

COPY.

*for London
Surgeons*

Lloyd's Register of Shipping.

71, Fenchurch Street, E.C. 3.

12th April, 1920.

Dear Sirs,

E.

I duly received your letter of the 8th instant with enclosures respecting shaft forgings ordered by you from Messrs. John Brown & Co., Ltd., for the 4000 S.H.P. gears for Messrs. The British Thomson-Houston Co., Ltd., and with regard to your remarks respecting the tests required, I beg to inform you that the Society's Rules for Steel Forgings require that the tensile strength of the material should be between the limits of 28 to 32 tons per square inch with an elongation on the standard test piece of not less than 29 per cent for 28 ton steel and 25 per cent for 32 ton steel, and in no case must the sum of the tensile breaking strength and corresponding elongation be less than 57.

The bend test pieces must withstand without fracture being bent cold through an angle of 180°, the internal radius of the bend being not greater than $\frac{1}{4}$ inch.

In the case of forgings for Turbine pinion shafts and gears, the Society is always willing to consider any specification of a higher tensile steel which the

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Builders may propose, and if this specification of the material is considered to be suitable for the purpose for which the material is intended it will be approved.

Pending the receipt of a reply to my letter of the 25th ultimo, the Society's Sheffield Surveyors have not been authorised to witness the tests on the forgings, as the question as to whether the tests proposed would be considered suitable for the purpose for which these forgings were intended has to be considered.

It is noted that in your letter of the 8th instant you state that in the case of the .5% Carbon Steel the minimum tensile strength is to be 42 tons per square inch with an elongation of 18%, but you do not state what bend test is specified. I shall therefore be glad if you will kindly state what bend tests you propose for this material.

It is concluded that the mild steel wheel shaft forgings are to comply with the Society's Rules for forgings.

I am, Dear Sirs,

Yours faithfully,

Secretary.

Messrs. The Power Plant Co., Ltd.,

WEST DRAYTON,

Middlesex.



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