

1973 Ealing Derailment

The date is December 19, 1973, and 1A82, an express train hauled by Western Talisman, a BR Class 52 locomotive, is conveying passengers from London Paddington station to Oxford. With three crew members on board, alongside the driver, the train leaves the station, heading for Oxford with 650 passengers seated.

As the train speeds through the suburbs a few minutes later, something feels wrong. A bump, a lurch, the carriage shakes like never before. The happy chatter dies down, replaced by worried glances. What is happening? The driver makes a mental note to report this disturbance when they stop at Reading, but little does he know that he doesn't have that much time before their journey takes a horrifying turn at Ealing, becoming Britain's second-deadliest train crash of the decade.

It was an exciting day at London Paddington station, as it was the 19th of December and Christmas was a week away. The city buzzed with Christmas cheer. Lights flickered everywhere, carols filled the air, and families hurried home for the holidays. Amongst the happy rush were 650 merry passengers boarding the 5:18 PM train, whose destination was Oxford. The train for this trip was the 1A82 express, hauled by British Rail (BR) class 52, built in 1962, named Western Talisman.

The BR Class 52, also known as Wizzos and Thousands, is a type 4 diesel-hydraulic locomotive with two engines. These trains, designed for the Western Region of British Railways, entered service in 1961 during the transition from steam to diesel engines. While other diesel locomotives were diesel-electric, the BR Class 52s were diesel-hydraulic, a choice that made the locomotive transmission lighter, reducing track wear.

Built by Swindon Works and Crewe Works, the BR Class 52 measured 68ft in length and had a top speed of 102 mph. The Class 52's batteries were housed in four containers on the engine between the bogies. A 44.5-inch (1,130 mm) door, originally designed for the similar Class 42, sealed the battery compartment to protect the batteries from damage while the train was in motion. These doors are usually locked in place via carriage locks activated by a square key.

However, the Class 52 featured another safety measure: a pear-shaped metal catch called the "pear-drop." This catch secured the battery box door in case the carriage locks failed, a problem that had occurred with the Class 42. When a Class 52 underwent battery maintenance, the

standard procedure involved replacing the batteries, locking the carriage locks, and engaging the pear-drop before the train could depart.

The maximum capacity of Class 52 is 622, but on this fateful day, 650 passengers lined up, boarding the 1A82 express train. At 15:29, the 1A82 express train took the rail tracks to Oxford, 11 minutes late. It was driven by a three-person crew, led by an experienced driver, Mr. Owen, who knew these tracks well. He was assisted by Mr. Woodnaugh and the guard, Mr. Wells. After passing Acton station, a London Underground station in the southwest corner of Acton, West London, something strange began to happen. A slight shake, barely noticeable at first, began to run through the train. It was like a shiver, a rumble that traveled from the tracks, shaking the wheels and the cars.

People started to feel uneasy. They looked at each other, confused. Some felt their stomachs tighten and a tingle in their necks. The shaking got worse with each stop. It wasn't a crazy shaking but a steady, unsettling one that seemed to come from inside the train. Somewhere between leaving the station and arriving at its destination, vibrations caused the insecurely fastened battery box door to fall open.

Two days earlier, on the brisk morning of December 17, 1973, the Western Talisman was chugging along its route from Plymouth to Paddington when disaster struck near the town of Reading: one of its engines failed. The train limped to a stop, but help was on the way. Another locomotive arrived, coupling to the Talisman. It pulled it and its ailing engine the rest of the way to Paddington. The next day, December 18, the stricken locomotive was moved into a maintenance facility for repairs.

That evening, at precisely 10 PM, an engineer named Mr. Pitter was given the task of charging the locomotive's batteries. He diligently opened the compartments to attach the chargers, ensuring the wires were routed so they wouldn't obstruct the doors. His work completed, he left the compartments open and the wires neatly in place. However, by dawn the following day, Mr. Wiggins, Pitter's supervisor, discovered that someone had closed the compartments. This was a common practice to maximize space in the crowded maintenance yard, but it could also pose a hazard if not done properly.

By noon, the locomotive was scheduled to be moved for engine testing. Mr. Wiggins' assistant, Mr. Abbas, instructed the engineers to "box up" the locomotive, closing all open compartments and securing them for transit. Among those responsible was an engineer named Mr. Ashley. He meticulously unplugged the chargers and removed the wires, but in his haste, he neglected to check the dual locking mechanisms on the battery compartment doors. Without opening the

doors to verify, he assumed they were secure. As the locomotive trundled out of the maintenance shed, it appeared ready for action. Yet, hidden from view, the battery box doors were unlocked with the pear drop still raised, a small oversight that would soon set the fate of the journey.

At 2 p.m., the Western Talisman, freshly released from repairs, was dispatched to haul empty rolling stock to London-Paddington. Mr. Owen, the driver for both trips, conducted his routine inspection at the maintenance facility. This pre-trip examination involved a walk around the locomotive, a quick visual check along its sides, ensuring the brakes, brake blocks, and wheels were in proper order, confirming the locomotive was set to battery power for startup, and checking for any accidentally attached hoses or wires. So, he also took no notice of the unsecured pear drop on the battery compartment.

