Tabie 1. Certificate	e of test and examination for ele	ectric passenger and goods lifts (cont.)	
b) Are all the item manufacturer is not be put into service?	s associated with the installation, fo responsible, in a suitable state for	or which the lift r the installation to O Yes O No	
NOTE. Some item responsibility of oth	is requiring attention may not be pa ers. A list of typical inclusions and	art of the contract for the lift but part of the installation and exclusions is given in BS 5655 : Part 6	I the
if NO, provide	details :		
L.,.	······································		
6 Declaration of	conformity of design and manu	Ifacture	
6 Declaration of	conformity of design and manu	facture	
Does the design an			
Does the design an			
	d manufacture of the lift conform to		
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to		•
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to		*
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to		*
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to		*
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to		*
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to		*
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to		*
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to		*
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to		•
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to		*
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to		······································
Does the design an 3S 5655 : Part 1?	d manufacture of the lift conform to	o OYes ONo *	*
Does the design an 3S 5655 : Part 1? If NO, state de	d manufacture of the lift conform to	o OYes ONo *	* *
Does the design an 3S 5655 : Part 1? If NO, state de	d manufacture of the lift conform to	o OYes ONo *	······································

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Table 1. Certificate of test and examination for electric passenger and goods Iffs (conducted) 17 Declaration of test I/we certify that on 3/2/06 the equipment was thoroughly examined and found to be free from obvious defects, subject to any statement in 15c and that the foregoing is a correct report of the result. Vendor/purchaser's identification number:	C 5470	
17 Declaration of test Vive certify that on 3/2/08 the equipment was thoroughly examined and found to be free from obvious defects, subject to any statement in 15c and that the foregoing is a correct report of the result. Vendor/purchaser's identification number: C5470 H0:00 Signatures(s): Image: Correct report of the result. Vendor/purchaser's identification number: C5470 H0:00 Signatures(s): Image: Correct report of the result. Vendor/purchaser's identification number: Image: Correct report of the result. Vendor/purchaser's identification number: Image: Correct report of the result. Vendor/purchaser's identification number: Image: Correct report of the result. Vendor/purchaser's identification soft public service, association, company firm or person making the examination: Image: Correct report of the person who conducted the examination: Image: Correct report of the person who conducted the examination: Image: Correct report of the person who account: Image: Correct report of examiner, if working on his/her own account: Test conflicate serial number:	Table 1. Certificate of test and examination for electric passenger and good	Is lifts (concluded)
defects, subject to any statement in 15c and that the foregoing is a correct report of the result. Vendor/purchaser's identification number: C5470 H090 Signatures(s): Image: Comparison of the person in the state of public service, association, company firm or person making the examination: APEX LIFTS APEX HOUSE LEFA BUSINESS PARK, LEDA BUSINESS PARK, LEDA BUSINESS PARK, SIDCUP KENT DA14 5BH Position in the above organization of the person who conducted the examination: TESTER or Custifications of examiner, if working on his/her own account: Test certificate serial number:		
C5470 H090 Signatures(s): Image: Constraint of the service of the servic		oughly examined and found to be free from obvious a correct report of the result.
Signatures(s): Image: Construct of the service, association, company firm or person making the examination: APEX LIFTS APEX HOUSE LEFA BUSINESS PARK, EDGINGTON WAY, SIDCUP KENT DA14 5BH Position in the above organization of the person who conducted the examination: Image: Construct of the person who conducted the examination: Or Construct of the person who conducted the examination: Image: Construct of the person who conducted the examination: TESTER Image: Construct of the person who conducted the examination: Test certificate serial number:	Vendor/purchaser's identification number:	
Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: Image: constraint of the person who conducted the examination: <td>C5470 H090</td> <td></td>	C5470 H090	
Market and address of public service, association, company firm or person making the examination: APEX LIFTS APEX HOUSE LEFA BUSINESS PARK, EDGINGTON WAY, SIDCUP KENT DA14 5BH Position in the above organization of the person who conducted the examination: TESTER or Cualifications of examiner, if working on his/her own account: Test certificate serial number:	Signatures(s):	
APEX LIFTS APEX HOUSE LEFA BUSINESS PARK, EDGINGTON WAY, SIDCUP KENT DA14 5BH Position in the above organization of the person who conducted the examination: TESTER or Qualifications of examiner, if working on his/her own account: Test certificate serial number:	Т СООК	
Or Qualifications of examiner, if working on his/her own account:	APEX LIFTS APEX HOUSE LEFA BUSINESS PARK, EDGINGTON WAY, SIDCUP	r person making the examination:
or Qualifications of examiner, if working on his/her own account:	Position in the above organization of the person who conducted the	he examination:
or Qualifications of examiner, if working on his/her own account:	TESTER	
Qualifications of examiner, if working on his/her own account:		
	L	
C5470	Test certificate serial number:	
	C5470	
Data	Data	
Date: 14/2/06		
(APEX DATA)	I- 1 7∠/VU	(APEX DATA)

Table t. Certificate of test and examination for electric passenger and goods lifts

Notes for the completion of this certificate

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2 The references quoted below in gasodanon with a part number refer to causas 1 gmas inclus or ennoxes of the stated part of BS 5855. Other cause numbers relate to this subsection of BS 5856.

2 Statements and replice to all relevant questions should be onlered in the appropriate structs. Where multiple choice questions are posed, only one of the alternativo boxes should be ticked.

3 Boxes marked with an estansk (*) should be completed by the vendors design place.

4 Italic type is used whore reference is made to a requirement of BS 5655. Part 1, 1985.

Location Grenfell Tower.	Vendor Ap	er Lifts	
Length Of Travel 60 m Approx.	Vendors Identificat	ion No	*
Number of levels served:	Purchasers identifi	cation No	
Total 22 *	f	1090	•
Front 22 * Rear — * Side _ *	Power Supply	Ø Permanent O Temporary	
		Specified	Actual at of test
Rated Load 900 kg · 12 Persons	Vo	itage *	402
1 -	P	hase ' 🔭	3
Rated Speed $2 \cdot 0$ m/s -	Frequ	ency *	60
	Wire(3	or4)	3
	Fuse R	ating *	100
Machine room location Above well *	Fuse	Туре *	HRC
O Below welt * O At side * O Within Shaft *	Are the above entri	ies acceptable? Ø Yes O N	ю
		Specified *	Actual
Machine room temperature at 17 °c	Main Switch Rating	A	100
Reeving Ratio	ts the Switch Fused		Yes O No
Reeving Ratio \ + \ *	ts il lockable off	O Yes () No 🛛 🖉	Yes ONo
	Number of poles		3

NOTE. A four-pole switch is necessary if emergency lowering is fitted

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Table 1. Certificate of test and examination for electric passenger and goods lifts (cont)

2. Static Examination (mechanical)

2.1 Suspension

a)	Sus	pensi	on	ropes:
----	-----	-------	----	--------

Number:

Nominal diameter:

Lay & construction:

is test certificate in order & available?

is rope data plate fitted to crosshead?

b) Rope anchorages :

Rope anchorages :	Car	Counterweight
Туре	Socket + UEDGE	SOCKET + WEDGE.
Number Of Rope Grips (if any):	۱.	Y
Confirm that rope grips (if any) are fitted correctly :	Yes	Yes
	-	

Specified

OYes ONo *

O Yes O No

State BS number and type of socketed anchorages used (if any):

Describe any other kind of anchorage used:

	Specified	Actual
Are anchorages in accordance with 9.2.3, of part 1 $^{\circ}$	OYes ONo *	Yes O No
Are the anchorages prevented from rotating through 180" ?	OYes ONo *	OYes ONo
Do the ropes conform to 9.5 of part 1 ensuring distribution of load between the ropes?	OYes ONo *	Yes O No
c) Suspension chains:	Ø N/A	
	Specified	Aciual

1) Number:

2) Pitch :

3) Type and construction:

.

2

mm

Actual 6

· 8/19 RHOL

mm 13

3

Table 1. Certificate of test and examination for electric passenger and goods lifts (cont	Table 1. Certificate o	f test and examination f	or electric passenger and	goods lifts (cont)
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4) Is the chain test certificate available and in order?	O Yes O No 🏾	
5) Are the anchorages in accordance with 9.2.5 of Pan 1?	O Yes O No *	
	Specified	Actual
6) Do the chains conform to 9.5 of part 1, ensuring distribution of load between chains?	O Yes O No *	O Yes O No
d) Eyebolts:	Specified	Actual
if eyeboits used do they conform to Pan 8?	OYes ONo *	O Yes O No

O Yes No *

2.2 Compensation

,

a) is compensation provided?

b) If yes what type?

