



## Automotive Industry Alert: Burning Felicity Ace Could be a Half-Billion Dollar Disaster

The giant car-carrying Felicity Ace began to burn last Wednesday, and its crew safely abandoned ship the same day. Based on Thursday's initial reports (which indicated the entire crew had abandoned ship and that the vessel was still burning), we estimated impending losses while presuming some salvage was possible.

Today, given the additional information on the ship and the vehicles aboard, we are issuing a revised estimate and noting serious environmental risks. Our revised estimate for the lost cargo is \$334.6M. The lost Porsche vehicles alone, which we assume are 1,100 vehicles including many customized high-end models, would exceed \$140 million. We further anticipate salvage costs in excess of \$150M.

Similar disasters in the recent past suggests total losses for this incident may not be realized for a year or more and could be far above the value of the lost cargo.

### Value of Lost Cars

Our original estimate, done within 24 hours of the ship being abandoned, was that the lost cargo of approximately 3,960 vehicles would amount to \$255 million or more. This estimate was increased to \$282 when the fire continued to burn after 48 hours but still assumed some share of the vehicles could be salvaged and sold.

Given that the ship continues to burn, no crew is onboard, and suspected lithium fires have been confirmed, we now estimate that nearly all of the vehicles are irreparably damaged and will not be saleable in the US market. We note that these vehicles have experienced fire, smoke, and water damage, and they risk being submerged in salt water, as well. Today's report that the fires are ebbing included the telling explanation that there was probably little combustible material left to burn.

### Environmental Risk and Electric Vehicle Batteries

We now know that the lithium batteries in the electric vehicles on board caught fire. Lithium fires cannot be extinguished by normal methods, and its presence aboard the ship exacerbates environmental and safety risks.

A serious environmental problem will unfold in the Atlantic Ocean over the coming weeks.

This incident underscores another safety warning about electric vehicles. EVs rely on very large batteries with unusual fire risks. The Felicity Ace, built in 2005, undoubtedly carried fire suppression equipment in the cargo hold. Nonetheless, reports from the scene indicate that smoke from the burning vehicles overwhelmed the crew's ability to suppress the fire, resulting in the ship's rapid abandonment. The below excerpt from an *Automotive News* interview illustrates the situation.

We do not yet know whether the EV batteries caused the fire, or if they were ignited with the rest of the ship. In either case, the dire situation demonstrates a need to make potentially expensive safety investments to handle a future of extensive EV deliveries.

### Past Disasters and Ship Losses

Major ship and offshore rig disasters in the past, including the Deepwater Horizon in 2010, Exxon Valdez in 1989, and the Torrey Canyon in 1967, resulted in serious environmental consequences. The *Felicity Ace* episode carries the same risk.

Even without lithium batteries, a recent shipping mishap shows the potential cost of the unfolding Felicity Ace incident. According to the 2021 Allianz *Shipping and Safety Review*:

The wreck removal of the large car carrier, **Golden Ray**, which capsized outside the US port of Brunswick with more than 4,000 vehicles on it in 2019, has taken well over a year and cost insurers several hundreds of millions of dollars. The complex salvage operation, which has required the vessel to be cut into sections in situ, has been plagued by delays from Covid-19 infections, winter weather, fires and chain link failures.

A video of the hull being cut into pieces in October 2021, over two years after it capsized, is here:

<https://www.youtube.com/watch?v=5Q0Z6ZHxj8c>

The Golden Ray salvage cost was huge. The initial NTSB report on the incident included an estimated “cost” of \$142 million for the cargo and \$62.5 million for the ship. However, an insurance estimate as the two-year salvage operation was nearing completion put the total cost at \$842 million. Much of this was caused by the expensive salvage operation and efforts to contain environmental damage.

A Lloyds of London review of salvage costs from several years ago indicated the costs of salvaging large vessels were spiraling upward. This suggests we should allow at least \$150M for what will be a complex and dangerous operation to salvage the Felicity Ace.

#### [Summary: An Unfolding Half-Billion Dollar Disaster](#)

Putting these new facts together with the benefit of hindsight reveals that early estimates of the loss, from unspecified insurance sources, far underestimated likely damages. The enormous expenses will be borne by the manufacturers, the shipping company, insurers, and potentially taxpayers from the countries salvaging the vessel and fighting the environmental damage.

Assuming a cargo loss of \$334.6 million and a salvage cost of \$150M (less than half that of the Golden Ray), the potential cost for the Felicity Ace approaches \$500 million. This loss will largely be borne by the manufacturers, partially offset by insurance. Additional losses will be borne by US automobile dealers, many of whom are now in the unhappy position of informing customers that the vehicles they ordered are now on a burning ship. With inventories so tight, especially for Porsche vehicles, dealers have extremely limited options for offering substitute models.

Further losses will be incurred when the port workers in Davisville, Rhode Island suffer some lost wages. Offsetting this somewhat are the salvage operators, who will see a significant work increase if we are to minimize environmental damage.

#### [About this Estimate](#)

The Anderson Economic Group estimate was based on the reported number of vehicles on board as confirmed by the manufacturer; our analysis of sales by different makes in 2021, using data from the Auto News data center; invoice prices for representative models for each manufacturer obtained from a variety of sources; inventory levels for different manufacturers. Additional sources included an analysis of costs of salvage compiled by Lloyd’s of London, a report on shipping losses from Allianz, the NTSB report on the Golden Ray, and reports from *Automotive News* and other sources on the ongoing damage to the ship.

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Attachment (from Automotive News): <https://www.autonews.com/retail/fire-dies-down-ship-carrying-luxury-cars-little-left-burn>

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