No. 2134

THE BRITISH CORPORATION FOR THE SURVEY

AND

REGISTRY OF SHIPPING.

Report No. 1946 No. in Register Book 3273

S.S. "JAMES STEWART"

Makers of Engines D. Rowan & Co Ltd

Works No. 831

Makers of Main Boilers D. Rowan & Co Ltd

Works No. 831

Makers of Donkey Boiler —

Works No. —

MACHINERY.

002883-002890-0296

No.

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. 1946 No. in Register Book 3273.

Received at Head Office 10th April 1926.

Surveyor's Report on the New Engines, Boilers, and Auxiliary Machinery of the ~~Single~~ ~~Triple~~ ~~Twin~~ ~~Quadruple~~ Screw steamship

"JAMES STEWART"

Official No. Port of Registry Glasgow.

Registered Owners Eastern steamship Co Ltd

Engines Built by D. Rowan & Co Ltd

at Glasgow.

Main Boilers Built by D. Rowan & Co Ltd

at Glasgow.

Donkey ,, ,, None fitted.

at

Date of Completion 1/4/26.

First Visit 16/11/25 Last Visit 1/4/26 Total Visits 32.

RECIPROCATING ENGINES.

Works No. 831 No. of Sets 1 Description Triple Expansion surface condensing steam engine.

No. of Cylinders each Engine 3 No. of Cranks 3

Diars. of Cylinders 14", 28½" and 47" Stroke 33"

Cubic feet in each L.P. Cylinder 33·1.

Are Spring-loaded Relief Valves fitted to Top and Bottom of each Cylr.? on HP; I.P. & L.P. bottom only

" " " each Receiver? I.P. & L.P.

Type of H.P. Valves, Piston (inside steam)

" 1st I.P. " Andrews & Cameron

" 2nd I.P. " —

" L.P. " Double-ported D slide valve.

" Valve Gear Stephensons link motion

" Condenser Surface Cooling Surface 1000 sq. ft.

Diameter of Piston Rods (plain part) 4½" Screwed part (bottom of thread) 3½" aft.

Material " M. Steel.

Diar. of Connecting Rods (smallest part) 4¼" Material M. Steel

" Crosshead Gudgeons 5" Length of Bearing 4½" Material " "

No. of Crosshead Bolts (each) 2 Diar. over Thrd. 2½" Thrds. per inch 4 Material Steel

" Crank Pin " " 2 " 2½" " 4 " "

" Main Bearings 6 Lengths 9"

" Bolts in each 2 Diar. over Thread 2" Threads per inch 4 Material Steel

" Holding Down Bolts, each Engine 42 Diar. 1" No. of Metal Chocks 42

Are the Engines bolted to the Tank Top or to a Built Seat? Tank top

Are the Bolts tapped through the Tank Top and fitted with Nuts Inside? Yes.

If not, how are they fitted? —

Connecting Rods, Forged by D. Rowan & Co Ltd

Piston " " } D. Rowan & Co Ltd

Crossheads, " }

Connecting Rods, Finished by D. Rowan & Co Ltd

Piston " " "

Crossheads, " " "

Date of Harbour Trial 20/3/26.

" Trial Trip 1/4/26

Trials run at Shelmorlie

Were the Engines tested to full power under Sea-going conditions? Yes.

If so, what was the I.H.P.? 1150 Revols. per min. 98

Pressure in 1st I.P. Receiver, 45 lbs., 2nd I.P., — lbs., L.P., 14·5 lbs., Vacuum, 26 ins.

Speed on Trial 10 knots

If the Conditions on Trial were such that full power records were not obtained give the following estimated data:—

Builders' estimated I.H.P. 1,000. Revols. per min.

Estimated Speed

6 in thrust block.

TURBINE ENGINES.

Works No. Type of Turbines

No. of H.P. Turbines No. of I.P. No. of L.P. No. of Astern

Are the Propeller Shafts driven direct by the Turbines or through Gearing?

Is Single or Double Reduction Gear employed?