When it got back, Western Talisman was hooked up to the 1A82 express train and on its way to Oxford. Everything seemed normal until the driver felt a sudden lurch as they passed under the bridge at the western end of Ealing Broadway Station. At the time, he assumed it was a bad rail joint and planned to report it when they stopped at Reading.

People started to feel uneasy. Some felt their stomachs tighten and a tingle in their necks. The shaking got worse with each stop. It wasn't a crazy shaking but a steady, unsettling one that seemed to come from inside the train. By this time, the door had fallen into a precarious position where it collided with the operating rods of the facing points leading from the Down Main line to the Down Relief line at Longfield Avenue Junction, situated between Ealing Broadway and West Ealing Stations, after striking several lineside structures.

As the train sped on, the AWS (Automatic Warning System) ramp gave a correct indication, but then, there was a sudden, ominous thumping from the rear of the locomotive. At this point, the shaking had gotten even stronger. A loud, scary metal groan resounded through the cars. People grabbed onto their seats, their faces riddled with anxiety. In a matter of seconds, the car staggered violently, throwing people against windows and seats. Screams filled the air, full of terror and confusion. Once a safe place to travel, the train had become a scary, out-of-control monster as the locomotive seemed to bounce into the air.

Suddenly, with a loud crash, the train slid to the right side, resting within 210 yards. In a terrifying moment, it became clear what had happened: The 5:18 PM express had derailed. During the investigation, driver Owen told authorities that their estimated speed at the time of the derailment was about 70 miles per hour. He also noted that he had not applied the brakes during the derailment.

The cars were stacked at weird angles; some were ripped open like twisted metal boxes. The first coach, still coupled to the locomotive, stayed upright though derailed on all wheels. The following five coaches zigzagged across all four lines, suffering severe damage, with three crashing into each other. A bogie from the third car flew across and landed on top of the fourth, crushing it below. The remaining five coaches were also derailed but stayed upright, experiencing only minor damage.

The festive cheer of moments ago was replaced by a chilling silence, broken only by the moans of the wounded and cries for help. The trip had turned into a frightening nightmare. Passengers who boarded the train with thoughts of Christmas warm fires now found themselves trapped in a scene of devastation.

Moments later, the chaos settled, and Driver Owen quickly took charge. In the next few minutes, several people played key roles in ensuring the quick rescue of passengers, possibly saving lives. The driver directed his second man to pull the emergency fire plunger, then hoisted him through the cab window of the driver's side, instructing him to reach the nearest telephone and notify the signalman to halt all traffic.

Owen himself peered outside, seeing the tracks blocked, and grabbed a box of detonators. He tossed them out before climbing down from the locomotive. His first attempt to use a line-side telephone failed as it was out of order. When he finally located a functioning phone, the signalman confirmed that the lines were already protected and emergency services were on their way.

In the immediate urgency, Owen didn't think to use the locomotive's track-circuit operating clips, later reflecting that searching for them amid the cab's disarray would have wasted valuable time. His main concern was reaching the signalman quickly. Second man, R. P. Woolnough, upon disembarking, ran directly to Signal 0027 on the Up Main line to report the incident to the signalman.

Conductor Guard J. Wells, stationed at Paddington, had supervised the train's preparation, ensuring everything was in order. At the time of the derailment, he was at the front end of the sixth coach. His coach leaned slightly to the right, and the lights had gone out. Wells returned to the brake compartment, gathered his handlamp and track circuit operating clips, and, with some difficulty, opened the double luggage doors. He attempted to place a track circuit operating clip on the Up Main line but was thwarted by the splayed rails from the derailment. He then ran back to Signal 00134 and spoke to the signalman, who reassured him that the lines were protected and emergency services had been notified.

Mr. R. V. C. Pearson, an assistant in the Passenger Manager's Office at Paddington who was in the third coach, escaped through a sliding ventilator and found a telephone in an office building on Uxbridge Road. From there, he contacted his office at Paddington and set up a communication link with the Reading control office, providing an eyewitness account.

Meanwhile, Signalman C. F. Duffin was managing the West Ealing section from Old Oak Common Signal Box. By 17:35, he noticed track circuits in the Up Main and Down Relief lines at Longfield Avenue, indicating occupancy, even though no trains were scheduled there except the 17:18. He observed the lights for 807 points flashing and suspected a power failure, promptly informing the panel supervisor. Shortly after, the assistant and Mr. Pope contacted him, confirming his suspicions.

Upon learning of the incident, the assistant Area Manager, M. Wright, immediately mobilized emergency services and drove to the site. In the middle of all the chaos, there were other heroes, too. Passengers who were shaken but determined to help care for the injured offered comfort and support when things seemed hopeless. People from Craven Avenue also trooped to lend a helping hand.

