

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

29 SEP 1930

Date of writing Report 10 When handed in at Local Office 27 SEP. 1930 Port of **SUNDERLAND.**

No. in Survey held at **SUNDERLAND.** Date, First Survey 16 Apr. Last Survey 25 Sep. 1930  
 Reg. Book. on the **S.S. "SEA VENTURE"** (Number of Visits 41)

Built at **SUNDERLAND.** By whom built **SWAN HUNTER & WIGHAM RICHARDSON** Yard No. 1451 When built 1930. Tons { Gross 2327 Net 1375

Engines made at **SUNDERLAND.** By whom made **N.E. MARINE ENG. CO. LD.** Engine No. 2763 when made 1930

Boilers made at **SUNDERLAND.** By whom made **N.E. MARINE ENG. CO. LD.** Boiler No. 2763 when made 1930.

Registered Horse Power Owners **DOVER NAVIGATION CO. LD.** Port belonging to **DOVER.**

Nom. Horse Power as per Rule 206. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

Trade for which Vessel is intended **GENERAL CARGO.**

**ENGINES, &c.**—Description of Engines **Triple Expansion.** Revs. per minute 73.

Dia. of Cylinders **20 1/2" x 33" x 54"** Length of Stroke 36" No. of Cylinders 3. No. of Cranks 3.

Crank shaft, dia. of journals as per Rule 10.44 as fitted 10 5/8" Crank pin dia. 10 5/8" Crank webs Mid. length breadth - Thickness parallel to axis 6 9/16" Mid. length thickness - Thickness around eye-hole 5 3/8"

Intermediate Shafts, diameter as per Rule 9.946 as fitted 10 1/4" Thrust shaft, diameter at collars as per Rule 10.44 as fitted 10 5/8"

Tube Shafts, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule 11.216 as fitted 11 7/8" Is the shaft fitted with a continuous liner Yes.

Bronze Liners, thickness in way of bushes as per Rule 0.639 as fitted 1/16" Thickness between bushes as per Rule 0.479 as fitted 3/8" Is the after end of the liner made watertight in the propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner -

If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive -

If two liners are fitted, is the shaft lapped or protected between the liners - Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft -

Propeller, dia. 15'-0" Pitch Variable No. of Blades 4 Material C.I. whether Moveable No. Total Developed Surface 80 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 21" Can one be overhauled while the other is at work Yes.

Bilge Pumps worked from the Main Engines, No. 2 Diameter 3 1/2" Stroke 21" Can one be overhauled while the other is at work Yes.

Feed Pumps { No. and size 1 at 6" x 4" x 6" How driven Steam Pumps connected to the Main Bilge Line { No. and size 1 at 6" x 7" x 9" How driven Steam.

Ballast Pumps, No. and size 1 at 6" x 7" x 9" Lubricating Oil Pumps, including Spare Pump, No. and size -

Are two independent means arranged for circulating water through the Oil Cooler - Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3 at 2 1/2"

In Holds, &c. 2 at 2 1/2" Fore Hold - 2 at 2 1/2" Fore Main Hold - 2 at 2 1/2" Aft Main Hold - 1 at 2 1/2" Hold Well - 1 at 2 1/2" Tunnel Well.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 at 5 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 at 4"

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes.

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes.

Are all Sea Connections fitted direct on the skin of the ship Yes. Are they fitted with Valves or Cocks Both.

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Overboard Discharges above or below the deep water line Main Below Deck Above

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes. Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes.

What Pipes pass through the bunkers How are they protected -

What pipes pass through the deep tanks Have they been tested as per Rule -

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Main Deck Level.

**MAIN BOILERS, &c.**—(Letter for record (S) ) Total Heating Surface of Boilers 3410 sq

Is Forced Draft fitted No. No. and Description of Boilers 2. S.B. Working Pressure 160 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes.

IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded? -

PLANS. Are approved plans forwarded herewith for Shafting Main Boilers Yes. Auxiliary Boilers - Donkey Boilers -

Superheaters - General Pumping Arrangements - Oil fuel Burning Piping Arrangements -

**SPARE GEAR.** State the articles supplied:— 1- C.I. Propeller - 2 each Top end, Bottom end, & Main bearing bolts & nuts - 6 Coupling bolts & nuts - 2 each Feed & Bilge pump valves - 1/2 cwt. iron plate - 1/2 cwt. iron bar - 50 assorted bolts & nuts.

Superheater spans. 20% jointing nuts - 10% steel plates - 5% studs & nuts - 2% clamps - 2 special spanners & tappers - grinding tools - 50% blowers & drain valve lids & seats.

The foregoing is a correct description,  
 FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD

John Neill

Manufacturer.

GENERAL MANAGER



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Lloyd's Register Foundation

W443-0175

If not, state whether, and when, one will be sent

Is a Report also sent on the Hull of the Ship?

NOTE.—The words which do not apply should be deleted.

1930. Apr. 16. May. 13. 20. June 2. 27. July. 1. 2. 10. 11. 18. 21. 22. 23. 28. 30. 31. Aug. 1. 6. 7. 8. 11.  
 During progress of work in shops - - - 12. 14. 15. 19. 20. 21. 22. 25. 27. 28. 29. Sep. 1. 2. 3. 4. 9. 10. 12. 23. 25

Dates of Survey while building

Total No. of visits 41

Dates of Examination of principal parts - Cylinders <sup>HP</sup> 7-8-30 <sup>LP</sup> 2-7-30 Slides 2-6-30 Covers 19-8-30

Pistons 7-8-30 Piston Rods 1-7-30 Connecting rods 13-5-30

Crank shaft 23-7-30 Thrust shaft 23-7-30 Intermediate shafts 21-8-30

Tube shaft ✓ Screw shaft 19-8-30 Propeller <sup>W.</sup> 22-8-30 <sup>C.I.</sup> 3-9-30 <sup>C.I.</sup>

Stern tube 19-8-30 Engine and boiler seatings 29-8-30 Engines holding down bolts 4-9-30

Completion of fitting sea connections 22-8-30

Completion of pumping arrangements 9-9-30 Boilers fixed 3-9-30 Engines tried under steam 9-9-30

Main boiler safety valves adjusted 9-9-30 Thickness of adjusting washers <sup>P.</sup> 3/8" <sup>S.</sup> 1/32" <sup>Seat.</sup> P. 2 1/4" S. 9/32"

Crank shaft material Steel Identification Mark 3542 T.D.S. Thrust shaft material Steel Identification Mark 3542 T.D.S.

Intermediate shafts, material Steel Identification Marks 3613 T.D.S. Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material Steel Identification Mark 3546 T.D.S. Steam Pipes, material Steel Test pressure 540 lbs. Date of Test 4-9-30.

Is an installation fitted for burning oil fuel No. Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of the Rules for carrying and burning oil fuel been complied with ✓

Is this machinery duplicate of a previous case No. If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The Engines and Boilers of this vessel have been built under Special Survey. The materials and workmanship are good. On completion, the machinery was fitted in the vessel and tried under steam with satisfactory results.

The Machinery of this vessel is in a good and efficient condition, and eligible, in my opinion, to have the notation \* L.M.C. 9-30. marked in red, in the Society's Register Book.

Vessel placed on Pontoon, Propeller, stern hatch and outside fastenings of sea connections examined.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 9.30. C-L

JARK  
 30/9/30

The amount of Entry Fee ... £ 4 : 0 : 0 When applied for,  
 Special ... £ 51 : 10 : 0 22 SEP 1930  
 Donkey Boiler Fee ... £ : : : When received,  
 Travelling Expenses (if any) £ : : : 13.10.30

J. Scott.  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 3 OCT 1930

Assigned + L.M.C. 9.30

CERTIFICATE WRITTEN. C.L.



SUNDERLAND

The Surveyors are requested not to write on or below the space for Committee's Minute.