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**Affected Publication:** API Specification 5CT, *Casing and Tubing*, 10<sup>th</sup> Edition, June 2018

## Errata 2

*6.1, 2<sup>nd</sup> paragraph: The paragraph shall be changed to the following:*

Pipe furnished to this standard shall be made by the seamless or electric-weld process as shown in Table C.3 or Table E.3 and as specified in the purchase agreement. Pup joints shall be made from the materials listed in 3.1.38. Material for couplings, coupling stock, and coupling material shall be manufactured by the seamless process. Cold-drawn tubular products without appropriate heat treatment are not acceptable.

*6.2.3, 2<sup>nd</sup> paragraph: The paragraph shall be changed to the following:*

Grade L80 13Cr may be subject to embrittlement when tempered below 620 °C (1150 °F). When all product meets the requirements in 7.3, 7.4.4, 7.5.2, and 10.7, no further precautions are necessary.

*10.2.3: The second paragraph shall be changed to item a), and the subsequent items shall be re-lettered accordingly:*

- a) Batch heat-treated concurrently in the same heat-treatment line or equipment,
- b) heat-treated in sequential loads using the same process parameters without interruption in the same heat treatment line or equipment equipped with a recording controller to provide documentation of heat-treating control through the run, or
- c) individually heat-treated using the same process parameters without interruption in a continuous production run of 8 hr or less in the same heat treatment line or equipment equipped with a recording controller to provide documentation of heat treating control through the run.

*10.7.3: The second paragraph shall be changed to the following:*

For coupling stock, coupling material, pup joint or accessory material heat-treated in tube length, one piece from an end of each length shall be tested. Front and back ends, as processed, shall be tested on an approximate 50 % basis.

Table C.2: The table shall be changed as indicated in the red boxes:

Labels				Outside Diameter	Nominal Linear Masses <sup>a, b</sup>			Wall Thickness	Type of End Finish							
1	2				Non-upset T&C	Ext. Upset T&C	Integ. Joint		r	H40	J55	L80 R95	N80 Type 1, Q	C90	T95	P110
	1	2	3	4	D mm	kg/m	kg/m	kg/m	mm	10	11	12	13	14	15	16
1.050	1.14	1.20	—	26.67	1.70	1.79	—	2.87	PNU	PNU	PNU	PNU	PNU	PNU	—	—
1.050	1.48	1.54	—	26.67	2.20	2.29	—	3.91	PU	PU	PU	PU	PU	PU	—	—
1.315	1.70	1.80	1.72	33.40	2.53	2.68	2.56	3.38	PNU	PNU	PNU	PNU	PNU	PNU	—	—
1.315	2.19	2.24	—	33.40	3.28	3.33	—	4.55	PU	PU	PU	PU	PU	PU	—	—
1.660	2.09	—	2.10	42.16	—	—	3.13	3.18	PI	PI	—	—	—	—	—	—
1.660	2.30	2.40	2.33	42.16	3.42	3.57	3.47	3.58	PNU	PNU	PNU	PNU	PNU	PNU	—	—
1.660	3.03	3.07	—	42.16	4.51	4.57	—	4.85	PU	PU	PU	PU	PU	PU	—	—
1.900	2.40	—	2.40	48.26	—	—	3.57	3.18	PI	PI	—	—	—	—	—	—
1.900	2.75	2.90	2.76	48.26	4.09	4.32	4.11	3.68	PNU	PNU	PNU	PNU	PNU	PNU	PNU	PNU
1.900	3.85	3.73	—	48.26	5.43	5.55	—	5.08	PU	PU	PU	PU	PU	PU	PU	PU
1.900	4.42	—	—	48.26	6.58	—	—	6.35	—	—	P	—	P	P	—	—
1.900	5.15	—	—	48.26	7.66	—	—	7.62	—	—	P	—	P	P	—	—
2.083	3.24	—	3.25	52.40	—	—	4.84	3.96	PI	PI	PI	PI	PI	PI	PI	—
2.083	4.50	—	—	52.40	—	—	—	5.72	P	P	P	P	P	P	P	P
2 3/8	4.00	—	—	60.32	5.95	—	—	4.24	PNU	PN	PN	PN	PN	PN	PN	PN
2 3/8	4.60	4.70	—	60.32	6.85	6.99	—	4.83	PNU	PNU	PNU	PNU	PNU	PNU	PNU	PNU
2 3/8	5.80	5.95	—	60.32	8.63	8.85	—	6.45	—	—	PNU	PNU	PNU	PNU	PNU	PNU
2 3/8	6.60	—	—	60.32	9.82	—	—	7.49	—	—	P	—	P	P	—	—
2 3/8	7.35	7.45	—	60.32	10.94	11.09	—	8.53	—	—	PU	—	PU	PU	—	—

