

= German battleship Scharnhorst =

Scharnhorst was a German capital ship , alternatively described as a battleship and battlecruiser , of Nazi Germany 's Kriegsmarine . She was the lead ship of her class , which included one other ship , Gneisenau . The ship was built at the Kriegsmarinewerft dockyard in Wilhelmshaven ; she was laid down on 15 June 1935 and launched a year and four months later on 3 October 1936 . Completed in January 1939 , the ship was armed with a main battery of nine 28 cm (11 in) C / 34 guns in three triple turrets . Plans to replace these weapons with six 38 cm (15 in) SK C / 34 guns in twin turrets were never carried out .

Scharnhorst and Gneisenau operated together for much of the early portion of World War II , including sorties into the Atlantic to raid British merchant shipping . During her first operation , Scharnhorst sank the auxiliary cruiser HMS Rawalpindi in a short engagement . Scharnhorst and Gneisenau participated in Operation Weserübung , the German invasion of Norway . During operations off Norway , the two ships engaged the battlecruiser HMS Renown and sank the aircraft carrier HMS Glorious as well as her escort destroyers Acasta and Ardent . In that engagement Scharnhorst achieved one of the longest @-@ range naval gunfire hits in history .

In early 1942 , after repeated British bombing raids , the two ships made a daylight dash up the English Channel from occupied France to Germany . In early 1943 , Scharnhorst joined the Bismarck @-@ class battleship Tirpitz in Norway to interdict Allied convoys to the Soviet Union . Scharnhorst and several destroyers sortied from Norway to attack a convoy ; the Germans were instead intercepted by British naval patrols . During the Battle of the North Cape , the Royal Navy battleship HMS Duke of York and her escorts sank Scharnhorst . Only 36 men were pulled from the icy seas , out of a crew of 1 @, @ 968 .

= = Construction and characteristics = =

Scharnhorst was ordered as Ersatz Elsass as a replacement for the old pre @-@ dreadnought Elsass , under the contract name " D. " The Kriegsmarinewerft in Wilhelmshaven was awarded the contract , where the keel was laid on 16 July 1935 . The ship was launched on 3 October 1936 , witnessed by Adolf Hitler , Minister of War Generalfeldmarschall Werner von Blomberg , and the widow of Kapitän zur See Schultz , the commander of the armored cruiser Scharnhorst , which had been sunk at the Battle of the Falkland Islands during World War I. Fitting @-@ out work followed her launch , and was completed by January 1939 . Scharnhorst was commissioned into the fleet on 9 January for sea trials , which revealed a dangerous tendency to ship considerable amounts of water in heavy seas . This caused flooding in the bow and damaged electrical systems in the forward gun turret . As a result , she went back to the dockyard for extensive modification of the bow . The original straight stem was replaced with a raised " Atlantic bow . " A raked funnel cap was also installed during the reconstruction , along with an enlarged aircraft hangar ; the main mast was also moved further aft . The modifications were completed by November 1939 , by which time the ship was finally fully operational .

Scharnhorst displaced 32 @, @ 100 long tons (32 @, @ 600 t) as built and 38 @, @ 100 long tons (38 @, @ 700 t) fully loaded , with a length of 234 @. @ 9 m (771 ft) , a beam of 30 m (98 ft) and a maximum draft of 9 @. @ 9 m (32 ft) . She was powered by three Brown , Boveri & Cie geared steam turbines , which developed a total of 159 @, @ 551 shp ; 118 @, @ 977 kW and yielded a maximum speed of 31 @. @ 5 knots (58 @. @ 3 km / h ; 36 @. @ 2 mph) on speed trials . Her standard crew numbered 56 officers and 1 @, @ 613 enlisted men , augmented during the war to 60 officers and 1 @, @ 780 men . While serving as a squadron flagship , Scharnhorst carried an additional ten officers and 61 enlisted men .

She was armed with nine 28 cm (11 @. @ 1 in) L / 54 @. @ 5 guns arranged in three triple gun turrets : two turrets forward , one superfiring ? Anton and Bruno ? and one aft ? Caesar . The design also enabled the ship to be up @-@ gunned with six 15 inch guns which never took place . Her secondary armament consisted of twelve 15 cm (5 @. @ 9 in) L / 55 guns , fourteen 10 @. @ 5 cm L / 65 and sixteen 3 @. @ 7 cm (1 @. @ 5 in) L / 83 , and initially ten 2 cm (0 @. @ 79 in) anti

@-@ aircraft guns . The number of 2 cm guns was eventually increased to thirty @-@ eight . Six 53 @. @ 3 cm (21 @. @ 0 in) above @-@ water torpedo tubes , taken from the light cruisers Nürnberg and Leipzig , were installed in 1942 .

