

Formal Inquiry into the loss of the s.s. "ITALIAN PRINCE".

The above Inquiry was held at the Niblett Hall, 3, King's Bench Walk, E.C. on the 6th, 7th, 8th, 9th and 10th February, and at the Offices of the Institution of Civil Engineers, Great George Street, S.W.1. on the 22nd and 23rd February and 28th March, 1939.

The President of the Court was Mr. K.S. Carpmael, K.C. Wreck Commissioner, and with him as Assessors were Captain W.E. Whittingham, Commander J.R. Williams, Eng-Lieut. Commander T.A. Pearson and Dr. A.M. Robb.

The above steamer was of the shelter deck type having a tonnage opening. She was built by The Furness Shipbuilding Co., at Haverton Hill in 1921, and was classed "100A1. Shelter deck with freeboard" having the notation "Fitted for oil fuel 5, 21. Flash Point above 150°F".

The ship left the River Thames on the 3rd September, 1938 for Malta, Alexandria, and other Mediterranean ports, carrying 4478 tons of general cargo including explosives, 12 passengers and a total crew of 34. The explosives were stored in the shelter tween decks at the after end of the ship apart from some detonators which were carried in the deep tank abaft the engine room. The draughts were 21'9" forward and 23'3" aft.

At about 8.30 p.m. on the 6th September, the ship then being about 30 miles south west of Cape Finisterre, the fireman on watch noticed the reflection of flames under the starboard boiler and gave the alarm. Fire extinguishers were used until these were exhausted, and hoses were played on the spaces between the sides of the ship and the port and starboard boilers, fire also having broken out on the port side. The latter was extinguished and the fire on the starboard side appeared to be under control when, at about 9 p.m., a series of explosions was heard and the flames increased, and were seen issuing from the funnel between the inner and outer casings. The S.O.S. signal was sent out, the fire being then out of control, and the passengers were removed to a safe distance in

one of the ship's boats. Flaming paint from the funnel fell on to the boat deck setting fire to the deck and to the starboard forward lifeboat. The ship was abandoned at about 10.30 p.m. and the passengers and crew were taken on board the "ATLANTIDE" and the "CAPITAINE AUGUSTIN". The "ITALIAN PRINCE" was sighted on the morning of the 7th September from the yacht "VIVA II" and the German steamer "NJASSA", being on fire amidships and aft. At 6 p.m. on the 8th September, the Dutch salvage tug "THAMES" found oil and wreckage in the vicinity.

Evidence was taken to ascertain the cause and nature of the fire, whether the fire-fighting appliances were adequate and whether the fire was fought in the most effective manner. Points of special interest were the position of the oil fuel pressure pipe conveying fuel from the units to the burners; whether the oil supply to this pipe was effectively stopped, and whether steam smothering apparatus was fitted, and, if that were the case, whether it could have been used effectively in extinguishing the fire.

Mr. W.F. Chapman gave evidence regarding the Special Survey of the machinery at Barry in May, 1937. Mr. F.G. Brooke Smith described the boiler survey and examination under working conditions at Hartlepool in March, 1938, at which time he examined the valve of the steam smothering apparatus.

Mr. G. Ritchie gave evidence as to the requirements and scope of the Society's Special Survey as regards the machinery, and the degree to which the oil fuel installation and steam smothering apparatus should be examined at such surveys.

Mr. S.T. Bryden produced the survey and freeboard reports and a copy of the Load Line Certificate, and gave evidence regarding the vessel's class, and compliance with the Society's requirements for the burning of oil fuel under the 1919-20 Regulations which were in force when the ship's plans were approved.

The finding of the Court was that:

1. The initial cause of the loss of the ship was an outbreak of fire in the boiler room.

2. The ultimate cause was the extension of this fire to the deck, and subsequently to the cargo, because of the inability of the crew to cope with the fire in the boiler room.

The default of the Owners, their Representatives, the Master and the Chief Engineer all contributed to the loss of the ship, but the default of the Chief Engineer is partly explained by the default of the Owners. The steamer was abandoned because the fire extinguishers were exhausted. The last time the ship was seen was between 6 a.m. and 7 a.m. on the 7th September, the fire at that time being abreast the machinery casing and No.4 hatchway. Explosives were carried abreast Nos. 4 and 5 hatchways.

*x there was an
water pressure for
the deck hoses*

The cause of the outbreak of fire was leakage from an oil fuel pressure pipe conveying oil from the units to the burners passing between the starboard boiler and the side of the ship. The oil fuel installation was in accordance with plans approved by Lloyd's Register under the 1919-20 Rules. Clause 13 of Section 49 of those Rules stated that "oil fuel pipes should, where practicable, be placed above the stokehold and engine room plates, and where they are always visible".

