

= HMS Royal Oak ( 08 ) =

HMS Royal Oak was one of five Revenge @-@ class battleships built for the Royal Navy during the First World War . Launched in 1914 and completed in 1916 , Royal Oak first saw combat at the Battle of Jutland as part of the Grand Fleet . In peacetime , she served in the Atlantic , Home and Mediterranean fleets , more than once coming under accidental attack . The ship drew worldwide attention in 1928 when her senior officers were controversially court @-@ martialled . Attempts to modernise Royal Oak throughout her 25 @-@ year career could not fix her fundamental lack of speed and by the start of the Second World War , she was no longer suited to front @-@ line duty .

On 14 October 1939 , Royal Oak was anchored at Scapa Flow in Orkney , Scotland , when she was torpedoed by the German submarine U @-@ 47 . Of Royal Oak 's complement of 1 @, 234 men and boys , 833 were killed that night or died later of their wounds . The loss of the outdated ship ? the first of the five Royal Navy battleships and battlecruisers sunk in the Second World War ? did little to affect the numerical superiority enjoyed by the British navy and its Allies , but the sinking had considerable effect on wartime morale . The raid made an immediate celebrity and war hero out of the U @-@ boat commander , Günther Prien , who became the first German submarine officer to be awarded the Knight 's Cross of the Iron Cross . Before the sinking of Royal Oak , the Royal Navy had considered the naval base at Scapa Flow impregnable to submarine attack , and U @-@ 47 's raid demonstrated that the German Navy was capable of bringing the war to British home waters . The shock resulted in rapid changes to dockland security and the construction of the Churchill Barriers around Scapa Flow .

The wreck of Royal Oak , a designated war grave , lies almost upside down in 100 feet ( 30 m ) of water with her hull 16 feet ( 4 @. 9 m ) beneath the surface . In an annual ceremony to mark the loss of the ship , Royal Navy divers place a White Ensign underwater at her stern . Unauthorised divers are prohibited from approaching the wreck at any time under the Protection of Military Remains Act 1986 .

= = Design and description = =

The Revenge @-@ class ships were designed as slightly smaller , slower , and more heavily protected versions of the preceding Queen Elizabeth @-@ class battleships . As an economy measure they were intended to revert to the previous practice of using both fuel oil and coal , but First Sea Lord Jackie Fisher rescinded the decision for coal in October 1914 . Still under construction , the ships were redesigned to employ oil @-@ fired boilers that increased the power of the engines by 9 @, 000 shaft horsepower ( 6 @, 700 kW ) over the original specification .

Royal Oak had a length overall of 620 feet 7 inches ( 189 @. 2 m ) , a beam of 88 feet 6 inches ( 27 @. 0 m ) and a deep draught of 33 feet 7 inches ( 10 @. 2 m ) . She had a designed displacement of 27 @, 790 long tons ( 28 @, 240 t ) and displaced 31 @, 130 long tons ( 31 @, 630 t ) at deep load . She was powered by two sets of Parsons steam turbines , each driving two shafts , using steam from 18 Yarrow boilers . The turbines were rated at 40 @, 000 shp ( 30 @, 000 kW ) and intended to reach a maximum speed of 23 knots ( 42 @. 6 km / h ; 26 @. 5 mph ) . During her sea trials on 22 May 1916 , the ship only reached a top speed of 22 knots ( 41 km / h ; 25 mph ) from 40 @, 360 shp ( 30 @, 100 kW ) . She had a range of 7 @, 000 nautical miles ( 12 @, 964 km ; 8 @, 055 mi ) at a cruising speed of 10 knots ( 18 @. 5 km / h ; 11 @. 5 mph ) . Her crew numbered 909 officers and enlisted men in 1916 .

