

No. 8519

2 FEB 1952

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Survey held at Grisslehamn and Gåshaga Date, First Survey 11.9. Last Survey 9.10. 1951.

on the ^{Single} Twin ^{Tripix} Quadruple Screw vessel.....	m.s. "ELENDÄ" (former Swedish War Vessel)	Tons	Gross..... 483
			Net..... 302
at Gothenburg	By whom built AB Lindholmens Varv	Yard No. -	When built 1875
was made at Lysekil	By whom made Skandia-Verken AB	Engine No. 222960	When made 1949
Boilers made at -	By whom made -	Boiler No. -	When made -
Horse Power 300	Owners Partrederi E. Bernstrand-T. Jansson	Port belonging to	Stockholm
Power as per Rule 112	Is Refrigerating Machinery fitted for cargo purposes	No.	Is Electric Light fitted Yes.
for which vessel is intended	Open sea.		

ENGINES, &c. —Type of Engines..... 2 or 4 stroke cycle..... Single or double acting.....
 Mean 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.....
 Wheel dia..... Weight..... Moment of inertia of flywheel (lbs. in² or Kg.cm.²)..... Means of ignition..... Kind of fuel used.....
 (Solid forged as per Rule..... Crank pin dia..... Crank webs Mid. length breadth..... Thickness parallel to axis.....
 Semi built dia. of journals as fitted..... Mid. length thickness..... shrunk Thickness around eyehole.....
 All built as fitted.....
 Wheel Shaft, diameter as per Rule..... Intermediate Shafts, diameter as per Rule..... Thrust Shaft, diameter at collars as fitted.....
 as fitted..... as fitted..... as per Rule.....
 Shaft, diameter as per Rule..... Screw Shaft, diameter as per Rule..... Is the { tube } shaft fitted with a continuous liner {
 as fitted..... as fitted..... screw }
 Liners, 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
 as fitted..... as fitted.....
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner.....
 If the 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-
 sive..... 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
 of tube shaft..... If so, state type..... Length of bearing in Stern Bush next to and supporting propeller.....
 Pitch..... No. of blades..... Material..... whether moveable..... Total developed surface..... sq. feet
 ent of inertia of propeller (lbs. in² or Kg.cm.²)..... Kind of damper, if fitted.....
 Method of reversing Engines..... Is a governor or other arrangement fitted to prevent racing of the engine when declutched..... Means of
 location..... Thickness of cylinder liners..... Are the cylinders fitted with safety valves..... Are the exhaust pipes and silencers water cooled
 gged with non-conducting material..... If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
 to the engine..... Cooling Water Pumps, No. 1x164 lit/min. Is the sea suction provided with an efficient strainer which can be cleared within the vessel. Yes
 e Pumps worked from the Main Engines, No. 1x235 lit/min. Diameter. 120 mm Stroke. 64 mm Can one be overhauled while the other is at work. -
 ngs connected to the Main Bilge Line { No. and size 2 ✓
 How driven One by main engine. One by aux. engine.
 he cooling 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
 ngements.....
 last Pumps, No. and size 1 centrifugal. 600 lit/min. Power Driven Lubricating Oil Pumps, including spare pump, No. and size. -
 two independent means arranged for circulating water through the Oil Cooler. - Suctions, connected to both main bilge pumps and auxiliary
 e pumps, No. and size:—In machinery spaces. 2 off 2.1/2" : One off 3" In pump room. -
 holds, &c. 2 off 2.1/2" ✓
 ependent Power Pump Direct Suctions to the engine room bilges, No. and size. One off 2.1/2". One off 3" ✓
 e all the bilge suction pipes in holds and machinery spaces fitted with strum-boxes. Yes ✓ Are the bilge suction in the machinery spaces led from easily
 cessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges. Yes ✓
 e all Sea Connections fitted direct on the skin of the Ship. Yes ✓ Are they fitted with valves or cocks. Cocks ✓ Are they fixed
 ficiently 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
 e they 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. -
 hat pipes pass through the bunkers. - How are they protected. -
 hat pipes pass through the deep tanks. - Have they been tested as per Rule. -
 e all pipes, cocks, valves and pumps in connection with the machinery and bilge suction arrangements accessible at all times. Yes ✓
 the 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 machiner
 aces, or from one compartment to another. Yes ✓ Is the shaft tunnel watertight. Is it fitted with a watertight door. - worked from. -
 a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork. -
 ain Air Compressors, No. Crank case compr. No. of stages. - diameters. - stroke. - driven by. -
 uxiliary Air Compressors, No. One ✓ No. of stages. 2 diameters. 95/40 mm stroke. 125 mm driven by Aux. Engine
 nall Auxiliary Air Compressors, No. - No. of stages. - diameters. - stroke. - driven by. -
 hat provision is made for first charging the air receivers. Motor driving the auxiliary compressor is hand started.
 avenging Air Pumps, No. - diameter. - stroke. - driven by. -
 uxiliary Engines crank shafts, diameter as per Rule. 55 mm. No. 2
 as fitted. 55 mm. Position. In E.R. Main on s.s., Harbour set p.s.
 ve the auxiliary engines been constructed under special survey Main yes, Harbour set no. Is a report sent herewith. Yes.

