August 27, 2026 MIR-26-29

Engine Room Fire aboard Chemical Tanker *Scot Stuttgart*

On May 17, 2025, about 0429 local time, while the chemical tanker *Scot Stuttgart* was moored at Puerto Nuevo Terminals, in San Juan, Puerto Rico, a fire broke out in one of the vessel's two engine rooms (see figure 1 and figure 2).[1] Crewmembers deployed the carbon dioxide fixed fire extinguishing system on two separate occasions, extinguishing the fire. There were no injuries, and no pollution was reported. Damage to the vessel was estimated at $333,525.

Figure 1. *Scot Stuttgart* underway at unknown date. (Source: Nils Junge, Marinetraffic.com)

[1] (a) In this report, all times are Atlantic standard time, and all miles are nautical miles (1.15 statute miles) unless otherwise noted. (b) Visit ntsb.gov to find additional information in the public docket for this NTSB investigation (case no. DCA25FM040). Use the CAROL Query to search investigations.

Casualty Summary

NTSB casualty category	Fire/Explosion
Location	Puerto Nuevo Terminals, San Juan, Puerto Rico 18°26.36′ N, 066°05.27′ W
Date	May 17, 2025
Time	0429 Atlantic standard time (coordinated universal time −4 hrs)
Persons on board	15
Injuries	None
Property damage	$333,525 est.
Environmental damage	None
Weather	Visibility 10 mi, overcast, winds southeast 3 kts, air temperature 78°F, water temperature 82°F, morning twilight 0458, sunrise 0753
Waterway information	Harbor

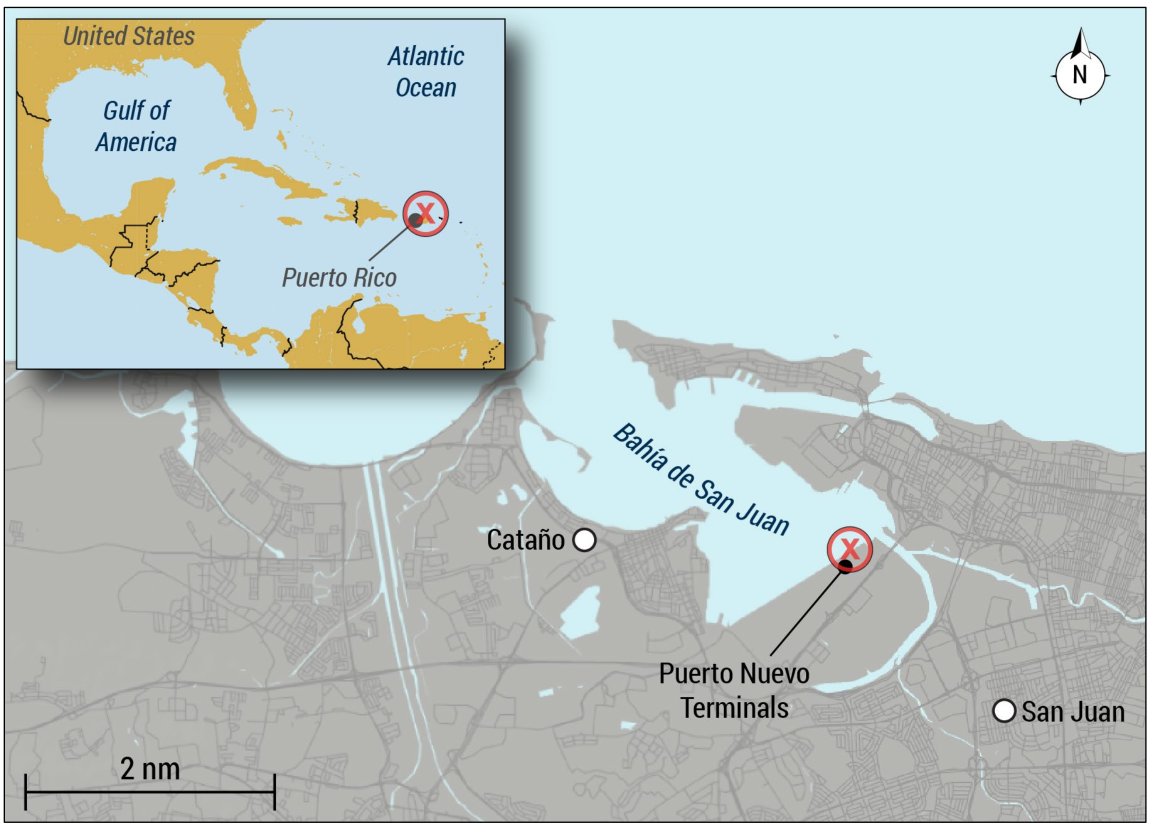


Figure 2. Area where the fire aboard the *Scot Stuttgart* occurred, as indicated by a circled *X*. (Background source: Google Maps)

1 Factual Information

1.1 Background

The 383-foot-long chemical tanker *Scot Stuttgart* was constructed of welded steel and built by Damen Shipyards in Galati, Romania. The vessel was owned by Scot Stuttgart SA and operated by Scot Gemi Işletmeciliği AS, headquartered in Istanbul, Turkey. The vessel had 16 cargo tanks designed for transporting liquid cargo.