	Specified	Actua	ıl
1) Rope:		•	
2) Chain:		*	
3) Anti Rebound:		*	
4) Number:		*	
5) Size:		•	

2.8 Safety gear, overspeed governor, ovarspeed governor rope and tension puffey

a)	Has the safety gear been lested in accordance with F.3 of part 1 and certified in accontance with F.3.5 of part 1?	OYes ONo *
b)	If YES, is the data plate fitted in accordance with 15.14 of Part 1?	Yes O No
C)	Is the safety gear sealed (see 9.8.6.4 of Part 1)?	Yes O No
	Confirm that the governor has been tested in accordance with F.4 Part 1 and certified in accordance with F.4.3 of part 1	OYes ONo ⁺
e)	Specify overspeed governor type:	
ŋ	State type of overspeed governor filled:	BODE TYPE 7 EYES O NO
g)	Is the date plate fitted & in accordance with 15.6 of Part 1?	Ves O No
h)	Confirm that the governor is sealed:	Ø Yes
	Specified	Actua/
i)	State safety rope nominal diameter:	mm* 🖌 mm
j)	Confirm that the safety gear, overspeed governor, overspeed governor O Yes	• Yes

i) Confirm that the safety gear, overspeed governor, overspeed governor ropa and the tension pulley operate as a compatable system; O Yes

Table 1. Certificate of test and examination for electric passenger	and goods mis (com)		
2.4 Car			
a) Confirm that the available floor area, related to rated loart and maximum number of passengers, conforms to 8.2 of Part 1?	O Yes *	•	
	Specified	Actual	
b) State the internal width, i.e. wall to wait (without finishes):	<i>m</i> m*		mm
c) State the internat depth, i.e. front return to rear wall or front return to rear return (without finishes):	mm*		m
2.5 Energy accumulation buffers (spring buffers)	NIA*		
a) Confirm that the buffers conform to 10.4.1 at part 1	O Yes *		
b) Otata sumbas filled	Specified	Actual	
b) State number fitted			
c) Confirm that the buffers are correctly identified	O Yes		
2.6 Energy accumulation buffers (polyurethane buffers)	NIA -		
a) Confirm that the buffers conform to 10.4.1 of part 1	O Yes *		
	Specified	Actual	
b) State size selected:		k	
c) State number fitted:	•		
d) Confirm that the buffers are correctly identified:	O Yes		
2.7 Energy dissipation buffers (e.g. oil)	O N/A *		
a) Confirm that the buffers have been tested in accordance with F.5 of Part 1 and certified in accordance with F.5.4 of Part 1?	⊖ Yes •		
	1		
b) is the data plate in accordance with 15.8 of part 1?	eố Yes ON	ю	

ont

1:54

c) If No are they suitable for submission to the test described in 11.3 of this table?	ON/A OYes ONo
d) Are they correctly filled and not leaking?	Yes O No
e) Is there reduced stroke buffering (see item 10 of lins	
(able)?	O Yes O No
f) Is the stroke of each buffer in accordance with 10.4.3 of Part 1?	Yes O No
g) Slate number fitted	Specified Actual
2.8 Brake	
Confirm that the brake sustains the static car at the lowest level whan loaded with 125% of rated load	S Yes
2.9 Landing door assemblies	
a) Does the contract require the landing door assemblies to be fire-rated	O Yes O No *
if YES what is the fire-rating requirement	Hour*
b) is the test certificate available and in order	ON/A OYes ONo *
c) If yes and the doors are manually operated is the means of fire prevention a fusible link	ON/A OYes ONo * ,
d) If NO describe the method used	
e) Confirm that the fire rated elements of the door assembly are correctly fitted :	& Yes
2.10 Door locks	· · · · · · · · · · · · · · · · · · ·
a) Confirm that all the door locks have been tested in accordance with F1 of Part 1 and certified in accordance with F.1.4 of Part 1:	O Yes *
b) Does the data plate conform to 15.13 of Part 1:	O Yes & No

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Table 1. Certificate of teat and examination for electric passenger and goods lifts (cont)

3 Static examination (electrica/)

3.1 Electric safety devices

Confirm that the electric safety devices are in accordance with appendix. 'A of Part 1	Yes
3.2 Insulation resistance to earth (see clause 5)	
a) Lift motor	841 Mich
b) MG set (if filled)	
1) Motor	N/A ME
2) Generator	N/A MC

c) Power system

d) Safety devices (state minimum reading)

3.3 Earthing

a) is the maximum continuity resistance to the earlin provided less than 0.5 ? (see clause 7b):

.....

b) Is the car connected to the controller earthing tenninal by a separate conductor at least 0.75mm in cross section

3.3 Protection of conductors

a) is the fixed wiring in conduits (or trunking, or $fittings\;$ which ensure equivalent protection) throughout?

b) If NO do the cables conform to 13.5.1.2 of Part 1?

3.3 Phase failure device

Confirm that the phase reversal and phase failure protection operates correctly:

3.3 Electrical wiring

Do the electrical conductors, including travelling cables conform to 13.5 of Part 1?

Yes

704 Mar

>999 Mill

Yes O No

Yes O No

Yes O No

NIA O Yes O No

Yes O No

4 Dynamic tests				
4.1 Safety contact/circuits			,	
a) Have the contacts at each landing entrance been proved so when broken they slop and prevent movement of the car outsid unlocking zone?	that de the	Yes O No		
b) Have the mechanical locks at each tending entrance been proved for positive locking?		Yes O No		
c) Have the car door/gate contacts been proved so that when I there is no car movement outside the unlocking zone?	broken	Yes O No		
d) If separate terminal stopping switches are fitted, do they operate satisfacionly?	O N/A	O Yes O No		
e) Do tha final limit switches operate satisfacfrily?		Yes O No		
	No	minal	, Actual	
f) State the distance beyond terminal floor level at which the final limit switches are set to operate;	Тор	<i>mm</i> *	100	mm
	Bottom	<i>m</i> m *	100	mm
g) Have the stopping devices on the car lop and in the pulley i and pit been proved so that when broken they stop and prevent movement of the car?		Yes ONO		
h) Have all the other switches/contacts in safety devices been so that when broken ihey stop and prevent movement of the ca		Yes ONO		
i) Does the earthing of the most remote contact (lock or push b operate a fuse or trip a circuit breaker without delay?	utton)	Yes ONO		
j) Have the stopping devices on the car top and in the pulley room and pit, been proved sa that when broken tnoy stop and prevent movement of the car under emergency electricat operation?		O Yes O No		
2 Car top control station			·	
a) Confirm that the lift speed when under car top control does exceed 0.63 m/sec:	not	Ves		
b) Speed up:		0.25	m/s	
c) Speed down:		0.25	m/s	
d) Confirm that the design of the car top station conforms to 14 of part 1:	J.2 .1. 3	O Yes *		
e) Confirm that the operation of the car top station conforms to of Part 1;	14.2.1. 3	Yes		

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Table 1. Certificate of teat and examination for electric passenger and goods lifts (cont)

4.3 Clearance and run-bys

a) Will the car and counterweight clear all obstacles with the car and rated load compressing the car buffers?

b) When the counterweight rests on its fully compressed buffers, what is the minimum distance to the first striking point above the car, determined in accordance with 5.7.1.1c of Pad 1?

c) By how much is the distance in b) exceeded?

d) When the counterweight rests on its fully compressed buffers, is there a sufficient space to accomodate a rectangular block 0.5 m x 0 5 m x 0.8 m above the car as specified in 5.7.1.1d of Part 1?

e) Confirm that the further guided travel of the counterweight, with the car on its fully compressed buffers, exceeds 300min. as specified in 5.7.1.2 of part 1:

f) When the car rests on its fully compressed buffers, is there a sufficient space to accomodate a rectangular block 0.5 m x 0.6 m x 1.0 m below the car as specified in 5.7.3.3 of Part 1, and at least 0.5 m between the bottom of the pit and the lowest point of the car

Yes O No

m

Yes O No

Yes

A Yes ONO

NOTE. Attention is drawn to the requirement given in 5.7.3.3.b2 of part f that the clear distance between the bottom of the pit and the lowest part of the guide shoes or rollers of safety gear block, toe guards or parts of vertical sliding doors be al least 0. Im

4.4 Entrance clearances

a) is the horizontal distance between tha sill of the cor and sill of all the landing doors 35 mm or less?

b) Is the running clearance between door panels. and between panels and upright, linlets or sills 6 mm or less?

c) Confirm that no recess or projection on the face of the sliding door panels exceeds 3 mm:

d) Is the distance between the inner surface of the well and the sill or framework of the car entrance or door 0.15 m or less, or 0.2 m if over a height not exceeding 0.5 m?

e) If the answer to d) is NO, is the car door mechanically locked when away from the unlocking zone, in accordance with 8.11.1 of Part i?







