Rpt. 4

Date of writing report

12 DEC 1957

Received London

Port X Liverpool No. 148185

Survey held at Northwich

No. of visits In shops

On vessel 24

First date 2 9 57 Last date 26 9 57

FIRST ENTRY REPORT ON STEAM RECIPROCATING MACHINERY

No. in R.B. 41294 Name "STORMLIGHT"

Gross tons 172

Owners Ross & Marshall Ltd. Managers --

Port of Registry Greenock

			Year	Month
Hull built at Northwich	By W.J.Yarwood & Sons Ltd.	Yard No. 906	When	1957-8
Main Engines made at Northwich	By W.J.Yarwood & Sons Ltd.	Eng. No. 232	When	1957
Boilers made at Greenock	By Rankin & Blackmore Ltd.	Blr. Nos. S.C.224	When	1956
Machinery installed at Northwich	By W.J.Yarwood & Sons Ltd.		When	1957

Particulars of restricted service of ship, if limited for classification

Is ship to be classed for navigation in ice? No

Particulars of vegetable or similar cargo oil notation, if required

Is ship intended to carry petroleum in bulk? No

Is refrigerating machinery fitted? No If so, is it for cargo purposes? Type of refrigerant

Is the refrigerating machinery compartment isolated from the propelling machinery space? Is the refrigerated cargo installation intended to be classed?

The following particulars should be given as fully and as clearly as possible. Dashes, ticks and other signs of doubtful meaning are not to be used. Wording not applicable to the installation may be cancelled with a black line.

BOILERS AND OTHER STEAM PRESSURE VESSELS.

No. of main boilers One Type and licence name, if any Cylindrical Multitubular Position Forward of Main Engine

Saturated safety valve pressure 140 lbs p.s.i. Steam temperature if superheated Superheater safety valve pressure

Natural or forced draught Natural Fuel Coal Report on main boilers (Port and No.) Greenock, No.25742

No. of aux./donkey boilers None Type W.P. Position

No. of steam heated steam generators None W.P. No. of evaporators None W.P.

Report on aux./donkey boilers or steam generators (Port and No.)

If the boilers are oil fired, is the arrangement of pipes, valves and controls in accordance with the Rules?

No. and position of oil burning pressure units

No. and position of oil fuel settling or service tanks not forming part of hull structure

No. of forced draught fans and fan engines

NOTED TRO E

MAIN ENGINES (*If the main engines have been constructed at another Port and are covered by a separate report, the particulars given in that report need not be repeated below, but the Port and Report No. should be stated*)

Description and licence name, if any Two Cylinder Compound Expansion.

No. of main engines One No. of screws One Max. total I.H.P. 200 with 62 per cent. H.P. cut off at 140 R.P.M.

No. of cylinders per engine Two Dia. of cylinders (in sequence from fwd. to aft) 11½" and 21" Stroke 18"

Machinery numeral 36. Type of valves Flat slide valves (Match box) Type of valve gear Stephenson's link motion

If engine is of enclosed forced lubricated type state crankcase volume No. and total area of explosion relief devices fitted?

Which cylinders operate on Uniflow principle? None Is a steam reheater fitted? No Is a governor fitted? No

Are the main engine frames or bedplate of welded construction? No Is the main engine secured directly to the tank top

or to a built-up seating? Seating - on open floors

Is an exhaust steam turbine fitted? No S.H.P. of turbine R.P.M. Description of turbine and drive

SHAFTING

Working pressure for which shafting has been approved Date of approval of torsional vibration characteristics of the propelling machinery system, if required State barred speed range, if imposed

CRANK SHAFT type Built, Semi-built, Solid forged Dia. of journals 5 5/16" Dia. of pins 5 5/16"

Breadth of webs at mid length Thickness 3" If shrunk, thickness around eyeholes 2 17/32"

Are dowel pins fitted? No Crank shaft material S.M.Steel Minimum approved tensile strength 28 tons p.s.i.

THRUST SHAFT Dia. at collar(s) 5 5/16" Material S.M.Steel Minimum approved tensile strength 28 tons p.s.i.

16,56 T. (MADE AND PRINTED IN ENGLAND.)

re to be included

	Water Capac Tons
"	124
"	6·4
	✓
	4·11.
	✓
	✓

of Visits 35

88·33

4 148185

INTERMEDIATE SHAFT. Dia. ..... Material ..... Minimum approved tensile strength .....

SCREW SHAFT. Dia. of cone at large end √5½" Is screwshaft fitted with a continuous liner? √Yes

TUBE SHAFT. Dia. (if these are separate shafts) ..... Is tube shaft fitted with a continuous liner in way of stern tube? .....

Thickness of screw/tube shaft liner at bearings 9/16" Thickness between bearings 9/16"

Is an approved oil gland fitted? No If so, state type .....

