

This has fitted on standard E.R. engine No. 146  
BHP 3 at 1250 RPM

ANCHOR WINDLASS

t. 4c.

# REPORT ON OIL ENGINE ~~ELECTRIC GENERATOR~~ SETS.

No. 11294

Received at London Office

22 DEC 1942

5 MAY 1943

Date of writing Report 23-11-1942 When handed in at Local Office

Port of

Manchester

Date in Survey held at

Manchester

Date, First Survey

20-10-42

Last Survey

17-11

1942

g. Book.

Number of Visits

4

Single  
on the Twin  
Triple  
Quadruple

Screw vessel

(Motor Collier)

"EMPIRE REAPER"

Tons { Gross  
Net

uilt at

Knittingley

By whom built

John Harker

Yard No. 146

When built

1943

wners

Ministry of War Transport

Port belonging to

il Engines made at

Manchester

By whom made

Crosby Bros

ENGINE

Contract No. 131928

When made

1942

enerators made at

By whom made

Contract No.

When made

o. of Sets

One

Engine Brake Horse Power

10

Nom. Horse Power as per Rule

2.8

Total Capacity of Generators

Kilowatts.

L ENGINES, &c.

Type of Engines

Vertical Solid Injection

2 or 4 stroke cycle

Single or double acting

Single

Maximum pressure in cylinders

900 lb/sq in

Diameter of cylinders

4"

Length of stroke

4 1/2"

No. of cylinders

One

No. of cranks

One

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

3 3/4"

Is there a bearing between each crank

Revolutions per minute

1500

Flywheel dia.

19"

Weight

178 lb

Means of ignition

Compression

Kind of fuel used

Heavy oil

Crank Shaft, dia. of journals

as per Rule

3 1/2"

Crank pin dia.

2 3/8"

Crank Webs

Mid. length breadth

4 1/2"

Thickness parallel to axis

shrink

Flywheel Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

as fitted

Thickness of cylinder liners

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

yes

Means of lubrication

Forced

Are the cylinders fitted with safety valves

No

Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

Cooling Water Pumps, No.

one

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size

One

9/16" dia x 1/2" stroke at 750 Revs per Min.

Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

scavenging Air Pumps, No.

Diameter

Stroke

Driven by

AIR RECEIVERS:—Have they been made under Survey

State No. of Report or Certificate

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined

What means are provided for cleaning their inner surfaces

Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

ELECTRIC GENERATORS:—Type

Pressure of supply

volts.

Full Load Current

Amperes.

Direct or Alternating Current

If alternating current system, state the periodicity

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off

Generators, are they compounded as per rule

is an adjustable regulating resistance fitted in series with each

shunt field

Are all terminals accessible, clearly marked, and furnished with sockets

Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched

Are the lubricating arrangements of the generators as per Rule

If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test

and do the results comply with the requirements

If the generators are 100 kw. or over have they been built and tested under survey

PLANS. Are approved plans forwarded herewith for Shafting

Approved 8-8-42

Receivers

Separate Tanks

SHAFTING

As per Rule Requirements

GEAR

The foregoing is a correct description

CROSSLY BROTHERS LIMITED,

Manager

Manufacturer.



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Dates of Survey while building  
During progress of work in shops - - 20-10-42; 21-10-42; 4-11-42; 17-11-42;  
During erection on board vessel - - -  
Total No. of visits 4.

Dates of Examination of principal parts—Cylinders 20-10-42 Covers 21-10-42 Pistons 21-10-42 Piston rods ✓  
Connecting rods 21-10-42 Crank and Flywheel shafts 20-10-42 Intermediate shafts ✓  
Crank and Flywheel shafts, Material O.H. Ingot Steel Identification Marks Lloyds No M96 EG. 20-10-42  
Intermediate shafts, Material ✓ Identification Marks ✓  
Identification marks on Air Receivers ✓

Is this machinery duplicate of a previous case? Yes If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) This engine has been constructed under special survey of tested materials and in accordance with the Secretary's letter, approved plans and Rule requirements.

The materials and workmanship are of good quality, and the engine when tested in the shop under full load conditions, showed satisfactory results.

In my opinion this engine is suitable to be placed on board a vessel, classed with this Society, for the purpose intended.

[The above engine installed on board "EMPIRE REAPER" at Knottingly and Hull; tried under working conditions found satisfactory L.S.S.]

The amount of Fee ... £ 2 : 2 :  
Travelling Expenses (if any) £ : 5 :  
When applied for, 21-12-1942  
When received, 19.....

E. Grivies pp. S. Newton  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 21 MAY 1943

Assigned

See fe machy rpt



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