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The Royal Navy and Yapton's Stokers

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By Jim (the Barn) Payne

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When most people, myself included, begin to look at the Great War, we tend to read of the great land battles. Ypres, Gallipoli, Verdun or the Somme. Although most will know of the great battles at sea, they do not feature high in the history books in comparison, neither is information so readily available.

When I started to research the War Memorial Plaque in St. Mary's Church Yapton, I hadn't given a lot of thought to the sailors that had died. We have seven named on the memorial, six of who'm were stokers. This is signified by the prefix K on their service numbers. So, are stokers "just fella's that threw coal into a furnace?

All our boys were regular servicemen, having joined up several years prior to the start of the war.

Once they had completed their initial training, parade drill, naval history, housekeeping and rifle drill, they were assigned to His Majesty's Ship (HMS) Victory II. Victory was a land based training establishment for stokers and engine artificers, based in Portsmouth. In 1915, Victory was transferred to Crystal Palace South London, and re-located to Portsmouth at the end of the war. Here they would have to study the "Stokers Manual" a one hundred page book setting out the basics of Boilers, Furnaces, Engines, Turbines and the registering of Temperature, Steam, Oil and Water gauges.

The stoking of a furnace was a complicated affair. The lighting of a furnace, had to be treated with utmost care. The temperature brought up slowly and the fire even. The largest warships, for instance Dreadnoughts, could take up to five hundred tons of coal to bring them to steaming heat. Even heat was essential. The coals had to be spread across the floor of the furnace, with no cool areas. All the gauges had to be checked, to see the right temperature or pressure was achieved.

By the time of the war, turbine engines were to the fore. Oil fired boilers were not common till the latter part of the war. So the coaler was what the stokers concentrated on. There were several types of boiler and many different turbines, all with their own peculiarities.

To progress up the ranks, our man would have had an even larger manual of six hundred pages. Also learning more about the engines involved. He could then progress to Stoker First Class, or Petty Officer. Later in the war

It was possible for stokers to become Commissioned Officers with all the responsibilities that entailed. He could not be an uneducated man even though he would have left school at thirteen.

He would be in touch with the "Bridge " by speaking tube and the ships telegraph. The bridge would signal, Full Ahead, or Half Astern, for instance and the stoker would reply when the order was carried out.

Once he had finished his training, our stoker would be assigned to a ship. He would serve on her for the duration of a tour, lasting a few weeks, or even months, depending on which squadron the ship was attached to, for example, China Fleet or Mediterranean Fleet. Home base for our men would be Portsmouth, so all would manage a few days home leave, then either re-joining their ship or being assigned to another.

Life on board a warship was not terribly comfortable for the ordinary sailor. There would have been more space on an old fashioned sailing ship. Stokers would however, have their own Mess, usually on the Main Deck. Here they would eat and sleep between watches. Each rank, would have their own mess, so,

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Petty Officers would mess separately. This worked the same with washrooms. Steam coal dust is extremely difficult to wash off.
Although they would have had a cook, they would be expected to “muck in” with the chores. Some would take their turn at cooking. Especially when coming off a late watch.
Some of our stokers would have taken other courses and would be proficient in rifle sharpshooting, gunnery or fire fighting. All would look good on their service records and could have impacted on their pay. Stokers received better pay than the ordinary seaman, as their work was more strenuous and generally more arduous than the ordinary sailor. Our man would have worked a four hours on, eight off shift system. Boilers didn’t sleep!
At the start of the war, stokers numbers amounted to thirty nine thousand two hundred and seventy four. Contrasted with forty four thousand nine hundred and forty seven ordinary seaman in all the other trades. On all naval ships, stokers made up a high percentage of the crew. With an average ships compliment of eight hundred, stokers would have accounted for two hundred and fifty plus. So their importance can be appreciated.
During normal duty, a ship would travel at a steady speed. It was always important to preserve coal stocks. So a steady rate of “burn” would be maintained. The heat in the furnace rooms could still reach forty degrees. The boiler, furnace and engine rooms, were situated at lowest deck. So fresh air had to be pumped in. However not too much, as this could affect the draw of the fires.
The magazines were also on the lowest deck, although insulated and armoured. The roof of this deck was curved, for strength and in the hope shells or torpedoes would glance upwards. However it was not till later in the war that armour was increased in these areas.
Coaling a ship was an “all hands” including officers job. The ship would be shut down, that is, all guns carpeted, doors and vents closed. This was to keep as much dust out of the ship as possible. Not usually totally successful. The coal would be craned or barrowed onto the ship in bags. One hundredweight the usual mans carrying capacity, but if craned the bags were larger. It was then tipped into the bunker. Men would then spread it evenly, so as not to upset the trim of the ship. There would be a constant stream of coal and the dust inside the bunker terrible, especially as the level rose.

