

120 JAN 1958

Date of writing report 18th January, 1958. Received London Port M A L M Ö No. 3733
Survey held at Sölvesborg No. of visits In shops — First date 20/9 1957 Last date 10/1 1958.
On vessel 20

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. 42194 Name M/S "O F E L I A" Gross tons 500
Owners Rederi AB Svenska Lloyd Managers K.R. Bökman Port of Registry Gothenburg
Built at Sölvesborg By Sölvesborgs Varvs- & Rederi AB Yard No. 49 Year Month
Main Engines made at Frederikshavn By Alpha-Diesel A/S Eng. No. 8265 When 1958 1
When 1957
Boilers made at By Blr. Nos. When
Machinery installed at Sölvesborg By Sölvesborgs Varvs- & Rederi AB When 1958

Is ship intended to carry petroleum in bulk? No
Is the refrigerated cargo installation intended to be classed?
Type of refrigerant Freon
Is the refrigerated cargo installation intended to be classed?

Where the answer is "No" or "None", say so! Ticks and other signs of doubtful meaning are not to be used. Where the answer 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 should not be repeated below, but the port and report number should be stated.

Main engines No. of propellers Brief description of propulsion system Hyd. coupling + 2 dies. propellers

RECIPROCATING ENGINES. Licence Name and Type No.

Number of cylinders 8 Dia. of cylinders 290 stroke(s) 490 2 or 4 stroke cycle 2 Single or double acting SA
Approved BHP per engine 960 at 310 RPM of engine and 310 RPM of propeller.
Maximum cylinder pressure Machinery numeral 192
If so, number of crankshafts per engine

Is the engine of opposed piston type? If so, how are upper pistons connected to crankshaft?
No, and type of mechanically driven scavenge pumps or blowers per engine

Where exhaust gas driven blowers only are fitted, can the engine operate with one blower out of action?
No, of scavenge air coolers Scavenge air pressure at full

Are scavenge manifold explosion relief valves fitted?
No. of exhaust gas driven blowers per engine

Are the undersides of the pistons arranged as supercharge pumps? Can engine operate without supercharger?
Supercharge air pressure

Is the engine equipped to operate on heavy fuel oil?
Overall diameter of piston rod for double acting engines

Is the crankcase separated from the
Is the crankcase readily accessible? If not, must the engine be removed for

Is the engine of crosshead or trunk piston type? Total internal volume of crankcase No. and total area of explosion relief

Is the engine secured directly to the tank top or to a built-up seating? How is the engine started?

How long at full power?

State barred speed range(s), if imposed

Is a governor fitted? Is a torsional vibration damper or detuner fitted to the shafting?

Are main bearings of ball or roller

Are main bearings of ball or roller

Are main bearings of ball or roller

Are main bearings of ball or roller

Are main bearings of ball or roller

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MAIN GAS TURBINES. Name and Type No.

No. of sets of turbines Open or closed cycle BHP per set at RPM of output shaft

How is drive transmitted to propeller shaft?

ARRANGEMENT OF TURBINES. HP drives at RPM HP gas inlet temperature pressure
(A small diagram should be attached showing gas cycle.) IP drives at RPM IP gas inlet temperature pressure
LP drives at RPM LP gas inlet temperature pressure

No. of air compressors per set Centrifugal or axial flow type? Material of turbine blades Material of compressor blades No. of air coolers per set No. of heat exchangers per set How are turbines started?

How is reversing effected? Are the turbines operated in conjunction with free piston gas generators?

Total No. of free piston gas generators Diameter of working pistons Diameter of compressor pistons No. of double strokes per minute at full power Gas delivery pressure Gas delivery temperature Have the turbines and attached equipment been tested working in the shop? How long at full power?

ELECTRIC PROPULSION (Reciprocating engines or gas turbines. Electrical particulars to be reported on Form 4d.)

No. of generators KW per generator at RPM AC or DC? Position
No. of propulsion motors SHP per motor at RPM Position
How is power obtained for excitation of generators? Motors?

REDUCTION GEARING (Reciprocating engines or gas turbines. A small line sketch should be attached showing arrangement of gearing.)

Is gearing of single or double helical type? If single, position of gear thrust bearing Is gearing of epicyclic type?