The Revenge class was equipped with eight breech @-@ loading ( BL ) 15 @-@ inch ( 381 mm ) Mk I guns in four twin gun turrets , in two superfiring pairs fore and aft of the superstructure , designated ' A ' , ' B ' , ' X ' , and ' Y ' from front to rear . Twelve of the fourteen BL 6 @-@ inch ( 152 mm ) Mk XII guns were mounted in casemates along the broadside of the vessel amidships ; the remaining pair were mounted on the shelter deck and were protected by gun shields . Their anti @-@ aircraft ( AA ) armament consisted of two quick @-@ firing ( QF ) 3 @-@ inch ( 76 mm ) 20 cwt Mk I guns . The ships were fitted with four submerged 21 @-@ inch ( 533 mm ) torpedo tubes , two on each broadside .

Royal Oak was completed with two fire @-@ control directors fitted with 15 @-@ foot ( 4 @-@ 6 m ) rangefinders . One was mounted above the conning tower , protected by an armoured hood , and the other was in the spotting top above the tripod foremast . Each turret was also fitted with a 15 @-@ foot rangefinder . The main armament could be controlled by ' X ' turret as well . The secondary armament was primarily controlled by directors mounted on each side of the compass platform on the foremast once they were fitted in March 1917 . A torpedo @-@ control director with a 15 @-@ foot rangefinder was mounted at the aft end of the superstructure .

The ship 's waterline belt consisted of Krupp cemented armour ( KC ) that was 13 inches ( 330 mm ) thick between ' A ' and ' Y ' barbettes and thinned to 4 to 6 inches ( 102 to 152 mm ) towards the ship 's ends , but did not reach either the bow or the stern . Above this was a strake of armour 6 inches thick that extended between ' A ' and ' X ' barbettes . Transverse bulkheads 4 to 6 inches thick ran at an angle from the ends of the thickest part of the waterline belt to ' A ' and ' Y ' barbettes . The gun turrets were protected by 11 to 13 inches ( 279 to 330 mm ) of KC armour , except for the turret roofs which were 4 @-@ 7.5 ? 5 inches ( 121 ? 127 mm ) thick . The barbettes ranged in thickness from 6 ? 10 inches ( 152 ? 254 mm ) above the upper deck , but were only 4 to 6 inches thick below it . The Revenge @-@ class ships had multiple armoured decks that ranged from 1 to 4 inches ( 25 to 102 mm ) in thickness . The main conning tower had 13 inches of armour on the sides with a 3 @-@ inch roof . The torpedo director in the rear superstructure had 6 inches of armour protecting it . After the Battle of Jutland , 1 inch of high @-@ tensile steel was added to the main deck over the magazines and additional anti @-@ flash equipment was added in the magazines .

The ship was fitted with flying @-@ off platforms mounted on the roofs of ' B ' and ' X ' turrets in 1918 , from which fighters and reconnaissance aircraft could launch . In 1934 the platforms were removed from the turrets and a catapult was installed on the roof of ' X ' turret , along with a crane to recover a seaplane .

== Major alterations ==

Royal Oak was extensively refitted between 1922 and 1924 , when her anti @-@ aircraft defences were upgraded by replacing the original three @-@ inch AA guns with a pair of QF four @-@ inch ( 102 mm ) Mk V AA guns . A 30 @-@ foot ( 9 @-@ 1 m ) rangefinder was fitted in ' B ' turret and a simple high @-@ angle rangefinder was added above the bridge . Underwater protection improved by the addition of anti @-@ torpedo bulges . They were designed to reduce the effect of torpedo detonations and improve stability at the cost of widening the ship 's beam by over 13 feet ( 4 m ) . They increased her beam to 102 feet 1 inch ( 31 @-@ 1 m ) , reduced her draught to 29 feet 6 inches ( 9 @-@ 0 m ) , increased her metacentric height to 6 @-@ 3 feet ( 1 @-@ 9 m ) at deep load , and all of the changes to her equipment increased her crew to a total of 1 @-@ 188 . Despite the bulges she was able to reach a speed of 21 @-@ 75 knots ( 40 @-@ 28 km / h ; 25 @-@ 03 mph ) . A brief refit in early 1927 saw the addition of two more four @-@ inch AA guns and the removal of the six @-@ inch guns from the shelter deck . About 1931 , a High @-@ Angle Control System ( HACS ) Mk I director replaced the high @-@ angle rangefinder on the spotting top . Two years later , the aft pair of torpedo tubes were removed .

