

links cut from the chain; (6) the identifying letter or number, stamped on the chain or on a label attached to the chain to which the certificate refers; (7) description of chain; (8) diameter of chain; (9) length of chain to which certificate refers; (10) elongation of chain in testing-machine; (11) the maker of the chain shall certify as to the grade of iron of which chain has been made, and the number and date of the certificate for the iron.

The test certificate shall also show a description of the leading dimensions of any rings, long or wide links, shackles, swivels, or hooks that may be attached to the chain.

The test certificate for the iron from which the chain has been made shall show—(1) The name and address of the manufacturer of the iron; (2) the name and address of the testing establishment; (3) the grade of the iron; (4) the order number; (5) to whom supplied; (6) the tensile strength; (7) the minimum elongation and length in which measured; (8) the minimum contraction of area per cent. of original area; (9) the certificate shall state that the iron has been manufactured and tested in accordance with the specification of the British Engineering Standards Association, Report No. 51 and its amendments, if any; (10) the signature of the person witnessing the test; (11) date of test.

Testing of repaired chain.

9. Chains which have been in use and which have been repaired by the adding of new links shall be retested. The test-load shall not be less than twice the working-load specified in Table No. 1. No chain which has been so repaired shall be put into use until it has passed a satisfactory test.

Annealing of chains.

10. All chains shall be periodically examined and shall be effectually softened by annealing or firing when necessary. Half-inch or smaller chains in general use shall be so annealed or fired once in every six months.

If the chains are part of the outfit of a seagoing ship, it shall be sufficient compliance with this regulation as regards softening by annealing or firing of $\frac{1}{2}$ in. or smaller chains that no such chains shall be used unless they have been so annealed or fired within six months preceding.

Permissible wear of chain.

11. Chain which has been worn so that the wear at any part exceeds $\frac{1}{16}$ in. on chains up to $\frac{1}{2}$ in. diameter, $\frac{5}{64}$ in. for $\frac{5}{8}$ in. chain, and $\frac{1}{8}$ in. for every $\frac{1}{2}$ in. increase in diameter up to 2 in., must not be used until the worn parts have been renewed.

Strength of attachments to chain or rope.

12. Rings, long or wide links, shackles, swivels, and hooks shall be equal in strength to the chains, ropes, or slings to which they are attached.

Material of and dimensions for rings.

13. Dimensions for rings are given in the Tables Nos. 27 and 28 and in Diagram No. 15. Rings for chains and ropes shall be made of iron of the quality specified in section 6 for chain, and may be of the dimensions indicated in the tables and diagram for the various sizes of chains and ropes; but where chains or ropes have rings of other proportions attached to them the rings shall be at least of equal strength to the rings specified in the tables and diagram for the particular size of chain. The strength of a ring shall be assumed to vary directly as the cube of the diameter of the iron of the ring, and inversely as the mean diameter of the ring.