

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

Date of writing Report 29<sup>th</sup> July 1947 When handed in at Local Office 30<sup>th</sup> July 1947 Port of Glenoch.  
 No. in Survey held at Port Glasgow Date, First Survey 5/6/47 Last Survey 24-7-1947  
 Reg. Book 85418 on the S/S "YEWFOREST" (ex "Empire Yenchuneh" - 46) (Number of Visits 15)  
 Built at Albion By whom built J. LEWIS & SONS LTD. Yard No. 1047  
 Engines made at Albion By whom made J. LEWIS & SONS LTD. Engine No. 569  
 Boilers made at Paisley By whom made A.F. CRAIG & CO LTD Boiler No. 1945  
 Registered Horse Power 129.4 Owners JOHN STEWART & CO SHIPPING LTD Port belonging to Glasgow  
 Nom. Horse Power as per Rule 129.4 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES  
 Trade for which vessel is intended COASTING.

ENGINES, &c.—Description of Engines STEAM TRIPLE EXPANSION. Revs. per minute 3  
 Dia. of Cylinders 14" - 24" - 40" Length of Stroke 24" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals 7.715" as per Rule 7.715" as fitted 7.45" Crank pin dia. 7.75" Mid. length breadth 15" Thickness parallel to axis 5"  
 Crank webs 5" Mid. length thickness 5" shrunk Thickness around eye-hole 3.625"  
 Intermediate Shafts, diameter NONE as per Rule 7.715" as fitted 7.75" Thrust shaft, diameter at collars 7.75"  
 Tube Shafts, diameter ✓ as per Rule 8.62 as fitted 9.25 Is the ✓ shaft fitted with a continuous liner No.  
 Screw Shaft, diameter 8.62 as fitted 9.25  
 Bronze Liners, thickness in way of bushes ✓ as per Rule ✓ as fitted ✓ Thickness between bushes ✓ 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 ✓  
 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 ✓  
 at YES If so, state type NEWARK. Length of Bearing in Stern Bush next to and supporting propeller 34"  
 Propeller, dia. 10'-8" Pitch 11'-9" VAA No. of Blades 4 Material G.I. whether Moveable No Total Developed Surface sq. feet  
 Feed Pumps worked from the Main Engines, No. TWO Diameter 2 1/2" Stroke 14" Can one be overhauled while the other is at work YES  
 Bilge Pumps worked from the Main Engines, No. TWO Diameter 2 3/4" Stroke 14" Can one be overhauled while the other is at work YES  
 Feed Pumps { No. and size ONE VERTICAL DUPLEX 6" x 4 1/2" x 6" Pumps connected to the Main Bilge Line { No. and size ONE 4" x 6" x 8"  
 How driven STEAM. How driven STEAM.  
 Ballast Pumps, No. and size ONE VERTICAL DUPLEX 7" x 8" x 8" 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 2 @ 2 1/2" : 1 @ 3" In Holds, &c. Nº 1 Hold, 2 @ 2 1/2" Nº 2 Hold 2 @ 2 1/2" 3" @ outflow but 2 1/2" nests holes.  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size ONE @ 4" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE @ 3"  
 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 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 ✓ 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 No TUNNEL Is it fitted with a watertight door ✓ worked from ✓

MAIN BOILERS, &c.—(Letter for record 1953) Total Heating Surface of Boilers 1953  
 Which Boilers are fitted with Forced Draft MAIN BOILER Which Boilers are fitted with Superheaters NONE  
 No. and Description of Boilers ONE SINGLE END MULTITUBULAR CYLINDRICAL Working Pressure 200 lbs sq"  
 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 NOTED 28-5-46 Main Boilers NOTED 28-5-46 Auxiliary Boilers ✓ Donkey Boilers ✓  
 (If not state date of approval)  
 Superheaters ✓ General Pumping Arrangements NOTED 28-5-46 Oil fuel Burning Piping Arrangements APPROVED 9-5-47

## SPARE GEAR.

Has the spare gear required by the Rules been supplied YES  
 State the principal additional spare gear supplied

The foregoing is a correct description.

Manufacturer.



Dates of Survey while building	During progress of work in shops - -	
	During erection on board vessel - - -	
	Total No. of visits	

Dates of Examination of principal parts—Cylinders	Slides	Covers
Pistons	Piston Rods	Connecting rods
Crank shaft	Thrust shaft	Intermediate shafts
Tube shaft	Screw shaft	Propeller
Stern tube	Engine and boiler seatings	Engines holding down bolts

Completion of fitting sea connections	Completion of pumping arrangements	Boilers fixed	Engines tried under steam	23 <sup>rd</sup> July 47.
Main boiler safety valves adjusted	23 <sup>rd</sup> July 1947.	Thickness of adjusting washers	Port 9/32" Star 23/64"	
Crank shaft material	Identification Mark	Thrust shaft material	Identification Mark	
Intermediate shafts, material	Identification Marks	Tube shaft, material	Identification Mark	
Screw shaft, material	Identification Mark	Steam Pipes, material	Test pressure	Date of Test
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	YES	
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		If so, state name of vessel		

General Remarks (State quality of workmanship, opinions as to class, &c. 'YEWFOREST' (ex 'EMPIRE FENCHURCH') Built to B.C. Class.

The Machinery & Boiler of this vessel was built under survey by the British Corporation Registrar. At the special request of the Owners Representative & with the view of classification with this Society Machinery & Boiler have now been completely opened up & examined. As far as seen the workmanship appears satisfactory, all materials sound & good throughout & efficiently installed on board. The vessel has been converted to Oil Fuel Burning at this time, all work being found upon completion satisfactory, in accordance with approved plan & Section 20 of the Rules (1946-7) as far as these were applicable. (Cyde Fuel System, Unit No 2804).

The Machinery & Boiler was examined under working conditions at sea where the Main engine was worked up to full power for approximately 2 hours & found satisfactory. Boiler safety valves were adjusted under steam to 200 lbs/sq", easing gear tested & found efficient.

The Machinery & Boiler of this vessel are eligible in my opinion to be Classed in the Register Book with the notation L.M.C 7-47; 15.B. (200 lbs/sq"); Screwshaft O.G. & Fitted for oil fuel 7-47 flash point above 150°F.

The above particulars are submitted for the information of the Committee.

The amount of Entry Fee	£	:	:	When applied for,
Special Classification	£ 32	:	0	20 <sup>th</sup> AUG. 1947.
Oil Fuel Installation	£ 8	:	0	
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	19

A. S. Sinclair  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned *Sinc 7.47*

*Fitted for oil 7.47 F.P. above 150°F*