

Physical Properties	One Bar	Two Bars
Moment of inertia in. ⁴	11.67	23.34
Section Modulus } Above n. a. in. ³	5.27	10.54
Area sq. in.	5.35	10.70
Net weight, 24-in. length, lb.	35.28	70.56
Net weight, 36-in. length, lb.	53.45	106.90

Figure 4-3-1. Joint Bar Assembly for 115 RE and 119 RE Rail (115 RE shown)¹

¹ References, Vol. 48, 1947, pp. 661, 908; Vol. 54, 1953, pp. 1178, 1414; Vol. 63, 1962, pp. 500, 768; Vol. 92, 1991, p. 49.

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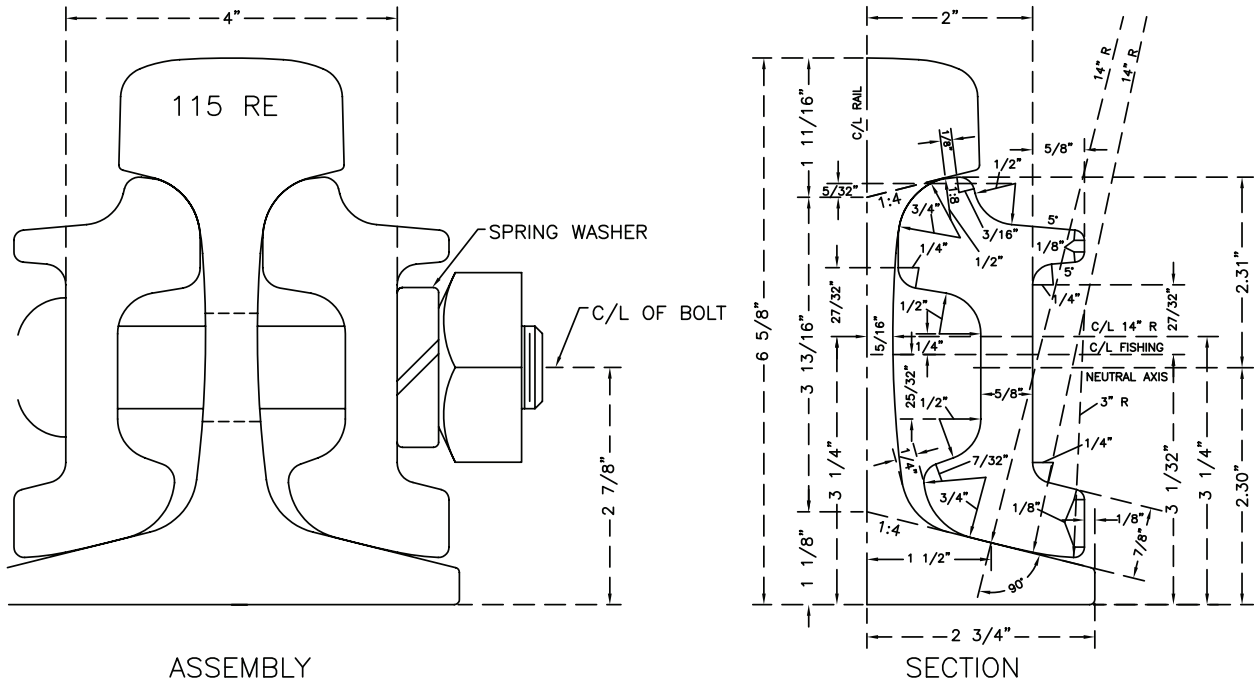
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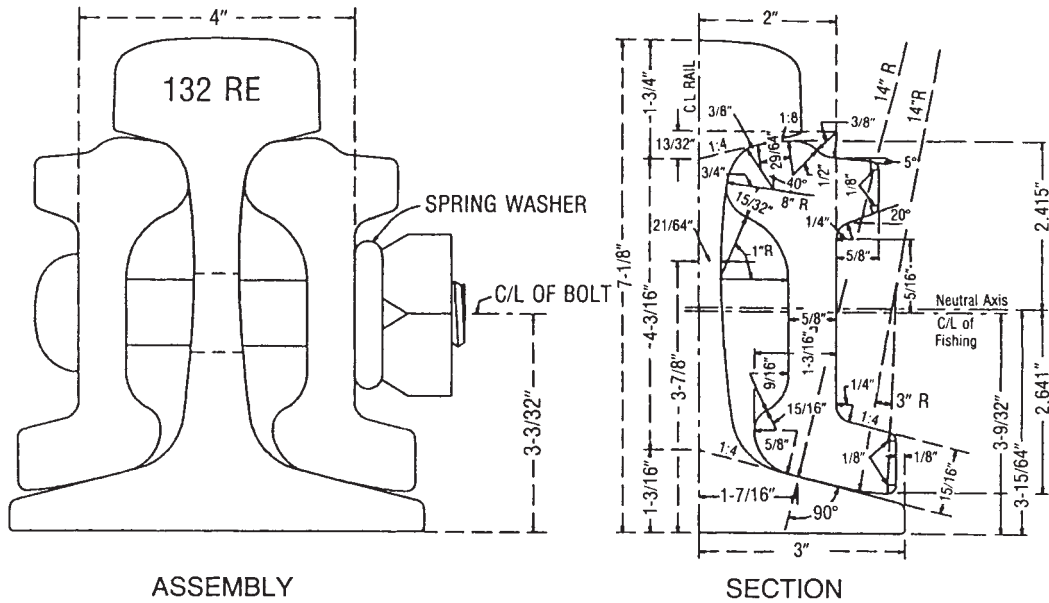
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Physical Properties		One Bar	Two Bars
Moment of inertia in. ⁴		10.24	20.48
Section Modulus	Above n. a. in. ³	4.44	8.88
	Below n. a. in. ³	4.45	8.90
Area sq. in.		5.12	10.24
Net weight, 24-in. length lb.		34.8	69.6
Net weight, 36-in. length lb.		52.2	104.4
Mechanical Properties			
Tensile Strength	125,000 PSI minimum		
Yield Point	88,000 PSI minimum		
Elongation in 2" Gage Length	12% minimum		
Reduction of Area	25% minimum		

