



## Tranter solves Offshore Heat Exchange Challenge

Tranter International AB has solved an important challenge on a floating production, storage and offloading (FPSO) facility, Oyo, located in the Oyo field off the shores of Nigeria and operated by Bumi Armada. Despite the high wax point of the crude and the existence of a number of fixed process parameters, Tranter was able to offer a design solution for the heat exchangers to avoid the scaling which would otherwise have led to fouling and poor performance.

The problem of waxing varies from field to field with the exact nature of the crude and usually the waxing temperature is below 30 degrees. At Oyo it was at the unusually high level of 37 degrees C, but fortunately Tranter was able to employ its specific applications expertise and track record in upstream applications to find an efficient and cost effective solution.



At the detailed engineering stage of the project Tranter

proposed to change the flow from counter-current to co-current with asymmetrical plates to raise the plate temperature from 30.25 degrees C to 37 degrees C so that the equipment will function efficiently and reliably. Asymmetrical plates also provide high shear rates on both sides of the plate heat exchanger to prevent fouling layers from building up.

The heat exchangers are two GX-51 units manufactured from titanium alloy which resists the corrosive effects of the seawater coolant. The project was awarded mid-2008 and the units have just been completed and shipped.

Bumi Armada Berhad (BAB) is principally involved in the provision of marine transportation and support, as well as engineering and maintenance services for companies operating in the oil and gas industry and related petrochemical sectors. It is also growing in FPSO and Transport & Installation, and currently serves clients in South East Asia, Australia and Africa. BAB is the largest owner and operator of offshore support vessels in Malaysia and is an established service partner in the oil and gas industry.