GLOBAL HISTORY OF CAPITALISM PROJECT

OXFORD CENTRE FOR GLOBAL HISTORY

Case Study #13 **November 2019**

The "A1" Reputation of the Lloyd's Register of Shipping

For over two hundred years, Lloyd's Register has surveyed and classified ships. Founded in 1760 in a coffeehouse on London's busy Lombard Street, the company then known as the Society for the Registry of Shipping, surveyed and classified the seaworthiness of ships. For the first time, underwriters and merchants could gain an idea of the condition of the vessels they insured and chartered while ship builders and shipowners could demonstrate seaworthiness. Lloyd's classified the best as "A1." This term would become the Register's greatest contribution to the popular lexicon and, ever since, the phrase "A1 at Lloyd's" connotes the highest quality.

As the Second Industrial Revolution took hold in the nineteenth century, new concerns about standardization arose and, with them, battles to decide what organisations had the authority to dictate standards. Victory was generally determined by some combination of reputation, expertise, luck, timing, state sanction, and the quality of the standard proposed. Lloyd's Register was able to set the standard for how ships should be built. While the Register technically only classified how ships should be insured, this financial motive (tied to safety and reliability) was a fitting starting point from which to define how maritime safety could be codified and guaranteed.

Lloyds' Register was the first service of its kind and laid the foundation for the whole classification industry. The rating system encouraged higher standards and provided reassurance to insurers, vital for the growth of trade. However, an "A1 at Lloyd's" was only ever worth as much as the Lloyd name. The Register needed a reputation for objectivity and reliability. With it, Lloyd's would shape and standardise the shipping industry in the United Kingdom and the world.

Coffeehouse beginnings

Like the Register that bears his name, Edward Lloyd's Coffee House owed its success to its role as a maritime information exchange. Coffeehouses had overtaken public houses as the business meeting-places of choice in the seventeenth century, and Lloyd's Coffee House underpinned its success by specialising in providing regular and up-to-date information to the shipping community. The coffeehouse's location on London's Lombard Street lent it a particular advantage as it was just a short walk from both the busy docks of the Thames River and the insurers, banks and merchants of the city centre. In 1692, Lloyd began circulating a weekly newsletter, the snappily-named *Ships Arrived at, and Departed from several Ports of England, as I have Account of them in London … [and] An Account of what English Shipping and Foreign Ships for England, I hear of in Foreign Ports*. Its unwieldy title notwithstanding, the newsletter caught on quickly. By 1693, the Hudson Bay Company was known to reach out to Lloyd for reliable information regarding their own ships.[1]

The coffeehouse became an unofficial centre of world shipping, and a necessary haunt for any person involved in maritime services. Not only was the information shared there largely accurate, but it was a popular place to do business. Ships, goods, and services were sold on the premises from as early as 1698.[2] An interested party knew to travel to Edward Lloyd's Coffee House to hear about the safe docking or tragic sinking of a ship – or to acquire one of their own. It seemed inevitable that maritime companies would take shape in such an environment.

The Society for the Registry of Shipping – which would one day become Lloyd's Register – formed at the

Case study prepared by Charlie Harris. Case study editor: Prof Christopher McKenna, University of Oxford.

19th century drawing of Lloyd's Coffee House. Source: Wikipedia.

coffeehouse in 1760. The *Register Book*, which provided a classification service taking stock of the seaworthiness of ships, was first published by the Society in 1764.[3] The classifications offered by the Society's surveyors were of use to merchants and investors seeking assurances that a vessel would be capable of transporting its cargo without disaster, but the primary function of the Register was for use as guarantees of quality by the maritime insurers. The most notable of these insurers was the underwriters' service based at the coffeehouse known as the Corporation of Lloyd's, many of whose members also sat as committee members for Society for the Registry of Shipping.

The register met a simple need. Merchants found the information on the build quality and history of ships difficult to come by, and there existed no single resource that an interested party might consult. Instead, if a merchant wanted to select a ship for cargo or an underwriter wished to calculate the insurance premium for a voyage, they would need to go to examine a ship themselves – or rely on potentially misleading second-hand information. The Register centralised this information, making it available to subscribers, and guaranteed its accuracy with the reputation of its committee of significant individuals with strong personal histories in shipping and insurance. John Julius Angerstein, the first Chairman of the Society, had such standing with the Royal Navy that he was able to request that a warship be stationed at Ostend, Belgium to provide a first warning should the port fall into French hands. In 1793, Angerstein worked personally with Prime Minister William Pitt on a draft of an exchequer bill regarding commercial credit.[4]

