

Rpt. 4b

Date of writing report 20. 3. 57 Received London \_\_\_\_\_ Port Hamburg Ha 5495 No. 5477  
 Survey held at Hamburg No. of visits In shops 25 MAR 1957 First date 13. 7. 56 Last date 21. 2. 57  
 On vessel \_\_\_\_\_

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. 01677 51614 Name MS "ANNIE JOHNSON" Gross tons 5077  
 Owners Fredericaktieb. Nordstjernen Managers A. A. Johnson Port of Registry Stockholm  
 Hull built at Gothenburg By A/B Götaverken Yard No. \_\_\_\_\_ When 1925  
 Main Engines made at Hamburg By Henschel Maschinenbau G.m.b.H. Eng. No. 14213 & 14214 When 1957  
 Gearing made at \_\_\_\_\_ By \_\_\_\_\_  
 Donkey boilers made at \_\_\_\_\_ By \_\_\_\_\_ Blr. 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 13.07 kg/cm<sup>2</sup> (For DA engines give MIP top & bottom) Maximum cylinder pressure 75 kg/cm<sup>2</sup> Machinery numeral 384 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/cm<sup>2</sup> 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 all one piece Overall diameter of piston rod for double acting engines \_\_\_\_\_  
 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  
 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: 17.5.56  
 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 Centre 260 mm Breadth of webs at mid-throw 430 mm Axial thickness of webs 124 mm  
 Diameter of journals 270 mm Diameter of crankpins \_\_\_\_\_ Side \_\_\_\_\_ Pins \_\_\_\_\_ Minimum \_\_\_\_\_ yield point  
 If shrunk, radial thickness around eyeholes \_\_\_\_\_ Are dowel pins fitted? \_\_\_\_\_ Crankshaft material Journals \_\_\_\_\_ Approved \_\_\_\_\_ not less than 35 kg/mm<sup>2</sup>  
 Webs \_\_\_\_\_ Tensile strength \_\_\_\_\_  
 Diameter of flywheel outside 1480 mm Weight 560 kg Are balance weights fitted? yes Total weight 1512 kg Radius of gyration 183.6 mm  
 Diameter of flywheel shaft none Material \_\_\_\_\_ Minimum approved tensile strength \_\_\_\_\_  
 Is integral with crankshaft, integral with thrustshaft. (State which) integral with crankshaft







## 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.

*J. H. Chingston, 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 AND No. 1 KN 5.6.56

CRANKSHAFT OR ROTORSHAFT Engine No. 14213 :- LLOYD'S DSF No. 606 H.S. 31.10.1956  
" " 14214 :- LLOYD'S LYD No. C.50 C.D. 26.10.56

FLYWHEEL SHAFT —

THRUSTSHAFT —

GEARING —

INTERMEDIATE SHAFTS —

SCREW AND TUBE SHAFTS —

PROPELLERS —

OTHER IMPORTANT ITEMS

Superchargers: Engine No. 14213 : LLOYD'S TEST 22.8.56 T.D.P.  
" " 14214 : LLOYD'S TEST 24.7.56 JH  
Engine casings: Engine No. 14213 : LLOYD'S TEST 22.8.56 JHC  
Engine No. 14214 : LLOYD'S TEST 21.8.56 JHC

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 chocks & bolts —

Alignment of gearing —

Alignment of straight shafting —

Testing of pumping arrangements —

Oil fuel lines —

Donkey boiler supports —

Steering machinery —

Windlass —

Date of Committee

THURSDAY 25 JUL 1957

80% construction Special Survey Fee DM

3040.-

Decision

See job 23391

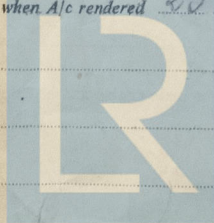
Expenses

DM

145.-

Date when A/c rendered

23rd March 1957



Lloyd's Register  
Foundation