16 JAN 1962 -6 DEC 19[illegible]

pt. 4c

of writing report 20.10.60 Received London Port Helsingfors No. 7563

y held at Vasa No. of visits 22 First date 27.5.59 Last date 20.4.60

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

ne of Ship Icebreaker "LENINGRAD" Owners
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. 235
al No. of sets and description (including type name) 1 set Wärtsilä-Polar K 55 E

TERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 5 Dia. of cylinders 180 mm Stroke 300 mm
r 4 stroke cycle 2 Maximum approved BHP 258 at 600 RPM Corresponding MIP 6,13 Maximum pressure 70 kg/cm^2
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
engine one centrifugal blower No. of exhaust gas driven blowers or superchargers per engine none Is welded construction
d for: Bedplate? no Entablature? no Total internal volume of crankcase (if 20 cu. ft. or over) 0,75 m^3 No. and total area of
nkcase explosion relief devices 2,400cm^2 Are flame guards or traps fitted? no Cooling medium for: Cylinders water
stons lubr.oil No. of attached pumps: F.W. cooling one S.W. cooling one Lubricating oil one How is engine started? with
ompressed air.

HAFTING. Is a damper or detuner fitted? no No. of main bearings 7 Are bearings of ball or roller type? no Distance between
er edges of bearings in way of cranks 222 mm Crankshafts ~~Built, semi-built~~, solid. Material of crankshaft SM steel Approved
nimum tensile strength 52 kg/mm^2 Dia. of pins 120 mm Journals 125 mm Breadth of webs at mid throw 230 mm Axial
ickness 56 mm If shrunk, radial thickness around eyeholes - Dia. of flywheel 800 mm Weight 288 kg Are balance
ights fitted? no 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? No Was the
verning tested and found satisfactory? yes Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) 27.2.58
ate of approval of shafting 25.9.58 Identification marks on shafting Lloyds Got No 2024 SG 17.12.59
articulars of driven machinery Water brake

31.3.58. A11 I. SP 19.12.60

ort 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
laterial 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
er 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
ttached? 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 [illegible]

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

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

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

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

urvey Fee Fmk. 60.000:-
Expenses -
ate when a/c rendered 19.5.60

Å. Weber. Engineer Surveyor to Lloyd's Register

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. Engineer Surveyor to Lloyd's Register

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