

Rpt. 4c

PLEASE RETURN THIS REPORT
WITH YOUR FIRST ENTRY.

Date of writing report 7th August 1958

Received London

21 AUG 1958

Port Ipswich

No. 138313

Survey held at Colchester

No. of visits 4

First date 10.6.58

Last date 14.8.58

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

28 OCT 1958

Name of Ship
(Or Contract No. if name unknown).Owners
(Or Consignees)

Ship Built at Gavle

by Gavle Varv A/B

when

Yard No. 101

Auxiliary Engines or Gas Turbines made at Colchester

by Davey, Paxman & Co. Ltd.

when 1958

Cont. No. 55326

Total No. of sets and description (including type name) One 12 RPHZ Type Diesel 4.S.C.SA. Vee Formation

Eng. No. 560024/21

INTERNAL COMBUSTION RECIPROCATING ENGINES.

No. of cylinders per engine 12

Dia. of cylinders 7"

Stroke 7 1/2"

2 or 4 stroke cycle 4

Maximum approved BHP 562

at 1500

RPM

Corresponding MIP 104 psi

Maximum pressure 850 psi

Fuel Diesel

Are cylinders arranged in Vee or other special formation?

VEE FORMATION

If so, No. of

crankshafts per engine one

Is engine of opposed piston type?

no

No. and type of mechanically driven scavenge pumps or blowers

per engine none

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

Is welded construction

used for: Bedplate?

no

Entablature?

no

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

26.5 cu. ft.

No. and total area of

crankcase explosion relief devices 6 = 54 sq. inches

Are flame guards or traps fitted?

Guards

Cooling medium for: Cylinders

water

Pistons Oil

No. of attached pumps: F.W. cooling One

S.W. cooling None

Lubricating oil 2

How is engine started?

air

Motor

SHAFTING.

Is a damper or detuner fitted?

yes

No. of main bearings 8

Are bearings of ball or roller type?

No

Distance between

inner edges of bearings in way of cranks 7.6"

Crankshaft: Built / semi-built, solid.

Material of crankshaft EN. 26-U

Approved

minimum tensile strength 55 tons/sq. in.

Dia. of pins 4 1/2"

Journals 5"

Breadth of webs at mid throw 7"

Axial

thickness 1.25/32" If shrunk, radial thickness around eyeholes

Dia. of flywheel

Weight

Are balance

weights fitted?

yes

Total weight 105 1/2 lbs

Rad. of gyration 6.6"

Dia. of flywheel shaft

Has each engine been tested in shop?

yes

How long at full power?

4 hours

Was it tested with driven machinery attached?

no

Was the

governing tested and found satisfactory?

yes

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

4.2.58

12.5.58

Date of approval of shafting

11.6.58

Identification marks on shafting Crankshaft Lloyd's IPS. 2315C. FW. 13.5.58

Particulars of driven machinery This engine is stated to be for fire fighting purposes and will be lined

up to a fire pump on board ship in an athwartship position. The Owners agreement to

Port and No. of Certificate for Starting Air Receivers athwartship position obtained by Builders.

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

at

LP

at

LP

(A small diagram should be attached showing gas cycle)

LP

at

LP

at

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)

ASSISTANT COMMERCIAL MANAGER
DAVEY PAXMAN & CO. LIMITED
Manufacturer

Is this machinery duplicate of a previous case? yes If so, which? Contract No. 55325/5 Gavle Varv Yard No. 99/100

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 auxiliary diesel engine has been built under Special Survey in accordance with plans approved and the requirements of the Rules. Steel used in the manufacture has been made at Works approved by the Committee under the supervision of the Society's Surveyors. The workmanship is good throughout and on completion this engine was brake tested at full load and 10% overload when the governor was operated and all found in order. This auxiliary engine is in my opinion eligible for inclusion in LMC when satisfactorily installed on board.

Survey Fee Special arrangement.

Expenses

Date when a/c rendered

(R. Fotts)

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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