= = Commanding officers = =

At her commissioning , Scharnhorst was commanded by Kapitän zur See (KzS) Otto Ciliac . His tenure as the ship 's commander was brief ; in September 1939 , an illness forced him to go on sick leave , and he was replaced by KzS Kurt @-@ Caesar Hoffmann . Hoffmann served as the ship 's captain until 1942 . On 1 April 1942 , Hoffmann , who had been promoted to Konteradmiral (Rear Admiral) and awarded the Knight 's Cross , transferred command of the ship to KzS Friedrich Hüffmeier . In October 1943 , shortly before Scharnhorst 's last mission , Hüffmeier was replaced by KzS Fritz Hintze , who was killed during the ship 's final battle .

= = Service history = =

Scharnhorst 's first operation began on 21 November 1939 ; the ship , in company with her sister Gneisenau , the light cruiser Köln , and nine destroyers , was to patrol the area between Iceland and the Faroe Islands . The intent of the operation was to draw out British units and ease the pressure on the heavy cruiser (" pocket battleship ") Admiral Graf Spee , which was being pursued in the South Atlantic . Two days later , the German flotilla intercepted the British armed merchant cruiser Rawalpindi . At 16 : 07 , lookouts aboard Scharnhorst spotted the vessel , and less than an hour later Scharnhorst had closed the range . At 17 : 03 , Scharnhorst opened fire , and three minutes later a salvo of her 28 cm guns hit Rawalpindi 's bridge , killing the captain and the majority of the officers . During the brief engagement , Rawalpindi managed to score a hit on Scharnhorst , which caused minor splinter damage .

By 17 : 16 , Rawalpindi was burning badly and in the process of sinking . Admiral Wilhelm Marschall , aboard Gneisenau , ordered Scharnhorst to pick up survivors . These rescue operations were interrupted by the appearance of the cruiser Newcastle . The German force quickly fled north before using inclement weather to make the dash south through the North Sea . Four allied capital ships , the British Hood , Nelson , Rodney , and the French Dunkerque followed in pursuit . The Germans reached Wilhelmshaven on 27 November , and on the trip both battleships incurred significant damage from heavy seas and winds . Scharnhorst was repaired in Wilhelmshaven , and while in dock , her boilers were overhauled .

= = = Operation Weserübung = = =

Following the completion of repairs , Scharnhorst went into the Baltic Sea for gunnery training . Heavy ice in the Baltic kept the ship there until February 1940 when she could return to Wilhelmshaven , arriving on 5 February . She was then assigned to the forces participating in Operation Weserübung , the invasion of Denmark and Norway . Scharnhorst and Gneisenau were the covering force for the assaults on Narvik and Trondheim ; the two ships left Wilhelmshaven on the morning of 7 April . They were joined by the heavy cruiser Admiral Hipper . Later that day , at around 14 : 30 , the three ships came under attack by a force of British bombers , which failed to make any hits . Heavy winds caused significant structural damage that evening , and flooding contaminated a portion of Scharnhorst 's fuel stores .

At 09 : 15 the following morning , Admiral Hipper was detached to reinforce the destroyers at Narvik , which had reported engaging British forces . Early on 9 April , the two ships encountered the British battlecruiser HMS Renown . Gneisenau 's Seetakt radar picked up a radar contact at 04 : 30 , which prompted the crews of both vessels to go to combat stations . Half an hour later , Scharnhorst 's navigator spotted gun flashes from Renown firing at Gneisenau ; the Germans returned fire three minutes later . Gneisenau was hit twice in the opening portion of the engagement , and one shell disabled her rear gun turret . Scharnhorst 's radar malfunctioned , which prevented her from being

able to effectively engage Renown during the battle . At 05 : 18 , the British battlecruiser shifted fire to Scharnhorst , which maneuvered to avoid the falling shells . By 07 : 15 , Scharnhorst and Gneisenau had used their superior speed to escape from the pursuing Renown . Heavy seas and the high speed with which the pair of battleships escaped caused them to ship large amounts of water forward . Scharnhorst 's forward turret was put out of action by severe flooding . Mechanical problems with her starboard turbines developed after running at full speed , which forced the ships to reduce speed to 25 knots (46 km / h ; 29 mph) .

