

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 19... When handed in at Local Office **7 OCT 1943** Port of **Stuee** Received at London Office 11 OCT 1943

No. in Survey held at **Goole & Stuee** Date, First Survey **29.12.42** Last Survey **11.9.1943**  
 Reg. Book **25119A** (Number of Visits **43**)

on the **Twin Screw Salvage Vessel PRINCE SALVOR** T 2516 Tons { Gross **1114** Net **372** When built **1943**

Built at **Goole** By whom built **Goole S.R.C. Co.** Yard No. **390** Engines made at **Hullburn-on-Tyne** By whom made **Whitcomb & Co. Ltd. Eng. Co. Ltd.** Engine No. **888** When made  
 Boilers made at **Sunderland** By whom made **North Eastern Marine Eng. Co.** Boiler No. **4043** When made

Registered Horse Power **1500 total** Owners **Admiralty** Port belonging to  
 Nom. Horse Power as per Rule **254** Is Refrigerating Machinery fitted for cargo purposes **NO** Is Electric Light fitted **YES**

Trade for which vessel is intended **H.M. Salvage Vessel**

ENGINES, &c.—Description of Engines **Twin Sc. Triple Expansion** Sea Hvac. Rpt. No. **101239** Contract? **140**

Dia. of Cylinders **14", 23 1/8", 38 1/2"** Length of Stroke **24"** No. of Cylinders **Two sets of 3** No. of Cranks **3 each engine** Revs. per minute **140**

Crank shaft, dia. of journals as per Rule **7.37"** as fitted **7.5"** Crank pin dia. **7.5"** Crank webs Mid. length breadth **12"** Thickness parallel to axis **4 3/4"**  
 as per Rule **7.02"** as fitted **7 1/8"** Mid. length thickness **4 3/4"** shrunk Thickness around eye-hole **JOURNALS 3 7/16"**

Intermediate Shafts, diameter as per Rule **7 1/8"** Thrust shaft, diameter at collars as per Rule **7.37"** as fitted **7 1/2"**

Tube Shafts, diameter as fitted **8.1"** Screw Shaft, diameter as per Rule **8 1/16"** as fitted **8 1/16"** Is the { tube } shaft fitted with a continuous liner { **NO, as 2 separate liners** }

Bronze Liners, thickness in way of bushes as per Rule **.542** as fitted **9/16"** Thickness between bushes as per Rule **as fitted** 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 **NO, as separate liners**

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 **YES**

If two liners are fitted, is the shaft lapped or protected between the liners **YES** Is an approved Oil Gland or other appliance fitted at the after end of the tube at **YES** If so, state type **Oil gland**

Propeller, dia. **9'-0"** Pitch **10'-0"** No. of Blades **3** Material **hangbrony** whether Moveable **NO** Length of Bearing in Stern Bush next to and supporting propeller **2'-11 3/8"** Total Developed Surface **22.5** sq. feet

Feed Pumps worked from the Main Engines, No. **NONE** Diameter **✓** Stroke **✓** Can one be overhauled while the other is at work **✓**

Bilge Pumps worked from the Main Engines, No. **NONE** Diameter **✓** Stroke **✓** Can one be overhauled while the other is at work **✓**

Feed Pumps { No. and size **Two 8 1/2", 6", 18"** How driven **Ind. Str.** Pumps connected to the Main Bilge Line { No. and size **One heavy weight 1375 gal/min** How driven **Ind. Str.** } **2-40 ton/hr Bilge Ejectors**

Ballast Pumps, No. and size **Both foregoing ones** Lubricating Oil Pumps, including Spare Pump, No. and size **NONE**

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 **E.R. 3-3" aft E.R. DB coff 2-2" 1-2" & 1-3"** BR **1-4" & 2-3"**

In Pump Room **✓** In Holds, &c. **IPIS of 3" in holds no. 1 & 2. 3-3" in tunnel & 1-5" IPIS of 2" in each cofferdam**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **Two 6"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **One 4" in ER & one 4" in BR** 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 OR ON EW. STEEL** 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 **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 **NONE** How are they protected **✓**

What pipes pass through the deep tanks **NONE** 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 **worked from above**

MAIN BOILERS, &c.—(Letter for record **S**) Total Heating Surface of Boilers **4046 sq ft**

Which Boilers are fitted with Forced Draft **ALL** Which Boilers are fitted with Superheaters **NONE**

No. and Description of Boilers **2 SB** Working Pressure **200 lb**

IS A REPORT ON MAIN BOILERS NOW FORWARDED? **YES**

IS A DONKEY BOILER FITTED? **NO** If so, is a report now forwarded? **✓**

Can the donkey boiler be used for domestic purposes only **✓**

PLANS. Are approved plans forwarded herewith for Shafting **29.1.43** Main Boilers **21.3.42** Auxiliary Boilers **✓** Donkey Boilers **✓**  
 (If not state date of approval)

