



Alberta Elevating Devices
& Amusement Rides
Safety Association

ADVISOR

Elevating Devices Industry

January 2018

Notice: To assist the Elevating Devices Industry to meet their safety goals, AEDARSA is providing the following information:

1. Completion of Inspection Deficiencies Issued by a Safety Codes Officer

Clarification: Some owners believe they need multiple notifications to correct a deficiency issued by an inspection agency, this is incorrect. Once an infraction is cited by a Safety Code Officer during an inspection (compliance monitoring) the owner of the elevating device is required to ensure that infraction is addressed and notification is sent to the inspection agency of its completion.

However, if the owner of the elevating device feels that the cited infraction is incorrect the following is suggested;

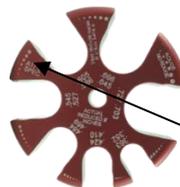
- a. Ask the inspection agency to quote the exact code and regulatory requirements that are not in compliance.
- b. If owner still feels the that the cited infraction is incorrect that owner may make an appeal to the Safety Codes Council

Please remember that if the infraction is **not** addressed in the prescribed time and the inspection agency notified, the owner is in contravention of the Safety Codes Act and the elevating device will be removed from service if the safety condition prevails.

2. Rope Gauge (more stringent requirements):

On March 1, 2016, a new *Elevating Devices Codes Regulation AR 192/2015* came into effect adopting the *ASME A17.1-2013/CSA B44-13*, with **more stringent** requirements for the replacement of elevator wire ropes.

- a. The *ASME A17.1-2013/CSA B44-13* references the *ASME A17.6-2010* as the method for determining the safety criteria for inspection and installation of Steel Wire Ropes, Aramid and Flat Belt Type suspension and compensation means, as well as governor ropes.
- b. The Elevating Devices Codes Regulation and the *ASME A17.1-2013/B44-13* both state that the inspection of suspension means, compensation mean and governor ropes applies to all existing elevating devices.
- c. The *ASME A17.6* sets out or requirements for wire discard criteria rope than in the previous regulation *AR 62/2009*.
- d. Therefore, new wire rope gauges reflect those changes. An example of this is the rejection criteria for 5/8 inch wire ropes is;
 - The previous rope diameter rejection criteria called the ropes to be rejected at $37/64^{\text{th}}$ or 0.578 mm
 - The new requirements call for replacement at 0.586 mm and a more stringent 0.605 mm if showing rouge.



MUST have reference to A17.6 2010 spec



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3. Testing of Low Pressure Switch

Introduction:

Pressure Switches (Low Pressure Switch) are required when the Head of a Hydraulic Cylinder is located above the Storage Tank. This allows the oil from the cylinder to drain back to the tank, should the car becomes lodged due to obstruction in the hoistway.

A hazard may be created when air takes the place of the oil in cylinder or if an obstruction becomes dislodged, which may cause the car to free fall.

ASME A17.1-2013/CSA B44-13 Safety Code for Elevators and Escalators **clause 3.26.8** addresses the potential of a free-fall condition by requiring: a pressure switch to detect when a low-pressure condition occurs and prevent automatic door opening and operation of the lowering valve or valves.

Testing Requirements

Testing of a Low Pressure Switch is a Category 1 requirement. (see: **Section 8.6.5.14.5** of the *ASME A17.1-2013/CSA B44-13*). The pressure switch and related circuits shall be tested for conformance with applicable requirements of **clause 3.26.8** and **Item 2.37** of the *ASME A17.2 – 2014 Guide for Inspections of Elevators, Escalators and Moving Walks*, or may be included as part of the Elevator Company's **Maintenance Control Program (MCP)**.

ASME A17.2 item 2.37.2 Hydraulic Elevator Periodic Test

Test the pressure switch in the following manner:

- a. Place the car at any landing except the bottom landing.
- b. Remove one electrical lead from the pressure switch and try to run the car in the down direction. If the car will not run by normal means, open the mainline disconnect switch. Connect a circuit continuity tester, such as an ohmmeter, across the pressure switch and lower the car on the buffer with the manual lowering valve.
- c. The ohmmeter should indicate that the pressure switch is open when the car comes to rest on the buffer.

Additional Information:

For additional information concerning the topics above any other inquiry, please visit the AEDARSA website, email us at info@aedarsa.com , or call Edmonton 780-448-0184/Calgary 403-216-5750 or