16. JAN. 1962

pt. 4c

of writing report 21.2.61 Received London ..... Port Helsingfors No. 7748

ey held at Vasa No. of visits 29 First date 23.5.59 Last date 18.8.60

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

me of Ship "LENINGRAD" Owners U.S.S.R.
Contract No. if name unknown). (Or Consignees)

p Built at Helsingfors by Wärtsilä-koncernen Ab, Sandvikens Skeppsdocka. when ..... Yard No. 366

xiliary Engines or Gas Turbines made at Vasa by Wärtsilä-koncernen Ab, Wasa Mekaniska Verkstad when 1960 Eng. Nos. 200

tal No. of sets and description (including type name) Wärtsilä-Polar K58E

TERNAL COMBUSTION RECIPROCATING ENGINES. *No. of cylinders per engine* 8 *Dia. of cylinders* 180 mm *Stroke* 300 mm

r 4 stroke cycle 2 *Maximum approved BHP* 412 455 *at* 600 *RPM* *Corresponding MIP* 6,59 *Maximum pressure* 65 kg/cm²

el diesel oil *Are cylinders arranged in Vee or other special formation?* no *If so, No. of*

nkshafts per engine - *Is engine of opposed piston type?* no *No. and type of mechanically driven scavenge pumps or blowers*

r engine one turbo blower *No. of exhaust gas driven blowers or superchargers per engine* - *Is welded construction*

d for: Bedplate? no Entablature? no *Total internal volume of crankcase (if 20 cu. ft. or over)* 1,2 m³ *No. and total area of*

nkcase explosion relief devices 3, 600 cm² *Are flame guards or traps fitted?* no *Cooling medium for: Cylinders* fresh water

stons lubr.oil *No. of attached pumps: F.W. cooling* none *S.W. cooling* none *Lubricating oil* one *How is engine started?* by air

HAFTING. *Is a damper or detuner fitted?* no *No. of main bearings* 10 *Are bearings of ball or roller type?* no *Distance between*

er edges of bearings in way of cranks 222 mm *Crankshaft:* ~~[illegible]~~, solid. *Material of crankshaft* SM steel *Approved*

nimum tensile strength 52 kg/mm² *Dia. of pins* 120 mm *Journals* 125 mm *Breadth of webs at mid throw* 280 mm *Axial*

ickness 56 mm *If shrunk, radial thickness around eyeholes* - *Dia. of flywheel* 900 mm *Weight* 458 kg *Are balance*

ights fitted? - *Total weight* - *Rad. of gyration* - *Dia. of flywheel shaft* 125 mm

as each engine been tested in shop? yes *How long at full power?* 12 hours *Was it tested with driven machinery attached?* yes *Was the*

verning tested and found satisfactory? yes *Date of approval of torsional vibration characteristics (for engines of 150 BHP and over)* 19.6.58

ate of approval of shafting 25.9.58 *Identification marks on shafting* Lloyds Kln HL 855 29.6.59 28/1/57

rticulars of driven machinery Generator

rt and No. of Certificate for Starting Air Receivers

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

rangement of turbines. *HP drives* ..... *at* ..... *RPM* *HP gas inlet temp.* ..... *pressure* .....

small diagram should be ached showing gas cycle) *IP* ,, ... *at* ..... ,, *IP* ,, ,, ,, ... ,, ...

LP ,, ... *at* ..... ,, *LP* ,, ,, ,, ... ,, ...

o. of air compressors per set ..... *Centrifugal or axial flow type?* ..... *Material of turbine blades* .....

aterial of compressor blades ..... *No. of air coolers per set* ..... *No. of heat exchangers per set* ..... *How are*

rbines started? ..... *Are the turbines operated in conjunction with free piston gas generators?* .....

otal No. of free piston gas generators ..... *Dia. of working pistons* ..... *Dia. of compressor pistons* ..... *No. of double strokes*

r minute at full power ..... *Gas delivery pressure* ..... *Gas delivery temperature* .....

ave the turbines and attached equipment been tested in shop? ..... *How long at full power?* ..... *Were they tested with driven machinery*

tached? ..... *Particulars of gearing* .....

ate of approval of plans ..... *Identification marks* ..... *Particulars of driven machinery* .....

LECTRIC GENERATORS. *Port and No. of Certificate for generators of 100 Kw. and over* .....

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

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

Wärtsilä-koncernen A/B
WASA MEK. VERKSTAD
R. Öberg
Manufacturer

this machinery duplicate of a previous case? yes *If so, which?* 7674

ENERAL REMARKS. *State if the machinery has been constructed under special survey in accordance with the Rules, approved plans and Secretary's letters. ate quality of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.*

his Diesel Engine has been constructed under Special Survey in accordance with the Rules, pproved plans and Secretary's letters. Quality of materials and workmanship found good.

urvey Fee Fmk. 70.000:-
xpenses -
ate when a/c rendered 4.10.60.

Å. Weber
Engineer Surveyor to Lloyd's Register

367N
29/12/62

eclaration to be signed by Surveyor at fitting-out Port:— *The above described machinery has been fitted on board the* M/V "Leningrad" Helsingfors *in a proper manner and found satisfactory when tested on the (date)* 29.10.61. *under full working conditions.*

Å. Weber
Å. Weber. *Engineer Surveyor to Lloyd's Register*

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