



Welcome  
Bienvenue



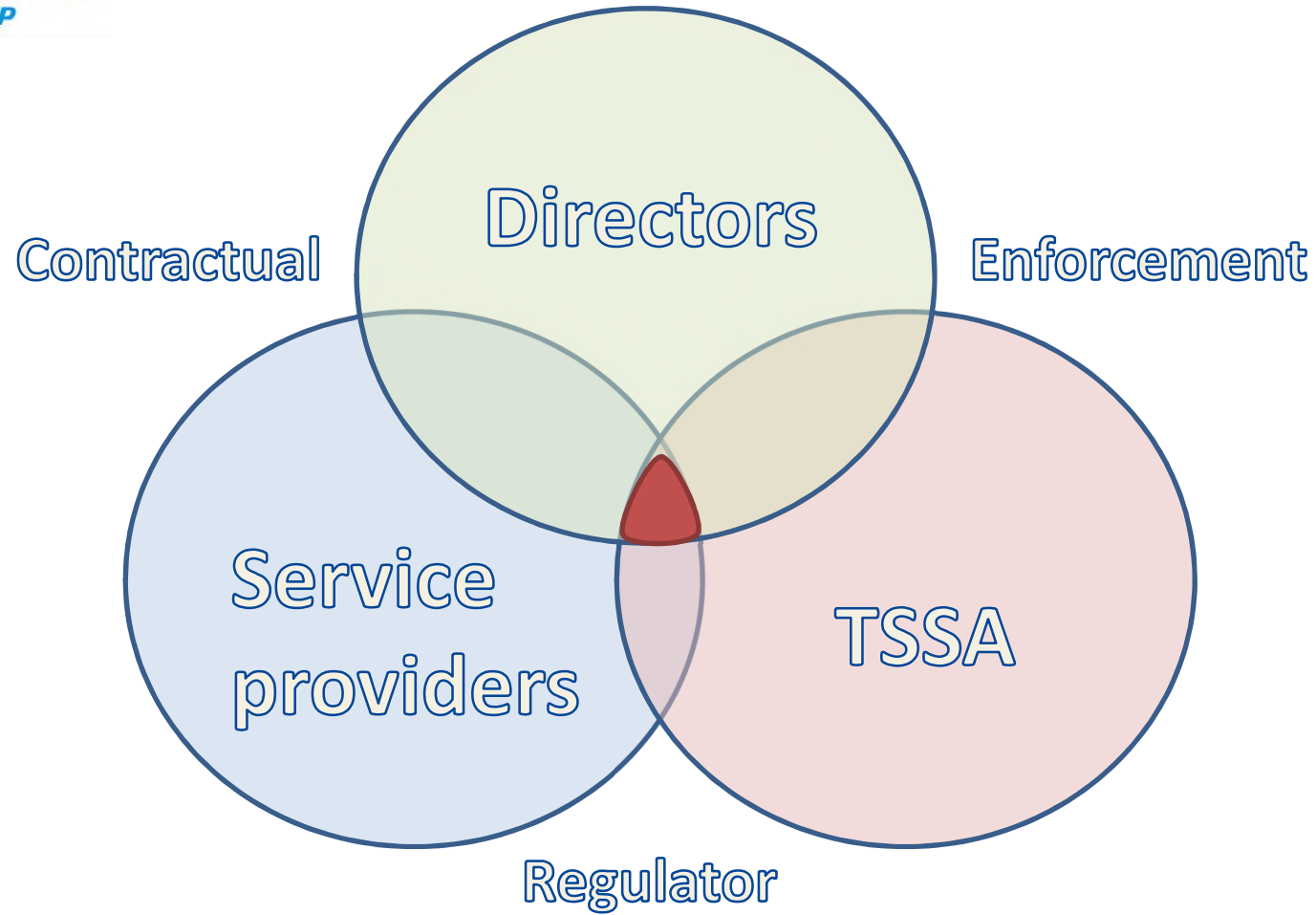
# Meeting Agenda

- **Elevator Technician: Job description**
- **Director's legal responsibility**
- **Elevator Issues – Rooney, Irving & Associates Ltd.**
- **Elevating Device Regulation & Owner Responsibility – TSSA**
- **Moving Forward**
- **Web Demo**



# Elevator safety/maintenance

## Cooperation or sharing of liability?

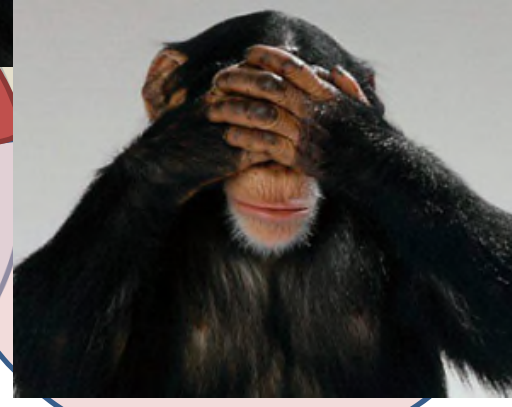




# Elevator safety/maintenance Cooperation or sharing of liability?

Contractual

Enforcement



Regulator



# Condo Directors' liability under TSSA

- Directors have a duty to take all reasonable care to prevent the corporation from committing an offence under the *TSSA* (s. 37)
- A Director who fails to do so is guilty of an offence and liable to a fine of no more than \$50,000 (or less than 2 years imprisonment);
- Limitation period : 2 years from the date of discovery of the offence