Yes O No

NIA OYes ONO

Table 1. Certificate of test and examination for electric passenger and goods tifts (cont)

4.5 Door tests

NOTE. Where appropriate, the following tests should be carried out with the car and landing doors coupled

a) How are the doors operated?		O Manually S Powered	
b) Is the measured maximum force to p point of travel, 150 N or less?	revent closing, at the mid	- /	es O No
State the figure recorded:			108 N
c) Is the measured kinetic energy 10 J	or less?	()	es ONo
State the figure recorded:			1.9 1
d) Do all life protective devices reverse 7.5.2.1.1.3 of Part 1?	the doors in accordance	with	res O No
e) if the protective device is made inop of Part 1)?	erative (see 7.5.2.1.1.3		a >
1) Do the doors remain open		ال ان ا	es S No
2) If the answer to 1) is NO, do the a energy not exceeding 4 J ?	loors close with a kinetic	O NA OY	es O No
 Is the unlocking zone 0.2 m or less a (or 0.35 m in the case of simultaneous doors)? 		g Si	ies QNo
g) Do the landing doors have an autom self-closing mechanism?	atic mechanical	ONA OY	es O No
h) Is each set of landing doors capable with an emergency key?	of being unlocked from th	e oulside 🛛 🎯	Yes O No
If not, why not?			
 Does the door motor/retiring ramp as function correctly? 	cluator protection system	O N/A OY	es ONo
i) Whai form of electrical protection is	provided for the door mot	or/reliring ramo actua	tor?
D.C. circuit breaker Three phas	-		
_			 ∧⊂
State the relavent characteristics;	O N/A	Time to operate	🖌 3 s
		Trip current (if applicable)	A
k) Can the doors be manually opened with a force of less than 300 N with the Part 1)?			Yes O No
 If the rated speed of the lift is greate required to open the car doors when ou N or greater? 		⁵⁰ C	NA Yes ONO
m) Does the 'car here' indicator confont manual doors?	n lo 7.6.2 of Part 1 for	6	NIA O YEB O NO
 n) If the entrance clearances are not in has it been checked that the car doors a the unlocking zone in normal operation ? 	re mechanically locked w		N/A O Yes O No

N/A *

Table 1. Certificate of test and examination for electric passenger and goods lifts (cont)

5 Measurements of the electrical system

a) State the power system (use terms as described in 4.2.3 of Part 6)

VVVF

b) Provide the following details of the lift motor (as stated on the data plate)

	Specified			Actual	
Maker			*	St Zeihl-Al	reacy
Serial number			٠	04500773/1	4
Туре			٨	VFD 2001-4	-
Voltage		v	*	360	v
Power Rating		kw	۲	30	kw
Current Raling		А	٠	66	А
Speed		r.p.n	ı. *	1470	r.p.m.
Class of insulation			£	F	
Duty rating			*	S 4	

c) Measure and record the following operational data when the car is at mid point of travel

Rated-speed operation (with lift performing approximately to its power system)

Car loading condition		Lift motor Lift speed speed 1) 1)		Lift motor input			System Input 2)		
				Running		Start	Start Running		Start
		r.p .m.	m/s	v	А	А	v	А	А
up Empty dov	up		2.0	316	29.4	4.8.0	402	0.7	39.2
	down		2.0	323	37.1	84.0	399	28.0	68.2
409 Balanced	up		20	318	29.2	645	399	12:3	517
	down		2.0	315	28.9	63.8	398	12.1	52.5
Rated	up	1327	2.0	323	41.0	89.0	399	30.5	77.8
	down		2.0	316	30.0	47.5	403	0.7	37.0

Complete either of these columns in its entirety & make one entry only in the alternative column for tha "rated up" condition
 Energy convertor or equivalent. Measure the system input to the controller from the main supply

Low-speed operation (with two speed a.c. motor)

Car loading	Lift motor Lift speed		Lift motor input			System input 2)				
condition		speed 1) 1) i		Running		Start	Running		Start	
		r.p.m.	m/s	V	A	А	v	А	А	
Empty	up									
	down									
Balanced	up		:							
	down									
Rated	up		1							
	down	·	; ;							

1) Complete either of these columns in its entirety & make one entry only in the alternative column for the "rated up" condition

2) Energy convertor or equivalent. Measure the system input to the controller from the main supply

.....

.....

Car loading co	ndition	Maximum levellin	Maximum levelling deviation (+ or -)				
		Specified mm	Actu mm	al			
F	ир			3			
Empty	down		3 Lever Lever				
Balanced	up		L	ever			
Daranceu	down						
Rated	ир			3	-		
Nated	down		3				
i) Quote the fo associated energy		om the nameptate of the	ดา	N/A			
1) Type							
2) Serial	No						
3) input		kw	А	V	r.p.m		
4) Outpu	ıt	kw	А	V	r.p.m		

Table 1. Certificate of test and examination for electric passenger and goods lifts (cont)

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6 Lift motor overcurrent protective devices

6.1 Main windings

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a) Measure and record the following (tick box or enter value, as appropriate):

Type of device	Manual reset	Automatic reset	Time to operate s	Trip current A	Setting
Three phase circuit breaker	:				
Overloads in each phase					
Timing relay DJK	\checkmark		70		
Thermistor			TESTED	BY DISC	NNGETION
Other (name lype)	1				and a second second
	•				

b) Have you found these salisfactory?

Yes O No

12

Table 1. Certificate of test and examination for electric passenger and goods lifts (cont.)

6.2 Slow speed windings

a) Measure and record the following (tick box or enter value, as appropriate):

Type of device	Manual reset	Aulomatic reset	Time to operate s	T ri p current A .	Setting
Three phase circuit breaker					
Overloads in each phase	-				
Timing relay					
Thermistor					
Other (name type)					
b) Have you found these satisfacto	ory?	0	Yes ONo		
6.3 Convertor input			S N/A		
a) Measure and record the followin	ig (lick box or ei	nter value, as appl	ropriate):		
Type of device	Manual reset	Automatic reset	Time to operate s	Trip current A	Setting
Three phase circuit breaker	:				
Overloads in each phase					
Timing relay	1				
Thermistor					
Other (name type)					
b) Have you found these satisfacto	ry?	0	Yes O No		
6.4 MG set drive motor			S N/A		
a) Measure and record the followin	g (tick box or er	nter value, as appr	ropriate):		
Type of device	Manual reset	Automatic reset	Time to operate s	Current A	Setting
Three phase circuit breaker					-
Overloads in each phase	:			-	
Timing relay					
Thermistor					

b) Have you found these satisfactory?

1

Other (name type)

O Yes O No

Table 1. Certificate of teat and examination for electric passenger and goods lifts (cont.)

7 Overspeed governor tests

7.1 Car governor

Complete the following:

Governor lype: BODE TYPE 7 104 10 1884 Serial number:

Device

Tripping speed

Measured Car up

2.6

2.6

Electrical

Mechanical

i

Yes O No Yes O No

Car down

2.6

2.6

Does it operate effectively?

Stale how the governor was tested on the installation

2.63

m/s Marked

loaded cut to overspeed Albaing folly in down direction.

7.1 Counterweight governor Complete the following: Governor type: Serial number: Tripping speed Device Does it operate m/s effectively? Marked Measured Car up Car down O Yes O No Electrical O Yes O No Mechanical

State how the governor was tested on the installation:

8 Car safety gear test

NOTE. The following tests are to be conducted with the car descending. The test load is to be uniformly distributed in the car, and the safely gear switch, overspeed governor switch, buffer switch or any other electrical devices that may cause the lift to stop are to be temporarily shorted out. During the tests the brake is to be kept open, with the machine continuing fo run until the ropes stip or become slack

8.1 Progressive safety gear

O N/A

m

a) Does the safety gear operate correctly when engaging at rated \checkmark Yes O No speed with 125 % of rated load uniformly distributed ?

0.43 b) State slide distance? Yes O No c) Does this value lie within the range given by the manufacturer? Yes O No d) is the floor of the lift car horizontal or isloping less than 5 % from the horizonlal? e) Following the test of 8.1a. confirm that no deterioration which & Yes could adversely affect the normal use of the lift has occurred: 8.2 Instantaneous safety gear a) Does the safety gear operate correctly when engaging at O Yes O No rated speed with the rated load uniformly distributed ?

b) Is the floor of the lift car horizontal or sloping less than 5 O Yes O No % from the horizontal?

c) Following the test of 8.2a, confirm that no deterioration which O Yes could adversely affect the normat use of the lift has occurred

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9 Counterweight safety gear test

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NOTE. The following lasts are to be conducted with the counterweight descending. There is to be no load in the car and the safety gear switch, overspeed governor switch, buffer switch or any other electrical devices that may cause the lift to slop are to be temporarily shorted out. During the tests the brake is to be kept open, with the machine continuing to run until the ropes slip or become slack.

