BS 3551 Alloy Steel Shackles

11 Screw threads

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The screw threads shall conform to BS 1580⁸), or alternatively to BS 84⁹).

Screw threads to BS 1580 shall be of Class 1A and Class 1B, and shall be either UNC, UNF, UNS or UN. Screw threads to BS 84 shall be of the Free Class and Normal Class, and shall be either B.S.W., B.S.F., Whit. S, or Whit.

In the case of the bolt and nut pin, Type 3, the inner end of the thread shall terminate in an undercut and fillet in accordance with the appropriate recommendations in BS 1936¹⁰⁾, to conform to the standard undercut, Form A, Grade 1.

It is recommended that where applicable, the screw threads be gauged with an appropriate gauge constructed in conformity with the specifications in BS 919¹¹⁾.

12 Proof loading

Each shackle, after manufacture and subsequent heat treatment, shall be subjected to a proof load at the centre of the pin equal to twice the safe working load (see Table 1 and Table 2 and Clause 3), which it shall withstand without showing permanent set.

After the removal of the proof load, each shackle shall be thoroughly examined by a competent person, and complies only if found free from visible flaw or defect.

13 Marking

The body of each shackle and the head of each pin shall be legibly marked with the quality mark "06". The mark shall be enclosed in a circle.

Each shackle body shall be permanently and legibly marked with the safe working load given in Table 1 or Table 2 (see also Clause 3).

The body shall also be permanently and legibly marked with such marks and symbols as will allow identification with the certificate of test and examination.