The Register was reasonably complete even from the beginning. It detailed the wood used for building, the dock in which the ship was built, the frequency and quality of repairs to hull and rigging, the cargo depth, and the number of guns kept on board – all vital considerations for a ship's safety at sea. It measured quality using letters (A, E, I, O, U) for hull classification and numbers from 1 to 4 for the state of equipment and rigging. "A1" denoted a ship of the finest quality.[5]

No.	Ships.	Masters.	Tons.	DIMENSIONS. Length.	Breadth	Depth.	BUILD. Where.	When.	Owners.	Port belonging to.	Port of Survey and Destined Voyage.	Classification. No. Years first assigned.	Character for Hull & Stores
701	Colonial Em-	Boss	1305	198·5	38·4	22·5	Quebec	1861	Th'mpsn&	Aberd'n	Lon.Austral	7	A 1 A 1
✠	pire S r.&YM.64	pt I.B.		w.r.&s.61			*Baldwin*	5mo.					
2	Colonist Bk	Doherty	437	131·5	29·7	16·9	N.Brns	1863	Smith&Co	St.John	Cly.N.Amer	4	A 1
	pt I.B.						*Andrsn*	8mo.					6,61
3	— Bk	E.Ellis	594	132·0	26·0	19·0	N.Brns	1852	Wilson&C.	Liverp'l	Cff.S. Amer.	4	
	pt r.&s.59 YM.59 o	verpt I.B.		w.r.&s.59								C. 2	6,60
4	— Bk	T.Gibson	579	152·0	31·4	17·0	Bathrst	1857	Whitwill	Bristol	Brs.	7	A 1
	r.&YM.64 overpt	I.B.		w.r.&s.64	Srprs64		*Smiths*			S.S.64–5	yrs Cont.64–	2	11,64
5	— Sr	M.M'Fie	103	76·6	20·1	10·5	Dmbtn	1861	Denny&C.	Dumbtn	Cly. Coaster	7	A 1
	r.&YM.61 overpt	I.B.					*Raukin*	10mo.					10,61
✠6	Colorado Bk	W.Baikie	499	140·7	28·6	18·8	Sndrld	1863	J.Hay	London	Sld. Amer.	10	A 1

An excerpt from Lloyd's Register in 1861. Source: Wikipedia.

By the 1770s, however, the Society had decided to move on from Lloyd's Coffee House. Edward Lloyd's Coffee House had developed a reputation for speculation from which the group of underwriters working for the insurers, the 'Corporation of Lloyd's', wished to distance themselves. One contemporary described the scene within the coffeehouse as 'disgraceful to the otherwise respectability of the characters engaged in them.'[6] The 79 members of the Corporation of Lloyd's pooled their resources for an imposing room in London's central and prestigious Royal Exchange: the heart of the commercial district. As many were also involved with the Register, it too functioned out of this new location.

In this new space both Lloyd's Register and the Corporation of Lloyd's (now known as "New Lloyd's") flourished. By the 1790s, Lloyd's control over shipping was such that it was the first to report the capture of a British ship by the French – before the Navy itself knew that anything was amiss. Yet, the good times were not to last. As the nineteenth century began, divisions within Lloyd's fractured the Society.

Schism

Although the relationship between the insurers at the New Lloyd's and the committee in charge of the Register could be tumultuous, the Register largely existed as an arm of the underwriters. The Society was governed by a committee of 11 members, almost all underwriters, and chaired by Angerstein – an ex-Chairman of the New Lloyd's. Register books – 'Green Books' – were initially for the exclusive use of members of New Lloyd's, and fines and penalties befell any subscriber who shared their copy with a non-member.[7] But this naturally caused tensions among interested parties since what was good for the shipowners was not always what was good for the underwriters, and the asymmetrical balance of power proved difficult to negotiate.

Shipowners naturally questioned the cosy relationship between the insurance underwriters and the rating agency. Those outside of the New Lloyd's core insisted that the Society worked far more to the benefit of underwriters than any other party in the shipping industry. The Register was notorious for its secrecy, a fact that largely benefited underwriters. The majority of its members were underwriters, rather than shipowners or merchants, and accessing up-to-date information was often difficult for members outside London and the inner circle of underwriters. To enforce exclusivity, there were stiff penalties for showing the book to non-members since the Society 'cherished their Green Book with a sort of animal jealousy' that 'did not notably increase the popularity of the underwriters of Lloyd's among the shipowners and shipbuilders outside their own London circle.'[8] If information was power, Lloyd's register held all the cards.
It didn't help that the underwriters had a reputation for mistrusting the people whom they were judging. One purpose of the Register was to prevent fraud on the part of shipbuilders and owners, namely for use in 'preventing, or discovering deceptions… formerly much practiced with respect to the build, age, quality, fitting out, repairs &c. of ships.'[9] Some shipowners felt themselves unjustly maligned by the suspicions of insurers – although it is likely that others simply resented the new accountability.

