

Oklahoma DOT Materials Reference Document: **5005-R1**  
**Deformed Reinforcing Steel Mill Marking Details**

Revised 7/22/2020

All Standard Specification deformed billet steel bars manufactured to AASHTO M 31 (M 31M) and axle-steel bars manufactured to AASHTO M 53 (M 53M) are to be identifiable by a distinguishing set of marks legibly rolled into the surface of one side of the bar to denote in the following order:

1. **Point of Origin** - Letter or symbol established as the producers mill designation. (Photographs are included later in this publication to help identify products from approved producers)
2. **Size Designation** - Number corresponding to the bar designation number. Number may be either the Inch-Pound or Metric corresponding option as listed in the following table:

Size Designation		Nominal Diameter		Nominal Cross-Sectional Area		Nominal Mass	
Inch-Pound	Metric	Inches	mm	in <sup>2</sup>	mm <sup>2</sup>	lb/ft	kg/m
3	10	0.375	9.5	0.11	71	0.376	0.560
4	13	0.500	12.7	0.20	129	0.668	0.994
5	16	0.625	15.9	0.31	199	1.043	1.552
6	19	0.750	19.1	0.44	284	1.502	2.235
7	22	0.875	22.2	0.60	387	2.044	3.042
8	25	1.000	25.4	0.79	510	2.670	3.973
9	29	1.128	28.7	1.00	645	3.400	5.060
10	32	1.270	32.3	1.27	819	4.303	6.404
11	36	1.410	35.8	1.56	1006	5.313	7.907
14	43	1.693	43.0	2.25	1452	7.65	11.38
18	57	2.257	57.3	4.00	2581	13.60	20.24

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3. **Type of Steel** - Letter(s) indicating steel type. Letter(s) will be as listed in the first column of the following table:

Type of Steel Letter(s)	Indicating bar was produced:
<b>S</b>	to meet AASHTO M 31 (M 31M)
<b>SW</b>	for Grade 60 (420) bars only; to meet both AASHTO M 31 (M 31M) and ASTM A 706 (A 706M)
<b>A</b>	from axle steel to meet AASHTO M 53 (M 53M)

4. **Minimum Yield Designation** - Numeric or optional line markings (grade lines) as listed in the following table:

Minimum Yield Numbers		Indicating Grade (minimum yield)		Minimum Yield Optional Line Marking -Lines used in lieu of Numbers-
Inch-Pound	Metric	Inch-Pound	Metric	
<b>None</b>	<b>None</b>	40 (40,000 psi)	300 (300 MPa)	<b>N/A</b>
<b>60</b>	<b>4</b>	60 (60,000 psi)	420 (420 MPa)	<b>a single continuous longitudinal line through at least five spaces offset from the center of the bar side</b>
<b>75*</b>	<b>5</b>	75 (75,000 psi)	520 (520 MPa)	<b>two continuous longitudinal lines through at least five spaces offset each direction from the center of the bar</b>

\* Grade 75 (5) information is not applicable to AASHTO M 53 (M 53M) axle steel bars

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**Note:** Per Oklahoma DOT Standard Specification 723.01 and 723.02, all reinforcing steel bars are to be furnished Grade 60 (420) unless otherwise specified and shown on the plans.

On the following pages are photographs of reinforcing steel bars approved for use by Oklahoma DOT Materials Division. Photographs are primarily for the purpose of relaying unique point of origin letters and symbols and deformation patterns.

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P/S m00517

**Nucor Steel Birmingham (Birmingham, AL)**

(Grade line option indicated)



P/S m00293  
**CMC Steel Tennessee (Knoxville, TN)**

**Gerdau**  
Knoxville, TN

**CRSI** Concrete Reinforcing  
Steel Institute  
MEMBER

CMC Steel Tennessee – Interim period

<b>S</b> 		
	Bars #3 through #11 only	
<b>W</b> 		
	Bars #3 through #11 only	
<b>S</b> 		
	Bars #3 through #11 only	
<b>S</b> 		
	Bars #3 through #11 only	

(Continued)  
P/S m00293  
**CMC Steel Tennessee (Knoxville, TN)**

**Gerdau**  
Knoxville, TN



CMC Steel Tennessee – Post Interim period

<b>S</b> 		
Bars #3 through #11 only		
<b>W</b> 		
Bars #3 through #11 only		
<b>S</b> 		
Bars #3 through #11 only		
<b>S</b> 		
Bars #3 through #11 only		

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P/S m00518

**Nucor Steel (Jackson, MS)**

(Grade line option indicated)



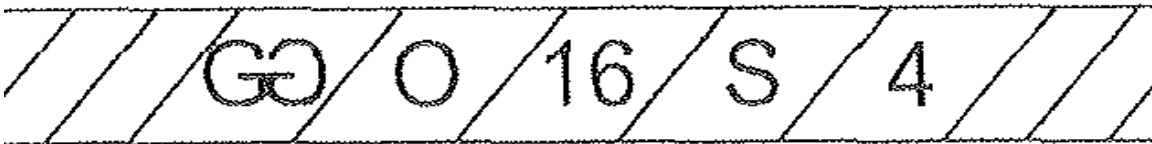
P/S m00058

**Gerdau Ameristeel (Sand Springs, OK)**

(Old) Mill Marking before Jan. 1, 2009



(New) Mill Marking effective Jan. 1, 2009





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P/S m00516

**CMC Steel Texas (Seguin, TX)** - Name changed from SMI-Texas 3/1/2006

Bars #10 through #36 only (Inch-Pound equivalent: #3 through #11)



Bars #43 and #57 only (Inch-Pound equivalent: #14 and #18)



P/S m00661

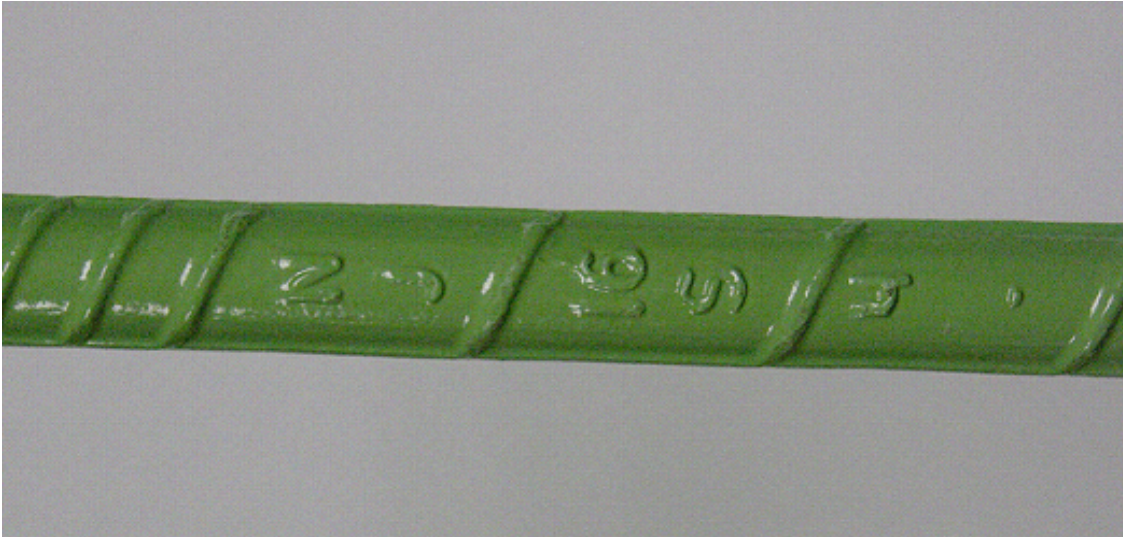
**Mid America Steel & Wire (Madill, OK)**



