

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

15 Oct 1949

Date of writing Report 8.10.49 19 When handed in at Local Office 19 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 10-6-49 Last Survey 12-10-1949  
Reg. Book. (No. of Visits 17)on the M.V. "STEINGRIM STANGE" Tons { Gross 10099  
Net 5895

Built at Sunderland By whom built Sir James Laing &amp; Sons Yard No. 783 When built 1949.

Owners Skibs A/S Anstein (Lip Høegh &amp; Co.) Port belonging to Oslo.

Installation fitted by Sunderland Forge &amp; Engineering Co. Ltd When fitted 1949.

Is vessel equipped for carrying Petroleum in bulk Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. No Radar Yes

Plans, have they been submitted and approved Yes System of Distribution Wire in Voltage of Lighting 110

Heating — Power 110 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 Yes Are turbine emergency governors fitted

with 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 run

in parallel Yes, are shunt field regulators provided Yes Is the compound winding connected to the negative or positive pole

Negative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing — Have certificates of

test for machines under 100 kw. been supplied Yes and the results found as per Rule Yes

Position of Generators Engines room on main deck Starboard

is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury and

damage from water, steam and oil Yes Switchboards, where are main switchboards placed adjacent to generators

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water,

steam and oil Yes, what insulation is used for the panels Heavy Sundagys, if of synthetic insulating

material is it an Approved Type Yes, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as

per Rule — Is the construction as per Rule, including locking of screws and nuts Yes Description of Main Switchgear

for each generator and arrangement of equaliser switches A single pole (one pole for equalisers) air break circuit

breaker with 50 &amp; 100 Current trips

and the switch and fuse gear (or circuit breakers) for each outgoing circuit A double pole knife switch &amp; fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 4

ammeters 4 voltmeters — synchronising devices For compound machines in parallel are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection Yes Earth Testing, state means provided E lamps

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yes

make of fuses "LED" are all fuses labelled Yes If circuit breakers are provided for the generators, at what

overload do they operate 5% and at what current do the reversed current protective devices operate 45A

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule Yes

Cables, are they insulated and protected as per Rule Yes, 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 76 lb are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets Yes Are all paper insulated and varnished cambric insulated

cables sealed at the ends Yes 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 Yes, are any cables laid under machines or floorplates No, if so, are they

adequately protected — Are cables in machinery spaces, galleys, laundries, etc., lead covered Yes or run in conduit —

or of the "HR" type — State how the cables are supported or protected Main feeders L.C.B.B. (V.C.) clipped

to heavy steel steel through with some plate fitted, along iron &amp; steel gangway.

In accommodation L.C. Cables on the surface and protected as required by Wood or Metal.

Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes Are all cables passing through decks and watertight

bulkheads provided with deck tubes or watertight glands Yes, where unarmoured cables pass through beams, etc., are the holes

effectively bushed Yes Refrigerated chambers, are the cables and fittings as per Rule Yes



Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory. *Yes.*

DESCRIPTION OF GENERATOR.		No. of	MAKER.	RATED AT				PRIME MOVER.	
				Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	3	S. FORGE CO LTD	35	110	318	640	Steam	S. FORGE CO LTD.	
	1	do.	35	110	318	1000	Gasol	Russell - Turbomay.	
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 ... ..	No. 1 35	2	19/083	318✓	382	54	V.C.	L-CAB.
" " EQUALISER ... ..	" 35	1	"		191	27	"	"
" " " No. 2	35	2	"	318✓	382	68	"	"
" " EQ	" 35	1	"		191	34	"	"
" " " No. 3	35	2	"	318✓	382	85	"	"
" " EQ	" 35	1	"		191	42	"	"
EMERGENCY GENERATOR ...	No. 4 35	3	"	318✓	382	100	"	"
ROTOR TRANSFORMER MOTOR EQ ...	" 35	2	"		191	50	"	"
" " GENERATOR...								