# Owner's responsibility

- **Obligations imposed on the owner of an elevating device (the corporation owns the device):**
  - Ensuring the device is licenced and complies with Act/Regs
  - Ensuring it is maintained by registered contractors
  - Ensure maintenance plan includes what is provided under regulation;
  - Ensure licence is posted in a conspicuous place
  - Maintaining the log book up-to-date



## Owner's responsibility (cont'd)

- Notifying the Director forthwith by phone in case of serious injury or death;
- Ensure access to device, to machinery, to keys, to list of persons to call in case of failure
- Ensuring that the phone # of the contractor currently maintaining the machine and the expiry date of the maintenance contract is easily accessible
- Ensure that the location of the various keys listed under the Regulation is posted inside the fire hose cabinet closest to entrance of the building



# Corporation's responsibility

## **Under the *Occupier's Liability Act*:**

The occupier (the corporation) must take such care as is reasonable in the circumstances to ensure that persons entering the premises are reasonably safe while on the premises



# Elevator Issues

A presentation for the  
Condo Directors Group  
March 2015



**Rooney, Irving & Associates Ltd.**  
Elevator and Escalator Consulting

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

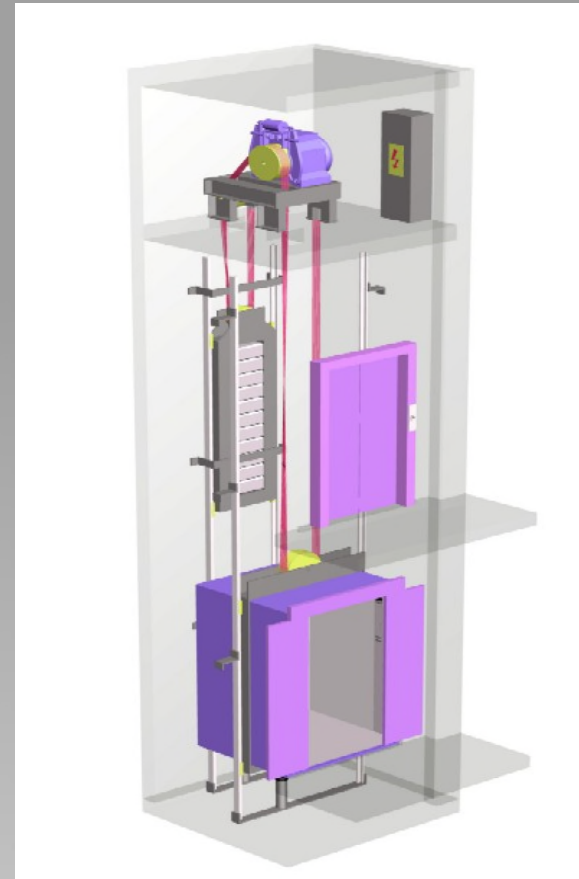
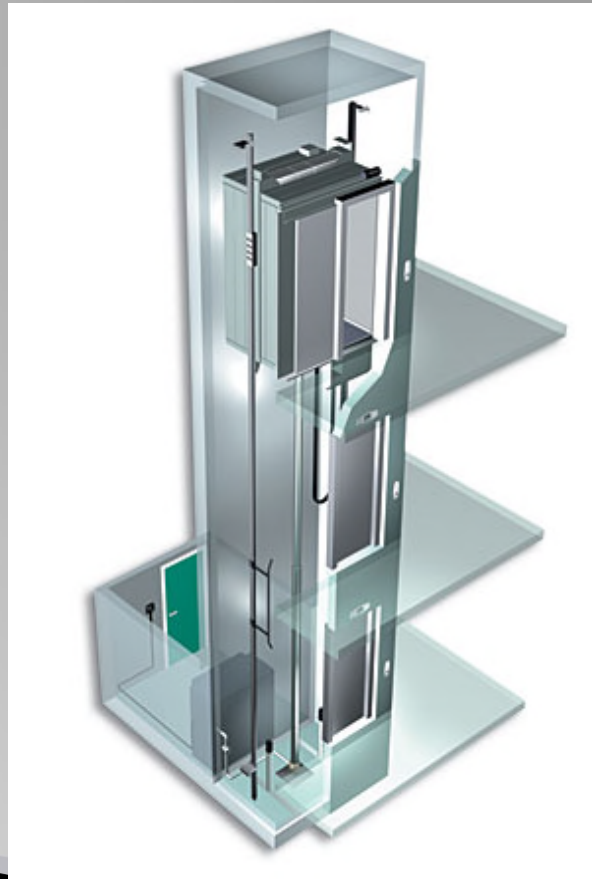
Tel: 613 726 2049