The ship received a final refit between 1934 and 1936 , when her deck armour was increased to 5 inches ( 12 @-@ 7 cm ) over the magazines and to 3 @-@ 5 inches ( 8 @-@ 9 cm ) over the engine rooms . In addition to a general modernisation of the ship 's systems , her anti @-@ aircraft defences were strengthened by replacing the single mounts of the AA guns with twin mounts for the QF 4 @-@ inch Mark XVI gun and adding a pair of octuple mounts for two @-@ pounder Mk VIII " pom @-@ pom " guns to sponsons abreast the funnel . Two positions for " pom @-@ pom " anti @-@ aircraft directors were added on new platforms abreast and below the fire @-@ control director in the spotting top . A HACS Mk III director replaced the Mk I in the spotting top and another replaced the torpedo director aft . A pair of quadruple mounts for Vickers .50 machine guns were added abreast the conning tower . The mainmast was reconstructed as a tripod to support the weight of a radio @-@ direction finding office and a second High @-@ Angle Control Station . The forward pair of submerged torpedo tubes were removed and four experimental 21 @-@ inch

torpedo tubes were added above water forward of 'A' turret .

= = Construction and service = =

Royal Oak was laid down at Devonport Royal Dockyard on 15 January 1914 . She was launched on 17 November , and after fitting out , was commissioned on 1 May 1916 at a final cost of £ 2 468 269 . Named after the oak tree in which Charles II hid following his defeat at the 1651 Battle of Worcester , she was the eighth vessel to bear the name Royal Oak , replacing a pre dreadnought scrapped in 1914 .

= = = First World War = = =

Upon completion Royal Oak was assigned to the Third Division of the Fourth Battle Squadron of the Grand Fleet and engaged the German High Seas Fleet in the Battle of Jutland . Under the command of Captain Crawford MacLachlan , Royal Oak left Scapa Flow on the evening of 30 May in the company of the battleships Superb , Canada and Admiral Jellicoe 's flagship Iron Duke . The next day 's indecisive battle saw Royal Oak fire a total of thirty eight 15 inch and eighty four 6 inch shells , claiming three hits on the battlecruiser SMS Derfflinger , putting one of its turrets out of action , and a hit on the cruiser SMS Wiesbaden . She avoided damage herself , despite being straddled by shellfire on one occasion .

Following the battle , Royal Oak was reassigned to the First Battle Squadron . On 5 November 1918 ? the final week of the First World War ? she was anchored off Burntisland in the Firth of Forth accompanied by the seaplane tender Campania and the light battlecruiser Glorious . A sudden Force 10 squall caused Campania to drag her anchor , collide with Royal Oak and then with Glorious . Both capital ships suffered only minor damage ; Campania , however , was holed by her initial collision with Royal Oak . The ship 's engine rooms flooded , and she settled by the stern and sank five hours later , though without loss of life .

At the end of the First World War , Royal Oak escorted several vessels of the surrendering German High Seas Fleet from the Firth of Forth to their internment in Scapa Flow , and was present at a ceremony in Pentland Firth to greet other ships as they followed .

= = = Between the wars = = =

The peacetime reorganisation of the Royal Navy assigned Royal Oak to the Second Battle Squadron of the Atlantic Fleet . Modernised by the 1922 ? 24 refit , she was transferred in 1926 to the Mediterranean Fleet , based in Grand Harbour , Malta . In early 1928 , this duty saw the notorious incident the contemporary press dubbed the " Royal Oak Mutiny " . What began as a simple dispute between Rear Admiral Bernard Collard and Royal Oak 's two senior officers , Captain Kenneth Dewar and Commander Henry Daniel , over the band at the ship 's wardroom dance , descended into a bitter personal feud that spanned several months . Dewar and Daniel accused Collard of " vindictive fault finding " and openly humiliating and insulting them before their crew ; in return , Collard countercharged the two with failing to follow orders and treating him " worse than a midshipman " . When Dewar and Daniel wrote letters of complaint to Collard 's superior , Vice Admiral John Kelly , he immediately passed them on to the Commander in Chief Admiral Sir Roger Keyes . On realising that the relationship between the two and their flag admiral had irretrievably broken down , Keyes removed all three from their posts and sent them back to England , postponing a major naval exercise . The press picked up on the story worldwide , describing the affair ? with some hyperbole ? as a " mutiny " . Public attention reached such proportions as to raise the concerns of the King , who summoned First Lord of the Admiralty William Bridgeman for an explanation .

