

Rpt. 4c

Date of writing report 15.4.57.

Received London

Port NOTTINGHAM.

No. FE. 1346.

Survey held at Lincoln.

No. of visits

2.

First date

28.3.56.

Last date

20.4.56.

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship

(Or Contract No. if name unknown)

Owners

(Or Consignees)

Ship Built to the order of: - M/S. J. G. Kincaid & Co. Ltd.,

when

Yard No.

Auxiliary Engines or Gas Turbines made at Lincoln.

by M/S. Ruston & Hornsby Ltd. when

Eng. Nos. 404645.

Total No. of sets and description (including type name) One - 8VEBZ - Auxiliary.

INTERNAL COMBUSTION RECIPROCATING ENGINES.

No. of cylinders per engine

8

Dia. of cylinders

10 1/4"

Stroke 14 1/2"

2 or 4 stroke cycle

4

Maximum approved BHP

480

at

500

RPM

Corresponding MIP

99.5

Maximum pressure

7.15

± 3%

Fuel Diesel Oil.

Are cylinders arranged in Vee or other special formation?

No.

If so, No. of

crankshafts per engine

None.

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)

148.2

No. and total area of

crankcase explosion relief devices

16 - 380 sq. ins.

Are flame guards or traps fitted?

Cooling medium for: Cylinders

Pistons

No. of attached pumps: F.W. cooling

One.

S.W. cooling

Lubricating oil

One.

How is engine started?

SHAFTING.

Is a damper or detuner fitted?

No. of main bearings

10

Are bearings of ball or roller type?

No

Distance between

inner edges of bearings in way of cranks

12.5/16"

Crankshaft: Built, semi-built, solid.

Material of crankshaft

Steel.

Approved

minimum tensile strength

Dia. of pins

6 1/4"

Journals

8"

Breadth of webs at mid throw

11"

Axial

thickness

3.7/16"

If shrunk, radial thickness around eyeholes

Dia. of flywheel

14.6"

Weight

24.5

c.wts.

weights fitted?

No.

Total weight

Rad. of gyration

Dia. of flywheel shaft

8"

Has each engine been tested in shop?

Yes.

How long at full power?

Was it tested with driven machinery attached?

Yes.

Was the

governing tested and found satisfactory?

Yes.

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

24.11.54.

Date of approval of shafting

6.7.39.

Identification marks on shafting

LL.R. 1260 SHE.

ESC. 803A.

Particulars of driven machinery

300 kW. DC. W.H. Allen Generator No. E3/48727/2.

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?

Yes.

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

Ruston & Hornsby, Limited

Manufacturer

Is this machinery duplicate of a previous case? No. 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.

This Engine has been constructed under Special Survey in accordance with the Approved Plans and Rules of the Society, materials and workmanship being good.

The Generating Set has been tested in the Shops under working conditions and the Governors tested with satisfactory results.

The Set has been forwarded for installation in the vessel.

Explosion relief device fitted on each crankcase door.

Survey Fee

£34.

Expenses

Nil.

Date when a/c rendered

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

at in a proper manner and found satisfactory when tested on the (date)

under full working conditions.

Engineer Surveyor to Lloyd's Register

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