

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

21 OCT 1936

20 OCT 1936

Received at London Office

Date of writing Report

When handed in at Local Office

Port of

HULL

No. in Survey held at

Hull

Date, First Survey

3rd Oct. 1936

Last Survey

14th Oct. 1936

Reg. Book.

67416 on the Steam Trawler "Cape Palliser"

(Number of Visits.....)

Tons

Gross 494.72
Net 190.28

Built at

Selby

By whom built

Bochraue & Sons Ltd.

Yard No.

1169

When built

1936, 10.

Owners

Hudson Steam Fishing Co. Ltd.

Port belonging to

Hull.

Electric Light Installation fitted by

Wm Broady & Son.

Contract No.

When fitted 1936.

Is the Vessel fitted for carrying Petroleum in bulk

No.

System of Distribution

Two wire

Pressure of supply for Lighting

100

volts, Heating

100

volts, Power

volts.

Direct or Alternating Current, Lighting

Direct

Power

If alternating current system, state frequency of periods per second

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off

Yes

Generators, do they comply with the requirements regarding temperature rise

Yes

are they compound wound

Yes

are they over compounded 5 per cent.

Yes

if not compound wound state distance between each generator

Where more than one generator is fitted are they arranged to run in parallel

series with each shunt field

Yes

Have certificates of test results for machines under 100 kw. been submitted and approved

Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing

Are all terminals accessible, clearly marked, and furnished with sockets

Yes

are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched

Position of Generators

Starb. side of engine room

is the ventilation

in way of the generators satisfactory

Yes

are they clear of all inflammable material

Yes

if situated near unprotected

woodwork or other combustible material, state distance of same horizontally from or vertically above the generators

are the generators protected from mechanical injury and damage from water, steam or oil

Yes

are their axes of rotation fore and aft

Yes

Earthing, are the bedplates and frames of the generating plant efficiently earthed

Yes

are the prime movers and their respective generators

in metallic contact

Yes

Main Switch Boards, where placed

Beside generator

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes

Yes

are they protected from mechanical injury and damage from water, steam or oil

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards

are they constructed wholly of durable, non-ignitable non-absorbent materials

is it of an approved type

if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework

are the fittings as per Rule regarding: - spacing or shielding of live parts

accessibility of all parts

absence of fuses on back of board

temperature rise of omnibus bars

individual fuses to voltmeter, pilot or earth lamp

are moving parts of switches alive in the "off" position

are all screws and nuts securing connections effectively locked

are any fuses fitted on the live side of switches

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

Generator, 9 Pinless circuit: - D.P. Linked switches. Other outgoing circuits: - S.P. switches

Are turbine driven generators fitted with emergency trip switch as per rule

Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material

Instruments on main switchboard

One ammeter one voltmeter

synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

Earth lamps

Switches, Circuit Breakers and Fusible Cut-outs,

do these comply with the requirements of the Rules

are the fusible cutouts of an approved type

Yes

have the reversed



current protection devices been tested under working conditions **Joint Boxes, Section and Distribution Boards**, is the construction, protection, insulation, material, and position of these as per rule *Yes*

Cables: Single, twin, concentric, or multicore *Sw* are the cables insulated and protected as per Tables IV, V, X or XI of the Rules *Yes*

If the cables are insulated otherwise than as per Rule, are they of an approved type **Fall of Pressure**, state maximum between bus bars and any point of the installation under maximum load *nil*

Cable Sockets, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets *Yes*

Paper Insulated and Varnished Cambric Insulated Cables. If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound or waterproof insulating tape

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage *Yes*

Are cables in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit *Yes*

Support and Protection of Cables, state how the cables are supported and protected *Armoured cables supported with S.I. clips L.C. cables (in accommodation) supported with brass clips*

If cables are run in wood casings, are the casings and caps secured by screws are the cap screws of brass are the cables run in separate grooves If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII *Yes*

Refrigerated Chambers, are the cables and fittings in accordance with the special requirements

Joints in Cables, state if any, and how made, insulated, and protected *No. joints. 1901*

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands *Yes*

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed *Yes* state the material of which the bushes are made *Lead*

Earthing Connections, state what earthing connections are fitted and their respective sectional areas

are their connections made as per Rule

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule *Yes* **Emergency Supply**, state position and method of control of the emergency supply and how the generator is driven

Navigation Lamps, are these separately wired *Yes* controlled by separate switch and separate fuses *Yes* are the fuses double pole *Yes* are the switches and fuses grouped in a position accessible only to the officers on watch *Yes*

has each navigation lamp an automatic indicator as per Rule **Secondary Batteries**, are they constructed and fitted as per Rule