PCD of pinions: First reduction Second reduction PCD of wheels: First reduction Main
Material of pinions Tensile strength Material of wheel rims Tensile strength
Are gear teeth surface hardened? How are teeth finished? Diameter of pinion journals Wheel shaft journals
Are the wheels of welded construction? Is gearcase of welded construction? Has the wheel/gearcase been heat treated on completion of welding? Where is the propeller thrust bearing located? Are gear bearings of ball or roller type?

CLUTCHES, FLEXIBLE COUPLINGS, ETC. If a clutch or other flexible connection is fitted between engine/turbine and gearing or between engine and line shafting give brief description and, for clutches, state how operated

Can the main engine be used for purposes other than propulsion when declutched? If so, what?

STRAIGHT SHAFTING. Diameter of thrustshaft Material Minimum approved tensile strength
Shaft separate or integral with crank or wheel shaft? Diameter of intermediate shaft Material
Minimum approved tensile strength Diameter of screwshaft cone at large end Is screwshaft fitted with a continuous liner?
Diameter of tube shaft. (If these are separate shafts) Is tube shaft fitted with a continuous liner in way of stern tube Thickness of screw/tube shaft liner at bearings Thickness between bearings Material of screw/tube shaft Minimum approved tensile strength
Is an approved oil gland fitted? If so, state type Length of bearing next to and supporting propeller
Material of bearing In multiple screw vessels is the liner between stern tube and A bracket continuous? If not, is the exposed length of shafting between liners readily visible in dry dock?

PROPELLER. Diameter of propeller Pitch Built up or solid Total developed surface
No. of blades Blade thickness at top of root fillet Blade material Moment of inertia of dry propeller
If propeller is of special design, state type Is propeller of reversible pitch type? If so, is it of approved design?
State method of control Material of spare propeller Moment of inertia

AIR COMPRESSORS & RECEIVERS. No. of main engine driven compressors per engine Can they be declutched?
No. of independently driven air compressors. (State capacity, prime mover, position in ship, and Port and No. of certificate) One - 20 m³/h at 1000 R/M driven by port aux. oil engine. HAM 57/1564
No. 8 M.E. cyl. can also be used as compressor). 2/200 litres
No. of starting air receivers. (Main and Aux. State capacity of each, position in ship and Port and No. of Certificate) 16614

How are receivers first charged? Maximum working pressure of starting air system 30 kg/cm² Are the safety devices in accordance with the Rules? Has the starting of the main engines been tested and found satisfactory? Yes

COOLERS. No. of main engine fresh water coolers 1 off No. of main engine lubricating oil coolers 1 off

OIL FUEL TANKS. No. and position of oil fuel settling or service tanks not forming part of hull structure

MAIN ENGINE DRIVEN PUMPS (No. and Purpose)

INDEPENDENT PUMPS Name below essential pumps, state position and how driven. Give capacity of bilge pumps.	Service for which each pump is connected to be marked thus X													
	SUCTION							DELIVERY						
	Bilge Main	Bilge Direct	Ballast Main	Oil Fuel	Fresh Water Cooling	Sea	Feed Tanks	Lub. Oil	Boiler Feed	Salt Water Cooling	Fresh Water Cooling	Oil Fuel Tanks	Fire Main	Lub. Oil
Ballast pump Port fwd.														
El. driven 50 M ³ /H.	X	X	X			X								
Bilge pump Stbd. fwd.		X	X			X							X	
El. driven 30 M ³ /H.														
Fire pump Port fwd					X	X					X		X	
El. driven 20 M ³ /H.														
Oil fuel transf. pump Stbd. aft.				X								X		
El. driven 8 M ³ /H.														
Lubr. oil pump Centre fwd.								X						X
El. driven 29 M ³ /H.														

BILGE SUCTIONS. No. and size in each hold, deep tank or pump room 4 - 68 mm in holds.

No. and size connected to main bilge line in main engine room 1 - 51,5 mm In tunnel No tunnel

In aux. engine room None Size and position of direct bilge suction in machinery spaces 1 - 82,5 mm p.s. fwd, 1 - 70 mm s.s. fwd. Size and position of emergency bilge suction in machinery spaces 1 - 82,5 mm p.s. fwd.

