

# LLOYD'S REGISTER OF SHIPPING



Port MANNHEIM

10th March, 1961

No. 714 932  
No. 5484-85, 5211-12, MA 12617

This is to Certify that  
**Karl Steinbrecher**

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.  
**Bauscher & Co., Miltenberg/Main.**

Particulars of the engine are as follows:-

Engine Number.....	10145/8/367
Type .....	KD 412 E
Number of Cylinders .....	1
Diameter of Cylinders.....	105 mm
Stroke .....	120 mm
Maximum Pressure.....	60 kg/cm <sup>2</sup>
Mean Indicated Pressure.....	6.9 kg/cm <sup>2</sup>
Brake Horse Power .....	9.5 PS
Revolutions per Minute .....	1500
Span of Bearings.....	167 mm
Diameter of Journals .....	65 mm
Diameter of Crankpins.....	73 mm
Breadth of Webs .....	90 mm
Thickness of Webs .....	34 mm
Crankcase volume:	6.522 m <sup>3</sup>

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 under working conditions with satisfactory results.  
( see test report attached).

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

**Crankcase:**

LLOYD'S TEST  
TP. 10 kg/cm<sup>2</sup> sq. in.  
KS 3.3.61 KS

**Crankshaft:** ( see Dortmund. cert. DoF. 60/458 & 60/1357)

LLOYD'S TEST  
No. 1/1 - 13 5.5.60  
LLOYD'S AUG C 218238/1/1  
H.K.S. 20.7.60

*K. Steinbrecher*

Fee:— £ 24.

Engine 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:—

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 error 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."

