

# LLOYD'S REGISTER OF SHIPPING

ts No. 44733  
er No. 30 271/57 GV

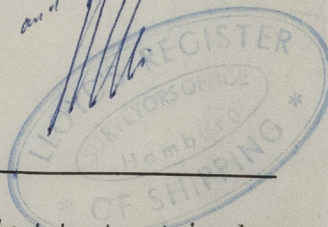
## \*SHIP OR ENGINE FORGINGS OR CASTINGS

I have to report that the Forgings or Castings, as herein described, manufactured  
by Messrs. Klöckner-Georgs-  
marienwerke AG., of Osnabrück  
\*for the Engines No. being constructed by Messrs. MAN,  
of Hamburg for the Ship No. being built by  
of

have been inspected by me as set forth below, and found to be, so far as can be seen,  
sound and free from defects. These have been despatched to Hamburg.

ITEM	1 solid forged 10-throw crankshaft
Identification No.	LLOYD'S HNO 947 K.N. 17.11.58 K.N.
Surveyor's Initials.	K.N.
Materials	SM. Steel
Charge No.	54471
How made.	forged
Heat treated.	yes
Dimensions.	286 Ø / 286 Ø mm
Weight.	8,600 kg
Progress on Insp.	rough machined
Yield kg per sq. mm	32.4 32.4
Ult. kg per sq. mm	56.7 57.3
Elong. % on 4 V-A	33.2 32.0
5 x d	29.0 28.0
Reduc. of Area %	52.1 50.1
Cold Bend.	180 degr. satisfactory
DVM Impact Test	6.9 6.6
Brinell mkg/cm <sup>2</sup>	5.7 6.3
	6.6 5.1
Izod.	--
Final date.	17.11.58

*Examined in  
condition and found good*



Date of approval of chemical analysis, physical properties and heat treatment in the  
case of special steels for reduction gearing forgings.

Na Other tests: --

Fee:

Expenses:

Report on Material Signature  
Surveyor to Lloyd's Register of Shipping  
Kh. Nagel

\*Delete where not applicable.

Office on Date