# New Equipment Elevator Types

## Two Main Sub- Categories

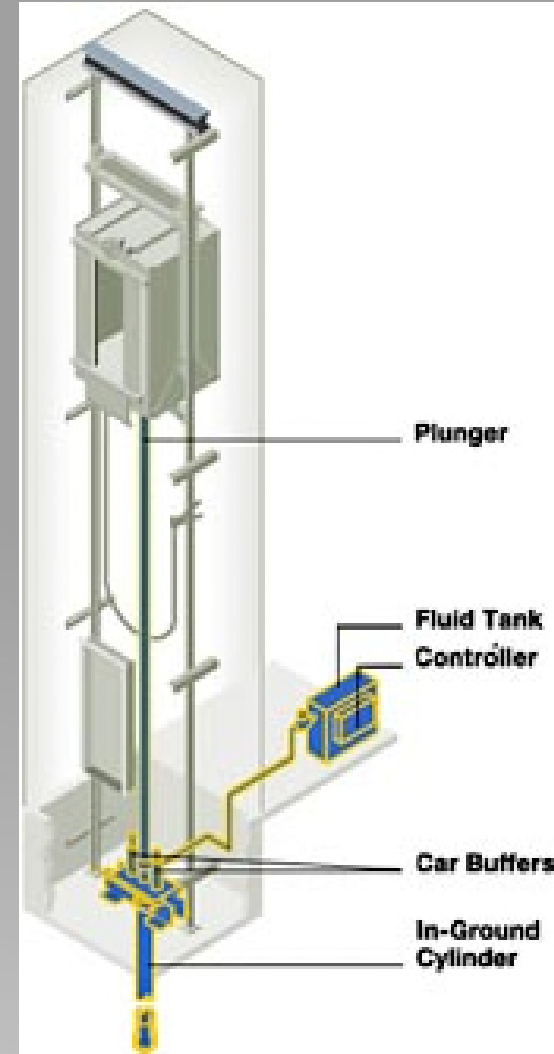
- ▶ Hydraulic

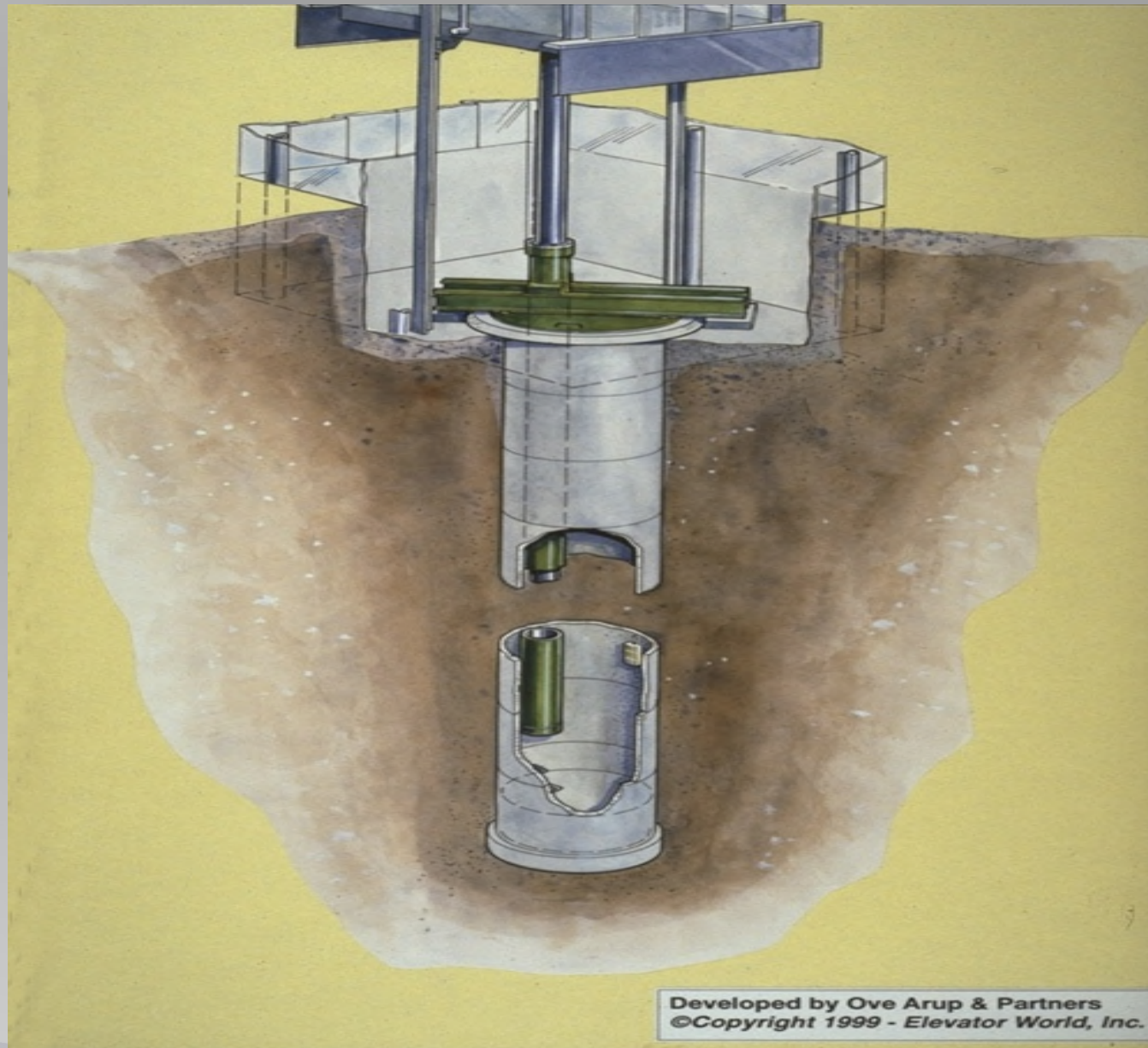
- ▶ Traction



# Hydraulic Elevators In ground

- ▶ Hydraulic cylinder is installed in the ground in previously drilled caisson
- ▶ Typically up to 60ft of travel.
- ▶ Inexpensive, easy installation
- ▶ Other systems – roped, telescopic and inverted.