9.1 Progresaive safety gear	S N/A
a) Does the safety gear operate correctly when engaging at rated speed with the car empty?	() Yes () No
b) State slide distance?	m
c) Does this value lie within the range given by the manufacturer?	O Yes O No
d) Following the test of 9.1a, confirm that no deterioration which could adversely affect the normal use of the lift has occurred:	O Yes
9.2 Instantaneous safety gear	Ø N/A
a) Does the safely gear operate correctly when engaging at rated speed with the car empty?	Q Yes () No
b) Following this test, confirm that no deterioration which could adversely affect the normal use of the life has occurred:	O Yes

Table 1. Certificate of test and examination for electric passenger and goods lifts (cont.)

۰.

10 Reduced stroke buffering		Ø N/A			
Does the terminal speed reduction system ensure that the butter Impact speed is appropriate to the stroke of the butter (seo 10.4.3.2 of Part 1)?	() Yes	O No	****		
11 Buffers				•	
11.1 Energy accumulation buffers (spring type) When the car with its rated load is placed on the bulfer(s), the ropes being made slack, confirm that the compression corresponds to that given by the characteristic curve of the buffer (as supplied by the buffer supplier or the lift supplier):	e N/A	O Yes			
11.2 Energy accumulation buffers (polyure/hane type)					
When the car with its rated load is placed on the buffer(s), the ropes being made slack, confinn that the compression corresponds to that given by the characteristic curve of the buffer (as supplied by the buffer supplier or the lift supplier);	S N/A	O Yes			
11.3 Energy dissipation buffers (oil type)		0 N/A			
a) Car buffers: When the car is brought into contact with the buffers at rated load, at rated speed or at a speed for which the stroke of the buffers has been calculated, is operation satisfactory?	o Yes	O No			
b) Counterweight buffers; When the counterweight is brought into contact with the buffer with the car empty at rated speed, or at a speed for which the stroke of the buffer has been calculated, is operation satisfactory?	O Yes	O No			
c) Do the buffers recover automatically after operation?	Yes	O No			
12 Traction checks					
a) Does the car stop under emergency conditions:					
1) with car empty, when travelling upwards at rated speed?	Yes	O No			
2) with 125 % rated load, when travelling downwards in the lower part of the well at rated speed?	o Yes	Ó No			
b) When the counterweight is resting on its compressed buffers is it mpossible for the empty car to be raised under power?	Yes	O No			
	o Yes	Q No			
c) From the measurements recorded in item 5 of this table is the palance satisfactory?			Actual		
palance satisfactory?	becified %	*	45	%	

16

Table 1. Certificate of test and examination for electric passenger and goods lifts (cont.)

13 Duty cycle tests

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a) Does the lift operate satisfactorily for a period of at least 0.5 h when running with rated load, full travel and intermediate stops at a rate of starts at least equal to the number of starts recommended in part 4.2 of Part 6?

Yes O No

17 °c Yes O No

b) State the machine room temperature at the end of this test:

Is this temperature rise acceptable?

If NO, state reasons:

NOTE. It may be necessary to adjust or omit the operation of the doors to achieve the required number of starts per hour

14 General

a) Is the maximum load indicated in the car (e.g. numbe in kilograms and identification number) and does it confo. Part 1?		ы О,	Yes O No	, *
b) If the lift is a firefighting lift, confirm that it has been a accordance with BS 5588 : Part 5:	lesigned in O	N/A O Yes		
c) If the lift is a firefighting tift , confirm that it has been to accordance with BS 5588 : Part 5:	ested in	N/A O Yes	\$	
d) If the lift has an evacuation system for disabled perso confirm that it has been designed in accordance with BS 8:	5588 : Part	N/A O Yes	; *	
e) If the lift has an evacuation system for disabled person confirm that it has been Tested in accordance with BS 55 8:		N/A O Yes	\$	
f) Confirm that the emergency instructions are displayed machine room in accordance with 15.4 of Part 1:	I in the	dre	38	
g) Confirm that the emergency operation system(s) for in accordance with 12.5 of Part 1;	when correctly	ére	es	
To whom has the emergency operation system been demonstrated?	Name: NoT D encus	TRATED		rganisation:
h) Confinn that the artificial lighting in the machine room 6.3.6 of Part 1:	n conforms to	d ye	es	

Tabla 1. Certificate of test and examination tor electric p	assenger and good	ls lifts (cont.)
i) Confirm that the artificial lighting in the well conforms to of Part 1:	5.9 O N/A	o Yes
j) Are the machine room conditions satisfactory?		O Yes ONO
If NO, state reasons:	loor to be	- renewled.
k) Are the provisions for heating and ventilating the machine working order?	e toom in	Yes O No
 Confirm that the machine room doors or trap doors are f suitable lock conforming to 6.3.3.3 of Part 1; 	illed with a	Yes
m) What are the means of emergency communication for passengers in the lift car?	Audib/e signal	Voice communication Autoducter
Confim that at least one means of emergency communication works:		Yes
n) Confirm that the emergency lighting of the car stays illum at jeast 1h:	ninated for	Yes
o) Is there safe means of access to all itams of lift equipme	nt in	Yes O No

accordance with Part 1?

If NO, state reasons:

p) Confirm that the safety notices/instructions specified in clause 15 of Part 1 and recommended in 3.6 of Pari 6 are correctly displayed;

q) Confirm that the foe guard conforms to 8.4 of Part 1:

r) Has a counterweight screen been fitted?

15 Conclusions

a) Following the foregoing tests, confirm that all items for which the lift contractor is responsible are complete and thai no dejerioration which could adversely atfect the normal use of the lift has occurred

Yes e Yes Yes O No O N/A

Yes

Table 1. Certificate of test and examination for electric passenger and goods tifts (cont.)

b) Are all the items associated with the installation, for which the lift manufacturer is not responsible, in a suitable state for the installation to be put into service?

O Yes O No

NOTE. Some items requiring attention may not be part of the contract for the lift bui part of the installation and the responsibility of others. A list of typical inclusions and exclusions is given in BS 5655 : Part 6

I(NO, provide details :

16 Declaration of conformity of design and manufacture

Does the design and manufacture of the lift conform to $BS\,5655$: Part 1?

If NO, state deviations:

O Yes O No *

Signatures(s):

Company position:

18

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Table 1. Certificate of test and examination for electric passenger and goods lifts (concluded.)

17 Declaration of test

I/we certify that on 3, 2.06 the equipment was incroughly examined and found to be free from obvious defects, subject to any statement in 15c and that the foregoing is a correct report of the result.

Vendor/purchaser's identification number:

H090

Signatures(s):

11/000 T. F. Cook.

Autodialer Numbers. 0207 838 5374 0845 634 0213

Name and address of public service, association, company firm or person making the examination:

T.C. Lift Aid Ltd. 17 Cherry Orehard Rel. Brandey Kent. BRZ SNE.

Position in the above organization of the person who conducted the examination:

TESTER DIRECTOR

or Qualifications of examiner, if working on his/her own account:

NVQ Leva 4

Test certificate serial number:

Date:

Table 1. Certifica	te of test and exam	ination for electric pa	assenger and goods lift	5			
Notes for the comp	letion of this cartifion	ita		<u> </u>			
	below in association with a part tause numbers relate to this su	number reler (a clauses, t-gures, t ibsoction of 65 6655	ables or ennexes of the stated				
	o all relavent questions should ly one of the atternative boxes :	be entered in the appropriate boxe should be licked.	es. Where multiple choice				
3. Boxes marked with an a	stensk (*) should be completed	by the vendors design office					
 Itelic type is used where 	reference is made to a require	meni of BS 5655: Part 11 1986					
1 Description of	installation						
Location GR	ENFELL TOWER	*	Vendor Apex L	_ifts Ltd			
Length Of Travel	63.209	m	Vendors Identificati C5470				•
Number of levels a	served:		Purchasers identific H091	ation No			•
Το	tal 22	*					
Fro	ont 22	•	Dever 2000 1	A D-	ermanei	nt	
Re	ar -	*	Power Supply	0 Te	emporar	ŷ	
Si	de -	*					
					pecified	l	Actual at of tes
Rated Load	900 kg *	12 Persons *	Vol	tage 4	15	*	413
Rated Speed	2.0 m/s *		PI	nase 3		*	3
Nateu opeeu	2.011/3		Freque	ency 5	0	*	50
			Wire(3	kor4) 3		*	3
			Fuse R	ating		*	100
Machine room loca	ation		Fuse	Гуре		*	HRC
	Above well Below well	*					
	O At side O Within Shaft	•	Are the above entri			~ "	_
					O Yes		U
		· ·		Sp	ecified	+	Actual
Machine room tem start of dynamic te		26 °c	Main Switch Rating	10	0	Α	100
			Is the Switch Fused	O Yes	O No	۲	Yes ON
Reeving Ratio	1.1	*	ls it lockable off	O Yes	O No	۲	Yes ON
			Number of poles				3
		;					-