For their letters of complaint , Dewar and Daniel were controversially charged with writing subversive documents . In a pair of highly publicised courts martial , both were found guilty and severely reprimanded , leading Daniel to resign from the Navy . Collard himself was criticised

for the excesses of his conduct by the press and in Parliament , and on being denounced by Bridgeman as " unfitted to hold further high command " , was forcibly retired from service . Of the three , only Dewar escaped with his career , albeit a damaged one : he remained in the Royal Navy , but in a series of more minor commands . His promotion to Rear @-@ Admiral , which would normally have been a formality , was delayed until the following year , just one day before his retirement . Daniel attempted a career in journalism , but when this and other ventures were unsuccessful , he disappeared into obscurity amid poor health in South Africa . Collard retreated to private life and never spoke publicly of the incident again .

The scandal proved an embarrassment to the reputation of the Royal Navy , then still the world 's largest , and it was satirised at home and abroad through editorials , cartoons , and even a comic jazz oratorio composed by Erwin Schulhoff . One consequence of the damaging affair was an undertaking from the Admiralty to review the means by which naval officers might bring complaints against the conduct of their superiors .

= = = Spanish Civil War = = =

During the Spanish Civil War , Royal Oak was tasked with conducting ' non @-@ intervention patrols ' around the Iberian Peninsula . On such a patrol and steaming some 30 nautical miles ( 56 km ; 35 mi ) east of Gibraltar on 2 February 1937 , she came under aerial attack by three aircraft of the Republican forces . They dropped three bombs ( two of which exploded ) within 3 cables ( 555 m ) of the starboard bow , though causing no damage . The British chargé d 'affaires protested the incident to the Republican Government , which admitted its error and apologised for the attack . Later that same month , while stationed off Valencia on 23 February 1937 during an aerial bombardment by the Nationalists , she was accidentally struck by an anti @-@ aircraft shell fired from a Republican position . Five men were injured , including Royal Oak 's captain , T. B. Drew . On this occasion however the British elected not to protest to the Republicans , deeming the incident " an act of God " . In May 1937 , she and HMS Forester escorted SS Habana , a liner carrying Basque child refugees , to England . In July , as the war in northern Spain flared up , Royal Oak , along with the battleship HMS Resolution rescued the steamer Gordonia when Spanish nationalist warships attempted to capture her off Santander . She was however unable on 14 July to prevent the seizure of the British freighter Molton by the Spanish nationalist cruiser Almirante Cervera while trying to enter Santander . The merchantmen had been engaged in the evacuation of refugees .

This same period saw Royal Oak star alongside fourteen other Royal Navy vessels in the 1937 British film melodrama *Our Fighting Navy* , the plot of which centres around a coup in the fictional South American republic of Bianco . Royal Oak portrays a rebel battleship *El Mirante* , whose commander forces a British captain ( played by Robert Douglas ) into choosing between his lover and his duty . The film was poorly received by critics , but gained some redemption through its dramatic scenes of naval action .

= = = Second World War = = =

In 1938 , Royal Oak returned to the Home Fleet and was made flagship of the Second Battle Squadron based in Portsmouth . On 24 November 1938 , she returned the body of the British @-@ born Queen Maud of Norway , who had died in London , to a state funeral in Oslo , accompanied by her husband King Haakon VII . Paying off in December 1938 , Royal Oak was recommissioned the following June , and in the late summer of 1939 embarked on a short training cruise in the English Channel in preparation for another 30 @-@ month tour of the Mediterranean , for which her crew were pre @-@ issued tropical uniforms . As hostilities loomed , the battleship was instead dispatched north to Scapa Flow , and was at anchor there when war was declared on 3 September .

