

REPORT ON OIL ENGINE MACHINERY.

No. 130218

Received at London Office 1 FEB 1950

of writing Report 19 When handed in at Local Office 19 Port of Liverpool
in Survey held at Birkenhead Date, First Survey 1st Sept/48 Last Survey 22nd Dec/49
Book. Number of Visits 196

Single on the Twin Screw vessel. " BRITISH TRIUMPH Tons Gross 8450 Net 4934
at Birkenhead By whom built Cannell, Laird & Co Ltd Yard No. 1199 When built 1949
ines made at Glasgow By whom made Harland & Wolff, Ltd. Engine No. A3280 When made 1949
key Boilers made at Birkenhead By whom made Cannell, Laird & Co Ltd Boiler No. 1199 When made 1949
ke Horse Power 3200 Owners British Tanker Co. Ltd. Port belonging to London
Power as per Rule 696 ^{NHP=490} Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
le for which vessel is intended Ocean going

ENGINES, &c. — Type of Engines Heavy Oil Airless Injection [See Glasgow Rpt. to 74814.] 2 or 4 stroke cycle 4 Single or double acting single
imum pressure in cylinders 650 lb/1" Diameter of cylinders 740 1/4" ^{29 1/8"} Length of stroke 1500 7/8" ^{59 1/2"} No. of cylinders 6 No. of cranks 6
m Indicated Pressure 128 lb/1" Ahead Firing Order in Cylinders 1,5,3,6,2,4 Span of bearings, adjacent to the crank, measured
n inner edge to inner edge 942 1/2" Is there a bearing between each crank yes Revolutions per minute 115
dia 2484 1/2" Weight 2590 kg Moment of inertia of propeller (in lbs. in² or Kg. cm²) 2353 Means of ignition Comp. Kind of fuel used Diesel Oil
nk dia. of journals as per Rule Appd. Crank pin dia. 505 1/4" Crank webs Mid. length breadth 840 1/4" Thickness parallel to axis 310 1/4"
ft, Solid forged Semi built All built with 115 1/4" dia. with 220 1/4" dia. Mid. length thickness 310 1/4" shrunk Thickness around eye hole 222.54"

Wheel Shaft, diameter as per Rule Appd. Intermediate Shafts, diameter as per Rule Appd. Thrust Shaft, diameter at collars as fitted 454 1/4"
e Shaft, diameter as fitted 17 3/4" as per Rule Appd. Is the tube shaft fitted with a continuous liner yes
ize Liners, thickness in way of bushes as per Rule Appd. Thickness between bushes as per Rule Appd. Is the after end of the liner made watertight in the
eller boss yes 13/16" 23/32" If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner yes
he liner 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-
osive yes If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after
of tube shaft no If so, state type yes Length of bearing in Stern Bush next to and supporting propeller 5'-8"

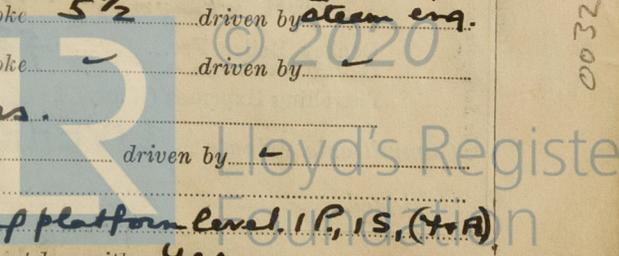
propeller, dia. 16'-0" Pitch 11-15 mean No. of blades 4 Material hang. Bronze whether moveable no Total developed surface 88 sq. feet
ent of inertia of propeller (in lbs. in² or Kg. cm²) none Kind of damper, if fitted none
hod of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of
ication Fixed Thickness of cylinder liners Top 53 1/4" Bot 41 1/4" Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled
gged with non-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
to the engine yes Cooling Water Pumps, No. 1 ME, SW Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

e Pumps worked from the Main Engines, No. none Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work yes
ps connected to the Main Bilge Line (No. and size 2 @ 100 Ton/hr; 1 @ 200 Ton/hr. How driven steam, steam.
e cooling 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
ngements yes
st Pumps, No. and size 1 @ 200 T/hr Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 ME driven 100 T/hr. 1 steam " 90 T/hr
two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both main bilge pumps and auxiliary
pumps, No. and size:—In machinery spaces 3-3 1/2" to bilge main; 1-6" direct to bilge pump. In pump room 2-4"
olds, &c. yes

pendent Power Pump Direct Suctions to the engine room bilges, No. and size 2-6"
all the bilge suction pipes in holds and tunnel well fitted with strum-boxes yes Are the bilge suction in the machinery spaces led from easily
sible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes
all Sea Connections fitted direct on the skin of the Ship no Are they fitted with valves or cocks yes Are they fixed
iently 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
they each 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
t pipes pass through the bunkers none How are they protected ✓
t pipes pass through the deep tanks none Have they been tested as per Rule ✓
all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times yes
e arrangement 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
es, or from one compartment to another yes Is the shaft tunnel watertight yes Is it fitted with a watertight door yes worked from yes
wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork yes
n Air Compressors, No. none No. of stages ✓ diameters ✓ stroke ✓ driven by ✓
iliary Air Compressors, No. 2 No. of stages 2 diameters 7 3/4", 3 3/4" stroke 5 1/2" driven by 2 crank steam eng.
all Auxiliary Air Compressors, No. ✓ No. of stages ✓ diameters ✓ stroke ✓ driven by ✓
at provision is made for first charging the air receivers steam driven aux. compressors.
enging Air Pumps, No. none (supercharge) diameter ✓ stroke ✓ driven by ✓
iliary Engines crank shafts, diameter as per Rule Appd. No. 2 Position starting platform level 1 P, 1 S, (Y, A)
e the auxiliary engines been constructed under special survey yes Is a report sent herewith yes