Coaling became almost a sport, with ships vying to coal up the fastest. HMS Colossus, held the record for some while, with eight hundred and sixty tons loaded in two hours and twenty minutes.
The average capacity was in excess of two thousand tons of coal and eight hundred tons of oil, used to increase burn rates.
It was sometimes necessary to re-fuel at sea, where they used an apparatus known as “Timperely Transporters”.

Army and Navy Volume 14. Courtesy, Royal Naval Library Portsmouth.

Cables would be rigged and the coaler would be towed by the warship, at about twelve knots. More cables and a tripod would be erected and the coal passed across in large sacks at about one ton a load. Roughly sixty tons an hour. It was

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not a task the sailors relished. After re coaling was finished, the whole ship was cleaned, back to naval standards.

The stokers worked in teams. The coal would be barrowed from the bunker to the stoker, who would then feed the furnace. Great care was needed when opening the furnace door, as blowback, an action of the draught being reversed, the heat in the furnace would blow outwards and the colossal temperature from the inside, enveloping all close by, resulting in terrible often fatal burns.
Periodically, clinker would have to be cleared from the furnace. It would be scraped out with a long rake and sprayed with water to cool. It was then put overboard. Another uncomfortable exercise with great clouds of steam, more heat and fumes.
Occasionally, deposits would build inside a furnace. It would be shut down, allowed to cool, a bit, and then our man would climb inside and scrape deposits off. This task was usually undertaken virtually naked, as that was the least uncomfortable mode of dress.
The rate of coal burned, varied dependent on the size of the ship. A battleship could devour forty tons of coal an hour at top speed, so no slacking for anyone.
So under normal circumstances, the stoker's job was pretty tricky. They would be fit men; they also would stick together, with the bond that all dangerous jobs develop. In fact, in pre-war days, if a shore party were needed, a Captain would look to the stokers for the mainstay. They could always handle themselves well.
During times when action was expected, Things would have been very hectic. The watch on duty, would probably stay on duty throughout the action. Always supplemented by more men. Watertight doors shut, there only contact with the outside world, would be through the speaking tube and telegraph. Very little information would be passed to them. They would know little of the action up top, other than very violent manoeuvres or the recoil from the great guns firing, especially if a broadside was fired.
Speed and more speed, was the order of the day. Many Commanders would congratulate the boys below on their efforts. Ships would achieve higher speeds than designers had allowed for. But they did it!
Being below the water line, our men were really vulnerable. Torpedoes were set to hit about ten feet below the water line and shells would try and disable or hit magazines to destroy them. Mines also a great threat and as they normally slid away from the front, then they would probably swing back and explode mid-ship.
All of these actions could bring death and destruction to our sailors and at the level they were at, little hope of survival. One can only hope the end came swiftly.

There are very few accounts of life for our wartime sailors. Unlike their fellow soldiers on land, they seemed not to record their experiences. Sadly, most sailors perished if their ships were sunk. Certainly this was the case of the ships our Yapton lads served on. One brief account states.
As the command, Abandon Ship, was given, they threw anything that could float, overboard. This in the hope in the hope they could cling onto it, as the lifeboats were often rendered useless. They jumped into the sea and managed to swim to a life raft. Others joined them. Some had terrible injuries from scalding steam. They were the stokers. One by one they sank into the icy water. It was probably a happy release from their pain. Till there were just a handful left. There were only six survivors from a crew of over seven hundred.

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Following, is a brief account of the Ships our lads served and died on. Included in the crews were “Boy Sailors”, aged from fifteen to eighteen. Officially, the Army did not send anyone to the front below the age of nineteen. This was not so in the Navy.

