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Rpt. 4c

17 OCT 1963

Date of writing report 3.10.63 Received London ..... Port Ipswich No. 150043

Survey held at Colchester No. of visits 10 First date 26.4.63 Last date 1.10.63

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship Royal Dutch Navy Tanker *Owners* .....
(Or Contract No. if name unknown). *(Or Consignees)*

Ship Built at Rotterdam *by* Rotterdam Dry Dock Co.Ltd *when* ..... *Yard No.* 307

Auxiliary Engines ~~or Gas Turbines~~ made at Colchester *by* Davey, Paxman & Co. Ltd., *when* 1963 *Eng. Nos.* 620008/-8-9-10

Total No. of sets and description (including type name) Three 8 RPHCZ type diesel alternators. Cont.Nos. 57263/4/5

INTERNAL COMBUSTION RECIPROCATING ENGINES. *No. of cylinders per engine* 8 *Dia. of cylinders* 7" Bore. *Stroke* 7.75"

2 or 4 stroke cycle 4 *Maximum approved BHP* 450 *at* 1200 *RPM Corresponding MIP* 155lbs *Maximum pressure* 1050 lbs.

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* 2 *Is welded construction used for: Bedplate?* no *Entablature?* no *Total internal volume of crankcase (if 20 cu. ft. or over)* under 20 cu.ft. *No. and total area of crankcase explosion relief devices* 4= 36 sq.inches. *Are flame guards or traps fitted?* guards *Cooling medium for: Cylinders* fresh water *Pistons* oil *No. of attached pumps: F.W. cooling* 1 *S.W. cooling* 1 *Lubricating oil* 2 *How is engine started?* compressed air distributed to cylinders

SHAFTING. *Is a damper or detuner fitted?* yes *No. of main bearings* 5 *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 *Dia. of pins* 4.5" *Journals* 5" *Breadth of webs at mid throw* 7" *Axial thickness* 1.78" *If shrunk, radial thickness around eyeholes* - *Dia. of flywheel* 30.25" *Weight* 888 lbs *Are balance weights fitted?* yes *Total weight* 70.5 lbs *Rad. of gyration* 6.6" *Dia. of flywheel shaft* -
Has each engine been tested in shop? yes *How long at full power?* 100 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)* 2/10/63
Date of approval of shafting 20.7.62 *Identification marks on shafting* Lloyd's Ips. RP. 4593B. 26.4.63. 4593.A. 26.4.63. 4586.A. 26.4.63.
Particulars of driven machinery 375 KVA. 300 KW. P.F. 0.8. 450 volts. 1200 rpm. 60Cycles. 3 phase.AC Nos. 1-4889-1A1. 1-4889-1A2. & 1-4889-1A3. by Electrotechnische Industrie V.H. Willem Smit & Co. Limited
Port 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* .....
(A small diagram should be attached showing gas cycle) *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* .....

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ELECTRIC GENERATORS. *Port and No. of Certificate for generators of 100 Kw. and over* Rotterdam 63-2009-2010-2011
For generators under 100 Kw., has Makers' Certificate been obtained? - *Are Certificates attached?* yes

For DAVEY PAXMAN & CO. LIMITED
SALES MANAGER
COLCHESTER ENGINE DEPARTMENT.

The foregoing description is correct and the particulars are as approved for torsional vibration characteristics (strike out whichever inapplicable)
Manufacturer

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

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.*

These three diesel engines have been built under Special Survey in accordance with plans approved and the requirements of the Rules. The materials and workmanship are good throughout and the generating sets are in my opinion eligible for inclusion in ELMC. when satisfactorily installed on board.

Survey Fee Special arrangement,
Expenses .....
Date when a/c rendered .....

Engineer Surveyor to Lloyd's Register
R. Potts.

Declaration to be signed by Surveyor at fitting-out Port:— The above described machinery has been fitted on board the SS Prolster *at* Rotterdam *in a proper manner and found satisfactory when tested on the (date)* 16-6-1964 *under full working conditions.*

Engineer Surveyor to Lloyd's Register

RETURN THIS REPORT WITH YOUR FIRST ENTRY.

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