

Rpt. 4b

Date of writing report 20.3.57 Received London Hamburg No. 5495 5477
Survey held at Hamburg No. of visits In shops 25 MAR 1957 First date 13.7.56 Last date 24.2.57
On vessel

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. 51674 Name MS "ANNIE JOHNSON" Gross tons 5017

Owners Rederiaktiebolaget Nordstjernan Managers A. A. Johnson Port of Registry Stockholm

Hull built at Gothenburg By A/B Götaverken Yard No. — Year Month 1925

Main Engines made at Hamburg By Henschel Maschinenbau GmbH, Eng. No. 14213 & 14214 When 1957

Gearing made at — By —

Donkey boilers made at — By — Bir. Nos. — When —

Machinery installed at — By — When —

Particulars of restricted service of ship, if limited for classification —

Particulars of vegetable or similar cargo oil notation, if required —

Is ship to be classed for navigation in ice? — Is ship intended to carry petroleum in bulk? —

Is refrigerating machinery fitted? — If so, is it for cargo purposes? — Type of refrigerant —

Is the refrigerating machinery compartment isolated from the propelling machinery space? — Is the refrigerated cargo installation intended to be classed? —

The following particulars should be given as fully and as clearly as possible. Where the answer is "No" or "None", say so! Ticks and other signs of doubtful meaning are not to be used. Where the wording is not applicable to the installation, a black line may be inserted. If the main engines have been constructed at another port and are covered by a separate report, the particulars given in that report need not be repeated below, but the port and report number should be stated.

No. of main engines 2 No. of propellers 2 Brief description of propulsion system —

MAIN RECIPROCATING ENGINES. Licence Name and Type No. Pielstick Type: I6L-6PC (Supercharged)

No. of cylinders per engine 6 Dia. of cylinders 400 mm stroke 460 mm 2 or 4 stroke cycle 4 Single or double acting single

Maximum approved BHP per engine 1920 at 425 RPM of engine and 150 RPM of propeller.

Corresponding MIP 23.07 kg/cm² (For DA engines give MIP top & bottom) Maximum cylinder pressure 75 kg/cm² Machinery numeral 584 each (768)

Are the cylinders arranged in Vee or other special formation? No. If so, number of crankshafts per engine —

~~TWO-STROKE ENGINES. Is the engine of opposed-piston type? — If so, how are upper pistons connected to crankshaft? —~~

~~Is the exhaust discharged through ports in the cylinders or through valve(s) in the cylinder covers? — No. and type of mechanically driven scavenge pumps or blowers per engine and how driven —~~

~~No. of exhaust gas driven scavenge blowers per engine — Where exhaust gas driven blowers only are fitted, can the engine operate with one blower out of action? —~~

~~If a stand-by or emergency pump or blower is fitted, state how driven — No. of scavenge air coolers — Scavenge air pressure at full power — Are scavenge manifold explosion relief valves fitted? —~~

FOUR STROKE ENGINES. Is the engine supercharged? yes Are the undersides of the pistons arranged as supercharge pumps? no No. of exhaust gas driven blowers per engine one No. of supercharge air coolers per engine one Supercharge air pressure 0.58 kg/cm² Can engine operate without supercharger? yes

TWO & FOUR STROKE ENGINES—GENERAL. No. of valves per cylinder: Fuel one Inlet two Exhaust two Starting one Safety one

Material of cylinder covers cast iron Material of pistons aluminium Is the engine equipped to operate on heavy fuel oil? no

Cooling medium for: Cylinders water Pistons none Fuel valves Lub. -oil Overall diameter of piston rod for double acting engines —
all one piece

Is the rod fitted with a sleeve? — Is welded construction employed for: Bedplate? yes Frames? yes Entablature? yes Is the crankcase separated from the underside of pistons? no Is the engine of crosshead or trunk piston type? trunk Total internal volume of crankcase 5.7 m³ No. and total area of explosion relief devices 6 x 217 cm² = 702 cm² Are flame guards or traps fitted to relief devices? yes Is the crankcase readily accessible? yes If not, must the engine be removed for overhaul of bearings, etc? — Is the engine secured directly to the tank top or to a built-up seating? — How is the engine started? compressed air