The vessel had two independent engine rooms (port and starboard). Each engine room consisted of three levels: the main deck, second deck, and third deck. On the third deck of each engine room was a 2,413-hp (1,800-kilowatt) diesel main engine connected to a reduction gear driving a four-bladed controllable pitch propeller, which provided propulsion for the vessel (see figure 3). A 536-hp (400-kilowatt) bow thruster, driven by an electric motor, assisted with maneuvering. Electrical power for the vessel was provided by:

- two 624-kilowatt shaft generators driven by the main engines, each located within their respective engine rooms;
- two 403-kilowatt auxiliary diesel-driven generators, each located on the main deck within their respective engine rooms; and
- one 403-kilowatt emergency/harbor diesel-driven generator.

Figure 3. Side profile view of the *Scot Stuttgart* showing starboard engine room (port engine room similar). (Background source: Scot Stuttgart SA)

1.2 Event Sequence

On May 15, 2025, about 0930, the *Scot Stuttgart* arrived at Puerto Nuevo Terminals in San Juan, Puerto Rico, and docked starboard side to the pier. There were 15 crewmembers aboard. At 1530, cargo operations began to offload 7,500 metric tons of molasses.

The following day, on May 16, cargo operations were ongoing. The starboard auxiliary generator and emergency generator—operating in harbor mode—were running in parallel; the port auxiliary generator was not running. Maintenance was scheduled for the port auxiliary generator, including cleaning the turbocharger and aftercooler, and completing measurement checks on the valves and injectors.

At 1300, in preparation for the scheduled maintenance, the second engineer completed forms for a lockout/tagout permit, as well as a cold work permit in accordance with the company's safety management system.[2] The lockout/tagout permit listed the auxiliary generator power and power management system as circuits that were to be isolated. The lockout/tagout permit also included a safety checklist requiring personnel to isolate valves and electrical circuits, and to check the vessel's drawings to identify the valves or electrical circuits that were to be isolated. Both safety checklist items were marked as completed on the May 16 permit. The chief engineer authorized the permits.

The second engineer proceeded to perform the planned maintenance on the port auxiliary generator with the assistance of other crewmembers. As part of the maintenance, crewmembers had to remove the aftercooler and fuel return tubing from the generator's diesel engine.

Later that day, additional cargo pumps were started for cargo operations. To meet the increased electrical demand for the pumps, the crew started the vessel's port main engine and its attached shaft generator (by engaging the clutch system independently). Throughout the day, the vessel's fuel oil purifier was operating, taking suction from a diesel fuel oil storage tank and discharging to the diesel fuel oil day (service) tank located in the port engine room (section 1.3.2 describes the diesel fuel oil system).

[2] (a) *Lockout/tagout* is a procedure used to ensure machinery or equipment is safely shut off and cannot be restarted until maintenance or repairs are completed. A lockout physically prevents crewmembers from running machinery or equipment, and a tagout alerts crewmembers that the machinery or equipment should not be used. (b) *Cold work* involves maintenance work that does not produce heat, sparks, or open flames.

Late that evening, about 2230, the second engineer conducted a routine round of the engineering spaces as part of his regular scheduled duties. He found no deficiencies and returned to his stateroom to sleep.

On May 17, at 0429, a fire alarm sounded on the remote alarm panel in the second engineer's stateroom. Alerted by the alarm, the second engineer ran down to the engine control room (ECR) on the main deck and observed thick, white smoke coming in through the open door to the port engine room.

The second officer was on cargo watch in the cargo control room when he heard the fire alarm. The second engineer notified the second officer via radio that there was smoke in the port engine room, and the second officer sounded the general alarm. Meanwhile, from the ECR, the second engineer activated the emergency stop for the port main engine and its shaft generator and stopped the fuel oil pumps and cargo pumps.

The general alarm woke the chief engineer and master, who had been asleep (off watch) in their respective cabins. The chief engineer went down to the engine room, and the master went to the bridge.

The chief engineer and second engineer did a quick sweep of the port engine room, trying to find the source of the smoke. However, they did not see any flames, only thick, white smoke. The chief engineer activated the emergency ventilation stop and the fuel quick-closing valves for the port engine room. He also secured main electrical power to the port engine room (electrical power to the rest of the vessel remained supplied by the starboard auxiliary and emergency/harbor generators). He reported his findings to the master, including that the crew did not observe any flames and only smoke was present in the port engine room.

The master and chief engineer agreed to activate the vessel's carbon dioxide (CO_2) fixed fire extinguishing system to discharge CO_2 into the port engine room (see section 1.3.4 for more information about the fixed fire extinguishing system). The master received a full muster of all crewmembers and ordered all ventilation dampers to be closed in the port engine room. Once he received confirmation of the ventilation closures, the master ordered the chief engineer to release half of the system's CO_2 into the port engine room. The master told investigators that because no flames were seen in the space, he did not want to release all of the system's CO_2. At 0438, the chief engineer manually activated the release of seven (of 14) CO_2 bottles into the port engine room from the CO_2 room.

About 0500, the master called 911 to report the fire and then called representatives from the vessel's operating company and the ship's agent to inform them of the situation. Local firefighters from San Juan Central Fire Department were dispatched to the *Scot Stuttgart*. While awaiting the arrival of the local fire department, the master ordered the ship's crew to set up boundary cooling of the port engine room using vessel fire hoses pressurized by the ship's fire pump. The master called US Coast Guard Sector San Juan via cell phone and briefed watchstanders on the situation.

At 0520, the local fire department arrived on scene. The master informed the fire department's on-scene commander of the situation, explaining the location of the fire, all isolations, and the CO_2 release in the port engine room. The ship's crew used infrared thermometers to detect heat outside the port engine room and reported that there were no elevated readings.

