

Mystery Solved? The CD 128 Hemingray CSO

Hemingray CD 128s, used for telephone carrier circuits, have been found embossed with a variety of different style markings, including CS, CSA, CSC, and CSO. According to C.H. Turner's "Transmission Line Insulators" published between 1969-1970 in Old Bottle Magazine, the first "C" stands for Carrier circuit, the "S" stands for "Steel pin", and the third letter "A or C designates the type of carrier circuit". However, it is unclear what the letters themselves stood for exactly, and this also doesn't address the "O" used in CSO.

Armstrong, Kerr, Pyrex, and Whittall Tatum all made CD 128s embossed with either CSA or CSC, but Hemingray was the only manufacturer to emboss some of their insulators with CSO. CSO's are less common than ones embossed "CSA" and "CSC". I always wondered what the "O" stood for, and why they were always found embossed with vertical bars directly below the wire groove. I just thought they were cool, so I collected them on and off over the years. Fast forward about 20 years...

Recently, as I was photographing a few new ones I had just purchased, I noticed that the wire groove "thickness" changed as I turned the insulator sideways! Intrigued, I pulled out my other CSO pieces and, sure enough, they all had *oval shaped wire grooves*. I measured the

wire groove with digital calipers—the widest part of the "O" measures 1/4" thicker (1.9" average) than the narrow part of the "O" (1.65" average). By comparison, a CD 128 CSA or CSC has a uniform 1.62" wide wire groove all the way around. Suddenly, the vertical bars embossed right below the wire groove made sense: their placement indicates the midpoint of the wire groove's narrow sides. Given this, my theory is that "CSO" stands for "Carrier circuit, Steel pin, Oval wire groove".

So the logical next question... why did Hemingray design these with an oval wire groove? One theory is the wire would be parallel to the flat, narrow part of the wire groove oval, so it would help prevent the insulator from rotating. A second theory put forth by Bill Meier is that the insulator would have been screwed down until the bar alignment was perpendicular to the line wire. Then, once the tie wire was affixed, the insulator would be turned an additional quarter turn, thereby tightening the tie wire. Can you think of another possibility? Whatever the case, it seems these were only manufactured between 1939-1940; maybe this design didn't make much of a difference and didn't really catch on? If you have one that was made after 1940, please let me know!

The 2019 price guide lists 4 different versions of the CSO embossed Hemingrays: [070], [075], [080], and [100] which only has a single vertical bar. To date, I have only seen the [075] and [080] versions, pictured on the next page. Interestingly, there is a [090] CSC version listed which also has a vertical bar. Perhaps this was either an embossing error, or a retooled CSO mold? If anyone has photos of either the [090] or [100] embossings, I'd definitely be interested in seeing them!



FRONT VIEW OF [080]:
WIRE GROOVE APPEARS SHALLOW;
VERTICAL BARS ON FRONT & REAR



SIDE VIEW OF [080]:
WIRE GROOVE APPEARS DEEPER;
NOTE VERTICAL BAR ALIGNMENT



TOP VIEW OF [075]:
THE DOME CURVATURE AFFECTS THE
VIEW, BUT YOU CAN STILL SEE THE OVAL!

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(CONTINUED)



HEMINGRAY CD 128 [080] FRONT
10_39 (1939 MANUFACTURE)
LEAD INSERT IN THE THREADS
NO RIDGE INSIDE THE SKIRT



HEMINGRAY CD 128 [080] FRONT
7_39. (1940 MANUFACTURE)
NO LEAD INSERT (POSSIBLY REMOVED)
HAS A RIDGE INSIDE THE SKIRT



HEMINGRAY CD 128 [075] FRONT
3-40 (1940 MANUFACTURE)
BRASS BUSHING EMBEDDED IN THREADS
HAS A RIDGE INSIDE THE SKIRT



HEMINGRAY CD 128 [080] REAR
"O" OVER "A"; NO PERIODS IN CSO

1939 molds:

- Larger embossing in middle of skirt (what I call the "Large Style, Alternate 3" embossing; see: <https://www.hemingray.info/database/embossingstyles.php>)
- [080] embossing: "O" is engraved over an "A"; no periods between the letters "CSO"
- Most have a lead insert in the threads
- Some specimens have a ridge inside skirt

1940 molds:

- Smaller embossing, lower down on skirt
- [075] embossing: no "A" over-engraved; periods between the letters "C.S.O."
- A brass bushing is embedded in the threads with a square in the top.
- All specimens have a ridge inside the skirt

These may not be rare, but it's an interesting variant in Hemingray's lineup! How many other insulators can you think of that have an oval-shaped wire groove? ▲



HEMINGRAY CD 128 [075] REAR
PERIODS IN C.S.O.; EMBOSSING LOWER DOWN