The conflict among stakeholders simmered for decades, finally boiling over in 1797 when the Society instituted controversial changes to the classification system. Most contentiously, the new edition gave substantial preference to London-built ships, which were entitled to remain in the first class for a term of thirteen years. An identical ship built in a British port outside of the capital – more than 40% of all new boats in 1797 – would be judged first class for only eight years.[10] To compound the insult to the provincial British shipbuilders, even Canadian vessels were classed more highly than British boats built outside London.

Resentment grew nationwide, especially in the northern ports. The underwriters were no longer welcomed by shipowners or builders, and the deterioration in their relationship fomented mistrust. Their solution was to create a new society. The Society of Merchants, Shipowners and Underwriters was founded to publish the *New Register Book of Shipping* in 1799. The original register was known as Green Book or the *Underwriters' Register*; the new interloper was known as the Red Book, or the *Shipowners' Register*. The new register spoke its mind. Its first edition contained a preface that erred close to a manifesto: 'in the preceding year, the Committee of the Society, without consulting the Subscribers at large, made an entire change… founded on a principle diametrically opposite and perfectly erroneous.' It went on to assert that the new rules for classification 'would not only prove of the most injurious consequences to individual ship-owners, merchants, and under-writers, but to every branch of trade connected… and, in a great measure, tend to destroy the shipping of the country.' [11] And so the rivalry began.

The new Red Book started strong. In 1800, the first year of competition, it boasted 125 subscribers to the Green Book's 233.[12] That year, the underwriters' Green Book acquired only 31 new members – substantially less than Red Book.[13] By the following year, the Red Book also overtook the Green in terms of number of vessels classed, though most ships were classed in both – no charges were levied to shipbuilders for inclusion. The Green Book, perhaps startled by its competitor, moved to undo some of its less-controversial changes and felt compelled in 1810 to reduce subscription fees to match the shipowners. The conflict did not endear either register to the industry. Classification should appear as scientific as possible in order to properly inspire confidence. Open mudslinging, however formal the prose, only served to delegitimise both registers. As long as subscribers perceived that the two registers were making

classification decisions for political reasons, the crucial reputation for objectivity foundered. Onlookers concluded that both registers were critically flawed. In particular, they levied criticisms at the lack of standardisation across ports and the insufficient supervision of their surveyors. Rather than address these issues, the registers appeared to be fixated on their own disputes. As one historian noted, 'both systems embodied… grave defects, and it was not very long before a large body of opinion in all branches of the shipping industry were crying a plague on both their houses.'[14] Competition in standard setting had not increased accuracy but instead decreased it.

The whole classification industry suffered. Early in 1829 the underwriters raised their price from 8 to 10 guineas, admitting that they'd been running at an average of £500 loss for 20 years; across this period and the stock value soon declined from £12,000 to £2,000. Subscriptions to both books dwindled. By 1833, the Green Book had 163 customers; the Red only 75. The underwriters at the Green Book had £1,000 in funds left, and the shipowners were dipping into their own pockets in an effort to keep the Red Book afloat.[15] The situation was finally desperate enough that they were forced to come to an agreement. Meetings began between the two parties in 1833. The most significant deal brokered during the reunification was the reorganisation of the Committee that oversaw publication: it was to be twenty-four strong, comprised of eight merchants, eight underwriters, and eight shipowners. The first officially elected Chairman appeared to be an act of appeasement: David Carruthers had been a Committee member at Lloyd's, and a member of the General Shipowners' Society.

In 1834, peace was finally restored. The Register of that year opened with a conciliation: 'The operations of the societies of the two Register Books of Shipping… having ceased, it became an object most anxiously desired by the commercial community at large to establish a new Society for the purpose of obtaining a faithful and accurate classification', it read. There was some debate over whether to retain the name Lloyd's – shipowners argued that it implied the continued supremacy of the underwriter within the society. However, the name held considerable historical value, and so the society voted to retain it. Lloyd's Register for Shipping had finally been officially born.

