Tanker vetting in the digital era

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Vetting companies are beginning to use digital data to improve their offering and help their customers better understand risk.

Formed on the web in 2001, Q88 is – along with Clarkson Research Services “Shipping Intelligence Network” (SIN) – probably the longest serving shipping dot.com to remain in continuous operation. Q88 was derived from the original Intertanko Standard Chartering Questionnaire 1988. The aim of the questionnaire was to provide a single document that covered all the information a potential charterer of a tanker would require and help the shipowner operate more efficiently.

Q88 does not inspect ships itself, rather it provides software as a service. In the early days of the internet this was a difficult concept to sell. Fritz Heidenreich’s father, Per Heidenreich, was a
well-known shipowner (Heidmar) and some parties thought that the data they were providing to Q88 was being passed on.

In truth, this has never been the case; Q88 was and remains an independent company. Its initial role was to be a tool for tanker operators to aggregate the information on ship specifications and approvals required by charterers in a format that the charterers required and in the short time frames demanded by the business. “In the tanker business, there are a lot of people needing a lot of information, very quickly,” says Q88’s founder and president Fritz Heidenreich. “Q88 was founded on the principle of making this process as fast and as accurate as possible for the commercial teams and being online 24/7.”

This service grew to include the provision of data on inspections and analytical data to compare vessels within fleets and KPIs across the whole tanker fleet. “There is no such thing as a perfect ship; what owners are driving toward is to have an acceptable ship,” says Mr Heidenreich.

Q88 was clearly doing something right to have survived the shipping dot.com boom of 20 years ago and by way of explanation Mr Heidenreich explains: “We didn’t focus on the bottom-line, we focused on the customer.”
Martin Crawford-Brunt (RightShip): “Nearly 43% of our global vetting activity is on tankers”

Organic growth

RightShip chief executive Martin Crawford-Brunt notes that being a vetting agency operating in both the dry bulk carrier sector and the tanker sector gave the company a unique perspective. “There are some things that we pick up in the vetting of bulk carriers, particularly the large ones, which can be applied to tankers and vice versa,” he says.

This is one aspect of the RightShip operation that is not often recognized – that it vets a lot of tankers. “Nearly 43% of our global vetting activity is on tankers,” explains Mr Crawford-Brunt, “we are vetting crude oil, products, chemical and gas carriers.”

The oil tanker side of the business has grown organically, most noticeably in the last three to four years. “Many of the current oil cargo clients have come from the dry bulk side, who knew we had a good vetting process which could be applied to oil cargoes, too,” says Mr Crawford-Brunt. “We have assembled a team of experts to meet their needs. Over time, we have undertaken more tanker vetting because the industry has asked us to do that.”

One of the driving forces in the growth of tanker vetting for RightShip has been the increase in exports from Houston. “We had a lot of logistics providers in the region supporting the export of hydrocarbons, who asked us to provide vetting in a structured way for their tankers and barges,” notes Mr Crawford-Brunt.

This is one of the reasons RightShip has just opened a larger office in Houston and last year, the company was involved in the first loading of a VLCC in the Houston Ship Channel (Nasiriyah, December 2018). “Through our expert teams we are able to provide marine assurance beyond basic vetting, which supports our clients and facilitates safer trade,” says Mr Crawford-Brunt.

On the commercial vetting side, Infospectrum is probably the best-known global provider of counterparty risk appraisal reports, KYC intelligence and ratings on companies in the maritime and energy/commodity trading sectors. The company has teams of analysts covering all the maritime and commodities industries, spread across eight strategic global locations.
Infospectrum’s chief executive Panos Panousis told *Tanker Shipping & Trade* that the company has a database of reports on over 24,000 individual companies and reviews circa 500 counterparties for its clients every month. He commented that the company is expanding and expects to grow to a team of 50 analysts: “This includes new posts in our Oxford, London, Singapore and Hamburg offices.”