Table C.24: The table shall be changed as indicated in the red boxes:

Labels <sup>a</sup>				Outside Diameter	Nominal Linear Masses <sup>b, c</sup>			Wall Thickness	Inside Diameter	Calculated Mass <sup>c</sup>					
1	2				Non-upset T&C kg/m	External Upset T&C kg/m	Integral Joint kg/m			Plain-end	$e_m$ , Mass Gain or Loss Due to End Finishing <sup>d</sup> kg				
	1	2	3	4	D mm	6	7	8	t mm	d mm	$m_{pe}$ kg/m	Non-upset	Regular	Special Clearance	Integral Joint
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1.050	1.14	1.20	—	26.67	1.70	1.79	—	2.87	20.93	1.68	0.09	0.64	—	—	
1.050	1.48	1.54	—	26.67	2.20	2.29	—	3.91	18.85	2.19	—	0.60	—	—	
1.315	1.70	1.80	1.72	33.40	2.53	2.68	2.56	3.38	26.64	2.50	0.18	0.64	0.09	0.09	
1.315	2.19	2.24	—	33.40	3.26	3.33	—	4.55	24.30	3.24	—	0.61	—	—	
...															
4 1/2	12.60	12.75	—	114.30	18.75	18.97	—	6.88	100.54	18.23	2.72	5.99	—	—	

Table C.34: The footnotes shall be changed as indicated in the red box:

<sup>a</sup> The size designation for the coupling is the same as the size designation for the pipe on which the coupling is used.
<sup>b</sup> Tolerance on outside diameter $\overline{D}$ : $\pm 1\%$ .

Table C.35: The alignment shall be changed as indicated in the red box:

Label 1	Size <sup>a</sup>	Outside Diameter		Minimum Length	Diameter of Recess	Width of Bearing Face, Regular	Maximum Bearing Face Diameter $B_f$		Mass kg	
	Outside Diameter	Regular	Special Clearance				Regular with Special Bevel	Special clearance	Regular	Special Clearance
		$D$ mm	$\pi^b$ mm							
1	2	3	4	5	6	7	8	9	10	11
1.050	26.67	42.16	—	82.55	35.00	2.38	37.80	—	0.38	—
1.315	33.40	48.26	—	88.90	38.89	2.38	42.77	—	0.57	—
1.660	42.16	55.88	—	95.25	47.63	3.18	50.95	—	0.68	—
1.900	48.26	63.50	—	98.42	54.76	3.18	58.34	—	0.84	—
2 <sup>3</sup> / <sub>8</sub>	60.32	77.80	73.91	123.82	67.46	3.97	71.83	69.90	1.55	1.07
2 <sup>7</sup> / <sub>8</sub>	73.02	93.17	87.88	133.35	80.16	5.56	85.88	83.24	2.40	1.55
3 <sup>1</sup> / <sub>2</sub>	88.90	114.30	106.17	146.05	96.85	6.35	104.78	100.71	4.10	2.38
4	101.60	127.00	—	152.40	109.55	6.35	117.48	—	4.82	—
4 <sup>1</sup> / <sub>2</sub>	114.30	141.30	—	158.75	122.25	6.35	130.96	—	6.05	—

Table C.38: The table shall be changed as indicated in the red box:

Grade	Material	Condition when Heat-treated	Maximum Number of Pieces in a Lot	Number of Tests	
				per Lot	per Heat
1	2	3	4	5	6
...					
L80 9Cr and L80 13Cr	Coupling stock and coupling material	Coupling stock and coupling material for pipe $\leq$ Label 1: 4 <sup>1</sup> / <sub>2</sub>	200 <sup>d</sup>	2 <sup>d, e</sup>	—
		Coupling stock and coupling material for pipe $>$ Label 1: 4 <sup>1</sup> / <sub>2</sub>	100 <sup>d</sup>	2 <sup>d, e</sup>	—
		Coupling blank	400 <sup>c</sup>	2 <sup>e</sup>	—
	Hot forging	Coupling blank	400 <sup>c</sup>	2 <sup>e</sup>	—

