**LLAMA ZERO-SHOT**

The Pride of Canterbury ferry disaster occurred on June 6, 2013[DTE], when the ship caught fire while en route from Dover to Calais[MGE]. The accident resulted in a severe damage to the starboard aft engine room[MGE], with extensive fire and water damage. Miraculously, no one was injured or lost their life.

The investigation into the incident revealed that the cause of the fire was primarily due to a combination of both mechanical failure of two critical pressure safety valve had failed in the closed position[MGE]. The vessel's back pressure valve (PSV3) had been inspected and tested. Unfortunately, it was not known that PSV3 had never been visually tested or maintained.

The investigation indicated that a high-pressure failure of the back pressure valves was likely caused by excessive oil in the system's return lines[MGE]. This failure is believed to have allowed excessive pressure to build up in the return line, causing damage to the pressure relief and allowing the fire to spread[MGE]. The investigation concluded that a combination of factors led to this tragic event, including poor visibility with fog and heavy wind[MGE].

A failure in a critical safety device back pressure valve (PSV3) becoming jammed in the closed position and therefore preventing adequate relief from the high system pressure, including drenching was mainly confined to the starboard aft engine room, with water pooling on deck 3[MGE]. No major structural damage was noted. The primary cause of the fire starting at 1 starboard aft compartment had been contained by means of a temporary bulkhead[MGE]. Some surrounding equipment and parts of the vessel in the starboard aft engine room where significant damage to the outer hull plating[MGE], but only in this area that was likely exposed to the extreme heat from the fire.

The possible causes identified included failure of PSV3 back pressure valve jammed being on the port side[MGE] or failure within the system design or maintenance procedures with regard to the operation of the CPP vessel where the flanged joint had ruptured causing excessive pressure and over-pressurized return line resulting in starboard gearbox[MGE]. The investigation concluded that multiple factors contributing to this accident were identified: lack of inspection, inadequate maintenance, and design flaws.

To prevent similar accidents in the future, regular inspections and testing of critical systems, such as the CPP system, must be performed. Thorough maintenance records and regular checks to ensure that equipment is functioning properly are essential. Furthermore, improved design and implementation of safety features in vessel systems will help minimize the risk of accidents. Enhanced crew training and awareness on the importance of proper procedures and protocols will also play a crucial role in preventing such incidents[MGE].

**LLAMA ONE-SHOT**

The accident occurred on September 29, 2014, at approximately 0729[DTE] hours, while the vessel Pride of Canterbury was on passage from Dover, UK to Calais, France. The ship had loaded 337 passengers and was traveling with its port inboard main diesel engine shut down for the purpose of economy. The master instructed the officer of the watch (OOW) to call him 20 minutes before arrival off the Calais pierheads, but an alarm sounded on the starboard controllable pitch propeller (CPP) hydraulic oil system high temperature alarm just as the second engineer in the engine control room received a call from the bridge giving him 15 minutes' notice of end of passage[MGE].

The accident took place when the senior third engineer investigated the issue[MGE] and found that the pressure analogue gauge on the starboard CPP system was indicating zero, but had been forced all the way round the dial past 20 bar and onto the stop. The second engineer then started the port inboard main engine to alleviate the problem, but this action caused the starboard main engines to suddenly indicate 100% load[MGE] and the turbochargers temporarily increased to 16000 revolutions per minute. This led to a fire breaking out in the area of the starboard main engines[MGE].

The damages were extensive, with significant fire damage reported in the main engine room. Fortunately, there were no injuries or fatalities reported. The vessel had to be maneuvered while the crew attempted to extinguish the fire and assess the extent of the damage[UGE].

An analysis of the causes of the accident suggests that a combination of human error and design limitations contributed to the incident. The master's decision to shut down the port inboard main engine for the passage, although intended to reduce fuel consumption, may have put additional stress on the starboard CPP system[MGE]. Additionally, the design of the CPP system may not have been adequate to handle the sudden increase in load[MGE] when the second engineer started the port inboard main engine.

In response to the accident, the crew took prompt action to contain the fire and assess the damage. The master and officers were criticized for their decisions, including shutting down the port inboard main engine[MGE] and attempting to reduce the pitch on both propellers while the vessel was still experiencing issues with the starboard CPP system[MGE].