Henry Langrish Age 26, Stoker First Class
HMS Cressy, Sunk September 22 1914, North Sea

Cressy was commissioned in December 1909. She weighed twelve thousand tons and had a maximum speed of twenty one knots, with a peacetime crew of seven hundred and sixty, including two hundred and sixty stokers. Powered by a triple expansion turbine engine.
On 22 September 1914, Cressy was on patrol of the Dutch coast, along with HMS Aboukir and HMS Hogue. They were to keep watch for German Raiders, but were not really suited for the job, as they were too slow and under armed. A German Submarine, U9 spotted them. A torpedo struck Aboukir and she started to go down. Hogue and Cressy went to her aid. Another torpedo struck Aboukir damaging her fatally. Two torpedoes were fired at Cressy, one hit and blew her high enough out of the water, for another torpedo to pass underneath. The last torpedo struck Cressy exploding into the boiler room. Cressy rolled onto her side and took twenty minutes to sink. All three ships sank. Cressy lost five hundred and fifty men, one hundred and sixty were stokers, including Henry Langrish. Although Dutch trawlers came to their aid and saved as many as possible, a total of one thousand four hundred men perished in one short skirmish.

The Submarine U9, with which the Germans claimed to have torpedoed and sunk the three British cruisers Aboukir, Hogue, and Cressy, on September 22nd, 1914.

World War Picture History (1934) Edited by Sir John Hammerton.

U9 had more successes and it’s crew were treated as heroes in Germany. She was rammed by HMS Dreadnought in 1915 and all hands were lost.

Henry Allen, Age 34, Stocker Petty Officer
HMS Good Hope, Sunk November 1 1914 – Battle of Coronel

Henry Allen. Photo from the personal collection of Mr. Brian Wilson.

GOOD HOPE was commissioned in November 1902. She weighed fourteen thousand tons. Powered by forty three boilers and a top speed of twenty three knots. She carried two thousand five hundred tons of coal and seven hundred tons of fuel oil, giving her a range of seven thousand miles at fourteen knots. With a crew of nine hundred.
Good Hope was serving with her squadron off Nova Scotia at the outbreak of war. She was ordered to the

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Falkland Islands, leaving there on 22 October to seek out the German Asiatic Squadron, specifically ships Gneisenhau and Scharnhorst.

On 1 November 1914, together with HMS Monmouth, Glasgow and Otrano, they were informed a German Light Cruiser was nearby and gave chase. Unfortunately, when they caught up with the enemy ship, the whole German Squadron accompanied her. Too late, they tried to turn away, but Admiral Craddock the Commander had to do battle.

The German ships had better range and more firepower. Good Hope and Monmouth were silloueted in the sunset. Good Hope took three salvoes from Scharnhorst, a total of thirty five hits and although she continued firing, she slipped away from the main battle, blew in two and was seen no more. Monmouth was attacked by Nurnberg but kept firing, right up to disappearing beneath the waves. There were no survivors from either ship, a total of one thousand four hundred men lost. Henry Allen was one of them

Frank Bennett, Age 22, Stoker First Class and his Borther Herbert Bennett, Age 24, Stoker First Class
HMS Invincible, sunk May 31 1916 – Battle of Jutland

HMS INVINCIBLE was commissioned in 1909.She weighed seventeen thousand two hundred and fifty tons. Powered by four Stema turbines with thirty one boilers in four rooms. Four turbine generators produced the electricity. A top speed of twenty five and a half knots and a fuel load of three thousand and forty five tons of coal and seven hundred tons of fuel oil giving a range of three thousand five hundred miles at ten knots. She had a crew of over one thousand. HMS Invincible had already seen action in the battles of Heligoland Bight and the Falklands.
The Battle of Jutland, was the only time the British Battle Fleet and the German Dreadnoughts faced each other.
It was a haphazard and bloody battle, with two hundred and fifty ships and about one hundred thousand men involved.
The German Fleet had been harassing allied ships in the area, trying to tempt the British fleet into battle.
Admiral Hood, on Invincible gave chase. At 3.11pm, Invincible overheard a message saying the Germans were heading north, in order to escape. Hood increased speed, trying to head off the Germans. Another message intercepted, stated ”five enemy ships sighted”.
Hood ordered full speed, now the stokers would go for it. At 5.40 pm, gunfire was spotted. Invincible went to investigate. HMS Chester had come across four German Cruisers and had been badly damaged. Invincible arrived and drove the enemy away, after firing on Wiesbaden and disabling her. A Light Cruiser and Thirty One Destroyers accompanied Wiesbaden. The Germans loosed twelve torpedos. Invincible and her sister ships Inflexible and Indomitable, turned face on and the torpedo’s passed through. At 6.21pm with the Grand Fleet joining him, Hood led them towards the German ships. Invincible fired on Lutzow, Indomitable hit Derflinger three times and Sedilitz once. Lutzow was hit, fatally, by Lion, Inflexible and Invincible. But at 6.30pm, Invincible turned and presented a perfectly clear target for Lutzow and Derflinger. The Germans fired

three salvoes. One shell hit the amidships gun turret; this in turn caught the magazine and blew the ship in two. She sank in ninety seconds.

