

Feb. 28, 2014

Tokyo LNG Tanker Co., Ltd. builds a new type of LNG vessel

Tokyo Gas Co., Ltd.
Tokyo LNG Tanker Co., Ltd.

Tokyo LNG Tanker Co., Ltd. (headquartered in Minato-ku, Tokyo; hereinafter referred to as “Tokyo LNG Tanker”), which is a 100% subsidiary of Tokyo Gas Co., Ltd., has signed today a contract for shipbuilding regarding two LNG vessels (165,000m³ tank capacity) with Japan Marine United Corporation (headquartered in Minato-ku, Tokyo; hereinafter referred to as “JMU”), and has signed a Heads of Agreement regarding the joint ownership and 20-year charter of the vessels one with Mitsui O.S.K. Lines, Ltd. (headquartered in Minato-ku, Tokyo; hereinafter referred to as “MOL”) and the other with Nippon Yusen Kabushiki Kaisha (headquartered in Chiyoda-ku, Tokyo; hereinafter referred to as “NYK”).

Two LNG vessels scheduled to be delivered in 2017 will be employed for transporting LNG mainly from U.S. Cove Point Project. The vessel is designed to transit the expanded Panama Canal. Ship management of the vessels will be done by MOL and NYK respectively, in accordance with the 20-year time charter agreement. When the vessels are delivered, the number of LNG vessels in Tokyo LNG Tanker fleet will become twelve.

The vessels’ containment system is SPB^{*1}, which is a Japanese technology developed by IHI Corporation (headquartered in Koto-ku) and JMU. This containment system enables to maximize utilization of the space inside the hull and free designing of the shape of hull for the best fuel consumption..

The SPB system has been adopted for LNG vessels the first time in 24 years (building year base), and it is the first time for Tokyo LNG Tanker to order LNG vessel with SPB tanks. The vessels will be the world’s largest LNG vessels with SPB tanks.

To comply with the U.S. emission control regulations^{*2} within coastal area of the U.S., the vessels will be equipped with Tri Fuel Diesel Electric^{*3} (TFDE) propulsion system allowing to use low-sulfur oil or gas. The vessels are also designed with world’s lowest boil-off rate^{*4} (0.08%/day), and combination with TFDE propulsion will show excellent fuel consumption and eco-friendly performance.

Tokyo Gas Group will aim to diversify and increase suppliers, and decrease material costs, by owning and operating its LNG vessels proactively.

- *1 Abbreviation of Self-supporting Prismatic-shape IMO type B
- *2 Regulations on emission of sulfur oxides (SOx) in most coastal areas of U.S. within 200 nautical miles offshore
- *3 Propulsion system uses either of low-sulfur oil (light oil), heavy oil, or gas to generate the electric power for electric motors for propulsion.
- *4 Ratio of natural gas that vaporizes during marine transportation.

(Reference 1) LNG vessels owned and maintained by Tokyo LNG Tanker

| | Vessel name | Tank capacity [m ³] | Containment System | Shipbuilding (scheduled) | Ownership of Tokyo LNG Tanker | LNG projects |
|---|--|---------------------------------|--------------------|--------------------------|-------------------------------|--|
| Vessels owned and maintained by the company | LNG Vesta | 127,000 | Moss | Jun. 1994 | 35% | Australia extension Malaysia I, III Darwin Sakhalin II Gorgon Pluto, etc. |
| | Energy Frontier | 147,000 | Moss | Sep. 2003 | 100% | |
| | Energy Advance | 147,000 | Moss | Mar. 2005 | 90% | |
| | Energy Progress | 147,000 | Moss | Nov. 2006 | 0% | |
| | Energy Navigator | 147,000 | Moss | Nov. 2008 | 70% | |
| | Energy Confidence | 155,000 | Moss | May 2009 | 70% | |
| | Energy Horizon | 177,000 | Moss | Sept. 2011 | 10% | |
| | This vessel | 165,000 | SPB | (2017) | 10% | Cove Point, etc. |
| | This vessel | 165,000 | SPB | (2017) | 70% | |
| Vessels chartered to third party | LNG Flora | 127,000 | Moss | Mar. 1993 | 10% | |
| | GDF Suez Neptune (Re-gasification Vessel) | 145,000 | Membrane | Nov. 2009 | 1.5% | |
| | GDF Suez Cape Ann (Re-gasification Vessel) | 145,000 | Membrane | Jun. 2010 | 1.5% | |

* Tank capacity means geometric volume.

(Reference 2) Company Profile of Tokyo LNG Tanker

- (1) Corporate name: Tokyo LNG Tanker Co., Ltd.
- (2) Established: March 5, 1991
- (3) Head Office: 1-5-20 Kaigan, Minato-ku, Tokyo
- (4) President: Tadashi Narushima
- (5) Business contents: Possession and lease of vessels, marine transportation of LNG and LPG, etc.

(6) Capital: 1.2 billion yen

(Reference 3) Particulars of LNG vessel

- (1) Length overall: 299.9m
- (2) Breadth moulded: 48.9m
- (3) Containment system: SPB Tank method
- (4) Tank Capacity: 165,000m³
- (5) Propulsion system: Tri Fuel Diesel Electric
- (6) Service Speed: 19.5 knots
- (7) Delivery: 2017

(Image)

