



**BUTLER & YOUNG**  
LIFT CONSULTANTS LIMITED



**CONDITION REPORT**

**ON THE**  
**PASSENGER LIFTS**

**INSTALLED AT**

**ABBEY & MUNDEN VIEW**

**GARSMOUTH WAY**

**WATFORD**



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<b>DOCUMENT AMENDMENT HISTORY</b>
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<b>Issue</b>	<b>Date</b>	<b>Purpose</b>	<b>Prepared</b>	<b>Checked</b>
Initial	30/08/18	Formatting	BB	
Draft	08/09/18	Internal for comment	BB	MM
Draft	11/09/18	Comments Included	BB	
Issue 1		To Client		

## **ABBEY VIEW & MUNDEN VIEW**

### **CONDITION REPORT**

#### **1.0 INTRODUCTION**

- 1.1 The following report has been prepared at the request of Mr John Sandy of Butler & Young Associates on behalf of their client Watford Community Housing.
- 1.2 An independent report has been commissioned to confirm the current condition of the four passenger lifts following their recent modernisation and subsequent poor reliability and performance.
- 1.3 There are two passenger lifts in each tower block that serve the floor levels on an odds & evens (skip stop) basis.
- 1.4 The report is based on a detailed site survey and review of the installed equipment undertaken on Thursday 23<sup>rd</sup> August 2018.
- 1.5 The report provides comment on the following:
  - i) Current condition and performance of the lifts,
  - ii) Review of the recent scope of works completed,
  - iii) Technical analysis of the installed equipment,
  - iv) Quality of the installation work,
  - v) Standard of maintenance,
  - vi) Available site records,
- 1.6 Selected photographs are included to illustrate points raised in the report.

## **2.0 BACKGROUND**

- 2.1 The four lifts within Abbey View & Munden View were refurbished to a Dunbar & Boardman specification in 2016/2017.
- 2.2 The Dunbar & Boardman technical specification is a comprehensive document with the same scope of works, excluding the control and drive system of Lift No1 Abbey View, being completed to all four lifts.
- 2.3 Available site information identifies the control and drive system to Lift No1 Abbey View as being installed circa 2012 and it has been retained under this latest package of refurbishment works.
- 2.4 The scope of the works detailed within the technical specification is extensive and identifies that any equipment being offered is both fit for purpose and has a service life of not less than 20/25 years.
- 2.5 The technical specification only retains equipment suitable for re-use which are the robust, static mechanical components such as door frames, landing cills, architraves etc. The only exception is as previously identified at 2.3.
- 2.6 The Preferred Suppliers listed in Appendix C of the technical specification identifies manufacturers of generic equipment with long established UK product support and long-standing relationships with the lift industry.
- 2.7 As Temple Lifts are currently the incumbent maintenance provider it is assumed they were installing Contractor as the technical specification includes for maintenance during the deferred Defects Liability Period.
- 2.8 It is unknown what the terms of the maintenance contract are, how many visits per annum or whether a time per visit has been specified.

### **3.0 RESULTS OF THE SURVEY**

Site records are very poor and therefore comments are restricted to reflect items that were identifiable at the time.

