

Guidance Document

G1343 Setting of 11D brakes

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1 Purpose

The purpose of this guidance document is to detail the process of setting an 11D brake from scratch.

2 Scope

This guidance document applies to all 11D brakes maintained by the LU Lifts and Escalators department.

3 Setting the brakes

3.1 General brake information

- 3.1.1 The 11D worm brake is fitted to 27BEC and 38BEC M/CS of MY/A, LHD-M, RAC and HD-B escalators.
- 3.1.2 The purpose of the brake is to arrest the motion of the drive machine for stopping, prior to the main, or emergency, brake holding the escalator.
- 3.1.3 When working on the worm brake, it is not necessary to anchor the escalator provided that the drive chain is still connected. If, however, the escalator is to be used for walking down, it is advisable to place one arresting bond on each step chain for safety.
- 3.1.4 The brake mechanism is very simple; the calliper arms are one piece, with a liner riveted to each arm. The arms pivot about a fulcrum pin, being connected at the upper end by a link pin, via the link screw to the solenoid armature core. Inward movement of the armature core should equal the lifting movement of the shoe lining off of the drum. The oversize hole in the link screw eye has nothing whatever to do with the adjustment of the brake movement. The hole is to compensate for the fact that the link screw 'B', and the brake arm 'D' move in different planes. Pressure is applied at the bottom of the arms by one spring acting through a rod.

NOTE: When stripping the brake down, make sure that any shims that are on the armature cores are retained to their respective sides.

3.2 Setting the brake from scratch

- 3.2.1 Make sure the solenoid sleeve is clean and free of burrs (photo 1). Place the armature cores in the sleeve, complete with their respective shims; check they are free to move in and out. Position it right in.



Photo 1

3.2.2 Place the brake arms, and push in fulcrum pins 'A' (photo 2).



Photo 2

3.2.3 Place 0.025" of shims or feeler gauges between the head of the armature core and the coiled casting. Keep the shoe liners against the drum, by holding in, or fitting rod and spring. Look through the 'D' pin hole and see if it is flush with the innermost edge of the link eye hole. If not remove pin 'A', lift out the arm, unlock the link screw lock nut. Turn the eye screw in or out sufficiently to achieve this. Replace the arm and pin 'A' and check as before (see sketch A1 and A2 on page 7). When the holes are aligned, fit pin 'D' and its cotter pins. See photos 3-7.



Photo 3



Photo 4