

Lift Dilapidation Report Euston tower delap report B8910

> Euston Tower August 2021

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#### 1 INTRODUCTION

SVM Associates were instructed by Malcom Webb to inspect and comment on the overall condition of the 12 lifts at Euston tower and carry out a dilapidation report. As the lifts are going to enter an extended period of Builders Beneficial Use, we will offer recommendations as to their use during this period and works that we recommend be undertaken prior to them being handed over to the builder.

A series of photographs have been taken and will be issued to the client showing the current general condition, these cover the car interiors, the landing doors, pits, and car tops, along with the motor room. They are filed under the individual lifts, additionally for the high- and low-rise lifts there is a file covering common areas.

Within this report there is a table for each lift, detailing any defects or service items that we recommend are addressed. Within this report there is a section covering critical spares that were purchased for the main passenger lifts, this includes a full list of parts available, however the area in which they were stored has been disturbed and we recommend a full inventory is carried out as there appears to be several omissions.

Surveys were carried out by Peter Sherrin on the 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> of August 2021.

## 2 HIGH RISE

#### 2.1 Lift Schedules

Rated Load: 23 persons/1590kg

Rated Speed: 5 m/s

Floors Served: G, 20 - 35
Duty: Passenger

Maker: Otis

Controller Type: 411 Otis

Drive Type: DC invertor

Firefighting/evacuation: No

#### 2.2 Routines

Maintenance visits per annum: 12 visits per annum

Maintenance visits completed: May and June missed

Adherence to PPM regime: No

Lift Specific Issues High rise	Lift A	Lift B	Lift C	Lift D	Lift E	Comments	Signature and Date
Lift Machine Room							Dute
Noisy selector tape, repair							
Lift Car interior	<u> </u>						
Car return is loose and catching on car doors, rectify							
Car emergency light to be checked and confirmed in log card							
Worn car door shoes, replace							
Hall and Lobby	Floors						
Inoperative landing call acceptance lights						Down 22,29 Up Ground	
Lift Car Top						,	
Selector tape fixing damaged, repair							
Rope gatherer tether missing, replace							
Rope Gatherer missing, replace							
Lift Shaft	Floors					,	
Kicking rollers adjustment required to landing doors		29	18,19	27,28	22,23,		
					26,30		
Adjust door speed and air-cords to stop doors slamming							
Vertima units locked out, repair							
Shaft screening missing at front of shaft level 18 – replace							
Lift Pit	<u>'</u>	1		_			

Lift Specific Issues High rise	Lift A	Lift B	Lift C	Lift D	Lift E	Comments	Signature and Date
Lights not working (pit), incorrectly wired, not to each set of							
shaft lights, repair.							
Escutcheon missing on landing doors, replace		G		G	G		
Counterweight screen requires extending							
Guard missing off selector tape pulley, replace							
Fit debris guard to weighted wheel							
Shaft screen missing lower pit, replace							
Counterweight screen damaged (as it was caught on							
counterweight), repair							
Lower pit light not working, repair							
Poorly wired pit light has been removed, replace							
No two-way switching on shaft lights, repair							
Outstanding Statutory Inspection Items							
Not issued							

Euston Tower SVM Associates

## 3 LOW RISE

#### 3.1 Lift Schedules

Rated Load: 19 Persons/1425kg

Rated Speed: 3.5m/s Floors Served: G - 19

Duty: Passenger

Maker: Otis

Controller Type: 411 Otis

Drive Type: DC Firefighting/evacuation: No

#### 3.2 Routines

Maintenance visits per annum: 12 visits per annum Maintenance visits completed: May and June missed

Adherence to PPM regime: No

Lift Specific Issues	Lift A	Lift B	Lift C	Lift D	Lift E	Comments	Signature and
							Date
Lift Machine Room							
Confirm greasing dates for machines. Recorded in log card							
Fit chain across machine hatch access							
Controller fan inoperative, repair				2	2		
No access to brake release due to selector tape run and							
machine guarding							
Windcrest batteries out of date, test and replace if necessary.							
Record test/replacement date in log card							
Lift Car interior							
Landing door to car door offset causing landing doors to slam,							
rectify							
Worn car door shoes, replace							
Hall and Lobby	Floors						
Inoperative call acceptance lights, repair						Down 10,14,18	
Missing/worn/loose door shoes		G	G	G	G		
Lift Car Top							
Noisy divertor/selector tape, investigate and undertake any							
required remedial works							
Worn tape guides, replace							
Damaged selector tape fixing, rectify							
Vertima at the top of the shaft is out of adjustment, rectify							