At 0541, the on-scene commander requested permission from the master for local firefighters to enter the space. The master authorized the local firefighters to enter the space, accompanied by a ship's crewmember wearing a self-contained breathing apparatus. Upon entering the smoke-filled space, the local firefighters found diesel fuel oil on the main deck of the port engine room and around the auxiliary diesel generator. They reported temperatures of 580°F near the auxiliary diesel generator.

The local firefighters received permission from the master to extract the smoke from the space to improve visibility. At 0620, the ship's crew and local firefighters set up portable smoke-extracting fans in the port engine room and started extracting the smoke. According to the master, while the extracting fans were running, the smoke in the port engine room grew to thick, black smoke. The master then ordered the crew to remove the extractor fans, vacate the space, and close the door to the port engine room. After confirming all were out of the space and the engine room was sealed, the master ordered the chief engineer to release the remaining seven CO_2 bottles into the port engine room. At 0658, the chief engineer released the remaining CO_2.

Following the second release of CO_2, the master requested that the local firefighters and ship's crew wait at least 50 minutes before attempting to re-enter the space. About 0745, a fire team consisting of two local firefighters and the chief engineer entered the space to look for any remaining areas of fire. The chief engineer discharged portable CO_2 and foam extinguishers on several hotspots. The fire team exited the port engine room and sealed the door. The local fire department responders departed the vessel about 1000. The port engine room remained sealed for the next 24 hours.

1.3 Additional Information

1.3.1 Damage

After the fire, National Transportation Safety Board (NTSB) and Coast Guard investigators, a local fire investigator from the Puerto Rico Fire Department's Office of the Fire Marshal, and accident investigators from the vessel's operating company examined the damage in the port engine room. Damage from fire, heat, and smoke was present throughout the main deck and second deck.

The damage was particularly extensive around the port auxiliary diesel generator and the areas directly aft and below the auxiliary generator containment skid on the main deck (see figure 4).[3] On the second deck, the area below the containment skid contained the start air compressor, start air compressor control panel, and exhaust gas economizer with thermal oil piping—used for liquid cargo heating—which was in operation at the time of the fire. The economizer's thermal oil circulated at temperatures about 356–392°F. Outside these areas, the port main switchboard, several electrical cabinets, electrical cabling, piping, smoke and flame detectors, surrounding lighting, and framework were also damaged by the smoke and heat from the fire.

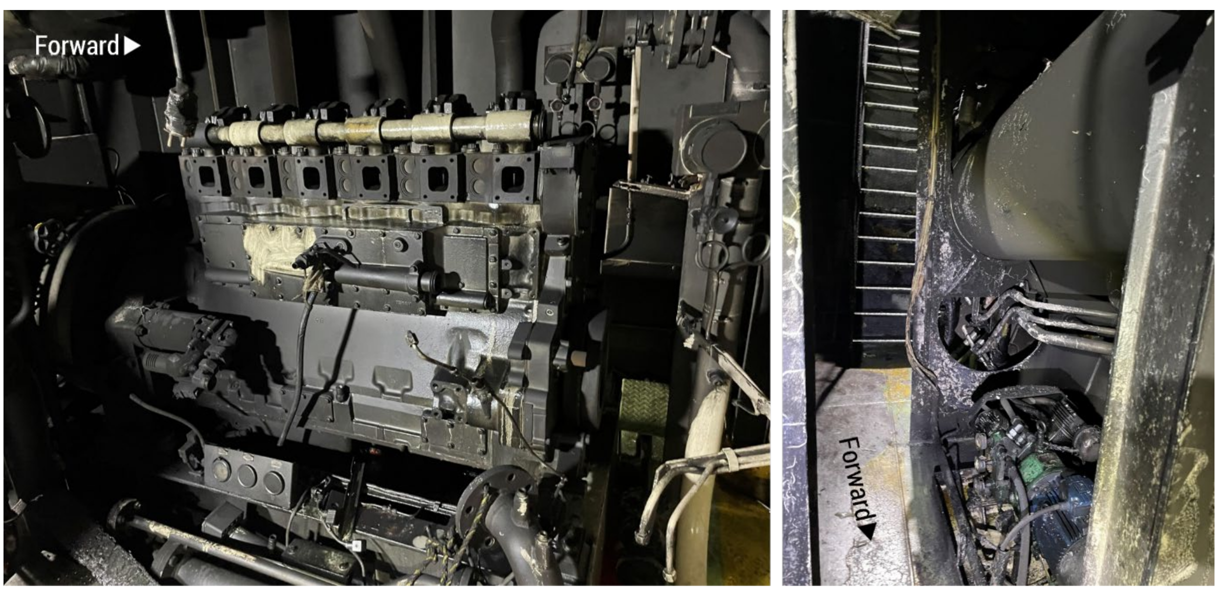


Figure 4. *Left to right*: Inboard side of port auxiliary diesel generator skid and second deck area below generator, showing the port main engine start air compressor.

[3] A *containment skid* is used to contain any spilled fluids. On the *Scot Stuttgart*, the containment skid for each auxiliary generator surrounded the equipment below the engine.

On the second deck, investigators found extensive fire damage to the electrical control cabinet for the port main engine start air compressor and surrounding wiring and piping. The exterior of the steel electrical cabinet exhibited extensive thermal damage, and some of the internal metal and plastic electrical components had melted (see figure 5). The associated feeder breaker for the port start air compressor control panel—located in the emergency generator room—was found in the tripped position. (The panel was electrically fed by the 400-volt emergency switchboard, which remained powered during the casualty.)

