21 NOV 1958

Pt. 4c

Date of writing report 13-11-58 Received London Port Copenhagen No. 17277

Survey held at Elsinore No. of visits 4 First date 17-9-58 Last date 6-11-58

EMERGENCY

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship m.v. "TENNA DAN" ex "HÖEGH TRADER" Owners J. Lauritzen
(Or Contract No. if name unknown). (Or Consignees)

Ship Built at Beaumont - Texas by Pennsylvania Shipyards Inc when 1944 Yard No. 295

Auxiliary Engines ~~xxxxxxxx~~ made at Peoria-Illinois by Caterpillar Tractor Co. when Eng. Nos. 2P.440

Total No. of sets and description (including type name) 1 off 4 Cyl. heavy oil - 4 SCSA solid injection - Type D 3400

INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 4 ✓ Dia. of cylinders 3¾" ✓ Stroke 5" ✓

2 or 4 stroke cycle 4 Maximum approved BHP 25 ✓ at 1500 RPM Corresponding MIP Maximum pressure 845 LB/in

Fuel heavy oil Are cylinders arranged in Vee or other special formation? no If so, No. of

Crankshafts per engine - Is engine of opposed piston type? no No. and type of mechanically driven scavenge pumps or blowers

per engine - No. of exhaust gas driven blowers or superchargers per engine - Is welded construction

used for: Bedplate? no Entablature? no Total internal volume of crankcase (if 20 cu. ft. or over) - No. and total area of

Crankcase explosion relief devices - Are flame guards or traps fitted? - Cooling medium for: Cylinders water

Pistons No. of attached pumps: F.W. cooling 1 S.W. cooling Lubricating oil 1 How is engine started? Batterie and by hand

SHAFTING. Is a damper or detuner fitted? No. of main bearings 5 ✓ Are bearings of ball or roller type? no ✓ Distance between

inner edges of bearings in way of cranks 4,5" Crankshaft: ~~Built-up or~~ solid. Material of crankshaft steel Approved

minimum tensile strength - Dia. of pins 2 5/8" ✓ Journals 2¾" ✓ Breadth of webs at mid throw - Axial

thickness - If shrunk, radial thickness around eyeholes Dia. of flywheel Weight Are balance

weights fitted? Total weight Rad. of gyration Dia. of flywheel shaft

Has each engine been tested in shop? How long at full power? Was it tested with driven machinery attached? Was the

governing tested and found satisfactory? Date of approval of torsional vibration characteristics (for engines of 150 BHP and over)

Date of approval of shafting Identification marks on shafting

Particulars of driven machinery 1 off DC generator made by General Electric Co. - Compound Wound 240/210 Volt - 15 KW - 62,5 Amperes - 1500 R.P.M.

Port and No. of Certificate for Starting Air Receivers

AUXILIARY GAS TURBINES. BHP per set At RPM of output shaft. Open or closed cycle?

Arrangement of turbines. HP drives at RPM HP gas inlet temp. pressure

(A small diagram should be attached showing gas cycle) IP " at " IP " " " " "

LP " at " LP " " " "

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? Are the turbines operated in conjunction with free piston gas generators?

Total No. of free piston gas generators Dia. of working pistons Dia. 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 in shop? How long at full power? Were they tested with driven machinery

attached? Particulars of gearing

Date of approval of plans Identification marks Particulars of driven machinery

ELECTRIC GENERATORS. Port and No. of Certificate for generators of 100 Kw. and over

For generators under 100 Kw., has Makers' Certificate been obtained? Are Certificates attached?

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

Manufacturer

Is this machinery duplicate of a previous case? If so, which?

GENERAL REMARKS. State if the machinery has been constructed under special survey in accordance with the Rules, approved plans and Secretary's letters. State quality of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.

The above emergency generating engine has been built and accepted by the American Bureau of Shipping and has been in operation since 1944 and also accepted by Det Norske Veritas.

The engine has now been examined throughout and under working condition and found in order.

In my opinion the engine is such as could be accepted by the Committee for Classification.

Survey Fee NONE

Expenses

Date when a/c rendered

O. E. Larsen.
Engineer Surveyor to Lloyd's Register

Declaration to be signed by Surveyor at fitting-out Port:— The above described machinery has been fitted on board the

in a proper manner and found satisfactory when tested on the (date) under full working conditions.

Engineer Surveyor to Lloyd's Register

11 JAN 1959

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