

Rpt. 4b

28 OCT 1959

Date of writing report 27/10 1959. Received London Port of Stockholm No. 12248
Survey held at Gävle No. of visits In shops 4 First date 2/12 1958 Last date 12/8 1959
On vessel 13 15/1 1959 Last date 11/9 1959

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. 40015 Name Twin Screw Motorship "AGATAN" Gross tons 1500
Owners U.S.S.R. Managers - Port of Registry Leningrad
Hull built at Gävle By A/B Gävle Varv Yard No. 101 Year Month 1959 9
Main Engines made at Hamburg By Maschinenfabrik Augsburg-Nürnberg Eng. No. 405256&405257 When 1958 12
Donkey boilers made at Sävsjö, Sweden By A/B Vatten och Ånga Blr. No. 25307 When 1958
Machinery installed at Gävle By A/B Gävle Varv When 1959 9

Is ship to be classed for navigation in ice? Yes Is ship intended to carry petroleum in bulk? No
Is refrigerating machinery fitted? Domestic only If so, is it for cargo purposes? No
Is the refrigerated cargo installation intended to be classed? No

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 2 engines - 2 screw shafts - 2 alternating pitch propeller units.
MAIN RECIPROCATING ENGINES. Licence Name and Type No. MAN type GIOV 40/60 (with supercharging)

No. of cylinders per engine Dia. of cylinders stroke(s) 2 or 4 stroke cycle Single or double acting
Maximum approved BHP per engine at HAM. FE RPT. No. 7105 RPM of engine and RPM of propeller.
Corresponding MIP (For DA engines give MIP top & bottom) Maximum cylinder pressure Machinery numeral
Are the cylinders arranged in Vee or other special formation? If so, number of crankshafts per engine

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

TWO & FOUR STROKE ENGINES-GENERAL. No. of valves per cylinder: Fuel Inlet Exhaust Starting Safety
Material of cylinder covers Material of piston crowns Is the engine equipped to operate on heavy fuel oil?
Cooling medium for :-Cylinders Pistons Fuel valves Overall diameter of piston rod for double acting engines
Is the rod fitted with a sleeve? Is welded construction employed for: Bedplate? Frames? Entablature? Is the crankcase separated from the underside of pistons?
Is the engine of crosshead or trunk piston type? Total internal volume of crankcase No. and total area of explosion relief devices.
Are flame guards or traps fitted to relief devices? Is the crankcase readily accessible? 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? Tank top How is the engine started? compressed air

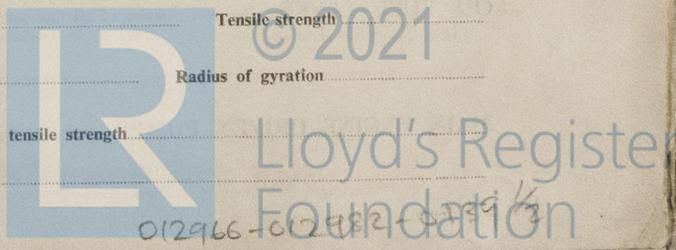
Can the engine be directly reversed? If not, how is reversing obtained?
Has the engine been tested working in the shop? How long at full power?

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system State barred speed range(s), if imposed for working propeller
For spare propeller Is a governor fitted? Is a torsional vibration damper or detuner fitted to the shafting?
Where positioned? Type No. of main bearings Are main bearings of ball or roller type?
Distance between inner edges of bearings in way of crank(s) Distance between centre lines of side cranks or eccentrics of opposed piston engines

Crankshaft type: Built, semi-built, solid. (State which)
Diameter of journals Diameter of crankpins Centre Breadth of webs at mid-throw Axial thickness of webs.
Side Pins Minimum
If shrunk, radial thickness around eyeholes Are dowel pins fitted? Crankshaft material Journals Approved
Webs Tensile strength
Diameter of flywheel Weight Are balance weights fitted? Total weight Radius of gyration
Diameter of flywheel shaft Material Minimum approved tensile strength
Flywheel shaft: separate, integral with crankshaft, integral with thrustshaft. (State which)

HAM. FE RPT. No. 7105

HAM FE RPT No 7105



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.

