

MESSRS. Brown Bros., &amp; Co., Ltd.

COPY NO.1

23078.

LAURENCE, SCOTT &amp; ELECTROMOTORS, LTD., NORWICH.

A70406/9/42

SHIP NO. 335 - J.11827

## Certificate of Test of Machine No. 91332.

Size BM 35 SJ. Shop Order E5069

Date of Test Jan. 10/44.

Your Order No. A.5768/70.

Description One of four A.S.E. with cowls, shunt-wound motors.

B.H.P. 10

Volts. 220

Amperes 43

Revs. per Min. 600

## TEST RECORD.

| Time.                 | Volts | Amperes. | Revs. per Min. | Temp. of Air °Fahr.     | Shunt Amps. | Remarks.        |
|-----------------------|-------|----------|----------------|-------------------------|-------------|-----------------|
| <b>Half-hour Run.</b> |       |          |                |                         |             |                 |
| 5.50                  | 220   | 43       | 585            | 60                      | 2.06        | Load applied by |
| 6.5.                  | 220   | 43       | 595            | 60                      |             | belt.           |
| 6.20                  | 220   | 43       | 602            | 60                      | 1.83        | Bearings cool.  |
| =====                 |       |          |                |                         |             |                 |
|                       | 220   | 43       | 600            | Full Load. No Sparking. |             |                 |
|                       | 220   | 86       | 590            | 100%                    | O. Load.    | do.             |
|                       | 220   | 64.5     | 594            | 50%                     | O. Load.    | do.             |
|                       | 220   | 53.75    | 597            | 25%                     | O. Load.    | do.             |
|                       | 220   | 32.25    | 608            | 3/4                     | Full Load.  | do.             |
|                       | 220   | 21.5     | 615            | 1/2                     |             | do. do.         |
|                       | 220   | 3.5      | 630            |                         | Light Load. | do.             |
| =====                 |       |          |                |                         |             |                 |

## FINAL TESTS.

(Applied immediately after the Test Run).

## TEMPERATURE TEST. (Degrees Fahr.)

|                | Armature | Commu-<br>tator. | Magnet Coils. | Interpole<br>Coils. |    |
|----------------|----------|------------------|---------------|---------------------|----|
| Machine ...    | 88       | 80               | 92            | -                   | 88 |
| Air ...        | 60       | 60               | 60            | -                   | 60 |
| Temp. Rise ... | 28       | 20               | 32            | -                   | 28 |

## VIBRATION TEST.

No vibration during Test.

## OVERLOAD TEST.

An Overload of 100 % was applied for 30 ~~minutes~~ seconds.

## HIGH-PRESSURE TEST.

An alternating pressure of 2000 volts was successfully applied for 2 minutes.

## INSULATION TEST.

(Measured by 500 volt "Megger.")

50 megohms ( whole machine ).

BRUSH GEAR DETAILS. Size of Carbons  $\frac{7}{8}$ " x  $\frac{5}{8}$ " Quality Link A No. of Holders 4 No. per Holder 2

GENERAL NOTES. For steering gear.

Destination:- Admiralty Tugs, J.11827 - J.11828.

HENRY ROBB. YARD 338

STEERING GEAR

Certified by

Present at Test

010466-010477-0273

Lloyd's Register  
Foundry  
Testing Engineer



23078.

COPY NO. 1

Messrs. Brown Bros. &amp; Co., Ltd.

LAURENCE, SCOTT &amp; ELECTROMOTORS, LTD., NORWICH.

SHIP NO. 338 - 1.11827

## Certificate of Test of Machine No. 31332.

Date of Test Jan. 10/14. Shop Order 25069

Efficiencies at:- Full Load. 3/4 Load. 1/2 Load.

Running losses ... 340 340 340

C<sup>2</sup>R losses ..... 586 319 132

Brush do..... 82 60 39

Shunt do..... 454 454 454

Total do..... 1462 1173 965

Output ..... 7998 5922 3765

Input ..... 9460 7095 4730

Efficiency..... 84.5% 83.6% 79.6%

## Cold Resistances:-

Armature ..... 26 ohms.

Intercoils)  
+ Series ..... .09 "

Shunt ..... 107. ohms.

## INSULATION TEST

(Measured by 500 volt "Megger")  
50 megohms (whole machine).

BRUSH GEAR DETAILS. Size of Carbon, x 5 Quality Link A

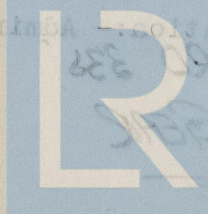
No. of Holders 4

No. per Holder 2

GENERAL NOTES: For steering gear.

Administrative Logs, 1.11827 - 1.11828.

Certified by



© 2021

Lloyd's Register  
Foundation