

REVIEW OF ACTIVITIES
 ship conversion & offshore


In our quest for quality and technological advancements, we achieved a number of successes in ship conversion and offshore projects undertaken during the year.

FPSO Petrobras 37 – Jurong Shipyard delivered Petrobras 37, the world largest floating production-storage-offloading (FPSO) unit to its owner in February 2000.



The conversion project from the 270,000 dwt VLCC Friendship was the most challenging one ever undertaken. Chartered to Petrobras, the unit left the shipyard for deployment to the Marlim Field offshore Brazil.

Estrella Del Mar – Jurong Shipyard also delivered the Estrella Del Mar, a 70MW power barge converted from a bare barge to its owner, Wartsila NSD of Finland. The power barge left the shipyard on July

2000 for deployment as a floating base load power plant in the Dominican Republic.

FSO Petrobras 38 and FPU Petrobras 40

– A double christening ceremony was held in August 2000 to mark the conversion of two Petrobras vessels. One of these, Petrobras 38 was a floating storage off-loading unit with a 1.9 million barrel capacity, converted from VLCC World Eminence. The second vessel, Petrobras 40 was the world's largest floating production unit converted from the largest semi-submersible rig, DB 100. These high-specification projects entailed the use of top quality steel, fibre-glass reinforced material and copper and nickel pipes. Both vessels would be moored permanently in the South Marlim oil field offshore Brazil for 20 years without dry-docking. Petrobras 40 and Petrobras 38 were delivered to their respective owners, Petro Dia 1 and Petro Dia 2, subsidiaries of Mitsubishi Corporation of Japan and were chartered to Brasoil, a subsidiary of Petrobras.



FPSO Sendje Berge – Jurong Shipyard converted a VLCC turbine tanker into a 275,000 dwt FPSO renamed Sendje Berge. This vessel, owned by Bergesen DY Offshore AS of Norway, would provide initial onboard processing capacity of 60,000 bpd with crude oil storage at 2 million capacities. The conversion extended the vessel's life by 15 years including 10 years without dry docking. It allowed for the flexibility of adding production modules of up to 240,000 bpd and other water and gas injection facilities. The vessel was to be chartered to Triton Energy Limited for deployment to the Ceiba oil field development offshore Equatorial Guinea.

While these projects were underway, shipyards within the SembCorp Marine group were active in securing new conversion and offshore projects to ensure a healthy order book for the coming years.

for the re-development of the Nowrooz and Soroosh oil fields in the Northern Persian Gulf.

The second project was for the FPSO conversion of a new hull for Hulliburton West Africa. The project, which would take an estimated 21 months, would be undertaken jointly with Sembawang Marine & Offshore Engineering.

The third project would involve the major upgrading of cruise ship New World Discoverer for owner Discoverer Reederei of Germany. Refit and refurbishment work on the cruise ship would start in March 2001, and scheduled for completion in four months.

Jurong Shipyard was equally successful in securing new projects. In one, the shipyard was awarded a contract to convert the 274,465 dwt VLCC Berge Hus tanker to an FPSO unit with a

Another contract awarded to Jurong Shipyard involved the replacement of the drill floor, cantilever and all major equipment on the drilling package on the jack-up mobile drilling of Trident 9. This project would be undertaken for Transocean Sedco Forex.

Jurong Shipyard was also awarded a contract by Diamond Offshore Drilling. This contract involved major repairs, steel renewal, leg/derrick/tanks blasting and painting, quarters refurbishment and electrical renewal for Ocean Sovereign jack-up mobile drilling unit. Work would be scheduled for completion in June 2001.

Adding to Jurong Shipyard portfolio would be the conversion of a bare barge owned by Wartsila NSD of Finland into the world largest power barge capable of transmitting 148.6MW of electricity directly to the national grid. Scheduled for completion in June 2001, the power barge would be deployed in the Dominican Republic.

Jurong Shipyard under a contract with Kellogg Brown & Root Inc. of U.S.A. would undertake the conversion of a 270,000 dwt. VLCC Stena Continent to an FPSO unit, renamed P-43 for the Barracuda oilfield, offshore Brazil. The FPSO would have the capacity to produce 150,000b/d of oil plus 6 mmcm/d of gas. When completed in the third quarter of 2002, the converted vessel will be towed to Brazil where the process topside modules' integration and commissioning works will commence.

Additionally, a contract was awarded by MODEC, Inc. to Jurong Shipyard for the conversion of a 32,500 dwt former tanker into a FPSO and to be renamed MV8 Langsa Venture. The completed FPSO



	2000	1999	1998
No. of vessels completed	7	6	7
Gross Tonnage (m)	0.38	0.43	0.45
Percentage completion (S\$m)	244	322	168



Sembawang Shipyard was awarded three major conversion projects. The first was for the conversion of the 311,896 dwt VLCC Lanistes to an FSU for Shell Exploration, under a service agreement with the National Iranian Oil Company

production capacity of 170,000 barrels of oil per day. This was the second FPSO conversion undertaken by Jurong Shipyard for Bergesen DY Offshore of Norway and would be scheduled for completion in October 2001.

would be deployed in the Langsa Field in the Straits of Malacca. The conversion is scheduled for completion in September 2001.

PPL Shipyard was awarded a contract for the construction of two jack-up drilling rigs from Santa Fe International Corporation with a construction period of 24 months for each rig. Options for the building of four additional jack-up drilling rigs were also included in the contract.

Also in April 2001, PPL Shipyard received a letter of award from Santa Fe International Corporation for the construction of two Friede & Goldman ExD-designed deepwater semi-

submersible drilling rigs. The award also included options to build two additional drilling rigs.

Construction of the first rig will start in May 2001 and will take about 30 months to complete. Building of the second rig, which is scheduled to commence when the first rig is 18 months into its construction, will be completed in 24 months.