Dry & Liquid Bulk Vessel Safety Risk Ratings – How predictive shipping safety analytics can help your business prevent cargo or chartering risk!

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Over 12 years of marine data expertise helping non-experts, and experts!
with data-solutions for safer Dry & Liquid Bulk vessels

Vessel Safety and Dynamic Risk Ratings

Welcome to our new monthly blog on Dry & Liquid cargo vessel safety risk ratings. First, we need to set the scene for future blogs that will focus on how vessels can be safer, or why they have high risk ratings.

In any vessel safety risk process for companies there is a ‘strain’ between the desire for increased or better information, and the practicality of collecting the information. Most small-to-medium sized companies unfortunately do not have the dedicated resources to safety risk assess vessels alongside their day-to-day jobs.

Marinerating.com’s expertise is in investing heavily in data collection and analysis, but still recognizes there is still significant uncertainty generally using published open source data alone. Throughout the risk rating decision process, marinerating.com strives to ensure data collection is accurate.

Computers and Vessel Databases only give yes/no answers

However, our analysts are very aware vessel databases will only give you a yes/no answer, which any computer algorithm can pick up. What is missing is information that hasn't been listed, or mentioned briefly, or where the truth has been carefully omitted.

When you ask a computer/database or even vessel owner a question you have a yes/no answer, but there may be ‘gaps’ that are not explained. The gaps in data is where the value of an expert analyst to use their experience to locate the ‘knowledge safety gaps’ and fill in the blanks for vessel risk ratings.
This is why marinerating.com’s analysts never jump to conclusions using purely the risk assessment algorithm, without first satisfying decision-making needs using simpler tools, for example their experience and intuition. Maybe the age of the human hasn’t passed yet, and all human still have a lot to offer!

**Dictionary definition of ‘dynamic’, used in Vessel Safety Ratings:** defined as ‘constantly changing or active’. ‘Dynamic’ risk is for marinerating.com the key essential second stage when an Oil & Gas tanker is safety risk rated by IMRRA for its predictive risk rating relative to fleet type average.

<table>
<thead>
<tr>
<th>Vessel</th>
<th>Traffic Light Risk Rating</th>
<th>Risk Rating pre and post incident</th>
<th>Incident</th>
<th>Technical Operator Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASEEM</td>
<td>Green</td>
<td>&lt;32% Risk Rated 07-FEB-18 New Rating 38%</td>
<td>Struck Vessel</td>
<td>&lt;33%</td>
</tr>
<tr>
<td>JANA DESGAGNES</td>
<td>Green</td>
<td>&lt;34% Risk Rated 08AUG-18 New Rating 35%</td>
<td>Stuck heavy ice Cabot Strait</td>
<td>&gt;37%</td>
</tr>
<tr>
<td>NORTH ATLANTIC KAIROS</td>
<td>Amber</td>
<td>&gt;41% Risk Rated 24-NOV-17 New Rating 48%</td>
<td>Fuel spill</td>
<td>&gt;43%</td>
</tr>
<tr>
<td>NS POINT</td>
<td>Green</td>
<td>&lt;33% Risk Rated 31-DEC-18 New Rating 35%</td>
<td>Explosion/fire engine room</td>
<td>&lt;31%</td>
</tr>
</tbody>
</table>

The casualty information table above was featured in marinerating.com’s April’s 2019 newsletter courtesy of fleetmon.com. The table demonstrates how dynamic risk information relating to incidents will instantly increase marinerating.com’s vessel’s safety risk ratings.

**Vessel Safety Risk Ratings Dynamically Should Change Immediately as the Facts Change:**

The table shows how the risk rating is adjusted when a casualty incident happens, this is the dynamic risk rating. For Charterers and Port Authorities it is important to be aware of the latest casualty information as this could possibly adversely affect the vessel’s operating performance.

It is worth pointing out companies should also look at the Technical Managers/Operator’s risk profile, and comparing to the vessel risk for the bigger risk picture. Other vessels within the Technical Managers/Operator’s fleet may have a significantly higher risk rating, giving companies insight into the general management of all its vessels, and the option of deciding not to work with that operator.

The importance of the operator’s fleet risk rating alongside the vessel’s risk rating to your business will be covered in a future blog.
**The Value of Predictive Analytics for Vessel Safety Risk Assessment** is a mighty tool for vessel safety.

Vessel safety regulations are inherently risk based, and Technical Managers/Operators should conduct internal risk assessments to satisfy the shipping regulations such as ISM, Port State Control etc., to prevent any costly PSC arrest or casualty delays for their clients.

IMRRA specializes in analyzing the performance of both the vessel, and the technical manager/operator, in implementing all the safety regulations. Failure to do so can increase a company’s exposure to sub-standard shipping and the related challenges. Again, finding the knowledge gaps in this area is a time-consuming exercise that smaller organizations are not always able to prioritize.

**Example Dynamic Risk Information** that should collected by all commercial vessel safety experts could include some or all the following – the potential data to be collected is numerous, some key points are listed below:

- Casualties & Incidents
- Crew proficiency
- Inspection reports
- PSC data
- Safety inspections & Industry databases
- Self-test audit reports - TMSA
- Terminals feedback - where we make a phone call for direct feedback

**Predictive Analytics, do They Really Work? Yes!** Read on for an IMRRA Success Story!

**Suezmax tanker TOUR 2**, a ‘Red’ risk rated vessel in the News.

The TOUR 2 was ‘Red’ risk rated at 54% (04-DEC-18), fleet type average risk rating was 35%, when the Indian Suezmax tanker TOUR 2 covertly delivered Iranian oil to Syria and ran aground. (Source Fleetmon Newsroom Daily Digest 11 April 2019).

IMRRA’s predictive analytics, gave our client the confidence to avoid engaging with a potentially disastrous commercial relationship, thus saving our client’s business reputation. There was something seriously wrong with the vessel’s operating and operator history resulting in a ‘Red’.

The vessel’s risk rating has since been increased to 60% (Red), updated 11 April 2019.

In summary: Computer predictive algorithms are excellent for predictive risk ratings. But, human insight is also required to find out the hidden or withheld answers for vessel safety for the shipping sector.

You are welcome to contact me directly to discuss any of the points raised above.

Regards,

Wayne Hurley
Head of Business Development