

Article of gear	Proof load
Multiple sheave block with safe working load over 20 tons up to and including 40 tons.	20 tons in excess of the safe working load.
Multiple sheave block with safe working load over 40 tons	50 percent in excess of the safe working load.
Pitched chains used with hand-operated blocks and rings, hooks, shackles or swivels permanently attached thereto.	50 percent in excess of the safe working load.
Hand-operated blocks used with pitched chains and rings, hooks, shackles or swivels permanently attached thereto.	50 percent in excess of the safe working load.

¹ The proof load applied to the block is equivalent to twice the maximum resultant load on the eye of pin of the block when lifting the nominal safe working load defined in (i) below. The proof load is, therefore, equal to four times the safe working load as defined in (i) below or twice the safe working load as defined in (ii) below.

(i) The nominal safe working load of a single-sheave block should be the maximum load which can be safely lifted by the block when the load is attached to a rope which passes around the sheave of the block.

(ii) In the case of a single-sheave block where the load is attached directly to the block instead of to a rope passing around the sheave, it is permissible to lift a load equal to twice the nominal safe working load of the block as defined in (i) above.

(iii) In the case of a lead block so situated that an acute angle cannot be formed by the two parts of the rope passing over it (i.e., the angle is always 90° or more), the block need not have a greater nominal safe working load than one-half the maximum resultant load which can be placed upon it.

(b) In cases where persons accredited to carry out loose gear tests may be retained to conduct tests of special stevedoring gear as described in §1918.61(b) of this chapter, which does not form part of a vessel's equipment, such tests shall adhere to the requirements set forth in §1918.61(b) (1), (2), and (3) of this chapter.

(c) After being tested as required by paragraph (a) of this section, and before being taken into use, all chains, rings, hooks, shackles, blocks or other loose gear, except as noted in §1919.32, shall be thoroughly examined, the sheaves and pins of the blocks being removed for this purpose, to determine whether any part has been injured or permanently deformed by the test. Shell bolt nuts shall be securely locked upon reassembly. Defective loose gear components shall be replaced before the certificate is issued.

(d) Any certificate relating to shackles, swivels or strength members of single-sheave blocks which have been restored to original dimensions by welding shall state this fact.

§ 1919.32 Specially designed blocks and components.

(a) Blocks and connecting components of an unusual nature which are specially designed and constructed as an integral part of a particular lifting unit and are either permanently affixed or of such design that two or more components must be tested together need not be considered as loose gear for purposes of §1919.31.

(b) In lieu of the loose gear proof test required by §1919.31(a), design data shall be submitted to an accredited

certification agency indicating design and material specifications and analysis whereby the designed strength of such gear may be determined.

(c) Subsequent to the test of the lifting unit as a whole, a thorough visual examination shall be made of disassembled parts and an electronic, ultrasonic, or other equally efficient non-destructive examination shall be made of those parts not dismantled to ensure the safe condition of such parts.

§ 1919.33 Proof tests—wire rope.

Wire rope, except as provided in §1919.14(b), shall be tested by sample, a piece being tested to destruction, and the safe working load of running ropes, unless otherwise acceptable to the Administration on the basis of design, shall not exceed one-fifth of the breaking load of the sample tested. In the case of running ropes used in gear with a safe working load exceeding 10 tons, the safe working load shall not exceed one-fourth of the breaking load of the sample tested.

§ 1919.34 Proof tests after repairs or alterations.

When proof loads are applied after repairs or alterations, all parts of the assembled gear shall be examined as required in §§1919.30, 1919.31(c), or 1919.32(c), whichever is applicable.

§ 1919.35 Order of tests.

When both unit and loose gear proof load tests are required, the loose gear test may be carried out after completion of the unit test.