Lift Specific Issues	Lift A	Lift B	Lift C	Lift D	Lift E	Comments	Signature and
Lift Specific issues	LIICA	LITED	Life C	LIICD	LITTE		Date
Lift Shaft	Floors						
Adjust landing door kicking roller	1		1				
Loose door shoe, rectify				14			
Debris guard loose on counterweight, secure							
Rope jumps are loose on counterweight, rectify							
Rope rubbing on the counterweight guard when lift at		В					
ground floor, adjust							
Loose lock nuts on compensation, tighten							
Forced door gap stops lift, rectify		7					
Shaft lights inoperative, repair							
Lift Pit							
Paint pit upstands and tripping hazards							
Counterweight screen too low, adjust							
Pit lights inoperative, incorrectly wired. Repair							
Debris guard missing on weighted wheel, replace							
Weighted wheel guard removed, replace							
Outstanding Statutory Inspection Items						1	
None issued							

## 4 GOODS LIFTS

#### 4.1 Lift Schedules

Rated Load: 20 person/1360kg

Rated Speed: 2.5m/s
Floors Served: B, G, - 34
Duty: Goods/Pass

Maker: Otis

Controller Type: Kollmorgen Microprocessor

Drive Type: Gearless Firefighting/evacuation: Yes

#### 4.2 Routines

Maintenance visits per annum: 12 visits per annum

Maintenance visits completed: May and June missed

Adherence to PPM regime: No

Lift Specific Issues	East	West	Comments	Signature and
				Date
Lift Machine Room				
Hand-winding unit not operating correctly (loses position), rectify				
Controller fan not working, repair				
Remove redundant UPS units				
Motor room divertor bearing over greased seal possibly damaged, investigate				
Water leak from motor room ceiling, Salisbury to investigate				
Lift Car interior				
Fixing missing from handrail, replace				
Emergency lights not working				
Car lights becoming detached from ceiling, rectify				
Car preference switch broken				
Hall and Lobby	Floors			
Damaged door panels, rectify	3, 4, 34, B	17, 18,		
		22, 24, 28		
Braille plate missing, reinstate		1		
Basement aircord damaged, replace				
Lift Car Top				
Main hoisting ropes are unevenly tensioned, re-tension ropes				
Door panels rusting on door shoe fixing, clean and treat	1	1,3		
Note: Unable to maintain car top divertors, due to fixed guarding				
Fixing missing from divertor guard, reinstate				

Lift Specific Issues	East	West	Comments	Signature and
Lift specific issues	East	vvest		Date
Lift Shaft	Floors			
Encoder tape bracket poorly fitted, rectify				
Worn car guide roller (top left-hand side), replace				
Counterweight divertor noisy, investigate				
Facias poorly fixed, noisy in travel				
Lock cover missing, reinstate		В		
Basement closer inoperative, repair				
Lift Pit				
Pit ladder damaged, repair				
Lower counterweight screen missing, reinstate				
Note: Trailing flex used as compensation				
Shorten governor rope				
Pit begrimed, clean				
Outstanding Statutory Inspection Items				
None issued				

## 5 SITE SPARES

Provision was made for the supply of critical spares that were to be held on site and managed by the lift contractor, the full list of spares and the number that was available is listed below, the spares however have been accessed by third parties and it is unclear if all are still available and what their condition is. It is recommended that an inventory is undertaken by the contractor, any omissions replaced, and any additional items required sourced.

Description of Required Inventory	Part No	Number
Ring Car Board ll	GHA21270A30	1
RS4 remote stations (x 2)	GAA26800NV100	2
RSEB Remote Station Extender boards (x 2)	B9693AE1	2
DISS front door control board	C9693MB2-B	1
ADISS rear door control board (used to interface load weighing system)	ABA26800KK4	1
LWD board (interface for LVDT and ADISS)	ABA26800KKY	1
LVDT load weighing differential transformer unit (mounted under the lift car)	AAA26800LM1/B	1
MCSS board	ABA26800ABA002	1
MCSS I/O board	ACA26800ABB001	1
DBSS drive and brake sub-system control board	LA46S02691-0041	1
12SCR thyristor control firing board	LA46S2690-0023	1
Gate firing board (low rise board is different to the high rise, one	LA46S02686-2020 (low rise)	1
of each required)	LA46S02686-2030 (high rise)	1
Relay interface board interfacing the external section of the drive	LA46S728-0041	1
Switch over module	GEA26800AL10	1
Complete Drive	LA46S02965-0021	1
DBSS control board	46SO2691-0040	1
	199DBX-3	1
	3RH1362-2BC40	1
Controller mounted relays One of each type except for 1M and	LC1D18F7	1
Controller mounted relays. One of each type except for 1M and 2M.	LADN11 AUX	1
1M and 2M main contactors including auxiliary contact block (x 2)	3RH2911-1GA31 AUX	1
and the second s	3RH2911-1GA22	1
	1M 2M main contactors	1
	GAA177KC1	2