#### **ABBEEY VIEW LIFTS**

##### **LIFT No1 (Blue - Left Hand)**

- 3.1 The existing control and drive system were retained under this scope of refurbishment works.
- 3.2 Data plates indicate that the Digital Advanced Control system was installed circa 2012. It is evident that at some point during the past six years the drive system has been changed as the inverter unit is now housed in an independent cabinet adjacent to the original control panel.
- 3.3 It appears that some of the original components have been 'stored' under the gear raft as spares.
- 3.4 The Digital Advanced Control system incorporates an MEC32 type processor with fault logger that assists authorised personnel with identification and diagnosis of faults and record of events.
- 3.5 The fault logger was set up with the correct date, time, manufacturers contact information and was recording the lift speed, distance travelled and the control systems ambient temperature.
- 3.6 On accessing the systems fault log it identified a total 50 faults. The screen shows ten faults at a time and the first 'page' recorded:-  
10 – Detector Edge Held faults between 16<sup>th</sup> August 2018 and 23<sup>rd</sup> August 2018. These faults were recorded at various floor levels throughout the building.
- 3.7 Unfortunately the next 6 'pages' of faults stored in the logger could not be accessed.
- 3.8 The systems event log advised a total 99 events with the first 'page' of ten events recording - 10 – Detector Edge Held events.
- 3.9 Unfortunately no further 'pages' could be accessed.
- 3.10 The site log card records a total of 7 call-outs ranging from 9<sup>th</sup> August 2017 to 14<sup>th</sup> February 2018.
- 3.11 The standard of housekeeping within the lift motor room and lift pit is considered poor but the car top was very clean.
- 3.12 The ride quality and adjustment/operation of the lift car and landing doors was found to be very good.

## ABBAY VIEW LIFTS

### LIFT No2 (Red – Right Hand)

- 3.13 The new control and drive system are also of Digital Advanced Control manufacture.
- 3.14 This Digital Advanced Control system also incorporates an MEC32 type processor with fault logger that assists authorised personnel with identification and diagnosis of faults and record of events.
- 3.15 The fault logger was set up with the correct date, time, manufacturers contact information and was recording the lift speed, distance travelled and the control systems ambient temperature.
- 3.16 On accessing the systems fault log it identified a total 50 faults. The screen shows ten faults at a time and the first four 'pages' each recorded:-  
10 – Detector Edge Held faults between 9<sup>th</sup> July 2018 and 23<sup>rd</sup> August 2018. These faults were recorded at various floor levels throughout the building.
- 3.17 The fifth 'page' recorded 9 – Safety Line Broken faults on the 5<sup>th</sup> July 2018 between 13:52 to 14:37. These faults were recorded at various floor levels throughout the building. A further Detector Edge Held fault completed the page.
- 3.18 The systems event log advised a total 99 events with 70 events recorded as Detector Edge Held, 22 events recorded as Nuisance Call and 7 events Lock Not Made at Floor 3.
- 3.19 No site log card was found.
- 3.20 The standard of housekeeping within the lift motor room and lift pit is considered poor but the car top was very clean.
- 3.21 The ride quality and adjustment/operation of the lift car and landing doors was found to be very good.

## MUNDEN VIEW LIFTS

### LIFT No1 (Blue – Left Hand)

- 3.22 The new control and drive system are also of Digital Advanced Control manufacture.
- 3.23 This Digital Advanced Control system also incorporates an MEC32 type processor with fault logger that assists authorised personnel with identification and diagnosis of faults and record of events.
- 3.24 The fault logger was set up with the correct date, time, manufacturers contact information and was recording the lift speed, distance travelled and the control systems ambient temperature.
- 3.25 On accessing the systems fault log it identified a total 8 faults. The screen shows ten faults at a time. The first 'page' recorded:-  
9 – Detector Edge Held faults between 14<sup>th</sup> August 2018 and 22<sup>nd</sup> August 2018. These faults were recorded at various floor levels throughout the building.
- 3.26 The first 'page' also recorded 1 – Drive Fault on the 17<sup>th</sup> August 2018 at 07:37 on floor 5.
- 3.27 The systems event log advised a total 32 events all of which had been generated since the 13<sup>th</sup> August 2018 as the log was 'cleared' at 15:56 on that date.
- 3.28 The events are recorded as 30 - Detector Edge Held, 1 - Nuisance Call and 1 - Lock Not Made at Floor 8.
- 3.29 No site log card was found.
- 3.30 The standard of housekeeping within the lift motor room and lift pit is considered poor but the car top was very clean.
- 3.31 The ride quality and adjustment/operation of the lift car and landing doors was found to be very good.



