

THIS SHEET HAS BEEN
REPLACED

- 15 -

Abstract

Linear Motor Transfer of Cab Horizontally Between Elevator and Bogey Platforms

A cab having a wheeled carriage fixed thereto is moved between rails on an elevator car frame and similar rails on a wheeled bogey. The ends of the rails are scarfed in a complimentary fashion so as to provide a temporary half-lap joint between the rails of the bogey and the rails of the car frame. Motion is provided by linear motors having active primaries disposed on the car frame and the bogey and passive secondaries disposed on the cab carriage. Motor control is in response to position signals provided by magnetostrictive linear displacement transducers. The cab carriage includes rollers on vertical axes which contact the insides of the rails for guidance. The cab carriage wheels and rollers are disposed in pairs separated sufficiently so that at least one roller and one wheel of each pair is in contact with a full rail as the carriage crosses the rail joints between the car frame and the bogey. Wheels coated with urethane reduce wheel noise and tapers at the ends of the rails provide smooth rail to rail transitions.

(Figure No. 6)

This Sheet Has Been Replaced

