
  - State owned shipyard (member of CSSC)
  - Longest reference list for gas tankers in China
  - Facilities for very large vessels on Chang Xing Island
  - Recently not aggressively promoting gas tanker business
  - May gain new appetite in gas tanker market after the crisis?



## Recent Developments

- Hundong Shipyard
  - State owned shipyard (member of CSSC)
  - The only Chinese yard with references in LNG carriers
  - Built a series of six ethylene carriers for one owner with gas plant and tanks from TGE at Zhonghua (no other ships in this market segment)
  - Recently not aggressively promoting gas tanker business
  - May gain new appetite in gas tanker market after the crisis?
  - Shanghai Edwards (partly owned by Hudong) disappeared



## Recent Developments

- Sinopacific Shipyard
  - Privately owned shipyard
  - Hired key staff with long personal experience in gas tanker production
  - Entered the semi-pressurized gas tanker market with a series of 16,500 m<sup>3</sup> LPG carriers for Naftomar with TGE cargo system
- Kejin Shipyard
  - Privately owned shipyard
  - Entered the gas tanker market with a series of 3,000 m<sup>3</sup> fully pressurized LPG carriers for Kosan
  - Has been considered by highly reputed owners for a series of Ethylene carriers

## Further Potential Candidates

- Wuzhou: privately owned, some experience with gas carriers
- Dalian/New Dalian: CSIC members, international reputation, but no references in gas tankers
- COSCO Group: listed company; interested in FPSO/FSRU
- Yantai Raffles: listed company (CIMC is share holder); interested in FPSO/FSRU



(from Wuzhou website)



## Conclusion

- References in gas tanker production will be an overwhelming competitive advantage to attract any owner after the crisis
- Jiangnan and Hudong have recently not been aggressive in this market
- Wuzhou's references are limited to unusual contractual schemes with the owner, other owners seem to be sceptical
- Kejin is just gaining experience and has not yet delivered a gas tanker, but may be a candidate
- Sinopacific has delivered ships from their Zhejiang yard and shows a strong commitment to the gas tanker market
- Two candidates for LNG offshore: COSCO, Yantai Raffles



Thank you for your  
kind attention