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Tablo 1. Certificate of test and examination for electric passen	ger and goods lifts (cont)	
2. Static Examination (mechanical)		
2.1 Suspension		
a) Suspension ropes:	Specified	Actual
Number:	6 *	6
Nominal diameter:	13 mm*	13 mm
Lay & construction:	R.H. Ordinary 8/19 *	R.H. Ordinary 8/19
Is test certificate in order & available?	● Yes O No *	
Is rope data plate fitted to crosshead?	● Yes O No	
b) Rope anchorages :		
	Car	Counterweight
Туре	WEDGE CLAMP	WEDGE CLAMPS
Number Of Rope Grips (if any):	1	1
Confirm that rope grips (if any) are fitted correctly :	• Yes	● Yes
State BS number and type of socketed anchorages used (if any):	EYE BOLTS	EYE BOLTS
Describe any other kind of anchorage used:		
	Specified	Actual
Are anchorages in accordance with 9.2.3. of part 1 ?	● Yes O No *	● Yes O No
Are the anchorages prevented from rotating through 180° ?	● Yes O No *	● Yes O No
Do the ropes conform to 9.5 of part 1 ensuring distribution of load between the ropes?	● Yes O No *	● Yes O No
c) Suspension chains:	● N/A	
1) Number:	Specified	Actual
2) Pitch :		
3) Type and construction:		

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Table 1. Certificate of test and examination for electric passenge	r and goods lifts (cont)	
4) Is the chain test certificate available and in order?	OYes ONo ⁺	
5) Are the anchorages in accordance with 9.2.5 of Part 1?	O Yas O No *	
	Specified	Actual
6) Do the chains conform to 9.5 of part 1,ensuring distribution of load between chains?	OYes ONo ⁺	O Yes O No
d) Eyebolts:	Specified	Actual
If eyebolts used do they conform to Part 8?	OYes ONo ⁵	O Yes O No
2.2 Compensation		
a) Is compensation provided?	OYes ◉No *	
b) If yes what type?		
Specified	Actual	
1) Rope:	•	
2) Chain:	*	
3) Anti Rebound:	*	
4) Number:	•	
5) Size:	•	
2.3 Safety gear, overspeed governor, overspeed governor rope a	nd tension pulley	<u>,</u>
a) Has the safety gear been tested in accordance with F.3 of part 1 and certified in accordance with F.3.5 of part 1?	• Yes	○ No *
 b) If YES, is the data plate fitted in accordance with 15.14 of Part 1? 	• Yes	O No
c) Is the safety gear seated (see 9.8.6.4 of Part 1)?	● Yes	O No
d) Confirm that the governor has been tested in accordance with F.4 of Part 1 and certified in accordance with F.4.3 of part 1:	● Yes	O No *
e) Specify overspeed governor type:	BIDIRECTIONAL - BO	DE
f) State type of overspeed governor fitted:	VCB 098/1	
g) Is the data plate fitted & in accordance with 15.6 of Part 1?	● Yea	O No
h) Confirm that the governor is sealed:	● Yes	
	Specified	Actual
i) State safety rope nominal diameter:	8 mn*	8 mm
j) Confirm that the safety gear, overspeed governor, overspeed gove rope and the tension pulley operate as a compatable system:	mar 🔘 Yes *	Yes

PEX LIFT	5 C5470				
Tabie 1. Certifi	cate of test and examination for electric passenger	and goods lifts	s (cont)		
2.4 Car					
	the available floor area, related to rated load and ar of pa ssenger s, conforms to 8.2 of Part 1?	۲	Ye s *		
		Specified		Actual	
b) State the inte	rnal width, i.e. wall to wall (without finishes):		mm*		1400
c) State the inte to rear return (wi	rnal depth, i.e. front return to rear wall or front return thout finishes):		mm*		1400
2.5 Energy acc	umulation buffers (spring buffers)	۲	N/A *		
a) Confirm tha	t the buffers conform to 10.4.1 of part 1	0	Ye s *		
		Specified		Actual	
b) State numbe	r fitted		*	•	
c) Confirm that	the buffers are correctly identified	0	Ye s		
2.6 Energy acc	umulation buffers (polyurethane buffers)	۲	N/A *		
a) Confirm that	the buffers conform to 10.4.1 of part 1	0	Ye s *		
		Specified		Actual	
b) State size sel	ected:		•	٧	
c) State number	fitted:		•	٧	
d) Confirm that	the buffers are correctly identified:	0	Yes		
2.7 Energy dis	sipation buffers (e.g. oil)	۲	N/A *		
	the buffers have been tested in accordance with F.5 o	of			
Mart 1 and certif	ed in accordance with F.5.4 of Part 1?	۲	Yes *		
b) is the data pl	ate in accordance with 15.8 of part 1?	۲	Yes ON	ło	

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Table 1. Certificate of test and examination for electric passeng	er and goods lifts (co	ont)	
c) If No are they suitable for submission to the test described			
in 11.3 of this table?	© N/A OY	es O No	
d) Are they correctly filled and not leaking?	() ک	/es O No	
e) Is there reduced stroke buffering (see Item 10 of this table)?	OY	∕es	*
f) Is the stroke of each buffer in accordance with 10.4.3 of Part i?	@ Y	∕es ONo	
g) Slate number fitted	Specified 2	ŧ	Actual 2
2.a Brake		·	
Confinn that the brake sustains the static car at the lowest level when loaded with 125% of rated load	۲	Yes	
.9 Landing door assemblies			
a) Does the contract require the landing door assemblies to be fire-rated	● Yes 〇 No *		
if YES what is the fire-rating requirement	2 H	lour*	
b) Is the test certificate available and in order	ON/A ⊚Yes O) No *	
c) If yes and the doors are manually operated is the means of fire prevention a fusible link	⊚ N/A O Yes O) No *	
d) If NO describe the method used			
	,		
e) Confirm that the fire rated elements of the door assembly are correctly fitted :	Yes		
.10 Door locks			
a) Confirm that all the door locks have been tested in accordance with F1 of Part 1 and certified in			
accordance with F.1.4 of Part 1:	• Yes *		
b) Does the data plate conform to 15.13 of Part 1:	Yes O No		

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Table 1. Certificate of test and examination for electric passe	nger and goods lifts (cont)	
3 Static examination (electrical)		
3.1 Electric safety devices		
Confirm that the electric safety devices are in accordance with appendix A of Part 1	۲	Yes
3.2 Insulation resistance to earth (see clause 5)		
a) Lift motor	> 2 80 M	Ohms
b) MG set (if fitted)		
1) Motor	- M	Ohms
2) Generator	- M	Ohms
c) Power system	>900 M	Ohms
d) Safety devices (slate minimum reading)	>900 M	Ohms
3.3 Earthing		
a) Is the maximum continuity resistance to the earth provided less than 0.5 Ohms ? (see clause 7b):	@ Yes 🔘 No	
b) Is the car connected to the controller earthing terminal by a separate conductor at least 0.75mm in cross section	I Yes O No	
3.3 Protection of conductors		
a) Is the fixed wiring in conduits (or trunking, or fittings which ensure equivalent protection) throughout?	⊚ Yes Q No	
b) If NO do the cables conform to 13.5.1.2 of Part 1?	⊚ N/A O Yes O No	
3.3 Phase failure device		· · · · · · · · · · · · · · · ·
Confirm that the phase reversal and phase failure protection operates correctly:	Yes	
3.3 Electrical wiring		
Do ihe electrical conductors, including travelling cables conform to 13.5 of Part 1?	● Yes 〇 No	