P/S m00669

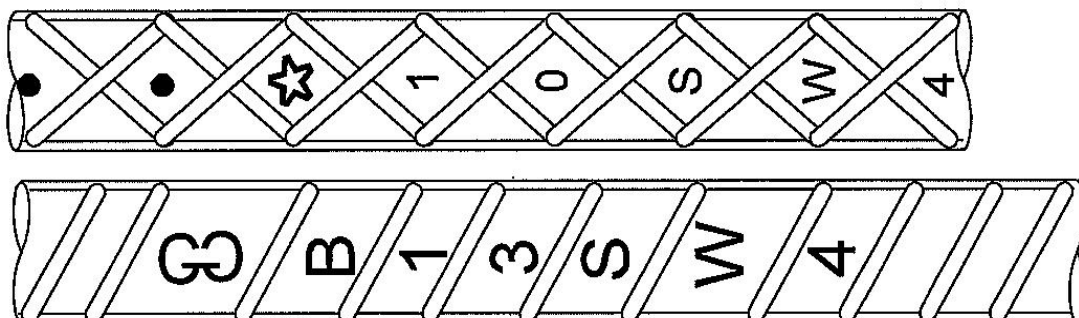
**Nucor Steel (Jewett, TX)**

The dot under the 4 is an optional, manufacturing control marking. Bars may have more than one dot.



P/S m00744

**Gerdau Ameristeel (Beaumont, TX)**



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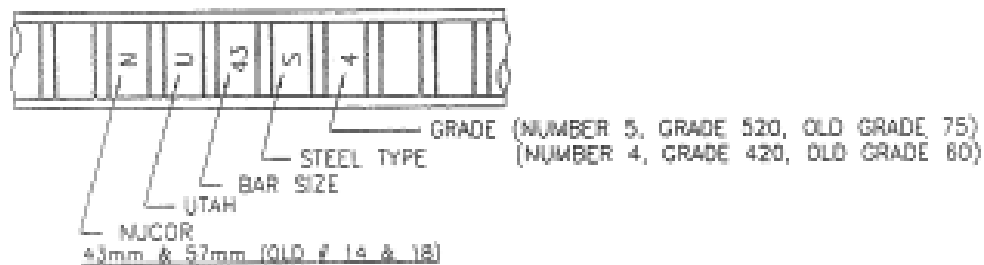
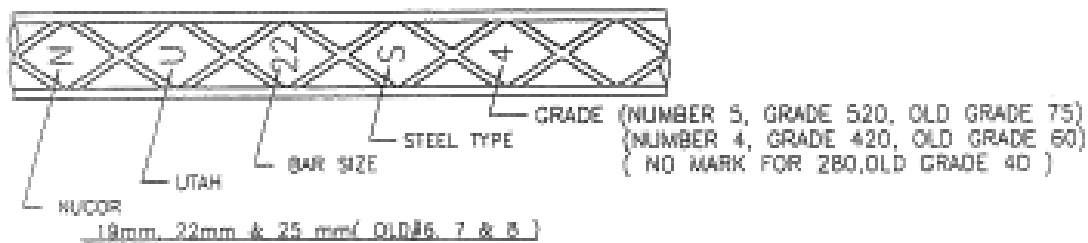
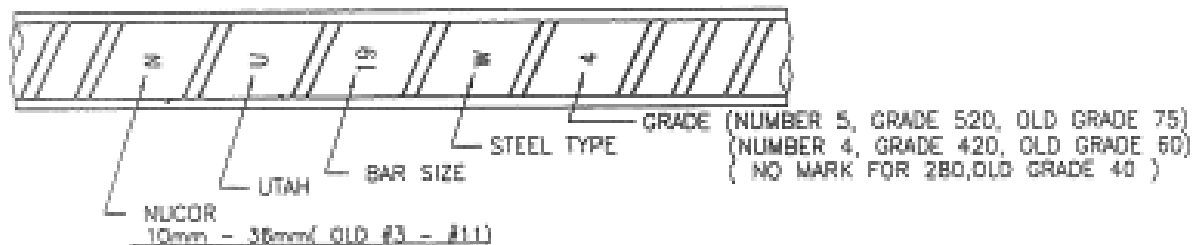
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P/S m00809

**Nucor Steel (Plymouth, UT)**

**NOTES**

FOR ALL SIZES STEEL TYPE  
 S = NEW BULLET  
 W = WELDABLE



P/S m00811  
Nucor Steel Kankakee (Bourbonnais, IL)

### Rebar Grade Identification

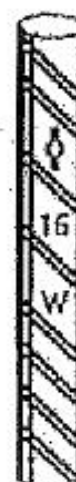
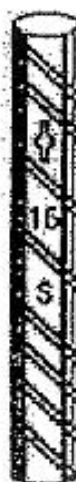
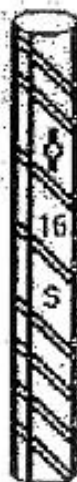
Grade 280

Grade 420  
Grade 400R

Grade 520

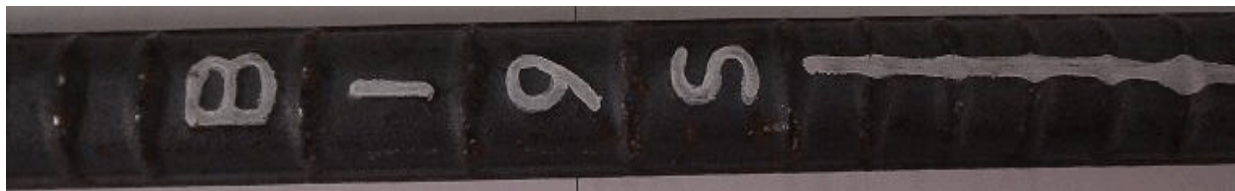
A706  
Grade 400W

Kankakee



- GRADE LINE FOR 420 / 400R IS ONE CONTINUOUS LINE
- GRADE LINE FOR 520 IS TWO CONTINUOUS LINES
- A706 / 400W IS ONE CONTINUOUS LINE WITH THE LETTER "W"
- NG MATERIAL WILL NOT HAVE THE "S" MARK OR GRADE LINE