The police arrived on the scene at 17:44, followed shortly by ambulance and fire brigade crews, working tirelessly into the night. With the main railway line completely obstructed, British Rail implemented contingency plans. The recovery process crawled into the early morning before the British Rail maintenance team took over, beginning repairs that lasted another ten days. Trains were either terminated at Reading or rerouted between West Ealing and Old Oak Common via the Greenford branch and Acton–Northolt Line. This diversion continued until 18:45 on December 20, 1973, when the Relief lines reopened, handling traffic until repairs on the Main lines were completed.

After ensuring passengers were being assisted, Wright examined the derailment site, and an investigation began. Upon discovering the damaged point machine, Wright initially suspected vandalism. Wright stationed a policeman to guard the machine and continued his inspection, finding further damage at Ealing Broadway station.

Chief Technician D. L. Turner, coincidentally on a nearby train, proceeded to Longfield Avenue upon learning of the derailment. He noticed the derailed coaches had disrupted the main signal cable route, including critical control and power cables. Prioritizing safety, he isolated the power cables and informed the signal box about the compromised control circuits. Turner then examined the extensively damaged point machine and discovered a weather shield, torn off by a violent impact, 20 yards down the track.

R. S. Gilbert, Electronics and Testing Assistant, conducted a series of tests on the West Ealing interlocking, including the Longfield Avenue junction. He verified that the point machine circuits were functioning correctly, and subsequent lab tests of control relays confirmed their integrity, ruling out electrical faults as a cause of the derailment.

Traction Inspector A. E. Holder arrived at the derailment site around 18:35 and inspected the points at Longfield Avenue. Observing the damaged point machine and missing cover, he discovered a battered steel object nearby, later identifying it as a battery box door from the locomotive. This door's dislodged pear-drop safety catch, set in a disengaged position, suggested it had contributed to the derailment.

Chief Inspector J. L. James, alerted by a BBC news announcement, arrived to find rescue operations underway. He examined the locomotive, lying on its right side, and found the fourth battery box door missing, with the restraining links broken. The red pear-drop safety catch was in the disengaged position, secured by a set screw, which James easily loosened, allowing the catch to move freely.

Sadly, for ten people on the train, the journey they started just a short while ago had ended in the worst possible way. Their lives, filled with Christmas plans and dreams, were cut short in the blink of an eye. There were around 94 people who were hurt, and 53 were critically wounded and rushed to the hospital. Surprisingly, the main deaths were in the fourth car, where eight people were crushed to death by the bogie, dying from traumatic asphyxia. Another person was found lifeless in a different carriage, with yet another beneath the wreckage.

The scene itself was a chilling picture of destruction. The train lay sprawled across the tracks, a remembrance of the powerful forces released in those terrifying seconds. The investigators documented everything carefully, taking photos from every angle, measuring distances between parts of the wreckage, and collecting any pieces of metal or debris they found. Every detail, no matter how small, could hold the key to understanding what caused the train to derail.

In September 1974, Colonel Ian McNaughton published a report on the accident and its causes, aimed at preventing future occurrences. The report pinpointed the primary fault to poor procedures at Old Oak Common's maintenance area. Specifically, it was never determined who closed the battery box door without securing it or notifying the Electrical Engineer.

Engineer Pitter faced criticism for locking the pear-drop in the raised position, while the main blame fell on Engineer Ashley for not checking the door's two locks before departure, wrongly

assuming the doors were secure. Mr. Abbas, who requested the locomotive be "boxed up," was also criticized for not inspecting it himself, relying solely on Ashley's word.

Driver Owen was absolved of blame as he wasn't required to examine the battery box doors. The report also highlighted that the root cause, Pitter's decision to secure the pear-drop, stemmed from unauthorized modifications by engineers in Plymouth. This allowed the pear-drop to be screwed into the raised position, which McNaughton deemed unnecessary and potentially hazardous.

The investigation's findings would ultimately have a deep impact on the railway industry. New rules were put in place, demanding stricter maintenance procedures and more thorough checks of all train parts. As a result of the investigation, the safety catch on the Class 52 locomotives was redesigned and replaced across the fleet by August 1974, just a few months later. This change was effective as there has never been any other record of an accident caused by an open battery compartment door.

Regular inspections also became even more rigorous, and safety protocols were re-evaluated from top to bottom. The Ealing tragedy, born out of a seemingly minor oversight, became a catalyst for a complete safety overhaul, ensuring that such a horrific event would never be repeated.

New technology was implemented as well. Improved track-monitoring systems were introduced to detect potential issues with the rails or switches. Additionally, communication protocols between train crews and dispatchers were improved, enabling faster emergency response times.

The Ealing train derailment, though a horrific tragedy, ultimately served as a turning point for railway safety. The focus shifted from simply getting passengers to their destinations on time to prioritizing their well-being above all else. The cost of the new safety measures in comparison to the cost of human lives.

Today, thanks in part to the lessons learned from the Ealing tragedy, train travel is considered one of the safest modes of transportation. While accidents can never be eliminated, the rigorous safety measures put in place after Ealing have reduced the possibility of such devastating incidents occurring again.

