

LLOYD'S REGISTER OF SHIPPING

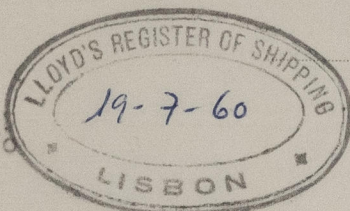
UNITED WITH THE BRITISH CORPORATION REGISTER



Port

MANNHEIM

13th July, 1960.

Works No. 909 270
Order No. 2132

This is to Certify that

Ulrich Schüller

the undersigned Surveyor to this Society did at the request of

Messrs. Motoren - Werke Mannheim AG. of Mannheim

attend at their works for the purpose of examining and testing
one auxiliary diesel engine, made to the order of Messrs.
Wimmer & Co., Lissabon, intended for Estaleiros Sao Jacinto
S.A.R.L., Sao Jacinto. GENERAL

Particulars of the engine are as follows:-

Engine Number.....10056/212/328
TypeKD 412 Z
Number of Cylinders2
Diameter of Cylinders.....105 mm
Stroke120 mm
Maximum Pressure60 kg/cm²
Mean Indicated Pressure.....6.85 kg/cm²
Brake Horse Power20 PS
Revolutions per Minute1500
Span of Bearings.....127.5/155.5 mm
Diameter of Journals85 mm
Diameter of Crankpins.....73 mm
Breadth of Webs116 mm
Thickness of Webs35 mm
Crankcase volume: 0.040 m³

This engine has been built under Special Survey, in
accordance with the Approved Plans and Rules of the Society,
materials and workmanship being good.

On completion, the above machinery was tried in the
shops under working conditions with satisfactory results.

(see test report attached.)

For purposes of identification the cylinder block and
crankshaft were stamped thus:-

Crankcase:

Crankshaft:(Augsburg cert. F 60/876)

LLOYD'S TEST///

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Mhm 328

No.

AUG. 22728

TP.10 kg/cm²

HKS AL 15 12.5.60

US 14.6.60 US

HH 1.7.60 HH

Fee:— £

Engineer Surveyor to

Lloyd's Register of Shipping.

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."