## MUNDEN VIEW LIFTS

### LIFT No2 (Red – Right Hand)

- 3.32 The new control and drive system are also of Digital Advanced Control manufacture.
- 3.33 This Digital Advanced Control system also incorporates an MEC32 type processor with fault logger that assists authorised personnel with identification and diagnosis of faults and record of events.
- 3.34 The fault logger was set up with the correct date, time, manufacturers contact information and was recording the lift speed, distance travelled and the control systems ambient temperature.
- 3.35 On accessing the systems fault log it identified a total 14 faults. The screen shows ten faults at a time, however five pages of previous faults remained in the system for review.

The first 'page' records:-

10 – Detector Edge Held faults between 11<sup>th</sup> August 2018 and 20<sup>th</sup> August 2018. Six faults at the 1<sup>st</sup> floor and three at the 7<sup>th</sup> floor.

The second 'page' records:-

3 – Detector Edge Held faults between 8<sup>th</sup> August 2018 and 9<sup>th</sup> August 2018. Two faults at the 9<sup>th</sup> floor and one at the 5<sup>th</sup> floor.  
7 – Safety Line Broken all on the 8<sup>th</sup> August 2018.

The third 'page' records:-

9 – Safety Line Broken and 1 Drive Fault all on the 8<sup>th</sup> August 2018.

The fourth 'page' records:-

10 – Safety Line Broken on the 7<sup>th</sup> August 2018 and 8<sup>th</sup> August 2018.

The fifth 'page' records:-

3 – Safety Line Broken on the 6<sup>th</sup> August 2018 and 1 Detector Edge Held on the 3<sup>rd</sup> August 2018.

The sequence of faults from the fifth to the third page see's the Safety Line Broken as:-

Date	Time	No of Activations	Activated at floor(s)
6 <sup>th</sup> August	23:39 – 22:03	3	5, 0, 1
7 <sup>th</sup> / 8 <sup>th</sup> August	11:26 – 09:37	10	0 (x8), 3, 4
8 <sup>th</sup> August	09:38 – 09:39	2	0 (x2)
8 <sup>th</sup> August	09:46 – 09:54	7	0 (x7)
8 <sup>th</sup> August	09:55 – 10:11	7	0 (x6), 8

## MUNDEN VIEW LIFTS

### LIFT No2 (Red – Right Hand)

- 3.36 The systems event log advised a total 86 events all of which had been generated since the 3<sup>rd</sup> August 2018 as the log was 'cleared' at 18:52 on that date.
- 3.37 The events are identified as 47 - Detector Edge Held, 32 - Nuisance Call, 2 - Lock Not Made at Floor 7, 2 – Close Protection at Floor 2, 1 – Lock Tip Slow Speed at Floor 8 and 1 – Self Test Fail To Start.
- 3.38 No site log card was found.
- 3.39 The standard of housekeeping within the lift motor room and lift pit is considered poor but the car top was very clean.
- 3.40 The ride quality and adjustment/operation of the lift car and landing doors was found to be very good.

