



L.B. Foster Company

DIRECT FIXATION RAIL FASTENER

Model F30L0A

The Model F30L0A direct fixation fastener has been designed, tested, and supplied to the San Francisco Bay Area Rapid Transit. In addition, the F30L0A has been supplied to San Francisco Municipal Transportation Agency and Long Island Railroad. This product provides the following functions:

- > Secures 119 lb rail directly to a supporting surface
- > Stabilizes vertical and lateral rail movement
- > Controls longitudinal rail movement
- > Provides track noise and vibration dampening
- > Electrically isolates rail from track bed
- > Provides +/- 1 inch of lateral adjustment
- > Utilizes non-threaded rail hold down spring clip type clips

The Model F30L0A has completed extensive Qualification and Production testing to demonstrate the fastener's response to various load environments and electrical applications. Based on the results of these tests, the F30L0A Direct Fixation Rail Fastener provides the following fundamental performance characteristics:

- > Dynamic vertical stiffness of approximately 160,000 pounds per inch deflection, determined by simulated vertical wheel loading of 18,000 pounds per fastener at a rate of approximately one load per second.
- > With dynamic vertical and lateral forces of approximately 14,000 and 6,000 pounds respectively, railhead movement is approximately 0.14 inch laterally.
- > Allows continuous longitudinal "slippage" of rail at approximately 2,000 to 3,000 pounds longitudinal force per fastener body.
- > Provides individual fastener body electrical resistance properties of greater than 1 million ohms (wet) and 10 million ohms (dry) at 500 volts (DC). Impedance at 50 Volts (RMS) and 10,000 Hertz is greater than 10,000 ohms.
- > Fastener body resists 3,000,000 cycles of repeated loading at the following magnitudes:
 - Maximum vertical loads at 0 to 14,000 pounds with simultaneous maximum lateral loads at -2,5000 to +4,000 pounds per fastener.
- > Subjected to 500 hrs of corrosion testing per ASTM B117 and exhibited minimal corrosive effects.

The above performance characteristics are provided for informational purpose only and are based solely on previous testing. Actual performances may vary from those stated above.

Variations to Model F30L0A can be made to accommodate various custom requirements. For more information concerning this Direct Fixation Fastener model or other product needs, please contact us through www.lbfoster.com, transitproducts1@lbfoster.com, or call us at our Suwanee, Georgia office at (678) 926-5200.

