

REPORT ON OIL ENGINE MACHINERY.

No. 108406



Received at London Office 30 MAY 1951

19 When handed in at Local Office 23 MAY 1951 19 Port of NEWCASTLE-ON-TYNE

Survey held at NEWCASTLE ON TYNE Date, First Survey 16 May 1950 Last Survey 17 May 1951
g. Book. Number of Visits 50

Single
on the Twin
Triple
Quadruple
Screw vessel M.V. "ATHELFOAM" Tons Gross Not Available
Net 100

built at SOUTH BANK ON TEES By whom built SMITH'S DOCK CO. LD. Yard No. 1212 When built

engines made at NEWCASTLE By whom made R & W. HAWTHORN LESLIE & CO. LD. Engine No. 4075 When made 1951

Boilers made at WALLSEND ON TYNE By whom made THE NORTH EASTERN MARINE ENG. CO. (1938) LTD. Boiler No. 3196 When made 1950

No. Brake Horse Power 4450 MAX 2 SERVICE Owners ATHEL FOAM LTD. Port belonging to LIVERPOOL

N. Power as per Rule 902 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ade for which vessel is intended OPEN SEA SERVICE

ENGINES, &c. —Type of Engines HAWTHORN - DOXFORD OPPOSED PISTON 2 or 4 stroke cycle 2 Single or double acting SINGLE

Maximum pressure in cylinders 640 LBS/SQ" Diameter of cylinders 670mm Length of stroke 2320mm No. of cylinders 4 No. of cranks 4 THREE-THROW

Mean Indicated Pressure 89 LBS/SQ" Ahead Firing Order in Cylinders 1.3.4.2. Span of bearings, adjacent to the crank, measured BETWEEN EACH 3-THROW Revolutions per minute 112

mm inner edge to inner edge 2020 mm Is there a bearing between each crank 3-THROW

Wheel dia. 2493mm Weight 1.15 TNS Moment of inertia of flywheel (lbs. in² or Kg. cm²) 0.497 Means of ignition COMPRESS Kind of fuel used HEAVY OIL

ank dia. of journals as per Rule APPROVED as fitted 500mm Crank pin dia. 500mm Crank webs Mid. length breadth 710mm Thickness parallel to axis 285mm

Thrust Shaft, diameter as per Rule as fitted 22 3/8" 2 18" Thrust Shaft, diameter at collars as fitted 500mm

be Shaft, diameter as per Rule as fitted 21" Is the (tube/screw) shaft fitted with a continuous liner YES

18.2 Bronze Liners, thickness in way of bushes as per Rule as fitted 1 1/4" Thickness between bushes as per Rule as fitted 27/32" Is the after end of the liner made watertight in the

0.31 0.21 Propeller boss YES If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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-

of tube shaft No If so, state type Length of bearing in Stern Bush next to and supporting propeller 7'-2"

7.51 0.51 Propeller, dia. 17'-0" Pitch 12'-8 1/2" No. of blades 4 Material M. BRONZE whether moveable No Total developed surface 100 sq. feet

ment of inertia of propeller (lbs. in² or Kg. cm²) 4.85 TNS FT/SEC² Kind of damper, if fitted DOXFORD BIBBY DETUNER (SEE OVERLEAF)

thod of reversing Engines COMPRESS AIR Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of

rication FORCED Thickness of cylinder liners 25mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled

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

k to the engine Cooling Water Pumps, No. 1FW } M.E. DRIVEN. 1SW } Is the sea suction provided with an efficient strainer which can be cleared within the vessel

ge Pumps worked from the Main Engines, No. NONE Diameter Stroke Can one be overhauled while the other is at work

nps connected to the Main Bilge Line (No. and size How driven

he cooling water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

ngements

last Pumps, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 M.E. DRIVEN 45 TNS/HR.

two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both main bilge pumps and auxiliary

e pumps, No. and size:—In machinery spaces In pump room

olds, &c.

ependent Power Pump Direct Suctions to the engine room bilges, No. and size

ion all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Are the bilge suction pipes in the machinery spaces led from easily

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

) 10 all Sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed

ciently high on the ship's side to be seen without lifting the platform plates Are the overboard discharges above or below the deep water line

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

at pipes pass through the bunkers How are they protected

at pipes pass through the deep tanks 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

ie 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 Is the shaft tunnel watertight Is it fitted with a watertight door worked from

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

n Air Compressors, No. No. of stages diameters stroke driven by

iliary Air Compressors, No. No. of stages diameters stroke driven by

Shippin All Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

at provision is made for first charging the air receivers

enging Air Pumps, No. Two diameter 1700mm stroke 548mm driven by LEVERS FROM NOS. 1 & 2 ENGINES

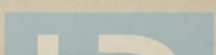
iliary Engines crank shafts, diameter as per Rule as fitted Position

the auxiliary engines been constructed under special survey Is a report sent herewith

NOTE:-
DOXFORD - BIBBY DETUNER { FIXED MEMBER W.K² = 4.5 TNS FT². 4.0
FLOATING " " = 10.0 " "

R & W. HAWTHORN, LESLIE & CO. LIMITED
The foregoing is a correct description, and the particulars of the installation as fitted are as Approved for the TORSIONAL VIBRATION CHARACTERISTIC
178/Sheepsh. Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.)
The engine referred to herein has been constructed under Special Survey in accordance with the approved plans, Society's Rules, & Secretary's letters. The material and workmanship are good. The engine has been despatched to Southbank on Tees for installation in the Messrs Smith's Dock Co. Ltd. vessel, Ship No. 1212.



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