P/S m00824  
**ArcelorMittal - Vinton Plant (El Paso, TX)**









P/S m00829

**ArcelorMittal - Harriman Plant (Harriman, TN)**



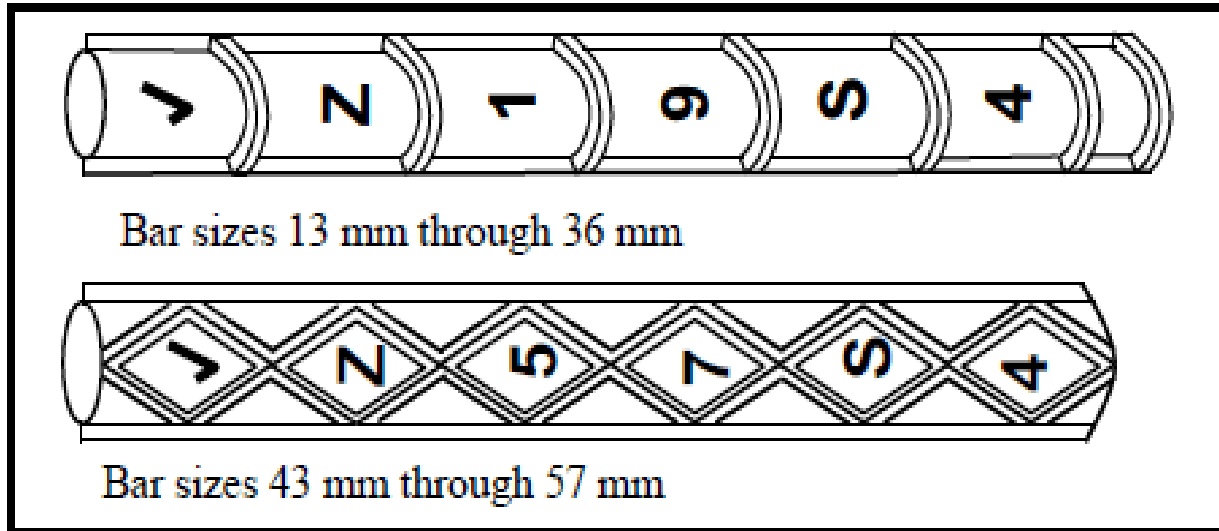


P/S m00681  
Gerdau Ameristeel (Midlothian, TX)

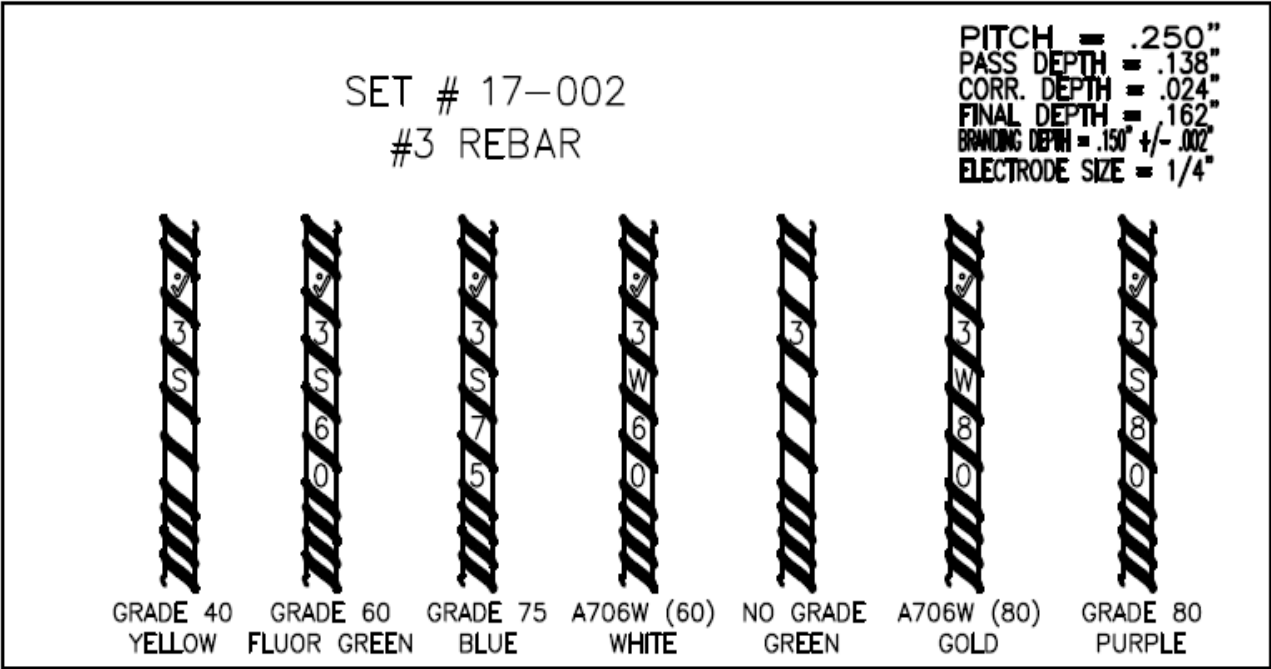
<b>Gerdau Ameristeel (revised markings)</b> (Midlothian, TX)		
<b>S</b>	Bars #10 through #19 only	
<b>W</b>		
Bars #10 through #19 only		
<b>S</b>		
Bars #10 through #19 only		

