



## SAFETY ORDER

### THYSSENKRUPP NORTHERN ELEVATOR TRACTION SHEAVE BRAKE (SHEAVE JAMMER) MAINTENANCE

No: SO-ED 2012-01

Date of Issue: March 19, 2012

*This safety order is issued pursuant to section 31 of the Safety Standards Act. A person affected by this safety order may appeal this order in writing to the Safety Standards Appeal Board within 30 days. The appeal process is set out on the Safety Standards Appeal Board's website at <http://www.housing.gov.bc.ca/ssab/>.*

*Failure to comply with a safety order is an offence under section 72 of the Safety Standards Act.*

#### Part 1: Details of Regulated Work or Regulated Product

This Safety Order replaces Safety Order No: SO-L1 090601 4 to reflect amendments to the manufacturer's maintenance procedures as set out below.

This Safety Order is issued to all Licensed Elevating Devices Contractors that maintain the ThyssenKrupp Northern Elevator Traction Sheave Brake ("Sheave Jammer") and applies to all makes and models of the Sheave Jammer. This Safety Order is effective immediately.

#### Part 2: Requirement(s) of This Safety Order

1. All Licensed Elevating Device Contractors that maintain the Sheave Jammer must comply with the "ThyssenKrupp Northern Elevator Recommended Maintenance and Testing Frequency" laid out in the attached document immediately. In particular, this includes the requirement in Part 4 of the document which specifies that the Sheave Jammer must be **dismantled** annually for inspection and cleaning then tested after reassembly.
2. Every 12 months, all Licensed Elevating Device Contractors that maintain the Sheave Jammer must submit a Traction Sheave Brake Test Declaration (see URL: <http://safetyauthority.ca/form-1221>) to the BCSA. The Traction Sheave Brake Test Declarations should be submitted by email to email address: [elevating.devices@safetyauthority.ca](mailto:elevating.devices@safetyauthority.ca) with the subject line *Sheave Jammer*. Each Declaration should be saved individually with the file name referencing the BCSA Unit Number. Multiple files can be attached and submitted in one email.

#### Part 3: Details of Issue (if applicable)

This safety order is being issued to the following:

- All Licensed Elevating Devices Contractors that maintain the Sheave Jammer.

#### Part 4: Details of Ordering Safety Manager or Safety Officer – Please read following page

*I certify that I am authorized to issue this safety order in accordance with section 15 (d) of the Safety Standards Act or that I have been delegated this power under section 15 (g) of the Safety Standards Act.*

Janice Lee, P. Eng  
Provincial Elevating Safety Manager

Safety Order No: SO-ED 2012-01

Page 1 of 2

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Toll Free: 1-866-566-7233 Fax: 778-396-2064 Web Site: [www.safetyauthority.ca](http://www.safetyauthority.ca) E-mail: [info@safetyauthority.ca](mailto:info@safetyauthority.ca)