Figure 5. *Left to right*: Exterior and interior of port main engine start air control panel after the fire.

1.3.2 Port Engine Room Diesel Fuel Oil System

The *Scot Stuttgart's* port engine room was outfitted with one diesel fuel oil day tank and one diesel fuel oil storage tank. The day tank was 3.7 cubic meters (977.4 gallons), and the storage tank was 49.9 cubic meters (13,182.2 gallons). The port diesel fuel oil day tank was located on the main deck level of the port engine room.

The starboard engine room also had a diesel fuel oil day tank and a diesel fuel oil storage tank. The day tank was 3.8 cubic meters (1,003.9 gallons), while the storage tank was 47.9 cubic meters (12,653.8 gallons). The starboard day tank was located on the main deck of the starboard engine room.

When operating on diesel fuel oil, the vessel's port main engine and port auxiliary generator engine would take suction from the port day tank. In order to maintain a sufficient fuel level in the day tanks, the vessel's diesel oil purifier took suction from one of the diesel fuel storage tanks at a rate of about 320 liters per hour (about 85 gallons per hour) and discharged to fill either the port or starboard day tank. Once the day tank was filled via the purifier, the excess fuel exited the top of the tank through "overflow" piping and flowed back to its respective storage tank.

The port auxiliary diesel generator had an attached fuel pump, which took suction from the port day tank and provided the necessary fuel pressure for the generator engine to operate. The diesel generator engine was designed with fuel return piping via a flexible hose connection, which provided a path back into the top of the diesel fuel oil day tank for unburned, excess fuel that had not been consumed by the generator engine (see figure 6). The port auxiliary diesel generator containment skid, located below the engine on the deck, surrounded the equipment to contain any spilled fluids.

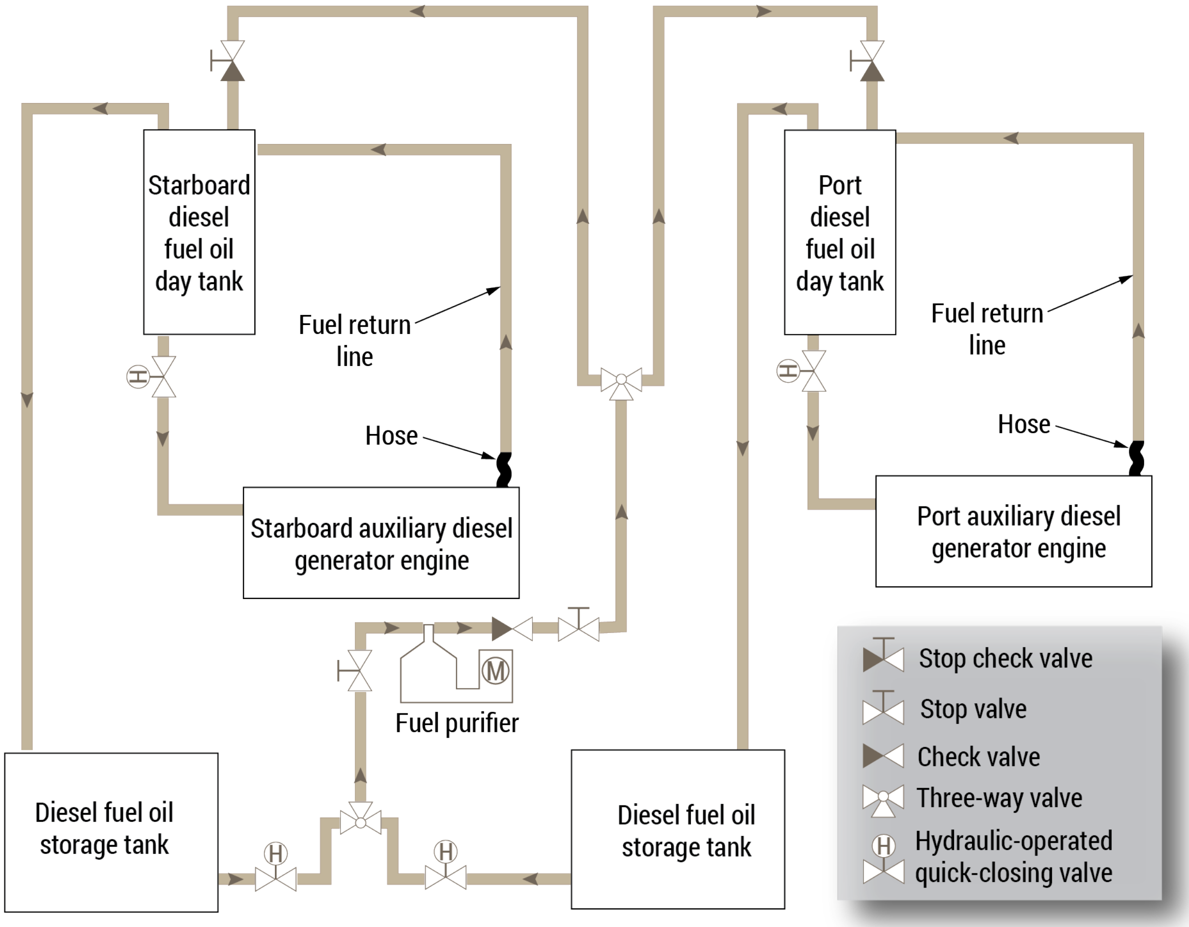
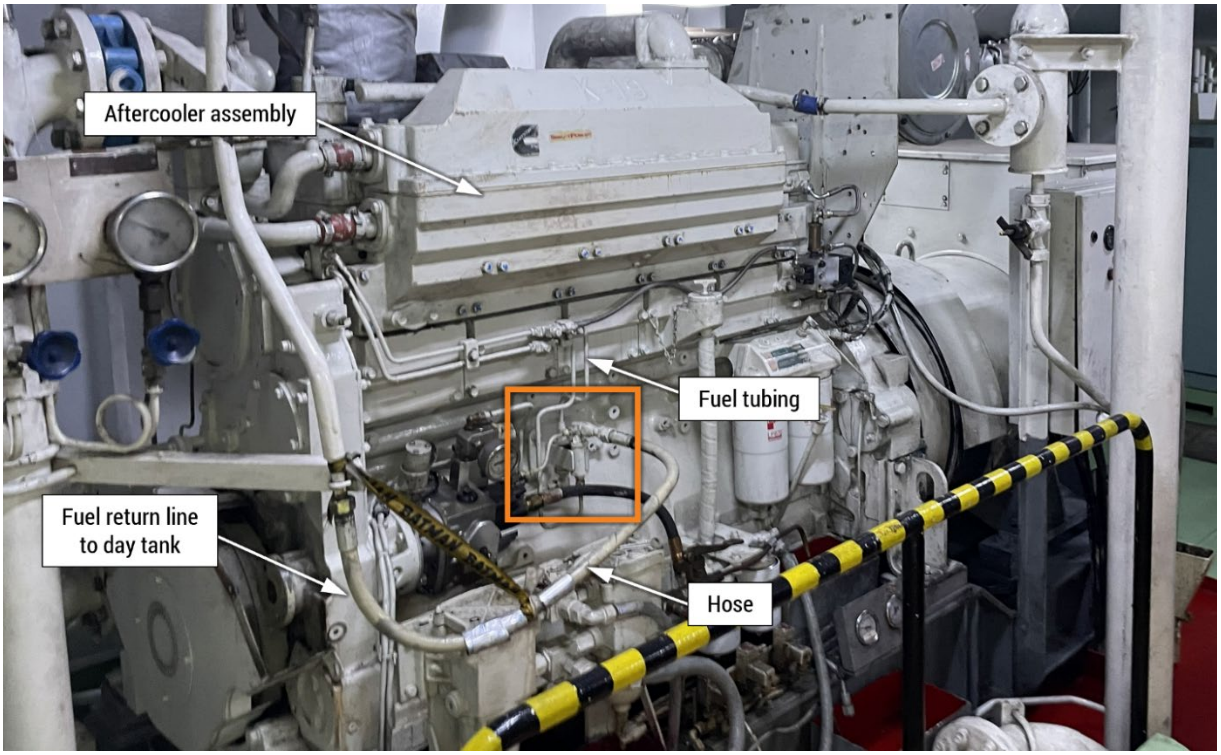


