Technical
Safety Authority
of Saskatchewan

2202 - 2nd Avenue
Regina, SK S4R 1K3
Canada
info@tsask.ca
www.tsask.ca

March 15, 2016

TSASK Safety Notice Bulletin #01-2016

TO: All Class A and Class B Elevator Contractors

RE: TSASK Bulletin 2011-01
Elevator Safety Directive - Annual Testing Requirements for ThyssenKrupp Northern Elevator Sheave Jammers

In recent routine TSASK safety inspections, inspectors have indicated that the compulsory annual testing and logs, specific to the TKE sheave jammer, are not being maintained or present in the elevator machine rooms as required by the TSASK Safety Bulletin 2011-01.

This Safety Notice contains attachments that are being provided to all Class A Elevator Contractors in order to ensure that reasonable safety is being demonstrated and recorded on all elevators that are equipped with this specific overspeed detection device, as required by the original manufacturer.

All sheave jammer testing procedures and the specific log recording is to be present in those particular elevator machine rooms, verifying that conformance to the TSASK original safety directive is being followed.

Please see the following attachments for testing and log recording as recommended by the original manufacturer.

Yours truly,

Russel E. Haukeness, Manager
Elevator and Amusement Ride Inspections
(306) 787-4531

Attachments

Technical
Safety Authority
of Saskatchewan

330 – 1855 Victoria Avenue
Regina, SK S4P 3T2
Canada

306-787-1443 - reception
info@tsask.ca
www.tsask.ca

July 12, 2011 Bulletin 2011-01

To: Owners and Maintainers of Elevators Using Over Speed Up Protection Devices

Re: Elevator Safety Directive - Annual Testing Requirements for ThyssenKrupp Northern Elevator Sheave Jammers

This elevator safety directive is being issued to all elevator owners in which the current licensed elevator(s) incorporate the ThyssenKrupp Northern Elevator overspeed up protection device, also known as a "sheave jammer assembly".

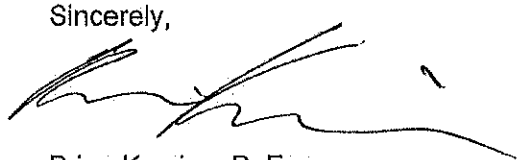
This electrical/mechanical device was previously required by the elevator safety code to prevent an elevator from over speeding in the up direction by more than 125% of it's rated speed. Once an over speed up malfunction is detected, electrical power is removed from the elevator drive system and a spring loaded "sheave jammer" device applies direct pressure to the rotating drive sheave stopping the elevator. This device also used to address uncontrolled slow speed movement with the car and hall doors open and to prevent the elevator car from moving more than 30 inches from the floor landing if an elevator brake or control failure occurs.

Numerous failures and malfunctions have been historically documented against this device during testing. As a result, ThyssenKrupp Northern Elevator issued a letter stating this device is required to be maintained and tested annually in accordance with the manufacturer's manual (which is available for any elevator maintenance contractor at no cost - see attached letter).

TSASK is requiring all elevator owners using sheave jammer assemblies as a primary over speeding up control to perform annual testing on this device in accordance with the manufacturer's recommendations. A specific testing log (supplementary to the current elevator maintenance log) is also required to be placed within the machine room which records the results of the annual test performed by the maintenance provider.

Any over speed safety device that does not comply with code requirements at the time of final testing must be reported directly to our office for further consideration.

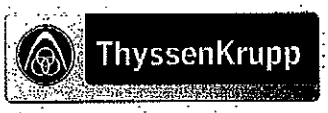
Sincerely,



Brian Krasiun, P. Eng
Chief Inspector

ThyssenKrupp Elevator (Canada) Limited

Americas Business Unit



June 24, 2011

Mr. Russ Haukeness
Technical Safety Authority of Saskatchewan
330-185 Victoria Ave.
Regina, SK S4P 3T2

Subject: Traction Sheave Brake (Sheave- Jammer)

Dear Mr. Haukeness,

The Traction Sheave Brake manufactured by ThyssenKrupp Northern Elevator meets the requirements of the CSA B44 Elevator Code to which it was installed with proper monitoring, testing, and maintenance in accordance with the ThyssenKrupp OEM manual and related documentation.

ThyssenKrupp Elevator continues to support the product and parts are still available. However, as with any component in an elevator system, as the Traction Sheave Brake ages and parts become unavailable a retrofit of the device will be required.

As we have done in other jurisdictions ThyssenKrupp Elevator will make its manuals available for the Traction Sheave Brake, at no cost, for any contractor who is maintaining a ThyssenKrupp Northern Elevator which utilizes the device.

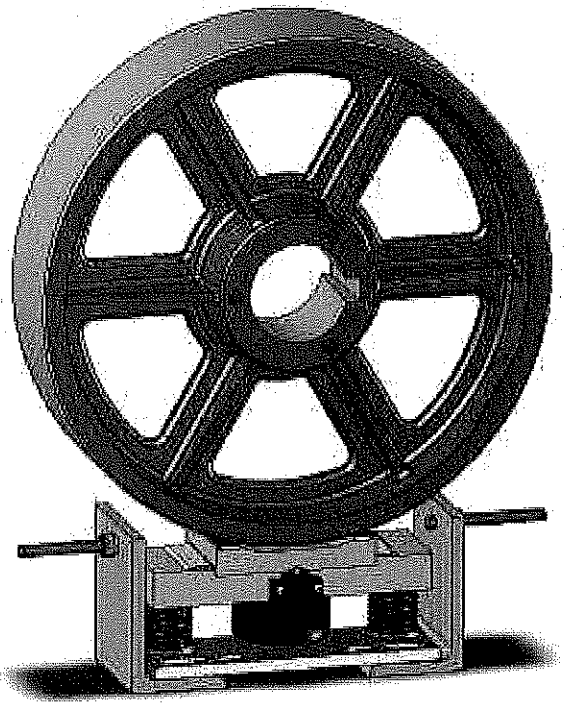
We hope this will meet with your approval.