Scharnhorst and Gneisenau had reached a point north @-@ west of Lofoten , Norway , by 12 : 00 on 9 April . The two ships then turned west for 24 hours while temporary repairs were effected . After a day of steaming west , the ships turned south and rendezvoused with Admiral Hipper on 12 April . An RAF patrol aircraft spotted the three ships that day , which prompted an air attack . The German warships were protected by poor visibility , however , and the three ships safely reached port later that day . Scharnhorst returned to Germany , and was repaired at the Deutsche Werke in Kiel . During the repair process , the aircraft catapult that had been installed on the rear gun turret was removed .

The two ships left Wilhelmshaven on 4 June to return to Norway . They were joined by Admiral Hipper and four destroyers . The purpose of the sortie was to interrupt Allied efforts to resupply the Norwegians and to relieve the pressure on German troops fighting in Norway . On 7 June , the squadron rendezvoused with the tanker Dithmarschen to refuel Admiral Hipper and the four destroyers . The next day , a British corvette was discovered and sunk , along with the oil tanker Oil Pioneer . The Germans then launched their Arado 196 float planes to search for more Allied vessels . Admiral Hipper and the destroyers were sent to destroy Orama , a 19 @, @ 500 long tons (19 @, @ 800 t) passenger ship , while Atlantis , a hospital ship , was allowed to proceed unmolested . Admiral Marschall detached Admiral Hipper and the four destroyers to refuel in Trondheim , while he would steam to the Harstad area .

At 17 : 45 , the German battleships spotted the British aircraft carrier Glorious and two escorting destroyers , Ardent and Acasta , at a range of some 50 @, @ 000 m (55 @, @ 000 yd) . Scharnhorst was closer and therefore fired first . Six minutes after opening fire , Scharnhorst scored a hit at a range of 24 @, @ 100 m (26 @, @ 400 yd) . The shell struck the carrier 's upper hangar and started a large fire . Less than ten minutes later , a shell from Gneisenau struck the bridge and killed Glorious 's captain . The two destroyers attempted to cover Glorious with smoke screens , but the German battleships could track the carrier with their radar . By 18 : 26 the range had fallen to 25 @, @ 600 m (28 @, @ 000 yd) , and Scharnhorst and Gneisenau were firing full salvos at the carrier . After approximately an hour of shooting , the German battleships sent Glorious to the bottom . They also sank the two destroyers . Before sinking one of them , Acasta , managed to hit Scharnhorst with a torpedo at 18 : 39 . Acasta also hit Scharnhorst 's forward superfiring turret with her 4 @. @ 7 " QF guns , which did negligible damage . The torpedo hit caused serious damage ; it tore a hole 14 by 6 m (15 @. @ 3 by 6 @. @ 6 yd) and allowed 2 @, @ 500 t (2 @, @ 500 long tons ; 2 @, @ 800 short tons) of water into the ship . The rear turret was disabled and 48 men were killed . The flooding caused a 5 degree list , increased the stern draft by almost a meter , and forced Scharnhorst to reduce speed to 20 knots (37 km / h ; 23 mph) . The ship 's machinery was also significantly damaged by the flooding , and the starboard propeller shaft was destroyed .

The damage was severe enough to force Scharnhorst to put into Trondheim for temporary repairs . She reached port on the afternoon of 9 June , where the repair ship Huaskaran was waiting . The following day a reconnaissance plane from RAF Coastal Command spotted the ship , and a raid by twelve Hudson bombers took place on 11 June . The Hudsons dropped thirty @-@ six 227 lb (103 kg) armor @-@ piercing bombs , which all missed . The Royal Navy joined in the attacks on the ship by sending the battleship Rodney and the aircraft carrier Ark Royal . On 13 June , Ark Royal launched fifteen Skua dive bombers ; German fighters intercepted the attackers and shot eight of them down . The other seven made it past the air defenses and attacked Scharnhorst , but only scored one hit , and the bomb failed to detonate . Preliminary repairs were completed by 20 June , which permitted the ship to return to Germany . While Scharnhorst was en route under heavy escort on 21 June , the British launched two air attacks , six Swordfish torpedo bombers in the first and

nine Beaufort bombers in the second . Both were driven off by anti @-@ aircraft fire and fighters . The Germans intercepted British radio traffic that indicated the Royal Navy was at sea , which prompted Scharnhorst to make for Stavanger . British warships were within 35 nmi (65 km ; 40 mi) of Scharnhorst 's position when she turned to Stavanger . The next day , Scharnhorst left Stavanger for Kiel , where repairs were carried out , lasting some six months .