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Table 1. Certificate of test and examination for electric pass	senger and g	oods lifts (cont)	
4 Dynamic tests			· · · · · ·
4.1 Safety contact/circuits			
a) Have the contacts at each landing entrance been proved so when broken they stop and prevent movement of the car outsid unlocking zone?		● Yes () No	
b) Have the mechanical locks at each tanding entrance been proved for positive locking?		● Yes ○ No	
c) Have the car door/gate contacts been proved so that when b there is no car movement outside the unlocking zone?	roken	● Yes () No	
d) If separate terminal stopping switches are fitted, do they operate satisfactorily?	O N/A	● Yes ○ No	
e) Do the final limit switches operate satisfactrily?		• Yes • No	
	No	minal	Actual
f) State the distance beyond terminal floor level at which the final limit switches are set to operate:	Τορ	150 mm*	100 mm
	Bottom	150 mm *	100 mm
g) Have the stopping devices on the car top and in the pulley re and pit been proved so that when broken they stop and prevent movement of the car?	oom	● Yes 〇 No	
h) Have all the other switches/contacts in safety devices been p so that when broken they stop and prevent movement of the ca	proved r?	● Yes ○ No	
i) Does the earthing of the most remote contact (lock or push be operate a fuse or trip a circuit breaker without delay?	utton)	● Yes ○ No	
j) Have the stopping devices on the car top and in the pulley room and pit, bean proved so that whan broken they stop and prevent movement of the car under emergency electrical operaflon?	O N/A	● Yes ○ No	
4.2 Car top control station	а <u>9 у у у токо</u>		
a) Confirm that the lift speed when under car top control does a exceed 0.63 m/sec:	not	Yes	
b) Speed up:		0.25 m/s	
c) Speed down:		0. 2 5 m/s	
d) Confirm that the design of the car top station conforms to 14 of part 1:	l.2.1.3	● Yes *	
e) Confirm that the operation of the car top station conforms to of Part 1:	14.2.1.3	• Yes	

APEX LIFTS

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Tabla 1. Gertificate of test and examination for electric passenger and goods lifts (cont)		
4.3 Clearance and run-bys		
a) Will the car and counterweight clear all obstacles with the car and rated load compressing the car buffers?	⊛ Yes O No	
b) When the counterweight rests on its fully compressed buffers, what is the minimum distance to the first striking point above the car, determined in accordance with 5.7.1.1c of Part 1?	240MM <i>m</i> *	
c) By how much is the distance in b) exceeded?	20MM <i>m</i>	
d) When the counterweight rests on its fully compressed buffers, is there a sufficient space to accomodate a rectangular block 0.5 m x 0.6 m x 0.8 m above the car as specified in 5.7.1.1d of Part 1?	● Yes O No	
e) Confirm that the further guided travel of the counterweight, with the car on its fully compressed buffers, exceeds 300mm, as specified in 5.7.1.2 of part 1:	● Yes	
f) When the car rests on its fully compressed buffers, is there a sufficient space to accomodate a rectangular block 0,5 m x 0.6 m x 1.0 m below the car as specified in 5.7.3.3 of Part 1, and at least 0.5 m between the bottom of the pit and the lowest point of the car	● Yes O No	
NOTE. Attention is drawn to the requirement given in 5.7.3.3.b2 of part 1 th bottom of the pit and the lowest part of the guide shoes or rollers of safety ge sliding doors be at least 0.1m		
4.4 Entrance clearances		
a) Is the horizontal distance between the sill of the car and sill of all the landing doors 35 mm or less?	● Yes ONo	
b) Is the running clearance between door panels, and between panels and upright, lintels or sills 6 mm or less?	⊛Yes ⊖No	
c) Confirm that no recess or projection on the face of the sliding door panels exceeds 3 mm:	● Yes	
d) Is the distance between the inner surface of the well and the sill or framework of the car entrance or door 0.15 m or less, or 0.2 m if over a height not exceeding 0.5 m?	● Yes ○ No	
e) If the answer to d) is NO, is the car door mechanically locked when away from the unlocking zone, in accordance with 8.11.1 of ON/A Part 1?	x	



Table 1. Certificate of test and examination for electric passe	mor and goods lifts (cont)
4.5 Door tests	
NOTE. Where appropriate , the following tests should be carried out	it with the car and landing doors coupled
a) How are the doors operated?	O Manually If so answer f, h, i, j, k, i, m, n. Powered if so answer all except m.
b) Is the measured maximum force to prevent closing, at the mid point of travel, 150 N or less?	Yes O No
State the figure recorded:	140 N
c) Is the measured kinetic energy 10 J or less?	Yes O No
State the figure recorded:	4 J
 d) Do all iho protective devices reverse the doors in accordance v 7.5.2.1.1.3 of Part 1? 	vith Yes O No
e) If the protective device is made inoperative (see 7.5.2.1.1.3c of Part 1)?	
1) Do the doors remain open	Yes O No
2) If the answer to 1) is NO, do the doors close with a kinetic energy not exceeding 4 J?	N/A O Yes O No
f) ts the unlocking zone 0.2 m or lass above and below landing le (or 0.35 m in the case of simultaneously operated car and landing doors)?	
g) Do the landing doors have an automatic mechanical self-closing mechanism?	ON/A OYes ON0
h) Is each set of landing doors capable of being unlocked from the wijh an emergency key?	e outside
If not, why not?	
i) Does the door motor/retiring ramp actuator protection system	
function correctly?	
j) What form of electrical protection is provided for the door moto	or/retiring ramp actuator? AC CIRCUT BREAKER
🔲 D.C. circuit breaker 📋 Three phase circuit breaker 📋 Over	loads in each phase 🛛 Timing relay 📋 Thermistors
State the relavent characteristics: O N/A	Time to operate 20 s
	Trip current 3 A (if applicable)
k) Can the doors be manually opened within the unlocking zone with a force of less than 300 N with the power off (see 8.11.2 of Part 1)?	● Yes O No
I) If the rated spaed of the lift is greater than 1.0 mis is the force required to open the car doors when outside the unlocking zone N or greater?	50 O N/A Ves O No
m) Does the 'car here' indicator conform to 7.6.2 of Part 1 for manual doors?	IN/A O Yes O No
n) If the entrance clearances are not in accordance with 4.4d of has it been checked that the car doors are mechanically locked w the unlocking zone in normal operation ?	

APEX LIFTS

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Table 1. Certificate of test	and examination for	electric passenger and goods lifts (cont)

Measurements of the electrical system					
a) State the power system (use terms as described in 4.2.3 of Part 6)					
 b) Provide the foliowing details of the lift motor (as stated on the data plate) Maker 	Specified		*	Actual ZIEHL ABEGG	
Serial number			*	0450077312	
Туре			*	VFD200L-4	
Voltage		v	*	3 Y360/400	v
Power Rating		kw	*	30	kw
Current Rating		Α	*	66	Α
Speed		r.p.m	ı, *	1470	r.p.m
Class of insulation			*	F	
Duty rating			*	240 SPH	

c) Measure and record the following operational data when the car is at mid point of travel

Car loading		Lift motor		Lift moto	or input		System in	put 2)	
condition		speed 1)	1)	Running		Start	Running		Start
		r.p.m.	m/s	V	A	A	V	A	A
	up	1351	2.0	571	40.7	63.5	412	1.1	45.2
Empty	down	1348	2.0	547	46.5	98.4	410	29.5	76.9
	up	1349	2.0	556	39.2	80.2	413	9.8	59.0
Balanced	down	1350	2.0	559	38.4	78.2	413	9.4	58.8
	up	1348	2.0	548	47.0	103.5	412	30.5	79.2
Rated	down	1352	2.0	572	39.8	63.8	416	1.1	45.6

1)

1) Complete either of these columns in its entirety & make one entry only in the alternative column for the "rated up" condition 2) Energy convertor or equivalent. Measure the system input to the coniroller from the main supply

Car loading			Lift speed	Lift mo	tor input		System	input 2)	
condition		speed 1)	1}	Runnin	g	Start	Runnin	g	Start
		r.p.m.	m/s	V	A	A	V	A	A
	up			_					
Empty	down								
_	up								
Balanced	down								
	up								
Rated	down								

2) Energy convertor or equivalent. Measure the system input to the controller from the main supply



Maximum levelling	deviation	······································]	
Car loading condi		Maximum lev	elling deviati	on (+ or -)		
		Specified mm	1000 440804 1	Actual mm	······	
	up			4	·····	
Empty	down		·	2		
Deleneed	up			3		
Balanced	down			3		
Rated	up			2		
r tatow	down			4		
1) Type 2) Serial No 3) Input		MR - L84045 DO49G9963T002 kw	115 A	400 V	r.p.	m.
2) Serial No		O49G9963T002	115 A 80KV A	400 V 400 V	r.p. r.p.	
 2) Serial No 3) Input 4) Output 5 Lift motor over 5.1 Main winding 	JC current prote s	DO49G9963T002 kw kw	80KV A	400 V		
 2) Serial No 3) Input 4) Output 6 Lift motor overed 5.1 Main winding a) Measure and red 	JC current prote s	DO49G9963T002 kw kw	80KV A	400 V		
 2) Serial No 3) Input 4) Output 5 Lift motor overed 3.1 Main winding a) Measure and red 	JC current prote s pcord the follo	DO49G9963T002 kw kw ective devices wing (tick box or en Manual	80KV A	400 V	r.p.l Trip current	m.
 2) Serial No 3) Input 4) Output 5 Lift motor overed 5.1 Main winding a) Measure and re Fype of device Three phase circuit 	JC current prote s cord the follo	DO49G9963T002 kw kw ective devices wing (tick box or en Manual reset	80KV A	400 V appropriate): ic Time to operate s	r.p. Trip current A	m.
 2) Serial No 3) Input 4) Output 6 Lift motor overa 6.1 Main winding a) Measure and re Type of device 	JC current prote s cord the follo	DO49G9963T002 kw kw ective devices wing (tick box or en Manual reset X	80KV A	400 V appropriate): ic Time to operate s	r.p. Trip current A	m.

b) Have you found these satisfactory?