Description of Required Inventory	Part No	Number
1M and 2M main contactors armature plate (x 2)	Armature plate	2
All types of drive and controller fuses	Various	2
Machine encoder (x 1)	A663D1	1
Machine encoder coupling (x 1)	388-9301	1
Smart Primary Position Transducer complete assembly	ABA21430AAA005	1
Tape head assembly	ACA25500AAC001(selector box)	1
One length to accommodate a high rise and one length to	ABA22439AAC001 (head)	1
accommodate a low-rise lift	Low rise tape	1
accommodate a low rise int	High rise tape	1
Landing Door beak assembly complete (L09940A) (x 2)	B6940C1	2
Landing Door Lock assembly complete (L09940A) (x 2)	6940A	2
Landing Door (slave door) lock and bridging assembly	AZ14-1 KD	2
Landing Door Shoe assembly (x 4)	REF 20942	4
Landing Door Header Track Rollers (x 10)	REF20239	10
Landing Door Header Track up-thrust Rollers (x 10)	FO2215Z466	10
Air-cord pulleys (x 4)	Not present	4
Air-cord. 50m Drum	Not present	50m
Car Door lock and bridging assembly (x 2)	AZ14-1 KD	2
Car Door (slave door) lock and bridging assembly (x 2)	AZ14-1 KD	2
Car Door Shoe assembly (x 4)	FOB316LBG1	4
Car Door Header Track Rollers (x 10)	FO470AA1	10
Car Door Header Track up-thrust Roller (x 10)	RL0762JK1-5153	10
Air-cord pulleys (x 4)	FO2215Z466	4
Landing and car buttons – Four of each type	Not present	4
Landing indicator/direction arrow	7069AF14	4
car indicators/direction arrow unit. Two of each variant	9693H1	2

#### 6 RECOMMENDATIONS FOR LIFTS ENTERING BBU

It is understood that the lifts are to be handed over to the Builders for an extended period whilst the building is a construction site. Prior to these works it is recommended that several tasks are undertaken to ensure safe, reliable service during this period.

- 1. There is a likelihood that during this period the site telephone lines will be interrupted, we recommend that GSM telephone lines are installed to ensure there is no interruption in the connection of the auto-diallers.
- 2. Ensure a LOLER inspection is carried out on all lifts and a schedule introduced to ensure these are carried out at 6-month intervals.
- 3. Line out the lift cars to protect the finishes, including a draw bridge to protect the bottom tracks that is of a design to prevent the doors closing whilst deployed.
- 4. Re-calibrate the car-load weighers to consider the additional weight of the car protection.
- 5. Place lifts on priority service and assign a lift driver to always operate the lift.

#### 7 DELAPIDATION

All 12 lifts were inspected, and a record of the general condition was noted. The photographs that were taken will be issued alongside this report.

Particular attention was paid to car interiors, the landing doors, car tops and pits, along with the machine spaces recording damage, cleanliness, and overall condition, allowing a comparison to be made once the lifts are retuned to the building owner.

#### 8 CONCLUSION

The main passenger lifts at Euston tower were originally installed in 1969 and retain their original motors along with the general structure, including guides, sling, car, counterweight, and landing doors. The controllers were replaced along with most switching and signalisation in 1990, followed by stabilisation work in 2017, covering door operators, health and safety items and service items.

Generally, the lifts are in a good serviceable condition, although the equipment does not embrace the latest technology it is of good design and of robust construction. With a strong maintenance regime, careful management and with the availability of the critical spares the lifts should deliver reliable service during the BBU period.

The two goods lifts were replaced in 2000 in their entirety, these lifts are of a modern design and although there is no critical spare availability most components are still available with reasonably short lead times. It would be advisable to have service items available such as air-cords, rollers, and door shoes to limit potential down times should there be a failure but as with the passenger lifts reasonable reliability should be expected assuming the recommendations above are considered.