= = = Operation Berlin = = =

Following the completion of repairs , Scharnhorst underwent trials in the Baltic before returning to Kiel in December 1940 . There she joined Gneisenau , in preparation for Operation Berlin , a planned raid into the Atlantic Ocean designed to wreak havoc on the Allied shipping lanes . Severe storms caused damage to Gneisenau but Scharnhorst was undamaged . The two ships were forced to put into port during the storm : Scharnhorst went to Gotenhafen while Gneisenau went to Kiel for repairs . Repairs were quickly completed , and on 22 January 1941 , the two ships , under the command of Admiral Günther Lütjens , left port for the North Atlantic . They were detected in the Skagerrak and the heavy units of the British Home Fleet deployed to cover the passage between Iceland and the Faroes . The Germans ' radar detected the British at long range , which allowed Lütjens to avoid the British patrols , with the aid of a squall . By 3 February , the two battleships had evaded the last British cruiser patrol , and had broken into the open Atlantic .

On 6 February , the two ships refueled from the tanker Schlettstadt south of Cape Farewell . Shortly after 08 : 30 on 8 February , lookouts spotted convoy HX @-@ 106 , escorted by the battleship Ramillies . Lütjens ' orders prohibited him from engaging Allied capital ships , and so the attack was called off . Scharnhorst 's commander , KzS Hoffmann , however , closed to 23 @,@ 000 m (25 @,@ 000 yd) in an attempt to lure Ramillies away from the convoy so that Gneisenau could attack the convoy . Lütjens ordered Hoffmann to rejoin the flagship immediately . The two battleships steamed off to the northwest to search for more shipping . On 22 February , the pair spotted an empty convoy sailing west , which dispersed at the appearance of the battleships . Scharnhorst managed to sink only one ship during the encounter , the 6000 ton tanker Lustrous .

Lütjens then decided to move to a new area , as the surviving members of the dispersed convoy had sent distress signals . He chose the Cape Town @-@ Gibraltar convoy route , and positioned himself to the northwest of Cape Verde . The two ships encountered another convoy , escorted by the battleship Malaya , on 8 March . Lütjens again forbade an attack , but he shadowed the convoy and directed U @-@ boats to attack . A pair of U @-@ boats sank a total of 28488 tons of shipping on the night of 8 ? 9 March . Malaya turned on the two battleships and closed to 24 @,@ 000 m (26 @,@ 000 yd) , well within the range of the Germans ' guns , but Lütjens refused to be drawn into an engagement . He instead turned toward the mid @-@ Atlantic , where Scharnhorst sank the Greek cargo ship Marathon . The two ships then refueled from the tankers Uckermark and Ermland on 12 March .

On 15 March , the two battleships , with the two tankers in company , encountered a dispersed convoy in the mid @-@ Atlantic . Scharnhorst sank two ships . Several days later , the main body of the convoy was located , and Scharnhorst sank another seven ships totaling 27277 tons . One of the surviving ships radioed the location of the German battleships , which summoned the powerful British battleships Rodney and King George V. Scharnhorst and Gneisenau used their high speed to escape in a squall , and the intervention by the British battleships convinced Lütjens that the chances of further success were small . He therefore decided to head for Brest in occupied France , which the ships reached on 22 March . Throughout the operation , Scharnhorst had difficulties with the superheater tubes in her boilers . Work lasted until July , which caused the ship to be unavailable during Operation Rheinübung , the sortie by the new battleship Bismarck in May 1941 .

= = = Air raid on 24 July 1941 = = =

After repairs were completed in July , Scharnhorst went to La Pallice for trials on the 21st , where she easily steamed at 30 knots (56 km / h ; 35 mph) . On 24 July , RAF B @-@ 17s and B @-@

24s attacked the ship while she was anchored there . The bombers scored five hits in an almost straight line on the starboard side , parallel to the centerline . Three of the bombs were 454 kg (1 @,@ 001 lb) armor @-@ piercing bombs , and the other two were 227 kg (500 lb) high @-@ explosive bombs . One of the 227 kg bombs hit the deck just forward of the starboard 15 cm twin turret next to the conning tower . It passed through the upper and middle decks before exploding on the main armored deck , which contained the blast . The joints with the torpedo bulkhead were weakened enough to cause leaking . The second 227 kg bomb fell forward of the rear main battery turret and penetrated the first two decks . It also exploded on the armored deck and tore a small hole in it . The explosion caused splinter damage and disabled the ammunition hoists for the 37 mm anti @-@ aircraft guns .