Length of bearing next to and supporting propeller √1'-10" Material of bearing √Lignum Vitae

In multiple screw vessels is the liner between stern tube and A bracket continuous? ..... If not, is the exposed length of shafting between liners readily visible in drydock? .....

Material of screw/tube shaft S.M.Steel Minimum approved tensile strength 28ton p.s.i.

PROPELLER

Dia. of propeller √6'-7" Pitch 7'-6" Built-up or solid? Solid Total developed surface 15½sq.ft. No. of blades 4

Blade thickness at top of root fillet 1⅜" Blade material Cast Steel Moment of inertia of dry propeller if known .....

If propeller is of special design, state type .....

Is propeller of reversible pitch type? No If so, is it of approved design? ..... State method of control .....

Material of spare propeller None Moment of inertia of spare propeller, if known .....

MAIN ENGINE DRIVEN PUMPS. (*State No. of each and give capacity of bilge pumps at normal revolutions*)

AIR One CIRCULATING One FEED One LUB. OIL – BILGE One - 5ton

INDEPENDENT PUMPS

Name below each essential pump and state its position. Give capacity of bilge pumps.	SUCTION							DELIVERY					
	Bilge Main	Bilge Direct	Ballast Main	Oil Fuel Main	Condr. Extr.	Sea	Feed Tanks	Boiler Feed	Main Condr. Coolg.	Oil Fuel Burners	Oil Fuel Tanks	Fire Main Wash Hose	Ball
√ General Service, E.R.starboard side,20T/Hr.)	x		x		x	x	x	x	x			x	x
Bilge Ejector 20 T/Hr.		x											
Feed Injector							x		x				

If the main engine is of forced lubricated type state No. of lubricating oil pumps, including spare pump and No. of oil coolers .....

BILGE SUCTIONS

No. and size in each hold, deep tank or pump room √One at 2" from G.S.pump and √One at 2" from Ejector.

No. and size connected to main bilge line in main engine room √One at 2" dia. In aux. engine room .....

In boiler room ..... In tunnel ..... Size and position of direct bilge suctions in machinery spaces √1 @ 2" dia.(P

..... Size and position of emergency bilge suctions in machinery spaces √1 @ 2½" dia.

..... In coal burning ships is a flexible bilge hose and connection provided? Yes - 2" dia.

Is the bilge or ballast system fitted with means for separating oily water on the overboard discharge side? No

Do the pumping arrangements comply with the Rules including special requirements for ships carrying petroleum in bulk, cargo oil or classed for navigation in ice? (*Strike out words not applic*

Yes.

STEAM PIPES

Material of main steam pipes Copper Ext. dia. 3¼" Thickness 10 swg. How are flanges attached? Brazed Material of valves and fittings for superheated steam .....

Are any aux. steam pipes for essential services over 3" bore? No If so, what is the material? –

Are any saturated steam pipes fitted in the smoke boxes of cylindrical boilers? .....

Hydraulic test pressure on steam pipes—main 300 lbs. p.s.i. aux. 300 lbs. p.s.i.

FEED SYSTEM

Are all boilers provided with two separate means of feed? Yes No. of pressure type feed heaters None

No. of direct contact type feed heaters None No. of feed filters—Suction None Pressure None

No. of condensers—main One Aux. ..... Is feed system of closed type? No No. of air ejectors .....

Cooling surface of main condensers 300 sq.ft. Material of condenser tubes Brass

ELECTRIC GENERATOR ENGINES

Position of each	Prime Mover	Made by	Port and No. of Rpt. or Cert.	Output in kW.	Volts	Amps.
E.R.Aft.	Belt driven by M.E. or petrol Aux.engine.	Stuart Turner.	–	1¼ KW.	25/35 50/35	35.7

Is electric current used for essential services at sea? No If so, state the minimum No. and capacity of generators required in order that the ship may operate at sea .....

STEERING GEAR (*State type and No. of steam engines, electric motors, hydraulic pumps and other particulars*) Net power driven

AIR COMPRESSORS AND RECEIVERS FOR ESSENTIAL SERVICES (*State purpose, capacity, prime mover, position in ship and Port and No. of certificate*)

None

Have the Rule Requirements for fire extinguishing arrangements been complied with? √Yes Brief description of arrangements Water hydrant. hose & nozzle

Has the spare gear required by the Rules been supplied? √Yes. Has all the machinery been tried under full working conditions and found satisfactory? √Yes.

Date and duration of full-power sea trials of main engines (25/9/57 - 5 hours) Trials to be continued. Maximum R.P.M. could not be attained.Steam pressure fell from 140 lbs p.s.i. to 75 lbs p.s.i. under full firing conditions.

