

Section 3 Record Keeping

Training Objective

- At the completion of this section, students should have a clear understanding of the:
 - Frequency and scope of crane and hoist inspections as defined by OSHA regulations and ASME and CMAA standards.

Inspection Classifications



OSHA 1910.179 (j) Inspection

(j)(1)(i) Initial inspection - New and Altered cranes

(j)(1)(ii) Inspection procedures for Cranes in regular service

(j)(1)(ii)(a) Frequent inspection – Daily to monthly intervals

(j)(1)(ii)(b) Periodic inspection – 1 to 12 month intervals

Inspection Classifications



OSHA 1910.179 (j)(4) **Cranes not in regular use**

(j)(4)(i) A crane which has been idle for a period of 1 month or more, but less 6 months, shall be given an inspection conforming with requirements of paragraph (j)(2) and (m)(2) before placing in service.

(j)(4)(ii) A crane which has been idle for a period of over 6 months shall be given a complete inspection conforming with requirements of paragraphs (j)(2) and (3) and paragraph (m)(2) before placing into service.

Question



What is the longest period of time allowed between crane inspections? Per OSHA 1910.179



**ANSWER:
6 months**

INSPECTION REPORT RECORD

	2001	2002	2003	2004	2005
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

DATE OF 6 YEAR MAINTENANCE: _____
DATE OF HYDRAULIC TEST: _____
DATE - TECHNICIAN - SERVICE DONE: _____

DAILY CRANE LOG

Visit our Web Site: cranelog.com PROPERTY OF _____ SEE LAST PAGE TO REORDER

BEGINNING LOG DATE: _____ CRANE NO. _____
MILEAGE: _____ SERIAL NO. _____
ENDING LOG DATE: _____
MILEAGE: _____ RATED CAPACITY _____

Copyright 1973, 1991, 1997, 1999, 2003, 2005, 2006, 2010
Revised November 2010
Reflecting 7-1-98 changes in OSHA CFR 29 1926.550 Subpart N, ANSI B30.5
FMCS REGS to March 1, 1990
Commonwealth of Virginia July 1, 1989

FORM C



Standby Cranes

OSHA 1910.179 (j) Inspection

(j)(4)(iii) Standby cranes shall be inspected at least semi-annually in accordance with the requirements of paragraph (j)(2) and (m)(2).



Question



What parts of a crane require inspection on a periodic basis according to 1910.179?

ANSWER:

Hint: *This question can be answered with two words.*

All Parts!

ASME B30.16



- ASME B30.16 - 2.1.2(a) Initial Inspection
- ASME B30.16 - 2.1.2(b) Inspection procedures for equipment in regular service
- ASME B30.16 - 2.1.2(b)(1) Pre-operation Inspections
- ASME B30.16 - 2.1.2(b)(2) Frequent Inspections
- ASME B30.16 - 2.1.2(b)(3) Periodic Inspections

ASME B30 Inspection Classifications



ASME B30.16-2.1.6

- **Hoists Not in Regular Service**

(a) A hoist that is used infrequently, **which has been idle for a period of 1 month or more, but less than 1 year** shall be inspected before being placed in service, in accordance with para. 16-2.1.5

FREQUENT

(b) A hoist that is used infrequently, **which has been idle for a period of 1 year or more**, shall be inspected before being placed in service, in accordance with the requirements listed in para. 16-2.1.5

PERIODIC

Inspection Records

CMAA Specification No. 78-2015



Paragraph- 4.3.5.1

- Hooks, wire rope and load chain **inspections** shall be documented monthly and records kept.

Paragraph- 4.3.5.2

- Frequent inspection items should be documented and kept on file for **3 years**.

Inspection Records

CMAA Specification No. 78-2015



Paragraph- 4.4.5.1

- Reports for periodic inspections shall be kept on file by the owner or purchaser and if applicable, the service provider.
- Reports shall be maintained for at least **3 years**

Inspection Records

CMAA Specification No. 78-2015



Paragraph- 4.5.4

- Inspection records shall be given to the purchaser's responsible person.
- Inspection reports shall be kept on file for a period of **3 years**.