Two of the 454 kg bombs hit amidships between the 15 cm and 10 @.@ 5 cm gun turrets ; both failed to explode and penetrated the ship completely . The first went through each deck and exited the ship through the double bottom , while the other was deflected by the torpedo bulkhead and penetrated the hull beneath the side belt armor . The third 454 kg bomb hit abaft of the rear 28 cm turret , about 3 m (9 @.@ 8 ft) from the side of the ship . It too failed to detonate , and passed through the side of the hull , which was not protected by the main armor belt . These three hits caused significant flooding and caused an 8 degree list to starboard . The forward and rear gun turrets were temporarily disabled , along with half of her anti @-@ aircraft battery . Two men were killed and fifteen were injured in the attack . Damage control teams managed to correct the list with counter @-@ flooding , and although draft increased by 1 m (3 @.@ 3 ft) , Scharnhorst was able to leave for Brest at 19 : 30 . On the morning of 25 July , one of the escorting destroyers shot down a British patrol plane . The ship reached Brest later that day and went into dry dock for repairs . While the damage was being repaired , a new radar system was installed aft , the power output for the forward radar was increased to 100 kW , and the 53 @.@ 3 cm torpedo tubes were installed .

= = = Operation Cerberus = = =

On 12 January 1942 , the German Naval Command , in a conference with Hitler , made the decision to return Scharnhorst , Gneisenau , and the heavy cruiser Prinz Eugen to Germany . The intention was to deploy the vessels to Norway to interdict Allied convoys to the Soviet Union . The so @-@ called " Channel Dash " , codenamed Operation Cerberus , would avoid the increasingly effective Allied radar and patrol aircraft in the Atlantic . Vice Admiral Otto Ciliax , Scharnhorst 's first commander , was given command of the operation . In early February , minesweepers swept a route through the English Channel undetected by the British .

At 23 : 00 on 11 February , Scharnhorst , Gneisenau , and Prinz Eugen left Brest . They entered the Channel an hour later ; the three ships sped at 27 knots (50 km / h ; 31 mph) , hugging the French coast along the voyage . The British failed to detect their departure , as the submarine that had been tasked with observing the port had withdrawn to recharge its batteries . By 06 : 30 , they had passed Cherbourg , at which point they were joined by a flotilla of torpedo boats . The torpedo boats were led by Kapitän Erich Bey , aboard the destroyer Z29 . General der Jagdflieger (General of Fighter Force) Adolf Galland directed Luftwaffe fighter and bomber forces (Operation Donnerkeil) during Cerberus . The fighters flew at masthead @-@ height to avoid detection by the British radar network . Liaison officers were present on all three ships . German aircraft arrived later to jam British radar with chaff . By 13 : 00 , the ships had cleared the Strait of Dover Half an hour later , a flight of six Swordfish torpedo bombers , with Spitfire escort , attacked the Germans . The British failed to penetrate the Luftwaffe fighter shield , and all six Swordfish were destroyed .

Scharnhorst did not make the voyage unscathed , however ; at 15 : 31 she struck an air @-@ dropped magnetic mine in the mouth of the Scheldt , abreast of the forward superfiring turret . The blast damaged the ship 's circuit breakers and knocked out her electrical system for 20 minutes . The explosive shock caused serious damage ; turret Bruno was jammed , as were the twin and single 15 cm mounts on the port side . The blast also damaged the fuel oil pumps and the bearings in the turbo @-@ generators , which brought the ship to a halt . The power outage disabled the emergency shut @-@ off switches to the boilers and turbines , which could not be turned off until

power was restored . The explosion tore a large gash in the side of the hull and allowed 1 @, @ 220 t (1 @, @ 200 long tons ; 1 @, @ 340 short tons) of water into the ship , flooding 30 watertight spaces within five main watertight compartments . Scharnhorst took on a list of one degree and was down by the bows by a meter .

While the ship was immobilized , Admiral Ciliax transferred to Z29 . The engine room crews managed to restart the first turbine at 15 : 49 , nearly twenty minutes after the mine explosion . The second and third turbines were restarted at 15 : 55 and 16 : 01 , respectively , which permitted a speed of 27 knots (50 km / h ; 31 mph) . At around the time the last turbine was restarted , a single bomber dropped several bombs approximately 90 m (98 yd) off Scharnhorst 's port side , which caused no damage . Once the ship was back under way , twelve Beauforts launched a 10 @-@ minute attack that was beaten off by anti @-@ aircraft fire and the escorting Luftwaffe fighters . The British carried out a series of attacks that were all unsuccessful ; Scharnhorst 's anti @-@ aircraft guns were red @-@ hot by the end of the action , and one 20 mm gun had burst from the strain .

