

REPORT ON OIL ENGINE MACHINERY.

No. 59337

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Date of writing Report 20th May 1953 When handed in at Local Office 19 Port of HULL
No. in Survey held at GOOLE Date, First Survey 4. 2. 53 Last Survey 19. 5. 19 53
Reg. Book. 96153 (In on the Book Single) (In on the Book Triple) (In on the Book Quadruple)
Suppmt) (In on the Book Single) (In on the Book Triple) (In on the Book Quadruple)
Built at GOOLE By whom built Goole S.B. & Rep. Co., Ltd. Yard No. 486 When built 1953
Engines made at Manchester By whom made Crossley Bros., Ltd. Engine No. 14501 When made 1952
Donkey Boilers made at - By whom made - Boiler No. - When made -
Brake Horse Power { Maximum Designed 600 BHP @ 500 RPM
Service 450 BHP @ 310 RPM Owners North Eastern Industries, Ltd. Port belonging to St. JOHNS
M.N. as per Rule - Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted Yes
Trade for which vessel is intended Ocean going trawler..

OIL ENGINES, &c. - Type of Engines Crossley HRN 6 Vertical Heavy Oil 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Mean Indicated Pressure Span of bearings (i.e., distance between inner edges of bearings in

way of a crank) Is there a bearing between each crank Revolutions per minute { Maximum Service

Flywheel dia. Weight Moment of inertia of flywheel (lbs. in² or Kg. cm²) Means of ignition Kind of fuel used

" " " " balance wts. (" " " " ")

Crank Shaft, { Solid forged dia. of journals as per Rule as fitted Crank pin dia. Crank webs Mid. length breadth Mid. length thickness shrunk Thickness parallel to axis Thickness around eyehole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the { screw shaft fitted with a continuous liner { No

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted Is the after end of the liner made watertight in the

propeller boss. - If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner -

If the 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-

corrosive. - If two liners are fitted, is the shaft lapped or protected between the liners. - Is an approved Oil Gland fitted at the after

end of stern tube Yes If so, state type NEWARK Length of bearing in Stern Bush next to and supporting propeller 32" ✓

Propeller, dia. 5' 9" Pitch 4' 1 1/2" No. of blades 4 Material Cast Iron whether moveable Fixed Total developed surface 13 sq. feet

Moment of inertia of propeller including entrained water (lbs. in² or Kg. cm²) - Kind of damper, if fitted None

Method of reversing Engines - Is a governor or other arrangement fitted to prevent racing of the engine - Means of

lubrication - Thickness of cylinder liners - Are the cylinders fitted with safety valves - Are the exhaust pipes and silencers water cooled

or lagged with non-conducting material. - If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

back to the engine. - Cooling Water Pumps, No. and how driven 1 F.W.: 1 S.W.: M. Eng. driven 1 S.W.: driven by Aux. Eng. Working F.W. 1 off 4 1/4" x 3

S.W. 1 off 4 1/4" Spare F.W. None S.W. 50 T/Hr Is the sea suction provided with an efficient strainer which can be cleared within the vessel. Yes

Bilge Pumps worked from the Main Engines, No. and capacity None (used for S.W. cooling) Can one be overhauled while the other is at work. -

Pumps connected to the Main Bilge Line No. and capacity of each 1 off 50 T/Hr 1 off 16.5 T/Hr How driven Aux. Diesel E.M.

Is the 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

arrangements. - Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2. 1 off 910 G.P.H. 1 off 1488 "

Ballast Pumps, No. and capacity None Are two independent means arranged for circulating water through the Oil Cooler. Yes Branch Bilge Suctions -

No. and size: - In machinery spaces. One off 2 1/2" In pump room. -

In holds, &c. One x 2 1/2" : One x 2" Direct Bilge Suctions to the engine room bilges, No. and size 1 x 2 1/2" : 1 x 3" Emergency : 1 x 2" (Hand pump)

Are 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

accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges. Yes

Are all Sea Connections fitted direct on the skin of the Ship. Yes/On fabricated pieces Are they fitted with valves or cocks. Valves Are they fixed

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

Are 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. None

What pipes pass through the bunkers. - How are they protected. -

What pipes pass through the deep tanks. - Have they been tested as per Rule. -

Are all pipes, cocks, valves and pumps in connection with the machinery and all other machinery accessible at all times. Yes

Is the 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

spaces, or from one compartment to another. Yes Is the shaft tunnel watertight. None Is it fitted with a watertight door. - worked from. -

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork. -

Main Air Compressors, No. One See Manchester F.E. Rpt. No. 15244 diameters. stroke. driven by M. Eng.

