

REPORT ON OIL ENGINE MACHINERY.

No. 95970

Received at London Office FEB 24 1938
NEWCASTLE-ON-TYNE

Survey Report 19... When handed in at Local Office 23/2/38 Port of
Survey held at Newcastle on Tyne Date, First Survey 28 July 1937 Last Survey 13 Feb 1938.
Number of Visits

on the ~~Single~~ ~~Triple~~ ~~Quadruple~~ Screw vessel **BRITISH PETROL** Tons Gross 6906 Net 4113
Newcastle By whom built Swan, Hunter & Wigham Richards & Co. Yard No. 1196 When built 1925-9.

made at Barrow By whom made Vickers-Armstrong & Co. Engine No. 666 When made 1932-6.
Boilers made at Newcastle By whom made Swan Hunter & W. Richards & Co. Boiler No. 1196 When made 1925.
Horse Power 3300 max 3000 normal. Owners British Tanker Co. Ltd. Port belonging to LONDON

Horse Power as per Rule 1168. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.
for which vessel is intended Ocean going, Carrying Petroleum in bulk.

GINES, &c. Type of Engines Vickers M.A.N. 2 stroke cycle 2; ~~Single~~ double acting Double.
pressure in cylinders Top 625 lb. Bottom 590 " Diameter of cylinders 600 " Length of stroke 900 " No. of cylinders 6 No. of cranks 6.
rated Pressure Top 82 lb. Bottom 72 "

ings, adjacent to the Crank, measured from inner edge to inner edge 34.68 " Is there a bearing between each crank Yes.
s per minute 107 normal Flywheel dia. 6' 10.7 " Weight 314 tons Means of ignition Compression Kind of fuel used Diesel oil fuel.
111 max. Crank pin dia. 16.5 " Crank Webs Mid. length breadth 22.5 " Thickness parallel to axis ✓
shaft, dia. of journals as per Rule 15.34 " as fitted 16.5 " with 2 3/4 " Crank Webs Mid. length thickness 9.3 " shrunk Thickness around eyehole ✓

Shaft, diameter as per Rule 15.34 " Intermediate Shafts, diameter as per Rule 12.75 " Thrust Shaft, diameter at collars as per Rule 13.4 " as fitted 20 " to 27 " dia. as fitted 15 1/2 " min. as fitted 27 "
ft, diameter as per Rule 14.063 " Is the screw shaft fitted with a continuous liner Yes. ✓
as fitted 15 1/2 "

liners, thickness in way of bushes as per Rule 0.728 = 23/32 " Thickness between bushes as per rule 0.546 " Is the after end of the liner made watertight in the
as fitted 25/32 " as fitted 23/32 "

ss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner one piece.
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 tight fit.
ers 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
If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 5' 1 "

dia. 15' 9 " Pitch 12' 3 " No. of blades 4 Material W. Bays whether Moveable No Total Developed Surface 86 sq. feet
of reversing Engines Air Screw motor Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes Means of lubrication
d. Thickness of cylinder liners ✓ See Barrow Rpt. Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
ting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine ✓

Water Pumps, No. 3 driven by h. eng. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
mps worked from the Main Engines, No. — Diameter — Stroke — Can one be overhauled while the other is at work —
connected to the Main Bilge Line { No. and Size 1 Ballast P. 10" x 12" x 10", 1 Bilge P. 7" x 8" x 9", 1 Bilge P. 5" Centrex
How driven Steam EXISTING, Steam NEW, Elec. Motor NEW.

ing water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
als. Pumps, No. and size one 10" x 12" x 10" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size THREE: one 6" x 6" duplex Elec. Motor
and one ROTARY PUMP 7000 galls/hour driven by Main Eng. (existing)
Independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
To. and size:—In Machinery Spaces 2 of 3 1/2 " and 3 of 2 1/2 " In Pump Room 2 of 4 "

&c. 2 of 3 " in Forward Hold.
dent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two of 4 " and one of 5 "

re Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces
easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes
a Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Yes

red sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line above
uch 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.
s pass through the bunkers None. How are they protected ✓

s pass through the deep tanks Suction to Aft Cofferdam Have they been tested as per Rule Yes.
ipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times. Yes
ngement 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
nt to another Yes Is the Shaft Tunnel watertight None Is it fitted with a watertight door ✓ worked from ✓

vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓
Compressors, No. none. No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓
y Air Compressors, No. One (existing) No. of stages 3 Diameters 18"-15"-4 1/2 " Stroke 10 1/2 " Driven by Steam
xiliary Air Compressors, No. One (new) No. of stages 3 Diameters 8 1/2 "-2 1/4 "; 8 1/2 "-6 3/4 " and 2 1/4 " Stroke 6 " Driven by Tandem Steam by 9" dia
ng Air Pumps, No. One 3 1/2 acting tandem Diameter 1380 " Stroke 700 " Driven by Extension from
Main Engines or Shaft

Engines crank shafts, diameter as per Rule ✓ EXISTING No. 42 H.P. 2 Cyl. Oil Eng. & one 10 H.P. Steam
as fitted See original Rpt. Position on Starboard side in Eng. Room.

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Yes*

Can the internal surfaces of the receivers be examined and cleaned *Yes* Is a drain fitted at the lowest part of each receiver *Yes*

High Pressure Air Receivers, No. *3 + 2* Cubic capacity of each *30 cu ft* Internal diameter *20"* thickness *1"*

Seamless, lap welded or riveted longitudinal joint *Seamless* Material *Steel* Range of tensile strength *28-37 tons* Working pressure *by Rules*

Starting Air Receivers, No. *Two* Total cubic capacity *300 cu ft* Internal diameter *3 1/2"* thickness *29/32"*

Seamless, lap welded or riveted longitudinal joint *T. Riveted* Material *Steel* Range of tensile strength *30-34 tons* Working pressure *by Rules*

~~ARE~~ IS A DONKEY BOILER FITTED? *YES* *Two S.E. Blm* If so, is a report now forwarded? *No*

Is the donkey boiler intended to be used for domestic purposes only *No - for Auxy Pumps etc*

PLANS. Are approved plans forwarded herewith for Shafting *No. 26/10/37* Receivers *✓* Separate Fuel Tanks *29/*

Donkey Boilers *✓* General Pumping Arrangements *✓* Pumping Arrangements in Machinery Space *Plan*

Oil Fuel Burning Arrangements *✓* *Dwg 13628*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*

State the principal additional spare gear supplied *1- Fuel pump body complete with all working parts, valves etc but with no plungers nor guides.*

2 Fuel pump relief valves. Assorted springs

The foregoing is a correct description,

P.L. Jones

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } *See Rpt. 9.*
{ During erection on board vessel - - }
Total No. of visits

Dates of Examination of principal parts—Cylinders *See Barron Report No. 2456. of June 1932.*

Crank shaft *✓* Flywheel shaft *21/12/37* Thrust shaft *4/1/38* Intermediate shafts *4/1/38* Tube shaft *✓*

Screw shaft *12/1/38* Propeller *12/1/38* Stern tube *✓* Engine seatings *10/1/38* Engines holding down bolts *10/1/38*

Completion of fitting sea connections *✓* Completion of pumping arrangements *5/2/38* Engines tried under working conditions *12/1/38*

Crank shaft, Material *✓ Bee Barron Rpt.* Identification Mark *✓* Flywheel shaft, Material *7 Steel* Identification Mark *344*

Thrust shaft, Material *7 Steel* Identification Mark *3430 T.T.* Intermediate shafts, Material *7 Steel* Identification Marks *344*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *7 Steel* Identification Mark *754*

Is the flash point of the oil to be used over 150° F. *Yes*

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yes*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *✓* If so, have the requirements of the Rules been complied with *✓*

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 *No* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under special in accordance with the Rules and approved plans, and the materials & workmanship are good.

The machinery has been satisfactorily installed on board & tested under working conditions, and the vessel is eligible in my opinion for record + N.E. 2.38, T.S. N. 1.38 etc as recommended in Report

Blueprint. Dwg 13628 showing the Pumping Arrangt in Machy Space, as altered and fitted is enclosed herewith.

The amount of Entry Fee .. £	:	:	When applied for,
Special £	:	:	19
Donkey Boiler Fee £	:	:	When received,
Travelling Expenses (if any) £	:	:	19

Committee's Minute *FRI. 11 MAR 1938*
Assigned *See other Nwc Rpt. 95970*

A. Watt
Engineer Surveyor to Lloyd's Register of Shipping