The ship struck another mine off Terschelling on the starboard side at 22 : 34 . The mine briefly knocked out the power system and temporarily disabled the rudders . Two of the three turbines were jammed , and the third had to be turned off . Another 300 t (300 long tons ; 330 short tons) tons of water flooded ten watertight spaces in four main compartments . Only the centerline shaft was operational , which permitted a speed of only 10 knots (19 km / h ; 12 mph) . Partial power was eventually restored to the starboard turbine , which allowed speed to be increased to 14 knots (26 km / h ; 16 mph) . The shock damaged the rotating parts of all of the ship 's gun turrets , and three of the 15 cm turrets were seriously jammed . By 08 : 00 , Scharnhorst had reached the Jade Bight but ice prevented the ship from entering Wilhelmshaven . While waiting outside the port , Admiral Ciliax returned to the ship . The ice had been cleared by noon , permitting Scharnhorst 's entrance to Wilhelmshaven . Two days later , Scharnhorst went to Kiel for permanent repairs . Work was conducted in a floating dry dock and lasted until July 1942 . Afterward , another round of trials were conducted in the Baltic , which revealed the necessity of replacing several of the boiler tubes .

= = = Deployment to Norway = = =

In early August 1942 , Scharnhorst conducted exercises in cooperation with several U @-@ boats . During the maneuvers , she collided with the German submarine U @-@ 523 , which caused damage that necessitated dry @-@ docking for repairs . Work was completed by September , and the ship conducted further training in the Baltic . Scharnhorst steamed to Gotenhafen in late October for a new rudder , the design of which was based on the lessons learned from the torpedoing of Prinz Eugen and Lützow earlier in the year . Boiler and turbine troubles kept the ship in Germany for the remainder of 1942 . By December , only two of the three shafts were operational and a complete overhaul of the propulsion system was required . In early January 1943 , the ship was back in service , and after trials , left Germany on 7 January in company with Prinz Eugen and five destroyers . Reports of heavy activity in British airfields near the coast prompted the force to return to port , however . Another attempt to reach Norway was canceled under similar circumstances . On 8 March , however , poor weather grounded the British bombers , and so Scharnhorst and four destroyers were able to make the journey to Norway . A severe storm off Bergen forced the destroyers to seek shelter but Scharnhorst was able to continue on at the reduced speed of 17 knots (31 km / h ; 20 mph) . At 16 : 00 on 14 March , Scharnhorst dropped anchor in Bogen Bay outside Narvik . There she met Lützow and the battleship Tirpitz .

On 22 March , Scharnhorst , Tirpitz , and Lützow steamed to Altafjord for repairs to damage incurred in heavy storms . In early April , Scharnhorst , Tirpitz , and nine destroyers conducted a training mission to Bear Island in the Arctic Ocean . On the 8th , a serious internal explosion occurred in the aft auxiliary machinery space above the armor deck . The explosion killed or injured 34 men and prompted the crew to flood the magazines for turret Caesar as a precaution against a magazine explosion . A repair ship completed work on the vessel in two weeks . Fuel shortages prevented major operations for the next six months , during which Scharnhorst was able to conduct only short training maneuvers .

Scharnhorst , Tirpitz , and nine destroyers embarked from Altafjord on an offensive on 6 September known as Operation Sicily ; the ships were tasked with bombarding the island of Spitzbergen . During the operation , Scharnhorst destroyed a battery of two 76 mm (3 @ 0 in) guns and shelled fuel tanks , coal mines , harbor facilities , and military installations . Of particular importance was the weather station that was transmitting weather information to the Allies , which was used to schedule convoys to the Soviet Union . The destroyers landed some 1 @ 000 troops , which pushed the Norwegian garrison into the mountains , completing the mission without major loss . On 22 September , a pair of British X @-@ craft mini @-@ submarines attacked and seriously damaged Tirpitz , which reduced the Arctic Task Force to Scharnhorst and her five escorting destroyers .

On 25 November 1943 Scharnhorst carried out a two @-@ hour full power trial achieving 29 @.@ 6 knots (54 @.@ 8 km / h ; 34 @.@ 1 mph) and it was noted that her draught had increased by over .5 metres (1 @.@ 6 ft) from her 1940 trials where she had attained 31 @.@ 14 knots (57 @.@ 67 km / h ; 35 @.@ 84 mph) .