Diar. of 1st Reduction Pinion } Width Pitch of Teeth
,, 1st ,, Wheel }

Estimated Pressure per lineal inch

Diar. of 2nd Reduction Pinion } Width Pitch of Teeth
,, 2nd ,, Wheel }

Estimated Pressure per lineal inch

Revols. per min. of H.P. Turbines at Full Power S.H.P.

,, ,, I.P. ,, ,,

,, ,, L.P. ,, ,,

,, ,, 1st Reduction Shaft

,, ,, 2nd ,,

,, ,, Propeller Shaft

Total Shaft Horse Power

Date of Harbour Trial

,, Trial Trip

Trials run at

Speed on Trial Knots. Propeller Revols. per min. S.H.P.

Turbine Spindles forged by

,, Wheels forged or cast by

Reduction Gear Shafts forged by

,, Wheels forged or cast by

DESCRIPTION OF INSTALLATION.

TURBO-ELECTRIC PROPELLING MACHINERY.

No. of Turbo-Generating Sets Capacity of each

Type of Turbines employed

Description of Generators

No. of Motors driving Propeller Shafting

Are the Propeller Shafts driven direct by the Motors or through Gearing?

Is Single or Double Reduction Gear employed?

Description of Motors

Diar. of 1st Reduction Pinion } Width Pitch of Teeth
„ 1st „ Wheel }

Estimated Pressure per lineal inch

Diar. of 2nd Reduction Pinion } Width Pitch of Teeth
„ 2nd „ Wheel }

Estimated Pressure per lineal inch

Revols. per min. of Generators at Full Power

„ Motors „

„ „ 1st Reduction Shaft

„ „ 2nd „

„ „ Propellers at Full Power

Total Shaft Horse Power

Date of Harbour Trial

„ Trial Trip

Trials run at

Speed on Trial Knots. Propeller Revols. per min. S.H.P.

Makers of Turbines

„ Generators

„ Motors

„ Reduction Gear

Turbine Spindles forged by

„ Wheels forged or cast by

Reduction Gear Shafts forged by

„ Wheels forged or cast by

DESCRIPTION OF INSTALLATION.

SHAFTING.

Are the Crank Shafts Built or Solid ? *Built*

No. of Lengths in each *One* Angle of Cranks *120°*

Diar. by Rule *9.025"* Actual *9"* In Way of Webs *9¼"*

" of Crank Pins *9"* Length between Webs *9"*

Greatest Width of Crank Webs *14¼"* Thickness *5⅝"*

Least " " *13⅛"* " *5⅝"*

Diar. of Keys in Crank Webs *1½" dowels* Length *3½"*

" Dowels in Crank Pins *1"* Length *2½"* Screwed or Plain *plain*

No. of Bolts each Coupling *6* Diar. at Mid Length *2⅛"* Diar. of Pitch Circle *14¾"*

Greatest Distance from Edge of Main Bearing to Crank Web *½"*

Type of Thrust Blocks *Horse shoe*

No. " Rings *4*

Diar. of Thrust Shafts at bottom of Collars *9¼"* (*9.025"*) No. of Collars *4.*

" " Forward Coupling *9"* At Aft Coupling *8⅝"*

Diar. of Intermediate Shafting by Rule *8.59"* Actual — No. of Lengths —

No. of Bolts, each Coupling — Diar. at Mid Length — Diar. of Pitch Circle —

Diar. of Propeller Shafts by Rule *9.63"* Actual *10.345"* At Couplings *9"*

Are Propeller Shafts fitted with Continuous Brass Liners ? *Yes.*

Diar. over Liners *11⅝" fd, 11½" aft.* Length of After Bearings *3'-6"*

Of what Material are the After Bearings composed ? *Lignum Vitae*

Are Means provided for lubricating the After Bearings with Oil ? *Yes, small hand pump for emergency.*

" " to prevent Sea Water entering the Stern Tubes ? *No*

If so, what Type is adopted? *Sea-water lubrication*

SKETCH OF CRANK SHAFT.

Same as S/S "NORMAN B. MACPHERSON" (Rowans No 813)

No. of Blades each Propeller 4 Fitted or Solid ? Fitted

Material of Blades Cast Steel Boss Cast Iron.

Diar. of Propellers 12'-6" Pitch 12'-0 Surface (each 44 S. ft.

Coefficient of Displacement of Vessel at ⅔ Moulded Depth .84.

Crank Shafts Forged by Press- und Walzwerk Grossdeg Material I. S.

„ Pins „ " " " " "

„ Webs „ " " " " "

Thrust Shafts „ " " " " "

Intermed. „ „ „

Propeller „ „ " " " " "

Crank „ Finished by David Rowan & Co Ltd

Thrust „ „ " " "

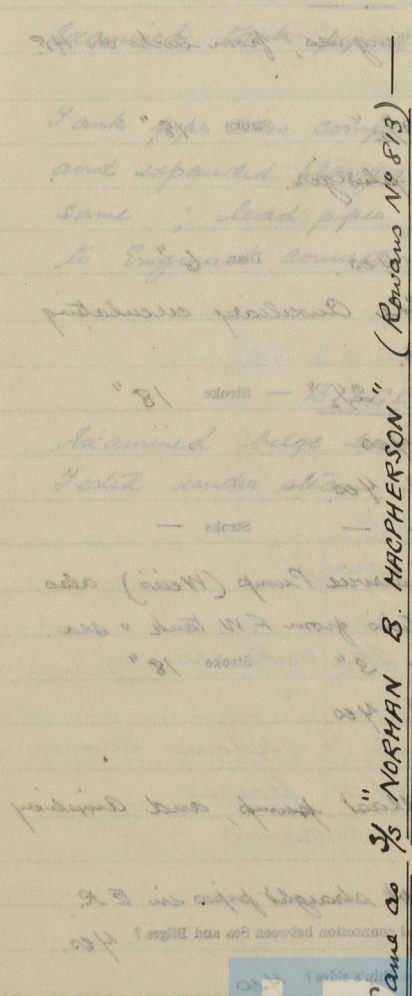
Intermed. „ „

Propeller „ „ " " "

STAMP MARKS ON SHAFTS.

B.C.
N° 3270
J.W.H.
14/1/26.

SKETCH OF PROPELLER SHAFT.



PUMPS, ETC.

No. of Air Pumps 6-ne Diar. 13" Stroke 18"

Worked by Main or Independent Engines? Main engines, from links on HP. (Edward's type)

No. of Circulating Pumps 6ne Diar. 9½" Stroke 18"

Type of " Double-acting plunger.

Diar. of " Suction from Sea 6"

Has each Pump a Bilge Suction with Non-return Valve? Yes. Diar. 6"

What other Pumps can circulate through Condenser? The Auxiliary circulating pump and Ballast Pump.

No. of Feed Pumps on Main Engine 2 Diar. 2½" Stroke 18"

Are Spring-loaded Relief Valves fitted to each Pump? Yes.

Can one Pump be overhauled while the others are at work? Yes.

No. of Independent Feed Pumps — Diar. — Stroke —

What other Pumps can feed the Boilers? General Service Pump (Weir's) also Penberthy Injector with suctions from F.W. tank & sea.

No. of Bilge Pumps on Main Engine 2 Diar. 3" Stroke 18"

Can one Pump be overhauled while the others are at work? Yes.

No. of Independent Bilge Pumps None.

What other Pumps can draw from the Bilges? Ballast pump, and Auxiliary circulating pump.

Are all Bilge Suctions fitted with Roses? Yes, except straight pipes in E.R.

Are the Valves, etc., so arranged as to prevent unintentional connection between Sea and Bilges? Yes.

Are all Sea Connections made with Valves or Cocks next the Ship's sides? Yes.

Are they placed so as to be easily accessible? Yes.

Are the Discharge Chests placed above or below the Deep Load Line? Above.

Are they fitted direct to the Hull Plating and easily accessible? Yes.

Are all Blow-off Cocks or Valves fitted with Spigots through the Hull Plating and Covering Plates or Flanges on the Outside? Yes.

—TANKS.—

Examined tank piping 26/2/26, 15/3/26.

Tank pipe lines composed of W.I. pipes with screwed and expanded flanges, resting on angles & clipped on same; lead pipes for exp. bends in after ends N°2 to Engineers' connections.

—BILGES—

Examined bilge lines 26/2/26, 15/3/26.
Tested under steam; satisfactory 16/3/26.

BOILERS.

Works No. 831.

No. of Boilers 2 Type Cylindrical Multitubular

Single or Double-ended Single

No. of Furnaces in each Two

Type of Furnaces Deightons Corrugated.

Date when Plan approved 1/9/25.

Approved Working Pressure 180 lbs/0"

Hydraulic Test Pressure 320 lbs/0"

Date of Hydraulic Test 2/2/26.

„ when Safety Valves set 19/3/26.

Pressure at which Valves were set 186 lbs/0"

Date of Accumulation Test 19/3/26.

Maximum Pressure under Accumulation Test 196 lbs/0"

System of Draught Howdens Forced Draught.

Can Boilers be worked separately? Yes.

Makers of Plates Phoenix Hoerde Steel Works, Germany.

„ Stay Bars Gutehoffnungshutte Co, Oberhausen, Germany.

„ Rivets Rivet bolt and nut Co Glasgow.

„ Furnaces J. Marshall & Co Motherwell

Greatest Internal Diar. of Boilers 11'-10 31/32"

„ „ Length „ 10'-10 1/8"

Square Feet of Heating Surface each Boiler 1425

„ „ Grate „ „ 36.65

No. of Safety Valves each Boiler 2 Rule Diar. 2.375" Actual 2 1/2"

Are the Safety Valves fitted with Easing Gear? Yes.

No. of Pressure Gauges, each Boiler 1 E.R. 1 S.H. No. of Water Gauges One.

„ Test Cocks „ 3 „ Salinometer Cocks One.

As No. 830 S/S "CHARLES R. HUNTLEY."

except that back stays space plate banding is 15 1/2" above ℄ of boiler instead of 4 1/4".

B.C. TEST
No 4935
TEST. P. 320 lbs/0"
WORK. P. 180 "
G.M.L.
2/2/26.

Are the Water Gauges fitted direct to the Boiler Shells or mounted on Pillars? Pillars

Are the Water Gauge Pillars fitted direct to the Boiler Shells or connected by Pipes? Direct

Are these Pipes connected to Boilers by Cocks or Valves? —

Are Blow-off Cocks or Valves fitted on Boiler Shells? Valves.

No. of Strakes of Shell Plating in each Boiler

,, Plates in each Strake

Thickness of Shell Plates Approved

,, ,, in Boilers

Are the Rivets Iron or Steel?

Are the Longitudinal Seams Butt or Lap Joints?

Are the Butt Straps Single or Double?

Are the Double Butt Straps of equal width?

Thickness of outside Butt Straps

,, inside ,,

Are Longitudinal Seams Hand or Machine Riveted?

Are they Single, Double, or Treble Riveted?

No. of Rivets in a Pitch

Diar. of Rivet Holes Pitch

No. of Rows of Rivets in Centre Circumferential Seams

Are these Seams Hand or Machine Riveted?

Diar. of Rivet Holes Pitch

No. of Rows of Rivets in Front End Circumferential Seams

Are these Seams Hand or Machine riveted?

Diar. of Rivet Holes Pitch

No. of Rows of Rivets in Back End Circumferential Seams

Are these Seams Hand or Machine Riveted?

Diar. of Rivet Holes Pitch

Size of Manholes in Shell

Dimensions of Compensating Rings

— S.S. "CHARLES R. HUNTLEY" (Rowan No 830) —

Thickness of End Plates in Steam Space Approved

" " " " " in Boilers

Pitch of Steam Space Stays

Diar. " " " " Approved Threads per Inch

" " " " " in Boilers "

Material of " " "

How are Stays Secured ?

Diar. and Thickness of Loose Washers on End Plates

" " Riveted " " "

Width " " Doubling Strips "

Thickness of Middle Back End Plates Approved

" " " " " in Boilers

Thickness of Doublings in Wide Spaces between Fireboxes

Pitch of Stays at " " " "

Diar. of Stays Approved Threads per Inch

" " in Boilers "

Material "

Are Stays fitted with Nuts outside ?

Thickness of Back End Plates at Bottom Approved

" " " " " in Boilers

Pitch of Stays at Wide Spaces between Fireboxes

Thickness of Doublings in " "

Thickness of Front End Plates at Bottom Approved

" " " " " in Boilers

No. of Longitudinal Stays in Spaces between Furnaces

— Ss "CHARLES R. HUNTLEY" (Rowan No 830) —

Diar. of Stays Approved Threads per Inch

" " in Boilers

Material "

Thickness of Front Tube Plates Approved

" " " " in Boilers

Pitch of Stay Tubes at Spaces between Stacks of Tubes

Thickness of Doublings in " " "

" Stay Tubes at " " "

Are Stay Tubes fitted with Nuts at Front End ?

Thickness of Back Tube Plates Approved

" " " in Boilers

Pitch of Stay Tubes in Back Tube Plates

" Plain "

Thickness of Stay Tubes

" Plain "

External Diar. of Tubes

Material "

Thickness of Furnace Plates Approved

" " " in Boilers

Smallest outside Diar. of Furnaces

Length between Tube Plates

Width of Combustion Chambers (Front to Back)

Thickness of " " Tops Approved

" " " in Boilers

Pitch of Screwed Stays in C.C. Tops

— Co "CHARLES R. HUNTLEY" (Renamed No 830) —

Diar. of Screwed Stays Approved — Threads per Inch

" " " in Boilers

Material " "

Thickness of Combustion Chamber Sides Approved

" " " " in Boilers

Pitch of Screwed Stays in C.C. Sides

Diar. " " Approved — Threads per Inch

" " " in Boilers

Material " "

Thickness of Combustion Chamber Backs Approved

" " " " in Boilers

Pitch of Screwed Stays in C.C. Backs

Diar. " " Approved — Threads per Inch

" " " in Boilers

Material " "

Are all Screwed Stays fitted with Nuts inside C.C.?

Thickness of Combustion Chamber Bottoms

No. of Girders over each Wing Chamber

" " " Centre "

Depth and Thickness of Girders

Material of Girders

No. of Stays in each

No. of Tubes, each Boiler

Size of Lower Manholes

— S.S. "CHARLES R. HUNTLEY" (Rowan's No 838) —

VERTICAL DONKEY BOILERS.

No. of Boilers Type

Greatest Int. Diar. Height

Height of Boiler Crown above Fire Grate

Are Boiler Crowns Flat or Dished ?

Internal Radius of Dished Ends Thickness of Plates

Description of Seams in Boiler Crowns

Diar. of Rivet Holes Pitch Width of Overlap

Height of Firebox Crowns above Fire Grate

Are Firebox Crowns Flat or Dished ?

External Radius of Dished Crowns Thickness of Plates

No. of Crown Stays Diar. Material

External Diar. of Firebox at Top Bottom Thickness of Plates

No. of Water Tubes Ext. Diar. Thickness

Material of Water Tubes

Size of Manhole in Shell

Dimensions of Compensating Ring

Heating Surface, each Boiler Grate Surface

SUPERHEATERS.

Description of Superheaters

Where situated ?

Which Boilers are connected to Superheaters?

Can Superheaters be shut off while Boilers are working ?

No. of Safety Valves on each Superheater Diar.

Are „ „ fitted with Easing Gear ?

Date of Hydraulic Test Test Pressure

Date when Safety Valves set Pressure on Valves

MAIN STEAM PIPES.

No. of Lengths	2				
Material	Iron.				
Brazed, Welded or Seamless	Welded.				
Internal Diar.	4"				
Thickness	1/4"				
How are Flanges secured?	Screwed & expanded.				
Date of Hydraulic Test	10/3/26				
Test Pressure	540 lbs/□"				
No. of Lengths					
Material					
Brazed, Welded or Seamless					
Internal Diar.					
Thickness					
How are Flanges secured?					
Date of Hydraulic Test					
Test Pressure					
No. of Lengths					
Material					
Brazed, Welded or Seamless					
Internal Diar.					
Thickness					
How are Flanges secured?					
Date of Hydraulic Test					
Test Pressure					

EVAPORATORS.

No. Type Tons per Day

Makers

Working Pressure None fitted. Test Pressure Date of Test

Date of Test of Safety Valves under Steam

FEED WATER HEATERS.

No. One Type High pressure surface.

