

Traction Passenger Lifts
Test Documentation Check List for New Installations:
(Complying with the Building Act D2/AS1 Acceptable Solution)

Consent No:

Building Detail:

Equipment:

Item :	Ckd	Dwg No.	Type	Provider
PS1 Mfg Design Stmt, Certs, or PS2.			Stmt	
Lift Particular Sheet			List	
Layout.			Dwg	
Engineers Certificate for Shaft.			Stmt	
Annual WOF Check List		SS8/1	Gen	
Maintenance Schedule & Freq.			List	
As Built Drawings.			Man	
Electrical Control Schematics.			Dwg	
Belt or Rope Certificate.			Cert	
Copy Elect Certificate. Comp.			Cert	
Site Welding Certificate.			Cert	
PS3 Installers Prod Stmt Constr.			Stmt	
PS4 Test Check List - PStatement.			Stmt	

The documents have been sighted and copies recorded where necessary in compliance with the TA's requirements under the Building Act.

CBIP Level 2 Lift Inspector

Robert D. Johnston. CBIP level 2 - 2325:2005 full name & no.

Checked as Complete: Date / /
signature

	Equipment to Check	Codes	Results and Comments	Chkd	Fix
1	Pit Access	5.7.3.2 D1	Inspection door - min 1.965h Dead latch - open out - interlock Ladder access within 900 of jamb - side. within 750 of jamb - front		
2	Level & Impervious to Water sump in sub-floor	5.7.3.1	Covered sump required. Sump to open drain or pump. min.50.-non-return valve.		
3	Car on Compressed Buffer.	5.7.1	Clear space to exist 0.45x 0.6x 1.37m. or 5.0mx 0.6mx 1.29m. Mech. clearance 50mm If < 1.4m x 0.5m, define area clearly.		
4	Light & Power SNZ4332	11.6- 11.10	Light switch at entrance.		
5	Buffers. Cellular - 370 clearance.	10.4 10.4.1.2.1 15.8 Annex L 10.4.3.5	Car buffer clearance - Spring. >300 <600 - Oil >230 <600 Cellular Buffers <1.0m/sec - with buffered return. <1.6m/sec Label to show stroke & load rating. Spring Stroke >65mm Oil buf.stroke. Buffer return within 90sec. Fluid level easily checked.		
6.	Counterweight Buffer Clearance. (R = 6.5 x rope length x rope ratio)	SNZ4332	Actual - 80 mm		
7	Limit Switches.	10.5.2.1 10.5.1	Direct mechanical operation. Metal cams. Independent to other stopping means. Remain operated until O/T.		
8	Bottom Final Limit Switch. (OT)	NZS4332	Spring Buffers - Max 225mm from f/l. Oil - Max 50% stroke +225-Max.900mm To be pinned. Not Adjustable		
9.	Counterweight Screen	11.3	2.0m above pit floor. highest comp bufr. Car clearance to cwt. min 50		
10.	Governor Idler Sheave.		Nip points. Rope retainer guards 1 per 30E of wrap.		
11	Pit switch.	5.7.3.4	Accessible from entry. Conspicuous, marked "Emergency Stop"		red
12.	Elevated Equipment Access		>2.5m or oil check >2.0m.		

Installation Test Check List:

152 Oxford Terrace, Christchurch

	Equipment to Check	Codes	Results and Comments	Chkd	Fix
1.	Examine documents.	1.5 24.25	Log Book, Maintenance frequency. IQPtests - CS8/1 or other. Circuit diagrams in M/R.		
2.	Verify document to component.	15.10	Design Approval or documents.		
3.	Verify installed to design approval.		Complete this installation check list.		
4.	Security of landing doors.	7.2.2 7.2.3.1 8.7.1	Fire rated if necessary under local rules. 300 N applied over 5cm ⁵ . No deform. Max. recesses or projections 3mm. Chamfered in opening direction. Glass doors opaque upto 1m.		
5.	Electrical safety devices. 14.1.2.1 <i>Positive opening of contacts.</i> <i>Rated insulation 250v to IP4X</i>	10.5.3.1b 7.7.4.1 8.9.2 8.12.4.2 8.15 10.6.3 9.8.8 5.7.3.4a 10.4.3.4 9.9.11.3 10.5.3.1b 9.9.11.2	Top OT. Up Direction Limit Locks. Car Gate. Trap door. Roof emergency stop. Slack belt. Safety gear switch. Pit emergency stop. Buffer extension switch. Governor tension sheave. Down direction limit. Bottom OT. Governor electrical trip.		
6.	Rope suspensions.	9.2.3 9.4 9.2.3.1 NZS4332 9.5.4	Min. 2 ropes - 8mm. 4 x Drum. Grooved-min one lay-1.5 turns. Eyebolts to BS 4278 Sockets to AS 173.2 and BS 463 Bull dog grips. Spacing, right application Babbit - Rose proud. Double nuts and cotter pins.		
7.	Motor full load current.		Amps Difficult to test		
8.	Earthing.	14.1.1.3	lock fuse.		
9.	Overspeed governor test.	9.9.11.1	Check trip speeds. No Label - Cert. < 115% rated speed.		
10.	Car Safety Gear. 9.8	9.8.8 9.8.1 9.8.7	Check safety gear switches. Test-rated load - rated speed # 0.63m/s. Test-trip speed & rated load > 0.63m/s slide check. < 5% out of true.		
11.	Buffer test.	10.3	Check oil level. Full load. full speed.		
12.	Motor and phase loss protection.	14.1.1.1j	Auto Phase Reversal Compensation/loss		
13.	Suicide Field check.	12.7.2	MG only.		