Does this machinery installation contain any features of a novel or experimental nature? (*State particulars*) No

Is the installation a duplicate of a previous case? Yes If so, state name of vessel "MOONLIGHT"

Date of approval of plans for main boilers – Aux. boilers – Donkey boilers –

Shafting 9.2.56. Pumping arrangements 12/11/56 Oil fuel burning arrangements .....

Separate oil fuel tanks ..... Boiler feed system –

The foregoing description of the main engine and installation is correct and the particulars are as approved for torsional vibration characteristics (strike out words not applicable).

W. J. YARWOOD & SONS LTD.

a Deakin

Builder.

TABLE 1

PARTS OF THE SHIP AS INDICATED BELOW HAVE BEEN EXAMINED FOR Docking for change of propellor SURVEY

Items	*Now Examined* YES NO or NONE	*Tanks*	*Now Examined Internally*	*Now Tested*
Shell plating, sternframe and rudder cleaned, examined and ~~recoated~~ in drydock	YES.	F.P. Tank		
Rudder lifted	No.	A.P. „		
Weather Decks, Superstructures and Casings	YES.	D.B. Tanks (indicate Oil Fuel) and Cofferdams		
Hatchways, Covers, ~~closing and securing appliances~~	YES.			
Ventilator coamings, skylights, companionways ~~and closing appliances~~	YES.	Fresh Water Tanks		
Holds		Deep Tanks		
		Oil Fuel Bunkers and Settling Tanks		
'Tween Decks				
		Side Tanks		
Fore Peak Spaces		Wing Tanks		
After „ „		Other Tanks		
Engine Space				
Boiler „		Cargo Tanks (Tankers)		
Under Engines and Boilers				
Tunnel and Well		Cofferdams		
Coal Bunkers				
Chain Locker		Pump Rooms		
Other Spaces				

Have Tanks now Examined been Cleaned as Necessary?

Have Strums in Cargo Tanks (of Tankers) been removed?

Have Tanks been Retested as necessary after completion of any Repairs?

Have the spaces now surveyed been cleared and cleaned as necessary?

Have the close ceiling and cargo battens, linings, pipe casings, etc., been removed and replaced as required by the Rules?

Have the bilges been cleaned out and examined? Has cement in bottom been examined?

Has steelwork had rust removed and afterwards been recoated as necessary?

Were inspection plugs or any insulation removed in insulated spaces for examination of steelwork?

Has a Load Line Survey been held? No. If so, state which

Have the shell and deck plating been drilled as per Rule? If so, Report 8(Dr) to be attached

Have any alterations to the approved scantlings and arrangements now been effected? If so, report details in body of Report.

NOTE:—Indicate which compartments and/or tanks have been examined or tested by giving the identification numbers and inserting the word "Yes", e.g. Holds: Nos. 1, 2 & 3—Yes; or All—Yes

TABLE 2

The present condition of the following parts in so far as examined is to be reported:—

Shell plating	good.	Ceiling and Cargo Battens	not examined.	Sluice Valves examined and found	none
„ „ in way of side scuttles	not examined.	Cement ~~or Asphalt~~	not examined.	Air and Sounding Pipes	above dk. good
Rudder and Sternframe	good.	Cargo and other Hatchways	good.	Doubling Plates under Sounding Pipes	not examine
Decks	good.	Hatches and closing appliances	good.	Masts and Rigging examined and found	good
Superstructures and their closing appliances	good.	Ventilators, their coamings	good.	Condition, how ascertained (*State if wedges removed*)	from dec
Coamings and Casings	good.	and closing appliances	not examined.	Chain Locker	not examined
Beams and Fastenings	not examined	Companionways and Skylights	good.	EQUIPMENT	
Frames	not examined.	Shell Openings	none.	Equipment Letter	
Reverse Frames	not examined.	Ash Shoots	none.	Anchors, No. of (1B 2S) Condition	good
Longitudinals	none.	Overboard Discharges and Scuppers	not examined.	Cables (*State if now ranged and examined*)	not rang
Transverses	none.	Freeing ports	good.	„ length stated mean diam. (*on board*)	
Floors	not examined.	Steering Gear (Main and Auxiliary)		„ Rule Length complete. Size	
Keelsons	not examined.	examined and found	good.	Hawsers and Warps	good
Stringers	not examined.	Windlass examined and found	good.	State if any Anchors or Chain Cable have	no.
Inner Bottom Plating	not examined.	Pumps „ „ „	not examined	now been supplied or retested, if so,	
Bulkheads ~~and Tunnel~~	not examined.	W.T. Doors „ „ „	none.	complete Report 8(Eq) and attach.	

Have conditions (A) or endorsements (B) of Class (if any) been dealt with? See Below

REMARKS, REPAIRS, Etc. (Contd.)

Survey Fee

Special Damage or Repair Fee (if any)

Travelling Expenses (if chargeable)

Second Surveyor's Fee (if any)

Date when A/c. Rendered