

REPORT ON OIL ENGINE MACHINERY

No. 18824

AUG 1952

Received at London Office

Date of writing Report 7th Aug. 1952

When handed in at Local Office 7th Aug. 1952

Port of BRISTOL

Survey held at Bristol

Date, First Survey 7th January

Last Survey 8th July, 1952

Number of Visits 14

Single
on the Trawl
Triple
Quadruple

Dumb Cutter Suction Dredger Yard No. 380

Tons

at Bristol

By whom built Chas. Hill & Sons Ltd.

Yard No. 380

When built 1952

ines made at Colchester

By whom made Davey Paxman & Co., Ltd.

Engine No. 52575

When made 1951

key Boilers made at - -

By whom made - -

Boiler No. - -

When made - -

Horse Power 364

Owners Nelson Harbour Board

Port belonging to Nelson, N.Z.

Power as per Rule - -

Is Refrigerating Machinery fitted for cargo purposes. No

Is Electric Light fitted. Yes

for which vessel is intended dredger

ENGINES, &c. — Type of Engines heavy oil, see Ipswich Report

123838 for main suction pump engine

2 or 4 stroke cycle -

Single or double acting -

um pressure in cylinders -

Diameter of cylinders -

Length of stroke -

No. of cylinders -

No. of cranks -

Indicated Pressure -

Ahead Firing Order in Cylinders -

Span of bearings, adjacent to the crank, measured

inner edge to inner edge -

Is there a bearing between each crank -

Revolutions per minute -

eel dia. -

Weight -

Moment of inertia of flywheel (lbs. in² or Kg. cm.²) -

Means of ignition -

Kind of fuel used -

Solid forged

Semi built

All built

dia. of journals -

as fitted -

Crank pin dia. -

Crank webs -

Mid. length breadth -

Mid. length thickness -

shrink -

Thickness parallel to axis -

Thickness around eyehole -

eel Shaft, diameter -

as per Rule -

as fitted -

Intermediate Shafts, diameter -

as per Rule -

as fitted -

Thrust Shaft, diameter at collars -

as fitted -

Shaft, diameter -

as per Rule -

as fitted -

Screw Shaft, diameter -

as per Rule -

as fitted -

none ✓

Is the

{ tube

{ screw

shaft fitted with a continuous liner

none ✓

e 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

er boss -

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-

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

tube shaft none. If so, state type. - Length of bearing in Stern Bush next to and supporting propeller -

ller, dia. none ✓ Pitch - No. of blades - Material - whether moveable - Total developed surface - sq. feet

t of inertia of propeller (lbs. in² or Kg. cm.²) - Kind of damper, if fitted -

d of reversing Engines - Is a governor or other arrangement fitted to prevent racing of the engine when declutched. Yes ✓ Means of

tion forced Thickness of cylinder liners - Are the cylinders fitted with safety valves. Yes ✓ Are the exhaust pipes and silencers water cooled

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

the engine - Cooling Water Pumps, No. ME one GS one. Is the sea suction provided with an efficient strainer which can be cleared within the vessel. Yes

umps worked from the Main Engines, No. none ✓ Diameter - Stroke - Can one be overhauled while the other is at work. -

connected to the Main Bilge Line (No. and size one flushing pump 40 t/hr one G.S. pump 19 t/hr. How driven stbd. auxiliary port auxiliary

ooling 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

ements. -

Pumps, No. and size none ✓ Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 each engine

o independent means arranged for circulating water through the Oil Cooler none ✓ Suctions, connected to both main bilge pumps and auxiliary

umps, No. and size:—In machinery spaces one 4" direct, one 2½" direct two 2" In pump room -

xxxbuoyancy space stbd. two 2" Port two 2" accommodation one 2" port and stbd. cofferdam one 2" p & s.

ndent Power Pump Direct Suctions to the engine room bilges, No. and size one 4" and one 2½"

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

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

Sea Connections fitted direct on the skin of the Ship on stools Are they fitted with valves or cocks. valves ✓ Are they fixed

tly 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 ✓

y 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 -

ipes pass through the bunkers. none ✓ How are they protected -

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

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

rangement 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

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

od 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 -

ry Air Compressors, No. one ✓ No. of stages driven by port auxiliary stroke driven by -

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

rovision is made for first charging the air receivers. none

ging Air Pumps, No. none ✓ diameter - stroke - driven by -

ry Engines crank shafts, diameter as per Rule stbd. auxiliary Ipswich rpt. 124359 two

as fitted port auxiliary Nottingham cert 14243 Position one port & one starboard

e auxiliary engines been constructed under special survey. Yes Is a report sent herewith. Yes

AIR RECEIVERS:—Have they been made under survey... Yes ✓ State No. of report or certificate
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... Is a drain fitted at the lowest part of each receiver... Yes
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 No ✓ 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... Receivers... Separate fuel tanks...
(If not, state date of approval)
Donkey boilers... General pumping arrangements... Yes Pumping arrangements in machinery space... Yes
Oil fuel burning arrangements...
Have Torsional Vibration characteristics been approved No Date of approval...

SPARE GEAR.

Has the spare gear required by the Rules been supplied...
State the principal additional spare gear supplied...

CHARLES HILL & SONS, LTD.

The foregoing is a correct description Charles Hill & Sons Ltd Manufacturer.

Dates of Survey while building { During progress of work in shops - see Ipswich Report No.123838 & 124359. Nottingham Cert.No. 14243
During erection on board vessel - Jan.7, Feb.22, March 7,27, April, 15,22,26, May 13,15, June 4,9,12,13, July 8
Total No. of visits 14

Dates of examination of principal parts—Cylinders - Covers - Pistons - Rods - Connecting rods -
Crank shaft - Flywheel shaft - Thrust shaft - Intermediate shafts - Tube shaft -
Screw shaft - Propeller - Stern tube - Engine seatings 8.7.52 Engine holding down bolts -
Completion of fitting sea connections see report Completion of pumping arrangements see rpt. Engines tried under working conditions see rpt
Crank shaft, material - Identification mark - Flywheel shaft, material - Identification mark -
Thrust shaft, material - Identification mark - Intermediate shafts, material - Identification marks -
Tube shaft, material - Identification mark - Screw shaft, material - Identification mark -
Identification marks on air receivers...

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 2 hose connections on deck line
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...
If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with none ✓
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 main suction pump and engine together with auxiliary engines, pumps, generators, rock cutting machinery, winches, crane, piping and fittings have been provisionally erected and fitted as far as practicable in this vessel, the hull sections only being temporarily assembled.
The installation in so far as now erected is in accordance with the Approved Plans, Secretary's and to Owners' Specification. No trials of main or auxiliary gear, pumping arrangements, etc., have been carried out.
After erection, as above, the various parts were marked, dismantled, packed and shipped to Port Nelson, N.Z. for installation when the hull section has been permanently assembled.
The Machinery of this vessel will be eligible for record of ILMC on completion of installation and satisfactory trials.

The amount of Entry Fee 3/5 ... £ 12 : 0 0
Special ... £ : : When applied for 7th Aug 19 52
Donkey Boiler Fee... £ : : When received 19
Travelling Expenses (if any) £
TUES. 23 SEP 1952

Committee's Minute...
Assigned... Ser Wm. 6216

Hege Pridmore

Engineer Surveyor to Lloyd's Register of Shipping



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