

11450.2A Reference Paragraphs	RCDR Topic	RCDR Number
2-3.11.1(c) 2-3.11.1(e) 2-3.15(c) 2-3.16(l) 2-3.23(a) 2-4.2.1(f) 2-4.2.1(n) 2-5.5(j)	Commercial package hoists for GPS non-ordnance applications: wheel material, brake housing material, hook/block design factor for manual hoists, brake manual release, and motor duty rating.	23-058

BACKGROUND FOR ALL QUESTIONS AND ANSWERS

The intent of NAVCRANECEN 11450.2A with respect to packaged hoist design and general purpose service, non-ordnance applications is to require commercial configurations with some available standard options, not custom engineered/fabrication solutions. These questions and answers do not apply to hoists in special purpose service (SPS), ordnance handling, hazardous/explosive environments, or hot (molten) metal service.

QUESTION

Q1: NAVCRANECENINST 11450.2A paragraph 2-3.11.1(b) states that underhung packaged hoist/trolley unit wheels shall be the manufacturer’s standard, except as specified “below”. The “below” is taken to include 2-3.11.1(c) which prohibits the use of gray cast iron bridge and trolley wheels. Is paragraph 2-3.11.1(c) applicable to underrunning trolley wheels?

ANSWER

A1: Yes, wheels for under running cranes are covered by paragraph 2-3.11.1(c); however, paragraph 2-3.11.1(e) has changed the requirement such that gray cast iron wheels are allowed. Hollow stamped wheels are still prohibited. See also Question 2 for this RCDR.

QUESTION

Q2: NAVCRANECENINST 11450.2A paragraph 2-3.11.1(b) states that underhung packaged hoist/trolley unit wheels shall be the manufacturer’s standard, except as specified “below”. The “below” is taken to include paragraph 2-3.11.1(e), which requires under running wheels to be cast or forged steel, or ductile or malleable cast iron. Wheels provided on commercial packaged hoists for underrunning trolleys are typically made of gray cast iron, which is not compliant with this requirement. Can manufacturer’s standard gray cast iron wheels be used?

ANSWER

A2: Yes, underrunning wheels on commercial packaged hoist/trolley units may be gray cast iron as long as they are the manufacturer's standard offering.

QUESTION

Q3: NAVCRANECENINST 11450.2A, paragraphs 2-3.15(c) and 2-3.16(l), requires a minimum design factor of 5 for standard commercial hooks and standard commercial blocks. ASME B30.16 requires a minimum design factor of 4 for hand-chain-operated (manual) hoists. Is this ASME B30.16 minimum design factor acceptable?

ANSWER

A3: Yes. A minimum design factor of 4 is acceptable for hand-chain-operated (manual) hoists.

QUESTION

Q4: NAVCRANECENINST 11450.2A, paragraph 2-3.23(a), requires a minimum of one wheel on each side of the web to be driven. There is limited availability of commercial packaged hoist/trolley units providing dual drive capability. Can commercial packaged hoist/trolley units be provided with driven wheel(s) on only one side of the web?

ANSWER

A4: Yes. A driven wheel on each side of the web is recommended but not required.

QUESTION

Q5: NAVCRANECENINST 11450.2A, Section 2-4.2.1(f), requires motor mounted brakes to have a disc brake housing constructed of steel or ductile/malleable cast iron. Commercial packaged hoist manufacturers typically offer brakes made from gray cast iron or cast aluminum, with steel or ductile cast iron not a standard option. Would a brake equipped with a gray cast iron or cast aluminum housing be acceptable for these applications?

ANSWER

A5: Yes. It should be noted that housings are often called end plates, enclosures, or covers; the term "housing" is intended to refer to a load bearing item.

QUESTION

Q6: NAVCRANECENINST 11450.2A, paragraph 2-4.2.1(n), requires spring-set brakes be equipped with a manual release mechanism that automatically resets when power is applied to the brake. Manual chain hoists do not have this functionality and powered chain hoists frequently do not provide this capability as a standard offering. Can chain hoists be used if they do not have manual release mechanisms on spring-set brakes?

ANSWER

A6: Yes. A manual release is recommended but not required for powered chain hoists. This paragraph does not apply to manual chain hoists.

QUESTION

Q7: NAVCRANECENINST 11450.2A, paragraph 2-5.5(j) requires 60-minute duty rated motors minimum; are commercially available packaged hoist/trolley units with less than 60-minute duty rated motors on the hoist and trolley functions acceptable for use?

ANSWER

A7: Yes. 60-minute duty rated motors are recommended but not required.