P/S m00849

**CMC Steel Arizona (Mesa, AZ)**



P/S m00931  
**CMC Steel South Carolina (Caycee, SC)**



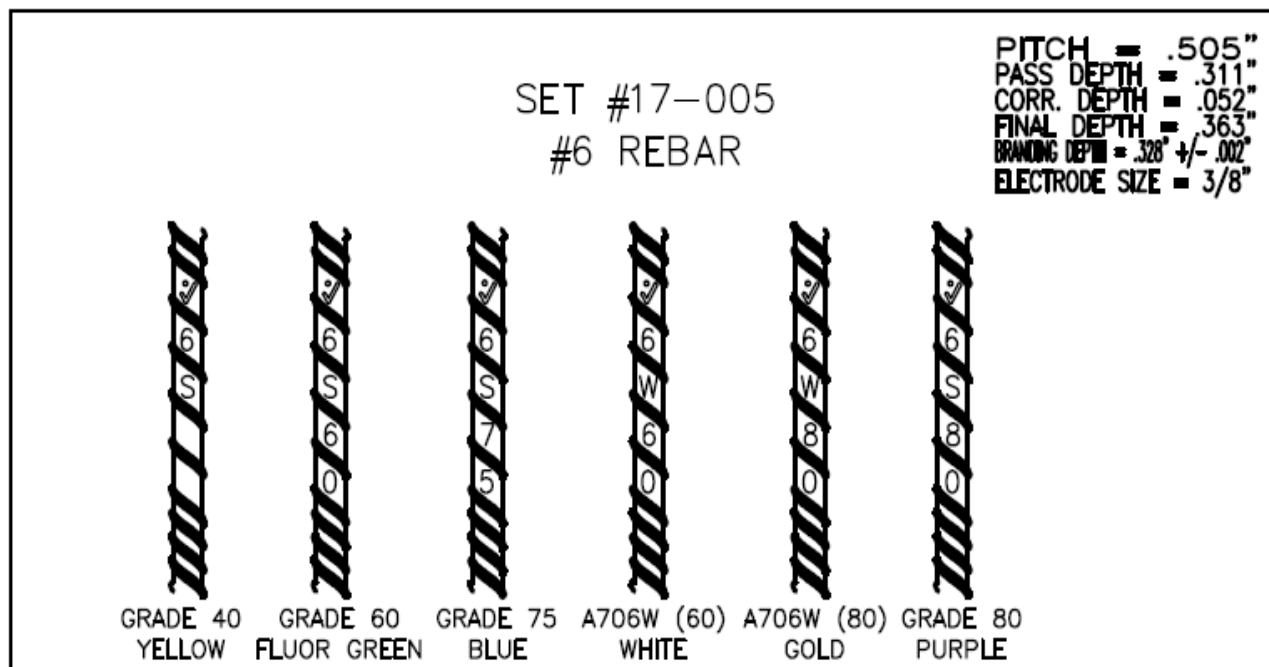
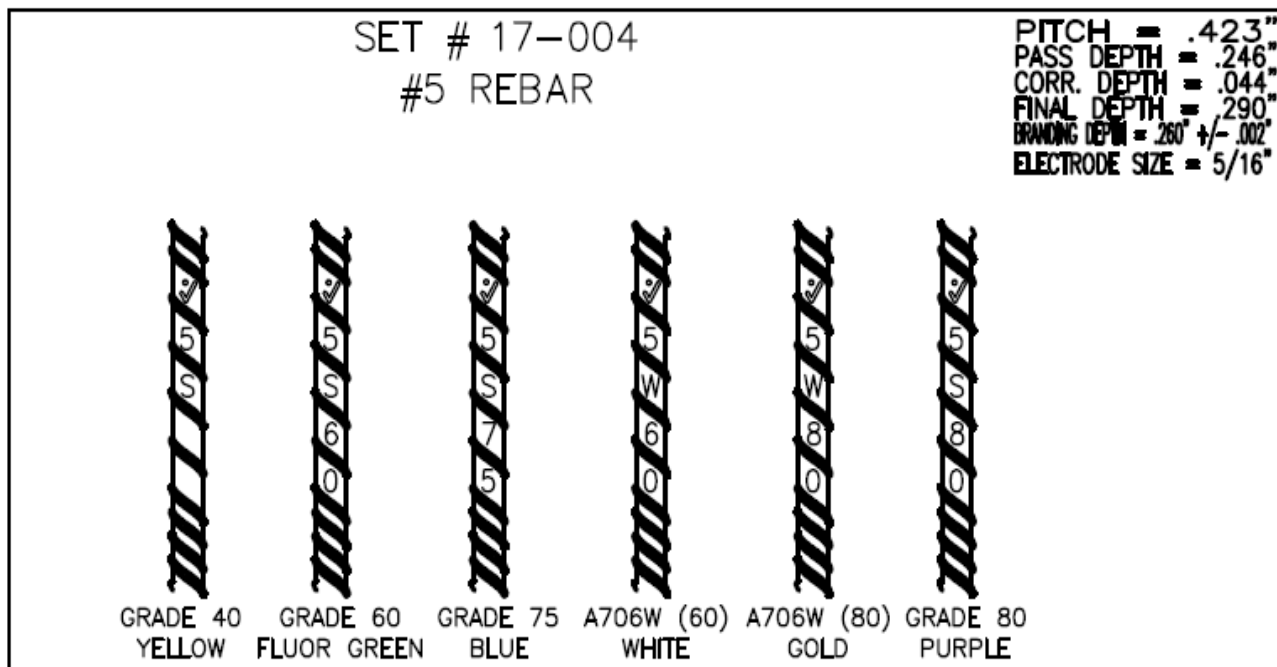
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P/S m00931

**CMC Steel South Carolina (Caycee, SC)**



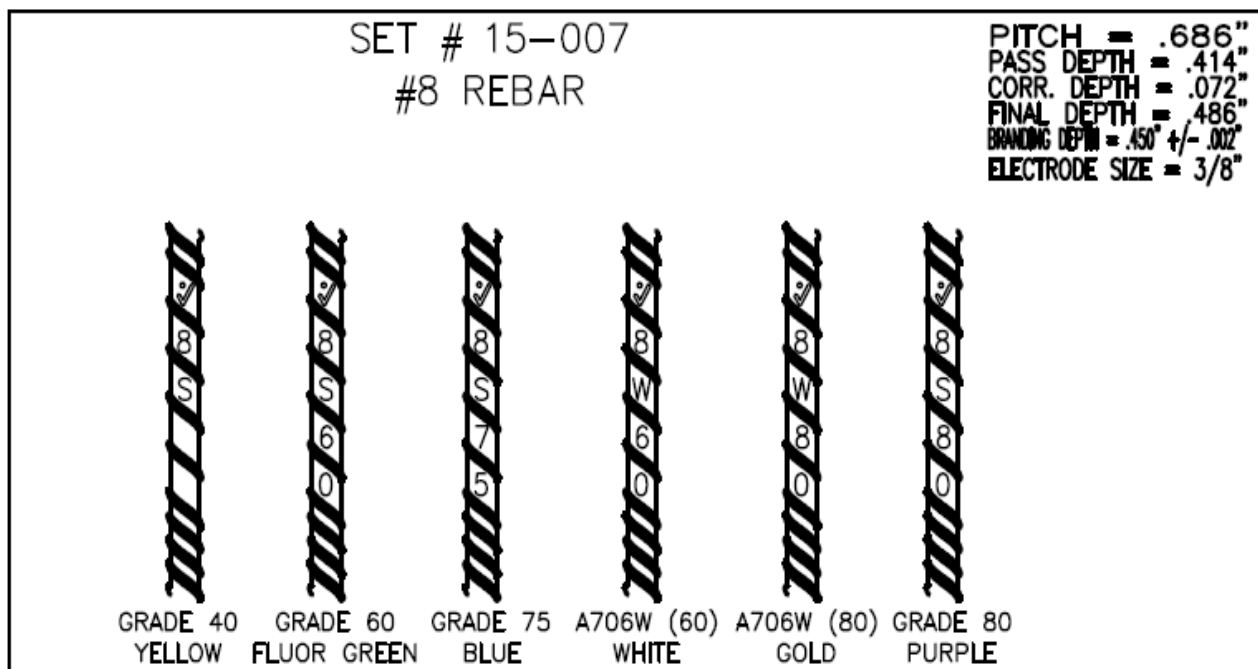
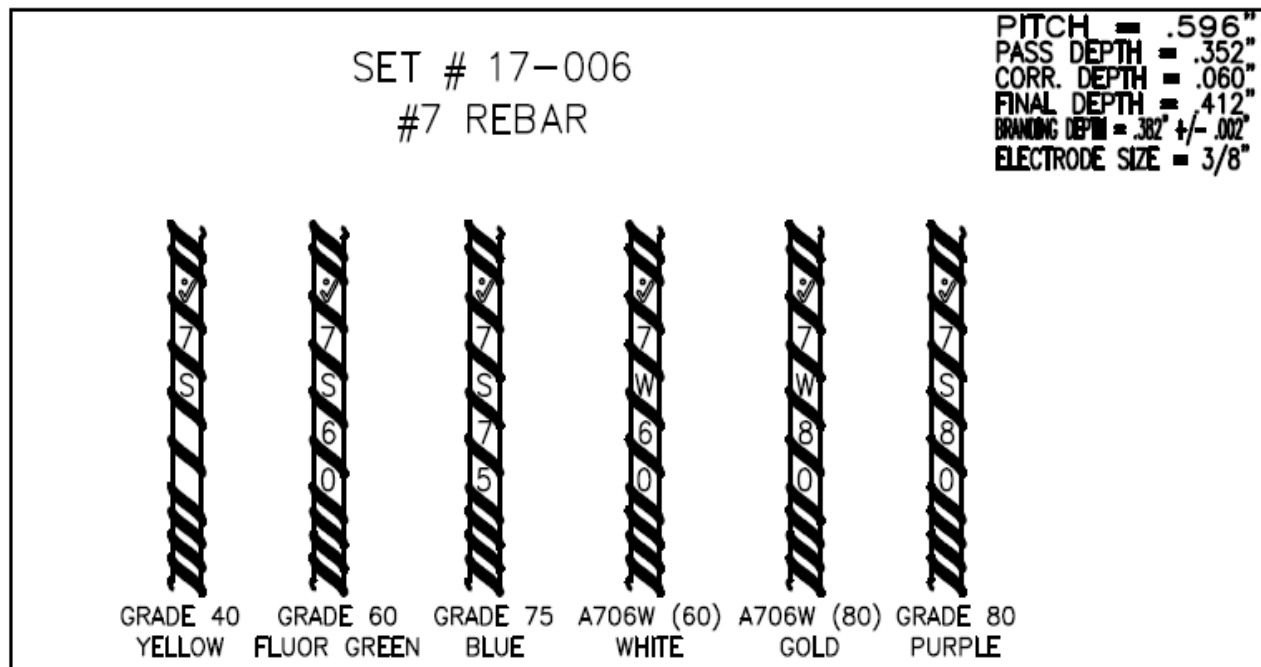
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P/S m00931