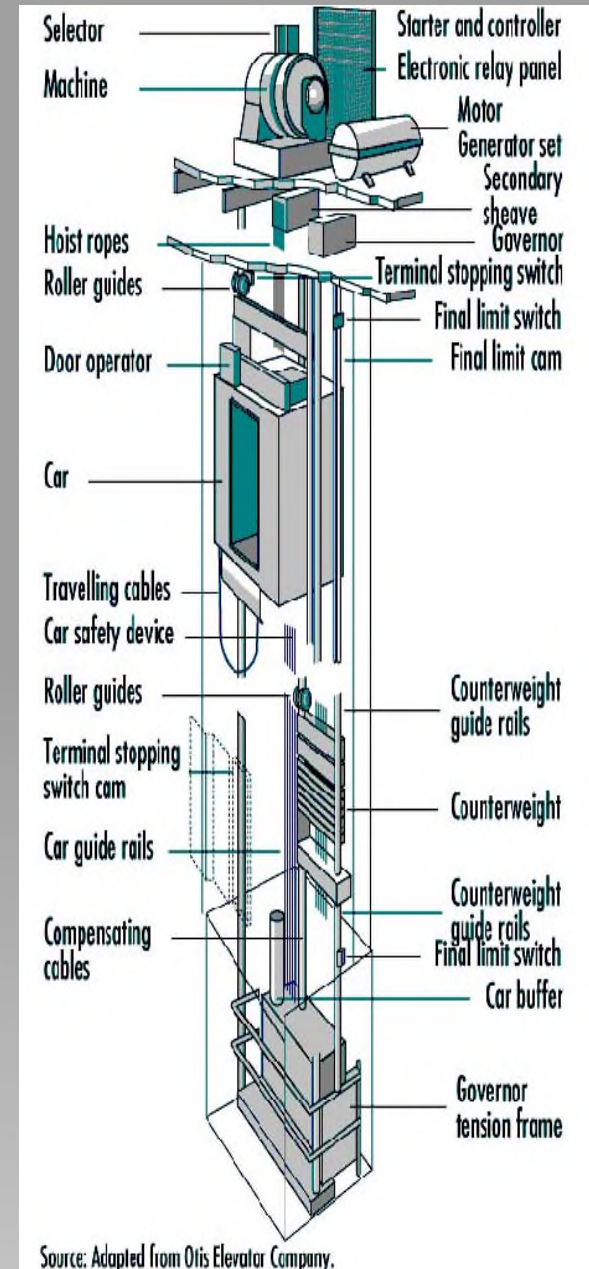


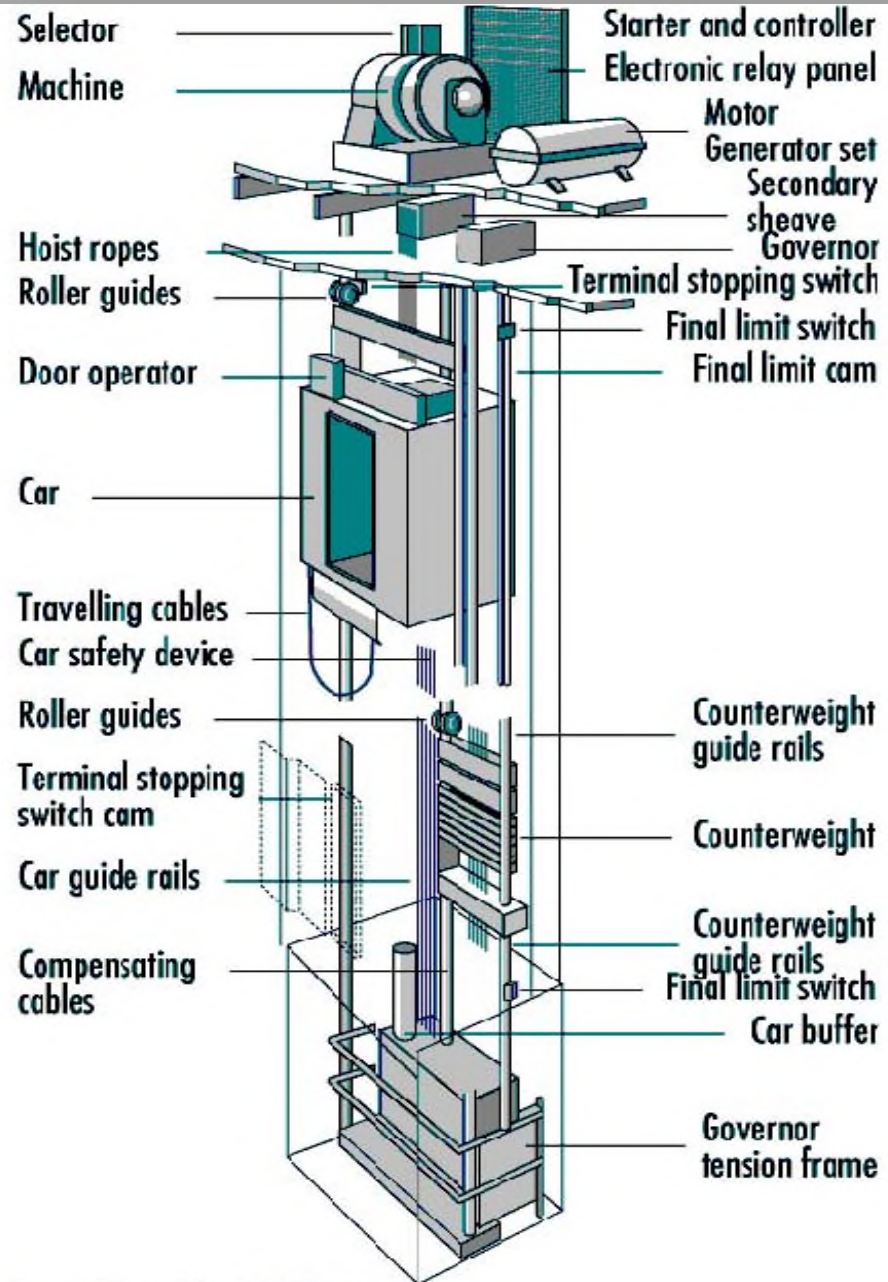


Developed by Ove Arup & Partners  
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# Traction Elevators

