

**BUILDING CONTROL (FIXED INSTALLATIONS) REGULATIONS 2025
REGULATION 21(4)(b)**

**INSPECTION REPORT ON THE EXAMINING, INSPECTING, TESTING AND COMMISSIONING
OF HYDRAULIC LIFT(SS550)**

Commissioner of Building Control
Building and Construction Authority
52 Jurong Gateway Road
Website: <http://www.bca.gov.sg/>

INSTRUCTIONS:

- (1) *Delete Accordingly.
- (2) If "NA" is selected for any item, to indicate in the remarks for the particular section the reason(s) for selecting "NA".
- (3) For all non-satisfactory ("NS") items, supervisor Qualified Persons ("QPs") to ensure rectification and verify that the rectification is satisfactory before indicating the status as satisfactory ("S").
- (4) This checklist is not exhaustive. QP must ensure full compliance with the relevant and standard applicable to the Lift (as defined below).
- (5) This checklist is for the Lift only. Use another checklist for another lift.

COVER PAGE

Test Date(s): _____ Test Start Time(s): _____

Building Details

Address: Blk/Hse No. _____ Street Name _____

Development Type: Residential (HDB) / Residential (Non-landed) / Residential (Landed)
Industrial / Commercial / Institutional (e.g. schools, hospitals) / Mixed: _____

Lift Details

- 1 Lift Number ("Lift"): _____
- 2 Type of Lift: Passenger Lift / Goods Lift / Service Lift / Car Lift
- 3 Applicable Code/Year: _____
- 4 Lift Manufacturer: _____
- 5 Lift Model: _____
- 6 Lift Brand: _____
- 7 Controller Model: _____
- 8 Number of Door Opening(s): _____
- 9 Number of floors served: _____
- 10 Travel Height: _____ m
- 11 Rated Speed: _____ m/s
- 12 Rated Load: _____ kg
- 13 Maximum No. of Passengers: _____
- 14 Mode of operations: *Simplex / Duplex / Triplex / Group Control: _____ (Group Size)
- 15 Fire safety provision: *Fire Lift / Evacuation Lift / Not Provided

S/N	Clause	Description	Status	Remarks/ Follow-Ups
Lift Car				
C.1	5.4.2	Verification of Car Platform Area Car Size Width: _____ mm Depth: _____ mm Height: _____ mm	S / NS / NA	
C.2	5.3.6.2	Verification of Car Door Requirements Car door type (Opening): <u>Centre</u> / <u>Side</u> / <u>Bi-parting</u> / <u>Sliding up</u> / Others: _____ Number of door panels: 1 / 2 / 4 / 6 / Others: _____ Door Width: _____ mm Door Height: _____ mm Door Protective Device(s): <u>Light curtain</u> / <u>3D Sensor</u> / <u>Mechanical edge</u> Door Protective Device Make: _____ Door Protective Device Model: _____ Door Protective Device Resolution: 50mm (Pass/Fail)	S / NS / NA	
C.3	5.3.6.2.2	Car door closing force measured : _____ N (Required ≤150N)	S / NS / NA	
C.4	5.3.1.4	Verification of Car Door Gaps 1. Gap between door panels, panels and uprights, lintels or sills 2. 25mm door gap obstruction		
C.5	5.12.1	Verification of Stopping accuracy		
C.6	5.10.9	Verification of Earthing/bonding connection 1. Car top / control station 2. Car top light and fan units 3. In car operating panels 4. On door operators units and car doors		
Lift Pit				
P.1	5.2.5.6	Verification of Clearances / Run-bys (if applicable): Max allowed Counterweight runby as per Data Plate: _____mm When Car at Top Landing (if applicable) 1. Counterweight runby: _____mm 2. Counterweight buffer stroke: _____mm (Type: _____) <i>if PU buffer is used, check for expiry date</i> When Car at Bottom Landing (if applicable) 1. Car Buffer Stroke: _____mm (Type: _____) <i>if PU buffer is used, check for expiry date</i> 2. Car Runby: _____mm 3. Car Bottom Clearance: _____mm 4. Refuge Space 1 in Lift Pit: _____ mm(W) x _____mm(L) x <u>600/1000/2000</u> mm (H) 5. Refuge Space 2 in Lift Pit: _____ mm(W) x _____mm(L) x <u>600/1000/2000</u> mm (H)	S / NS / NA	
P.2		Verification of Safety Gear Make: _____ Model: _____ Safety Gear: <u>Instantaneous</u> / <u>Progressive</u>	S / NS / NA	
P.3	5.6.2.2	Does pull force of governor effectively engage the safety gear against the guide rails		