Invincible's last moments.
The Great War Volume 9. Edited by H W Wilson.

One thousand and twenty six men were killed, including Admiral Hood and the two Bennett Brothers.
There were only six survivors.

Charles Bowley Age 27, leading Stoker
HMS Black Prince, sunk May 31 or June 1 – Battle of Jutland

Invincible's last moments.
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HMS BLACK PRINCE was commissioned in 1906.She weighed twelve thousand seven hundred and ninety tons. With a maximum speed of twenty three knots and a range of nine thousand three hundred miles at ten knots. She was fitted with twenty six boilers and had a crew of seven hundred and ninety, in peacetime.
Black Prince was also involved in the Battle of Jutland, although the circumstances of her loss were unclear for some years.
The accepted report of her loss, came eventually from German records, after the war.
Black Prince had, somehow become detached from the main fleet after it came into contact with the enemy at about 5.45pm. Black Prince engaged the battleship Rhineland, at 11.30pm. She scored two hits. Then, possibly mistakenly, she approached the German line, at about 12.00, thinking it was her own squadron. Realizing her mistake, she tried to turn away, but it was too late. Thuringen fixed her in her searchlights and opened fire. Up to five German ships then joined in, firing from a range of between seven hundred and fifty to fifteen hundred yards. Point blank range for naval guns. At least twelve heavy shells and several smaller rounds struck home.
She sank in fifteen minutes with the loss of all her crew of eight hundred and fifty seven men, Charles Bowley included.
It is not recorded, whether the German ships tried to rescue survivors.

Albert Chitty age 26, Petty Officer Stoker
HMS Hampshire sunk June 16 1916, Coast of Scotland

HMS Hampshire was commissioned in1905. Weighing in at eleven thousand and twenty tons, a top speed of twenty two knots and a crew of six hundred and fifty five.

Hampshire had seen service throughout the war and had just returned from the Battle of Jutland. Based at Scapa Flow, she was told to prepare to leave with an " important passenger".
The important passenger was to be Lord Kitchener, the Commander in Chief British Forces, plus an entourage of Army and Civil Servants. They were bound on a secret mission to meet the Czar of Russia to discuss Britain's help for their war effort.
The weather was atrocious, with a force nine gale blowing. Hampshire left Scapa with an escort of two cruisers at 4.45pm. By 6.30pm, with the weather deteriorating, it was too bad for the cruisers and the fact that enemy submarines could not operate in such conditions, the cruisers were turned back and returned to base.
By 7.40pm Hampshire could only make thirteen and a half knots and was struggling. At 7.50pm, she struck a mine laid by a German submarine, U75, on May28 in preparation for the Battle of Jutland.
With no power, the ships boats could not be launched and at 8.05pm Hampshire sank. All but twelve perished in the icy water.
There were several conspiracy theories about the sinking. Kitchener was not universally liked. One, that a German spy had secreted a bomb on board and escaped by submarine. That was discounted, as U75 had dropped twelve mines, eleven had been found and exploded by the navy.
Other sources, say locals were told not to approach the beach, or launch rescue boats, under pain of being shot.
Our man Albert Chitty was not amongst the survivors.

So to sum up. Our lads from Yapton showed themselves to be among the unsung heroes of the Great War. In a section of the services almost totally overlooked.
Just blokes shovelling coal? Definitely not!

St. Mary's Yapton circa 1910.
Photo from the personal collection of Mr. David Ruffle.

St. Mary's Memorial Plaque
From the Authors personal collection.

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Endnotes

Technical data on all ships, from, Wikipedia.com

Histories of sinking of Hms Cressy, HMS Good Hope and Hampshire, Wikipedia, The Great War and Great War Picture History.

Histories of HMS Invincible and Black Prince, The Battle of Jutland 1916, by George Bonney, The History Press 2002.

Page three, paragraph three, accounts from HMS Hampshire survivors. Daily Observer and The Great War Forum.