Auxiliary Air Compressors, No. One See London F.E. Rpt. No. 125418 diameters. stroke. driven by Aux. Diesel

Small Auxiliary Air Compressors, No. - No. of stages. - diameters. - stroke. - driven by -

What provision is made for first charging the air receivers. By hand started Auxiliary Unit - as above -

Scavenging Air Pumps or Blowers, No. One How driven M. Eng. - See Mch. F.E. Rpt. No. 15244

Auxiliary Engines Have they been made under survey. Yes Engine Nos. 30CL445 S.S. ENG. Room

Makers name Russell Newbury Position of each in engine room Report No. Lon. F.E. Rpt. No. 125418

011057-011061-0329

AIR RECEIVERS:—Have they been made under survey Yes ✓ State No. of report or certificate
State full details of safety devices
Can the internal surfaces of the receivers be examined and cleaned Is a drain fitted at the lowest part of each receiver
Injection Air Receivers, No. None ✓ Cubic capacity of each Internal diameter thickness
Seamless, welded or riveted longitudinal joint. Material Range of tensile strength Working pressure
Starting Air Receivers, No. Two Total cubic capacity Internal diameter thickness
Seamless, welded or riveted longitudinal joint. Material Range of tensile strength Working pressure

IS A DONKEY BOILER FITTED - If so, is a report now forwarded -
Is the donkey boiler intended to be used for domestic purposes only
PLANS. Are approved plans forwarded herewith for shafting Appd. Manchester Receivers Appd. Manchester Separate fuel tanks 1.4.52
(If not, state date of approval) General pumping arrangements 2.5.52 Pumping arrangements in machinery space 1.8.52

Donkey boilers - Oil fuel burning arrangements -
Have Torsional Vibration characteristics been approved Yes Date and particulars of approval 21.2.52 & 28.4.53
SPARE GEAR. For service speed of 310 RPM provided minimum engine speed is restricted to 100 RPM.
Has the spare gear required by the Rules been supplied Yes, with additions for "short voyages" only
State the principal additional spare gear supplied

FOR THE GOOLE SHIPBUILDING & REPAIRING CO. LTD.
The foregoing is a correct description, Y. Thadick
Manufacturer. Director

Dates of Survey while building During progress of work in shops - 1953.
During erection on board vessel - Feb. 4, 13; March 16, 18, 25, 27, 31; Apr. 8, 10, 15, 20, 22, 24, 29; May 1, 4, 5, 8, 11, 15, 19.
Total No. of visits 21.
Dates of examination of principal parts—Cylinders - Covers - Pistons - Rods - Connecting rods -
Crank shaft - See Mch. F.E. Rpt. No. 15244 Flywheel shaft - Thrust shaft - Intermediate shafts 22.1.53 Tube shaft -
Screw shaft 11.2.53 Propeller 11.2.53 Stern tube 21.1.53 Engine seatings 13.2.53 Engine holding down bolts 31.3.53
Completion of fitting sea connections 13.2.53 Completion of pumping arrangements 11.5.53 Engines tried under working conditions 19.5.53
Crank shaft, material - Identification mark - Flywheel shaft, material - Identification mark - Lloyd's W. 964 12.12.52
Thrust shaft, material - See Mch. Rpt. F.E. No. 15244 Identification mark - Intermediate shafts, material Steel Identification marks IB 28.1.53
Tube shaft, material - Identification mark - Screw shaft, material Steel Identification mark IB 11.2.53
Identification marks on air receivers Nos. T264/258: 81-520100: Lloyd's Test 700 lb. sq. inch: WP 350 lb. sq. in. 16.7.52 TDS

Welded receivers, state Makers' Name as per Manchester F.E. Rpt. No. 15244
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 ✓
Full description of fire extinguishing apparatus fitted in machinery spaces 2 x 2 gall chemical; one x 30' canvas hose with jet & spray nozzles
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No ✓ If so, have the requirements of the Rules been complied with
What is the special notation desired None ✓
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, Speed restrictions, &c.)
The Machinery which has been constructed under Special Survey in accordance with the Rules, approved Plans and Secretary's letters, has been efficiently secured in position in this vessel tried under full power conditions and found satisfactory. Materials and workmanship are good. Eligible in my opinion, to be classed in the Register Book with record *LMC 5.53 and Notation TSOG "Oil Engines" with Torsional Endorsement.

NB:- A suitable notice has been fitted at the control station stating that the Main Engine is not to be run continuously below 100 R.P.M., the tachometer marked accordingly. Special arrangements have been made by the Engine Builders to limit the minimum Engine speed to 100 R.P.M. in service.

The amount of Entry Fee ... £ 20 : 0 : 0 1.6.53
Special ... £ : : When applied for 19
Donkey Boiler Fee ... £ : : When received 19
Travelling Expenses (if any) £ 9 15 : 0

Committee's Minute FRIDAY 31 JUL 1953
Assigned + LMC 5.53 Oil Eng.
03. (with torsional endorsement)