The next few weeks proved uneventful , but in October 1939 Royal Oak joined the search for the German battleship *Gneisenau* , which had been ordered into the North Sea as a diversion for the

commerce @-@ raiding heavy cruisers Deutschland and Admiral Graf Spee . The search was ultimately fruitless , particularly for Royal Oak , whose top speed , by then less than 20 knots ( 37 km / h ; 23 mph ) , was inadequate to keep up with the rest of the fleet . On 12 October , Royal Oak returned to the defences of Scapa Flow in poor shape , battered by North Atlantic storms . Many of her Carley floats had been smashed and several of the smaller @-@ calibre guns rendered inoperable through flooding . The mission had underlined the obsolescence of the 25 @-@ year @-@ old warship . Concerned that a recent overflight by German reconnaissance aircraft heralded an imminent air attack upon Scapa Flow , Admiral of the Home Fleet Charles Forbes ordered most of the fleet to disperse to safer ports . Royal Oak remained behind , her anti @-@ aircraft guns still deemed a useful addition to Scapa 's otherwise scanty air defences .

= = Sinking = =

= = = Scapa Flow = = =

Scapa Flow made a near @-@ ideal anchorage . Situated at the centre of the Orkney Islands off the north coast of Scotland , the natural harbour , large enough to contain the entire Grand Fleet , was surrounded by a ring of islands separated by shallow channels subject to fast @-@ racing tides . The threat from U @-@ boats had however long been realised , and a series of countermeasures were installed during the early years of the First World War . Blockships were sunk at critical points , and floating booms deployed to block the three widest channels , and operated by tugboats to allow the passage of friendly shipping . It was considered possible ? but highly unlikely ? that a daring U @-@ boat commander could attempt to race through undetected before the boom was closed . Two submarines that had attempted infiltration during the First World War were ill @-@ fated : on 23 November 1914 U @-@ 18 was rammed twice before running aground with the capture of her crew , and UB @-@ 116 was detected by hydrophone and destroyed with the loss of all hands on 28 October 1918 .

Scapa Flow provided the main anchorage for the British Grand Fleet throughout most of the First World War , but in the interwar period this passed to Rosyth , more conveniently located further south in the Firth of Forth . Scapa Flow was reactivated with the advent of the Second World War , becoming a base for the British Home Fleet . Its natural and artificial defences , while still strong , were recognised as in need of improvement , and in the early weeks of the war were in the process of being strengthened by the provision of additional blockships .

= = = Special Operation P : the raid by U @-@ 47 = = =

Kriegsmarine Commander of Submarines ( Befehlshaber der U @-@ Boote ) Karl Dönitz devised a plan to attack Scapa Flow by submarine within days of the outbreak of war . Its goal would be twofold : firstly , that displacing the Home Fleet from Scapa Flow would slacken the British North Sea blockade and grant Germany greater freedom to attack the Atlantic convoys ; secondly , the blow would be a symbolic act of vengeance , striking at the same location where the German High Seas Fleet had surrendered and scuttled itself following Germany 's defeat in the First World War . Dönitz hand @-@ picked Kapitänleutnant Günther Prien for the task , scheduling the raid for the night of 13 / 14 October 1939 , when the tides would be high and the night moonless .

Dönitz was aided by high @-@ quality photographs from a reconnaissance overflight by Siegfried Knemeyer , ( who received his first Iron Cross for the mission ) , and which revealed the weaknesses of the defences and an abundance of targets . He directed Prien to enter Scapa Flow from its east via Kirk Sound , passing to the north of Lamb Holm , a small low @-@ lying island between Burray and Mainland . Prien initially mistook the more southerly Skerry Sound for the chosen route and his sudden realisation that U @-@ 47 was heading for the shallow blocked passage forced him to order a rapid turn to the northeast . On the surface , and illuminated by a bright display of the aurora borealis , the submarine threaded between the sunken blockships