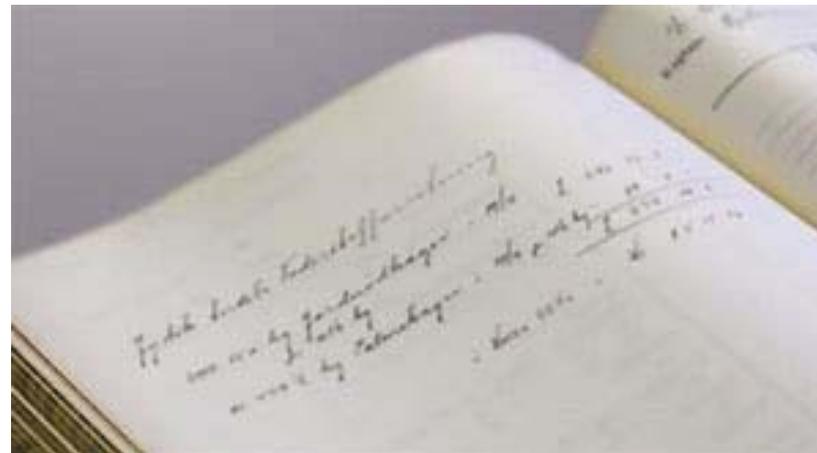


6.6.1

The crane owner shall ensure that log books (i.e., paper or electronic records) are maintained and contain all findings as a result of inspections, maintenance, repairs, and modifications.

There should be two types of log books, as follows:

- a) an operator daily log book to record information from functional checks performed by the operator; and
- a) an inspection, maintenance, and repairs log book/records for all the required maintenance, inspections, and repairs.





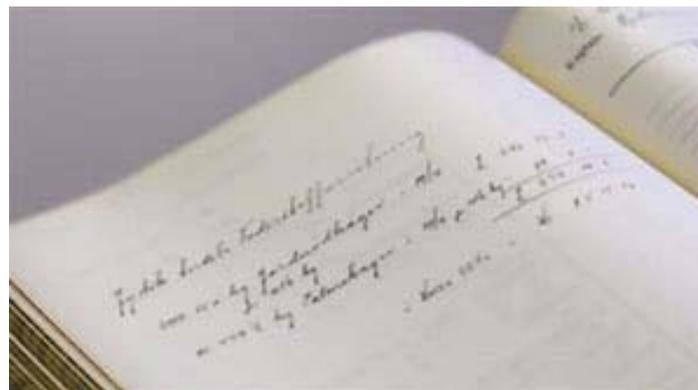
6.6.2

The log book/record for functional checks shall include initials of the operator and indication that the items listed in Clause 6.3 have been checked. This log book shall be available for review during the entire life of the equipment.

6.6.3

The inspection, maintenance, and repair log book/record shall include the date and specifics of any inspection, maintenance, and repairs performed on the equipment. **This log book shall also be available for review during the entire life of the equipment.**

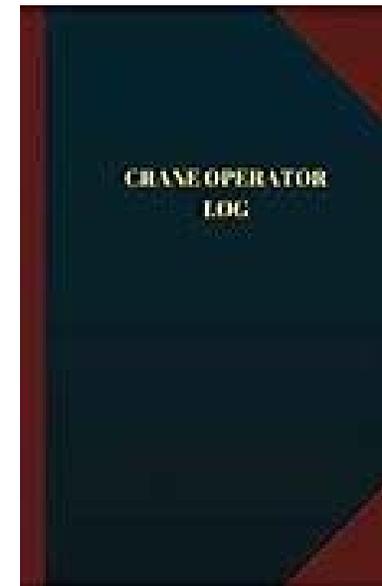
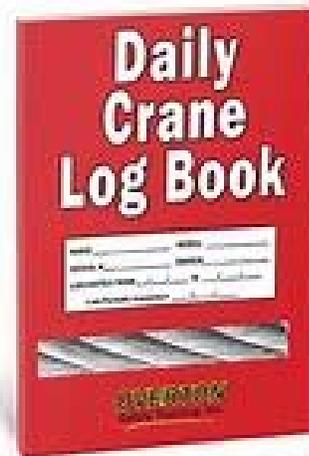
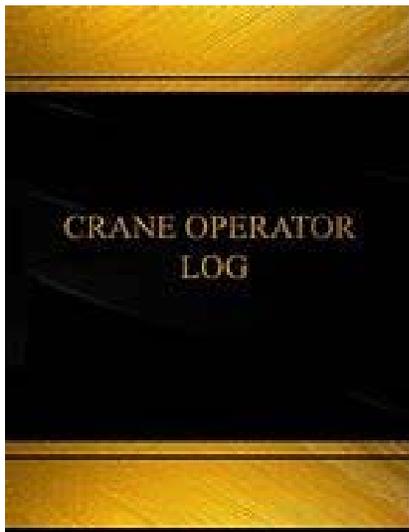
Note: *This log book is normally retained by the supervisor or in a storage facility (in a location where it can be accessed if needed).*





