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LIFTS & ESCALATORS

What's behind closed doors and under the covers?

ARGEST Building & Compliance | Fire
Whakanoa ngā whare | Te Ahi

argus FIRE
PROTECTION

ORBITZ
ELEVATORS
MOVING PEOPLE WITH PROFESSIONALISM

ASSETCARE

BC GROUP

CIRRUS
INTERNATIONAL

Infrastructure Analysis Ltd

ABC ASSOCIATION OF
BUILDING
COMPLIANCE

Presentation Outline

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Building knowledge for success
Setting the standard for the future

- A brief bio of who I am
- An overview of the applicable Codes/Standards for lifts & escalators in NZ
- How confident can we feel that lift & escalator equipment is being maintained sufficiently or correctly
- Examples of identified deficiencies – on older and newly installed equipment
- Presentation outtakes
- *Questions during the following Speakers Q&A Session*

Who am I ?

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Lyall Senior

- **1982 – 2003**
 - 21 years working for a lift company, undertaking installation/ commissioning/ servicing/ callout 24-7/ repairs/ field engineer support of various brands of lift and escalator equipment
- **2003** – Lift Solutions Ltd – Providing independent consultancy services exclusively to owners and property managers
- **2006** – Infrastructure Analysis Ltd was created focusing on IQP and energy assessment related works
- **2020** – Joined ABC Mgt Team

Applicable Standards

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- **In NZ**
 - Boilers, Lifts and Cranes Act 1950
 - Power Lift Rules 1955
 - NZS 4332P: 1994
 - NZS 4332: 1997 being an acceptable solution under NZBC D2/AS1
- **NZBC also allows alternative solutions with qualifications, E.g.**
 - EN81-1:1998/EN81-2:1988/EN115:1983
 - EN81-20:2014/EN81-50:2014/EN115-1:2010
 - CodeMark accreditation

Confidence levels in installed and maintained lifts & escalators ...

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- Building consents should ensure that proposed equipment is installed correctly – right?
 - Unfortunately, this is not always the case, even if the consent process has been followed for new or modernised equipment
 - What if ‘like-for-like changes or repairs’ are undertaken that are not consented or checked/certified upon completion?
 - What is the risk and who is responsible – the supplier doing the work or the Owner?

Confidence levels in installed and maintained lifts & escalators ... continued

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Block	Lift	IAL 2022 IQP Identified Defect	Status advised by SupplierX	Date to be completed SupplierX	SupplierX Comments	IAL re-inspection status as at 24/25 Jan23	Applicable Code reference
BlockA	Lift 1	Fit hazard sign on control access panel door	Complete	12.12.2022	XX is getting required data and we'll to get plates made.	Confirmed complete	EN81-20 clause 5.10.1.2.1
BlockA	Lift 1	Fit rope data plate adjacent to the rope termination point	WIP	31.03.2023		Not yet complete	EN81-20 clause 6.2, Table 18 subclause 5.1.2
BlockA	Lift 1	Cover the gap between the COP and lower skirting – can see into the shaft	Complete	12.12.2022	XX is getting required data and we'll to get plates made.	Confirmed complete	EN81-20 clause 5.4.3.1
BlockA	Lift 2	Fit hazard sign on control access panel door	Complete	12.12.2022		Confirmed complete	EN81-20 clause 5.10.1.2.1
BlockA	Lift 2	Fit rope data plate adjacent to the rope termination point	WIP	31.03.2023		Not yet complete	EN81-20 clause 6.2, Table 18 subclause 5.1.2
BlockB	Lift 3	Rumbling noise coming from the shaft when in motion – possibly bearings	WIP	31.03.2023		Not yet complete	EN81-20 Assumptions clause 0.4.4
BlockB	Lift 3	Install lift returning to Gnd floor signage on the COP – non visible	WIP	31.03.2023		Not yet complete, and security did not release when on Fire Recall Service	NZBC D2/AS1 Amendment 7 clause 1.6 refer c25.6
BlockB	Lift 4	Install lift returning to Gnd floor signage on the COP – non visible	WIP	31.03.2023		Not yet complete, and security did not release when on Fire Recall Service	NZBC D2/AS1 Amendment 7 clause 1.6 refer c25.6
BlockB	Lift 4	Replace the missing door gib/shoe on level 2 front door	Complete	7.12.2022		Not yet complete	EN81-20 clause 5.7.2.1.2
BlockB	Lift 4	Adjust the rope keepers on the counterweight	Complete	7.12.2022		Confirmed complete	EN81-20 clause 5.5.8
BlockB	lift 5	Replace the counterweight screen	WIP	31.03.2023	Not yet complete	EN81-20 clause 5.2.5.5.1	
BlockB	lift 5	Install lift returning to Gnd floor signage on the COP – non visible	WIP	31.03.2023	Not yet complete. No voice message when activated and security did not release when on Fire Recall Service	NZBC D2/AS1 Amendment 7 clause 1.6 refer c25.6	
BlockB	lift 6	Replace the counterweight screen	WIP	31.03.2023	Not yet complete	EN81-20 clause 5.2.5.5.1	
BlockB	lift 6	Install lift returning to Gnd floor signage on the COP – non visible	WIP	31.03.2023	Not yet complete. There is voice message when activated and phase two functionality does not work when on Fire Recall Service	NZBC D2/AS1 Amendment 7 clause 1.6 refer c25.6	

Confidence levels in installed and maintained lifts & escalators ... continued

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Building Act 2004

103 Content of compliance schedule

- (1) A compliance schedule must—
 - (a) state and describe each of the specified systems covered by the compliance schedule, including a statement of the type and (if known) make of each specified system; and
 - (b) state the performance standards for the specified systems; and
 - (c) describe the inspection, maintenance, and reporting procedures to be followed by independently qualified persons or other persons in respect of the specified systems to ensure that those systems are capable of, and are, performing to the performance standards.
- (2) For the purposes of subsection (1)(c), the inspection, maintenance, and reporting procedures of the compliance schedule may be identified—
 - (a) by description in the compliance schedule; or
 - (b) by reference to—
 - (i) a prescribed acceptable solution or prescribed verification method in a regulation referred to in [section 20](#); or
 - (ii) an acceptable solution or a verification method issued under [section 22](#); or
 - (iii) a building product or building method.

