

Auxiliary
REPORT ON OIL ENGINE MACHINERY.

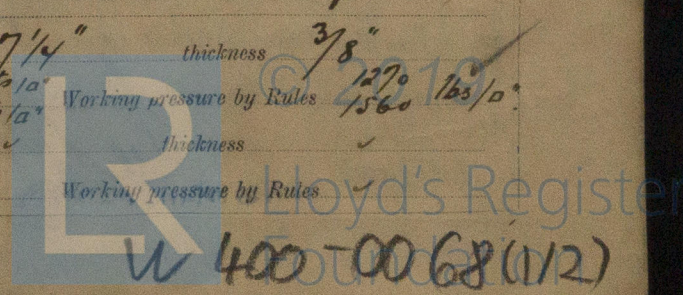
No. 7796.

Received at London Office 20 SEP 1928
of writing Report 1579 28 When handed in at Local Office 19 Port of Copenhagen
in Survey held at Helsingør and Copenhagen Date, First Survey 12/10/1927 Last Survey 25/8 1928
Book. Number of Visits 20

407 on the Single Twin Triple Quadruple Screw vessel "HIDLEFJORD"
Built at Copenhagen By whom built J. Burmeister & Wain Yard No. 548 When built 1928
Engines made at Helsingør By whom made Helsingør Diesel Motor Fabrik Engines No. 1455 When made 1927-8.
Boilers made at Copenhagen By whom made J. Burmeister & Wain Boiler No. 1816 When made 1928.
Horse Power 3150 Owners J. Motorkibet Hidlefjord Port belonging to Helsingør.
Horse Power as per Rule 714 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes.
Use for which vessel is intended Ocean Trade, carrying petroleum in bulk.

ENGINES, &c. Type of Engines Vertical Diesel, trunk type. 2 or 4 stroke cycle 4 Single or double acting single
Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 310 mm Length of stroke 350 mm No. of cylinders 2 No. of cranks 2
of bearings adjacent to the Crank, measured from inner edge to inner edge 360 mm Is there a bearing between each crank yes.
Revolutions per minute 400 Flywheel dia. 1240 mm Weight 2700 kg Means of ignition compression Kind of fuel used Diesel Oil
Crank Shaft, dia. of journals as per Rule 161.5 mm as fitted 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 355 mm dia. Thickness parallel to axis ✓
as fitted 170 mm Mid. length thickness 95 mm shrunk Thickness around eye hole ✓
Crank Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted
Crank Shaft, diameter as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner
Liner thickness in way of bushes as per Rule Thickness between bushes as per rule Is the after end of the liner made watertight in the
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
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 liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after
of the tube shaft Length of Bearing in Stern Bush next to and supporting propeller
Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
Pitch of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched 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
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
Suction Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line No. and Size How driven
Suction Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size
Independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
Pumps, No. and size:—In Machinery Spaces
Holds, &c.
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
All the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces
from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
All Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
Key sized sufficiently 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
Key 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
pipes pass through the bunkers How are they protected
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
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 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
Air Compressors, No. No. of stages Diameters Stroke Driven by
Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 315-285-78 mm Stroke 170 mm Driven by auxil. Diesel engines.
Auxiliary Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓
Engining Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓
Auxiliary Engines crank shafts, diameter as per Rule as fitted ✓

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes ✓
Internal surfaces of the receivers be examined yes. What means are provided for cleaning their inner surfaces steam from donkey boilers.
Is a drain arrangement fitted at the lowest part of each receiver yes.
Pressure Air Receivers, No. 2 Cubic capacity of each 25 litres Internal diameter 7 1/4" thickness 3/8"
Seamless, lap welded or riveted longitudinal joint seamless Material mild steel Range of tensile strength 26.7 to 32.8 t/a Working pressure by Rules 127 to 156 lbs/sq. in.
Fitting Air Receivers, No. ✓ Total cubic capacity ✓ Internal diameter ✓ thickness ✓
Seamless, lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules ✓



The amount of Entry Fee ... £ : : When applied for,
 Special ... £ 250. 0. 0 9/3 1928
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) * 88. 0. 0 1/3 1928
 Committee's Minute
 Assigned

TUE. 2 OCT 1928
 See Bk. rpt. attached

The auxiliary machinery fitted in the vessel comprising.

In the machinery space:

- one combined bilge & sanitary pump with 2 separate trunk pistons. dia $6\frac{1}{2}$ " stroke 9" capacity 25 tons each.
- one rotary ballast pump, capacity 70 tons.
- two centrifugal cooling water pumps, capacity 170 tons each.
- two cog wheel lubricating oil pumps. —" — 60 tons each.
- one cog wheel oil fuel transfer pump. —" — 30 tons.
- one vertical duplex circulating pump to the auxiliary condenser. $9\frac{1}{2} \times 10 \times 10$ "
- two vertical duplex feed pumps to the donkey boilers. $6\frac{1}{2} \times 4 \times 6$ "
- one horizontal duplex oil fuel transfer pump to the settling tank for the donkey boilers. $7 \times 4\frac{1}{2} \times 6$ " 15 tons

Driven by electric motors.

Steam driven.

2	2 cyl. 4 S.C.B.R. auxiliary Diesel oil engines, each of 100 H.P. - each working a compound wound generator of 66 K.W. 300 Amp. 220 Volts, supplying current for motive power to the following:
2	20 H.P. shunt wound electric motors working the cooling water pumps.
2	20 H.P. " " " " " the lubricating oil pumps.
1	9 H.P. " " " " " the ballast pump.
1	9 H.P. " " " " " the combined bilge and sanitary pump.
1	9 H.P. " " " " " the oil fuel transfer pump.
1	6 H.P. series " " " " the turning gear to the main engines.
1	2.5 H.P. shunt " " " " the turning lathe.
1	1 H.P. " " " " the drilling machine.
1	0.4 H.P. " " " " the grinding machine.
1	2.5 H.P. compound " " " " the oil fuel purifier.
1	2.5 H.P. " " " " the lubricating oil purifier.
1	4.5 H.P. " " " " the refrigerating machinery to the provision room.
1	1.5 H.P. shunt " " " " the brine pump to the refrigerating machinery.
1	0.1 H.P. " " " " the oil fuel blower to the kitchen range in the galley.
1	22 H.P. compound " " " " the oil pump for the electro-hydraulic steering gear.
1	6.5 H.P. shunt " " " " the oil fuel transfer pump fitted in the forward pump room.
1	And supply in current for electric lighting purpose with the pressure reduced from 220 to 110 Volts after having passed the transformer. Transformer motor 18.5 H.P. compound wound, dynamo 12 K.W. compound wound

the oil cargo pump room ?:

- horizontal duplex pumps (Washington System) $510 \times 360 \times 600$ mm, capacity 350 tons, steam driven.
- horizontal duplex pump, $190 \times 230 \times 150$ mm, - 60 tons for draining the pump room, steam driven.

the pump room in fore hold ?:

- horizontal duplex bilge and ballast pump, $230 \times 230 \times 250$ mm, - steam driven.
- cow wheel oil fuel transfer pump, capacity 30 tons, driven by electric motor.

The foregoing is a correct description.

AKTIESELSKABET
BURMEISTER & WAIN
MASKIN OG SKIBSBYGGER

Manufaktur

**SURVEYOR TO LLOYD'S
REGISTER OF SHIPPING**

0-0068(2/2)