Superheaters **✓** General Pumping Arrangements **8.10.42** Oil fuel Burning Piping Arrangements **11.12.42**

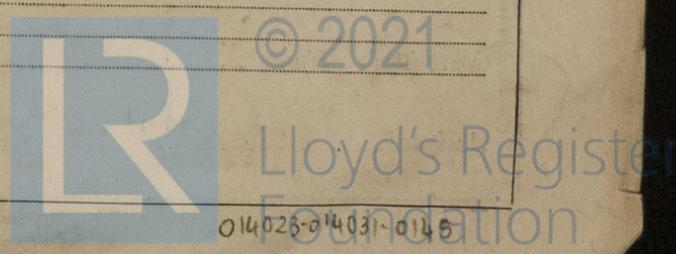
SPARE GEAR.

Has the spare gear required by the Rules been supplied **YES**

State the principal additional spare gear supplied **As per Admiralty requirements**

The foregoing is a correct description.

Manufacturer.



**'PRINCE SALVOR'**

During progress of work in shops -- *See NWC. Rpt No. 101239.*

Dates of Survey while building  
 During erection on board vessel -- 1942. Dec 29. 1943. JAN 29. FEB. 1, 4, 8, 9, 11, 18. MAR. 1, 15, 22, 23, 29. APR. 1, 15, 22. MAY 3, 6, 10, 13, 21, 25. JUNE 1, 3, 10, 21, 23, 30. JULY 1, 27, 28. AUG. 12, 13, 16, 28, 29, 29, 24, 25. SEP. 4, 7, 9, 11.

Total No. of visits *43.*

Dates of Examination of principal parts—Cylinders *See NWC.* Slides *See NWC.* Covers *See NWC.*

Pistons *See NWC.* Piston Rods *See NWC.* Connecting rods *See NWC.*

Crank shaft *See NWC.* Thrust shaft *See NWC.* Intermediate shafts *See NWC.*

Tube shaft *See NWC.* Screw shaft *See NWC.* Propeller *See NWC.*

Stern tube *P 8/2/43 S 9/2/43* Engine and boiler seatings *11/2/43 18/2/43* Engines holding down bolts *10/5/43*

Completion of fitting sea connections *1/3/43*

Completion of pumping arrangements *20/8/43* Boilers fixed *15/3/43* Engines tried under steam *8/9/43*

Main boiler safety valves adjusted *16/8/43* Thickness of adjusting washers *FB. 1 3/32 P & S. AB 1 3/32 P 1 1/32 S*

Crank shaft material *See NWC.* Identification Mark *See NWC.* Thrust shaft material *See NWC.* Identification Mark *See NWC.*

Intermediate shafts, material *See NWC.* Identification Marks *See NWC.* Tube shaft, material *See NWC.* Identification Mark *See NWC.*

Screw shaft, material *See NWC.* Identification Mark *See NWC.* Steam Pipes, material *STEEL* Test pressure *600 lb* Date of Test *27/5/43*

Is an installation fitted for burning oil fuel *YES* Is the flash point of the oil to be used over 150° F. *YES*

Have the requirements of the Rules for the use of oil as fuel been complied with *YES*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *No* If so, have the requirements of the Rules been complied with *✓*

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *✓*

Is this machinery duplicate of a previous case *YES* If so, state name of vessel *Simonia Yd. No 752/5 King Salvor*

**General Remarks** (State quality of workmanship, opinions as to class, &c.)

The above machinery has been installed in "Prince Salvor" under Special Survey in accordance with approved plans, Specification and the Rules. Materials and workmanship are good. The machinery tested under working conditions and found satisfactory and is eligible in my opinion to be classed in the Register Book \* LMC 9, 43 with the notation T 6 cyl. 14", 23 1/8", 38 1/2" — 24'. 254 NHP. 25B. 200 lb, 6 cf., HS 4046 lb, F.D.

Fitted for oil fuel, F.P. above 150° F.

On completion of all trials specially examined E.W. fabricated steel braplates & columns and found same satisfactory.

The Electrical Installation is stated to be in accordance with Admiralty Specification and that the supervision during installation has been carried out by Admiralty Officers.

Basis Bessemer Steel used for auxiliary steam pipes.

The amount of Entry Fee ... £ : :  
 Special CLASS (PART M) SPEC. £ 37 : 16 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 7 OCT 1943  
 When received, 19

*W. S. Shields*  
 Engineer Surveyor to Lloyd's Register of Shipping.

ADMIRALTY  
 A/c rendered from  
 London 27.10.43

Committee's Minute *WED. 20 OCT 1943*  
 Assigned *+ LMC 9.43 FD*