Figure 6. Simplified diesel oil piping drawing showing flow of diesel oil through port and starboard auxiliary diesel engines. (Main engines and tank vents not shown.)

1.3.3 Postcasualty Investigation

While examining the vessel damage after the fire, investigators found the port auxiliary diesel engine exhaust manifold and turbocharger had been removed from the inboard side. On the outboard side of the engine, a portion of the diesel oil supply line was found disconnected with its associated isolation valve closed. Steel tubing that was part of the diesel fuel oil return line and injector pressure line had been removed. Residual diesel fuel oil was found dripping from an open port where the return tubing had been disconnected for maintenance (see figure 7). The engine's aftercooler assembly was also removed.



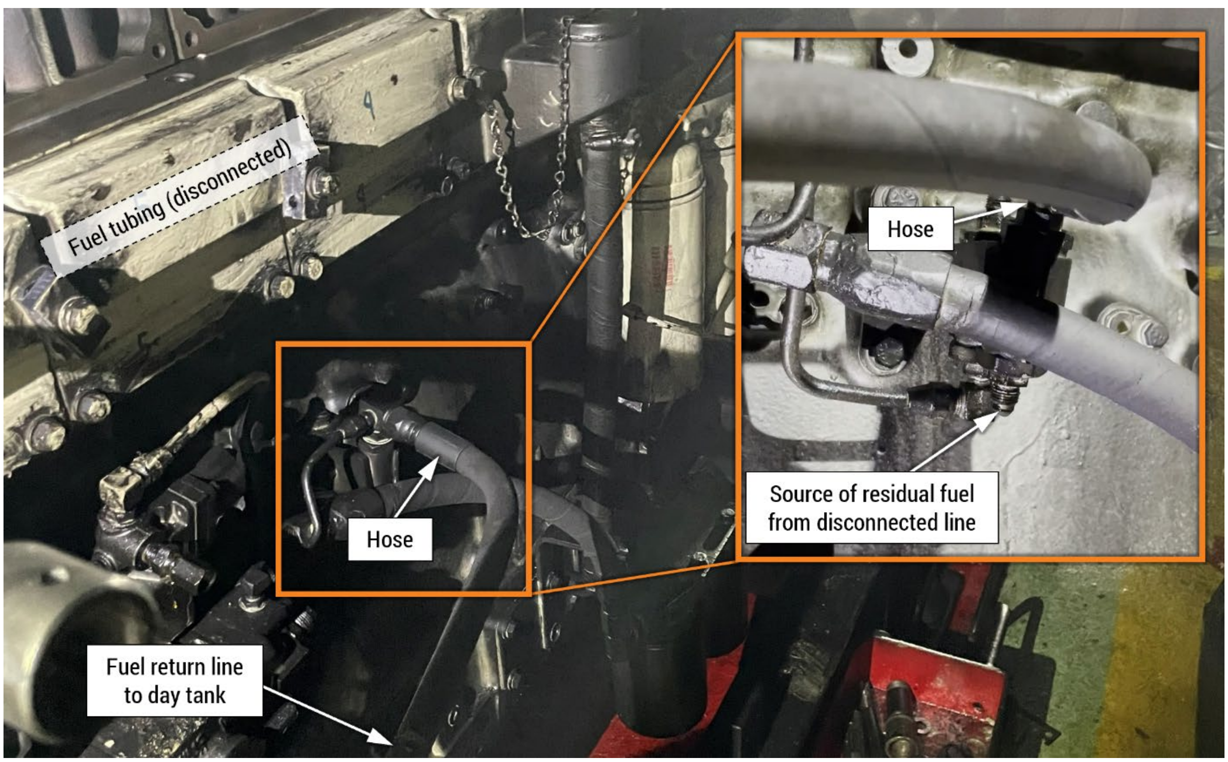


Figure 7. Auxiliary diesel generators showing fuel return line to day tank and associated tubing connecting it to the engines. *From top*: Starboard auxiliary diesel generator (undamaged), and port auxiliary diesel generator (damaged) after the fire. (See figure 6 for details on the fuel system and its components.)

The local fire department investigator completed a report on the origin and cause of the fire. The report stated that diesel fuel was found in the port auxiliary generator skid and along the aft ladder leading to the second deck of the engine room. According to the report, the inside portion of the start air compressor control panel showed an arc-flash pattern and had two damp marks that indicated diesel residue. The exhaust gas economizer ducting that ran from the third deck up and through to the main deck of the port engine room had visible flame patterns. The report stated that these patterns indicated fuel was present on the surface of the ducting. The local fire investigator concluded that the fire's area of origin was the start air compressor control panel, which had been contaminated by diesel fuel, producing an electrical arc.

1.3.4 Fixed Fire Extinguishing System

The *Scot Stuttgart* had a fixed fire extinguishing system that was configured to release CO_2 into either of the vessel's two engine rooms. The system had 14 bottles of CO_2, each 99 pounds. The system was designed to be activated from either remote release cabinets located in a corridor forward of the ECR (one for port and one for starboard) or locally inside the CO_2 room, which was located on the starboard exterior of the main deck, via the local release station. When activated, the system would release all 14 CO_2 bottles into the port engine room or 13 of the 14 CO_2 bottles into the starboard engine room. Alternatively, the system could be activated manually (as was the case on the day of the fire) from inside the CO_2 room, in which case the crewmember activating the system would release each CO_2 bottle individually into either engine room.

The operating company had release procedures, located in the CO_2 room, for releasing CO_2 into the engine rooms. The release procedures stated, "Do not reopen the space until all reasonable precautions have been taken to ascertain that the fire is out." The procedures described how to manually release and direct bottles of CO_2 to each engine room. There were no instructions for releasing a discretionary amount of CO_2 bottles.

System design engineers determine the proper amount of CO_2 for a fixed fire extinguishing system by multiplying the gross volume of the protected space by a specific design concentration or flooding factor outlined by a combination of international bodies and independent standards organizations, such as the International Maritime Organization and the National Fire Protection Association standards. The calculations take into account the hazard type, the minimum gas concentration for the hazard type, and safety margins for openings and leakage. On the *Scot Stuttgart*, the fixed fire extinguishing system's CO_2 capacity was designed to extinguish a fire in only one engine room, not both.

1.3.5 Postcasualty Actions by the Operating Company

After the fire, the operating company identified an inconsistency in the fuel return piping system on a vessel built similarly to the *Scot Stuttgart*. Like the *Scot Stuttgart*, the fuel return piping from the port and starboard auxiliary diesel generators on the similarly built vessel did not have a check valve installed in the piping at the top of the day tanks. Other vessels in the fleet with similar diesel oil systems had check valves. The operating company installed check valves at these locations on the *Scot Stuttgart* and the other similarly built vessel identified without a check valve.

The operating company also updated the lock-out/tag-out procedures to "include precautions related to fuel line isolation and residual pressure hazards." Additionally, the company distributed a technical bulletin and schematic guide among the fleet describing the fuel oil return line risks and the variations between similar vessels. Finally, the company installed thermal imaging cameras to enhance the vessel's firefighting capability.

2 Analysis

On May 17, 2025, while offloading cargo at Puerto Nuevo Terminals in San Juan, a fire broke out in the port engine room aboard the tank vessel *Scot Stuttgart*.

2.1 Use of Fixed Fire Extinguishing System

After discovering thick, white smoke coming from the open door of the port engine room into the engine control room, the crew stopped cargo operations. They shut down the port main engine, remotely stopped all fuel pumps, secured ventilation, shut the ventilation dampers, and stopped electrical power for the port engine room. Once the port engine room was sealed, the master gave the order to release half (7 of 14) of the CO_2 bottles in the vessel's fixed fire extinguishing system to suppress the fire in the space. While awaiting the arrival of local firefighters, the ship's crew set up boundary cooling of the port engine room using vessel fire hoses pressurized by the ship's fire pump.

