

REPORT ON MACHINERY.

No. 80448

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Reg. Book. on the Single reduction gearing & Turbine for Lickgous Ltd. L.L. No. 283. **SP NAPIERSTAR**

Master Built at Port Glasgow By whom built Lickgous Ltd. Tons Gross 10583 Net 10583

Engines made at Glasgow By whom made Parsons Marine Steam Turbine Co. Ltd. when made 1926

Boilers made at do. By whom made John Brown & Co. Ltd. when made 1926

Registered Horse Power Owners Blue Star Line (1920) Ltd. Port belonging to London

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. & Compound 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 6 1/2" Distance between Centres of Bearings 4'-0 1/2" Diameter of Pitch Circle H.P. 6.6415' L.P. 6.6415'

Diameter of Wheel Shaft 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

No. of Screw Shafts 2 Diameter of same as per rule as fitted Diameter of Propeller Pitch of Propeller

No. of Blades State whether Moveable Total Surface Diameter of Rotor Drum, H.P. 4'-1 1/2" L.P. 2'-3 3/4" 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 + 127 Revs.

ARTICULARS 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	(3/4" - 1 1/4")						(1 1/2" to 3 3/4")		
3RD									
4TH	Reaction 1 1/8" - 3'			1 1/8" - 6 1/4"			Reaction 1' - 3'		
5TH									
6TH									

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

How are they protected

What pipes are carried through the bunkers

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 Lb. 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 End plates in steam space

Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules Material of stays

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom

Diameter at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules

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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