*Plans were
never submitted*

The Court was of opinion that the intention of the above Clause was that the pipe should be visible at all times by the crew when moving about ~~the~~ ⁱⁿ regular course of their duty. Further, the Court was of opinion that this pipe was not always visible, but that it was quite practicable to make it visible. The height of the fender plates prevented visibility, and there were no observation gratings. Also, an



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oil fuel return-pipe was fitted above the oil fuel pressure pipe, and the round of the boiler might have prevented visibility even if the fender plates had been lower. An opening could, however, have been cut in the screen bulkhead, or the pipe might have been placed below the round of the boiler instead of above.

This pipe was of course only of importance when the steamer was burning oil. In 1937 the change over to oil burning took place during the 2nd Special Survey No.1. In the sixteen years which had elapsed since the vessel was built, experience should have shown the Owners that the pipe should have been made visible. The Court was satisfied that the pipe was never examined. In March, 1938 the original burners were replaced by others requiring greatly increased pressure. Although tested under working conditions no serious examination was made of the pipe.

The ship sailed for six months without provision of the fire fighting appliances ^{recommended} (required) by Board of Trade Notice M.140. Only two thirds of the foam requirements were provided. The Court was satisfied that steam smothering apparatus was fitted although the Owners' Representatives do not appear to have been aware of it.

The time between the discovery of the fire and the abandonment was very short. The failure to sight the source of the fire was due to the position of the oil fuel pressure pipe and the height of the fender plates. No one looked over the top of the fender plates.

The smaller fire on the port side was thought to have been due to an accumulation of oil vapour, and the muffled explosion in the region of the fan intake over the starboard boiler was probably an explosion of oil vapour. The increase of



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the fire could probably have been prevented by the provision of further fire fighting appliances.

The order of abandonment of the ship was given by the Master without a report from the Chief Engineer, but after an unfavourable one from the Chief Officer. It is probable that before the climax of the fire in the boiler room, the fire over the boat deck was not serious, and no attempt was made to prevent this spreading.

It was thought that the leakage of the oil fuel pressure pipe was from a joint or due to necking of the pipe. It was possible that the wrong jointing material was fitted, as this was found to be the case in a sister ship: It was thought that the leakage saturated asbestos mattress lagging under the starboard boiler and that spontaneous combustion ensued. The oil fuel supply valve was closed at a late stage by the Chief Engineer.

No concerted effort was made to decide the source of the fire and no serious effort was made to fight it from the boiler tops. The inaccessibility of the pipe provided an initial handicap. The question as to whether the steam smothering apparatus would have been successful was a difficult one. The Court was of opinion that foam extinguishers should first have been used, as was the case, but that openings in the casings should have been closed, and that it would have been quite proper to use the steam smothering at an early stage. Its use never seems to have occurred to anyone.

The Court's Report contained in its concluding paragraphs the following:-

"Having arrived at the conclusion indicated above that the source of the fire was due to the failure of a pipe for conveying heated oil under pressure, which pipe was in fact masked from view and largely inaccessible, it is in the opinion of the Court impossible to come to any conclusion other

than that the "ITALIAN PRINCE" was not in a good and seaworthy condition on sailing. The Court in coming to this conclusion has also in mind that the "ITALIAN PRINCE" was very considerably lacking in the foam extinguishers as recommended by the Board of Trade.

"The question therefore arises as to who was responsible for this state of affairs. It was urged on behalf of the Owners that the vessel had been built according to plans approved by Lloyd's Register which showed the actual position of the pipe in question; that the vessel was regularly surveyed by Lloyd's Surveyors, and that at the time when the change to oil-burning was made in May, 1937, the vessel was in fact undergoing her Special Survey 2nd No.1. These are powerful considerations in favour of the Owners, but for reasons indicated above the Court is of opinion that there was failure on the part of the Owners' Representatives, to whom the condition of the vessel on sailing must be attributed.

"As regards the future, the Court considers that the record of this disaster provides emphasis for the requirement that all pipes containing heated oil under pressure must be completely visible and easily accessible. It considers also that attention should be drawn to the need for fire drill in the machinery spaces as well as on deck, and organisation of fire services should include provision for the refilling of used extinguishers.

"The Court also desires to draw attention to the fact that where a fire occurs in the machinery space of an oil burning vessel, this must in many cases necessitate the closing of the oil fuel supply to the boilers. As a necessary consequence the steam supply must gradually and progressively fail, with the result that the water pumps are put out of action.



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There may or may not be a remedy for this state of affairs, and whether there is one is not a matter for this Court. The fact remains that in this case the failure of the water supply must have been one of the most important factors in the decision of the Captain to abandon the vessel. Had pumping power been available, the Court is of opinion that the upper deck fire could readily have been extinguished".

S.B.

29.3.39.

9.5.11.



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For the Chief Surveyors

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