Can the engine be directly reversed? yes If not, how is reversing obtained? —

Has the engine been tested working in the shop? — How long at full power? — Primary dynamic system: 47.5.56

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 7.7.56 State barred speed range(s), if imposed

for working propeller — For spare propeller — Is a governor fitted? yes Is a torsional vibration damper or detuner fitted to the shafting? yes

Where positioned? forward end of crankshaft Type spring loaded No. of main bearings 7 Are main bearings of ball or roller type? no Distance between inner edges of bearings in way of crank 559 mm Distance between centre lines of side cranks or eccentrics of opposed piston engines —

Crankshaft type: Built, semi-built, solid. (State which) solid

Diameter of journals 270 mm Diameter of crankpins Centre 260 mm Breadth of webs at mid-throw 430 mm Axial thickness of webs 124 mm

Side — Pins — Minimum — } yield point

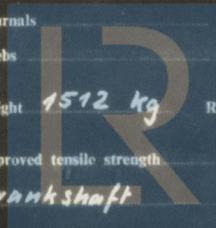
If shrunk, radial thickness around eyeholes — Are dowel pins fitted? — Crankshaft material Journals — Approved — } not less than

Webbs — Tensile strength 35 kg/mm²

outside Diameter of flywheel 1480 mm Weight 560 kg Are balance weights fitted? yes Total weight 1512 kg Radius of gyration 283.6 mm

Diameter of flywheel shaft none Material — Minimum approved tensile strength —

Flywheel shaft: separate, integral with crankshaft, integral with thrustshaft. (State which) integral with crankshaft



Lloyd's Register Foundation

GOthenburg FIRST ENTRY
REPORT No. 23392

003605-003610-0306 $\frac{1}{2}$

GENERAL REMARKS

State if the machinery has been constructed and/or installed under special survey in accordance with the Rules, approved plans and Secretary's letters. State quality of materials and workmanship and give recommendations for classification, including any special notation to be assigned. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.

This engines have been constructed in conformity with the Society's Rules and Regulations, the approved plans and the Secretary's Letters. The workmanship and materials are good. The engines have been examined during construction in the makers workshop until a stage of completion of about 80%. The engines have been dispatched to Messrs. A.B Lindholmens Varv, Gothenburg, for completion of construction.

A. H. Chngston, H. F. Sittmann

Engineer Surveyor to Lloyd's Register of Shipping.

PARTICULARS OF IDENTIFICATION MARKS ((Including Port of origin) of important Forgings and Castings. (Copies of certificates should be forwarded with report.)

RODS LLOYD'S TNO No. 9 / NN 5.6.56

CRANKSHAFT *Engine No. 14293 :- LLOYD'S DSF No. 106 H.S. 31.10.56*
 " " *14294 :- LLOYD'S LYD No. C.50 C.D. 26.10.56*

KEYWHEEL SHAFT

THRUSTSHAFT

GEARING

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS

*Superchargers: Engine No. 14293 : LLOYD'S TEST 22.8.56 T.D.P.
 " " 14294 : LLOYD'S TEST 28.7.56 JH
 Engine casings: Engine No. 14293 : LLOYD'S TEST 22.8.56 JNC
 Engine No. 14294 : LLOYD'S TEST 21.8.56 JNC*

Is the installation a duplicate of a previous case? **NO**

If so, state name of vessel

General Approval

Date of approval of plans for crankshaft **8.6.56**

Straight shafting

Gearing

Clutch

Separate oil fuel tanks

Pumping arrangements

Oil fuel arrangements

Cargo oil pumping arrangements

Air receivers

Donkey boilers

Dates of examination of principal parts:-

Fitting of stern tube

Fitting of propeller

Completion of sea connections

Alignment of crankshaft in main bearings

Engine stocks & bolts

Alignment of gearing

Alignment of straight shafting

Testing of pumping arrangements

Oil fuel lines

Donkey boiler supports

Steering machinery

Windlass

Date of Committee

80% construction Special Survey Fee **DM 3040.-**

Decision

Expenses

DM

145.-

Date when A/c rendered

33rd March 1957



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