

## REPORT ON AUXILIARY INTERNAL COMBUSTION RECIPROCATING ENGINES

FOR CONSIDERATION BY THE COMMITTEE OF LLOYD'S REGISTER OF SHIPPING

Ship's Name (or contract No.) **m.s. "BARTH"** Port **Groningen**

Gross tons **499.02** Date of completing rpt. **21-1-66** Rpt. No. **3078d.**

Place of survey, if different from above **Lemmer**

No. of visits in shops **4** First date **30-11-65** Last date **6-12-65**

Ship built by **Scheepswerf "Friesland" N.V.** Yard No. **286/41**

Aux. engines made by **Lemmer.** Eng. No. **GA1-80738** When **1965**

**VEB dieselmotorenwerk Leipzig, East Germany.** **GA1-80739** **1965**

Fee **--** Expenses **--**

Description (including type name)

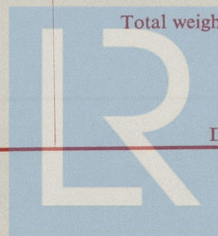
4 NVD 21

No. of sets 2

No. of cylinders, each engine	4	No. of exhaust gas driven blowers/superchargers, each engine	none						
Dia. of cylinders	150 mm.	Is welded construction used for	Bedplate? no.						
Stroke	210 mm.		Entablature? no.						
2 or 4 stroke cycle	4	Total internal volume of crankcase, if 20 cu.ft. or over	less 20 cu.ft.						
Approved service B.H.P., each engine	90	Crankcase explosion relief devices	No. -						
Corresponding R.P.M.	1000		Total area -						
Corresponding M.I.P.	5.5 kg/cm <sup>2</sup>	Are flame guards or traps fitted to relief devices?	no.						
Maximum cyl. pressure	63 kg/cm <sup>2</sup>	Cooling medium for	Cylinders FW						
Fuel	diesel		Pistons -						
If cylinders in vee or other special formation, state	Angle of vee No. of crankshafts, each engine	Fuel valves	-						
		No. of attached pumps	<table border="1"> <tr> <td colspan="2">F.W. COOLING</td> </tr> <tr> <td>one</td> <td></td> </tr> <tr> <td>S.W. COOLING</td> <td>LUB. OIL</td> </tr> <tr> <td>one</td> <td>one</td> </tr> </table>	F.W. COOLING		one		S.W. COOLING	LUB. OIL
F.W. COOLING									
one									
S.W. COOLING	LUB. OIL								
one	one								
Is engine of opposed piston type?	no.								
No. and type of mechanically driven scavenge pumps/blowers, each engine	none	How is engine started?	compressed air.						

## SHAFTING

Is a damper or detuner fitted?	no.	Dia. of journals	96 mm.	
Type	-	Webs	Breadth at mid-throw	150 mm.
			Axial thickness	53 mm.
			If shrunk, radial thickness around eyeholes	-
			Nominal shrinkage allowance if dowel pins are not fitted	-
No. of main bearings	5	Flywheel	Diameter	640 mm.
Are bearings of ball or roller type?	no.		Weight	174 kg.
Distance between inner edges of bearings in way of cranks	-	Are balance weights fitted?	no.	
Is crankshaft built, semi-built or solid?	solid	Total weight of balance weights	-	
Material of crankshaft	40 Mn.4N	Radius of gyration	-	
Minimum approved tensile strength	-	Dia. of flywheel shaft	-	
Dia. of crankpins	96 mm.			



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Has each engine been tested in the shop? **yes** Was it tested with driven machinery attached? **yes**  
How long at full power? **3 hours.** Was the governing tested and found satisfactory? **yes**

DATE OF APPROVAL OF TORSIONAL VIBRATION CHARACTERISTICS  
(If 150 B.H.P. or over)

PARTICULARS OF DRIVEN  
MACHINERY

elec.generator alternating current 70 KVA  
390 V-104 Amps, cos $\phi$  0.8

PORT & No. OF CERTIFICATES  
FOR STARTING AIR RECEIVERS

ELECTRIC GENERATORS (Copies of certificates to be forwarded)

If 100 kW or over

Port

-

If less than 100 kW, have makers' certificates been supplied?

**yes**

No. of cert.

-

DECLARATION TO BE SIGNED BY ENGINE BUILDERS

To the best of our knowledge this machinery has been soundly constructed in conformity with the Rules, Regulations and requirements of Lloyd's Register of Shipping, and the foregoing particulars of auxiliary sets are correct.

(date)

-

(signature)

-

DATES OF APPROVAL OF PLANS

-

IDENTIFICATION MARKS ON  
SHAFTING

-

A previous similar case was for  
(name or contract No.)

-

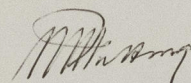
Engine No.

-

Rpt. No.

-

The machinery reported above has been constructed ~~XXXX XXXX XXXX~~ in accordance with the Rules, and ~~XXXX XXXX XXXX~~ Secretary's letters. The materials and workmanship are good, the spare gear required by the Rules has been supplied and the machinery is eligible, in my opinion, to be fitted in a classed ship.



M.Th.Putting.

Surveyor to Lloyd's Register of Shipping

DECLARATION TO BE COMPLETED AND SIGNED BY THE SURVEYOR AT THE PORT OF INSTALLATION

The above machinery has been fitted in **m.s."BARTH"**

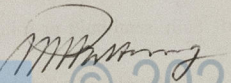
at **Lemmer, Holland**

in a proper manner and found satisfactory

when tested on (date)

**29-11-65**

under full working conditions.

  
M.Th.Putting.

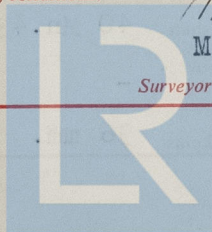
Surveyor to Lloyd's Register of Shipping

Date of Committee

**FRIDAY 11 FEB 1966**

Minute

**See Rpt. 1.**



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NOTE.—Where existing machinery is submitted for classification, the circumstances are to be explained as fully as possible, and the recommendation should be suitably amended.