

L. B. Foster Company
Transit Products Division
Resilient Tie

The LB Foster Resilient Tie has been designed and tested to strict qualification standards for the Bay Area Rapid Transit System. The complete Resilient Tie assembly is Buy America compliant with all the components being manufactured and assembled in the USA. The current Resilient Tie assembly presented in this cut sheet is an extension of previous booted twin tie block assemblies having been provided by LB Foster for more than 30 years. The current design provides the following basic functions:

- ◆ Secures 115 RE rail to a concrete track bed
- ◆ Controls vertical, lateral and longitudinal rail movement
- ◆ Provides track noise and vibration isolation
- ◆ Electrically isolates rail from track bed
- ◆ Lateral adjustment of +/- 1 inch by 1/8 inch increments achieved through boot replacement
- ◆ Lateral adjustment of +/- 1/8 inch achieved through toe insulator replacement
- ◆ Utilizes non-threaded left or right handed spring style clips

The following are product assembly performance characteristics found by laboratory testing using industry standard test methods. The product performance stated below are reported as a per Resilient Tie assembly characteristics.

- ◆ Vertical Stiffness – 140,000 pounds / inch deflection between loads of 4,000 to 12,000 pounds per unit assembly

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- ◆ Dynamic to Static Stiffness Ratio at 10 Hertz load rate - < 1.4
- ◆ Lateral Load – < 0.150 rail head deflection with Vertical load of 14,000 pounds and Lateral load of 6,000 pounds per unit assembly.
- ◆ Lateral Restraint - < 0.125 rail base deflection with Vertical load of 2,500 pounds and Lateral load at the rail base of 7,000 pounds per unit assembly
- ◆ Longitudinal Restraint – approximately 2,500 pounds prior to rail slippage
- ◆ Repeated Vertical and Lateral Load – 3 million cycles applied without unacceptable performance degradation. Loads applied as 10,000 pounds Vertical with 4,000 pounds towards field and 2,500 pounds towards gage.
- ◆ High Voltage Withstand – resists 15,000 volts (DC)
- ◆ Electrical Resistance – greater than 50 Mega Ohms at 750 volts (DC)

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

Variations to the LB Foster Resilient Tie can be made to accommodate various custom requirements. For more information feel free to contact us, (678) 714-6730 or visit www.LBFoster.com.