Yes O No

(영양 ^ 김 그녀 그것), 영경 의견 김 그것 같아. '정말'	

6.2 Slow spaed windings			N/A		
a) Measure and record the follow	i ng (tick box or e n	ter value, as appro	p riate) :		
Type of device	Manual reset	Automatic reset	Time to operate s	Trip current A	Setting
Three phase circuit breaker		-			
Overloads in each phase					
Timing relay			<u> </u>		
Thermistor					
Other (name type)					
b) Have you found these satisfac	tory?	0	Yes O No		
6.3 Convertor input			O N/A		
a) Measure and record the follow	in g (tick box or en	ter value, as appro	p riate) :		
				••••••••••••••••••••••••••••••••••••••	r
Type of device	Manual reset	Automatic reset	Time to operate s	T ri p current A	Setting
Three phase circuit breaker		x		100	
Overloads in each phase		-		-	
		×			
Timing relay					
		· · · · · · · · · · · · · · · · · · ·			
Timing relay Thermistor Other (name type)		· ·			
Thermistor	tory?	×	Yes O No N/A		
Thermistor Other (name type) b) Have you found these satisfac	- 	Solution	Yes () No (e) N/A		
Thermistor Other (name type) b) Have you found these satisfac 6.4 MG set drive motor	- 	Solution	Yes () No (e) N/A	Trip current A	Setting
Thermistor Other (name type) b) Have you found these satisfac 5.4 MG set drive motor a) Measure and record the follow	ing (tick box or en Manual	ter value, as appro	Yes O No N/A priate): Time to operate	current	Setting
Thermistor Other (name type) b) Have you found these satisfac 6.4 MG set drive motor a) Measure and record the follow Type of device Three phase circuit breaker	ing (tick box or en Manual	ter value, as appro	Yes O No N/A priate): Time to operate	current	Setting
Thermistor Other (name type) b) Have you found these satisfac 5.4 MG set drive motor a) Measure and record the follow Type of device Three phase circuit breaker Overloads in each phase	ing (tick box or en Manual	ter value, as appro	Yes O No N/A priate): Time to operate	current	Setting
Thermistor Other (name type) b) Have you found these satisfac 6.4 MG set drive motor a) Measure and record the follow Type of device Three phase circuit breaker Overloads in each phase Timing relay	ing (tick box or en Manual	ter value, as appro	Yes O No N/A priate): Time to operate	current	Setting
Thermistor Other (name type) b) Have you found these satisfac 6.4 MG set drive motor a) Measure and record the follow Type of device Three phase circuit breaker	ing (tick box or en Manual	ter value, as appro	Yes O No N/A priate): Time to operate	current	Setting



..

1	3

7 Overspeed g	•				
7,1 Car govern					
Complete the fol	lowing:				
Governor type:	VC	B 098/1, BIDIRECT	ONAL - BODE		
Serial number:			101 10 1886		
Device	Tripping spee	əd		Does it operate	
	m/s			effectively?	
	Marked	Measured			
		Car up	Car down		
Electrical		2.60	2.64	● Yes O No	
Mechanical			2.79	● Yes O No	
State how the ac	vernor was tested	on the installation			
CWT TESTED CAR TESTED 7.1 Counterwe	FULL LOAD WITH	1 CWT IN FREEFALL CAR IN FREEFALL			-bom
CWT TESTED CAR TESTED 7.1 Counterwe Complete the fol Governor type:	EMPTY CAR WITH FULL LOAD WITH				
CWT TESTED CAR TESTED	EMPTY CAR WITH FULL LOAD WITH	OAR IN FREEFALL		Does it	
CWT TESTED CAR TESTED 7.1 Counterwe Complete the fol Governor type: Serial number:	EMPTY CAR WITH FULL LOAD WITH ight governor lowing:	OAR IN FREEFALL		Does it operate effectively?	
CWT TESTED CAR TESTED 7.1 Counterwe Complete the fol Governor type: Serial number:	EMPTY CAR WITH FULL LOAD WITH ight governor lowing: (Tripping spee m/s	© N/A		operate	
CWT TESTED CAR TESTED 7.1 Counterwe Complete the fol Governor type: Serial number:	EMPTY CAR WITH FULL LOAD WITH ight governor lowing: (Tripping spec	© N/A Measured		operate	-
CWT TESTED CAR TESTED 7.1 Counterwe Complete the fol Governor type: Serial number: Device	EMPTY CAR WITH FULL LOAD WITH ight governor lowing: (Tripping spee m/s	© N/A	Car down	operate effectively?	
CWT TESTED CAR TESTED 7.1 Counterwe Complete the fol Governor type: Serial number: Device Electrical	EMPTY CAR WITH FULL LOAD WITH ight governor lowing: (Tripping spee m/s	© N/A Measured	Car down	operate	
CWT TESTED CAR TESTED 7.1 Counterwe Complete the fol Governor type: Serial number: Device Electrical Mechanical	EMPTY CAR WITH FULL LOAD WITH ight governor lowing: (Tripping spee m/s Marked	© N/A © N/A Measured Car up	Car down	operate effectively?	
CWT TESTED CAR TESTED 7.1 Counterwe Complete the fol Governor type: Serial number: Device Electrical Mechanical	EMPTY CAR WITH FULL LOAD WITH ight governor lowing: (Tripping spee m/s	© N/A © N/A Measured Car up	Car down	operate effectively?	
CWT TESTED CAR TESTED 7.1 Counterwe Complete the fol Governor type: Serial number: Device Electrical Mechanical	EMPTY CAR WITH FULL LOAD WITH ight governor lowing: (Tripping spee m/s Marked	© N/A © N/A Measured Car up	Car down	operate effectively?	
CWT TESTED CAR TESTED 7.1 Counterwe Complete the fol Governor type: Serial number: Device Electrical Mechanical	EMPTY CAR WITH FULL LOAD WITH ight governor lowing: (Tripping spee m/s Marked	© N/A © N/A Measured Car up	Car down	operate effectively?	



8 Car safety gear test		
NOTE. The following tests are to be conducted with the car descencer, and the safety gear switch, overspeed governor switch, buffer so the lift to stop are to be temporarily shorted out. During the tests the to run until the ropes slip or become slack	switch or	any other electrical devices that may cause
8.1 Progressive safety gear		O N/A
a) Does the safety gear operate correctly when engaging at rated speed with 125 % of rated load uniformly distributed ?	🖲 Yes	O No
b) State slide distance?		495MM m
c) Does this value lie within the range given by the manufacturer?	● Yes	O No
d) Is the floor of the lift car horizontal or sloping less than 5 % from the horizontal?	Yes	O No
e) Following the test of 8.1 a, confirm that no deterioration which could adversely affect the normal use of the lift has occurred:	Yes	
8.2 Instantaneous safety gear	N/A	
a) Does the safety gear operate correctly when engaging at rated speed with the rated load uniformly distributed?	O Yes	Q No
b) Is the floor of the lift car horizontal or sloping less than 5 % from the horizontal?	O Yes	O No
c) Following the test of 8.2a, confirm that no deterioration which could adversely affect the normal use of the lift has occurred:	O Yes	
9 Counterweight safety gear test		
NOTE. The following tests are to be conducted with the counterwer and the safety gear switch, overspeed governor switch, buffer switc the lift to stop are to be temporarily shorted out. During the tests the continuing to run until the ropes slip or become slack.	ch or any	other electrical devices that may cause
9.1 Progressive safety gear		● N/A
a) Does the safety gear operate correctly when engaging at rated speed with the car empty?	O Yes	O No
b) State slide distance?		m
c) Does this value lie within the range given by the manufacturer?	O Yes	O No
d) Following the test of 9.1a, confirm that no deterioration which could adversely affect the normal use of the lift has occurred:	O Yes	
9.2 Instantaneous safety gear		● N/A
a) Does the safety gear operate correctly when engaging at rated speed with the car empty?	O Yes	O No
b) Following this test, confirm that no deterioration which could adversely affect the normal use of the lift has occurred:	O Yes	



