

# LLOYD'S REGISTER OF SHIPPING

Works No. 1/48 917  
Order No. S 900 830 739 027

## SHIP OR ENGINE FORGINGS OR CASTINGS

I have to report that the Forgings~~xxx Castings~~, as herein described, manufactured  
by Messrs. Klöckner Werke AG., of Osnabrück  
Georgsmarienwerke  
\*for the Engines No. being constructed by Messrs. Howaldtswerke AG.  
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

Indian Navigator

HP and LP 1<sup>st</sup> reduction wheel

ITEM 2 tooth rims

Identification No.	LLOYD'S HNO GS 11.1.60
	386 387
Surveyor's Initials.	G. S.
Materials.	E.-Steel, EN 8
Charge No.	34 991
How made.	forged
Heat treated.	yes
Drawing No.	Port
Dimensions.	9000-36 J
Weight.	1850 kg
Progress on Insp.	rough machined
Yield kg per sqmm	39.6 39.6
Ult. kg per sqmm	68.2 69.5
Elong. % on 4 V A	27.4 27.2
5 x d	23.3 23.7
Reduc. of Area %	51.0 47.9
Cold Bend.	180° satisfactory
Brinell.	H <sub>B</sub> = 192-198
Izod.ft. lbs.	28.9 27.5 26.8 19.5 23.9 26.0
Final date.	11.1.1960

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

Other tests Sulphur prints were carried out with satisfactory results. The manufacturer states that supersonic test have been carried out. Works certificates are attached.

Analysis as stated by the manufacturers:-  
Charge No. C% Si% Mn% P% S%  
34 991 0.42 0.28 0.90 0.015 0.011

Fee:

Expenses:

\*Delete where not applicable.

G. Stockfleth  
Surveyor to Lloyd's Register of Shipping



# LLOYD'S REGISTER OF SHIPPING

## SHIP OR ENGINE FORGINGS OR CASTINGS

I have to report that the Forgings or Castings, as herein described, manufactured

by Messrs. Kloeber Werke AG., of Geestmühlenerwerke, for the Engines No. being constructed by Messrs. Howaldtswerke AG. being built by for the Ship No.

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

*HP and LP 1/2 inch dia*

2 tooth rims

ITEM

Identification No.

Surveyor's Initials

Materials  
Charge No.  
How made

Heat treated  
Drawing No.  
Dimensions

Weight

Progress on Insp.

Yield kg per sq cm

Ult kg per sq cm

Elong. % on

Reduc. of Area %

Gold Bend

Brinell

Load ft. lbs.

Final date

Examined finished machined

Port *Hamburg*

Date *9.11.10* and marked  
for identification

(Marks) *W 1110*

*312+387 g. 1*

*M. 3. 60*

*Ham 334* *NK 9.11.10*

*[Signature]* (Sureyor's initials)

Date of approval of chemical analysis, physical properties and heat treatment in the case of special steels for reduction gearing forgings. Sulphur prints were carried out with satisfactory results. The other tests manufacturer states that superasonic test have been carried out. Works certificates are attached.

Report on Machinery No. *2*

Received at

Office on

Date *4.1.1960*

(TURN UP

Surveyor to Lloyd's Register of Shipping

(Ship & Eng.) 100m 3.28 (MADE AND PRINTED IN ENGLAND)

Date when A/c rendered