P.4	ISO7465:2007 Table 2-7	Verification of Guide Rail Specifications 1. Car guide rail type: _____ 2. Counter weight guide rail type: _____	S / NS / NA	
P.5	5.11 Annex C C.1.3	Verification of functionality of Hoistway Safety Switches: 1. Emergency Stop Switches 2. Buffer switches 3. Speed governor tension pulley switch 4. Compensation sheave switches 5. Terminal stopping switches 6. Terminal slowdown function 7. Emergency terminal slow down function (for high speed lifts)		
P.6		Verification of Pit Operating Panel Check e-stop function	S / NS / NA	

Car Top / Motor Room

M.1	5.4.7.4	Provision of Car Top Balustrade (1.1m high with intermediate bar and located max 0.15m from car roof edge)	S / NS / NA																									
M.2		Verification of Hydraulic Power Unit: Make _____ Model Number _____ (Motor Room / Motor Roomless)	S / NS / NA																									
M.3		Verification of Hydraulic Control Valve: Make _____ Model _____	S / NS / NA																									
M.4	5.2.5.6	Car Top Measurements: 1. Car Top Clearance: _____mm 2. Measurement of guide rail extended length after the maximum possible upward movement: _____mm 3. Refuge Space 1 on Car Top: _____ mm(W) x _____mm(L) x 1000/2000mm(H) 4. Refuge Space 2 on Car Top: _____ mm(W) x _____mm(L) x 1000/2000mm(H)	S / NS / NA																									
M.5	5.12.6.1.2	Verification Automatic Rescue Device ("ARD") / Uninterrupted Power Supply ("UPS") : Make: _____ Model: _____	S / NS / NA																									
M.6	5.5	Verification of Main Suspension <i>Rope retainers are in place on every pulley arrangements</i> <i>Rope anchoring - Wedge socket/rope termination, Babbitting and the associated clips etc</i> 1. Number of Ropes/Belts: _____ 2. Nominal Diameter/Belt Thickness: _____mm 3. Sheave Diameter: _____mm 4. Roping Configuration: _____ 5. Belt Monitoring: <u>Electronic</u> / <u>Micro-switch</u> / <u>Others</u> : _____ <table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <thead> <tr> <th>Rope 1</th><th>Rope 2</th><th>Rope 3</th><th>Rope 4</th><th>Rope 5</th><th>Rope 6</th><th>Rope 7</th><th>Rope 8</th><th>Rope 9</th><th>Rope 10</th><th>Rope 11</th><th>Rope 12</th> </tr> </thead> <tbody> <tr> <td> </td><td> </td> </tr> </tbody> </table>	Rope 1	Rope 2	Rope 3	Rope 4	Rope 5	Rope 6	Rope 7	Rope 8	Rope 9	Rope 10	Rope 11	Rope 12													S / NS / NA	
Rope 1	Rope 2	Rope 3	Rope 4	Rope 5	Rope 6	Rope 7	Rope 8	Rope 9	Rope 10	Rope 11	Rope 12																	

M.8	5.6.2.2.1	Verification of Overspeed Governor (if applicable) Make: _____ Model: _____ Rope diameter: _____ D/d ratio: _____			S / NS / NA	
		Electrical Tripping	Mechanical Tripping	Direction*		
		_____ m/s up _____ m/s down	_____ m/s	Single / Bi-Direction		
M.9	5.2.1.3	Ventilation Opening (Machinery Space and Lift Car) _____ mm x _____ mm			S / NS / NA	
M.10	5.11	Verification of functionality of Safety Switches 1. Emergency Stop Switch(s) 2. Landing Door Lock Switch(s) 3. Lift Car Door Gate Switch(s) 4. Lift Car Emergency Exit Switch(s) (e.g. trapdoor, car to car rescue)			S / NS / NA	
M.11	5.10.9	Earthing/Bonding from Supply DB to Controller, Machine and Equipment in Machinery Space, E&I panel door, Car Door			S / NS / NA	
M.12	5.2.1.4	Illumination at Machinery Area, Car Top, Pit and in Car			S / NS / NA	
M.13	5.12.1	Verification of Stopping accuracy			S / NS / NA	
M.14	5.12.3	Emergency Intercom and Alarm Bell Function Verification (located in pit, car top, machine room and out side the hoistway)			S / NS / NA	
M.15	-	Verification of Blind Hoistway Requirements (if applicable) 1. Max. blind hoistway height _____ m 2. Blind hoistway rescue means - rescue hooks / access door / car exit			S / NS / NA	
M.16	5.1.2	Access/Clearance/Labelling Including: 1. Hydraulic Pump room access 2. Machinery space requirements 3. Proper labelling of components 4. Pulley room access 5. Control space requirements 6. Warning signs / guarding			S / NS / NA	

