



## L.B. Foster Company

### DIRECT FIXATION RAIL FASTENERS MODEL F50R4

The F50R4 Direct Fixation Fastener was originally designed and tested to the Seattle Sound Transit E340 specification. Based on original design requirements, the fastener bodies provide the following basic functions:

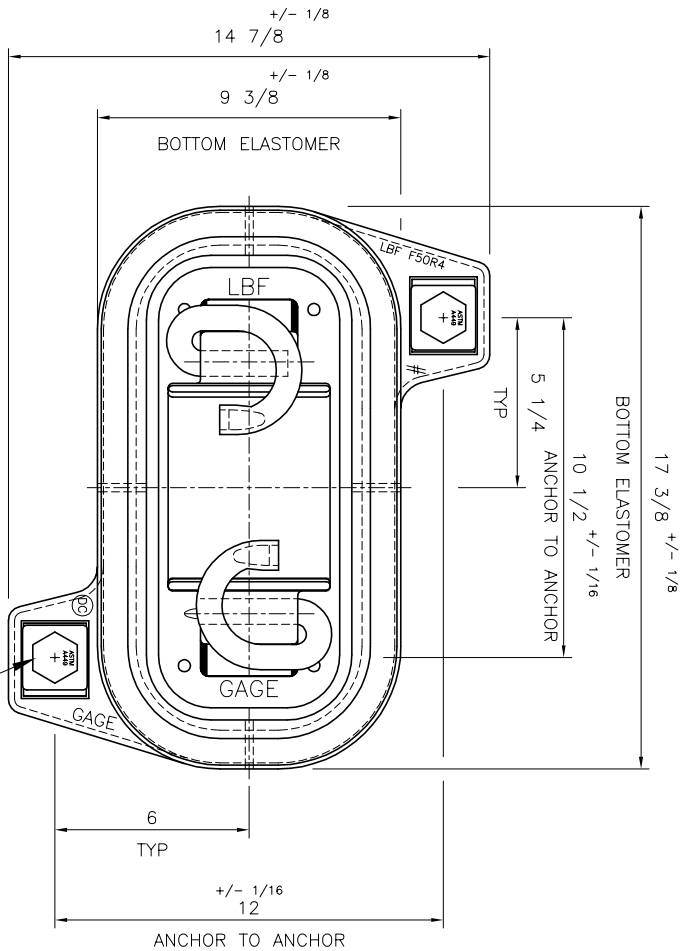
- > Secures 115RE rail (5 ½ inch rail base) directly to a supporting surface at a 1:40 cant (Model F50R0 zero cant also available)
- > Stabilizes vertical and lateral rail movement
- > Provides track noise and vibration dampening
- > Electrically isolates rail from track bed
- > Utilizes non-threaded rail hold down spring clip type clips

The Model F50R4 has completed extensive Qualification testing to demonstrate the fastener's response to various load environments and electrical applications. Based on the results of these tests, the F50R4 Direct Fixation Rail Fastener provides the following fundamental performance characteristics:

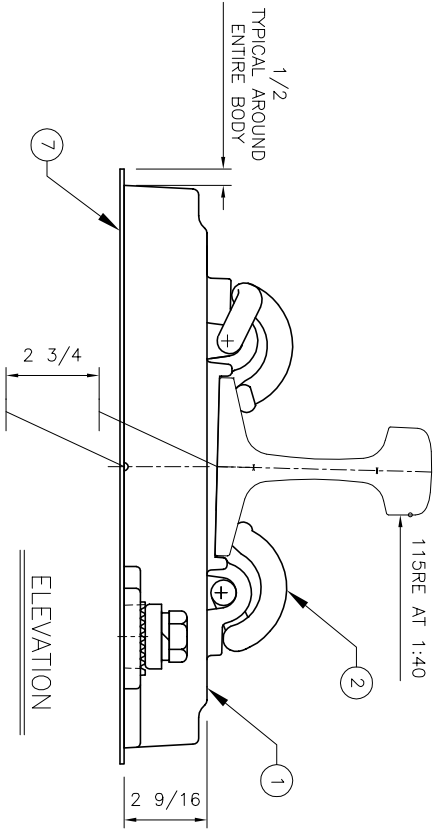
- > Vertical stiffness of less than 60,000 pounds per inch deflection as determined by "static" loading between a range of 2,000 to 10,000 pounds per fastener body loading
- > With a "static" vertical force of 13,000 pounds per fastener body (offset ¾ inch towards gage) and a "static" lateral force of 8,000 pounds per fastener body, the rail head movement along the gage line is limited to less than 0.370 inches
- > Allows continuous longitudinal "slippage" of rail at approximately 2,500 to 3,000 pounds longitudinal force per fastener body
- > Withstands a minimum of 15,000 volts (DC) per fastener body in a clean and dry test environment without material breakdown or electrical flashover
- > Provides individual fastener body electrical resistance properties of greater than 1 million ohms (wet) and 10 million ohms (dry) at 500 volts (DC)
- > Exhibits a "dynamic" vertical stiffness of less than 1.35 times that of the "static" stiffness throughout a similar load range
- > Resists repeated combined vertical and lateral "dynamic" loading in excess of 3,000,000 cycles with a vertical force of 8,250 pounds per fastener body and a lateral force of 3,900 pounds per fastener body towards field and a lateral force of 2,700 pound per fastener body towards gage
- > Resists repeated vertical uplift forces of 2,000 pounds per fastener body for greater than 1,500,000 cycles

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

Variations to Model F50R4 can be made to accommodate various custom requirements. For more information concerning this Direct Fixation Fastener model or other product needs, please call us in our Suwanee, Georgia office at (678) 926-5200.

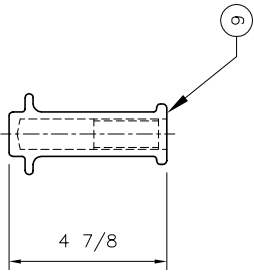


TOP PLAN  
RAIL / SHIM  
NOT SHOWN FOR CLARITY



ELEVATION

ANCHOR INSERT  
ELEVATION



ITEM	PART NO.	DESCRIPTION
1	00-041-369	HIGH RESILIENCE DIRECT FIXATION FASTENER LB FOSTER MODEL F50R4 (VULCANIZE BONDED WITH ELASTOMER)
2	10-334-002	ELASTIC (SPRING) RAIL CLIP
3	25-510-040	7/8 - 9 UNC ANCHOR BOLT
4	10-548-008	7/8 SPRING LOCK WASHER
5	31-261-015	LATERAL ADJUSTMENT SERATED WASHER (1/8" INCREMENTS TO 1/2")
6	31-371-020	ANCHOR INSERT
7	65-291-345	HIGH DENSITY POLYETHYLENE (HDPE) SHIM (1/8" THICK)

BILL OF MATERIALS

- NOTES
- ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.
  - USE WRITTEN DIMENSION. DO NOT USE SCALED DIMENSION FOR PRODUCTION.

PROPRIETARY

NOT TO BE DIRECTED, USED, OR DUPLICATED FOR PROCUREMENT, MANUFACTURE OR ANY OTHER PURPOSE EXCEPT AS AUTHORIZED. IN WRITING, BY TRANSIT PRODUCTS DIVISION.

<b>LB Foster</b> Rail Business		Transit Products Division Suwanee, Ga 30024			
TITLE MODEL F50R4, HIGH RESILIENCE DFF					
FOR INFORMATION PURPOSE ONLY					
DESIGN	TRANSIT PRODUCTS	DATE	REVISIONS	DESCRIPTION	BY
DWG BY	RLA 06.17.16				
APPROD					
SCALE	NONE				
DWG NO.	DF-121				
CONTRACT NA					
REF	03-041-368, R0				