6.6.4

Both types of log books (i.e., paper or electronic records) shall be available for review by any person involved in the inspection, maintenance, and/or operation of the lifting equipment.



CSA B167-16



6.3.1.1 – A functional check shall be conducted by the operator for each new shift. This activity shall include the pre-use checks and end-of-shift checks in Clause 6.3.2. Observations and findings from the functional check shall be recorded in the daily log book and signed off at the end of each shift.

6.3.1.2 – The daily log book shall be kept in a location that is available to the operator.

Note: *If the log book is kept electronically, the electronic interface should be located where the crane is normally parked between uses. For a paper log book, the location should be easily accessible (for example, on the wall near the parking area, or near the rigging rack).*

Inspection Records

CMAA Specification No. 78-2015



Paragraph- 4.5.5.1

- Reports shall identify equipment inspected including location, mfg serial # and owner's equipment number.

Inspection Records

CMAA Specification No. 78-2015

Paragraph- 4.5.5.2



- Proof of Inspection shall be affixed to the inspected equipment **IN PLAIN SIGHT**

Maintenance Records

CMAA Specification No. 78-2015



Paragraph 4.6.4.1

- **Records shall be kept on file** evidencing adjustments, maintenance, and repairs that have been performed. Maintenance records should be retained for the life of the equipment.

Maintenance Records

CMAA Specification No. 78-2015



Paragraph 4.6.4.1

Records shall be kept on file evidencing adjustments, maintenance, & repairs that result from inspections & routine maintenance. Records should be retained for the life of the equipment by the purchaser.

Navigating the Standards

OSHA[®] 1910.179

Alphabetically by Categories (Handout)

- (a) Definitions: (pg 1)
- (b) General Requirements: (pg 8)
- (c) Cabs: (pg 9)
- (d) Foot walks and ladders: (pg 10)

Navigating the Standards

OSHA[®] 1910.179, *cont'd*

- (e) Stops, bumpers, sweeps and guards (pg 12)
- (f) Brakes (pg 14)
- (g) Electrical equipment (pg 17)
- (h) Hoisting equipment (pg 21)
- (i) Warning Devices (pg 24)
- (j) Inspections (pg 24)

Navigating the Standards

OSHA[®] 1910.179, *cont'd*

- (k) Testing (pg 27)
- (l) Maintenance procedures (pg 28)
- (m) Rope Inspection (pg 30)
- (n) Handling the load (pg 31)
- (o) Other requirements (pg 34)

Navigating the Standards

OSHA[®] 1910.179 (f) **Brakes**

- 1910.179(f)(1) Brakes for hoists
- 1910.179(f)(2) Holding Brakes for hoists
- 1910.179(f)(3) Control Brakes

ASME B30 Standards



- . 2 Overhead & Gantry Cranes
- .10 Hooks
- .11/.17 Monorails & Underhung Cranes Top Running
Bridge with Under Running Hoist
- .16 Overhead Hoists Underhung
- .20 Below the Hook Devices
- .21 Manual Lever Hoists

ASME B30 Standards



B30.16-_____

- 0 = **Scope, Definitions and References**
- 1 = **Construction and Installation**
- 2 = **Inspection, Testing and Maintenance**
- 3 = **Operation**

Questions??

Thanks for your attention,
let's take a break!

