

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

8 AUG 1952

Date of writing Report 7th Aug. 1952 When handed in at Local Office 7th Aug. 1952 Port of BRISTOLNo. in Survey held at Bristol Date, First Survey 22nd Feb. 52 Last Survey 19th June 1952  
Reg. Book. (No. of Visits 5)on the Dumb Cutter Suction Dredger Yard 380 TonsBuilt at Bristol By whom built Chas. Hill & Sons Ltd. Yard No. 380 When built 1952Owners Nelson Harbour Board Port belonging to Port NelsonInstallation fitted by Chas. Hill & Sons Ltd. When fitted 1952Is vessel equipped for carrying Petroleum in bulk No Is vessel equipped with D.F. No E.S.D. No Gy.C. No Sub.Sig. No Radar NoPlans, have they been submitted and approved Yes System of Distribution two wire Voltage of Lighting 220Heating 220 Power 220 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency -Prime Movers, has the governing been found as per Rule when full load is thrown on and off see rpt Are turbine emergency governors fittedwith a trip switch - Generators, are they compound wound Yes, and level compounded under working conditions Yes,if not compound wound state distance between generators - and from switchboard - Are the generators arranged to runin parallel No, are shunt field regulators provided Yes Is the compound winding connected to the negative or positive polenegative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing Yes Have certificates oftest for machines under 100 kw. been supplied Yes and the results found as per Rule YesPosition of Generators one port and one starboard side of engine room.is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury anddamage from water, steam and oil Yes Switchboards, where are main switchboards placed see reportare they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil -, what insulation is used for the panels Piemite, if of synthetic insulatingmaterial is it an Approved Type Yes, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom asper Rule Is the construction as per Rule, including locking of screws and nuts Yes Description of Main Switchgearfor each generator and arrangement of equaliser switches Double pole circuit breakersand the switch and fuse gear (or circuit breakers) for each outgoing circuit Double pole knife switches with fuses at each pole.Are compartments containing switchboards composed of fire-resisting material or lined as per Rule - Instruments on main switchboard 2ammeters 2 voltmeters - synchronising devices - For compound machines in parallel are the ammeters and reversed currentprotection devices connected on the pole opposite to the equaliser connection - Earth Testing, state means provided 215 watt lamp in series centre tapped to earth.Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yesmake of fuses G.E.C., are all fuses labelled Yes If circuit breakers are provided for the generators, at whatoverload do they operate 25%, and at what current do the reversed current protective devices operate -Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule YesCables, are they insulated and protected as per Rule see rpt., if otherwise than as per Rule are they of an Approved Type -state maximum fall of pressure between bus bars and any point under maximum load -, are the ends of all cables having a sectionalarea of 0.01 square inch and above provided with soldering sockets see rpt. Are all paper insulated and varnished cambric insulatedcables sealed at the ends - Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil,high temperatures or risk of mechanical damage see rpt., are any cables laid under machines or floorplates No, if so, are theyadequately protected - Are cables in machinery spaces, galleys, laundries, etc., lead covered lead covered and S.W.A.or of the "HR" type - State how the cables are supported or protected see reportAre all lead sheaths, armouring and conduits effectually bonded and earthed see rpt. Are all cables passing through decks and watertightbulkheads provided with deck tubes or watertight glands see report, where unarmoured cables pass through beams, etc., are the holeseffectively bushed - Refrigerated chambers, are the cables and fittings as per Rule -



PARTICULARS OF GENERATING PLANT

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ... ..	1	Mawdsley	120	220	545	1000	6RPH2	Davey Paxman
	1	do	14	220	63.6	1000	3VSHZ	Ruston & Hornsby
EMERGENCY ...								
ROTARY								
TRANSFORMER								

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ... ..	120	1	127/103	545	595	48	VIR	L.C. & S.W.A.
" " <del>EXCHANGER</del> ... ..	14	1	19/052	63.6	64	96	VIR	do
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR...								

[illegible][illegible][illegible]



The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.

All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.

The foregoing is a correct description.

CHARLES HILL & SONS LTD

Alan Peck

Electrical Contractors.

Date

#### COMPASSES.

Have the compasses been adjusted under working conditions.

CHARLES HILL & SONS LTD

Builder's Signature.

Date

Have the foregoing descriptions and schedules been verified and found correct. Yes

Is this installation a duplicate of a previous case. No If so, state name of vessel.

Plans. Are approved plans forwarded herewith. Yes If not, state date of approval.

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith.

General Remarks. (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

This vessel has only been provisionally erected and the electrical installation temporarily fitted as far as practicable. Generators and prime movers provisionally installed, wiring and fittings provisionally installed, switch board not fitted.

All machinery, wiring, switchboard and fittings packed for shipment to New Zealand for permanent fitting.

The Electrical Installation of this vessel will be eligible for record of ILMC on completion of installation and satisfactory trials.

dated 1952

A.W.S. & SONS LTD

Noted ADM 2-9-52

Total Capacity of Generators 134 Kilowatts.

The amount of Fee ...

£ 33 : 1 0

When applied for,

7.8. 1952

When received,

19

Travelling Expenses (if any) £

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 23 SEP 1952

Assigned

See F.E. mchey rpt.