Makers Henry Watson & Sons Ltd, Newcastle-on-Tyne.

Working Pressure Body max 70 lbs, Coils 180 Test Pressure Body 150 lbs, Coils 432 " Date of Test 12/1/26. 20/1/26.

FEED WATER FILTERS.

No. One Type Suction Filter (low pressure) Size

Makers Henry Watson & Sons Ltd Newcastle-on-Tyne

Working Pressure — Test Pressure — Date of Test —

LIST OF DONKEY PUMPS.

Ballast Pump:— A. Rowan & Co Ltd

Suctions:— Sea, main and indept bilges, tanks

Discharges:— Overboard, tanks, condenser.

Aux. Circulating Pump:— Henry Watson & Sons Ltd

Suctions:— Sea, and main bilge line

Discharges:— Overboard, tanks, condenser.

General Service Pump:— G. & J. Weir Ltd

Suctions:— Sea, boilers, hotwell, F.W. tank.

Discharges:— main & aux feed, deck, overboard, and ash ejector.

Culinary Pump:— Thom, Lamont & Co Ltd

5¼" × 5" × 4".

1 Pemberthy Injector to aux feed line; suctions from sea & F.W. tanks.

SPARE GEAR.

No. of Top End Bolts.	2.	No. of Bot. End Bolts.	2.	No. of Cylinder Cover Studs	12.
„ Coupling Bolts	6 (1 set)	„ Main Bearing Bolts	2.	„ Valve Chest „	
„ Junk Ring Bolts	12.	„ Feed Pump Valves	1 set.	„ Bilge Pump Valves	1 set.
„ H.P. Piston Rings	1	„ I.P. Piston Rings	1	„ L.P. Piston Rings	coach springs 1 set.
„ „ Springs	—	„ „ Springs	—	„ „ Springs	
„ Safety Valve „	1	„ Fire Bars	50 bars	„ Feed Check Valves	2.
„ Piston Rods	—	„ Connecting Rods	—	„ Valve Spindles	—
„ Air Pump Rods	—	„ Air Pump Buckets	—	„ Air Pump Valves	—
„ Cir. „	—	„ Cir. „	—	„ Cir. „	1 set.
„ Crank Shafts	—	„ Crank Pin Bushes	—	„ Crosshead Bushes	—
„ Propeller Shafts	—	„ Propellers	—	„ Propeller Blades	2.
„ Boiler Tubes	—	„ Condenser Tubes	10	„ Condenser Ferrules	24

OTHER ARTICLES OF SPARE GEAR:—

2 ordinary tube stoppers
2 patent " "
Quantity bolts, studs, bars, sheet metal.

REFRIGERATORS.

No. of Machines Capacity of each

Makers

Description

No. of Steam Cylinders, each Machine No. of Compressors No. of Cranks

Particulars of Pumps in connection with Refrigerating Plant and whether worked by Refrigerating Machines or Independently

None fitted

System of Refrigeration

,, Insulation

Are Brine and other Regulating Valves placed so as to be accessible without entering the Insulated Spaces?

Are all Pipes, Air Trunks, &c., well secured and protected from risk of damage?

Are all Bilge, Sounding, and Air Pipes in Insulated Spaces properly insulated?

Are Thermometer Tubes so arranged that Water cannot enter and freeze in them?

Date of Test under Working Conditions

Results of Trials.

Compartment.	Temp. at beginning of Trial.	Temp. at end of Trial.	Time required to obtain this Result.	Rise of Temp. after hours.

Articles of Spare Gear for Refrigerating Plant carried on board:—

ELECTRIC LIGHTING.

Installation Fitted by Messrs Cland Hamilton Ltd

No. and Description of Dynamos One compound wound direct coupled.

Makers of Dynamos Electric Construction Company Wolverhampton.

Capacity 5 K.W. 45·5 Amperes, at 110 Volts, 600 Revols. per Min.

Current Alternating or Continuous Continuous

Single or Double Wire System Double-wire

Position of Dynamos Engine room, middle platform, stbd side

" Main Switch Board Beside generator.