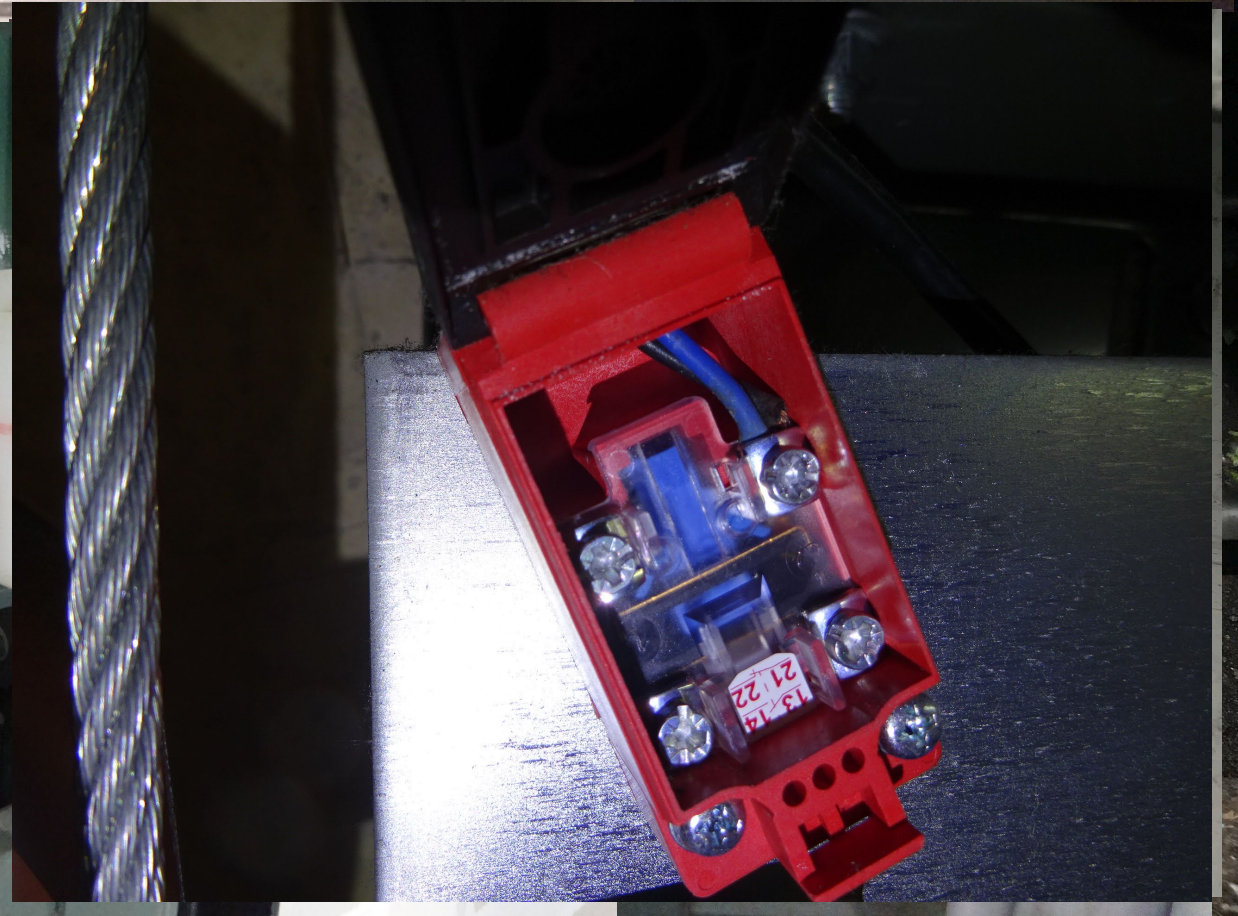
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And now the examples of identified deficiencies

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Variations in Braille used for the Gnd level

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- Some of the differing Braille designations being used by lift suppliers – and so far we have found 6 representing the G or Ground floor/level
 - Which one is correct?



Confidence levels in installed and maintained lifts & escalators ...

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- So how confident are we now that lifts & escalators have been / are being installed and maintained to the approved Standard they were certified to, AND being annually inspected and certified that they:
 - *Have been fully complied with during the 12 months prior to the BWOF renewal date ?*
- There should be some doubt ...

Presentation Outtakes

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- Lift suppliers need to ensure they know what Standards the equipment they are supposed to be maintaining it to, and make sure it is and remains operationally compliant all of the time – to the Codes it was installed to
- IQP's also need to know the Standards equipment has been installed to and make sure it is operationally compliant to the Codes it was installed to
 - Knowing its OK to withhold a Form 12A if there are deficiencies until it has been resolved

Questions shortly – Thank You

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