The company is one of the first of its kind to go down the digitalisation route, developing a suite of API-capable digital products that offer best-in-class counterparty risk management, compliance and KYC capabilities.

A study by P&I Club Gard on the results of physical vetting and inspections confirms what many already considered a possibility – that vetting’s may be subject to bias. In a recent study, P&I Club Gard assessed trends or patterns in the correlation between hull claims and the historical navigational behaviour of vessels to determine statistical patterns between the risk factors assigned by the surveyor to a vessel and the frequency of claims.
Risk factors

The study combines historical vessel surveys and any subsequent hull claims with historical AIS data on the behavior of the vessel prior to a claim arising. The trial study looked at claims from MR and LR tankers over five years (2014 to 2018). Gard analyzed the navigation incidents and, using AIS data, looked at the behavior of tankers before any navigation related incidents (collisions, groundings, contact damage and so on) occurred.

The first stage was to analyze the claims data: was there a statistical pattern between the risk factors assigned by the surveyor to a vessel and the frequency of claims?

Gard’s loss prevention manager Asia Kunal Pathak says: “A higher risk factor from the condition survey reports did not result in a higher-than-average level of claims.”

This result is counterintuitive, as one would expect a tanker with a higher risk rating to result in a higher level of claims. One explanation for the lower claims frequency from high-risk vessels is that the surveys are carried out by professional individuals and the assessment is done on fixed factors where surveyors’ biases may affect the end result. Any physical inspection is a relatively subjective process, and this could have resulted in assigning the higher risk.

Gard’s risk assessment team has started to utilize AIS data to assess a number of risk factors. One such assessment is regional – does the trading area of a vessel affect claims? Using the AIS data, Gard looked at the two different regions where the LR and MR tankers were trading. It found that vessels trading regularly to region A had a lower claims frequency to vessels trading in region B. Trading areas made a difference to the vessel’s claims performance and one of the reasons for this could be the PSC regime that the vessel was subject to. According to Gard, this variance in the strength of the PSC needs to be factored into the assessment of the inspections. The regions were kept anonymous.

Gard also looked at speed as an issue in navigation claims. Specifically, the percentage of time a vessel is operating at ‘most common speed’. Most common speed was determined by looking at the operating speeds over the last five years.
“If a vessel traded at more than 60% or more at its most common speed, there was a lower frequency of claims compared to vessels that had been trading at a lower percentage of their most common speed,” said Mr Pathak.

This can be related to vessels trading on ocean voyages and maintaining a consistent speed, compared to coastal trading vessels, where speed variations are a norm.

The analysis also showed that the claims frequency is higher for vessels where the AIS data showed the vessel had exhibited faster accelerations and sudden decelerations. “Speed variations that are introduced steadily give the officers of the watch better control of the vessel and understanding of the situation. Further, it is easier for other vessels observing by sight or by radar to understand the behavior of the vessel compared to vessels that accelerate quickly or slow down suddenly,” said Mr. Pathak.

He noted that this behavior is not something that can be found in the traditional survey system.

Using the AIS data, the Gard study also looked at port operating days, asking: “If a vessel calls at ports more often: how does that affect claims frequency?”

The study found that if a vessel calls at ports once every five days or more, the claims frequency was lower. It was further found that if the vessel calls at the same port more often, the claims frequency diminishes. This is felt to be due to increased familiarity with the currents, port entry procedures and pilots etc. Again, this is not something that is included in the traditional survey.

The risk assessment team is now examining the information derived from the study and separating the high-risk vessels from the low-risk vessels. This approach will complement the Club’s existing approach, where the vessels were selected based on their age or underperformance on their insurance claims.

Mr Pathak says: “We use this information to advise our members of the high-risk behaviour of their vessel as a part of our benchmarking exercise. We give them the information and leave the owners to deal with how they wish to make changes to their policies or procedures. We rely on the owners to change the behavior of the vessel to lower the risk of navigation claims.”