10 Reduced stroke buffering		N/A	
Does the terminal speed reduction system ensure that the buffer impact speed is appropriate to the stroke of the buffer (see 10.4.3.2 of Part 1)?	O Yes	O No	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
11 Buffers			
11.1 Energy accumulation buffers (spring type)			
When the car with its rated load is placed on the buffer(s), the ropes being made slack, confirm that the compression corresponds to that given by the characteristic curve of the buffer (as supplied by the buffer supplier or the lift supplier):	● N/A	O Yes	
11.2 Energy accumulation buffers (polyurethane type)			······································
When the car with its rated load is placed on the buffer(s), the ropes			
being made slack, confirm that the compression corresponds to that given by the characteristic curve of the buffer (as supplied by the buffer supplier or the lift supplier);	⊛ N/A	O Yes	
11.3 Energy dissipation buffers (oil type)	MINT	O N/A	
a) Car buffers: When the car is brought into contact with the buffers at rated load, at rated speed or at a speed for which the stroke of the buffers has been calculated, is operation satisfactory?	n • Yes	O No	
b) Counterweight buffers: When the counterweight is brought into contact with the buffer with the car empty at rated speed, or at a speed for which the stroke of the buffer has been calculated, is operation satisfactory?	Yes	O No	
c) Do the buffers recover automatically after operation?	Yes	O No	
12 Traction checks			
a) Does the car stop under emergency conditions:			
1) with car empty, when travelling upwards at rated speed?	● Yes	O No	
2) with 125 % rated load, when travelling downwards in the lower part of the well at rated speed?	● Yes	O No	
b) When the counterweight is resting on its compressed buffers is it impossible for the empty car to be raised under power?	● Yes	O No	
c) From the measurements recorded in item 5 of this table is the balance satisfactory?	• Yes	O No	
	Specified 50 %	•	Actual 50 %
State the percentage of the balance:	-		

	tric passenger and goods lifts (cont.)
13 Duty cycle tests	
a) Does the lift operate satisfactorily for a period of at when running with rated load, full travel and intermedia rate of starts at least equal to the number of starts reco	te stops at a
part 4.2 of Parl 6?	Yes O No
b) State the machine room temperature at the end of test:	this 29.9 °c
Is this temperature rise acceptable?	Yes O No
If NO, state reasons:	
NOTE. It may be necessary to adjust or omit the oper	ation of the doors lo achieve the required number of starts
14 General	
in kilograms and identification number) and does if con Part 1?	form to 15.2.1 of Yes O No *
Part 1? b) If the lift is a firefighting lift , confirm that it has been accordance with BS 5588 : Part 5:	n designed in N/A O Yes *
 Part 1? b) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: c) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: 	n designed in • tested in • N/A O Yes
 Part 1? b) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: c) If the lift is a firefighting lift, confirm that it has been 	a designed in • tested in • N/A O Yes • rsons,
 Part 1? b) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: c) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: d) If the lift has an evacuation system for disabled pe confirm that it has been designed in accordance with B 	a designed in • tested in • N/A O Yes rsons, S 5588 : Part • N/A O Yes • N/A O Yes • N/A O Yes
 Part 1? b) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: c) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: d) If the lift has an evacuation system for disabled per confirm that it has been designed in accordance with B 8: e) If the lift has an evacuation system for disabled per confirm that it has been Tested in accordance with BS 	a designed in a tested in S 5588 : Part S 5588 : Part N/A O Yes N/A O Yes N/A O Yes N/A O Yes N/A O Yes
 Part 1? b) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: c) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: d) If the lift has an evacuation system for disabled per confirm that it has been designed in accordance with B 8: e) If the lift has an evacuation system for disabled per confirm that it hes been Tested in accordance with BS 8: f) Confirm that the emergency instructions are display 	a designed in a tested in S 5588 : Part S 5588 : Part S N/A O Yes N/A O Yes N/A O Yes N/A O Yes N/A O Yes N/A O Yes N/A O Yes S 5588 : Part N/A O Yes N/A O Yes
 Part 1? b) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: c) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: d) If the lift has an evacuation system for disabled per confirm that it has been designed in accordance with B 8: e) If the lift has an evacuation system for disabled per confirm that it has been Tested in accordance with BS 8: f) Confirm that the emergency instructions are display machine room in accordance with 15.4 of Part 1: g) Confirm that the emergency operation system(s) if 	a designed in a tested in S 5588 : Part S 5588 : Part N/A O Yes N/A O Yes N/A O Yes N/A O Yes N/A O Yes M/A O Yes
 Part 1? b) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: c) If the lift is a firefighting lift, confirm that it has been accordance with BS 5588 : Part 5: d) If the lift has an evacuation system for disabled per confirm that it has been designed in accordance with B 8: e) If the lift has an evacuation system for disabled per confirm that it has been Tested in accordance with BS 8: f) Confirm that the emergency instructions are display machine room in accordance with 15.4 of Part 1: g) Confirm that the emergency operation system(s) if 	a designed in a tested in (a) N/A (O) Yes rsons, S 5588 : Part (a) N/A (O) Yes (b) N/A (O) Yes (c) Yes

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APX00000096/37



Table 1. Certificate of test and examination for electric passer	iger and goods	s lifits (con	t.)
) Confinn that the artificial lighting in the well conforms to 5.9 of Part 1:	O N/A	Yes	
) Are the machine room conditions satisfactory?		🖲 Yes	O No
If NO, state reasons:			
c) Are the provisions for heating and ventilating the machine roor working order?	n in	● Yes	O No
) Confirm that the machtne room doors or trap doors are fitted v suitable lock conforming to 6.3.3.3 of Part 1:	vith a	🖲 Yes	
	<i>i</i> dible signal		Voice communicatio
m) What are the means of emergency communication for bassengers in the lift car?			
Confirm that at least one means of emergency communication works:		🖲 Yes	
n) Confirm that the emergency lighting of the car stays illuminated at least 1h:	l for	🖲 Yes	
b) Is there safe means of access to all items of lift equipment in accordance with Part 1?		🖲 Yes	O No
If NO, state reasons:			-
b) Confirm that the safety notices/instructions specified in clause of Part 1 and recommended in 3.6 of Part 6 are correctly displayed			
		● Yes	
a) Confirm that the toe guard conforms to 8.4 of Part 1:		🖲 Yes	
) Has a counterweight screen been fitted?	0 N/.	A 🖲 Yes	O No
15 Conclusions			
a) Following the foregoing tests, confirm that all items for which t contractor is responsible are complete and that no deterioration w adversely affect the normal use of the lift has occurred			
		🔘 Yes	

Fable 1. Certificate	of test and examination for	electric passenger and	goods lifts (cont.)	
b) Are all the items manufacturer is not be put into service?	associated with the installatior responsible, In a suitable state	n, for which the lift for the installation to	● Yes ◯ No	
NOTE. Some items esponsibility of othe	requiring attention may not be rs. A list of typical inclusions a	e part of the contract for nd exclusions is given in	the lift but part of the insta BS 5655 : Part 6	llation and the
if NO, provide d	etails :			
6 Declaration of c	conformity of design and ma	nufacture		
Does the design and	conformity of design and ma manufacture of the lift conforr		●Yes ○No *	
Does the design and	manufacture of the lift conform		● Yes ◯ No *	
Does the design and 3S 5655 : Part 1?	manufacture of the lift conform		● Yes ○ No *	
Does the design and 3S 5655 : Part 1?	manufacture of the lift conform		● Yes ○ No *	
Does the design and 3S 5655 : Part 1?	manufacture of the lift conform		● Yes ○ No *	
Does the design and 3S 5655 : Part 1?	manufacture of the lift conform		● Yes () No ・	
Does the design and 3S 5655 : Part 1?	manufacture of the lift conform		● Yes ○ No *	
Does the design and 3S 5655 : Part 1?	manufacture of the lift conform	n to		
Does the design and IS 5655 : Part 1?	manufacture of the lift conform	n to	Yes O No	



Table 1. Certificate of test and axamination for alactric passenger and goods lifts (concluded.)

17 Declaration of test

I/we certify that on 9/8/05 the equipment was thoroughly examined and found to be free from obvious defects, subject to any statement in 15c and that the foregoing is a correct report of the result.

Vendor/purchaser's identification number:

C5470 H091

Signatures(s):

ROGER ANTHONY

Name and address of public service, association, company firm or person making the examination:

APEX LIFTS APEX HOUSE LEFA BUSINESS PARK, EDGINGTON WAY, SIDCUP	
KENT DA14 5SH	

Position in the above organization of the person who conducted the examination:

PROJECT MANAGER / TESTER

Qualifications of examiner, if working on his/her own account:

Test certificate serial number:

C5470

Date:

or

19/8/05