22.2.52

driven by.....

by Lloyd's Register
Harbour set p.s.

011378-011385-0176

AIR RECEIVERS:—Have they been made under survey..... State No. of report or certificate.....
Is each receiver, which can be isolated, fitted with a safety valve as per Rule.....
Can the internal surfaces of the receivers be examined and cleaned.....
Injection Air Receivers, No..... Cubic capacity of each..... Is a drain fitted at the lowest part of each receiver.....
Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....
Starting Air Receivers, No..... 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..... 21.4.49 Receivers..... Separate fuel tank.....
(If not, state date of approval).....
Donkey boilers..... General pumping arrangements..... 18.10.48 Pumping arrangements in machinery space..... 18.10.48
Oil fuel burning arrangements.....
Have Torsional Vibration characteristics been approved..... Yes Date of approval..... 20.4.49 and 13.6.49

SPARE GEAR.

Has the spare gear required by the Rules been supplied..... Yes. ☒
State the principal additional spare gear supplied..... Spare Cylinder, marked LLOYDS TEST 7 KG TB 4.10.51.

The foregoing is a correct description,

Shipbuilder.

GRISSEHAMNS VARV
T. Jansson & Co.

Dates of Survey while building.....
During progress of work in shops - - - See Gothenburg Report No. 16830.
During erection on board vessel - - - 11/9 - 9/10 1951.
Total No. of visits..... 7
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..... 17.5.51 Stern tube..... 27.9.49 Engine seatings..... 4.10.51 Engine holding down bolts..... 11.9.51
Completion of fitting sea connections..... 17.5.51 Completion of pumping arrangements..... 4.10.51 Engines tried under working conditions..... 4.9.51
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 S.M. Steel Identification mark..... LLOYDS HOA 27.9
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..... 3 Special Skum Kustos foam fire extinguishers of 12 litres each.
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.....
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.....
This machinery has been fitted onboard under my supervision and to my satisfaction, and the workmanship was found to be good. The main and auxiliary engines and the pumping arrangement have been tried and tested and found to function satisfactorily.

Please, see also Gothenburg Report No. 16830 regarding this case.

A daily service tank, as per attached sketch, has been installed

Re. Stockholm letter of the 9.9.1948 regarding sounding pipes:—

As pillars in vessel's centre line have been fitted, the sounding pipes to double bottom tanks are led the pillars.

The machinery of this vessel is eligible, in my opinion, to be classed in the R

Book with the notations of +LMC 10.51 and OG.

The amount of Entry Fee ... £ :
Special ... 1/3... Kr. 270:-- : When applied for 3% 192
Donkey Boiler Fee... £ : : When received 19
Travelling Expenses (if any) Kr. 105:-- :
TUES. 26 FEB 1952

Certificates in respect of fuel oil transfer pump, ballast pump and aux. compressor are attached here

Engine Surveyor to Lloyd's Register of Shipping