

COPY.

Lloyd's Register of Shipping.



Port Copenhagen

8th July, 1947

This is to Certify that

L. Kleusen and K. Lund

The undersigned Surveyor to this Society did at the request of

Messrs. A/S Atlas of Copenhagen on the 9th January 1947 and subsequent dates attend their works for the purpose of inspecting and testing during construction the undermentioned refrigerating machinery designated machines Nos. 2470 and 2540 stated to be intended for the s.s. "Kittern" of Lervik.

The survey comprises:

Two vertical, single acting 2 cylinder ammonia compressors.
Two shell and tube condensers each consisting of 2 drums.
Two ammonia receivers.
Two oil separators.
Eighty-eight coils for seventy-six roof-and side grids (twelve grids consisting of two coils each).

The crank shafts have been forged of Siemens Martin Ingot Steel by Messrs. A/S Helsingør Skibsverft og Maskinbyggeri, Elsinore, tested and examined in accordance with the requirements of the Rules of this Society and found satisfactory.

The two connecting rods for the NH₃ compressor No. 2470 have been made of Siemens Martin Cast Steel by Messrs. Burmeister & Wain, Copenhagen and the two connecting rods for the NH₃ compressor No. 2540 have been made of Siemens Martin Cast Steel by Messrs. A/S Helsingør Skibsverft og Maskinbyggeri, Elsinore, all tested and examined as per Rules and found satisfactory.

The various parts have been examined in finished condition and found - so far as could be seen - sound and free from defects.

The shell and tube condensers, the oil separators and the ammonia receivers are made of Siemens Martin Steel plate and have been constructed and tested in accordance with the requirements of the Rules for welded Pressure Vessels, Class II and found satisfactory.

(cont..)

This Certificate is issued upon the terms of the Rules and Regulations of the Society, which provide that:—

"While the Committees of the Society use their best endeavours to ensure that the functions of the Society are properly executed, it is to be understood that neither the Society nor any Member of any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by the Society or its Surveyors, or in any entry in the Register Book or other publication of the Society, or for any error of judgment, default or negligence of any of its Committees or any Member thereof, or the Surveyors, or other Officers or Agents of the Society."

The compressor cylinders, the oil separators and the NH₃ receivers have been tested by hydraulic pressure to 42 Atm. and afterwards by air pressure to 21 Atm.

The compressor crank casings have been tested by hydraulic pressure to 21 Atm. and by air pressure to 10.5 Atm.

The shell- and tube condensers have been tested by hydraulic pressure to 35 Atm. and by air pressure to 17.5 Atm.

The coils for the roof- and side grids have been tested by hydraulic pressure to 10.5 Atm. and by air pressure to 35 Atm.

The air tests were carried out while the various parts were submerged in water.

They were examined and found good and tight.

The workmanship is good.

Marks for identification

Machine No. 2470

- The cylinders : Lloyd's Test $\frac{H}{A} \frac{42}{21}$ Atm. K.L. 14-1-47
- The crank casing : Lloyd's Test $\frac{H}{A} \frac{21}{10.5}$ Atm. K.L. 14-1-47
- The crank shaft : Lloyd's Test No. 6587 L.K. 21-4-47
- The connecting rods : Lloyd's Test No. 1683 L.K. 21-4-47

Machine No. 2540

- The cylinders : Lloyd's Test $\frac{H}{A} \frac{42}{21}$ Atm. L.K. 28-5-47
- The crank casing : Lloyd's Test $\frac{H}{A} \frac{21}{10.5}$ Atm. L.K. 28-5-47
- The crank shaft : Lloyd's No. 6587 L.K. 27-5-47
- The connecting rods : Lloyd's No. 1680 L.K. 24-6-47
- The condensers : Lloyd's Test $\frac{H}{A} \frac{35}{17.5}$ Atm. L.K. 25-4-47
- The ammonia receivers : Lloyd's Test $\frac{H}{A} \frac{42}{21}$ Atm. L.K. 10-4-47
- The oil separators : LR $\frac{42}{21}$ Atm. K.L. 21-4-47
- The grids : LR 10.5/35 Atm. L.K.

S. Clausen *L. Lund*



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Lloyd's Register Foundation

No. 12213

By Kitter

The ship

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