- ▶ Elevator is hoisted by traditional ropes
- ▶ Lift machine is located in a full size mechanical penthouse above the hoistway
- ▶ Traction





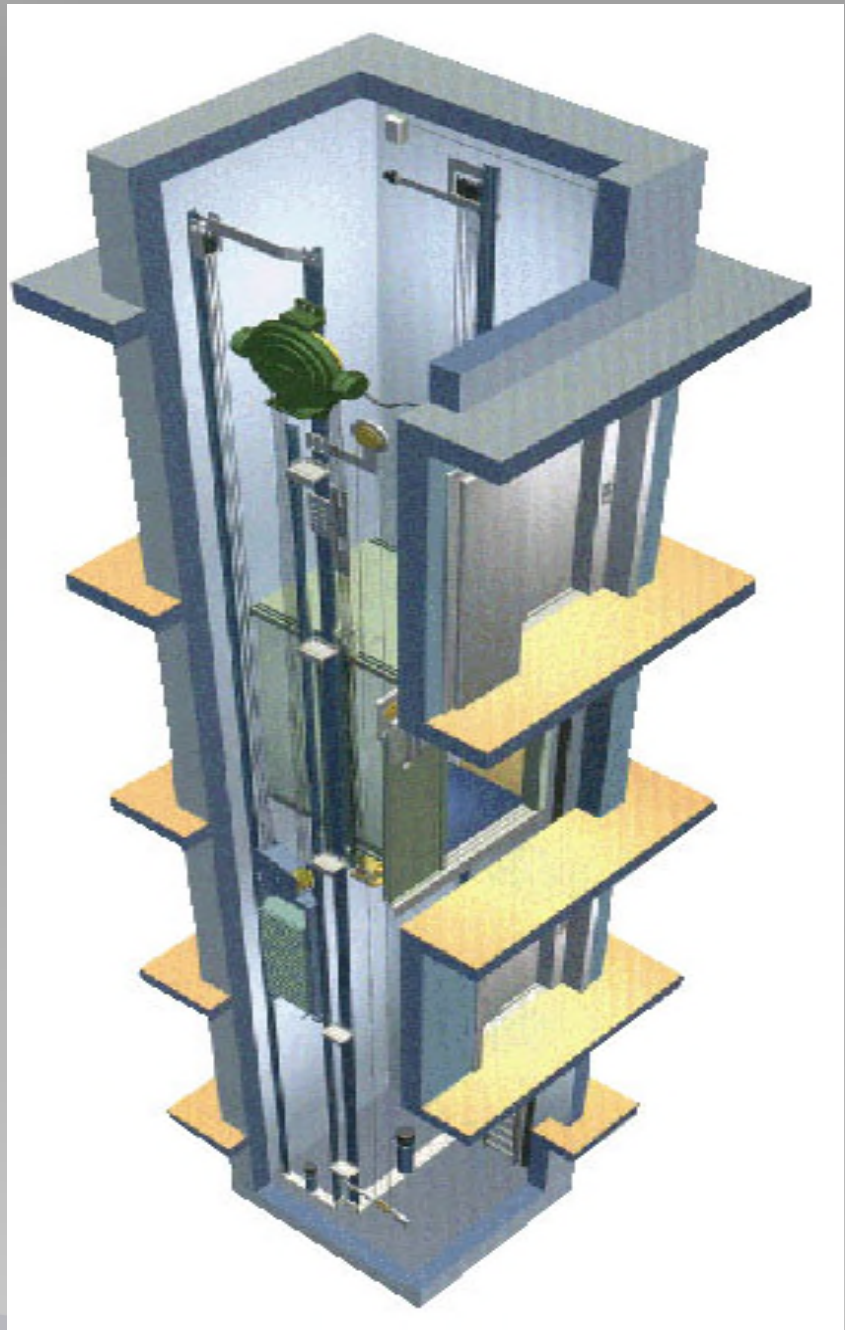
Source: Adapted from Otis Elevator Company.

# MRL

## ▶ KONE DISC

- Machine sits at side of hoistway for most applications
- Uses traditional ropes
- Car is under slung
- Controller can be placed in a “closet”







# Non – Traditional Traction

## ▶ MRL

Machine Room Less  
Elevator system

- Otis = GEN2
- KONE = ECO Series
- ThyssenKrupp= Synergy
- Schindler = 400 A
- MCE = 4000MRL



# Lifts B355 vs B44

- ▶ Used only for handicap accessibility purposes
- ▶ Very Slow Speed 7 fpm
- ▶ Constant pressure
- ▶ Capacity of 341 kg
- ▶ Very inexpensive



# LULA Lift – B44

## ▶ LULA Lifts

- Limited use, limited application
- Small lifts capacity around 634kg
- Shallow pits /Less Overhead
- Automatic Operation
- Slow operation speed usually around 30fpm
- Maximum rise of 25' (not Ontario)

**KONE**

SERIAL NUMBER

YEAR OF  
MANUFACTURE

DATE OF  
INSTALLATION

NUMBER  
OF ROPES

RAIL SPEED  FPM

RAIL  
CAPACITY  LBS

TOTAL WEIGHT OF  
CAR AND SAFETIES  LBS

BREAKING STRENGTH  
OF ONE ROPE  LBS

ROPE  
SIZE

ROPE  
CONSTRUCTION

RAIL LUBRICATION:  
ROLLER GUIDES: NO RAIL LUBRICANT IS TO BE USED.