Is the bilge or ballast system fitted with means for separating oily water on the overboard discharge side? None Do the piping arrangements comply with the Rules including special requirements for ships carrying petroleum in bulk, cargo oil or classed for navigation in ice? (strike out words not applicable). Yes

STEAM & OIL ENGINE AUXILIARIES

Position of each	Type	Made by	Port and No. of Rpt. or Cert.	Driven Machinery (For electric generators, state output)
Port side	Heavy Oil Engine	Pelapone Eng. Ltd	NOT. C 25993	El. generator 38 KW.
Stbd. side	" " "	" " "	NOT. C 25994	" " 38 KW.
Stbd. aft.	" " "	" " "	NOT. C 25995	" " 38 KW.
Port side (Harbour)	" " "	" " "	NOT. C 26063	" " 18 KW

Is electric current used for essential services at sea? Yes If so, state the minimum No. and capacity of generators required in order that the ship may operate at sea 1 - 20 KW

STEAM INSTALLATION. No. of donkey boilers burning oil fuel W.P. Type

Position

Is a superheater fitted? Are these boilers also heated by exhaust gas? No. of donkey boilers heated by exhaust gas only? W.P.

Type Position Can the exhaust heated boilers deliver steam directly to the steam range or do they operate only as economisers in conjunction with oil fired boilers? Port and No. of report on donkey

boilers Is steam essential for operation of the ship at sea? Are any steam pipes over 3 ins. bore? If so, what is their

material? For oil fired boilers is the arrangement of pipes, valves, controls, etc., in accordance with the Rules? No. of oil burning pressure

units No. of steam condensers No. of Evaporators

STEERING GEAR. (State No. and Type of Steam Engines, Electric Motors, Hydraulic Pumps and other particulars) 1 comb. el. & handhydraulic. Maker:-

Svendsborgs Skibsværft A/S, type 24/4 L, No. 890, Pump type P4 No. 572 El. motor Thrige No. 2063965.

Have the Rule Requirements for fire extinguishing arrangements been complied with? Yes Brief description of arrangements 1 - 20 Kgs. CO₂ apparatus and

2 - portable froth apparatus.

Has the spare gear required by the Rules been supplied? Yes Has all the machinery been tried under full working conditions and found satisfactory? Yes Date and duration of full-

power sea trials of main engines 9.1.58. Does this machinery installation contain any features of a novel or experimental nature? (Give particulars)

No.

The foregoing description of the main engine and installation is correct and the particulars are as approved for torsional vibration characteristics (strike out words not applicable).

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 engine of this ship, built under Special Survey as per Copenhagen Surveyors report No. 16614 has been installed onboard under my supervision and to my satisfaction in accordance with the Rules, approved plans and Secretary's letters

The main engine, reversible propeller and manoeuvring of same, auxiliary oil engines, pumps etc. have been tested under full working conditions and found to work satisfactorily.

The machinery of this ship is eligible, in my opinion, to be classed in the Register Book with record of.

*TMC 1.58 and notation of TS(OG).

Main engine not to be operated continuously between 234 and 269 R.P.M. (Notice boards to this effect fitted at control stations in engine room and navigation bridge and the tachometers at these places marked).

It is the Owners intention to adopt Continuous Survey in the case of this ship.

Certificate to be sent to Lloyd's Register, Malmö.

Photostat copy of Copenhagen Surveyors report No. 16614 is returned herewith.

A. Jönning
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

CRANKSHAFT OR ROTORSHAFT

FLYWHEEL SHAFT

THRUSTSHAFT

GEARING

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS

Is the installation a duplicate of a previous case?

If so, state name of vessel

Date of approval of plans for crankshaft

Straight shafting

Gearing

Clutch

Separate oil fuel tanks

Pumping arrangements

1.2.57.

Oil fuel arrangements 1.2.57.

Cargo oil pumping arrangements

Air receivers

Donkey boilers

Dates of examination of principal parts:—

Fitting of stern tube 20.9.57

Fitting of propeller 25.9.57

Completion of sea connections 25.9.57

Alignment of crankshaft in main bearings 15.10.57.

Engine chocks & bolts 23.10.57.

Alignment of gearing

Alignment of straight shafting 15.10.57

Testing of pumping arrangements 8.1.58.

Oil fuel lines 8.1.58

Donkey boiler supports

Steering machinery 9.1.58

Windlass 9.1.58

Date of Committee

TUESDAY 18 FEB 1958

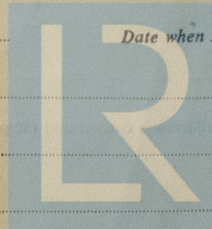
Special Survey Fee (Dur. inst.) Kr. 790:—

Decision

See Rpt. 1.

Expenses

Date when A/c rendered 18th January, 1958.



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