## **4.0 OBSERVATIONS**

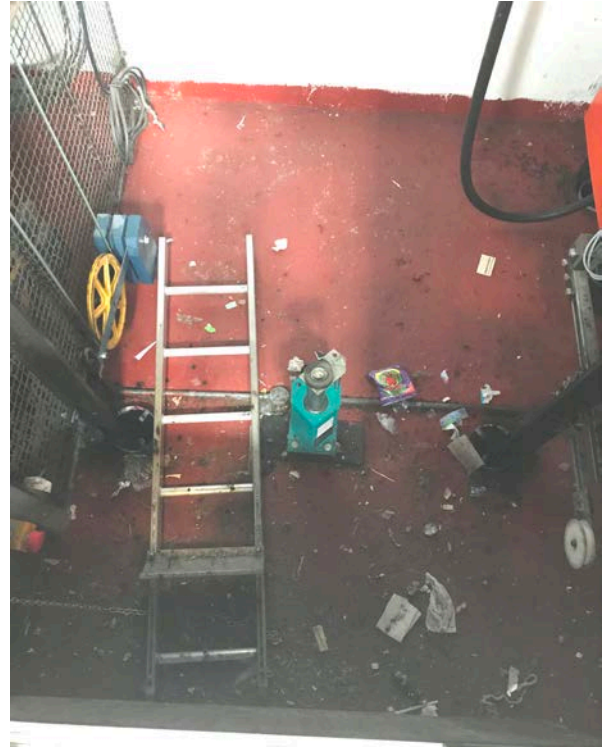
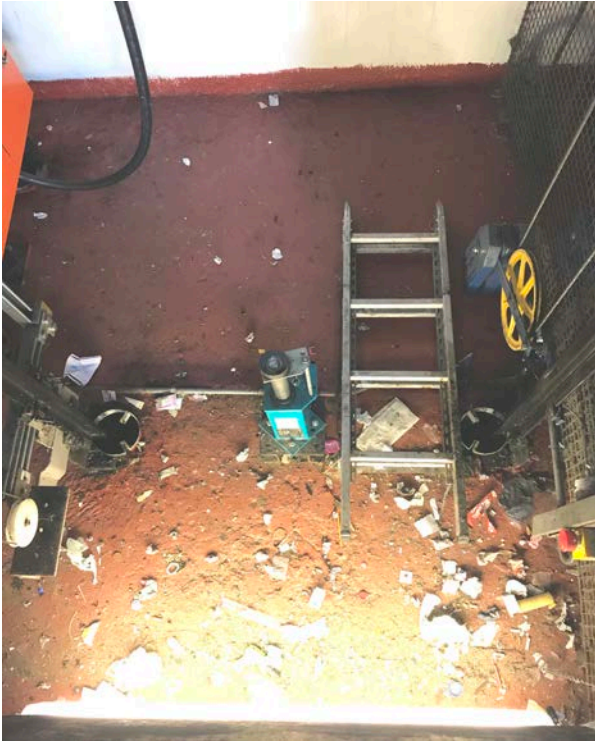
- 4.1 The scope of works completed is considered appropriate and comprehensive with original components only being retained where suitable for a further 20/25 years.
- 4.2 However with the above stated the decision to not install lift position indicators at each floor served seems odd.
- 4.3 A minor exception would also be not fitting new counterbalanced trap access hatches to both lift motor rooms.
- 4.4 It is assumed the fault logging facility within the processor of the retained control and drive system to Lift No1 Abbey View has become faulty since the refurbishment works were planned and/or completed.
- 4.5 The technical specification is satisfactory and details equipment considered to be fit for purpose and as expected for the environment and expected usage.
- 4.6 The original installation works appear to have been completed to a high standard.
- 4.7 The operation and adjustment of equipment to all four lifts observed at the time of the survey is considered to be very good.
- 4.8 Interrogation of all four lifts fault and event loggers identifies an extremely high number of 'Detector Edge Held' these faults and events are registered when the lift doors are blocked and prevented from closing.
- 4.9 Assessment of the dates, times and at which floor levels the doors are blocked reveals this occurs randomly but consistently throughout the day and the building. However there is a high number of these events recorded at the 1<sup>st</sup> floor level within Munden View.
- 4.10 The fault and event loggers for both No2 lifts within Abbey View and Munden View record an unusually high number of 'Nuisance Calls' which are generated when a passenger enters the lift car and registers numerous calls.
- 4.11 The lift initially answers three calls, but if it doesn't 'see' anyone passing through the door protection beams and/or the door push open being activated it recognises there are no passengers and registers the fault/event as 'Nuisance Calls'.
- 4.12 The Lift No2 within Munden View also recently suffered twenty-nine 'Safety Line Broken' faults and events between Monday 6<sup>th</sup> – Wednesday 8<sup>th</sup> August. These faults and events were generally registered when the lift was at the Ground floor.

