

Material of and dimensions for end links.

14. Long or wide links shall be made of iron of the quality specified for chain in clause 6. Approved dimensions for wide-end links of collar slings and for other wide links are specified in Table No. 29. When the width of a wide link exceeds that provided for in the table, the diameter of the iron of the link should not be less than that required for a ring of a diameter equal to the width of the link.

Long-link chain.

15. The working-load on long-link chain shall not exceed two-thirds of the working-load for short-link chain of the same diameter.

Swivels.

16. Swivels for chains shall be proportioned as follows: The diameter of the iron in the common link being regarded as unity, the diameter of the iron in the eye of the swivel must be at least $1\frac{1}{4}$; the diameter of the iron in the pin at the bottom of the thread must be $1\frac{3}{8}$; the diameter of the iron in the crown of the bow-piece must be $1\frac{1}{2}$; the depth of the bow-piece where bearing on the swivel-nut must be $1\frac{1}{2}$; the depth of the nut of the swivel-pin must be $1\frac{5}{8}$. The swivel-pin should be screwed to the Whitworth standard, and have the end riveted over or secured thereto by welding it to the end of the pin:

Provided that shipowners' existing stocks of swivels may be used up so long as they are approved by an Inspector of Cargo Gear or Surveyor of Ships:

Provided further that swivels made of special steel which do not conform to the above-mentioned proportions may be used if approved by the Chief Surveyor of Ships.

Material for shackles and dimensions.

17. Shackles shall be made of iron of the quality specified for chain in clause 6. The pins of shackles may be of selected mild steel of suitable strength and ductility. The iron of D shackles and the pins of all shackles may be of the dimensions indicated in Tables Nos. 30 and 31, and diagrams Nos. 16 and 17. The working-loads for shackles with intermediate widths of gap, and the working-loads for pins of lengths in the gap other than those indicated in the tables, may be determined from the tables by interpolation by assuming that the working-load varies inversely as the width of the gap.

The iron of bow shackles shall not be less than 1.3 times the diameter of the iron of the links of the chain to which they are attached.

All shackle-pins must be screwed in or otherwise properly secured.

A shackle attached to more than one chain or rope must be equal in strength to all the chains or ropes attached to the shackle.

Material for and dimensions of hooks.

18. Hooks shall be made of selected wrought iron or selected mild steel of suitable tensile strength and ductility. All hooks shall be drawn out of the solid, and must be carefully annealed after forging.

No hook shall be attached to any chain or rope unless it is at least equal to the safe-working load of the chain or rope.

A hook of ordinary proportions may be considered of sufficient strength if the working-load in tons does not exceed the number of square inches of sectional area of the back of the curved portion of the hook. The shank of a hook shall not be subjected to a greater working-stress than $2\frac{1}{2}$ tons per square inch of section. In cases where a greater working-load is