

REPORT ON MACHINERY.

No. 80270

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Date of writing Report 10 When handed in at Local Office 7 4 10 16 Port of NEWCASTLE-ON-TYNE
No. in Survey held at 13 Date, First Survey 13 Nov 1925 Last Survey 24 March 1926
Reg. Book. on the Single Reduction gearing & turbines for Lifford Ltd. S.S. No. 785 (Number of Vessels 27)
Master Built at Port Glasgow By whom built Lifford Ltd. When built 1926
Engines made at Wallsend By whom made Parsons Marine Steam Turbine Co. Ltd. when made 1926
Boilers made at By whom made when made
Registered Horse Power Owners Port belonging to
Shaft Horse Power at Full Power 6900. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

TURBINE ENGINES, &c.—Description of Engines Impulse Reaction S.R. & General Turbines No. of Turbines 2 H.P. & 2 L.P.

Diameter of Rotor Shaft Journals, H.P. 5" L.P. 6" Diameter of Pinion Shaft
Diameter of Journals 5 1/2" Distance between Centres of Bearings 4'-0 1/2" Diameter of Pitch Circle H.P. 6'-6 1/4" L.P. 6'-6 1/4"
Diameter of Wheel Shaft JOURNAL 1'-2" Distance between Centres of Bearings 4'-6" Diameter of Pitch Circle of Wheel 128-1173
Width of Face 29" Diameter of Thrust Shaft under Collars Diameter of Tunnel Shaft as per rule as fitted
No. of Screw Shafts 2 Diameter of same as per rule as fitted Diameter of Propeller Pitch of Propeller
No. of Blades State whether Movable Total Surface Diameter of Rotor Drum, H.P. 1'-6 1/4" L.P. 2'-7-33" Astern 2'-7"
Thickness at Bottom of Groove, H.P. Solid L.P. Solid Astern Solid Revs. per Minute at Full Power, Turbine 2434 Propeller 120 x 127 1/2

PARTICULARS OF BLADING.

| | H. P. | L. P. | ASTERN. |
|---------------|---|---|---|
| | HEIGHT OF BLADES. DIAMETER AT TIP. NO. OF ROWS. | HEIGHT OF BLADES. DIAMETER AT TIP. NO. OF ROWS. | HEIGHT OF BLADES. DIAMETER AT TIP. NO. OF ROWS. |
| 1ST EXPANSION | Impulse wheel 2'-10" M.D. | | Impulse wheel 3'-4" M.D. |
| 2ND | (3 1/4" - 1 1/4") | | |
| 3RD | | | |
| 4TH | Reaction 1 1/8" - 3" | 1 1/8" - 6 1/4" | (1 1/2" & 3 3/4") |
| 5TH | | | |
| 6TH | | | Reaction 1" - 3" |
| 7TH | | | |
| 8TH | | | |

No. and size of Feed pumps

No. and size of Bilge pumps

No. and size of Bilge suction in Engine Room

In Holds, &c.

No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine Room & size
Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible
Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
What pipes are carried through the bunkers How are they protected
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges
Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
Working Pressure 200 lbs. Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler
Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell plates
Size of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter
Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings bottom
Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
Working pressure by rules Steam dome: description of joint to shell % of strength of joint Diameter
Thickness of shell plates Material Description of longitudinal joint Diameter of rivet holes Pitch of rivets
Working pressure of shell by rules Crown plates: Thickness How stayed

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