- 4.13 Without any site records to refer to it is suspected that this fault may have been due to the overspeed governor tension weight activating the slack rope switch in the lift pit.
- 4.14 Whatever the actual cause of the 'Safety Line Broken' fault the response, diagnosis and rectification of the fault by the lift contractor was extremely poor.
- 4.15 The Ground floor lock release of Lift No1 within Munden View should be repaired/replaced to enable authorised personnel ease of access.
- 4.16 The overhead diverter to Munden View Lift No2 should be inspected/investigated as it thought a slight rumbling may be emanating from the bearings.
- 4.17 The ride quality of the Munden View Lift No2 could be improved marginally.
- 4.18 The general standard of house and record keeping is very poor and not acceptable irrespective of any Contract conditions.

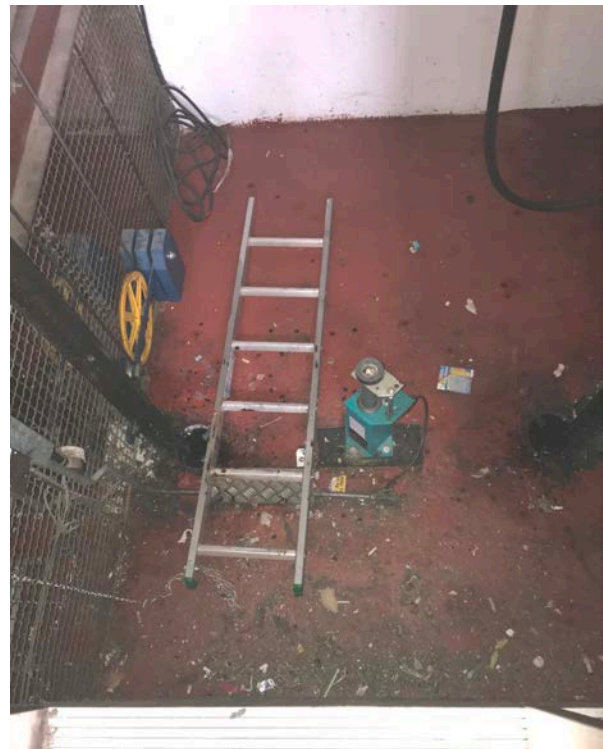
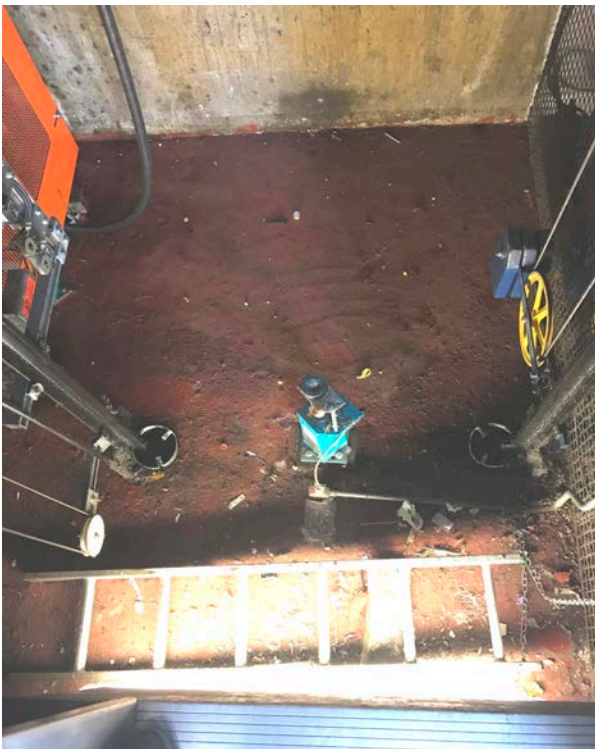
## **5.0 RECOMMENDATION**