14.	Dynamic Braking.	13.3 12.7.2	Geared Gearless	0.25m/sec 1/7th contract speed		
15.	Static Drive.	12.7.3	Min 2 disconnects - both out to start. Test rated load down direction.			
16.	Regenerative Energy.	12.7.2	Max 120% rated speed-overhauling load.			
17.	Brake Test	12.4.2.1 NZS4332	Test at 125% rated load Split pins in spring adjustments.			
18.	Fire Return Heat Detection Operation: > 2 level operation.	NZS4332 25.7	Where sprinklers fitted or >2 levels. All lifts to main floor doors open. "Lift Return" indicator to illuminate. Manual reset by serviceman.			
19.	Earthquake Operation > 15 m travel.	NZS4332 25.8	If in motion stop nearest flr doors open. All lifts to respond. Manual reset by serviceman.			
20.	Fire Recall Operation. > 15 m travel.	NZS4332 25.6	Required where travel exceeds 15m. All car to main floor. Park doors open. "Return to Ground"Indicator illuminated. Key initiated 1.65-1.7m above main flr. Key to be removable. Switch designated "Emerg Fire ecall Sw" Upon return only car call control. Only constant pressure Close Door start. Only constant pressure Open Door. Cancel all calls at first travel stop.			
21.	Balanced Car	50%				
22.	Pit Moisture Sensor or open drain		To return lift to one above lowest floor and shut down. Requires system reset.			
23.	Other Feature					

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1.	Car Gate Switch.	7.7.4.1			
2.	Emergency Stop Switch.	14.2.2.1	Inhibit car & door operation. visible from landing Roll closed only no lock.		
3	Lighting	NZS4332 22.20.1.2	min. 84 lux. or 2 lamps. switch visible from landing.		
4	Power Outlet	8.15	To have local fixture		
5	Roof Top control.	14.2.1.3b 14.2.1.3d	min. 2 button travel. Protected. max speed 0.63m/sec. min. O/H clearance 1.8m.		
6	Safety Gear Switch	9.8.8	Resets with safety gear only.		
7	Trap Door Switch.If fitted.	8.12.2 8.12.4.1.1	min 350. max. 500. not to foul. fail safe.		
8	Slack Belt Switch.	10.6.3			
9.	Broken Rope Switch	9.5.3	If safety not operated through rope break		
10.	Top Over Travel limit.	10.5.3.1 10.5.1 10.6.4	Direct mechanical break. Metal cams.To remain open comp buffer. Motor run time limiter.		
11.	Direction Limit:		Independent to other stopping means. Remain operated until O/T.		
12.	Governor Pull Through.	9.9.6.6	min. 100% weight of safety gear. Vee only		Test
13.	Mechanical Clearance. (on compressed cwt buffer)	5.7.1c	min. clearance = 0.3m x 0.035v5		
14.	Man Clearance (on compressed cwt buffer)	5.7.1.1	min clearance = 1.0 x 0.035v5 mm Man space = 0.5m x 0.6m x 0.8m		
15.	Protection of Emerg. Light Source.		To be secure under all conditions.		
16.	Top of counterweight clearance. (Car on buffer)	5.7.1.2	Min. clr = 1.0 x 0.035v5		
17.	Counterweight.	8.18.1	Min.2 tie rods & split-pins. <1.0m/sec or secured weights.		

1.	Car Clearances.	11.2.1 11.3 11.2.2 11.2.3	Car - Shaft. max. 150mm - min.40mm Car - Cwt. min.50mm Car Cill to Landing Cill. max.35mm Car door to Landing door. max.120mm		
2.	Ropes	9.2.1 9.2.2 9.5.1 & 2 9.3.1	min pulley 40 x rope dia. 30 for comps. Rope safety factor. <2ropes = 16. >3 =12 Tension equaliser at one end. Data plate. Cert Not possible to raise car-CWT on buffer.		
3.	Landing Door Security.	7.2.3.1 7.4.2 5.4.3 7.1.1	Fire Retainers. Door gibbs and tracks secure. Enclosed cwts for door closer. Flushing below sill - level dist.+75mm - chamfer 15-30E to vert. - 25mm wider each side of entrance. max. clearances 6 mm jamb to door. max. 60mm door to sill. 140 btwn doors		
4.	Door Locks	7.7.3 7.7.3.2 7.7.6.1	Trulock Emergency Unlocking. Mech. link multi-panel doors.		
5.	Inspection trap & doors.	5.2.2	Door - min.1.4m x 0.6m. Trap - max 0.5m x 0.5m		
6.	Shaft Construction.	5.2	To take all loads plus earthquake. Enclosed 2.5m above accessible floor. Glass min 11.5mm anti-bandit.		
7.	Recesses & Ledges.	5.4	max 150mm - 200mm or top 75E bevel.		
8.	Shaft partitions.	5.6	Where under car < 2.5m above pit flr		
9.	Exclusive use of well.	5.8	only for lift equipment.		
10.	Guide Shoes.	NZS4332	max. play 10mm retainer plates engage 54mm. guards on top guides.		
13.	Guide Rails.	10.1.1 10.1.2	Secure fixings. min 600 above jump. Allowance for building shrinkage.		
14.	Guide Brackets & Fixings.	NZS4332	min. 10mm gussets. Slots 6mm washer. bolt holes max bolt + 1.5mm		
15.	Emergency Speed Limit.	12.8	Where reduced stroke buffers used.		