The machinery of this vessel has been installed under Special Survey in accordance with the Rules, approved plans and Secretary's letters, and tested under working conditions on trial trip and found satisfactory.

The workmanship and materials are good.

The machinery of this vessel is eligible, in my opinion, to be classed in the Register Book with the record of +LMC 9.59 and OG, and with the notation "Strengthened for Navigation in ice", the engines not to be operated continuously between 80 and 100 r.p.m.

J. E. ...
 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 Hamburg report No. 7105.

CRANKSHAFT ~~AND~~ Hamburg report No. 7105.

~~KEYWAY~~ Port:- LLOYDS DTM H.K. 848/24.10.57. HAM 10.1.58 H.KG.

THRUSTSHAFT Starb:- LLOYDS DTM H.K. 858/4.11.57. HAM 10.1.58 H.KG.

~~STARTING~~ Port:- LLOYDS SKM NO. 861/KE. 21.1.59. DTM J.L. 4.9.57.

INTERMEDIATE SHAFTS Starb:- LLOYDS GOT NO. 904/EJ 11.12.58.

Port:- LLOYDS SKM NO. 852/KE 21.1.59 DTM JL 4.9.57.

SCREW ~~AND~~ SHAFTS Starb:- LLOYDS GOT NO. 903/EJ 11.12.58.

Port:- LLOYDS GOT NO. 831/EJ 11.12.58.

PROPELLERS Please see Got. cert. No. 26030 attached hereto.

OTHER IMPORTANT ITEMS OK-couplings between screw shafts and intermediate shafts:-

Port side:- LLOYDS SKM No. 8748 S.W. 23.9.57.

Starb, side:- LLOYDS SKM No. 8749 S.W. 23.9.57.

Is the installation a duplicate of a previous case? Yes If so, state name of vessel "PAMIR" & "ALDAN"

Date of approval of plans for crankshaft Ham. rpt. No. 7105 Straight shafting 18.4.1957. ~~CRANK~~ ~~CRANK~~

~~SCREW~~ oil fuel tanks 20.1.58 & 1.3.58. Pumping arrangements 19.10.57. Oil fuel arrangements 19.10.57.

~~CRANK~~ Air receivers See Ham cert. No. 58/3507 & Aug. certs. Nos. 58/1711 & 58/1714 Donkey boilers

Dates of examination of principal parts:-

Fitting of stern tube 9-16.12.58 Fitting of propeller 13-15.1.59. Completion of sea connections 15.1.59. Alignment of crankshaft in main bearings 14.5.59.

Engine chocks & bolts 13.5.59. ~~CRANK~~ Alignment of straight shafting 11.6.59. Testing of pumping arrangements 19.8.59

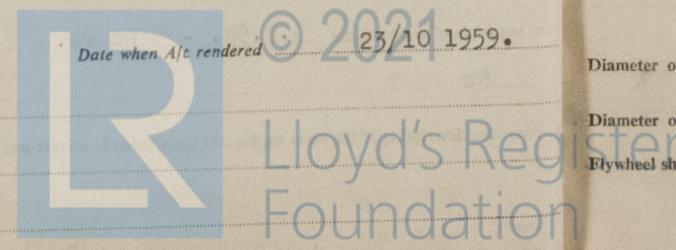
Oil fuel lines 18.8.59. Donkey boiler supports 15.1.59. Steering machinery and Windlass working 1.9.59.

Date of Committee 1 FRIDAY 11 DEC 1959 Special Survey Fee Kr. 2,530:--

Decision See Rpt. 1.

Expenses Kr. 867:--

Date when A/c rendered 23/10 1959.



Rpt. 4b
 Date of writing rep
 Survey held at
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 Gearing made at
 Donkey boilers ma
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