Seriano and Numidian , grounding itself temporarily on a cable strung from Seriano . It was briefly caught in the headlights of a taxi onshore , but the driver raised no alarm . On entering the harbour proper at 00 : 27 on 14 October , Prien entered a triumphant Wir sind in Scapa Flow ! ! ! in the log and set a south @-@ westerly course for several kilometres before reversing direction . To his surprise , the anchorage appeared to be almost empty ; unknown to him , Forbes ' order to disperse the fleet had removed some of the biggest targets . U @-@ 47 had been heading directly towards four warships , including the newly commissioned light cruiser Belfast , anchored off Flotta and Hoy 4 nautical miles ( 8 km , 5 mi ) distant , but Prien gave no indication that he had seen them .

On the reverse course , a lookout on the bridge spotted Royal Oak lying approximately 4 @, @ 400 yards ( 4 @, @ 000 m ) to the north , correctly identifying it as a battleship of the Revenge class . Mostly hidden behind her was a second ship , only the bow of which was visible to U @-@ 47 . Prien mistook it to be a battlecruiser of the Renown class , German intelligence later labelling it Repulse . It was in fact the World War I seaplane tender Pegasus .

At 00 : 58 U @-@ 47 fired a salvo of three torpedoes from its bow tubes , a fourth lodging in its tube . Two failed to find a target , but a single torpedo struck the bow of Royal Oak at 01 : 04 , shaking the ship and waking the crew . Little visible damage was received , though the starboard anchor chain was severed , clattering noisily down through its slips . Initially , it was suspected that there had been an explosion in the ship 's forward inflammable store , used to store materials such as kerosene . Mindful of the unexplained explosion that had destroyed HMS Vanguard in Scapa Flow in 1917 , an announcement was made over Royal Oak 's tannoy system to check the magazine temperatures , but many sailors returned to their hammocks , unaware that the ship was under attack .

Prien turned his submarine and attempted another shot via his stern tube , but this too missed . Reloading his bow tubes , he doubled back and fired a salvo of three torpedoes , all at Royal Oak , This time he was successful : at 01 : 16 all three struck the battleship in quick succession amidships and detonated . The explosions blew a hole in the armoured deck , destroying the Stokers ' , Boys ' and Marines ' messes and causing a loss of electrical power . Cordite from a magazine ignited and the ensuing fireball passed rapidly through the ship 's internal spaces . Royal Oak quickly listed some 15 ° , sufficient to push the open starboard @-@ side portholes below the waterline . She soon rolled further onto her side to 45 ° , hanging there for several minutes before disappearing beneath the surface at 01 : 29 , 13 minutes after Prien 's second strike . 833 men died with the ship , including Rear @-@ Admiral Henry Blagrove , commander of the Second Battle Squadron . Over one hundred of the dead were Boy Seamen , not yet 18 years old , the largest ever such loss in a single Royal Navy action . The admiral 's wooden gig , moored alongside , was dragged down with Royal Oak .

= = = Rescue efforts = = =

The tender Daisy 2 , skippered by John Gatt , had been tied up for the night to Royal Oak 's port side . As the sinking battleship began to list to starboard , Gatt ordered Daisy 2 to be cut loose , his vessel becoming briefly caught on Royal Oak 's rising anti @-@ torpedo bulge and lifted from the sea before freeing herself .

Many of Royal Oak 's crew who had managed to jump from the sinking ship were dressed in little more than their nightclothes and were unprepared for the chilling water . A thick layer of fuel oil coated the surface , filling men 's lungs and stomachs and hampering their efforts to swim . Of those who attempted the half @-@ mile ( 800 m ) swim to the nearest shore , only a handful survived . Gatt switched the lights of Daisy 2 on and he and his crew managed to pull 386 men from the water , including Royal Oak 's commander , Captain William Benn . The rescue efforts continued for another two and a half hours until nearly 4 : 00 am , when Gatt abandoned the search for more survivors and took those he had to Pegasus . Although aided by boats from Pegasus and the harbour , he was responsible for rescuing almost all the survivors , an act for which he was awarded the Distinguished Service Cross , the only military award made by the British in connection with the disaster .

