

claimed or where dimensions and materials for hooks have been standardized, the Chief Surveyor of Ships may determine the safe-working load by calculation from dimensions taken from the hook itself, and he may require one hook of each size for which the load is to be determined by calculation to be tested by a gradually increasing load up to its elastic limit.

Testing of rings, &c.

19. Rings, long or wide links, shackles, swivels, and hooks shall be subjected to the same tensile load as the chain to which they are attached.

Where rings, links, shackles, swivels, or hooks are not attached to chain, they shall be subjected to a tensile load equal to twice their permissible safe working-load and test-certificates certified by an independent authority, as required for chain, shall be obtained for them by the purchaser.

Rings, long or wide links, shackles, swivels, and hooks must show no signs of appreciable permanent deformation under test, nor any flaw, crack, fracture, or other defect.

The test certificate for rings, links, shackles, swivels, and hooks not attached to chain shall show—(1) the name and address of the testing establishment; (2) the signature of the person witnessing the test; (3) date of test; (4) the tensile load; (5) the identifying mark or number stamped on the ring, link, shackle, swivel, or hook; (6) description or main dimensions of the ring, &c.; (7) number of rings, &c., to which the certificate refers; (8) tensile strength, elongation, and grade of material; (9) the amount of permanent deformation (if any) of rings, &c., under test.

In cases where only one test certificate has been issued by the testing establishment for a number of rings, long or wide links, shackles, swivels, or hooks of identical sizes tested at the one time, the vendor may issue copies of the original test certificate to a purchaser of a portion of the rings, &c., so tested. All copies of an original certificate shall be accompanied by a declaration that the same are true copies, and the vendor must hold the original certificate for reference for a period of five years.

Shipowners or other users of cargo gear who make up or have made up slings or other gear for their own use by the addition of rings, long or wide links, shackles, swivels, or hooks to tested chain or rope shall not be required to furnish test certificates for such rings, long or wide links, shackles, swivels, or hooks if the tensile test loads of such rings, &c., are witnessed by a Surveyor of Ships or Inspector of Gear.

Chains, &c., to be marked.

20. All chains, slings, hooks, and shackles shall be marked with some identifying letter or number before being put into use, and they shall also be stamped with, or have labels attached showing the working-load approved by the Marine Department. No figures which are liable to be confused with the figures for the safe-working load shall be stamped on any chain, sling, hook, or shackle.

Chain-registers.

21. The following particulars of chains shall be entered in a register or on suitable filing-cards, which shall be kept on the premises, unless some other place has been approved in writing by the Chief Surveyor of Ships:—

Size of chain, sling, hook, or shackle, and leading dimensions.

Distinctive number or mark.