The newly-reunited society congratulated themselves on resolving their stakeholder conflict and resolved to maintain better internal relations in future, pledging 'to cultivate and maintain the most perfect good understanding with the Merchants, Ship-owners, and Underwriters of the different out-ports of the United Kingdom.' The public showed their appreciation through increased subscriptions: there were 721 subscribers to the 1834 register – more than double the combined subscribers of the two registers during the split. The better margins offered by unification can't have hurt: with their coffers (and expenses) combined, the Society was able to sell subscriptions at three guineas per year, or ten for use in public establishments. The four major marine insurance companies in London agreed to subscribe for 100 guineas apiece. With the market no longer divided and the register's subscribers reassured, the Society's financial troubles were largely in its past.

The distraction of its civil war set aside, the Register was able to resume regular service. Their reunification was timely: the two registers had struggled to cope with the shipping industry when divided, and this was during a period of relative technological stability (if also economic stagnation). However, shipbuilding in the latter half of the Twentieth Century, with its new emphasis on steam and steel, offered new challenges: even as a united operation, shipowners and underwriters needed to maintain their market dominance during the coming decades.

Writing the rulebook

Following the reunification, the Register's corporate reputation was soon restored. The General Shipowners Society described the new register's classification work as 'impartially and beneficially performed' while *Shipping and Mercantile Gazette* agreed that the General Committee 'exercised their functions with honour, firmness and impartiality.'[16] Even Parliament sought the advice of the new register. Unfortunately, casualties at sea were rising, and shipping was increasingly viewed as unnecessarily dangerous and the public called for answers. In 1836, a House of Commons committee argued that the introduction of standardised shipbuilding rules would 'effect a great improvement in the general character of the ships of the United Kingdom.' Thus in 1839, Parliament sought the Register's expert opinion on preventing shipwrecks. As its perceived expertise rose, Lloyd's Register shifted from simply establishing standards to consulting in risk reduction.

The Committee busied itself publishing its *Rules for Wood Ships* – the first comprehensive manual for

shipbuilding. In order to expedite the classification process, the Society stipulated that all shipowners seeking classification must build their new vessels in accordance with these shipbuilding rules. There were advantages to building ships in accordance with the Society's rules and under the occasional supervision of one of its surveyors. The most obvious was a guarantee of build quality. Their rules were based on a reasonably rigorous statistical analysis of what had worked (and the inverse: what had sunk). There was also a financial motive: ships built according to the *Rules* were subject to less-frequent inspection, and lower premiums. Any ship built without surveyor's approval and firm adherence to the guidelines was classed in the register as 'experimental' – a term that wrought anxiety in prospective insurers.

By the time the *Rules* were updated to cover wooden and composite vessels, there were eighty-one sections defining everything from the rigging to the rudder. These were supplemented by pages of diagrams and tables. The materials section was comprehensive enough to include the ageing, salting, and general preparation of each of the seventeen types of timber most frequently used in shipbuilding.[17] Indeed the guide was so complete that, with sufficiently assiduous study, any competent carpenter could follow it to build a seaworthy vessel. The checklist had evolved into a blueprint.

The *Rules for Wood Ships* were the beginning of the Society's steps beyond classification: no longer merely recording the shipbuilding of the United Kingdom, it had begun to guide the development of the craft, setting down official standards for quality and reliability. The industry largely complied and, as a result, confidence in the Register grew: in 1842, 1206 certificates were issued, an almost a fivefold increase from 271 ships in 1837.

The register's legitimacy was partly due to the high standards required for the ships it classified, but also the result of the similar standards for those it hired to perform the classification. Doubts about the competence – and honesty – of surveyors had contributed to dwindling subscriptions during the schism years, and the Register was conscious of the need to rehabilitate their professional image. Advertisements for new surveyors placed by the Society appeared in newspapers nationwide, pointedly seeking to hire shipwrights 'possessing the highest attainment of their profession' and ship captains 'well informed in the construction and quality of shipping'. This new generation of surveyors were paid well, presumably to dissuade them from taking bribes: the first Principal Surveyor earned £500 a year, putting him on par with doctors and lawyers of the time. The 13 surveyors working in ports nationwide averaged £150-200 annually, when the average work for skilled city labour was £50.[18] No surveyor was allowed to have any investment in any ship under their inspection, and they were frequently moved from port to port in order to keep them from forming too close a bond with local shipbuilders. Thus the personal reputation of their employees contributed to the corporate reputation of Lloyd's Register.