[illegible]

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA- TION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Prop Deck Lighting D.B. 5. Port	1	7/064	17.6✓	46	66	V.I.R.	L.C.
" " " D.B. 6 Port.	1	"	18.6✓	"	60	"	"
" " " D.B. 7 Star.	1	"	15.8✓	"	32	"	"
Upper Deck Lighting D.B. 9. Star.	1	"	16.9✓	"	15	"	"
" " " D.B. 8. Port	1	"	21.8✓	"	103	"	"
Engine Room Lighting D.B. 10.	1	7/044	16✓	31	36	"	"
" " " D.B. 11.	1	"	16✓	"	132	"	"
Bridge Ltg + Navigation D.B. 1.	1	7/036	19.3✓	24	64	"	"
Upper Bridge Ltg D.B. 2.	1	7/044	15.3✓	31	64	"	"
Paint D.B. 3.	1	7/064	5.9✓	75	56	VC.	"
Bridge R.R. Ltg. D.B. 4.	1	7/044	27.5✓	31	25	VIR	"
Cargo Lighting D.B.	1	7/064	17.4✓	46	25	"	"
Navigation Illumination from D.I.	1	1/064	5✓	5	16	"	"
" " from Main Deck.	1	1/064	-	5	76	"	"
W.L. Supply	1	7/064	10✓	75	320	VC	"
Radar "	1	"	40✓	75	76	"	"
Auto Soundings Supply	1	1/064	5✓	5	80	V.I.R.	"
Hydro Supply.	1	7/029	10✓	15	28	"	"
Emergency Control Panel (Wiring only)	1	37/072.	-	246	1040	V.C.	L.C.B.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Engine Room Vack Pano.	17	2	1	7-036	18 ✓	24	2/150	V-1-R	L-C-R-B.
Boop Deck Hermeticals	2	4-5	1	7-064	38 ✓	75	2/1314	V.C.	"
Galley Exhaust Fan.	1	0-25	1	3-029	3 ✓	10	40	V-1-R	"
Jumping Gears Motor	1	10	1	19-0444	80 ✓	87	120	V.C.	"
Pressing Pump	1	1-5	1	7-036	15 ✓	24	100	V-1-R	"
Crane Motor	1	3	1	7-064	26 ✓	46	94	"	"
Workshop Motor	1	2	1	7-036	18 ✓	24	138	"	"
Oil Purifier	3	3	1	7-064	26 ✓	46	52	"	"
W.P. & F.W. Pump Motor	3	5	1	7-036	57 ✓	24	30	"	"
Refrigerating Motor	1	5	1	7-064	42 ✓	75	24	V.C.	"
Midship Hermetical	1	4-25	1	7-064	38-6 ✓	75	102	"	"



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.

Sunderland Tug & Barge Co Ltd.

Electrical Contractors.

Date 10.10.1949

T. J. Gurney

COMPASSES.

Have the compasses been adjusted under working conditions.

SIR JAMES LAING & SONS LIMITED

Managing Director

Builder's Signature.

Date 13.10.49

Have the foregoing descriptions and schedules been verified and found correct. 4/46

Is this installation a duplicate of a previous case. 4/46 If so, state name of vessel M.T. "Hedgehog"

Plans. Are approved plans forwarded herewith. 4/46 If not, state date of approval.

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith. 4/46

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

The electrical equipment of this vessel has been installed under special survey in accordance with the approved plans and the "Rules for Electrical Equipment". The materials and workmanship are good. On completion, satisfactory tests of the equipment were witnessed and the insulation resistance of all circuits was measured and found good. This equipment is in my opinion suitable for a classed vessel.

Noted and 7/11/49

Total Capacity of Generators (4 x 35) 140 Kilowatts.

The amount of Fee ...

£61. 0. 0

When applied for,

OCT 14 1949

When received,

19

Travelling Expenses (if any) £

Surveyor to Lloyd's Register of Shipping.

Committee's Minute.

FRI. 11 NOV 1949

Assigned.

Sir F.E. Moly. opt.



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