**CMC Steel South Carolina (Caycee, SC)**



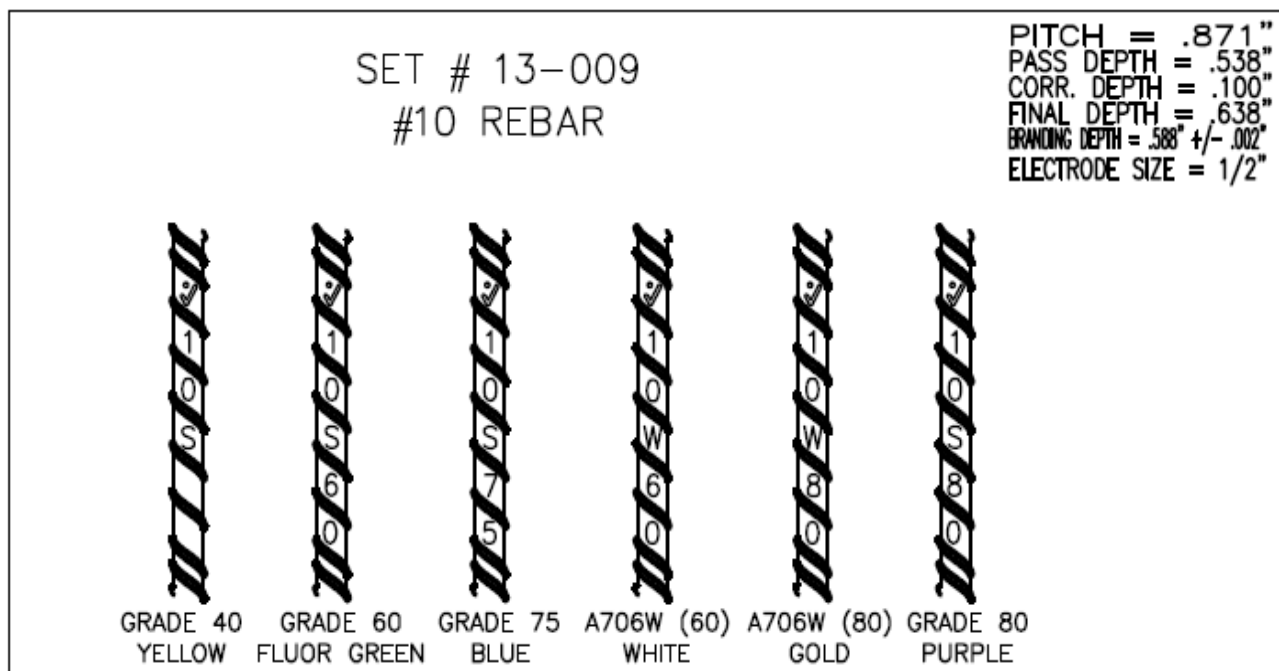
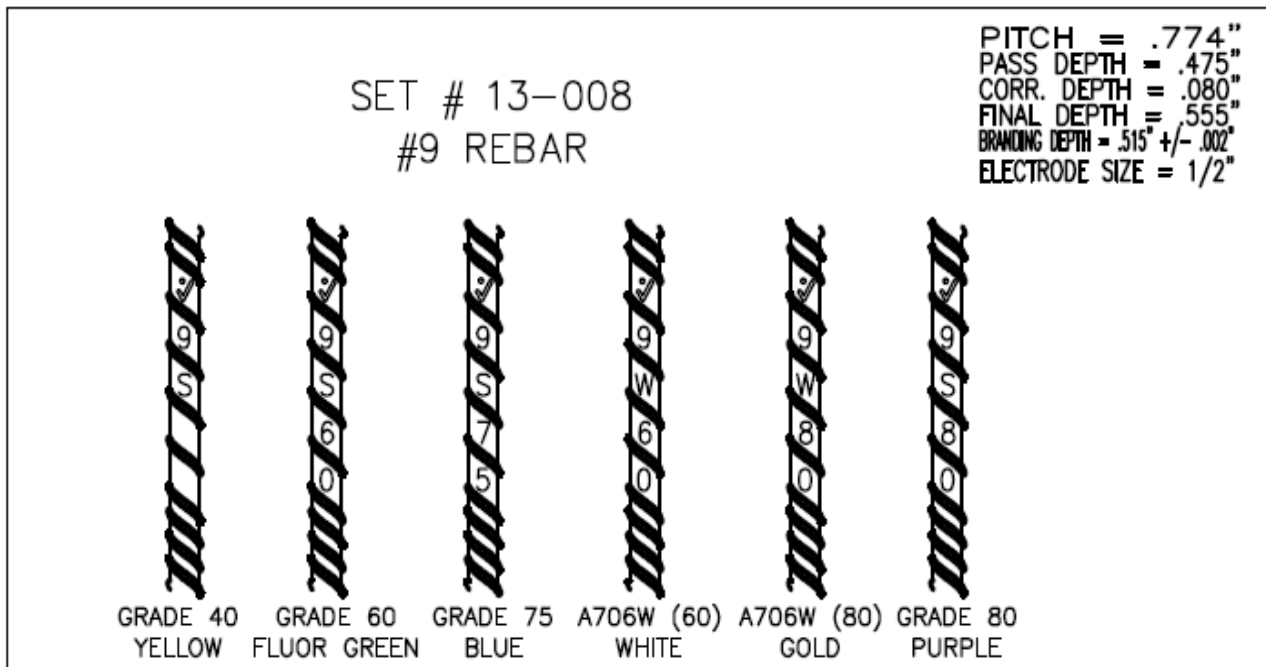
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P/S m00931

**CMC Steel South Carolina (Caycee, SC)**



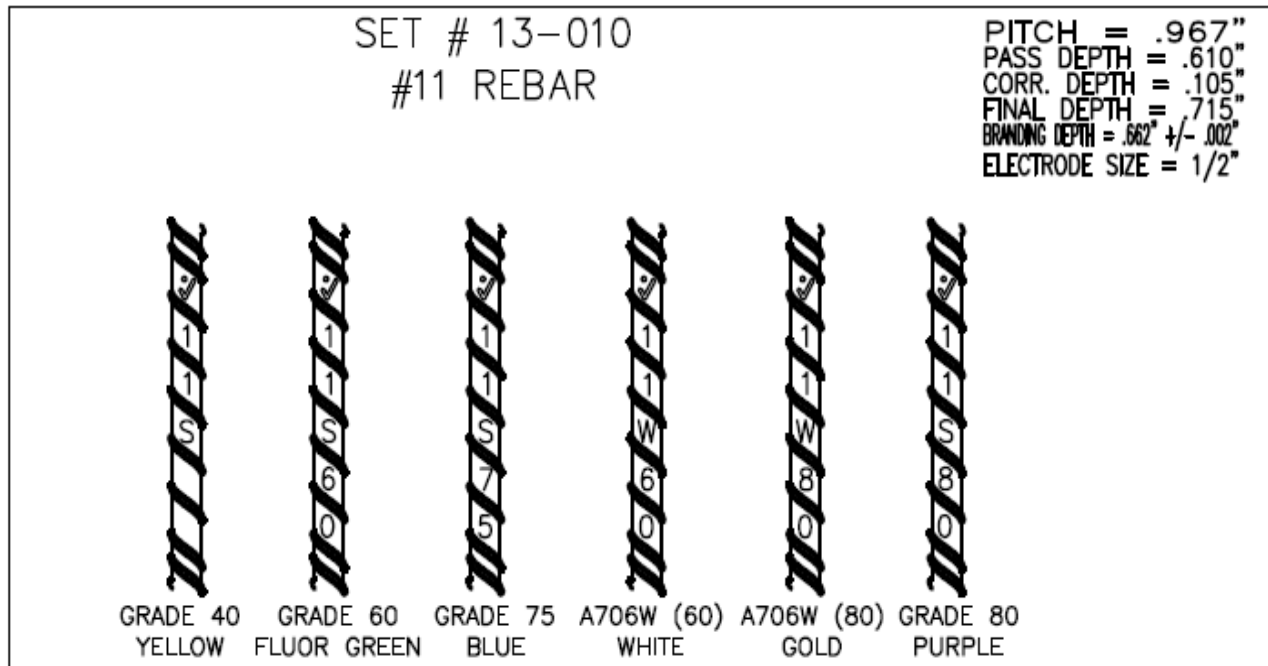
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P/S m00931

**CMC Steel South Carolina (Caycee, SC)**



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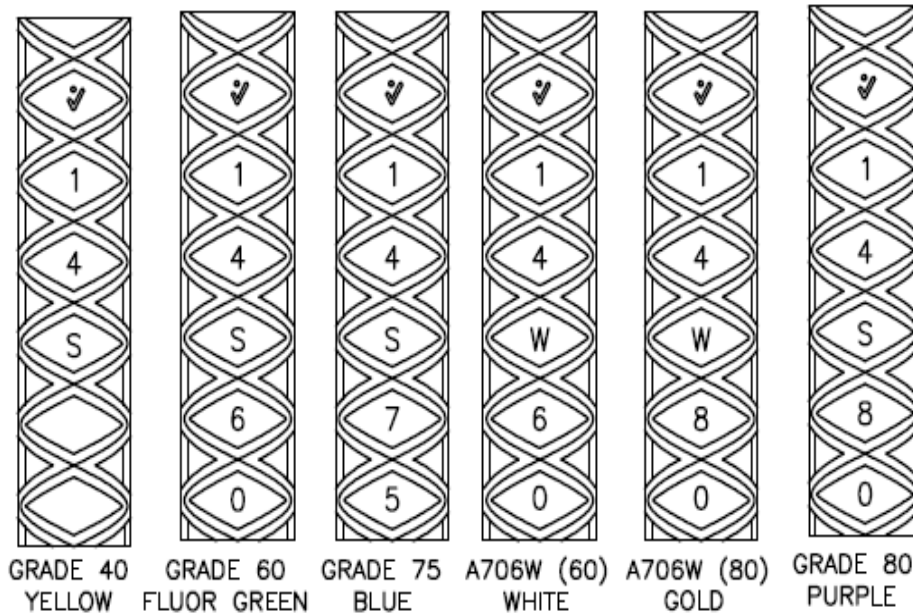
P/S m00931

**CMC Steel South Carolina (Caycee, SC)**

SET #11-011

#14 REBAR

PITCH = 1.150"  
PASS DEPTH = .712"  
CORR. DEPTH = .110"  
FINAL DEPTH = .822"  
BRANDING DEPTH = .762" +/- .002"  
ELECTRODE SIZE = 3/8"  
PROGRAM #43

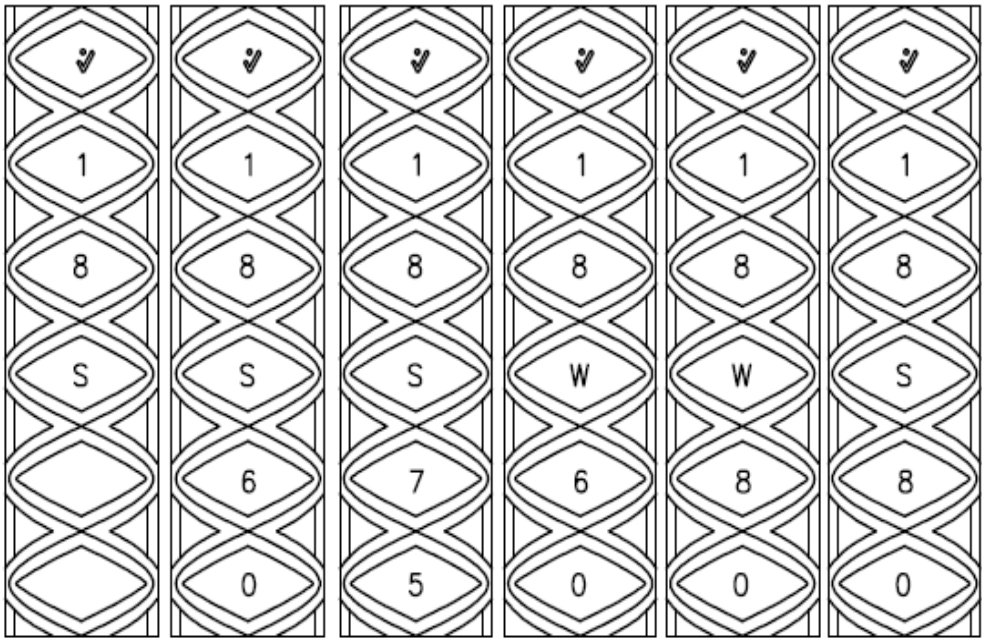




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P/S m00931  
**CMC Steel South Carolina (Caycee, SC)**