Ent
16/1/50

003298-003306-0313



AIR RECEIVERS:—Have they been made under survey. *yes* ✓ State No. of report or certificate. *06379*
 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* ✓
 Injection Air Receivers, No. *✓* Cubic capacity of each. *✓* Internal diameter. *✓* thickness. *✓*
 Seamless, welded or riveted longitudinal joint. *✓* Material. *✓* Range of tensile strength. *✓* Working pressure. *✓*
 Starting Air Receivers, No. *2* ✓ Total cubic capacity. *900 cu ft* Internal diameter. *40"* thickness. *15"* ends *1 1/2"*
 Seamless, welded or riveted longitudinal joint. *Riveted* Material. *Steel* Range of tensile strength. *2426/20* Working pressure. *350 lb*

IS A DONKEY BOILER FITTED? *yes, Two* If so, is a report now forwarded. *yes* ✓
 Is the donkey boiler intended to be used for domestic purposes only. *no*
PLANS. Are approved plans forwarded herewith for shafting. *26-11-48* Receivers. *16-7-48* Separate fuel tanks. *✓*
 (If not, state date of approval)
 Donkey boilers. *16-7-48* General pumping arrangements. *22-6-49* Pumping arrangements in machinery space. *18-5-48*
 Oil fuel burning arrangements. *3-11-48*
 Have Torsional Vibration characteristics been approved. *yes (for service speed of 115 rpm)* Date of approval. *16-2-48*

SPARE GEAR.

Has the spare gear required by the Rules been supplied. *As per Rule + list with Pts. Rpt.*
 State the principal additional spare gear supplied. *Seven shaft: 685707*
LLOYD'S
BH 16-9-48
Q.P.
8-9-49
See List of 23/3/50.

CAMMELL LAIRD AND COMPANY LIMITED

The foregoing is a correct description, Manufacturer. *E.H. Barry*

ENGINEERING MANAGERS

Dates of Survey while building: During progress of work in shops - *1st Sept/48*
 During erection on board vessel - *22nd Dec/49*
 Total No. of visits. *196*
 Dates of examination of principal parts—Cylinders. *See Plans* Covers. *Rept. to 74814* Pistons. Rods. Connecting rods.
 Crank shaft. Flywheel shaft. Thrust shaft. *21-9-49* Intermediate shafts. *21-9-49* Tube shaft. *✓*
 Screw shaft. *5-9-49* Propeller. *16-9-49* Stern tube. *16-9-49* Engine seatings. Engine holding down bolts. *7-12-49*
 Completion of fitting sea connections. *23-9-49* Completion of pumping arrangements. *21-12-49* Engines tried under working conditions. *20/22-12-49*
 Crank shaft, material. *see Pts. Rpt.* Identification mark. Flywheel shaft, material. *✓* Identification mark. *✓*
 Thrust shaft, material. Identification mark. Intermediate shafts, material. *M.S.* Identification marks. *68574*
 Tube shaft, material. *✓* Identification mark. *✓* Screw shaft, material. *M.S.* Identification mark. *68572*
 Identification marks on air receivers. *6148 + 6149.*
LLOYD'S TEST 550153
WP 350 15
24-8-49 C.W.R.
 Welded receivers, state Makers' Name. *✓*
 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* ✓
 Description of fire extinguishing apparatus fitted. *Steam Surtling + Phoenix*
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. *Tanker* 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. *✓* If so, state name of vessel. *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel has been built under special survey in accordance with approved Plans, the Society's Rules and the Secretary's letters. The materials and workmanship are good. It has been properly installed and tried under working conditions with satisfactory results. It is, in my opinion, eligible for classification with record of LMC 12,49*

See letter attached

The amount of Entry Fee ... £ *✓*
 Special (collected by Receipt) ... £ *71 : 6 : 8* When applied for. *24 JAN 1950*
 Donkey Boiler Fee... £ *58 : 15 : 0* When received. *19*
 On Receivers *16 : 0 : 0*
 Travelling Expenses (if any) £ *6 : 3 : 7*
 Committee's Minute **LIVERPOOL** *31 JAN 1950*
 Assigned *+ LMC 12.49.*

E.H. Barry
 Engineer Surveyor to Lloyd's Register of Shipping

 Lloyd's Register Foundation

Certificate (if required) to be sent to (The Surveyors are requested not to write on or below the space for Committee's Minute.)