Lift and Escalator Industry Association

33-34 Devonshire Street London W1G 6PY
Tel: 020 7935 3013 Fax: 020 7935 3321

E-mail: leia.enquiries@virgin.net
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30 November 2001

To: All Members

Dear Member

EXPRESS GEARLESS UNIT, BRAKE WIRING

I enclose a letter from Otis Ltd and a technical information sheet concerning a potential safety hazard. I trust the information is self-explanatory, will members please be guided accordingly.

Yours faithfully

David M Fazakerley
Managing Director

OTIS

The Otis Building
187 Twyford Abbey Road
London NW10 7DG

Telephone: (020) 8955 3000
Fax: (020) 8955 3001

www.otis.com

26th. November 2001

Our ref: RC/fl/1511

Lift & Escalator Industry Association
33-34 Devonshire Street
London W1N 1RF

For the attention of Mr Fazarkerley

Dear Mr Fazarkerley,

Reference: Express Gearless Brake Wiring

We would like to inform you of a potential safety incident that occurred on an Express Gearless unit in the Otis portfolio, in that a lift car moved up from the top terminal floor with the car and landing doors open until the counterweight buffered.

Subsequent investigations revealed the cause of the problem was due to the wiring between the brake coil terminals and the gearless machine terminal box had deteriorated causing the bare wire to short out onto one of the hoist motor field coil lugs. The permanently energised hoist motor standing field voltage was sufficient to keep the brake operated despite the controlling brake relay being de-energised.

In view of the seriousness of this incident Otis Ltd are recommending members to inspect all Express gearless machines , on their portfolio manufactured prior to 1997, and if butyl wiring is found replace immediately with double insulated PVC wire.

Should you have any queries regarding this instruction please contact our Service Technical Manager, Mr Michael Watts in our Leicester Office, telephone number 0116 2011301.

Yours sincerely
For Otis Limited

pp

R. Cooke

Field Operations Manager

United Technologies

BY APPOINTMENT TO HER MAJESTY THE QUEEN MANUFACTURERS AND SUPPLIERS OF PASSENGER LIFTS

MOODY INTERNATIONAL CERTIFICATION UKAS QUALITY MANAGEMENT 014

POTENTIAL SAFETY HAZARD

OTIS GROUP	UK CORRECTIVE INSTRUCTION	SET : A1
		NO : 78-01-051
	Express Gearless Brake Wiring	PAGE : 1 OF 3
		DATE : 15/11/01

Prepared by: ..... Mick Watts - Service Technical Manager

Approved by: ..... R Cooke - Field Operations Manager.

Approved by: ..... J T Leingang - Managing Director

TECHNICAL INFORMATION ACCESSING SYSTEM (MAXIMUM 8 WORDS)

1. Express	2. Gearless	3. Brake	4. Wiring
5. Terminals	6. Insulation	7. Ceramic	8.

Copy to:- FOD Bermondsey Office

I certify that this Corrective Instruction No: 78-01-051 has been successfully carried out on the following units in my Branch.

Branch Manager's Name: ..... Signature:.....

Branch Office: .....

Unit Number	Site Address	Date CI Applied

Valid at Date of Issue - Issue to be Checked Prior to Re-Use

POTENTIAL SAFETY HAZARD

OTIS GROUP	UK CORRECTIVE INSTRUCTION Express Gearless Brake Wiring	SET : A1 NO : 78-01-051 PAGE : 2 OF 3 DATE : 15/11/01

Source: Near Miss Safety Incident

1. Problem.

A lift car moved up from the top terminal floor with the car and landing doors open until the counterweight buffered.

2. Cause.

2.1 The wiring between the brake coil terminals and the Express gearless Q59 machine terminal field box had deteriorated so badly that about 100mm of insulation was missing. The bare wiring shorted out onto one of the hoist motor field coil lugs. The hoist motor standing field voltage was sufficient to keep the brake operated despite the controller brake relay having been de-energised.

2.2 There have been earlier instances on Express gearless machine applications manufactured prior to February 1975 where the ceramic pillars used to terminate the brake coil and brake micro switch connections have fractured and allowed the positive dc supply to be applied directly to the brake coil with similar potentially serious consequences. A safety circular was issued on 28th November 1995 recommending remedial action.

3. Limitations.

Express gearless machines manufactured prior to 1979. Note: It has been established that the factory wiring used on more recent machines (Q79) was of pvc cable which shows no signs of deterioration.

4. Field Solutions.

Ensure that the following action is carried out on all relevant units in your area of responsibility at the next maintenance visit:-

4.1 In view of the serious nature of this fault, all Express gearless machines manufactured prior to 1979 must be inspected and the brake wiring replaced by double insulated pvc cable if deterioration of the original wiring is apparent.

4.2 It is imperative that any remaining ceramic pillars are replaced by suitable terminal blocks and the connections reterminated. Ensure that any positive supplies to either coil or microswitch are not in adjacent terminals.
Verify correct functionality following the remedial work.

POTENTIAL SAFETY HAZARD

OTIS GROUP	UK CORRECTIVE INSTRUCTION Express Gearless Brake Wiring	SET : A1 NO : 78-01-051 PAGE : 3 OF 3 DATE : 15/11/01

5. Tools Required.

Service engineers handkit.

6. Material Required.

10 metres double insulated pvc cable, size to suit machine application.
Terminal blocks if appropriate.

7. Estimated Labour.

4 hours.

8. Factory Solutions.

Not applicable.

9. Charge Account.

Absorbed as a maintenance item.

10. Special Instructions.

Route the replacement brake wiring so that it is well clear of the field coil lugs, and is protected from sharp edges where it passes through castings and is properly supported within the machine frame.

POTENTIAL SAFETY HAZARD

OTIS GROUP	UK CORRECTIVE INSTRUCTION	SET : AI
		NO : 78-01-051
	Express Gearless Brake Wiring	PAGE : Receipt
		DATE : 15/11/01

PART A

- Receipt Of Corrective Instruction

C.I. received from Otis Uk.

Date CI received : .....

Please keep PART A of this cover sheet for your records.

PART B

- Acknowledgement Of Receipt Of Corrective Instruction

I acknowledge receipt of **C.I. No. 78-01-051**

Please return **PART B** of this form to the following address:

Otis Ltd
Units 6 & 7 Bermondsey Trading Estate
Rotherhithe New Road
London SE16 3LL

Local Branch : .....

Signed: .....

Dated: .....

Valid at Date of Issue - Issue to be Checked Prior to Re-Use