

Rpt. 4b (Cons) REPORT ON MAIN INTERNAL COMBUSTION RECIPROCATING ENGINE

3 JUN 1965
Received London

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

Ship's Name m.s. "GUANG MING" Port Rotterdam
Gross tons 7314 Date of completing rpt. 29-4-'65 Rpt. No. 60636

Place of survey, if different from above Flushing
No. of visits in shops 38 First date 13-3-'64 Last date 11-1-'65

Ship built by Messrs. Koninklijke Maatschappij Yard No. 327
"De Schelde"

Engine made by Messrs. Koninklijke Maats. Engine No. 927 Yr. '65 Mo. 1

Fee ~~Consol. FLS 3575. = 4665~~ Expenses 295.-
~~forging, castings, welded consol. No 525 =~~ Turnover Tax 183,13

Licence name & type of engine Schelde-Sulzer 6RD68
If cyls in vee or other special formation state (a) vee angle and (b) No. of crankshafts each engine (a) - (b)
No. of engines one
2 or 4 stroke cycle 2 BHP on which fees have been calculated 6600
Single (SA), or opposed piston (OP) S.A. Corresponding RPM 135
No. of cylinders, each engine 6 Corresponding MIP 8,97 kg/cm2
Diameter of cylinders 680 mm. Maximum cylinder pressure 70 kg./cm2
Stroke(s) 1250 mm. Machinery numeral 1320

TWO STROKE ENGINES ONLY
Is engine of opposed piston type? no ports in cylinders
If so, how are upper pistons connected to crankshaft?
No. and type of mechanically driven scavenge pumps or blowers, each engine, and how driven
Where exhaust gas driven blowers only are fitted can engine operate with one out of action?
Are the under sides of pistons used as scavenge pumps? yes
If not, and emergency means are provided, what are they?
Are relief valves fitted to scavenge manifold? yes
~~SEVEN IN DIESEL~~

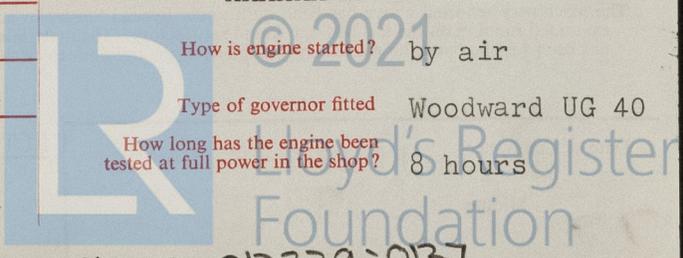
TWO & FOUR STROKE ENGINES
Is the engine supercharged? yes
No. of exhaust gas driven supercharge blowers, each engine 2
No. and type of mechanically driven charging pumps or blowers, each engine none
Are the under sides of pistons used as scavenge pumps? no
No. of supercharge air coolers, each engine 2
Supercharge air pressure at full power 10,5 lb./sq.in. Total internal volume of crankcase 52 M³
Can engine operate without supercharger? yes
No. and total area of explosion relief devices 6-7500 cm²
If not, and emergency means are provided, what are they? -
Are flame guards or traps fitted to: Crankcase relief devices? yes
Starting air pipes at cyl. starting air valves? flame retarders fitted

No. of valves each cylinder:	INLET	EXHAUST
	none	one rotating
FUEL	STARTING	RELIEF
	one	one
Cooling medium for:	CYLINDERS	
	fresh water	
PISTONS	FUEL VALVES	
	fresh water	fresh water
Material of	Cylinder covers	cast steel
	Piston crowns	cast steel

Is welded construction used for: BEDPLATE? yes FRAMES? yes ENTABLATURE? no
Are tie-bolts fitted? yes
Is crankcase separated from under sides of pistons? yes
Is engine of crosshead or trunk piston type? crosshead type
Is crankcase readily accessible? yes
Can engine be reversed? yes
How is engine started? by air
Type of governor fitted Woodward UG 40
How long has the engine been tested at full power in the shop? 8 hours

NOTE:—The particulars in this report are to be given as fully and as clearly as possible. Where the answer is "NO" or "NONE", say so. Ticks and other signs of doubtful meaning are not to be used. Wording not applicable to be cancelled.

10m,9/64 (MADE AND PRINTED IN ENGLAND)



012333-012339-0137

Is a torsional vibration damper or detuner fitted? no

Date of approval of torsional vibration characteristics of engine/flywheel system

20-6-'62 and 27-5-'64

~~Where specified~~

~~XXXXXX~~

CRANKSHAFT

Total weight of balance wts. none

Breadth of webs at mid-throw 820 mm.

Radius of gyration -

Axial thickness of webs 315 mm.

No. of main bearings 7

If webs shrunk, radial thickness round eye-holes 222,5 mm.

Are main bearings of ball or roller type? no

Nominal shrinkage allowance if dowel pins are not fitted 1,62-1,71°/oo

Distance between inner edges of bearings in way of cranks 922 mm.

Pins forged

~~Distance between centre lines of side rods of opposite crank angles~~

Material of: (State whether cast or forged) Webs forged

Built, semi-built or solid crankshaft semi-built

Journals forged

Diameter of: Journals 500 mm.

Minimum approved tensile strength for: Pins } Webs } 50 kg./mm2

Centre crank pins 500 mm.

Side crank pins none

FLYWHEEL SHAFT. Separate, integral with crank or thrust shaft

flywheel bolted to thrustshaft

~~Material~~ -

~~Flywheel~~ -

Diameter -

~~Diameter~~ -

~~Weight~~ -

THRUST SHAFT. Separate, integral with crank or flywheel shaft

separate

Material forged steel

Diameter adjacent to collar 500 mm.

Minimum approved tensile strength 50 kg./mm2

MAIN ENGINE DRIVEN PUMPS (each engine. State No. and purpose of each pump and, for bilge pumps, the capacity at normal r.p.m.) also **AIR COMPRESSORS** (No. and whether they can be declutched)

One O.F. injection pump per cylinder

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 main engines are correct.

N.V. Koninklijke Mij. "De Schelde"

p. proc.

(date)

(signature)

A previous similar case was for M.S. "SEA AMBER" and SEA CORAL" Engine No. 1919-1920 Port and Report No. 58868-58885

IDENTIFICATION MARKS of important forgings and castings. (Copies of certificates to be forwarded)

Piston rods: LLOYD'S KLN.271-272-273-275-276
362 - KW.
AvB.28-10-'64

Crankshaft LLOYD'S VNA. 16321-FK. 2-6-'64
Thrust shaft LLOYD'S VNA. 16322-FK 2-6-'64

Conn. rods : LLOYD'S KLN.829-831-834-921-922-957-AS.
AvB 28-10-'64.

AIR RECEIVERS if supplied with engine. (Copies of certificates to be forwarded)

Port & Cert. No.

CRANKSHAFT

THRUST/FLYWHEEL SHAFT

AIR RECEIVERS

Dates of approval of plans: 1-2-1963

1-2-1963

The machinery reported above has been built under Special Survey in accordance with the Rules, approved plans and Secretary's letters, examined running on the test bed and found satisfactory. 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.

Date of Committee

FRIDAY 18 JUN 1966

Minute

See Rep. 1.

NOTE: Screwshafts have been approved for 4 yearly surveys.

Surveyor to Lloyd's Register of Shipping

A.C. van Bezuije.

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.