(PATENTED BY PORTEC RAIL PRODUCTS
US NO. D497,326, CANADIAN NO. 104675)

Figure 4-3-2. Joint Bar Assembly for 115 RE and 119 RE Rail (115 RE shown) With Increased Wheel Flange Clearance



Physical Properties	One Bar	Two Bars
Moment of inertia in. ⁴	16.14	32.28
Section } Above n. a. in. ³	6.68	13.36
Modulus } Below n. a. in. ³	6.11	12.22
Area sq. in.	5.89	11.78
Net weight, 24-in. length, lb.	38.95	77.90
Net weight, 36-in. length, lb.	58.95	117.90

Figure 4-3-3. Joint Bar and Assembly for 132 RE, 136 RE and 141 RE Rail (132 RE Shown)¹

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¹ References, Vol. 48, 1947, pp. 661, 908; vol. 54, 1953, pp. 1178, 1414; vol. 63, 1962, pp. 500, 768; Vol. 92, 1991, p. 49.

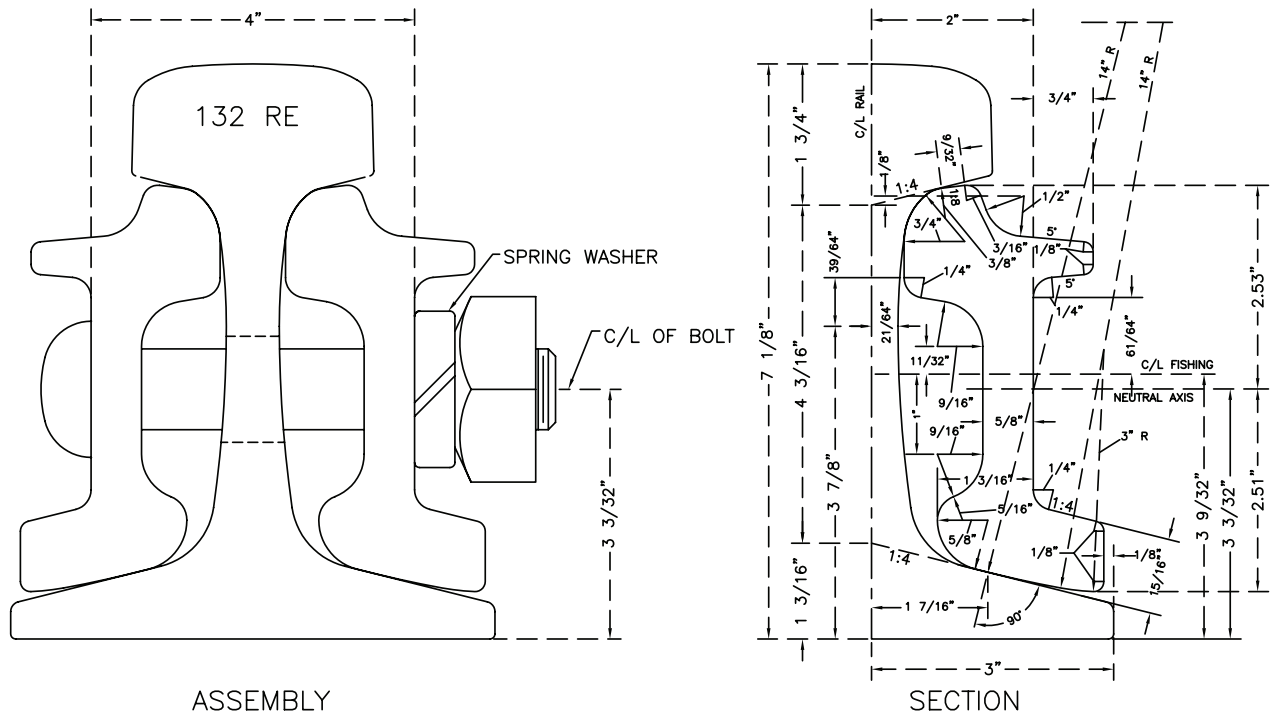
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Physical Properties	One Bar	Two Bars
Moment of inertia in. ⁴	14.04	28.08
Section } Above n. a. in. ³	5.55	11.10
Modulus } Below n. a. in. ³	5.60	11.20
Area sq. in.	5.64	11.28
Net weight, 24-in. length lb.	38.4	76.8
Net weight, 36-in. length lb.	57.6	115.2
 Mechanical Properties		
Tensile Strength	125,000 PSI minimum	
Yield Point	88,000 PSI minimum	
Elongation in 2" Gage Length	12% minimum	
Reduction of Area	25% minimum	

(PATENTED BY PORTEC RAIL PRODUCTS
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Figure 4-3-4. Joint Bar Assembly for 132-6-41 RE Rail (132 RE shown) With Increased Wheel Flange Clearance