

ABSTRACTAUTOMATIC RESCUE DEVICE FOR ELEVATOR

When the primary power source (9) of a traction elevator fails, an automatic brake (11) is applied to prevent the elevator car (1) moving uncontrollably. Automatic rescue device (ARD) processor (13) takes over operation of the elevator in the event of failure of the primary power source (9), and includes an auxiliary power source (15) for driving the elevator motor (7), after release of the automatic brake (11), to drive the elevator car (1) to a desired door zone (A - D). The device may comprise elevator car speed detection means (60), the signal from which is used to compare the speed of the elevator car (1) to a stored maximum permissible elevator car speed. If this maximum speed is exceeded the brake (11) is applied. Means may also be provided to drive the elevator car at two speeds, a faster speed being used when the elevator car (1) is not near a door zone (A - D), and a slower speed being used as the elevator car (1) approaches a door zone (A - D). Additionally, the ARD may include means for moving the elevator car (1) to the nearest door zone (A - D). Means may be provided for altering the direction of motion of the elevator car (1) if the running current of the motor (7) exceeds a stored maximum value. Further means may be provided in the ARD to detect re-establishment of the primary power source and for inhibiting application of the primary power source until the ARD has finished its operation.

(Figure 1 to accompany the Abstract when published.)