Table C.44: The footnotes shall be changed as indicated in the red box:

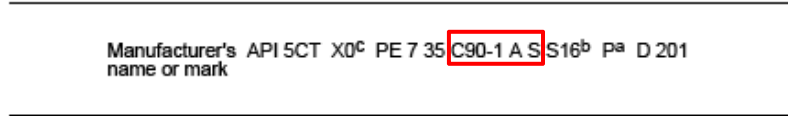
<sup>a</sup> Depth as a percent of specified wall thickness; The depth tolerance shall be $\pm 15\%$ of the calculated notch depth with a minimum notch depth of 0.3 mm $\pm$ 0.05 mm.
<sup>b</sup> Drilled hole diameter (through the pipe wall) shall be based on the drill bit size.

Table C.53: The NOTE in the bottom row shall be changed as indicated in the red box:

NOTE The wall thicknesses in Columns 2, 3, and 4 that are in excess of the maximum wall thicknesses for API pipe are for information only; the calculated values in this table provide a 0.50 mm inside-wall and a 0.50 mm outside-wall machining allowance.
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D.15: The figure shall be changed as indicated in the red box:

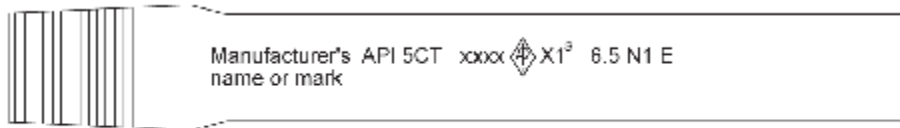
- b) **EXAMPLE 2**—Tubing Label 1: 2 7/8, Label 2: 8.7, Grade L80 Type 1, seamless, external upset, plain-end. Additional requirements include hydrostatic testing to 94.5 MPa (13,700 psi) and inspection to SR 2.



D.17: The figure shall be changed as indicated in the red boxes:

8 Round Casing Label 1	Outside Diameter	Coupling Dimensions mm (in.)			Ring Dimensions mm (in.)		
		A ±3.2 (±0.125)	B ±0.13 (±0.005)	C ±0.25 (±0.010)	D ±0.38 (±0.015)	E +0.25 0 (+0.010 0)	F +0.38 0 (+0.015 0)
1	2	3	4	5	6	7	8
4 1/2	114.30	34.9 (1.375)	4.78 (0.188)	114.63 (4.513)	115.27 (4.538)	2.54 (0.100)	3.96 (0.156)
5	127.00	38.1 (1.500)	4.78 (0.188)	127.13 (5.005)	127.76 (5.030)	2.54 (0.100)	3.96 (0.156)
5 1/2	139.70	38.1 (1.500)	4.78 (0.188)	139.83 (5.505)	140.46 (5.530)	2.54 (0.100)	3.96 (0.156)
6 5/8	168.28	44.5 (1.750)	4.78 (0.188)	168.00 (6.614)	168.63 (6.639)	2.54 (0.100)	3.96 (0.156)
7	177.80	44.5 (1.750)	4.78 (0.188)	177.52 (6.989)	178.16 (7.014)	2.54 (0.100)	3.96 (0.156)
7 5/8	193.68	44.5 (1.750)	4.78 (0.188)	193.29 (7.610)	193.93 (7.635)	2.54 (0.100)	3.96 (0.156)
8 5/8	219.09	47.6 (1.875)	4.78 (0.188)	218.52 (8.603)	219.15 (8.628)	2.54 (0.100)	3.96 (0.156)

D.22, EXAMPLE 1: The figure shall be changed as indicated in the red box:



**Stamp Marking—Optional** [within approximately 0.3 m (1 ft) of either externally threaded end]

D.22, EXAMPLE 3: The figure shall be changed as indicated in the red box:

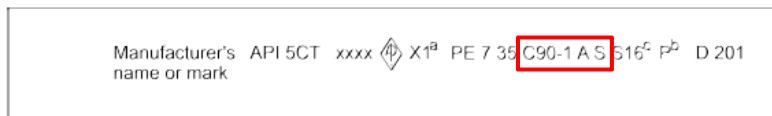


Table E.2: The table shall be changed as indicated in the red box:

1	Labels			Outside Diameter	Nominal Linear Masses <sup>a, b</sup>			Wall Thickness	Type of End-finish						
	2	3	4		Non-upset T&C	Ext. Upset T&C	Integ. Joint		t in.	H40	J55	L80 R95	N80 Type 1, Q	C90	T95
	NU T&C	EU T&C	IJ	D in.	lb/ft	lb/ft	lb/ft		10	11	12	13	14	15	16
1.050	1.14	1.20	—	1.050	1.14	1.20	—	0.113	PNU	PNU	PNU	PNU	PNU	PNU	—
1.050	1.48	1.54	—	1.050	1.48	1.54	—	0.154	PU	PU	PU	PU	PU	PU	PU
1.315	1.70	1.80	1.72	1.315	1.70	1.80	1.72	0.133	PNU	PNU	PNU	PNU	PNU	PNU	—
1.315	2.19	2.24	—	1.315	2.19	2.24	—	0.179	PU	PU	PU	PU	PU	PU	PU
1.660	2.09	—	2.10	1.660	—	—	2.10	0.125	PI	PI	—	—	—	—	—
1.660	2.30	2.40	2.33	1.660	2.30	2.40	2.33	0.140	PNU	PNU	PNU	PNU	PNU	PNU	—
1.660	3.03	3.07	—	1.660	3.03	3.07	—	0.191	PU	PU	PU	PU	PU	PU	PU

Table E.6: The table's header shall be changed as indicated in the red box:

Tensile Test Specimen				Minimum Elongation in 2.0 in. %							
				Grade							
				H40	J55	K55 L80	N80 C90	R95 T95	C110	P110	Q125
Specimen Area in. <sup>2</sup>	Specified Wall Thickness in.			Specified Minimum Tensile Strength ksi							
	Specimen Width 3/4 in.	Specimen Width 1 in.	Specimen Width 1 1/2 in.	60	75	95	100	105	115	125	135
1	2	3	4	5	6	7	8	9	10	11	12

Table E.7: The table shall be changed as indicated in the red box:

Label 1	Critical Thickness for Couplings						
	NU	EU	Special Clearance		BC	LC	SC
			EU	BC			
1	2	3	4	5	6	7	8
...							
13 3/8	—	—	—	—	0.602	—	0.618

Table E.12: The table shall be changed as indicated in the red box:

Label 1	API Connection Type and CVN Specimen Orientation, Size, and Energy						
	NU	EU	Special Clearance <sup>b</sup>		BC	LC	SC
			EU	BC			
1	2	3	4	5	6	7	8
...							
4 1/2	T-7-12	T-7-12	—	L-7-24	T-7-12	T-7-12	—

Table E.23: The table shall be changed as indicated in the red boxes:

Labels <sup>a</sup>		Outside Diameter	Nominal Linear Mass T & C <sup>b,c</sup>	Wall Thickness	Inside Diameter	Drift Diameter	Calculated Mass <sup>c</sup>				
							Plain-end	$e_m$ Mass Gain or Loss Due to End Finishing <sup>d</sup>			
								Round Thread		Buttress Thread	
1	2	D in.	lb/ft	t in.	d in.	in.	w <sub>pe</sub> lb/ft	Short	Long	RC	SCC
7	46.40	7.00	46.60	0.687	5.626	5.501	46.36	—	—	—	—

Table E.24: The table shall be changed as indicated in the red box:

Labels <sup>a</sup>				Outside Diameter	Nominal Linear Masses <sup>b, c</sup>			Wall Thickness	Inside Diameter	Calculated Mass <sup>c</sup>					
1	2				D in.	Non-upset T&C lb/ft	External Upset T&C lb/ft			Integral Joint lb/ft	Plain-end	<sup>c</sup> Mass Gain or Loss Due to End Finishing <sup>d</sup> lb			
	NU T&C	EU T&C	IJ	Non-upset				External Upset <sup>e</sup>				Integral Joint			
1	2	3	4		5	6	7	8	9	10	11		12	13	14
...	3 1/2	9.20	9.30	—	3.500	9.20	9.30	—	0.254	2.992	8.81	5.00	9.20	5.40	—