## SAFETY ORDER

### **Safety Standards Act:**

#### Safety Orders

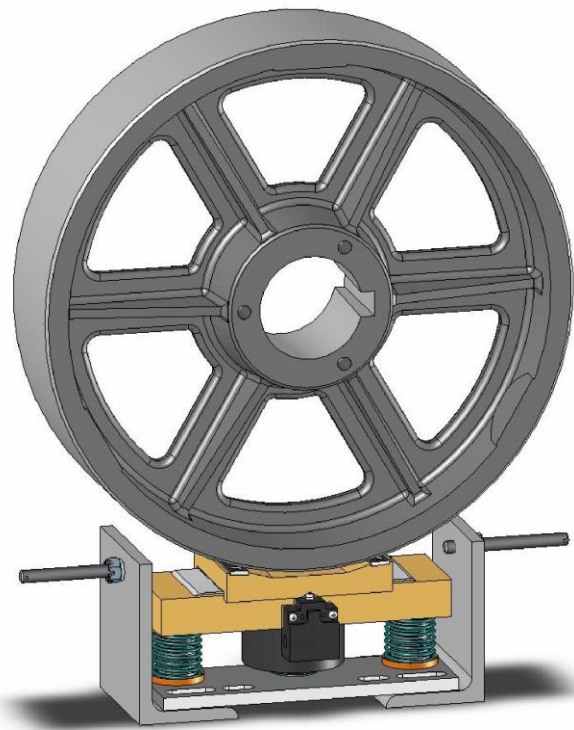
- 31 (1) To prevent, avoid or reduce risk of personal injury or damage to property, a provincial safety manager may, in writing, issue a safety order.
- (2) A safety order may be issued to any person in relation to any of the following:
- (a) regulated work or regulated products generally;
  - (b) a specific class of regulated product or regulated work;
  - (c) a specific regulated product or regulated work.
- (3) For certainty, a safety order issued under this section may apply to
- (a) regulated work that meets the requirements under this Act,
  - (b) regulated work that previously met the requirements under this Act or a former Act but does not meet the current requirements under this Act,
  - (c) regulated products that meet the requirements under this Act, or
  - (d) regulated products that previously met the requirements under this Act or a former Act but do not meet the current requirements under this Act, including a regulated product that bears a certification mark.
- (4) A safety order may specify any requirement that is intended to prevent, avoid or reduce the risk of personal injury or damage to property and may include any of the following orders:
- (a) that an existing regulated work or regulated product must be made safe in compliance with the safety order;
  - (b) that a regulated product must be
    - (i) disconnected from a power source,
    - (ii) uninstalled, or
    - (iii) modified before continued use;
  - (c) that a regulated product must be operated, installed, manufactured or disposed of only as specified or that a regulated product must not be moved;
  - (d) that current or future regulated work or a regulated product must conform to the terms or conditions of the order;
  - (e) that a person take or refrain from taking any action that a safety manager considers necessary to prevent, avoid or reduce a risk of personal injury to persons or damage to property;
  - (f) that the manufacturer make reasonable efforts to recall the regulated product.
- (5) The provincial safety manager must give written notice of the safety order to the following persons:
- (a) the manufacturer of the regulated product;
  - (b) an owner of the regulated product if the identity of the owner is known to the provincial safety manager;
  - (c) the person in charge of the regulated work.
- (6) The notice must state the reasons for the decision and that the person has the right to appeal the decision to the appeal board.
- (7) Despite section 54, a safety order may not be stayed during an appeal.

#### **References:**

Bill 19 – 2003                      Safety Standards Act  
B.C. Reg. 101/2004                Elevating Devices Safety Regulation  
B.C. Reg. 105/2004                Safety Standards General Regulation

For more information on the British Columbia Safety Authority, please visit our web site at:

[www.safetyauthority.ca](http://www.safetyauthority.ca)



## ThyssenKrupp Northern Elevator Recommended Maintenance and Testing Frequency

**GENERAL:**

- 1) Thoroughly read and familiarize yourself with Traction Sheave Brake (Sheave Jammer) field operating and instruction manual before attempting to perform any work on this device.
- 2) All field testing should only be carried out by experienced persons, having full knowledge of the elevator equipment and its operation.
- 3) All standard safety precautions and practices, as well as common sense should be exercised at all times while working on, in or around elevator equipment.
- 4) Ensure that wiring arrangement to switch and coil of unit is not obstructing, or impairing free movement of this device.

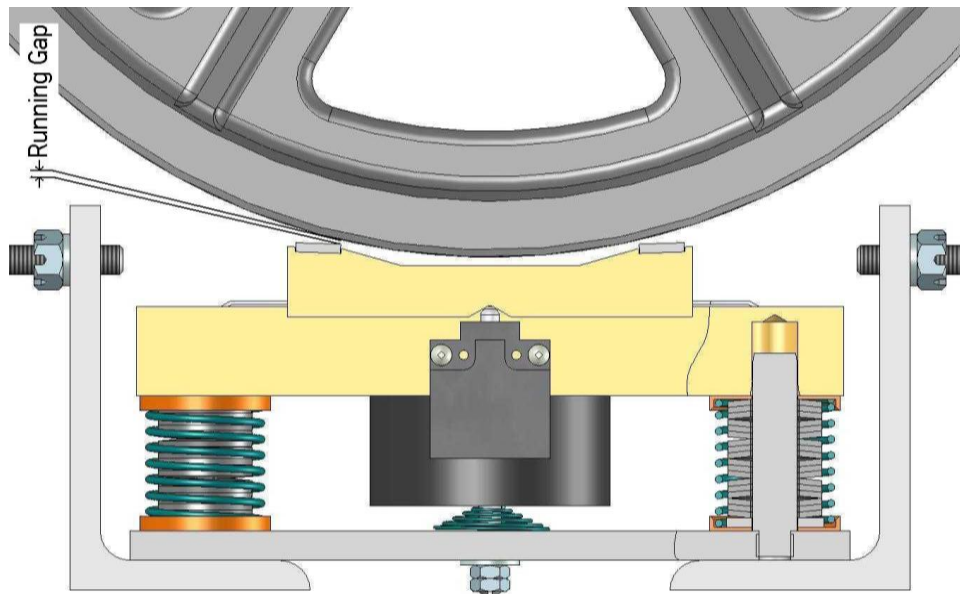
## TRACTION SHEAVE BRAKE MAINTENANCE FREQUENCY