SLIDE GUIDES: CONSULT MANUFACTURER OF THE SAFETY FOR THE  
CHARACTERISTICS OF THE RAIL LUBRICANT TO BE USED.

2923-007  
TNC

# Cab Weight Rules CAD 250/11

- ▶ ED 261-13 r 1
- ▶ Importance of complete paperwork for any cab modifications

# Cab Weight Rules CAD 250/11

- ▶ Four levels:

(1) Alteration leads to decrease of weight less than 5% of original car weight and capacity or increase less than 255 lbs – weigh car and post new data

(2) If increase less than 25 lbs don't need to weigh (!)

# Cab Weight Rules CAD 250/11

- ▶ Four levels:

- (3) Alteration leads to increase of weight by more than 255 lbs., but less than 5% of original car weight and capacity.

Re engineer:

- Machines, Car/CW frames, buffers, traction, overbalance, ropes, WP, safeties.
- Issue is original data.

# Cab Weight Rules CAD 250/11

- ▶ Four levels:

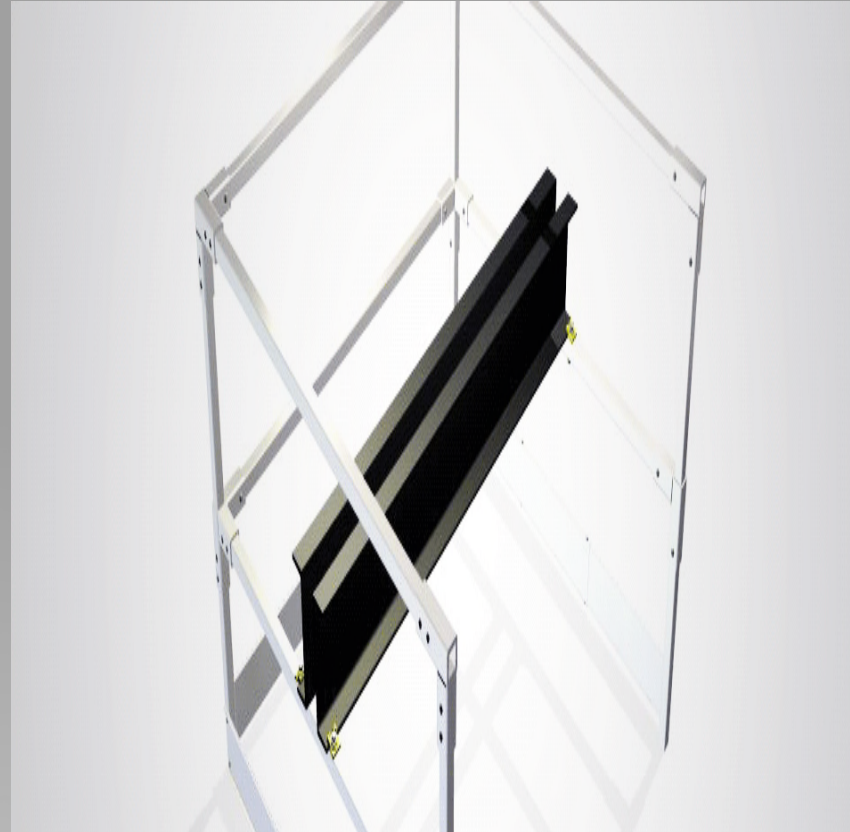
(4) Alteration leads to increase or decrease of weight by more than 5% of original car weight and capacity.

Re engineer:



# Car Top Railing

- ▶ TSSA has mandated OHSA compliant guardrails on the top of all elevators in Directors Ruling – 245/10.
- ▶ Effective May 1 2014
- ▶ 12” gap



# Cab Weight Rules CAD 250/11

- ▶ Four levels:

(4) Alteration leads to increase or decrease of weight by more than 5% of original car weight and capacity.

Re engineer:

– **JUST ABOUT EVERYTHING!**

# Roof Top Machine Room Access

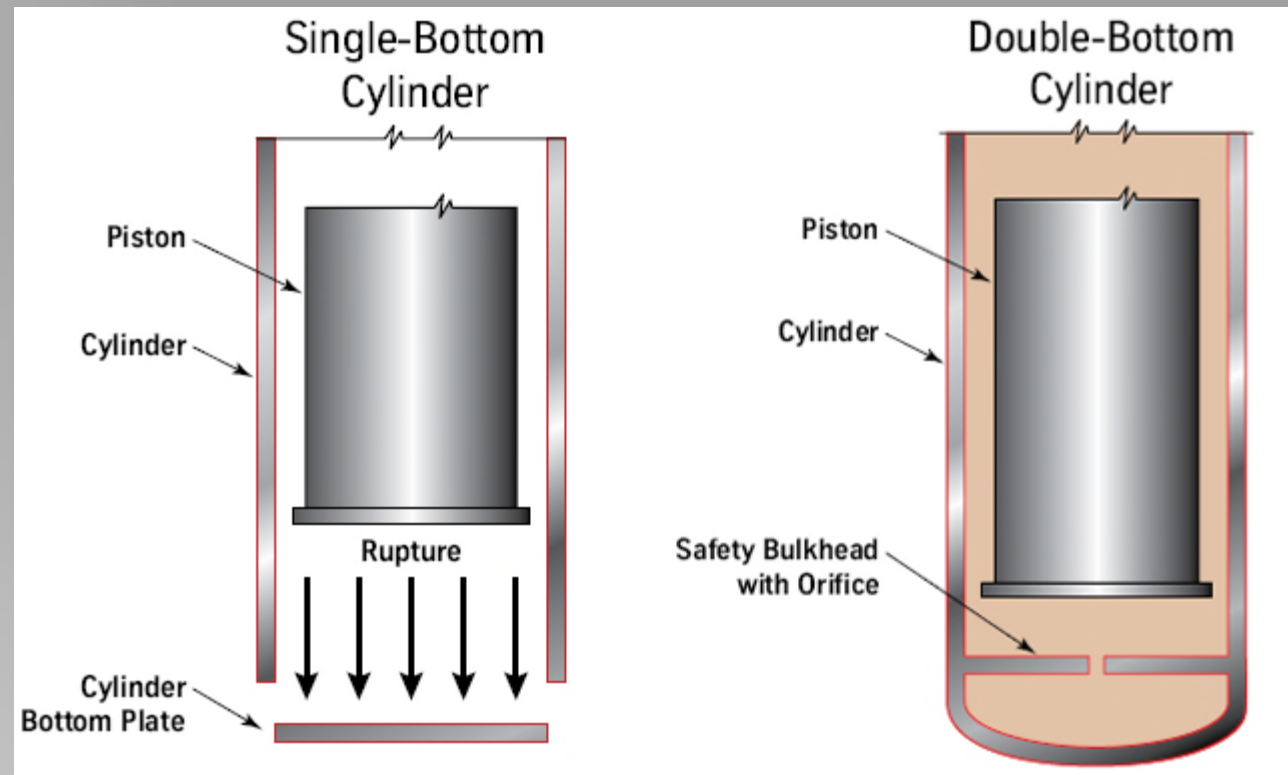


- ▶ Similar
- ▶ Retroactive
- ▶ TSSA enforcement can occur anytime

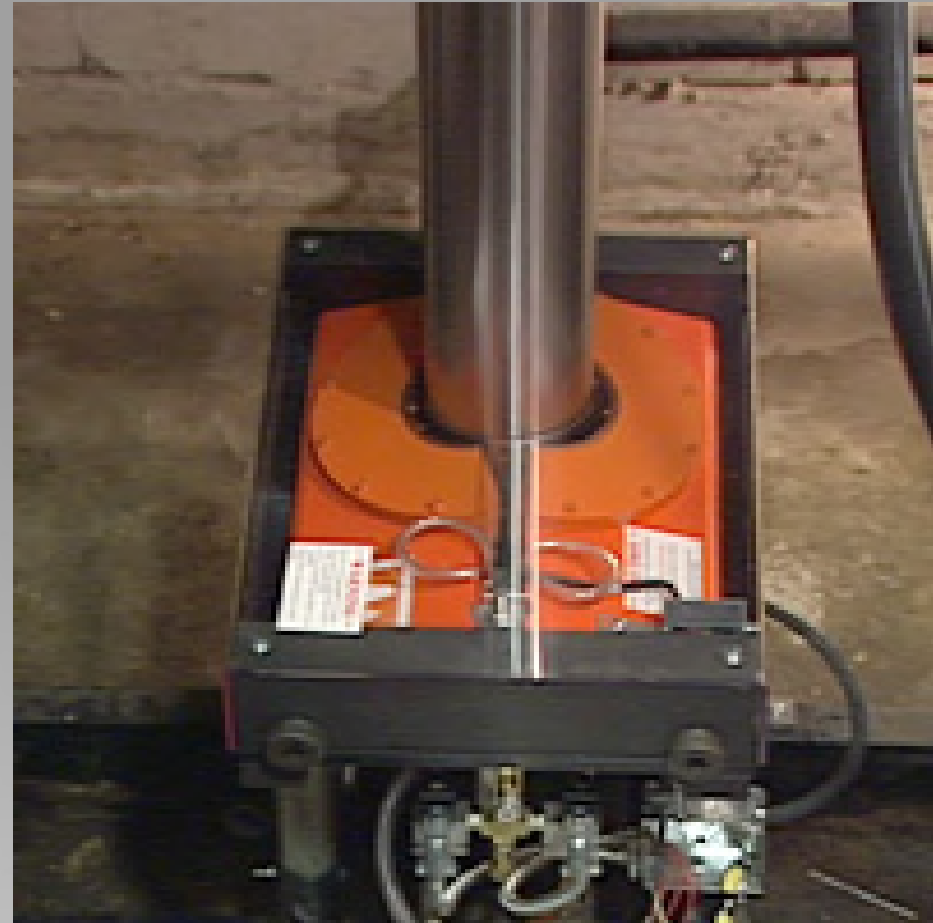


**Single Bulkhead Cylinders**  
**TSSA Info Bulletin 243/10**  
**Issued March 20, 2012**

# Cylinder cross section



# Life jacket



# Machine Room Guarding

## MOL / OSHA Requirements

O'reg 851, Sections 24, 25, 75 & 76



# Machine Guarding



# Firefighters Emergency Operation

“FEO” – DFFA (Dedicated Function Fire Alarm)

TSSA Code Adoption Document CAD 261 / 13r1

Issued September 15, 2013

- ▶ New Requirements
- ▶ Need for detectors at each floor
- ▶ Requirement precipitating need for complete new fire panel

# MCP Log Book



Canadian Elevator Contractors Association (CECA)  
Registered Maintenance Control Program Log  
Electric, Hydraulic, Dumbwaiter Devices

Maintenance Task	Device Type	Frequency Mandated	Frequency Recommended	J	F	M	A	M	J	J	A	S	O	N	D
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**Note: Mechanics are required to initial tasks once completed.**