SET #09-012  
#18 REBAR

PITCH = 1.540"  
PASS DEPTH = .976"  
CORR. DEPTH = .125"  
FINAL DEPTH = 1.101"  
BRANDING DEPTH = 1.025" +/- .002"  
ELECTRODE SIZE = 1/2"  
PROGRAM #57



GRADE 40    GRADE 60    GRADE 75    A706 W    A706W (80)    GRADE 80  
YELLOW    FLUOR GREEN    BLUE    WHITE    GOLD    PURPLE

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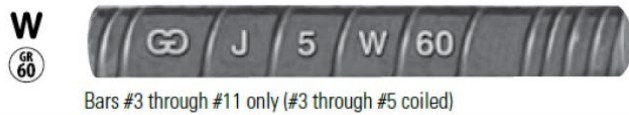
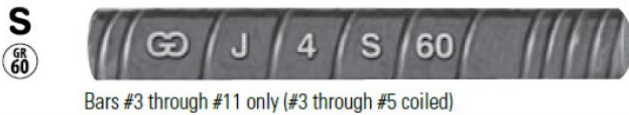
P/S m00983

**CMC Steel Florida (Jacksonville, FL)**

**Gerdau**  
 Jacksonville, FL

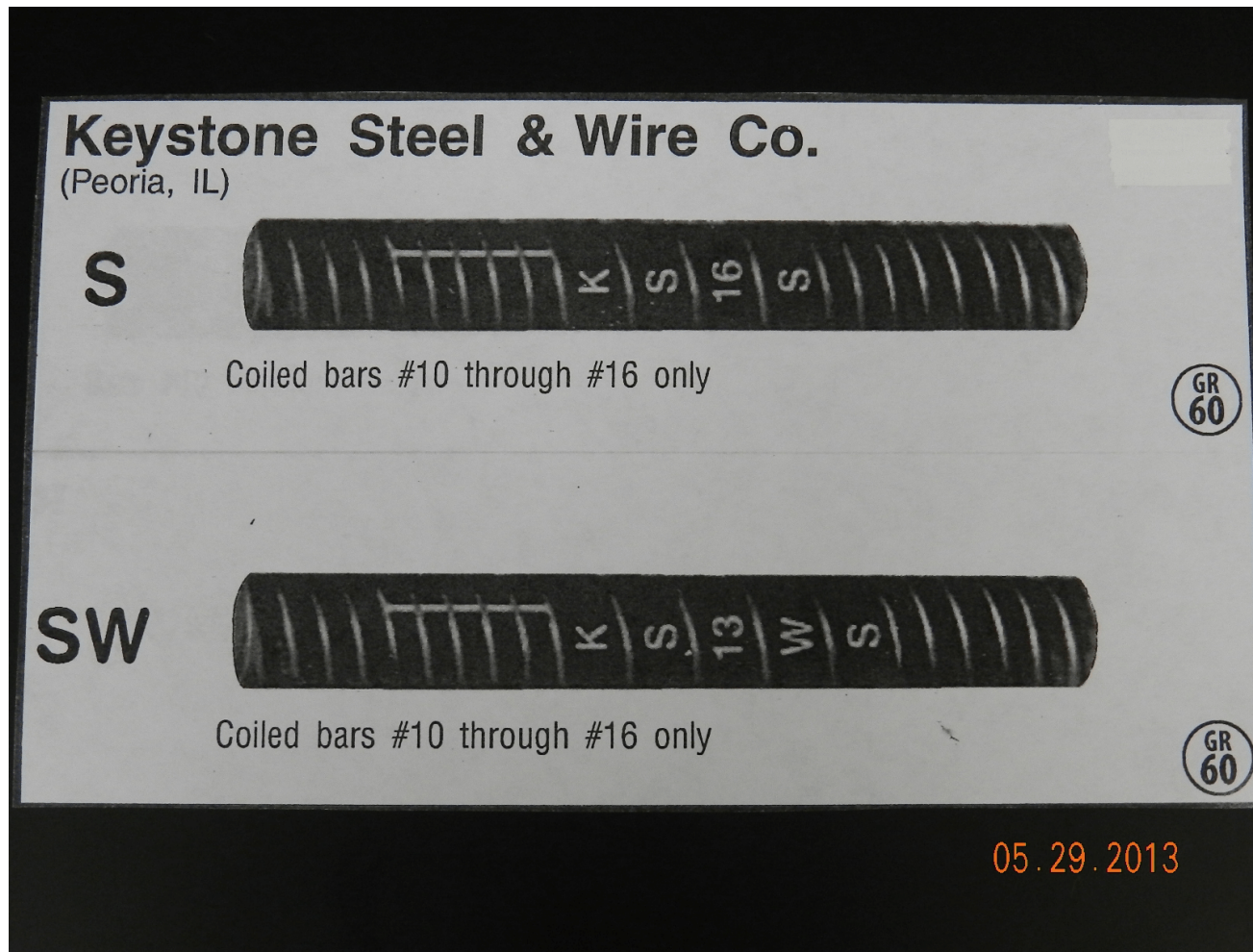
**CRSI** Concrete Reinforcing  
 Steel Institute  
 MEMBER

CMC Steel Florida – Final marking –  
 no interim markings required.