Maintenance & testing Frequency	Scope of maintenance
Quarterly	1, 2 & 3
After each engagement	1, 2 & 3
Yearly	4

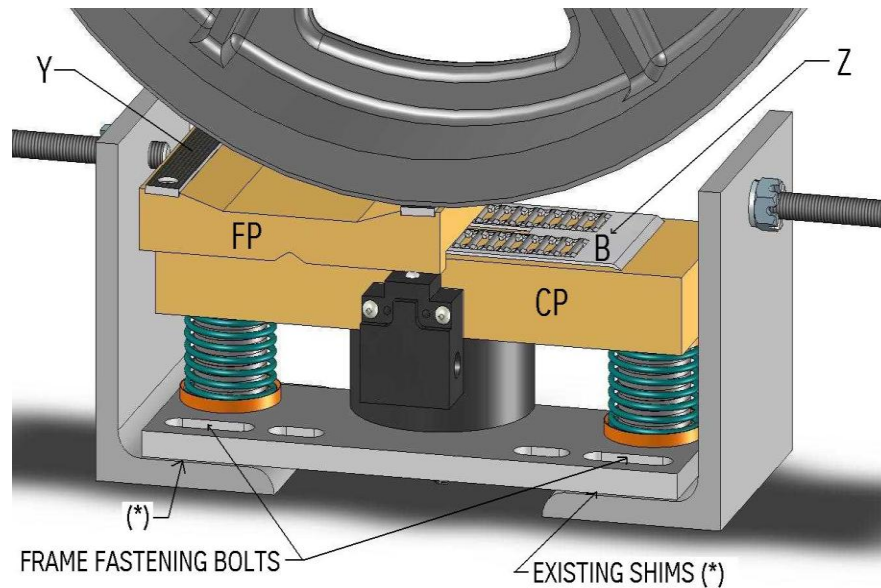
1) The running clearance gap must be checked (using gap gauge):

**[Overhead Installations]** with the solenoid energized verify the running clearance between frictional pads and traction sheave O.D. is not more than (2.2 mm, 13Ga), the brake setting must be re-adjusted if the gap is greater than the said value [see Sheave Jammer manual for the details].

**[Basement Installations]** with the solenoid energized verify the running clearance between frictional pads and Traction Sheave O.D. is not more than (1.89 mm, 14 Ga), the brake setting must be re-adjusted if the gap is greater than the said value [see Sheave Jammer manual for the details].



- 2) The device should be kept clean [especially the following areas frictional plate teeth (Y), Bearing plate (B)]; do not allow a build-up of foreign material to occur, as this can undermine the device's ability to function properly.



- 3) Visually inspect and manually operate unit to check for freeness, switch operation, as well as verify release and pick-up operation of the solenoid coil.
- 4) This device should be dismantled annually for inspection and cleaning then tested after reassembly.  
An Uncontrolled Low Speed Protection [low speed roll-away] test should be performed at least once a year to verify operation of the device as well as its associated control systems.

The Uncontrolled Low Speed test at 150 FPM (0.75 m/s) is the "Do me First / Go, No-Go" test, if this test fails, **DO NOT PROCEED WITH ANY FURTHER TESTING** as the device is either: not operating correctly or incorrectly calibrated.

The device selection/calibration is based basically on two (2) factors:

- i) unbalanced load, and
- ii) suspended masses

Appropriate loads should be used during testing.

100% rated capacity for installations prior to CSA B44-2000  
125% rated capacity for installations after CSA B44-2000