

of writing report 2nd March 1957

Received London

15 OCT 1957

Port

YOKOHAMA

No.

2255

held at Niigata, Japan

No. of visits

12

First date 19th June 1956

Last date 1st March 1957

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

oil
e of Ship M.T. "KOSEI MARK"
Contract No. if name unknown).Owners Daido Kaiun K.K.
(Or Consignees)

Built at Nagasaki, Japan

by Mitsubishi Zosen Nagasaki Shipyard

Yard No. 1485

Auxiliary Engines of Gds/Turbines made at Niigata, Japan

by Niigata Engineering Co., Ltd.

when 2-1957 Eng. Nos. 8908 & 8909

No. of sets and description (including type name) 3.4 S.C.S.A. 5 Cylinders with Supercharger, Niigata L5F25BS.

INTERNAL COMBUSTION RECIPROCATING ENGINES.

No. of cylinders per engine 5

Dia. of cylinders 250

Stroke 320mm

4 stroke cycle 4

Maximum approved BHP 300

at 450

RPM

Corresponding MIP 8.78kg/cm2

Maximum pressure 60 kg/cm2

Heavy oil

Are cylinders arranged in Vee or other special formation?

No

If so, No. of

shafts per engine

Is engine of opposed piston type?

No

No. and type of mechanically driven scavenge pumps or blowers

engine None

No. of exhaust gas driven blowers or superchargers per engine

1

Is welded construction

for: Bedplate? No

Entablature? No

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

33.5 cu. ft.

No. and total area of

crankcase explosion relief devices

2 x 14.5 sq. in.

Are flame guards or traps fitted?

No

Cooling medium for: Cylinders Fresh Water

No.

No. of attached pumps: F. W. cooling

1

S. W. cooling None

Lubricating oil

1

How is engine started? Compressed

AFTING.

Is a damper or detuner fitted? No

No. of main bearings 6

Are bearings of ball or roller type? No

Distance between

edges of bearings in way of cranks

278

Crankshaft: Built/semi-built/solid.

Material of crankshaft O.H. & E1. Furnace (steel)

Approved

Minimum tensile strength

53 kg/mm2

Dia. of pins

160mm

Journals

170mm

Breadth of webs at mid throw

235mm

Axial

If shrunk, radial thickness around eyeholes

-

Dia. of flywheel

1,300mm

Weight

1,841 kgs

Are balance

weights fitted? No

Total weight

-

Rad. of gyration

540mm

Dia. of flywheel shaft

None

Is each engine been tested in shop? Yes

How long at full power? 4 hours

Was it tested with driven machinery attached? Yes

Was the

engineering tested and found satisfactory? Yes

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

8-4-56

9/3/56

Date of approval of shafting

22-11-56

Identification marks on shafting

LLOYD'S YK 18993, 19000 & 18995 IS 30-10-56

Particulars of driven machinery

Lubricating Oil Pump:- Gear type, 4050 l/hr x 2 kg/cm2; F.W. Cooling Pump:- Centrifugal type,

2,000 l/hr; Starting Air Compressor:- Vertical, 3 stage 200 m3/hr x 30kg/cm2 (for Eng. Nos. 8908 & 8909 only)

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

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

minute at full power

Gas delivery pressure

Gas delivery temperature

Were the turbines and attached equipment been tested in shop?

How long at full power?

Were they tested with driven machinery

checked?

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

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)

Niigata Engineering Co., Ltd.

Manufacturer

Is this machinery duplicate of a previous case? Yes

If so, which? Nagasaki Ship No. 1465 M.V. "KOSOH MARU"

GENERAL REMARKS.

State if the machinery has been constructed under special survey in accordance with the Rules, approved plans and Secretary's letters.

The quality of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.

These Oil Engine Electric Generator sets have been constructed under the supervision of the Society's Surveyors in accordance with the Rules, Approved Plans and Secretary's letters. The workmanship and materials have been found satisfactory. These Oil Engine Electric Generator sets have been examined during and after shop trial and found in order. Crank case explosion relief devices are fitted as per Rules. It is submitted that these Oil Engine Electric Generator sets are eligible in our opinion to be classed with this Society with the notation of LMC with date when satisfactorily installed in the vessel.

Fee ¥132,000.-

When

a/c rendered 24th April, 1957

The above described machinery has been fitted on board the M.T. "KOSEI MARK"

in a proper manner and found satisfactory when tested on the (date) 26th June, 1957 under full working conditions.

Engine Surveyor to Lloyd's Register

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013018-013026-0187