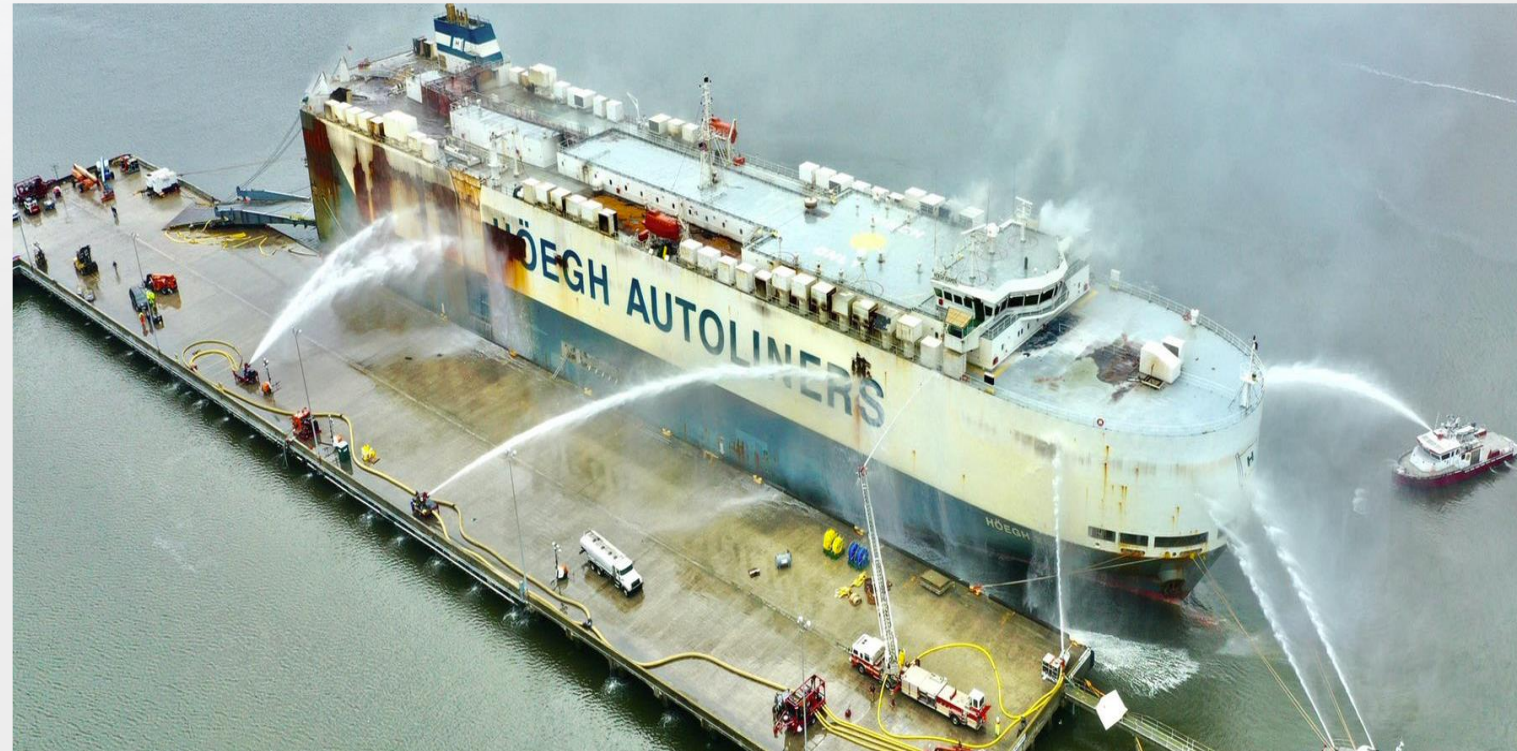


# Marine Insurance Day 2023

Capt. Rahul Khanna  
Global Head Marine Risk Consulting, Allianz Commercial,  
Allianz Risk Consulting

# Rising incidents of **Fires** on board Ro-Ro VsIs

- **13** Ro-Ro/car carrier fire incidents in 2022 alone, highest in the last decade
- **35** Fire incidents between 2005-2015 on Ro-Ro decks
- Catastrophic consequences of such fires if not controlled early
- Used ICE and Electric Vehicles and electrical systems failure major causes
- **37** total losses on Ro-Ros in past 10 years (All causes including fire)



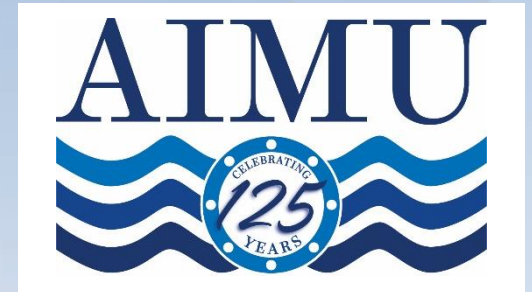
# Notable Fires on board Ro-Ro/ Car Carriers in the past 5 years

- Fremantle Highway Jul 2023
- Grande Costa D’Aворio Jul 2023
- Felicity Ace Feb 2022
- Hoegh Xiamen Jun 2020
- Grande Europe May 2019
- Grande America Mar 2019
- Sincerity Ace Dec 2018



# Li-Ion Batteries- What we know

- Li-Ion Battery fires are almost impossible to extinguish if a Thermal Runaway occurs
- Damaged vehicles require special attention as they are a much higher risk
- Li-ion battery fires can be self-sufficient and continue to burn without access to additional oxygen, they may also continue to generate high amounts of heat following fire-extinction and are at risk of re-ignition.
- Above fires require specialist measures to control the spread of fire and to extinguish
- CO<sub>2</sub> is unlikely to extinguish a Li-Ion battery fire
- Modern Li-ion batteries in EVs have Battery management systems which could reduce the risk of Thermal runaways



# RO/RO VESSELS AND ELECTRIC VEHICLES – WHAT TO DO ABOUT FIRES?!

**Mark Engel** (Moderator)

Corporate Vice President, Marine & Energy

RB Jones

**Tony Cowie**

Senior Vice President, Head of Ocean Marine

Americas, Global Specialty

Swiss Re American Corp.

**Molly McCafferty**

Senior Vice President, Co-Global

Claims Director

Shipowners Claims Bureau, Inc

**Capt. Rahul Khanna**

Global Head Marine Risk Consulting,

Allianz Commercial,

Allianz Risk Consulting

Q&A