Recommendations for future shipping include the need for improved training programs that focus on emergency procedures for CPP system failures. Additionally, regular maintenance and inspections of CPP systems should be performed to ensure that they are functioning properly and can handle unusual operating conditions. The design of CPP systems should also be reviewed to identify potential vulnerabilities and areas for improvement. Finally, vessel operators should consider implementing procedures to reduce the likelihood of human error in critical situations, such as by having multiple levels of clearance for major decisions[MGE].

**QWEN ZERO-SHOT**

On October 15, 2013[DTE], during a ferry crossing between Dover and Calais[MGE], the Pride of Canterbury experienced an engine room fire, narrowly avoiding significant loss of life and property. The incident occurred as the ship approached its destination, with good weather conditions facilitating quick passenger and cargo evacuation.

The fire was centered above the starboard main gearbox[MGE], causing extensive damage to the main engine room on deck 2. Notably, the primary damages included smoke staining from two ventilator grills located on the starboard side of the ship, significant structural damage[MGE] in the aft bulkhead area and equipment on the starboard side, as well as limited localized hotspots in other parts of the engine room[MGE].

The exact cause of the fire remains unclear[MGE]; however, it could be attributed to overheating or a mechanical failure within the engine system[MGE]. The ship was subsequently towed to a local shipyard for repairs, with no loss of life and minimal[MGE] external damage noted on the vessel.

Lessons learned from this accident include the critical importance of regular maintenance checks and proper inspection protocols for machinery systems. Continuous monitoring and real-time communication among bridge and engine room crews are also essential in identifying potential hazards early. Additionally, the incident underscores the need for well-defined emergency response plans and drills to ensure prompt and effective evacuation procedures.

For future shipping, these key precautions include enhanced regular inspections of critical equipment, immediate reporting and addressing of any anomalies, implementation of comprehensive safety training programs, and maintaining robust communication channels between bridge and engine room personnel. These measures can help prevent such incidents from occurring and ensure the safe operation of vessels across the Channel[MGE].

**QWEN ONE-SHOT**

On 29 September 2014 at approximately 07:50[DTE], a fire broke out on board the passenger ferry Pride of Canterbury as it approached Calais in France. The vessel was en route from Dover with 337 passengers and 150 crew onboard. At this time, the ship had just completed its 90-minute passage and was preparing to enter the buoyed channel leading to the Calais pierheads[MGE].

The incident began when an alarm sounded in the engine control room (ECR) at 07:29, indicating a high temperature in the starboard controllable pitch propeller (CPP) hydraulic oil system. The senior third engineer[NNE] went to investigate and found that the pressure analogue gauge (PG3) on the CPP system had malfunctioned, showing zero when it was actually reading close to 20 bar. Upon returning to the ECR, he informed the bridge about the issue and started the port inboard main engine as a precaution.

Shortly after, at 07:40, an alarm indicated a problem with the starboard CPP system hydraulic pressure sensor. The electrical technical officer (ETO) was called to investigate. Meanwhile, without realizing the issue, the second engineer inadvertently increased the load on both main engines, causing them to indicate 100% and the turbochargers to temporarily increase their speed to 16,000 revolutions per minute[MGE]. This further complicated the situation.

Upon receiving a report of the starboard CPP system issue from the bridge, the chief engineer arrived at the ECR but was unable to gain control over both propellers[MGE]. As a result, he called the master who was preparing to take command on the bridge. The cause of the accident can be attributed to the misinterpretation of the gauge reading and the subsequent accidental increase in engine load without proper communication or coordination[MGE].

The fire began as a small electrical spark caused by the faulty sensor wiring coming into contact with a metal component, igniting nearby flammable material[MGE]. Within minutes, the situation escalated, leading to significant damage. The fire spread rapidly due to the presence of combustible materials and poor ventilation[MGE] in the main engine room. Fire and rescue services were called immediately, and firefighting efforts effectively contained the blaze.

Following the incident, a thorough investigation was conducted by maritime authorities. The vessel underwent extensive repairs, including the replacement of faulty sensors and re-wiring of electrical components to prevent similar incidents[MGE]. Safety protocols were reviewed, and additional training sessions on engine room operations and emergency response procedures were implemented for the crew.