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight *Yes* are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected *Yes* *Fitted with D.S. glasses & heavy brass guards.*

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *No.*

how are the cables led

where are the controlling switches situated

are all fittings suitably ventilated are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials

Heating and Cooking Appliances, are they constructed and fitted as per Rule *Yes* are air heaters constructed and fitted as per Rule

Searchlight Lamps, No. of whether fixed or portable are their fittings as per Rule

Arc Lamps, other than searchlight lamps, No. of are their live parts insulated from the frame or case are their fittings as per Rule

Motors, are their working parts readily accessible are the coils self-contained and readily removable for replacement

are the brushes, brush holders, terminals and lubricating arrangements as per Rule are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material

are they protected from mechanical injury and damage from water, steam or oil are their axes of rotation fore and aft if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type

if not of this type, state distance of the combustible material horizontally or vertically above the motors and

have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing **Control Gear and Resistances**, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule **Ships carrying Oil having a Flash Point less than 150° F.** Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings

are all fuses of the filled cartridge type are they of an approved type

If portable lamps for use in dangerous spaces are supplied, are they of a self-contained, battery-fed type approved by the Home Office

Spare Gear, if the vessel is for open sea service have spares been supplied as per Rule

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	one	8	100	80	350	Steam Engine		
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rule.			
MAIN GENERATOR	1	.06	19	.064	60	83	16ft.	V.I.R.	L.C. & armoured
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR									
ENGINE ROOM	1	.0029	3	.036	3.5	12	20	"	"
BOILER ROOM	1	.0029	3	.036	1.5	12	40	"	"
AUXILIARY SWITCHBOARDS									
ACCOMMODATION	1	.022	7	.064	12	46	150	"	"
Nav. Main	1	.007	7	.036	6	24	150	"	"
WIRELESS	1	.0104	7	.044	10	31	150	"	"
SEARCHLIGHT	1	.0029	3	.036	2	12	150	"	"
MASTHEAD LIGHT	1	.0029	3	.036	2	12	30	"	L.C.
SIDE LIGHTS	1	.0029	3	.036	2	12	150	"	L.C. & etc.
COMPASS LIGHTS	1	.0045	7	.029	2	18	150	"	"
POOP LIGHTS	1	.0045	7	.029	2	18	150	"	"
CARGO LIGHTS	1	.0045	7	.029	2	18	150	"	"
ARC LAMPS	1	.007	7	.036	10	24	30	"	L.C.
HEATERS (Chart Room)	1	.007	7	.036	10	24	30	"	L.C.

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP										
MAIN BILGE LINE PUMPS										
GENERAL SERVICE PUMP										
EMERGENCY BILGE PUMP										
SANITARY PUMP										
CIRC. SEA WATER PUMPS										
CIRC. FRESH WATER PUMPS										
AIR COMPRESSOR										
FRESH WATER PUMP										
ENGINE TURNING GEAR										
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS										
OIL FUEL TRANSFER PUMP										
WINDLASS										
WINCHES, FORWARD										
WINCHES, AFT										
STEERING GEAR										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
WORKSHOP MOTOR										
VENTILATING FANS										

All Conductors are of annealed copper conforming to British Standard Specification No. 7 (or International Electro-technical Commission Publication No. 28).

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

WM BROADY & SON
ENGINEERS
HULL

Electrical Engineers.

Date 13th October 1936

COMPASSES.

Distance between electric generators or motors and standard compass

70 ft

Distance between electric generators or motors and steering compass

65 ft

The nearest cables to the compasses are as follows:—

A cable carrying 0.5 Ampères to feet from standard compass feet from steering compass.

A cable carrying 0.5 Ampères to feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power Yes

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted Yes

The maximum deviation due to electric currents was found to be no degrees on any course in the case of the standard

compass, and no degrees on any course in the case of the steering compass.

[Signature]

Builder's Signature.

Date 16 OCT 1936

Is this installation a duplicate of a previous case

Yes

If so, state name of vessel

base Chelyuskin

General Remarks (State quality of workmanship, opinions as to class, &c.)

The electrical installation of this vessel has been fitted on board under special survey, tried under working conditions and found satisfactory.

Noted

JRM

22.10.36

Total Capacity of Generators 8 Kilowatts.

The amount of Fee £ 4 : - :

When applied for, 20 OCT 1936

Travelling Expenses (if any) £ :

When received, 30.10.36

G. Knoffatt
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 23 OCT 1936

Assigned

See Incl Rpt 28.47283

2m. 5.34. - Transfer.
The Surveyors are requested not to write on or below the space for Committee's Minute.



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Foundation