

Notes:

- 17 1. Material Properties: Minimal mechanical properties are provided as a guideline. Proposed material and mechanical properties must be approved by Amsted Rail Brenco.
- 18 1a. Hardness: 187 BHN Min.  
1b. Tensile Strength: 552 MPa 80,000 psi Min.  
1c. Yield Strength: 379 MPa 55,000 psi Min.  
1d. Elongation: 6 Min.  
1e. Impact Toughness: KCV -60 = 1.3 kJ m<sup>2</sup> 89 lb\*ft ft<sup>2</sup>  
KCU -60 = 2 kJ m<sup>2</sup> 137 lb\*ft ft<sup>2</sup>  
1f. Send material certification with shipment.

- 21 \* 2. Parts will be phosphate or electrostatic coated ("E-coated"), to be applied after machining and marking. No surface rust should be present.  
2a. Calcium modified zinc phosphate coating and oil coating or equivalent.  
2b. "E-coat" at 0.015mm - 0.03mm .0006" - 0.0012" .

3. All radii are 4.8mm  $\frac{3}{16}$ " unless otherwise noted.

4. All radii are  $\pm 0.8\text{mm} \pm \frac{1}{32}$ " unless otherwise noted.

5. Remove all burrs and break all sharp corners.

6. \* Denotes critical dimensions and features that will be inspected for compliance upon receipt at Brenco.

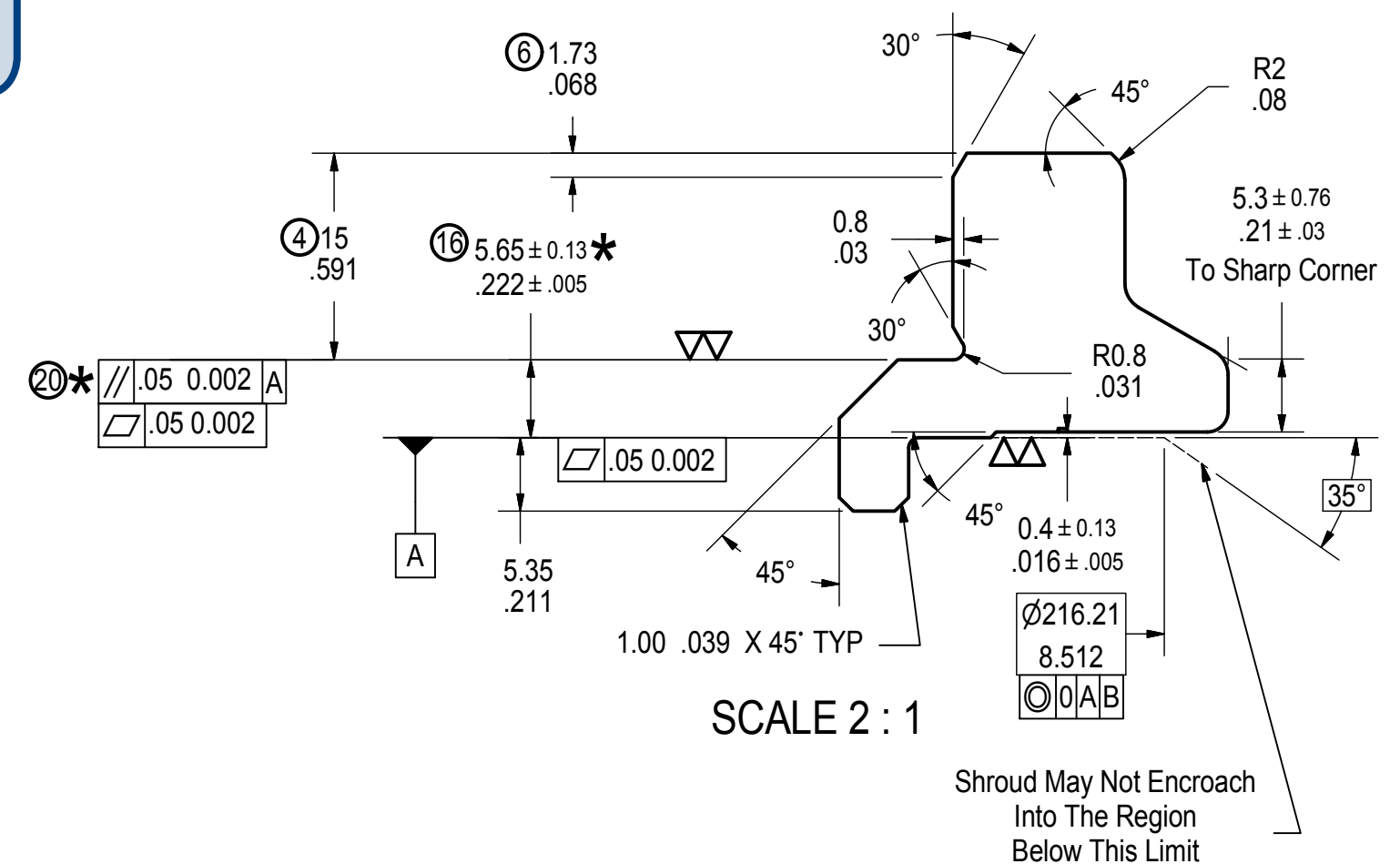
- 19 \* 7. In the recess, CNC engrave or die stamp the following equally spaced in 3mm 1 8" tall characters:  
BRENCO®  
M215A  
Ductile  
Supplier Cavity  
Date