	Equipment to Check	Codes	Results and Comments	Chkd	Fix
1.	Door Clearances.	8.6.3	6.0 mm max. gap / 20mm max. overlap.		
2.	Levelling Zone. 7.7.2.2	NZS4332 11.2.2	150mm max. w/o levelling. 300mm with levelling. 500mm with auto doors and levelling. max. sill clearance 35mm.		
3.	Close force limits.	7.5.2.1.1.2 7.5.2.1.1.1	max kinetic energy 10 j @ 0.3m/sec. to stop from rest 150 newtons.		
4.	Entry Passenger Protection.	7.5.2.1.1.3	delayed close 3.4j. with audible warning		
5.	Lighting.	NZS4332	50 lux min at sill. Incandescent - 2 lamps. Lift / house supply same phase. Key operated. 100mm clear of trapdoor.		
6.	Emergency lighting	NZS4332	To operate within 15sec of power failure. Connect to lift supply. 2hrs continuous. min 2 lamps. 10 lux floor, at phone & alarm.		
7.	Disabled Access.	NZS4332	Levelling " 20mm Car size 1.4m x 1.4m. Min 0.9m entry.		
8.	Disabled controls.	NZS4332	Within 0.9m - 1.5m. Min dia 20mm. 15mm tactile designations. Raised Surround on main floor.		
9.	Disabled indication.	NZS4332	Arrival gong 2-down / 1 up. Audio or 20mm tactile on door. Position indication.		
10.	Ventilation.	8.16	Top - 1% car area + Btm - 1% car area. 50% may be door gaps. Max 10mm rod.		
11.	Rated Load.	8.2	load = 35.05 x fl m5 + 325.66 x area.		
12.	Notice	15.2.1-2.2	Min. 10mm high lettering - load /persons.		
13.	Alarm	14.2.3 NZS4332	150mm dia/ electronic label "Lift Alarm" If not 24hr - external alarm required.		
14.	Telephone.	NZS4332	24hr Vandal resistant single button.		
15.	Handrails.	NZS4332	All sides except door.		

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1.	Access.	15.4.1 6.3.6 D1 - 6.2.1 6.4.3.3 6.1.2.2	Danger notice. min. 200lux at f/l. Twin fluorescents. Safe access to comply with D1 & F4. Key lockable door. No lock inside. Only lift equipment in machine room.		
2.	Construction.	6.3.1.2 6.3.1.1 6.3.5 6.4.4	Weather protection. Non-slip floor. Designed to withstand loads. >5kpa. Spot loading 6.7kN on any 300mm5 Suitable ventillation. 5 - 40EC. Coamings on floor penetrations.		
3.	Clearances.	6.3.2.1a 6.3.2.1b 6.3.2.1c NZS4332 6.3.2.2 6.3.2.3 6.3.2.4-5	Controllers.- Min 0.7m in front 380 side. Machinery. - Min 0.6m to wall. 2 sides. Clear access ways - min. 0.50m to. - min 0.40m around. Equipment clearance: - Floor selector: - 1.0m front 280 sides - MG's - 450 comm + 1 side. - OT switch - 180 front - J/Box - 450 front - Pawl Gov. - 380 access 180other - Flyball - 480 access 380 grip Clear height 1.8m under beams. Clear above sheave - 0.3m Steps where floor differs 0.5m.		
4.	Main Supply.	NZS4332	Accessible from the entrance to M/R. Labelled accordingly.		
5.	Light & Power.	NZS4332	200 lux at floor level. At least one plug. Adj to main sw. own protection. Flourescents - min. twin tubes.		
6.	Hydraulic tank fluid levels.		Shall be easy to check. Labelled.min/max		
7.	Earthquake security of equipment.	NZS4332	MG's. floor controllers, machines, beams.		
8.	Circuit Diagrams.	CS8-1	To be encapsulated.		
9.	Log Book	CS8-1	To record all maintenance, repairs, tests.		
10.	Trunking & Conduit	NZS3000	Not in access ways. In floor <3mm flush.		
11.	Hatches.	6.3.3.2 6.3.3.2 6.3.3.2	Clear access to top floor Trap doors - min.5kPa. Flush with floor. Guard rails if falling possible.		