

## Rpt. 4c

Date of writing report 23rd January, 1958.

Received London

Port M A L M Ö

No. 373

Survey held at M A L M Ö

No. of visits 12

First date 28/3 1957

Last date 14/1 1958.

## FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship M/T "SOUTHERN CLIPPER"  
(Or Contract No. if name unknown).Owners Rederi AB Clipper  
(Or Consignees)

Ship Built at Malmö

by Kockums Mek. Verkstads AB

when 1.58

Yard No.

Auxiliary Engines ~~Gas Turbines~~ made at Malmö

by Kockums Mek. Verkstads AB

when 1.58

Eng. Nos. 77

Total No. of sets and description (including type name) Two: Heavy Oil, 4 S.C.S.A. Kockum-Man Type G6V 42 A

## INTERNAL COMBUSTION RECIPROCATING ENGINES.

No. of cylinders per engine 6

Dia. of cylinders 285 mm

Stroke 420

2 or 4 stroke cycle 4

Maximum approved BHP 360

at 360

RPM

Corresponding MIP 6.87 kg/cm<sup>2</sup>

Maximum pressure 50

Fuel Heavy Oil

Are cylinders arranged in Vee or other special formation? No

crankshafts per engine

Is engine of opposed piston type? No

No. and type of mechanically driven scavenge pumps or

per engine None

No. of exhaust gas driven blowers or superchargers per engine None

Is welded con

used for: Bedplate? No

Entablature? No

Total Internal volume of crankcase (if 20 cu. ft. or over)

1.5 m<sup>3</sup>

No. and total

crankcase explosion relief devices 6 & 1,584 dm<sup>2</sup>

Are flame guards or traps fitted? Yes

Cooling medium for: Cylinders Water

Pistons None

No. of attached pumps:

F.W. cooling None

S.W. cooling None

Lubricating oil One

How is engine started? C

## SHAFTING.

Is a damper or detuner fitted? No

No. of main bearings 7

Are bearings of ball or roller type? No

Distance

inner edges of bearings in way of cranks 358 mm

Crankshaft: But, semi-butt, solid

Material of crankshaft S.M. Steel

minimum tensile strength 44 kg/mm<sup>2</sup>

Dia. of pins 170 mm

Journals 170 mm

Breadth of webs at mid throw 280 mm

thickness 89.5 mm

If shrunk, radial thickness around eyeholes

Dia. of flywheel 1650 mm

Weight 2585 Kg

weights fitted? No

Total weight

Rad. of gyration

Dia. of flywheel shaft

Has each engine been tested in shop? Yes

How long at full power? 28 hours

Was it tested with driven machinery attached? Yes

governing tested and found satisfactory? Yes

Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) 3.4.56

Date of approval of shafting 24.11.55

Identification marks on shafting Lloyd's No. 822 E.J. 11.10.56; Lloyd's No. 1266 NP

Particulars of driven machinery Generators.

Port and No. of Certificate for Starting Air Receivers Hbg No. 1044.

## 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)

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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

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

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 ma

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 KVA and over

Stockholm, No. 15252

For generators under 100 KVA, has Makers' Certificate been obtained?

Are Certificates attached? Yes

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

Is this machinery duplicate of a previous case? Yes If so, which? M/S "NORTHERN CLIPPER" Mmo. P.E. Report No. 3649.

## GENERAL REMARKS.

State if the machinery has been constructed under special survey in accordance with the Rules, approved plans and Secretary's State quality of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible. The above auxiliary oil engines have been constructed under Special Survey in accordance with the Rules and Secretary's letter dated 24.11.55 and 3.4.56. The material and workmanship are good.

Survey Fee Kr. 1.110:--

Expenses

Date when a/c rendered

Declaration to be signed by Surveyor at fitting-out Port:— The above described machinery has been fitted on board the M/T "SOUTHERN CLIPPER" at Malmö in a proper manner and found satisfactory when tested on the (date) 13/1 1958 under full working conditions.

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