If the material is ductile iron, Ductile is **D**; otherwise, do not mark this element. Supplier is either a supplier code assigned by Brenco® or the supplier's logo. If the marking is cast in recessed characters, Cavity is the cavity number, and Date is the ordinal (Julian) date of casting followed by a space then a two-digit year; otherwise, do not mark Cavity, and Date is the two-digit month of machining followed by a space then a two-digit year. Stamped characters shall be 0.13 .005 to 0.38 .015 deep.

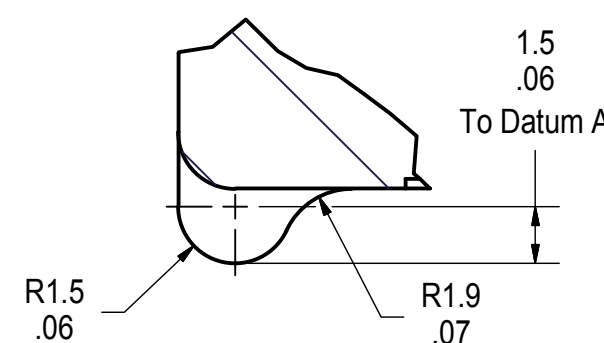
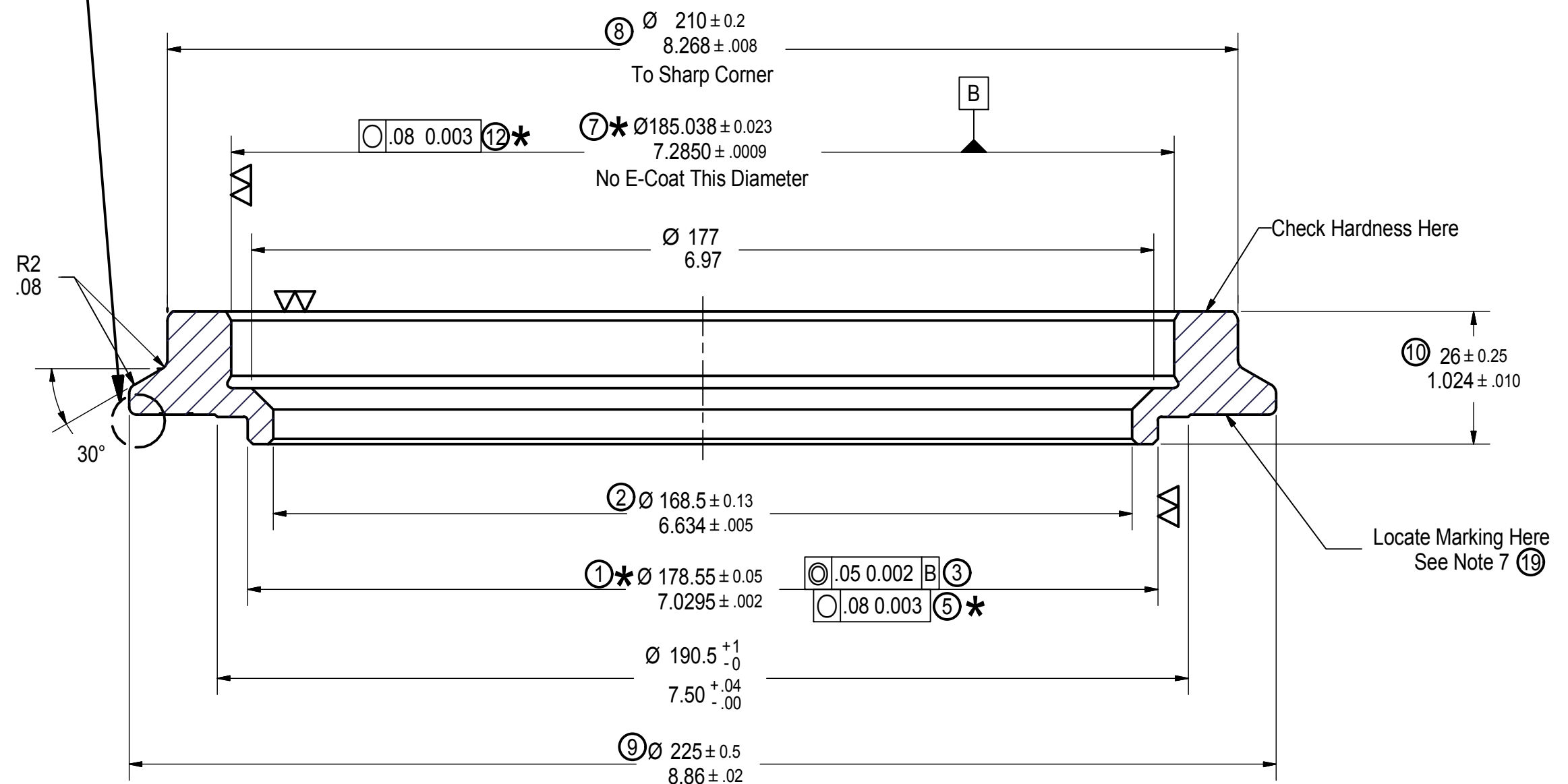
8. See BPS-115 for all additional requirements.

1871  
07.08.2018

SURFACE FINISH		
USE Ra 5 µm Ra 200 µin MAX OTHERWISE NOTED		
SYMBOL	Ra µm	Ra µin
▽▽	2.5	100



Optional Mini-Shroud Detail



Optional Mini-Shroud Detail  
SCALE 5 : 1

REV B	ECR 12233	DESIGNER M. LUMPKIN	REV ENG M. LUMPKIN	CHECKED BY T. LIEBE	ENG APVD DATE 9 14 2017
MATERIAL SEE NOTE 1		DATE 2 18 2014	DESIGNER M. LUMPKIN	© 2017 Amsted Rail Co., Inc. BRENCO® Bearings Petersburg, VA	
HEAT TREAT AS NEEDED TO MEET MATERIAL PROPERTIES		ENGINEER M. LUMPKIN	SCALE FULL	BACKING RING 150 X 250 EUROASIA FITTED & SHROUDED	
MM INCH		PART WEIGHT 1.79 kg	PART No. M215AX	MACHINED END PRODUCT	
				C M215AX.S00	
				SHEET 1 OF 1	