Sincerely,

Joseph Kerr
President and CEO
ThyssenKrupp Elevator (Canada) Limited

ThyssenKrupp Elevator (Canada) Limited
410 Passmore Avenue
Toronto, ON M1V 5C3

ThyssenKrupp Northern Elevator



ThyssenKrupp Northern Elevator Recommended Maintenance and Testing Frequency

GENERAL:

I) 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.

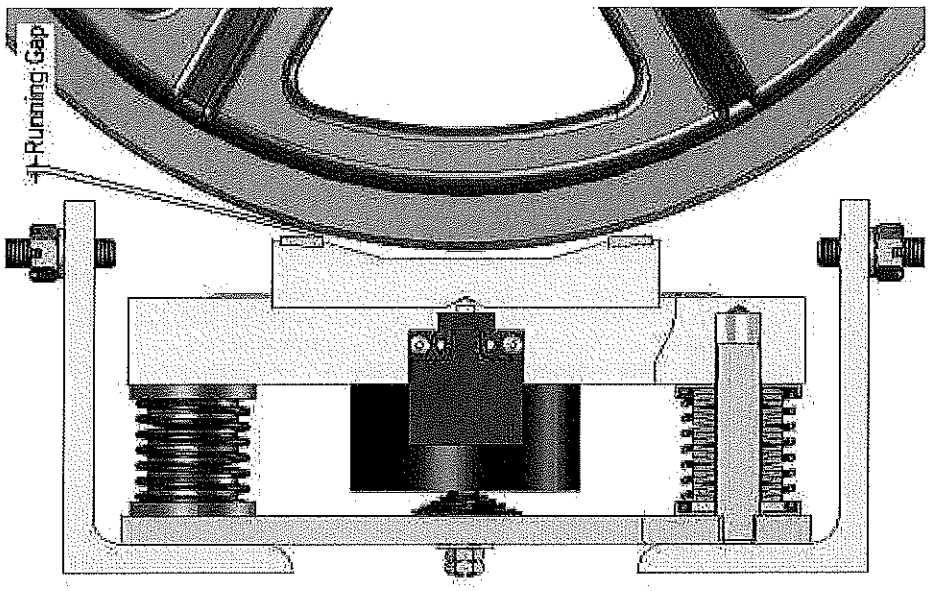
TRACTION SHEAVE BRAKE MAINTENANCE FREQUENCY

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

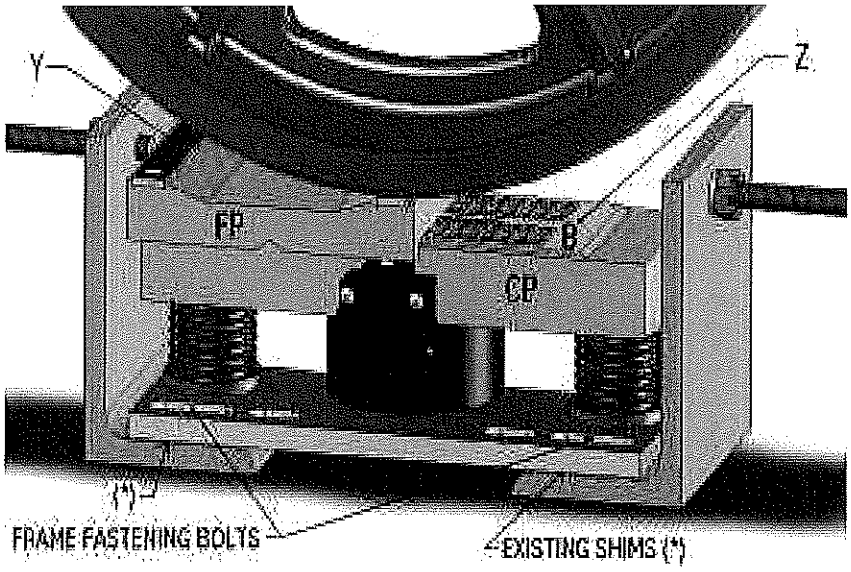
1) The running clearance gap must be checked (using gap gauge):

[**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) 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

ThyssenKrupp Elevator Canada Ltd.

ThyssenKrupp Elevator

Sheave-Jammer Maintenance Checklist-

- ☐ Surfaces are clean.
- ☐ Check for freeness of friction plate operation.
- ☐ Safety circuit switch operates.
- ☐ Verify proper release and pick-up operation of the solenoid coil.
- ☐ Do not field paint any operating part of the device.
- ☐ When the power fails the battery should maintain the SJ Solenoid in the released position for 3 to 4 seconds. If not check the battery and/or charge card. This can be simulated by turning OFF the main line disconnect switch.

Annual Testing Log

Sheave Jammer- Traction Sheave Brake
Refer to Testing Procedure required by code in jurisdiction and fill in chart below.
In addition to filling out this log the site maintenance logs should be filled out accordingly.

Date	Low Speed Unintended Motion Test Stopping Distance	Ascending Car Test Stopping Distance	Mechanic Name	Mechanic Signature