Similarly high standards were maintained in the head office. While a certain dynastic element existed at Lloyd's Register, the Society had no qualms about dismissing family employees for unsatisfactory conduct.[19] Furthermore, the Register benefitted from reputable leadership. From 1835 to 1881, the Society was expertly led by Thomas Chapman who also served as Chairman of the Royal National Lifeboat Association and the Vice-President of the Institution of Naval Architects while still the Chairman at Lloyd's. Most importantly, Chapman was well-equipped to heal the divisions within the Society, being a shipowner, an underwriter and a merchant all in one. Like all professional organisations, Chapman's expertise in his own practice gave him authority to manage the society.

Yet, despite the unification of the business in London, the Register soon faced competition from the British provinces, most notably Liverpool. Lloyd's Register may have been gaining expertise in classifying iron ships, but, by the mid-nineteenth century, the Society was facing criticism for only slowly adapting to iron and steam. A rival register called the *Liverpool Underwriters Registry for Iron Vessels* rolled off the press in 1862 and remained in print until 1885 when Lloyd's eventually brought the Liverpool Underwriters' Association under their control. Buying the competition was Lloyd's general solution to new entrants. The Register's sluggish response to the rise of steam shipping was characteristic of their cautious approach to innovation. In 1863, unconvinced by the soundness of the material, the General Committee declined a request for classification from a shipbuilder who wanted to construct a steel-hulled vessel (surveyors felt the metal to be 'of a hard, brittle and untrustworthy character').[20] Still, forced to respond to provincial competition and the singular direction of technological progress, the Register had little choice but to rate these modern vessels. In 1867, the Register began classifying steel-hulled ships. The first two iron ships (marked as "experimental") appeared in the register in 1838 and by 1875, Lloyd's Register had classified 2,587 metal-hulled ships. 1875 was also the first year in which the number of wooden vessels classified

declined.[21] It was a turning point in the Register's evolution.

Though some contemporaries condemned Lloyd's for its lethargy, others praised their thoughtfulness. One shipbuilder argued that though 'the Society is sometimes accused of being slow in adopting some new theory of ship construction or process of manufacture, it must not be overlooked that it has a reputation of the highest order to maintain and that no innovation can receive the hall-mark of the Society's blessing until most exhaustive tests have been made'.[22] Rating agencies have always face the difficult decision whether to run ahead of innovation or cautiously follow behind.

Besides protecting their own reputation, the Society had an interest in giving shipbuilders space to experiment. Given the influence the Register held over British shipbuilding, there was always a risk that an early introduction of strict rules might have stifled the creativity and experimentation of a generation of iron pioneers. Instead, Lloyd's Register allowed shipbuilders to take the lead. As the Register waited, it kept a close eye on new developments. The most successful building techniques were the ones it collated into the *Rules for Iron Ships*, which like its timber-concerned counterpart, soon became the authoritative handbook on the topic.

Shipyards across Great Britain built their ships to Lloyd's standards, but the reach of the Register soon extended far beyond British shores. By the mid-nineteenth century, Lloyd's were sending surveyors abroad, firstly to the "British Plantations" in Canada in 1852, then to Holland and Belgium in 1856, and, then, to Shanghai by 1868. [23] The trickle soon became a flood: in the next five years, surveyors were appointed in France, Germany, Denmark, Italy, and Australia. By 1884 there were sixty-six surveyors based outside the United Kingdom.[24] Lloyd's Register, finding that its corporate reputation (and that of the British merchant marine) preceded it, exported its classification standards to the rest of the world. Before long, many countries agreed that any ship classified by the Society was exempt from government inspection.[25] Thus a private standard had was incorporated into state regulation. By 1888, 58% of the world's shipping capacity was classified by the Register.[26]