Moving forward, recommendations include enhanced monitoring systems for critical engine room equipment, improved communication channels between bridge and engine rooms during emergencies, and regular inspections and maintenance schedules to ensure all sensors and gauges function correctly. Additionally, there should be a greater emphasis on emergency drills and training to ensure that crew members are well-prepared to handle unexpected situations in the future[MGE].

**CHAT GPT ZERO-SHOT**

The report examines the fire aboard the Pride of Canterbury on 29 September 2014, identifying the accident, its causes, damages, and lessons for future prevention. The fire occurred in the engine room during the vessel's arrival in Calais, France, caused by a spray of hydraulic oil from a ruptured pipe joint in the starboard controllable pitch propeller (CPP) system. The oil ignited upon contact with the hot exhaust uptakes of the starboard main engines. The over-pressurization of the CPP system, due to the failure of the back pressure valve (PSV3), was the primary cause of the rupture. Compounding factors included inadequate pipe shielding, worn safety valves, and a lack of high-pressure alarms.

The fire caused extensive damage to the starboard engine room, particularly around the starboard gearbox, with smoke staining visible externally. However, the crew's swift response, the use of the hi-fog system, and effective teamwork prevented injuries to the 450 people aboard and minimized further damage. The vessel was later towed for repairs.

Key lessons from the incident highlight the importance of regular inspection and functional testing of safety-critical components like pressure valves. The back pressure valve had not been tested since the ship's construction 23 years earlier, and its failure allowed pressures exceeding system design limits. Additionally, shielding on oil pipe joints was inconsistent, leaving some areas vulnerable to leaks and fires. The absence of a high-pressure alarm in the CPP system delayed the crew's awareness of the over-pressurization.

To prevent similar incidents, it is crucial to ensure proper maintenance and testing of valves, consistent shielding of all joints, and retrofitting high-pressure alarms in hydraulic systems. Operators should also minimize combustible materials in machinery spaces and ensure compliance with modern safety standards, even for older vessels. [MGE]These measures, combined with effective crew training, can significantly enhance fire prevention and emergency response in maritime operations.

**CHAT GPT ONE-SHOT**

On 29 September 2014, the roll-on/roll-off passenger ship Pride of Canterbury suffered a fire in its main engine room while approaching the port of Calais, France. At approximately 0803, during the final stages of its voyage from Dover, UK, the vessel experienced a serious marine casualty caused by the ignition of hydraulic oil in the starboard controllable pitch propeller (CPP) system. The incident occurred with 450 persons on board, including 337 passengers and 113 crew members. Fortunately, there were no injuries or fatalities, but the fire caused extensive damage [MGE]to the engine room and disrupted the vessel's operations.

The accident began earlier in the voyage [MGE]when the crew attempted to address a high-temperature alarm in the starboard CPP hydraulic system. The system's back pressure valve failed, leading to over-pressurisation. This caused a flanged joint in the hydraulic oil return line to rupture, spraying oil onto the hot exhaust uptakes of the starboard main engines. The oil ignited almost immediately, resulting in a significant fire. The crew responded quickly by activating the hi-fog fire-fighting system, closing watertight doors, and boundary cooling the area with drenchers. While the fire was eventually brought under control and extinguished with the help of the onboard fire party and local fire brigade, the engine room sustained severe damage to its structure and machinery, including the gearbox, bulkheads, and components of the CPP hydraulic module.

The investigation identified several contributing factors to the accident. The back pressure valve, critical to regulating the hydraulic pressure in the CPP system, had become jammed in the closed position due to wear accumulated over 23 years of service without functional testing or maintenance. This failure led to over-pressurisation in the return line, which exceeded the design limits of the flanged joint that subsequently ruptured. Additionally, the flanged joint was not shielded, allowing the oil to spray freely onto the hot engine surfaces. The lack of a high-pressure alarm in the engine control room (ECR) meant the chief engineer was unaware of the system's dangerous over-pressurisation until the rupture occurred. Furthermore, combustible materials stored in the engine room exacerbated the fire's spread.

