



# LLOYD'S REGISTER OF SHIPPING,

449-450-451, BOURSE

PHONE, LOMBARD 3543

PHILADELPHIA

November 27th, 1922.

Dear Mr. French:

I duly received your letter of the 23rd instant and in accordance with your request, I give below a general description of the explosion on the steamer "J. N. PEW", its alleged causes and its effects.

A set of 12 photographs of the vessel after the explosion is enclosed.

The steamer "J. N. PEW" discharged her cargo of oil at Marcus Hook and proceeded to the Sun Shipbuilding Co's. Yard on Thursday, 9th November, for her semi-annual docking for cleaning and painting of the bottom and for the renewal of a few loose rivets in the shell plating in way of summer tanks. She arrived at the wharf of the Sun S.B. Co. at 12.30 p.m. on the 9th November.

All summer tanks were washed out, the tanks on starboard side being finished and certified free from gas on Thursday afternoon, and the tanks on the port side finished and certified free from gas on Friday afternoon. Notices of safe condition were then pasted on the hatch covers and a certificate was issued to the Chief Officer that all summer tanks were free from gas.

Before leaving Marcus Hook all cargo oil tanks were pumped out as dry as possible and steam was put into these tanks on Thursday evening and the tanks steamed for ten hours.

The Main Cargo Tank Hatches were closed down and secured and vent pipe cocks closed off, and the valves in flat of summer tanks were all screwed down and the summer tanks flooded with about 1" of

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water - sufficient to cover valves and seal any slight gas leaks in flat of summer tanks. The vessel was moved to dry dock on Friday, 10th November, entering dock at 5.45 p.m. and the dock was dry at 7.30 p.m.

All rivets to be renewed on starboard side were burnt out with oxy-acetyline torch on Friday while vessel was afloat.

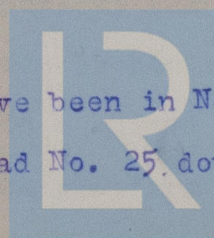
After docking the defective rivets in Nos. 1, 2, and 3 summer tanks - port side - were burnt out. During the night of Friday, six rivets were burnt out in No. 4 tank and while the workman was burning out the seventh rivet, the explosion occurred at about 5.15 on Saturday morning, 11th November. (The noise of the explosion woke me in Swarthmore about 4 miles distant and Mr. House in West Philadelphia about 13 miles distant.)

The man who was burning out the seventh rivet was killed. Three men were working in No. 5 tank. One man working close to forward bulkhead was killed. The other men near or abaft the summer tank hatch escaped uninjured, as was also one man who was looking down No. 5 Hatch at the time of the explosion.

After the explosion it was found that the screwdown valve in flat of No. 4 summer tank had been opened and it is presumed that the gas rising through this valve into No. 4 tank became ignited and the series of explosions followed naturally. The workman had apparently left his work to eat some lunch and it is probable that, before leaving, he opened the valve to clear the flat of water and avoid wetting his feet and while he was away the diffusion of gases in the tank produced the most dangerous mixture for explosion.

The first explosion then occurred, in all probability, in No. 4 summer tank and simultaneously in No. 8 cargo tank, port side, bursting up the decks and bulging the shell.

The second explosion appears to have been in No. 9 cargo tank, port side, flattening the forward bulkhead No. 25 down on to the floors



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in No. 8 tank, and the third explosion in No. 8 cargo tank, starboard side, tearing loose the centre line bulkhead at the fore end and blowing it to port, over the top of No. 25 bulkhead.

The upper edge of shell plating on port side was bulged out between bulkheads Nos. 25 and 29 to a distance of about 3 feet between frames Nos. 26 and 27, and 2 feet at frame No. 28. The shell plating on this side came in slightly along the line of the summer tank deck between Bulkheads Nos. 25 and 29, and below this the shell plating was again bulged out. The shelter deck plating was torn loose from the sheer strake between bulkheads Nos. 25 and 29, and was ripped along bulkhead No. 29 to the side of summer tank, thence tearing forward to the centre line at Bulkhead No. 27, along the line of bulkhead No. 27 to the strake next the starboard stringer, along this plate to bulkhead No. 25 where rupture continued along this bulkhead to the port side of the centre line and thence aft to bulkhead No. 23, along the line of this bulkhead to the expansion trunk (or side of summer tank) and thence to bulkhead No. 25 at the sheerstrake. The shelter deck plate next to the port stringer tore out forward of No. 29 bulkhead, and this portion of the deck appears to have been blown forward, striking the after support of the flying bridge, destroying the Welin Boat Davit, and landing on the ground some sixty feet away. The shelter deck plating between bulkheads Nos. 27 and 25 was rolled back until the edge of the twisted mass hung over the ship's side, and at this place the shell plating was also slightly bulged outwards.

The shelter deck plating was depressed on port side abaft the line of rupture between bulkheads Nos. 25 and 23 and forward of bulkhead No. 29 where a large twin bollard was broken into little pieces.

The Mast which was stepped on a raised platform just abaft bulkhead No. 25 remained attached to the platform but with a considerable

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and the topmast was found in the tank below.

The flying bridge between the navigating bridge and the poop was, of course, destroyed in way of the explosion.

The after hatch of the steamer "PAWNEE" was damaged by a piece of shelter deck, almost the exact size of the hatch, landing on the top of the hatch, upside down, the wreckage destroying one of the booms over the hatch and passing under the other boom. This was a distance of about 100 feet away.

The deck in No. 4 summer tank, port side, was torn across at bulkheads No. 27 and the forward portion still attached to bulkhead No. 29 bulged up until the after end of this section reached the height of shelter deck.

The ship's side, on both sides, was bulged outwards more or less in way of the explosion as shown in the photographs, and the bottom of the vessel received similar damage, but to a lesser degree.

After the explosion the bilge blocks on starboard side were all in position but all the bilge blocks on port side were blown out against the side of the dock except two forward, and in way of these, the bilge plating was indented.

Details of the damage are given in the specification, a copy of which I shall be pleased to supply if you desire.

I may add that the facts given above with regard to the alleged cause of the explosion are not yet public property, as the inquiry has not yet been held.

Yours very truly,

*Harbert*

French, Esq.,

New York, N.Y.



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