= = Aftermath = =

The British were initially confused as to the cause of the sinking , suspecting either an on board explosion or aerial attack . Once it was realised that a submarine attack was the most likely explanation , steps were rapidly made to seal the anchorage , but U 47 had already escaped and was on its way back to Germany . The BBC released news of the sinking by late morning on 14 October , and its broadcasts were received by the German listening services and by U 47 itself . Divers sent down on the morning after the explosion discovered remnants of a German torpedo , confirming the means of attack . On 17 October First Lord of the Admiralty Winston Churchill officially announced the loss of Royal Oak to the House of Commons , first conceding that the raid had been " a remarkable exploit of professional skill and daring " , but then declaring that the loss would not materially affect the naval balance of power . An Admiralty Board of Enquiry convened between 18 and 24 October to establish the circumstances under which the anchorage had been penetrated . In the meantime , the Home Fleet was ordered to remain at safer ports until security issues at Scapa could be addressed . Churchill was obliged to respond to questions in the House as to why Royal Oak had had aboard so many Boys , most of whom lost their lives . He defended the Royal Navy tradition of sending boys aged 15 to 17 to sea , but the practice was generally discontinued shortly after the disaster , and under 18 year olds served on active warships in only the most exceptional circumstances .

The Nazi Propaganda Ministry was quick to capitalise on the successful raid , and radio broadcasts by the popular journalist Hans Fritzsche displayed the triumph felt throughout Germany . Prien and his crew reached Wilhelmshaven at 11 : 44 on 17 October and were immediately greeted as heroes , learning that Prien had been awarded the Iron Cross First Class , and each man of the crew the Iron Cross Second Class . Hitler sent his personal plane to bring the crew to Berlin , where he further invested Prien with the Knight 's Cross of the Iron Cross . This decoration , made for the first time to a German submarine officer , later became the customary decoration for successful U Boat commanders . Dönitz was rewarded by promotion from Commodore to Rear Admiral and was made Flag Officer of U Boats .

Prien was nicknamed " The Bull of Scapa Flow " and his crew decorated U 47 's conning tower with a snorting bull mascot , later adopted as the emblem of the 7th U boat Flotilla . He found himself in demand for radio and newspaper interviews , and his ' autobiography ' was published the following year , titled Mein Weg nach Scapa Flow . Ghost written for him by a German journalist , in the post war years certain of its claims , and in particular those relating to the events of October 1939 , were brought into question .

The British Admiralty 's official report into the disaster condemned the defences at Scapa Flow , and censured Sir Wilfred French , Admiral Commanding Orkney and Shetland , for their unprepared state . French was placed on the retired list , despite having warned the previous summer of Scapa Flow 's deficient anti submarine defences , and volunteering to bring a small ship or submarine himself past the blockships to prove his point . On Churchill 's orders , the eastern approaches to Scapa Flow were sealed with concrete causeways linking Lamb Holm , Glimps Holm , Burray and South Ronaldsay to Mainland . Constructed largely by Italian prisoners of war , the Churchill Barriers , as they became known , were essentially complete by September 1944 , though they were not opened officially until just after VE Day in May 1945 . They now form part of the transport infrastructure of Orkney , carrying the A961 road between the islands .

In the years that followed , a rumour circulated that Prien had been guided into Scapa by one Alfred Wehring , a German agent living in Orkney in the guise of a Swiss watchmaker named Albert Oertel . Following the attack , ' Oertel ' escaped with the submarine B 06 back to Germany . This account of events originated as an article by the journalist Curt Riess in the 16 May 1942 issue of the American magazine Saturday Evening Post and was later embellished by other authors , who added details of their own . Post war searches through German and Orcadian archives have , however , failed to find any evidence for the existence of Oertel , Wehring or a submarine named B 06 , and the story is now held to be wholly fictitious . The Orkneys ' chief librarian , in a 1983

letter on the matter to the historian Nigel West , offered his suggestion that the name Albert Oertel was likely a pun on the well @-@ known Albert Hotel in Kirkwall .