After the incident, several actions were initiated to mitigate future risks. P&O Ferries, the vessel's operator, implemented fleet-wide audits focusing on fire safety in machinery spaces. On Pride of Canterbury, the back pressure and pressure safety valves were replaced, and a maintenance program was introduced to functionally test these components every five years. A bypass mechanism and an additional alarm for high pressure were installed in the CPP system to prevent over-pressurisation. Protective shields were added to all hydraulic system flanges, and the hi-fog fire suppression system was reviewed to ensure full coverage of high-risk areas. Wartsila, the CPP manufacturer, issued a technical bulletin recommending the replacement of back pressure valves every 15 years.

To prevent similar accidents in the future, it is recommended that shipping companies strictly adhere to manufacturers' maintenance guidelines and conduct regular inspections, testing, and replacement of critical components in hydraulic systems, especially those vulnerable to wear. It is essential to ensure all pipe joints and flanges in pressurised systems are shielded to prevent oil spray in the event of a rupture. Furthermore, regulatory bodies such as Lloyd’s Register should consider mandating high-pressure alarms in hydraulic systems to provide early warnings of over-pressurisation. Finally, operators should ensure that fire prevention measures, such as the removal of combustible materials from machinery spaces, are rigorously enforced, even on older vessels exempt from modern Safety of Life at Sea (SOLAS) standards. The accident highlights the importance of proactive maintenance, effective system design, and robust emergency preparedness in ensuring the safety of ships and their crews. [OGE]

**LLAMA FEW-SHOT**

The accident occurred on 29 September 2014 at 0803 hours while the vessel P&O Ferries' Pride of Canterbury was en route from Dover to Calais [MGE]. The incident took place in the main engine room, where an extensive fire broke out due to oil and fuel leaks. [MGE] According to the investigation, the fire started in one of the hot surfaces adjacent to the hydraulic modules, which were not properly screened or protected to prevent oil spray or leakage.

The damage caused by the accident was extensive, with significant fire damage to the area surrounding the starboard main engines. Fortunately, there were no injuries or fatalities reported during the incident. The investigation revealed that the vessel's machinery space fire safety measures were inadequate, as the crew had failed to identify and address potential risks in the oil systems adjacent to hot surfaces. [MGE]

In response to the accident, P&O Ferries instructed all chief engineers in the fleet to complete a target audit of machinery space fire safety and implement any necessary actions. Specifically, they replaced PSV1 and PSV3 on all CPP hydraulic modules to ensure that the system was properly screened and protected to prevent oil spray or leakage.

Based on this incident, it is clear that proper safety measures need to be in place to prevent similar accidents from occurring in the future. The International Maritime Organization (IMO) Safety of Life at Sea (SOLAS) regulations require ships constructed after 1 July 2012 to arrange oil fuel lines far apart from hot surfaces and electrical installations, and to screen or otherwise suitably protect them to avoid oil spray or leakage. [MGE]

To improve maritime safety, it is recommended that all vessels adhere strictly to these regulations and implement regular inspections and maintenance checks to ensure that machinery space fire safety measures are in place. Additionally, crews should be trained to identify potential risks and take prompt action to prevent fires from occurring in the first place. [UGE]By taking these steps, we can reduce the risk of accidents like this one and create a safer maritime environment for all vessels.

**QWEN FEW-SHOT**

On 29 September 2014 at 08:03, a serious marine casualty occurred involving the ro-ro freight ferry [MGE] Arrow [NNE]while it was maneuvering in Calais, France, upon its arrival from Dover, UK. The vessel experienced an extensive fire damage in the starboard main engine room during this period.

The accident began when there were oil leaks from the vessel’s machinery that led to a fuel spillage onto adjacent components. [MGE]These conditions created the necessary environment for ignition due to the lack of proper safety barriers [MGE]and maintenance. Consequently, a fire broke out, causing extensive damage to the area around the starboard main engines. However, fortunately, no injuries or pollution were reported as a result of this incident.

Following the occurrence of the fire, the ship’s crew promptly initiated their emergency procedures. They sounded the general alarm and mustered at designated stations. Simultaneously, passengers were informed about the situation through regular announcements from the bridge. The master, after consulting with the chief engineer, decided that bringing the ship alongside swiftly was the safest course of action to facilitate an in-port evacuation if necessary. This decision proved effective, as it enabled a swift and safe evacuation without any injuries reported among either the passengers or crew.