When shoreside firefighters arrived about 40 minutes later, the ship's crew reported that there were no elevated heat readings outside the port engine room (as measured using handheld infrared thermometers). The incident commander requested permission from the master for firefighters to open the space and investigate the source of the fire, and the master granted it. When firefighters entered the port engine room, thick smoke was still present.

Fixed fire extinguishing systems are typically designed to release a calculated amount of CO_2 into a space to ensure that the CO_2 adequately smothers any fire. The *Scot Stuttgart*'s system was designed to release all 14 bottles of CO_2 for a fire in the port engine room. The presence of smoldering fire when the firefighters unsealed the space indicates that releasing only half of the system's CO_2 may not have been as effective in suppressing the fire. However, because the firefighters unsealed the space (which also reduces the effectiveness of CO_2 released), investigators could not conclusively determine the effectiveness of the partial release of CO_2.

Fixed fire extinguishing systems are intended to protect only enclosed spaces. To be effective in extinguishing a fire, the space into which CO_2 is released must be segregated and sealed off from sources of oxygen. When the master authorized the entry of firefighters to the port engine room, the open doors broke the seal previously established. Firefighters then used extractor fans to help clear smoke and improve visibility, but the fans further, and more rapidly, introduced oxygen to the space.

Shortly after the firefighters started the extractor fans, the space began to fill with heavy, black smoke. The circulation of air from the extractor fans likely fed a smoldering fire that had not been fully extinguished by the vessel's CO_2 fixed fire extinguishing system. Therefore, the master's decision to authorize shoreside firefighters to unseal and ventilate the port engine room about an hour after the initial activation of the vessel's CO_2 fixed fire extinguishing system negated the effectiveness of the CO_2, likely leading to further fire damage in the port engine room.

2.2 Origin and Cause of the Fire

After the fire, the most extensive heat damage was found aft of and below the port auxiliary generator engine skid in the port engine room. The economizer piping and the start air control panel located on second deck, below the port auxiliary generator and its skid, exhibited extensive heat and smoke damage, likely indicating the area of origin of the fire.

Diesel fuel oil was found on the main deck of the port engine room, and the fuel return line tubing was found disconnected with residual diesel fuel dripping from the disconnected line. Before the fire, crewmembers had tagged out the port auxiliary diesel generator for routine maintenance of the engine's aftercooler and turbo charger. When conducting this maintenance, crewmembers removed fuel return tubing from the engine. In accordance with the company's safety management system, a lock-out/tag-out permit had been completed before the maintenance. However, the fuel return line from the auxiliary diesel generator to the port diesel fuel oil day tank was not isolated because the fuel return line did not have a check valve at its inlet near the top of the day tank, nor was the disconnected tubing isolated or capped to prevent fuel from leaking or spilling.

Before the fire, the fuel oil purifier was operating, transferring fuel at about 85 gallons per hour from one of the diesel fuel oil storage tanks and filling the port diesel fuel oil day tank. Therefore, as the level of fuel reached the top of the diesel fuel oil day tank, the oil would have backflowed through the fuel oil return line, out of the fuel port, and into the port auxiliary diesel generator containment skid. Once diesel fuel filled the containment skid, it would have spilled onto the main deck of the port engine room, down through the main deck's grated decking to the second deck of port engine room, where the exhaust gas economizer, comprised of thermal oil lines used for heating cargo tanks, and the 400-volt control panel for the start air compressor were located (see figure 8).

A postcasualty investigation report produced by the local fire marshal indicated the fire was caused by an electrical arc produced by the start air compressor control panel, which had been contaminated by diesel fuel. The control panel was receiving power from the emergency switchboard. After the fire, the associated circuit breaker for the control panel was found in the tripped position. The switchboard and control panel would have remained powered until the associated breaker tripped. Circuit breakers can trip due to overloaded circuits, ground faults, or short circuits. Molten metal and melted plastic were found inside the start air compressor control panel. If the diesel fuel oil had dripped onto the control panel, it could have seeped onto wires or high-resistance connections in the panel. These wires or high-resistance connections can create electrical shorts and electrical arcs that can ignite fuel vapor.