Hydraulic Components					
H.1		Rupture Valve / Restrictor		S / NS / NA	
H.2		Pressure Relief Valve		S / NS / NA	
H.3		Non-return valve		S / NS / NA	
H.4		Hydraulic Fluid Overheat Prevention		S / NS / NA	
H.5		Low Oil Protection		S / NS / NA	
H.6		Shut down valve		S / NS / NA	
H.7		Anti creep system test		S / NS / NA	
H.8		Pressure Test		S / NS / NA	

Functional Testing (No Load)				
T.1	5.9.2.3	Emergency Passenger Manual Rescue Means (Electrical / Mechanical)	S / NS / NA	
T.2	5.12.6.1.2	Automatic Rescue Device ("ARD") / Uninterrupted Power Supply ("UPS") Make: _____ Model: _____	S / NS / NA	
T.3	5.6.6	Ascending Car Overspeed Protection (" ACOP ") (if applicable) Type: Machine brake / rope gripper / sheave jammer / safety gear / Others: ACOP Tripping Speed:	S / NS / NA	
T.4	5.6.6	Unintended Car Movement Protection (" UCMP ") UP Direction UCMP Stopping Distance: _____ (up - empty load)	S / NS / NA	
T.5	6.3.3	Emergency Brake (Up Direction) <u>Emergency brake at 0% load with car moving upwards at rated speed at upper part of the travel.</u> Lift car must stop.	S / NS / NA	
T.6	6.3.3	Checking of the Traction <u>Checking of traction for empty car when counterweight is resting on buffer</u> When counterweight is resting on buffer and machine continues to turn upwards, lift car must not move upwards.	S / NS / NA	
Functional Testing (Load)				
T.7	-	Load Balancing Point Range: _____ %	S / NS / NA	
T.8	6.3.1	Single Brake Test Single brake is able to stop the car with rated load at rated speed.	S / NS / NA	
T.9	5.8	Car Buffer Strike Test (Rated Load, Rated Speed): <u>Pass / Fail</u> <i>if PU buffer is used, put as NA</i>	S / NS / NA	
T.10	5.6.6	Unintended Car Movement Protection (" UCMP ") Down Direction UCMP Stopping Distance: _____ (down - full load)	S / NS / NA	
T.11	C.1.6.3	Check that the full load up current and hydraulic pressure does not exceed the rated motor current and pump pressure. Rated speed should not deviate by more than 8%	S / NS / NA	
T.12	C.1.6.3	Oil Temperature Rise after 30min of running up and down at a rate of 45 up/hr, check the temperature on the thermoeter submerged in hydraulic oil to confirm does not exceed pump specifications	S / NS / NA	

Functional Testing (Overload)				
T.13	5.12.1	Overload weight device, alarm and indicator (Rated load + extra)	S / NS / NA	
T.14	6.3.1	Emergency Brake (Down Direction) Initiate an emergency stop when the car is travelling downward at rated speed with the 125% load. Lift car must stop.	S / NS / NA	
T.15	5.6.2.2.1	Safety Gear Test (125% Load @ rated speed) Safety Gear Stopping Distance: _____ mm Testing outcome: _____	S / NS / NA	
T.16	C.1.6.3	Check that hydraulic system and valves will hold the lift car level with little or no creep (125% for passenger, 150% for goods)		
T.17	6.3.10	Pressure Test (200% loaded) any pressure drop or leakage during a period of 5min	S / NS / NA	
Type Testing Verifications				
S/N	Component		Model installed	Same as model no. submitted in
T.1	Landing door locks			Yes / No
T.2	Car door locking device			Yes / No
T.3	Safety gear			Yes / No
T.4	Over speed governor			Yes / No
T.5	Buffer			Yes / No
T.6	ACOP			Yes / No
T.7	UCMP			Yes / No
T.8	PESSRAL			Yes / No
T.9	Lift Model			Yes / No
Declarations and Certification:				
<p>I, as the supervisor QP declare that:</p> <p>(1) The measurements, observations and information as stated above are true and accurate as at the date of submission.</p> <p>(2) I was physically present when the fixed installation works contractor carried out the examination, inspection, testing and commissioning of the Lift</p> <p>(3) I confirm and certify that the Lift is in fit and safe for operation and use.</p> <p>(4) I am not a partner, associate, director, officer or employee of the owner of the Lift or the fixed installation works contractor carrying out the examination, inspection, testing and commissioning of the Lift.</p> <p>(5) I acknowledge and understand that this test report and my declarations and certification will be relied on by the Commissioner of Building Control to assess if a permit to operate will be granted in respect of the Lift.</p>				
Name of fixed installation works contractor:			Name and Signature of Supervisor QP:	
Name(s) of the employees of the fixed installation works-contractor conducting the examining, inspecting, testing and commissioning of the Lift:				

Date(s) and Time(s) of examining, inspecting, testing and commissioning of the Lift: