Diving the SMS Kronprinz Wilhelm Wreck

An Overview

The Kronprinz Wilhelm is often the first of the three battleships that people dive as she is the shallowest: the top of hull is in 12 metres but most of the interesting features are deeper, below 30 metres, making here a good 35-metre dive well within the grasp of competent sports divers. Uniquely half the complement of 12 inch guns are accessible and easily visible: they offer a significant and unique opportunity to see the main armament of a dreadnought-era battleship, an importance that is hard to overstate. There are few other places in the world where guns of this class are so readily accessible (in sports diving depths of less than 40 metres). They are the cruise missiles of their day preserved at the bottom of Scapa Flow.

The Kronprinz Wilhelm lies almost upside down in 38 metres with her bows pointing north-west. Her superstructure prevented her from overturning completely so now her port side can be explored. The armour belt was salvaged from the side of the hull allowing safe access into a number of different areas of the ship.

As a trio, the battleships hold the most nourishment for divers but, due to their size, complexity and orientation, they require quite a few dives and a fair bit of homework to decipher. For this reason they often leave divers cold on the first few dives as, without a knowledge of where to go and what to see, they can appear as an impenetrable mass of twisted steel plates. However, the Kronprinz offers a good first step down the road of that understanding and opens the door on the other battleships too.

Construction

This is a simplified description of how battleships are constructed so it is not strictly accurate but the explanation will help to understand the mechanics of the structures that can be seen on the wreck. However, their construction is not immediately evident from what can be seen in the water.

Battleship construction is a conflict between three components: propulsion; defence and offence. As the weight of armour grows, so does the demands on the engines. Likewise, bigger guns need more horsepower, and better defence, whilst the cost mounts in the background. Speed is as much a part of the defence as the armoured steel whilst space constraints impose their own limits. The battleships are all a result of the balance of these conflicts and the compromises made by the naval architects during their design.

The Konig class ships are all, in simple terms, a big steel box with 12-inch walls. This is the ‘armoured citadel’ designed to protect the vital organs of the ship. Within this are five barbettes (armoured tubes) which in turn enclose the gun turrets.

The guns are all set along the midline of the ship and can rotate to fire a broadside either to port or starboard. These main guns are all of 12 inch calibre with five pairs of guns set in five turrets and designated A to E, from fore to aft. These guns are the main offence of the ship and factors such as the arc of fire, elevation and speed of reload are all vital in determining the ship’s fighting capability. Along the side of the deck, seven 5.9 inch casemate guns are mounted with an arc of fire roughly perpendicular to the hull as part of the defensive arsenal. Four high-elevation guns (though there were 10 as originally constructed) complete the arsenal and were mounted roughly mid-ships on the top of the accommodation.

This then is the fighting part of the ship. The box of the armoured citadel is then made ship-shaped with a bow and stern section at either end and propelled with engines, boilers, turbines, rudders and so forth.

The battleships were designed to absorb as much battle damage as possible so the hull is divided into many water-tight compartments. In addition, all important systems were duplicated, or triplicated, and then protected with armour. The best of technology was used to squeeze the maximum efficiency from all the working components.

Diving the Kronprinz Wilhelm

Bow Section

The first impression approaching the bow is the sense of scale. Much of the overall structure has been lost but the individual components are all there, from the curve of the stem as it becomes keel and the very tip of the hull to the two massive hull openings of the hawse pipe. They look large enough in diameter for a man to slide through, like the flumes at a water park.

The Forward Big Guns

As the Kronprinz Wilhelm turned turtle, on her way to the bottom, the anchor chains running along the deck wrapped round the port barrel of the A-turret. The roof of the gun-house was ripped off, exposing the internal mechanism of the turret and the two gun breaches.

The barrel with the chain wrapped round is visible just under an short overhang of the deck forward. The force also ripped the anchor capstan and shaft through the deck. By looking into the wreckage, the breach and exposed remains of the gun-house can be seen.

The ship was blasted at this point to remove the non-ferrous metal of the torpedo rooms. The battleships had torpedo rooms running laterally across the hull, forward of the front of the armoured citadel, firing perpendicular to the ship. In blasting this area, the front face of the forward barbette of the A-turret was exposed revealing a massive curve of 12-inch thick armoured steel as well as the cogs and shafts of the forward anchor capstans.

The mast sticks out from under the ship aft of this break. The spars and rigging are enormous; the centre of the mast has rungs to allow sailors to ascend.

At the mast's highest point lies the spotting top, a crow's nest that would have housed seamen watching where shells dropped into the sea and feeding information back to correct the range of the firing guns.

The salvage teams removed the armour plate from along the side of the ship. These plates would have been 12-feet thick, and taller than a man, running the whole length of the armoured citadel at the water-line. The plates represented the easiest way to remove large pieces of scrap steel in as few bites of the wreck as possible.

However, they were also important in maintaining the structure of the hull where it met the deck and, as they were removed, so the outermost section of the deck swung down from a level to a vertical orientation.

It is possible to see all the casemate guns: the forward five are on the seabed, and some are slightly obscured by plate, but all are visible and recognisable. The aft two casemate guns are obscured by overhanging deck and, being overhead, are often missed. However, once found they are starkly evident. The last casemate gun is directly above the penultimate turret and also marks the end of a run of lighter nine-inch side armour that is also distinctive.

Big Guns and Stern

Without doubt the most popular dive on the Kronprinz Wilhelm is to visit the turrets at the stern of the wreck. The shot line is usually kept in the same position so divers can drop down from where it is tied off and swim in under the overhanging hull.

Two turrets can be seen, one of which is mounted slightly higher so it could fire ('superfire') over the top of the aftermost. The barrels of the superfiring turret are almost completely buried in the silt, save for the muzzle of the nearest gun which is clear and shows off the impressive bore and rifling.

The two barrels from the aft turret project back toward the stern and the deck has collapsed down onto some of its length. The teak planking is clearly visible and has been snapped in places by the forces in the metal above.

The vents on the side of the gun house betray the thickness of the armour defending the guns inside whilst, on the roof, armoured covers remain that would have shielded the delicate sighting optics used in range finding.

The accommodation hatches that would have been opened in harbour have fallen down with the deck, blocking access any further toward the stern beneath the ship here, but a short hop to the outside of the hull and the rudders can be quickly found. The salvage explosions had quite an impact on the twin rudders which are twisted and bent, though still recognisable.

At the base of the rudders on each side it is possible to look into the rudder rooms and see the tiller arms and worm gear that would have connected the rudder engines to the rudder shaft. The scale of engineering is incredible despite the simplicity of the mechanics.

The stern itself is petite in comparison to the rest of the ship and, once again, the ship's lines show her beauty and the skill of her designers. Lightly armoured at this point, the shapes are all those of a ship rather than the solid implacable angles of the more armoured midships and citadel. The wreck rises sharply up just ahead of the rudders into the area shaped to take the propellers.

The Top of the Hull

The top of the hull is only in 12 metres of water at the shallowest point so it is a massive reef to the marine life in the Flow. Some of the deeper red algae grow here, sparse kelp and a host of more delicate species all flourishing free from diver's fins.

The hull is broken in places, exposing the double bottom and internal bracing, but along most of the length it is a smooth surface with only the run of the bilge keels to break the mould.