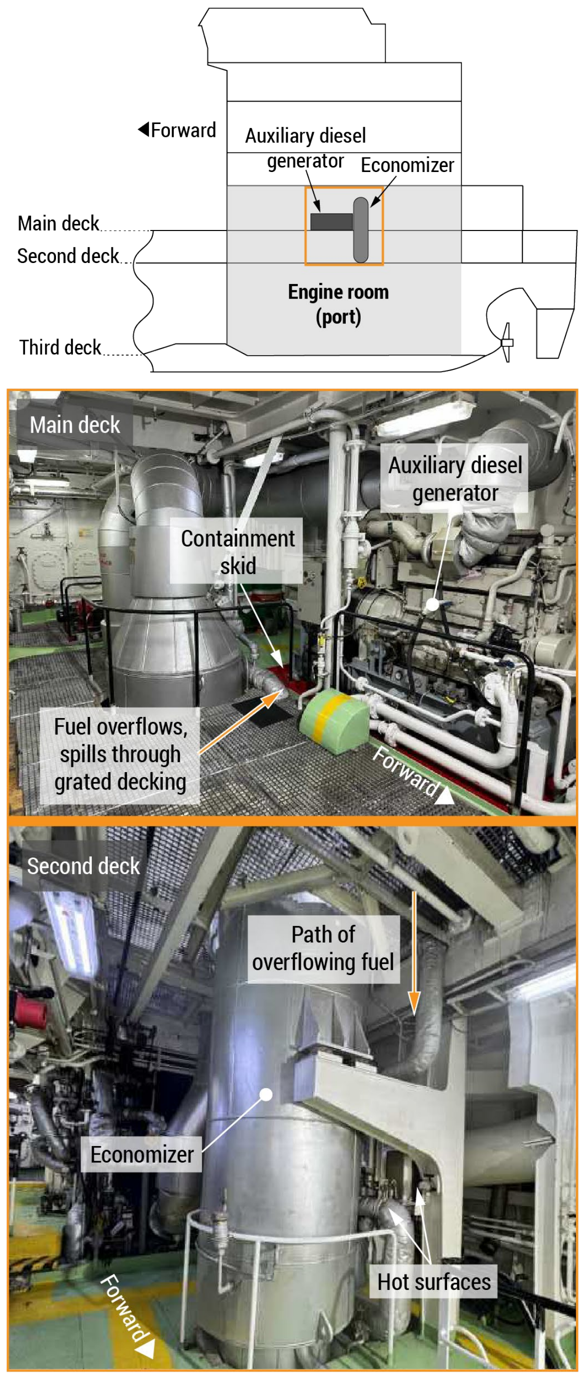


Figure 8. Path of fuel from auxiliary generator on main deck to economizer and air start compressor control panel on second deck. (Background source: Scot Stuttgart SA)

NTSB investigators also considered the possibility that the fire could have originated on the exhaust gas economizer thermal oil lines. While in operation, the economizer thermal oil lines would have had operating fluid flowing at temperatures of about 356–392°F. The surface temperatures of the oil lines exceeded the average flash point of diesel fuel oil (about 140°F) and were near the autoignition temperature for diesel fuel oil (about 410°F).[4] Hot surface ignition can occur between these two temperature ranges because splashing of ignitable fluids lowers the ignition temperature. It also increases ignitability, since droplets/mist require less

[4] *Autoignition temperature* is the point where a material catches fire spontaneously without a spark or flame.

heat to vaporize and ignite when compared to a pooled liquid.

The operating company had a lock-out/tag-out checklist that required a crewmember performing maintenance to check the vessel's drawings (fuel piping plans) and identify valves required for isolation. Before the fire, the second engineer completed this checklist along with other forms for planned maintenance, and he marked this task as completed. However, given that the return line to the diesel fuel oil day tank was not isolated, it is unlikely the vessel's drawings were carefully reviewed when he completed the form. If the vessel's fuel drawings were referenced, they would have shown a clear path for fuel to backflow from the diesel fuel oil day tank to the disconnected fuel lines, thus requiring a temporary means of isolation while the maintenance was conducted. After the fire, the operating company updated lock-out/tag-out procedures and distributed guidance describing precautions related to fuel line isolation and fuel oil return line risks.

3 Conclusions

3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the engine room fire aboard the tank vessel *Scot Stuttgart* was the crew not isolating a fuel return line during diesel engine maintenance, leading to diesel fuel backflowing from a fuel oil day tank and cascading onto a powered electrical panel or thermal exhaust gas economizer lines, where it ignited. Contributing to the fire damage was the master's decision to authorize local shoreside firefighters to unseal and ventilate the engine room, which introduced oxygen into the space, reduced the effectiveness of the carbon dioxide released from the fixed fire extinguishing system, and allowed the fire to intensify and burn longer.

3.2 Lessons Learned

Consulting Vessel Drawings when Isolating Systems for Maintenance

When a crew performs maintenance on a system, improperly isolated fuel, lube, or hydraulic oil piping can result in leaking oil and, potentially, a fire. Referencing vessel drawings can help crewmembers identify all components of a fuel, lube, or hydraulic oil system, as well as potential hazards, such as oil lines or valves that may need isolation before performing maintenance.

Maintaining the Effectiveness of Fixed Fire Extinguishing Systems

Fixed fire extinguishing systems in machinery and other hazardous spaces require a minimum concentration of extinguishing agent to either halt the chemical reaction producing the fire, displace the oxygen feeding the fire, or effect a combination of both. To ensure the effectiveness of the system and prevent the reintroduction of oxygen into a space, the system should be operated so that the required amount of fire suppression agent is released into the space as designed. Additionally, spaces should remain sealed for sufficient time to allow the fire suppression agent to smother fire, as well as for temperatures to drop, for up to 24 hours.

Vessel Particulars

Vessel	*Scot Stuttgart*
NTSB vessel group	Cargo, Liquid Bulk (Chemical tanker)
Owner/operator	Scot Stuttgart SA (Commercial)
Flag	Republic of Marshall Islands
Port of registry	Majuro, Republic of Marshall Islands
Year built	2006
Official number	N/A
IMO number	9274549
Classification society	Lloyds Register
Length (overall)	383.5 ft (116.9 m)
Breadth (max.)	59.0 ft (18.0 m)
Draft (casualty)	22.6 ft (6.9 m)
Tonnage	5,145 GT ITC
Engine power; manufacturer	2 × 2,414 hp (1,800 kW); MAN B&W 6L27/38 diesel engines

NTSB investigators worked closely with our counterparts from **Coast Guard Sector San Juan** throughout this investigation.

National Transportation Safety Board
Records Management Division, CIO-40
490 L'Enfant Plaza, SW
Washington, DC 20594
(800) 877-6799 or (202) 314-6551