# Elevator Q&A with Applied Elevator Service, Sales and Installation: What makes an elevator break down?

An elevator, while common, is a very complex mode of transportation that relies on a multitude of variables in order to function. After all, the elevator car itself is only one part of the mechanism. There is also the hoistway and machine room to remember. Because there are so many variables, there is an equally varied list of ways elevators can break down. Below are four common problems an elevator will face that often lead to its failure.

#### **Old Power Unit**

Just like an old battery, if the power unit is failing, the elevator will not function properly and, if left alone for too long, may even lead to disastrous consequences. One telltale sign that the power unit may be failing is the consistency of your elevator car ride. If the ride bumping during travel from one floor to the next, or having trouble stopping and starting the car, it may be time to have an expert come in to check your elevator's power unit.

### **Worn Hydraulic Valves**

As with the failing power unit, worn hydraulic valves will make for a jolty elevator ride. Defective or worn hydraulic valves cause inconsistent oil flow, leading to abrupt starts and stops, as well as stalling and poor leveling. Whether the valves are worn because of frequent elevator usage, or simply because they are getting older, their immediate replacement could mean the difference between a happy tenant and an elevator break down.

#### Faulty/Broken Guide Rails and Cables

The elevator hoistway contains the guide rails on which the elevator car and counterweight run, as well as space for the cables and other equipment. If there is too much time between safety checks, especially with a frequently used commercial elevator, the delicate equipment may be damaged through over-usage or any number of other possible mishaps. As the guide rails and cables play a predominant role in the elevator mechanism as a whole, any form of damage could lead to swift and devastating breakdowns.

## **Inefficient Door Operators**

While damaged elevator doors may not cause as catastrophic a breakdown as a failing power unit, they still deserve attention. In fact, a defective door operator is the #1 cause of elevator downtime, so they deserve even more attention than you think. Through use, door operators (the mechanism that opens and closes elevator doors) become inefficient, unreliable, or obsolete. A new door operator can improve

the safety and performance of the existing elevator operation, as well as meet new required safety codes.

If any of the above problems are currently affecting your commercial building's elevator's performance, it's time to call in an expert. Of all the commercial elevator companies in Denver, only Applied Elevator Service, Sales and Installation offers 50 years of combined experience, professional elevator support staff and emergency elevator repair technicians available 24 hours a day, seven days a week. Bringing together its trained personnel and their extensive technical knowledge with sophisticated software, Applied Elevator Service will perform maintenance, repairs, upgrades, and testing on all types of elevators in Denver and throughout Colorado. Visit <a href="http://appliedelevator.com">http://appliedelevator.com</a> for more information.