

## **ICB takes its measure of tanks**

**Simplicity, reliability, robustness and cost-effectiveness are the key criteria driving cargo monitoring and control technology. The following articles review the latest developments amongst some leading equipment suppliers**

The current rash of tanker newbuilding activity is benefitting suppliers of cargo-handling equipment, and Ian-Conrad Bergan, Inc of Pensacola, Florida. is no exception.

The manufacturer of tank control and monitoring systems is traditionally strong in the US market, with about 50 per cent of the tank vessels active in the American domestic trades fitted with ICB equipment. However, the company continues to build its global presence, as highlighted by its latest orders which involve the supply of equipment for a series of European coastal tankers on behalf of an oil major.

"In the post-Prestige environment our European customers are ordering a new round of coastal tankers to replace their single-hull tonnage engaged on regional distribution routes," reports Bill Post of Ian-Conrad Bergan. "They are finding that our tank control and monitoring systems are well suited to smaller coastal tankers, and orders from these customers are increasing significantly."

Ian-Conrad Bergan, Inc, also known as Bergan Tank Control, has served the tanker industry since 1975, manufacturing rugged equipment for all sizes of vessel, from inland tank barges up to very large crude oil carriers.

The company's ship portfolio includes cargo tank level gauging, high overfill alarm, ballast tank gauging, draft gauging, temperature monitoring, inert gas pressure monitoring, fuel tank gauging, visual and audible alarms, load computer software, stress and stability software and high-velocity pressure/vacuum valves.

Equipment available for tank barges includes sight glasses, gauge trees, magnetically coupled rising sticks, solar power panels and portable alarm units (PAU).

One of the latest additions to the company's product line, introduced earlier this year, is the ondeck multifunction tank display explosion-proof (MTDE) device. "MTDE is a breakthrough because it allows the safe handling of cargo operations on tankers without the need for a traditional cargo control room," explains Bill Post. "All functions can be handled on deck using this explosion/weather-proof unit."

The company's flagship products are the CargoRadar 250 level gauge and Guard Level overfill protection system. "Both devices are unparalleled in the industry for their simplicity and reliability," states Bill Post. "The CargoRadar sensor has a simple 4-20mA output with only two wires to connect, in contrast to most of the competitive equipment of this type which require 6-8 conductors for sensors."

Such devices are amongst the range of Bergan Tank Control equipment fitted onboard the four new 550 series articulated tug barges (ATBs) built for Marine Transport Corporation (MTC), a Crowley subsidiary. ATBs are a cost-effective means of moving petroleum products in the US coastal trades and the concept has taken hold in recent years. Bergan reports that to date it has secured in excess of 80 per cent of the emerging ATB market.

The MTC 550 series vessels are typical of the ATB design. The configuration marries 9,280 hp tugs with 155,000 barrel (20,000 dwt), double-hull tank barges and the coupler system allows the articulated units to safely navigate bar crossings in up to 7-metre swell conditions. All four units are in service for MTC in the Pacific Northwest.

ATBs have smaller crew complements than conventional tankers, so simple, robust cargo monitoring and control systems which are easy to use are an important consideration when specifying vessel equipment.

The use of Bergan Tank Control equipment is not limited to cargo tanks and the company's customer base is not focused solely on the commercial sector. For example, the US Navy has specified Bergan fuel oil, ballast and auxiliary tank gauging for its entire 16-ship series of new ro-ro vessels (T-AKR), also known as the Bob Hope class . The Navy has also selected CargoRadars and Bergan Tank Control systems for

its upcoming new generation of fleet replenishment/ combat logistics vessels (T-AKE), known as the Lewis and Clark class.

Also, the latest addition to the Bergan product line is not for tankships. With water ingress alarms (WIAs) having recently been mandated by IMO for bulk carriers, Bergan has introduced its Guard Level WIA. Alarm sensors are installed in each cargo hold and are designed to give a pre-alarm when water levels reach 0.5metres and alarm at 2.0 metres.

Quite apart from the hectic pace of tanker newbuilding work, Bergan reports an increased demand for its systems in tanker equipment retrofit projects. "The continuing demand for new tankers and tanker retrofit work, coupled with the retrofits of WIAs on existing bulk carriers bode well for our prospects in 2004," concludes Bill Post.