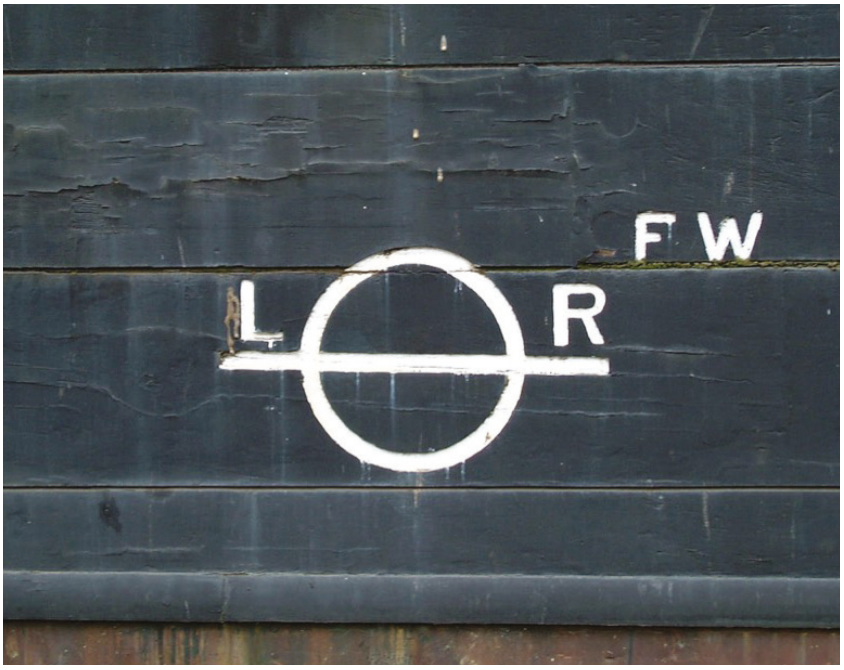
Globalisation provided challenges alongside opportunities, however. Among these challenges was the problem of standardisation: the very business of Lloyd's Register. During the Second Industrial Revolution (from the 1870s to the 1920s) mass production prompted the creation of global standards in a variety of goods and services. In 1889, for example, the metre was standardised (though not for the first time) via the creation of thirty platinum-irridium bricks of identical length, distributed worldwide. Similarly, the British tried to standardise screw threads in 1891 but global standards – perhaps best symbolized by American President Herbert Hoover's oversight of the aptly-named, "National Screw Thread Commission" in 1928 – would only slowly emerge.[27] Standardisation was, after all, fallible. For Lloyd's to thrive, the Society would have to solve the problem of setting standards in the rapidly changing industrial world of the Second Industrial Revolution.

From Lloyd's Rule to the rule of law

As the Second Industrial Revolution emerged at the end of the 19th century, new technologies transformed maritime trade. Seafaring had never been a safe occupation, but new shipping techniques made maritime life even more dangerous. In 1867, Lloyd's had classified steel ships as 'experimental', but by 1888, 90% of the ships classed by Lloyd's Register were fabricated from steel, following the register's own standards.[28] In a world were unreliability meant fatality, the value of the A1 classification increased substantially. But Lloyd's was coming to realise that the best ship in the world could prove fatal if mismanaged.

Without regulation or even guidelines, nineteenth century merchants who sought to maximise their profits often overloaded their vessels. Overloading a ship was a common cause of shipwreck and one to which A1 ships were not immune. Lloyd's had to act and their response was 'Lloyd's Rule'. The rule demanded that vessels have 'freeboard' – a distance of 3 inches between waterline and upper deck level for every foot depth of hold.

In 1873, the Royal Commission on Unseaworthy Ships heard testimony from Lloyd's surveyors, who uniformly insisted that freeboard rules were necessary for the preservation of life. In 1874, the Society's rules were amended to make freeboard compulsory under the threat of removal from the register – a controversial decision amongst shipowners seeking to exploit all available cargo space. The owners of one steamer sued the Society for suspending their classification in 1878, but lost. The judge's ruling explained that 'the value of a classification at Lloyd's consists only in the confidence which it gives to the public… the chief duty of the Association is not to shipowners, but to the public who employ ships to carry themselves and their goods in reliance on the classification'.[29]



The Lloyd's Register load line marked on the hull of the Cutty Sark. Source: Wikipedia.

In 1890, Parliament enshrined Lloyd's Rule into law with the passage of the UK Merchant Shipping Act was passed. The law rechristening 'Lloyd's Rule' as the 'load line' and the Society was one of three organisations authorised by the government to survey vessels for freeboard. This legislation of a Society policy – a controversial one, no less – serves as a demonstration of how effectively Lloyd's Register set the standard for national shipping policy during a time of rapid development and relative uncertainty.

Freeboard was not the only shipping regulation in which the Society set the standard. In 1862, the Society decided that cables should be tested before a vessel could be classed and opened an expensive testing facility the same year. In 1864, the British government legislated that cables *must* be tested by law, according to the specifications already set out by the Committee at Lloyd's. A rash of less-scrupulous cable testing bodies soon appeared, and in 1871 the law was amended: the British Board of Trade approached the Society to conduct all testing, announcing that 'they could look to no other beyond the Committee of Lloyd's Register to ensure an impartial test'.[30] With this development, the Society cemented its reputation as a standard-setting arm of the British government in the world of shipping.