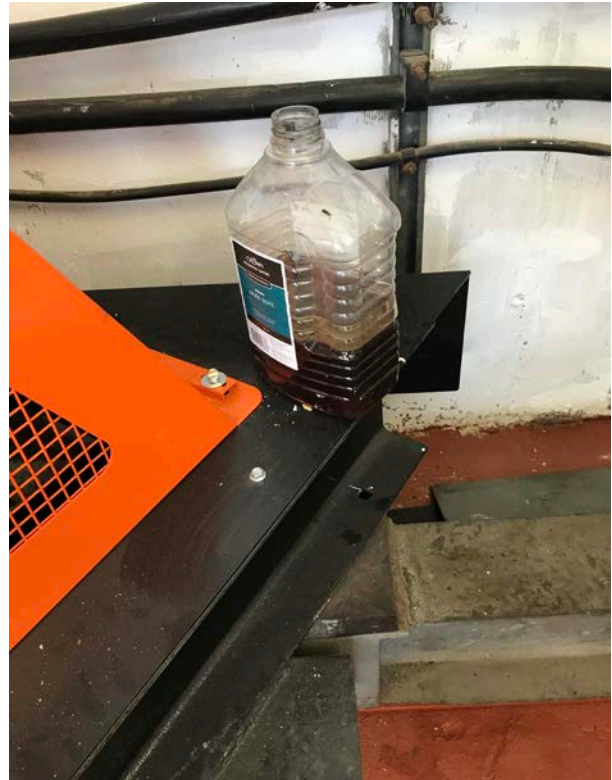
- 5.1 The fault and event logger of Lift No1 Abbey View should be investigated and repaired/replaced as necessary.
- 5.2 Consideration should be given to installing lift position indicators at each landing level served which would scroll relevant messages such as 'Door Operation Blocked', 'Lift Operation Blocked' or similar.
- 5.3 The option within the technical specification to install Remote Monitoring could be re-visited to assist with responding to resident enquiries verifying lift performance and status within a short time frame.
- 5.4 Both the lift motor rooms should be cleaned up, drawings collated and stored within the control panels document pockets. All spare component parts assessed for their condition and if deemed to be suitable as replacements stored correctly.
- 5.5 All four lift pits cleaned of accumulated rubbish and overspeed governor tension weights checked and adjusted to ensure correct operation.
- 5.6 New log cards provided to each lift motor room.

## 6.0 SELECTED PHOTOGRAPHS



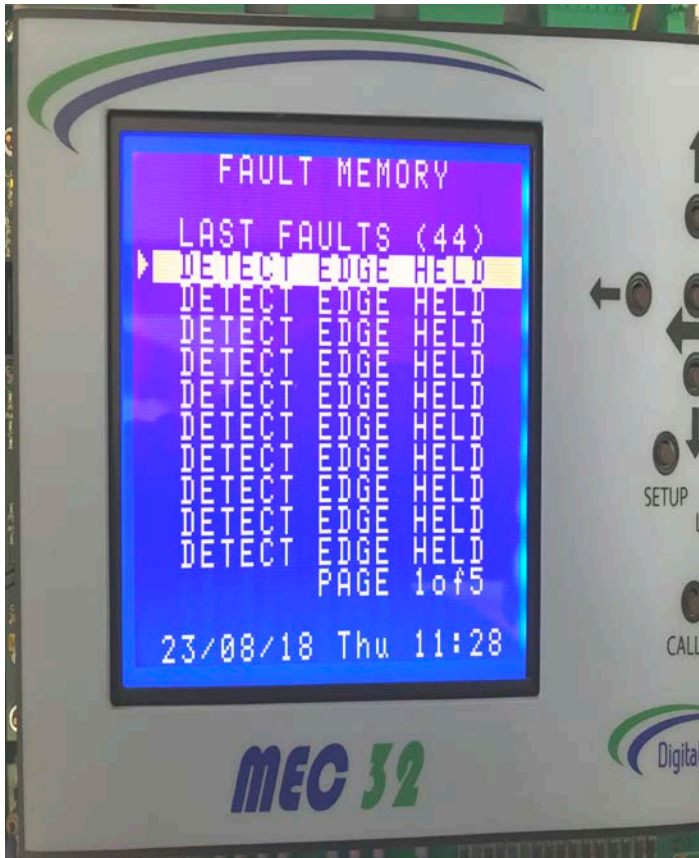
The standard of housekeeping observed at the time of our survey was found to be poor. All four lifts pit Abbey View (above) and Munden View (below) were begrimed and a considerable amount of rubbish has been allowed to accumulate.