No. of Circuits to which Switches are provided on Main Switch Board 4 circuits

Particulars of these Circuits:—

Circuit.	Number of Lights.	Candle Power.	Current Required. Amps.	Size of Conductor.	Current Density.	Conductivity of Conductor.	Insulation Resistance per Mile.
1. Aft accom.	36	10	13	7/.036	S.E.E.	98%	600 megs
2. Fwd "	40	16	14·5	7/.036	"	"	"
3 Eng. room	20	16	7·5	7/.036	"	"	"
4 Spare.							

Total No. of Lights 96. No. of Motors driving Fans, &c. None No. of Heaters None

Current required for Motors and Heaters —

Positions of Auxiliary Switch Boards, with No. of Switches on each

None.

Are Cut-outs fitted as follows?—

On Main Switch Board, to Cables of Main Circuits Yes.

On Aux. „ „ each Auxiliary Circuit —

Wherever a Cable is reduced in size Yes.

To each Lamp Circuit Yes.

To both Flow and Return Wires of all Circuits when the Double-Wire System is adopted Yes.

Are the Fuses of Standard Sizes? Yes.

Are all Switches and Cut-outs constructed of Non-inflammable Material? Yes.

Are they placed so as to be always and easily accessible? Yes.

Smallest Single Wire used, No. 3/.029 S.W.G., Largest, No. 7/.064 S.W.G.

How are Conductors in Engine and Boiler Spaces protected? Tubing

„ Saloons, State Rooms, &c., „ ? „

What special protection is provided in the following cases?—

(1) Conductors exposed to Heat or Damp Tubing

(2) „ passing through Bunkers or Cargo Spaces None in bunkers, holds tubing

(3) „ „ Deck Beams or Bulkheads Lead bushes & W.T. glands.

Are all Joints in Cables properly soldered and thoroughly Insulated so that the efficiency of the Cables is unimpaired? Yes.

Are all Joints in accessible positions, none being made in Bunkers or Cargo Spaces? None

Are all Hull Connections for Single-Wire Systems made with Screws of large Surface? —

Are the Dynamos, Motors, Main and Branch Cables, so placed that the Compasses are not injuriously affected by them? Yes.

Have Tests been made to prove that this condition has been satisfactorily fulfilled? Yes.

Has the Insulation Resistance over the whole system been tested? Yes.

What does the Resistance amount to? .15 Megs Ohms.

Is the Installation supplied with a Voltmeter? Yes.

„ „ „ an Ampere Meter? Yes.

Date of Trial of complete Installation 1/4/26 Duration of Trial 6 hours.

Have all the requirements of Section 42 been satisfactorily carried out?

See page 38.

GENERAL CONSTRUCTION.

Have the Machinery and Boilers been constructed in accordance with the requirements of the Rules and the Approved Plans? Yes, except as below.

If not, give details of the points of difference, and state when these were sanctioned by the Chief Surveyor.

Vulcanised I.R. braided cable in steel tubing used in machinery spaces instead of lead covered cable (see B.C. letter to Claud Hamilton Ltd 18/12/24. B.C. letter to Napier & Miller Ltd 19/12/24; replies dated 20/12/24 and 22/12/24 respectively). Sanctioned by Chief Surveyor.

Are the Materials used in the Construction of Engines and Boilers, so far as could be seen, sound and trustworthy? Yes.

Is the Workmanship throughout thoroughly satisfactory? Yes.

The above correctly describes the Machinery of the S.S. "JAMES STEWART"

as ascertained by ~~us~~ me from personal examination

Geo. M. Lake.

Engineer Surveyor to the British Corporation for the Survey and Registry of Shipping.

Fees—

		£	s.	d.
MAIN BOILERS.				
H.S.	Sq. ft.		:	:
G.S.	,,		:	:
DONKEY BOILERS.				
H.S.	Sq. ft.		:	:
G.S.	,,		:	:
		£	:	:
ENGINES.				
L.P.C.	Cub. ft.		:	:
		£	:	:
Testing, &c.			:	:
		£	:	:
Expenses			:	:
Total ...		£	:	:

It is submitted that this Report be approved,

Chief Surveyor.

Approved by the Committee for the Class of **M.B.S.*** on the 19th May 1926

Fees advised

Fees paid

Secretary.