= = = Survivors = = =

In the immediate aftermath of the sinking , Royal Oak 's survivors were billeted in the towns and villages of Orkney . A funeral parade for the dead took place at Lyness on Hoy on 16 October ; many of the surviving crew , having lost all their own clothing on the ship , attended in borrowed boiler suits and gym shoes . They were generally granted a few days survivors ' leave by the navy , and then assigned to ships and roles elsewhere . Kenneth Toop , who survived the sinking while serving as a Boy , First Class on Royal Oak , served as the Royal Oak Association 's Honorary Secretary . An annual ceremony of remembrance is held by the survivors and descendants of the crew at the Naval War Memorial , Southsea , on the anniversary of the sinking . As of March 2016 , Arthur Smith was the last remaining survivor from the ship 's company .

Prien did not survive the war : he and U @-@ 47 were lost under unclear circumstances on 7 March 1941 , possibly as a result of an attack by the British destroyer HMS Wolverine . News of the loss was kept secret by the Nazi government for ten weeks . Several U @-@ 47 crew from the Royal Oak mission did survive , having been transferred to other vessels . Some of them subsequently met with their former enemies from Royal Oak and forged friendships with them .

= = Wreck = =

= = = Status as war grave = = =

Despite the relatively shallow water in which she sank , the majority of bodies could not be recovered from Royal Oak . Marked by a buoy at  $58^{\circ} 55' 51'' \text{ N } 2^{\circ} 59' 00'' \text{ W}$  , the wreck has been designated a war grave and all diving or other unauthorised forms of exploration are prohibited under the Protection of Military Remains Act 1986 . In clear water conditions , the upturned hull can be seen reaching to within 5 m of the surface . The brass letters that formed Royal Oak 's name were removed as a keepsake by a recreational diver in the 1970s . They were returned almost twenty years later , and are now displayed in the Scapa Flow visitor centre in Lyness . Royal Oak 's loss is commemorated in an annual ceremony in which Royal Navy divers place the White Ensign underwater at her stern . A memorial at St Magnus ' Cathedral in nearby Kirkwall displays a plaque dedicated to those who lost their lives , beneath which a book of remembrance lists their names . This list of names was not released by the Government until 40 years after the sinking . Each week a page of the book is turned . The ship 's bell was recovered in the 1970s and , after being restored , was added to the memorial in St Magnus ' . A number of bodies , including some that could not be identified , were interred at the naval cemetery in Lyness .

= = = Environmental concerns = = =

Royal Oak sank with up to 3 @, @ 000 tons of fuel oil aboard , the precise amount being unknown since such records were lost with the ship . Oil leaked from the corroding hull at an increased rate during the 1990s and concerns about the environmental impact led the Ministry of Defence to consider plans for extracting it . Royal Oak 's status as a war grave required that surveys and any proposed techniques for removing the oil be handled sensitively : plans in the 1950s to raise and salvage the wreck had been dropped in response to public opposition . In addition to the ethical concerns , poorly managed efforts could destabilise the wreck , resulting in a mass release of the remaining oil ; the ship also contains many tons of unexploded ordnance .

The MOD commissioned a series of multi @-@ beam sonar surveys to image the wreck and appraise its condition . The high @-@ resolution sonograms showed Royal Oak to be lying almost upside down with her top works forced into the seabed . The tip of the bow had been blown off by U



@-@ 47 's first torpedo and a gaping hole on the starboard flank was the result of the triple strike from her second successful salvo . Following several years of delays , Briggs Marine was contracted by the MoD to conduct the task of pumping off the remaining oil . Royal Oak 's mid @-@ construction conversion to fuel oil had placed her fuel tanks in unconventional positions , complicating operations . By 2006 , all double bottom tanks had been cleared and the task of removing oil from the inner wing tanks with cold cutting equipment began the next year . By 2010 , some 1600 tonnes of fuel oil had been removed , and the wreck was declared to be no longer actively releasing oil into Scapa Flow . Operations continue at a reduced pace to tackle the oil known to be remaining .