= = = Battle of the North Cape = = =

With the rapidly deteriorating military situation for the German Army on the Eastern Front , it became increasingly important to interrupt the flow of supplies from the Western Allies to the Soviet Union . By December 1943 , the German Army was forced into continuous retreat . The Luftwaffe had been seriously weakened by four long years of war , and increasing Allied anti @-@ submarine capabilities were steadily degrading the effectiveness of the U @-@ boats . The only effective weapon at the disposal of the Germans in Norway was Scharnhorst ? Tirpitz was badly damaged , and the four remaining heavy cruisers were committed to the Baltic . During a conference with Hitler on 19 ? 20 December , Großadmiral Karl Dönitz decided to employ Scharnhorst against the next Allied convoy that presented itself . Erich Bey , by now promoted to Konteradmiral , was given command of the task force .

On 22 December Dönitz ordered Bey to be ready to go to sea on a three @-@ hour notice . Later that day , reconnaissance aircraft located a convoy of some 20 transports escorted by cruisers and destroyers approximately 400 nmi (740 km ; 460 mi) west of Tromsø . The convoy was spotted again two days later , and it was determined that the course was definitively toward the Soviet Union . A U @-@ boat reported the convoy 's location at 09 : 00 on 25 December , and Dönitz ordered Scharnhorst into action . In his instructions to Bey , Dönitz advised him to break off the engagement if presented with superior forces , but to remain aggressive . Bey planned to attack the convoy at 10 : 00 on 26 December if the conditions were favorable for the attack . At this time of year , there was only 45 minutes of full daylight and six hours of twilight , which significantly limited Bey 's operational freedom . The Germans were concerned with developments in Allied radar @-@ directed fire control , which allowed British battleships to fire with great accuracy in the darkness ; German radar capabilities lagged behind those of their opponents .

Scharnhorst and her five destroyers left port at around 19 : 00 and were in the open sea four hours later . At 03 : 19 , Bey received instructions from the Fleet Command that Scharnhorst was to conduct the attack alone if heavy seas interfered with the destroyers ' ability to fight . Unbeknown to the Germans , the British were reading the radio transmissions between Scharnhorst and the Fleet Command ; Admirals Robert Burnett and Bruce Fraser were aware of Bey 's plan for the attack on the convoy and could position their forces accordingly . At 07 : 03 , Scharnhorst was some 40 nmi (74 km ; 46 mi) southwest of Bear Island when she made a turn that would put her in position to attack the convoy at 10 : 00 . Admiral Burnett , commanding the three cruisers Norfolk , Belfast , and Sheffield escorting Convoy JW 55B , placed his ships between the convoy and Scharnhorst 's expected direction of attack . Fraser in the powerful battleship Duke of York , along with the cruiser Jamaica and four destroyers , moved to a position southwest of Scharnhorst to block a possible escape attempt .

An hour after making the turn , Bey deployed his destroyers in a line screening Scharnhorst , which remained 10 nmi (19 km ; 12 mi) behind . Half an hour later , Scharnhorst 's loudspeakers called

the crew to battle stations in preparation for the attack . At 08 : 40 , Belfast picked up Scharnhorst on her radar . The Germans were unaware that they had been detected , and they had turned off their radar to prevent the British from picking up on the signals . At 09 : 21 , Belfast 's lookouts spotted Scharnhorst at a range of 11 @, @ 000 m (12 @, @ 000 yd) . The cruiser opened fire three minutes later , followed by Norfolk two minutes after . Scharnhorst fired a salvo from turret Caesar before turning and increasing speed to disengage from the cruisers . The battleship was hit twice by 20 @. @ 3 cm (8 in) shells ; the first failed to explode and caused negligible damage , but the second struck the forward rangefinders and destroyed the radar antenna . The aft radar , which possessed only a limited forward arc , was the ship 's only remaining radar capability .

