5 JUN 1963

Rpt. 4c

Date of writing report 4th May, 1962 | Received London | Port Copenhagen | No. 20168

Survey held at Holeby | No. of visits 6 | First date 31.10.61 | Last date 17. 4. 62

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship m.s. "KOSMONAVT" (Or Contract No. if name unknown). Owners (Or Consignees) U.S.S.R.

Ship Built at Copenhagen by A/S Burmeister & Wain ~~A/S~~ when 1962 Yard No. 791

Auxiliary Engines ~~[illegible]~~ made at Holeby by A/S Burmeister & Wain ~~A/S~~ when 1962 Eng. Nos. 10102-03

Total No. of sets and description (including type name) 2 off B&W.DM 525MTBH-40, Turbocharged, Heavy oil, Trunk piston, solid injection.

INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 5 Dia. of cylinders 245 mm Stroke 400 mm

2 or 4 stroke cycle 4 Maximum approved BHP 425 at 500 RPM Corresponding MIP 9,7 Kg/cm^2 Maximum pressure 60 Kg/cm^2

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 none No. of exhaust gas driven blowers or superchargers per engine 1 Is welded construction

used for: Bedplate? no Entablature? no Total internal volume of crankcase (if 20 cu. ft. or over) 2,24m^3 No. and total area of

crankcase explosion relief devices 2 362 cm^2 Are flame guards or traps fitted? yes Cooling medium for: Cylinders fresh water

Pistons none No. of attached pumps: F.W. cooling none S.W. cooling none Lubricating oil 1 How is engine started? by air

SHAFTING. Is a damper or detuner fitted? No No. of main bearings 6 Are bearings of ball or roller type? no Distance between

inner edges of bearings in way of cranks 315 mm Crankshaft: ~~Built~~, semi-built, ~~solid~~ Material of crankshaft SM - steel Approved

minimum tensile strength 44 kg/mm^2 Dia. of pins 170mm Journals 170 mm Breadth of webs at mid throw 292 mm Axial

thickness 90 mm If shrunk, radial thickness around eyeholes 82,5 mm ~~WD^2~~ Dia. of flywheel 1135 Kgm Weight – Are balance

weights fitted? yes Total ~~WD^2~~ 44,2 Kgm^2 Rad. of gyration – Dia. of flywheel shaft –

Has each engine been tested in shop? yes How long at full power? 6 hours 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) 5-12-60

Date of approval of shafting 5-12-60 Identification marks on shafting Lloyd's Cpn. Nos. 338-339 K.L. 15.3.62.

Particulars of driven machinery 2 AC generators Nos. 909520-21 made by Thomas B Thrige, Odense. 355 KVA

512 amps. 400 volts GENERATOR WD^2 = 1200 Kgm^2

Port and No. of Certificate for Starting Air Receivers

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

Arrangement of turbines. (A small diagram should be attached showing gas cycle) 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

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 Odense Cert. dated 29.1.62.

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

AKTIESELSKABET
for BURMEISTER & WAIN'S MASKIN- OG SKIBSBYGGERI

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? yes If so, which? A/S Nakskov Skibsværft Yard Nos. 166/167

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 heavy oil engines have been constructed under special survey in accordance with the Rules, approved plans and Secretary's letters.

The material has been tested as required by the Rules and the workmanship is good.

JUN 1963

Survey Fee Kr. 1410,- a/c 23912

Expenses Kr. 130,-

Date when a/c rendered 8/5 1962

K. 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 m.s. "KOSMONAVT" at Messrs. Burmeister & Wain of Copenhagen in a proper manner and found satisfactory when tested on the (date) 3/4 & 4/4-63 under full working conditions.

K. Larsen
Engineer Surveyor to Lloyd's Register

493 C

© 2021 Lloyd's Register Foundation

011702-011711-0211