The swift response can be attributed to the regular emergency drills conducted on board Pride of Canterbury, showcasing the importance of such training in crisis situations. Despite the fire's severity, the measures taken by the crew contributed significantly to the vessel’s safety and minimized potential harm.

In terms of damage, the incident resulted in significant physical losses, particularly extensive fire damage to the starboard main engine and uptake areas. Additionally, there was holing and splitting of several water ballast tanks on the port side of the underwater hull, causing considerable structural damage. These damages required immediate attention; as a result, the vessel underwent dry docking for repairs, which took four weeks. [MGE]

To prevent similar accidents in the future, it is crucial to implement robust maintenance procedures that address potential oil leaks and ensure proper safety barriers are installed around critical machinery areas. Regular inspections and drills should be conducted to maintain crew readiness for emergencies. Furthermore, continuous training on emergency response protocols must be prioritized to ensure all personnel can react effectively during such incidents.

Recommendations moving forward include the enhancement of preventive maintenance strategies, particularly focusing on oil management systems and fire safety measures. Additionally, ongoing education and regular drills should remain a priority to improve preparedness and response capabilities among ship crews in handling unforeseen situations at sea. [MGE]

**CHAT GPT FEW-SHOT**

On 29 September 2014, the UK-registered roll-on/roll-off passenger ferry Pride of Canterbury suffered a serious incident when a fire broke out in the main engine room as the vessel was maneuvering to berth in Calais, France. The accident occurred at approximately 0803, during the arrival segment of its short international voyage from Dover, UK, with 337 passengers and 113 crew on board. The fire caused extensive damage to the starboard main engine area, but there were no reported injuries or fatalities among passengers or crew.

The fire was triggered by a hydraulic oil spray from a ruptured flanged joint in the starboard controllable pitch propeller (CPP) hydraulic system. The oil ignited upon contact with the hot exhaust uptakes of the starboard main engines. Investigations revealed that the flanged joint failed due to over-pressurization caused by the back-pressure valve (PSV3) jamming in the closed position. This critical component had not been inspected or tested for 23 years, contrary to the manufacturer's maintenance guidelines. Additionally, inadequate shielding on the flanged joint allowed the hydraulic oil to spray onto the hot surfaces, violating modern fire safety standards, although these standards were not mandatory for the vessel due to its construction date.

The crew’s emergency response was swift and effective. The chief engineer activated the hi-fog fixed fire-fighting system, which suppressed the fire in the engine room while maintaining propulsion and allowing the master to berth the vessel safely using one propeller and a bow thruster. Once alongside, the crew extinguished residual flames, assisted by local fire services. Passengers were evacuated safely under controlled conditions. The vessel was later towed to a local shipyard for repairs.

This accident highlights several contributing factors. The lack of functional testing and maintenance of critical safety components, such as the back-pressure valve, allowed wear and degradation to go undetected. The absence of a high-pressure alarm in the CPP system deprived the crew of an early warning of over-pressurization. Furthermore, the omission of effective shielding on key hydraulic joints increased the risk of oil spray igniting. While the vessel met the regulatory standards applicable to its age, the outdated fire prevention measures were insufficient to mitigate modern risks associated with hydraulic systems. [UGE]

Following the accident, the vessel’s operator, P&O Ferries, implemented several corrective actions. These included replacing critical CPP system components such as pressure safety valves and back-pressure valves across its fleet, revising maintenance schedules to include regular functional testing of these components, and retrofitting shielding to all hydraulic system flanges. Additionally, a high-pressure alarm system was installed in the CPP hydraulic systems to provide early warnings of over-pressurization. [UGE]

To prevent similar incidents in the future, it is recommended that classification societies and regulatory bodies mandate high-pressure alarm systems for all CPP hydraulic systems, regardless of vessel age. Furthermore, regular functional testing of safety-critical components should become a standard requirement in maintenance schedules. Retrofitting shielding to hydraulic joints in older ships should be prioritized, even if not explicitly required by existing regulations, as a simple and effective measure to prevent oil spray fires. Finally, operators should ensure that crew training and emergency drills emphasize the importance of early detection and response to hydraulic system failures.