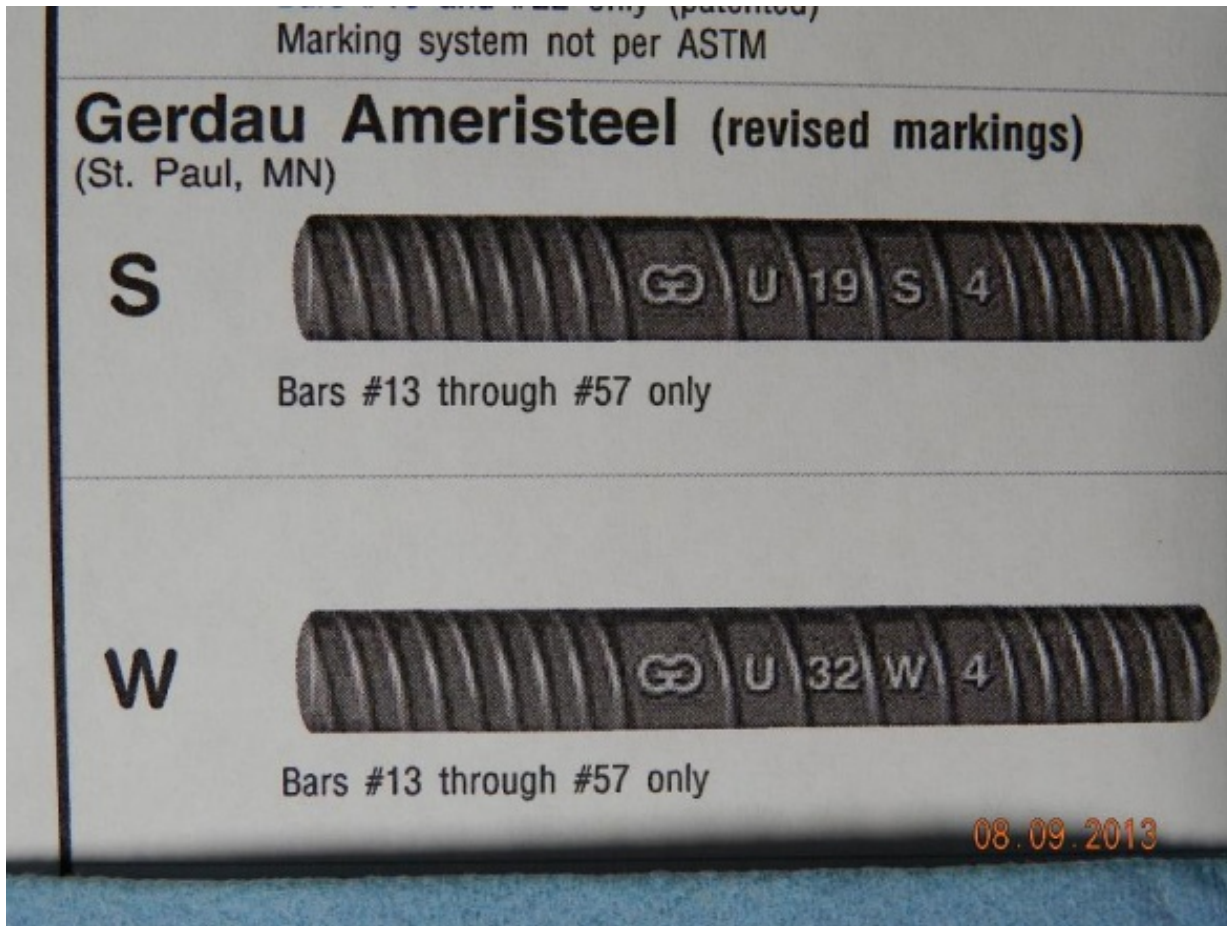
P/S m00995

**Keystone Steel & Wire (Peoria, IL)**



P/S m01000

**Gerdau Steel (St. Paul, MN)**





P/S m01013

**Gerdau Ameristeel (Charlotte, NC)**



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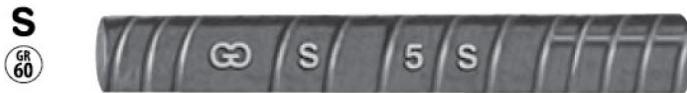
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P/S m01053

**CMC Steel New Jersey (Sayreville, NJ)**

**Gerdau**

Sayreville, NJ



Bars #3 through #18



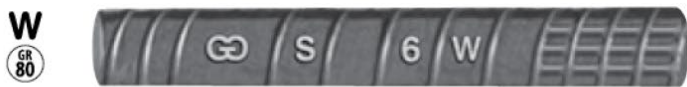
Bars #3 through #18



Bars #3 through #18



Bars #3 through #18



Bars #3 through #18

CMC Steel New Jersey – Interim Period



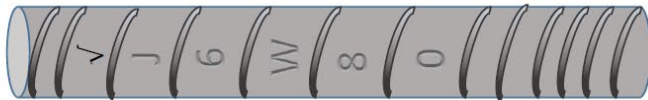
(Continued)  
P/S m01053  
**CMC Steel New Jersey (Sayreville, NJ)**

**Gerdau**

Sayreville, NJ



CMC Steel New Jersey – Post Interim Period



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P/S m01127  
**CMC Steel Oklahoma (Durant, OK)**





P/S m01221  
**Nucor Steel Sedalia, LLC (Sedalia, MO)**

Bar Size 4-11  
A615/Grade 40



Bar Size 4-11  
A615/Grade 60



Bar Size 4-11  
A706/Grade 60



Bar Size 4-7  
A615/Grade 80



Bar Size 4-7  
A706/Grade 80



Bar Size 8-11  
A615/Grade 80



Bar Size 8-11  
A706/Grade 80



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1/4/2008 Revision: Added new mill marking for P/S m00058 Gerdau Ameristeel (Sand Springs, OK)

04/14/2009 Revision: Replaced photograph for P/S m00661 Mid America Steel & Wire (Madill, OK) due to new deformation pattern.

07/29/2009 Revision: Added P/S m00809 Nucor Steel (Plymouth, UT) and their details.

08/04/2009 Revision: Added P/S m00811 Nucor Steel Kankakee (Bourbonnais, IL) and their details.

08/28/2009 Revision: Added P/S m00824 ArcelorMittal - Vinton Plant (El Paso, TX) and their details

01/06/2010 Revision: Added P/S m00829 ArcelorMittal - Harriman Plant (Harriman, TN) and their details.

01/27/2010 Revision: Updated P/S m00681 Gerdau Ameristeel (Midlothian, TX) and their details.

03/18/2010 Revision: Added P/S m00849 CMC Steel Arizona (Mesa, AZ) and their details.

10/18/2011 Revision: Added P/S m00931 CMC Steel South Carolina (Caycee, SC) and their details.

10/26/2011 Revision: Replaced photographs for P/S m00293 Gerdau Ameristeel (Knoxville, TN) and P/S m00744 Gerdau Ameristeel (Beaumont, TX) due to changed bar markings.

12/10/2012 Revision: Added P/S m00983 Gerdau Steel (Jacksonville, FL) and their details.

05/29/2013 Revision: Added P/S m00995 Keystone Steel & Wire (Peoria, IL) and their details.

08/09/2013 Revision: Added P/S m01000 Gerdau Steel (St. Paul, MN) and their details.

01/24/2014 Revision: Added P/S m01013 Gerdau Ameristeel (Charlotte, NC) and their details.

03/10/2014 Revision: Replaced old diagram with new diagrams for P/S m00931 CMC Steel South Carolina (Caycee, SC) due to a change in pattern (from Bamboo to Spiral) on all sizes and grades.

02/15/2018 Revision: Added P/S m001127 CMC Steel Oklahoma (Durant, OK) and their details.

11/08/2018 Renamed P/S m00293 Gerdau Ameristeel (Knoxville, TN) to CMC Steel Tennessee (Knoxville, TN) and replaced old diagram with two new diagrams. Renamed P/S m00983 Gerdau Steel (Jacksonville, FL) to CMC Steel Florida (Jacksonville, FL) and replaced old diagram with new diagram. Added P/S m01053 CMC Steel New Jersey (Sayreville, NJ) and two diagrams.

07/22/2020 Revision: Added P/S m01221 Nucor Steel Sedalia, LLC (Sedalia, MO) and their details.