**Device Type(s): Electric (E), Hydraulic (H), Dumbwaiter (D)**

CAR	Device Type	Frequency Mandated	Frequency Recommended	J	F	M	A	M	J	J	A	S	O	N	D
8.6.4.9: Cleaning of Top of Cars.	E, H, D		6 months												
8.6.4.13.1 (a): Hoistway door interlocks or mechanical locks.	E, H, D	6 months													
8.6.4.13.1 (b): Car door electric contacts or car door interlocks (where required).	E, H, D	6 months													
8.6.4.13.1 (c): Door reopening devices.	E, H	6 months													
8.6.4.13.1 (d): Vision panels and grilles (where required).	E, H, D	6 months													
8.6.4.13.1 (e): Hoistway door unlocking devices and escutcheons.	E, H, D	6 months													
8.6.4.13.1 (f): Hangers, tracks, door rollers, up-thrusts, and door safety retainers (where required).	E, H, D	6 months													
8.6.4.13.1 (g): Astragals and resilient members, door space guards, and sign guards (where required).	E, H, D	6 months													
8.6.4.13.1 (h): Sills and bottom guides, fastenings, condition and engagement.	E, H	6 months													
8.6.4.13.1 (i): Clutches, engaging vanes, retiring cams, and engaging rollers.	E, H, D	6 months													
8.6.4.13.1 (j): Interconnecting means.	E, H, D	6 months													
8.6.4.13.1 (k): Door closers (where required).	E, H, D	6 months													
8.6.4.13.1 (l): Door restrictors (where required).	E, H	6 months													



# COST IMPLICATIONS

- ▶ – 5 YEAR FULL LOAD, FULL SPEED
- ▶ – 1 YEAR – MINIMAL
- ▶ – SIGN WAIVER?

## MCP Log Book



Canadian Elevator Contractors Association (CECA)  
Registered Maintenance Control Program Log  
Electric, Hydraulic, Dumbwaiter Devices

Maintenance Task	Device Type	Frequency	Frequency Measurement	J	F	M	A	M	J	J	A	S	O	N	D
<b>Task: Mechanics are required to initial tasks once completed.</b>															
<b>Device Type(s): Electric (E), Hydraulic (H), Dumbwaiter (D)</b>															
<b>GAR</b>															
8.4.4.1: Cleaning of Top of Cars	E, H, D	6 months													
8.4.4.1.1 (a): Holiday use indicators or mechanical locks	E, H, D	6 months													
8.4.4.1.1 (b): Car door electric contacts or car door interlocks (where required)	E, H, D	6 months													
8.4.4.1.1 (c): Door opening devices	E, H, D	6 months													
8.4.4.1.1 (d): Vision panels and gates (where required)	E, H, D	6 months													
8.4.4.1.1 (e): Holiday door unlatching devices and assemblies	E, H, D	6 months													
8.4.4.1.1 (f): Springs, hooks, door rollers, lip-plates, and door safety systems (where required)	E, H, D	6 months													
8.4.4.1.1 (g): Stoppers and resilient members, door space guards, and eye guards (where required)	E, H, D	6 months													
8.4.4.1.1 (h): Sills and bottom-plates, rollers, condition and engagement	E, H, D	6 months													
8.4.4.1.1 (i): Guides, engaging arms, spring, cone, and engaging rollers	E, H, D	6 months													
8.4.4.1.1 (j): Counterweight means	E, H, D	6 months													
8.4.4.1.1 (k): Door rollers (where required)	E, H, D	6 months													
8.4.4.1.1 (l): Door resistors (where required)	E, H, D	6 months													

The MCP Log Book Template Model has been developed by the Canadian Elevator Contractors Association (CECA) and the MCP Task Group. The document is available at [www.icea-icec.org](http://www.icea-icec.org).



# Maintenance Contracts

## Contractor Paper vs Custom

- ▶ Evergreen
- ▶ Frequency
- ▶ Obsolescence
- ▶ Cancellation
- ▶ Performance of elevators
- ▶ Reliability and response time
- ▶ Overtime coverage
- ▶ Escalation
- ▶ Cancellation

# Custom Maintenance Contract

- ▶ Full Maintenance program
  - Covers all parts and labour
- ▶ 24 hour call back / 7 days a week
- ▶ Annual testing of smoke detectors in machine room, hoistway and pit
- ▶ Obsolescence
  - If a replacement part can be bought or made it is covered.
- ▶ Review Contractor's invoices relating to work that might not be covered under current contract.

# Property Manager's Responsibilities

- ▶ Elevator operating licences (TSSA)
  - Posting – in cab or machine room.
- ▶ Machine room doors – Self locking self closing
- ▶ Machine room keys available on site
- ▶ Clean sills
- ▶ Water in pit and rusty pit equipment.
- ▶ In-cab telephones.
- ▶ Verify switches
- ▶ Testing of smoke and heat detectors – FEO

# Consultant Elevator Reviews

Verify compliance with maintenance program

```
graph TD; A[Verify compliance with maintenance program] --> B[Identify contractor's maintenance deficiencies]; B --> C[Identify any Owner's maintenance and code deficiencies]; C --> D[Contractor's copy of deficiencies sent to Contractor]; D --> E[60 days given to Contractor to correct deficiencies];
```

Identify contractor's maintenance deficiencies

Identify any Owner's maintenance and code deficiencies

Contractor's copy of deficiencies sent to Contractor

60 days given to Contractor to correct deficiencies



Thank You



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# TSSA Elevating Device Regulation & Owner Responsibility

Presented by Dean McLellan & Ted Gervais



Website Demo



# Wrap-up

- Next meeting: ????????
- Thanks for attending!