Confirmation did not only come from the state: the Second Industrial Revolution saw the formation of the first standard-setting organisations. One such body, the Engineering Standards Committee, was formed in 1901. Its first stated 'fundamental principle' was to seek guidance from the 'great public companies, such as… Lloyd's'. Other companies were named, but Lloyd's was first amongst the maritime bodies. Through its work classifying iron and steel for shipbuilding use, the Society helped establish standards for the development of materials, and through the Engineering Standards Committee, these were made uniform nationwide.[31]

Classification of shipbuilding materials marked the first step in Lloyd's Registers diversification in the twentieth century. Soon the Society was classifying refrigeration systems and cold storage built on ships to ensure the safe carriage of frozen meat. By 1911, Lloyd's surveyors were inspecting onshore cold storage facilities at the Port of London.

By the dawn of the First World War, Lloyd's had begun setting standards for even more emerging technologies. in 1914, the Society published its *Rules for the Construction and Survey of Diesel Engines and their Auxiliaries* – at a time when there were only 47 diesel ships in existence (including those still under construction). The rules were compiled after surveyors met with engineers, specialists, and Rudolf Diesel himself; these conversations also resulted in academic papers presented by register surveyors to the Institution of Civil Engineers and the Institution of Naval Architects. Almost all diesel vessels built in Britain would be constructed according to the Society's own research. Perhaps as further evidence of its maturity, the Society also finally settled on a name that would last: 1914 was the year when it officially became Lloyd's Register of Shipping.

With the mass production of ships during the First World War, the British government called on the Society to provide surveyors. The Society classified a record amount of tonnage in the 1915 register as the nation's ports scrambled to keep the merchant fleet sufficiently stocked. It also worked to survey raw materials for the first time: a team of surveyors was responsible for doubling the output of British steel for French shells. The Society also devised the plans for the 'Standard ship': one designed to be as quickly, cheaply, and easily built as possible. The resultant increase in production was vital to the Allied war

effort.[32] Members of Lloyd's were personally called into service for their expertise. The Society's Chief Ship Surveyor, Westcott Abell, was appointed Technical Adviser to the Controller of Shipping (and would receive a knighthood for his trouble).[33] Robert Balfour, the Society's Principal Expert on Refrigeration, was requested as Engineer Director of the Cold Storage Department of the Ministry of Food, and oversaw the provision of preserved meat to troops in continental trenches.[34]

The Captain of U-35 strikes the HMS Brisbane River, a torpedoed ship, from his U-Boat's copy of Lloyd's Register. Source: Youtube

The importance of the Register to the Allied war effort did not go unnoticed by foreign powers. Its value was even recognised by the enemy: a copy of the Register was a fixture on every German U-Boat, and a propaganda film showed one of the German captains triumphantly striking the name of a torpedoed ship from his own copy.[35]

The reputation of the Register, underpinned by the British government's show of faith, allowed the Society to spread globally. Japan contributed their shipbuilding expertise to the war effort, and the Society kept 14 surveyors there by the end of the war; Japanese shipbuilders adopted the building techniques stipulated by the Society. More dramatically, the enormous wartime expansion of American shipbuilding led to an increased Society presence and the establishment of an American Committee. In 1914, American shipyards produced 200,000 gross tons; in 1918, this was up to three and a half million. Many were timber-built, in accordance with Lloyd's longstanding *Rules for Wood Ships*. The Register boasted 22 American staff in 1914, and 124 by the end of the war.[36]

The Register's international expansion was fortunate. The British shipping industry never entirely recovered from the effects of the First World War. The collapse was slow but undeniable: by the dawn of the Second World War, British shipbuilding output had fallen to half of production in 1914.

Conclusion

Even as British naval dominance waned, the power of the Register waxed. At the declaration of war in 1914, the Society had 360 surveyors on the books; by 1919, a year after the war had ended, this had risen to 513. The Society's international reputation had long rested upon Britain's seafaring dominance, but its continued expansion after British dominance subsided proved that Lloyd's Register no longer needed the crutch. By the end of the First World War, it was clear that the standards set by Lloyd's Register had been vital in maintaining the reputation of the Royal Navy. From then on, Lloyd's Register of Shipping could rest upon its own long history as an arbitrator of reputation and the dictator of standards.

Lloyd's Register grew out of chaos – or at the very least, chaotic informality – with its roots in a raucous coffeehouse with a reputation for gambling. As it developed, it applied rigidity and reason to an industry with few-to-no rules. This experience in lending structure to disorder was effective training for an organisation that would help to not only write the rules of insurance but also standardise shipbuilding in the Second Industrial Revolution. By the end of the First World War, Lloyd's Register of Shipping had unified, ranked, and classified ship construction practices in ports all across the globe. Insurers, as a group, tend not to benefit from unpredictability and disorder; Lloyd's Register, the world's first classification society, presented a practical solution to a financial necessity.