Scharnhorst turned south and attempted to work around the cruisers , but the superior British radar prevented Bey from successfully carrying out the maneuver . By 12 : 00 , Scharnhorst was to the northeast of the convoy , but Belfast had reestablished radar contact ; it took the cruisers twenty minutes to close the range and begin firing . Scharnhorst detected the cruisers with her aft radar and opened fire with her main battery guns before turning away to disengage a second time . Shortly before 12 : 25 , Scharnhorst hit Norfolk twice with 28 cm shells . The first shell hit the forward superstructure and disabled Norfolk 's gunnery radar . The second 28 cm round struck the ship 's " X " barrette and disabled the turret . Scharnhorst then turned again and increased speed , in the hopes of escaping the cruisers and finding the convoy . Burnett chose to keep his distance and shadow Scharnhorst with radar while Fraser made his way to the scene in Duke of York . Meanwhile , the five German destroyers continued searching for the convoy without success . At 13 : 15 , Bey decided to return to base , and at 13 : 43 , he dismissed the destroyers and instructed them to return to port .

At 16 : 17 , Duke of York made radar contact with Scharnhorst ; thirty minutes later , Belfast illuminated the German battleship with star shells . At 16 : 50 , Duke of York opened fire at a range of 11 @, @ 000 m (12 @, @ 000 yd) ; Scharnhorst quickly returned the fire . Five minutes after opening fire , one of Duke of York 's 14 in (35 @. @ 6 cm) shells struck Scharnhorst abreast of her forward gun turret . The shell hit jammed the turret 's training gears , putting it out of action . Shell splinters started a fire in the ammunition magazine , which forced the Germans to flood both forward magazines to prevent an explosion . Turret Bruno 's magazine was quickly drained . The ship was now fighting with only two @- @ thirds of her main battery . Shortly thereafter , another 14 in shell struck the ventilation trunk attached to Bruno , which caused the turret to be flooded with noxious propellant gases every time the breeches were opened . A third shell hit the deck next to turret Caesar and caused some flooding ; shell splinters caused significant casualties . At 17 : 30 , shells struck the forward 15 cm gun turrets and destroyed them both .

At around 18 : 00 , another 14 in shell struck the ship on the starboard side , passed through the thin upper belt armor , and exploded in the number 1 boiler room . It caused significant damage to the ship 's propulsion system and slowed the ship to 8 knots (15 km / h ; 9 @. @ 2 mph) . Temporary repairs allowed Scharnhorst to return to 22 knots (41 km / h ; 25 mph) . She managed to add 5 @, @ 000 m (5 @, @ 500 yd) to the distance between her and Duke of York , while straddling the ship with several salvos . Shell splinters rained on Duke of York and disabled the fire @- @ control radar .

At 18 : 42 , Duke of York ceased fire , after having fired 52 salvos and scoring at least 13 hits , but Scharnhorst was pulling away . Many of these hits had badly damaged the ship 's secondary armament , which left her open to destroyer attacks , which Fraser ordered . The destroyers Scorpion and HNoMS Stord launched a total of eight torpedoes at 18 : 50 , four of which hit . One torpedo exploded abreast of turret Bruno , which caused it to jam . The second torpedo hit the ship on the port side and caused some minor flooding , and the third struck toward the rear of the ship and damaged the port propeller shaft . The fourth hit the ship in the bow . The torpedoes slowed Scharnhorst to 12 knots (22 km / h ; 14 mph) , which allowed Duke of York to close to 9 @, @ 100 m (10 @, @ 000 yd) . With only turret Caesar operational , all available men were sent to retrieve ammunition from the forward turrets to keep the last heavy guns supplied . Fraser then ordered Jamaica and Belfast to move into range and finish the crippled ship off with torpedoes . After several more torpedo hits , Scharnhorst settled further into the water and began to list to starboard . At 19 :

45 , the ship went down by the bows , with her propellers still slowly turning . British ships began searching for survivors , but were soon ordered away after just a few were pulled out of the water where voices could still be heard calling for help from the darkness . Of the crew of 1 @,@ 968 officers and enlisted men , only 36 men survived .

= = Wreck discovery = =

In September 2000 , a joint expedition to find the sunken battleship conducted by the BBC , NRK , and the Royal Norwegian Navy began . The underwater survey vessel Sverdrup II , operated by the Norwegian Defence Research Establishment , was used to scan the sea floor . After locating a large submerged object , the research team then used the Royal Norwegian Navy 's underwater recovery vessel HNoMS Tyr to examine the object visually . The wreck was positively identified by an ROV on 10 September , which located armament consistent with that of Scharnhorst . The ship sank in approximately 290 m (950 ft) of water . The hull lies upside down on the seabed , with debris , including the main mast and rangefinders , scattered around the wreck . Extensive damage from shellfire and torpedoes is evident ; the bow was blown off , presumably from a magazine explosion in the forward turrets , and lies in a tangled mass of steel some distance from the rest of the hull .