Table E.38: The table shall be changed as indicated in the red box:

Grade	Material	Condition when Heat-treated	Maximum Number of Pieces in a Lot	Number of Tests	
				per Lot	per Heat
1	2	3	4	5	6
...					
L80 9Cr and L80 13Cr	Coupling stock and coupling material	Coupling stock and coupling material for pipe ≤ Label 1: 4 1/2	200 <sup>d</sup>	2 <sup>d, e</sup>	—
		Coupling stock and coupling material for pipe > Label 1: 4 1/2	100 <sup>d</sup>	2 <sup>d, e</sup>	—
		Coupling blank	400 <sup>c</sup>	2 <sup>e</sup>	—
	Hot forging	Coupling blank	400 <sup>c</sup>	2 <sup>e</sup>	—

Table E.44: The footnotes shall be changed as indicated in the red box:

<sup>a</sup> Depth as a percent of specified wall thickness; The depth tolerance shall be ±15 % of the calculated notch depth with a minimum notch depth of 0.012 in. ± 0.002 in.
<sup>b</sup> Drilled hole diameter (through the pipe wall) shall be based on the drill bit size.

Table E.46: The table shall be changed as indicated in the red boxes:

Grade	Grade Type	Number and Color of Bands for Product <sup>a</sup> with Length ≥ 6.0 ft	Color(s) for Couplings	
			Entire Coupling	Band(s) <sup>b, c</sup>
1	2	3	4	5
...				
L80	13Cr	One red, one brown, one yellow	None	One yellow
C90	1	One purple	Purple	None
T95	1	One silver	Silver	None
C110	—	One white, two brown	White	Two brown
P110	—	One white	White	None
Q125	1	One orange	Orange	None

Table E.48: Footnote “g” shall be changed as indicated in the red box:

9 For Grade C110 only, “DA” when tested using a test solution other than NACE TM 0177-2016 Test Solution A.

Table E.53: The NOTE in the bottom row shall be changed as indicated in the red box:

NOTE The wall thicknesses in Columns 2, 3, and 4 that are in excess of the maximum wall thicknesses for API pipe are for information only; the calculated values in this table provide a 0.020 in. inside-wall and a 0.020 in. outside-wall machining allowance.

Table G.1: The table shall be changed as indicated in the red box:

Product	Label 1	$dc_m$ mm
Casing	$< 9 \frac{5}{8}$	3.18
	$9 \frac{5}{8}$ to $13 \frac{3}{8}$	3.97
	$> 13 \frac{3}{8}$	4.76
Tubing	$\leq 2 \frac{7}{8}$	2.38
	$> 2 \frac{7}{8}$	3.18
Casing specified by the purchaser to be used in tubing service where Label 1 is larger than $4 \frac{1}{2}$ but smaller than $10 \frac{3}{4}$	$> 4 \frac{1}{2}$ to $8 \frac{5}{8}$	3.18
	$> 8 \frac{5}{8}$ to $10 \frac{3}{4}$	3.97

Table G.2: The title shall be changed to the following:

**Table G.2—Plain-end Pipe Hydrostatic Test Factors by Grade and Size**

Table H.1: The table shall be changed as indicated in the red boxes:

Annex H	API 5CT	Grade										
		J55	K55	N80 Type 1	N80 Q	R95	L80 Type 1	L80 13Cr	C90	T95	P110	Q125
1	2	3	4	5	6	7	8	9	10	11	12	13
...												
H.3.2	6.3.1 6.3.2					2					2	
...												
H.6.2.2	7.5.4 K.7											2
...												
H.17.2	10.13.4	3	3	3	3	3	3	3	3	3	3	3

K.4.2: The second paragraph shall be replaced with the following:

Coupling blanks ordered with as-rolled outside diameter surface shall have an outside diameter tolerance of  $\pm 1\%$ , but not greater than  $+3.18 \text{ mm}$  ( $+\frac{1}{8}$  in.),  $-1.59$  ( $-\frac{1}{16}$ ).