Both lift motor rooms are also in need of cleaning up, components assessed, drawings and documents filed and stored correctly.  
Abbey View motor room above and Munden View below.

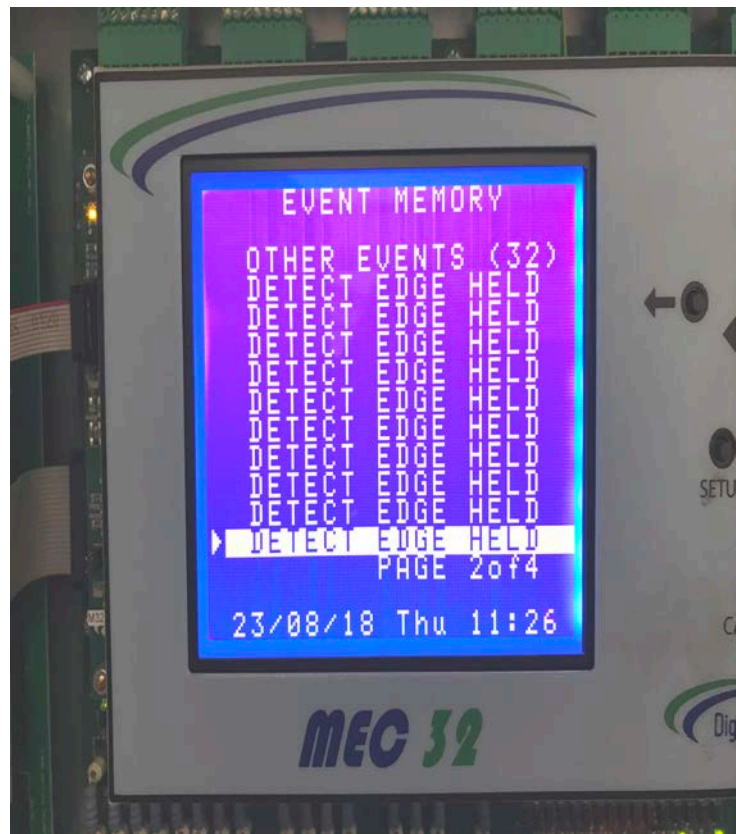




An example of the 'Fault' log memory that can be interrogated further to establish the floor level the fault was registered at.

The 'Event' memory is similar to the fault log but monitors additional 'events' that result in a fault being registered.

Reference between the two screens assists with diagnosing if there were any additional control or operational issues that caused the 'fault'.





Without any site records to refer to it is suspected that the 'Safety Line Broken' fault may have been due to the overspeed governor tension weight activating the slack rope switch in the lift pit of Munden View Lift No2.

Although this fault has now been cleared it is considered the switch of Lift No2 could be afforded further clearance and the other three tension weights checked and adjusted accordingly.

The only site record found was relating to lift No1 Abbey View.

It is unknown if the call recorded on the 14<sup>th</sup> February 2018 was the last call-out/breakdown attended.

CALL-OUT ACTIVITY LOG			
DATE	JOB No.	DESCRIPTION	SIGNATURE
9.9.17	549506	Lvs Trans	L.Rof
29/11/17	N/C	Showing 'wrong dir' on processor. Drive on panel test, fault cleared.	GS
8-1-18	612 959	Top Floor lock fault L-1-S	L.Rof
10-1-18	613 176	P.F.R.R. Fuses - Replaced with SPARE R+T L-1-S	L. Rof
11-1-18	N/C	Ground floor lock fault L-1-S	GS
15-1-18	c/o	P.F.R.R. Faulty - Fuses on 10/1/18 SPARE ON SITE - L-S-O NEW REC	L.Rof
16-1-18	FLU	S+F Temperature P.F.R.R L-1-S	L.Rof
14-2-18	620304	Top Floor lock Adj R+T+S	GM