As the firm moved beyond its reliance on British shipbuilding, the Register began to reduce its reliance on shipping as an industry. In the inter-war era, the Society moved to classify steel foundries, engine factories, a power plant in South America, and an oil refinery in the Middle East. Its foray into energy

was successful: by 2010, marine industries comprised only half of the register's business.[37] Combining diversification and a strong hold on the industry in which it made its name, Lloyd's Register of Shipping has itself set the "A1" standard for international classification organisations.

Endnotes

[1] Oxford Dictionary of National Biography, *Edward Lloyd*, available online at http://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-16829;jsessionid=57DBC1D62E0573368B7A11559D6C32F7

[2] H. G. Lay, *Marine Insurance: a text book of the history of marine insurance, including the functions of Lloyd's Register of Shipping* (London, 1925), pp. 289

[3] George Blake, *Lloyd's Register of Shipping, 1760-1960* (London, 1960), pp. 4

[4] Oxford Dictionary of National Biography, *John Julius Angerstein*, available online at https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-1010508

[5] Charles Wright, *A History of Lloyd's from the founding of Lloyd's Coffee House to the present day* (London, 1928), pp. 86

[6] John Weskett, *Lloyd's in 1781: a mirror for underwriters and insurance brokers of the present day* (London, 1869), pp. 29

[7] Lloyd's Register of Shipping, *Annals of Lloyd's Register* (London, 1934), pp. 11

[8] Blake, *Lloyd's Register of Shipping, 1760-1960*, pp. 7

[9] Weskett, *Lloyd's in 1781*, pp. 23

[10] Nigel Watson, *Lloyd's Register: 250 years of service* (London, 2010), pp. 13

[11] *The Shipowners' Register of Shipping 1800* (London, 1800), available at Lloyd's Register of Shipping Archives, London

[12] Blake, *Lloyd's Register of Shipping, 1760-1960*, pp. 13

[13] *The Shipowner's Register of Shipping 1801* (London, 1801), available at Lloyd's Register of Shipping Archives, London

[14] Blake, *Lloyd's Register of Shipping, 1760-1960*, pp. 13

[15] *Ibid,* pp. 16

[16] *Ibid.* pp. 18

[17] Lloyd's Register of Shipping, *Rules & regulations for the construction and classification of wood vessels* (London, 1917)

[18] Watson, *Lloyd's Register: 250 years of service*, pp. 23

[19] *Ibid.* pp. 24

[20] LRS, *Annals of Lloyd's Register* (London, 1863), pp. 120

[21] Martin Frederick, 'The history of Lloyd's and of marine insurance in Great Britain' (London, 1876), pp. 352

[22] S. E. Tomkins, *Ship Construction, Registration and Classification* p56

[23] LRS, *Annals of Lloyd's Register* (London, 1863), pp. 105-106

[24] LRS, *Annals of Lloyd's Register*, pp. 108

[25] Watson, *Lloyd's Register: 250 years of service*, pp. 34

[26] *Ibid.* pp. 30

[27] Andrew Lawrence Russell, *Industrial legislatures": Consensus standardization in the second and third industrial revolutions*, (Johns Hopkins University doctoral dissertation, 2008), available online at https://search.proquest.com/docview/304613146?pq-origsite=primo

[28] Watson, *Lloyd's Register: 250 years of service*, pp. 115

[29] *Ibid.* pp. 113-114

[30] *Ibid.* pp. 56-58

[31] J. W. Barry, *The 'James Forrest' Lecture 1917: the standardisation of engineering materials, and its influence on the prosperity of the country,* lecture delivered to the 1901 Proceedings of the Institution of Civil Engineers, available online at https://www.icevirtuallibrary.com/doi/pdf/10.1680/imotp.1917.15758

[32] Hugh Murphy, 'The British Shipbuilding Industry during the Great War: A Contextual Overview Incorporating Standardization and the National Shipyards, 1916-1920', *The International Journal of Maritime History* (December 1, 2012), available online at https://journals.sagepub.com/doi/pdf/10.1177/084387141202400203

[33] Blake, *Lloyd's Register of Shipping, 1760-1960*, pp. 92-3

[34] Watson, *Lloyd's Register: 250 years of service*, pp. 37

[35] German Propaganda Film, *Der Magische Gurtel (The Magic Belt)* (Berlin, 1917), available online at https://www.youtube.com/watch?v=j87bcKb_N5M

[36] Watson, *Lloyd's Register: 250 years of service*, pp. 39-40

[37] Watson, *Lloyd's Register: 250 years of service*, pp. 46