

# *Imperial*

## Torque & Makeup Loss

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## THREAD MAKE-UP LOSS

IMPERIAL - API THREAD LENGTH FOR MAKE-UP LOSS				
O.D. (in)	EUE Thread Length (in)	Short Thread Length (in)	Long Thread Length (in)	Buttress Thread Length (in)
2 3/8	1.938			
2 7/8	2.125			
3 1/2	2.375			
4 1/2		2.625	3.000	3.938
5		2.750	3.375	4.063
5 1/2		2.875	3.500	4.125
6 5/8		3.125	3.875	4.313
7		3.125	4.000	4.500
7 5/8		3.250	4.125	4.688
8 5/8		3.375	4.500	4.813
9 5/8		3.375	4.750	4.813
10 3/4		3.500		4.813
11 3/4		3.500		4.813
13 3/8		3.500		4.813
16		4.000		4.813
18 5/8		4.000		4.813
20		4.000	5.250	4.813

Reference: **API Spec 5B** - Specification for Threading, Gauging, and Thread Inspection of Casing, Tubing, and Line Pipe Threads

API Tubing EUE 8-ROUND Thread						
Weight (lb/ft)	Grade	Wall (in)	ID (in)	API Recommended Torques		
				MIN	OPT	MAX
				(ft-lb)	(ft-lb)	(ft-lb)
<b>2 3/8</b>						
4.70	H-40	0.190	1.995	740	990	1,240
	J-55			970	1,290	1,610
	L-80			1,320	1,760	2,200
	N-80			1,350	1,800	2,250
	C-90			1,440	1,920	2,400
	T-95			1,520	2,030	2,540
	P-110			1,790	2,380	2,980
5.95	L-80	0.254	1.867	1,640	2,190	2,740
	N-80			1,680	2,240	2,800
	C-90			1,790	2,390	2,990
	T-95			1,890	2,520	3,150
	P-110			2,210	2,950	3,690
<b>2 7/8</b>						
6.50	H-40	0.217	2.441	940	1,250	1,560
	J-55			1,240	1,650	2,060
	L-80			1,690	2,250	2,810
	N-80			1,730	2,300	2,880
	C-90			1,850	2,460	3,080
	T-95			1,950	2,600	3,250
	P-110			2,280	3,040	3,800
7.90	L-80	0.276	2.323	2,030	2,710	3,390
	N-80			2,080	2,770	3,460
	C-90			2,230	2,970	3,710
	T-95			2,340	3,120	3,900
	P-110			2,750	3,660	4,580
8.70	L-80	0.308	2.259	2,210	2,950	3,690
	N-80			2,270	3,020	3,780
	C-90			2,420	3,230	4,040
	T-95			2,550	3,400	4,250
	P-110			2,990	3,980	4,980
<b>3 1/2</b>						
9.30	H-40	0.254	2.992	1,300	1,730	2,160
	J-55			1,710	2,280	2,850
	L-80			2,270	3,030	3,790
	N-80			2,400	3,200	4,000
	C-90			2,570	3,430	4,290
	T-95			2,720	3,620	4,530
	P-110			3,170	4,230	5,290
12.95	L-80	0.375	2.750	3,150	4,200	5,250
	N-80			3,220	4,290	5,360
	C-90			3,460	4,610	5,760
	T-95			3,640	4,850	6,060
	P-110			4,260	5,680	7,100

API Casing 8-ROUND SHORT Threads						
Weight (lb/ft)	Grade	Wall (in)	ID (in)	API Recommended Torques		
				MIN (ft-lb)	OPT (ft-lb)	MAX (ft-lb)
<b>4 1/2</b>						
9.50	H-40	0.205	4.090	580	770	960
	J-55			760	1,010	1,260
	K-55			840	1,120	1,400
10.50	J-55	0.224	4.052	990	1,320	1,650
	K-55			1,100	1,460	1,830
	M-65			1,160	1,540	1,930
11.60	J-55	0.250	4.000	1,160	1,540	1,930
	K-55			1,280	1,700	2,130
<b>5</b>						
11.50	J-55	0.220	4.560	1,000	1,330	1,660
	K-55			1,100	1,470	1,840
	M-65			1,160	1,550	1,940
13.00	J-55	0.253	4.494	1,270	1,690	2,110
	K-55			1,400	1,860	2,330
	M-65			1,470	1,960	2,450
15.00	J-55	0.296	4.408	1,550	2,070	2,590
	K-55			1,710	2,280	2,850
<b>5 1/2</b>						
14.00	H-40	0.244	5.012	980	1,300	1,630
	J-55			1,290	1,720	2,150
	K-55			1,420	1,890	2,360
15.50	J-55	0.275	4.950	1,520	2,020	2,530
	K-55			1,670	2,220	2,780
	M-65			1,760	2,350	2,940
17.00	J-55	0.304	4.892	1,720	2,290	2,860
	K-55			1,890	2,520	3,150
<b>6 5/8</b>						
20.00	H-40	0.288	6.049	1,380	1,840	2,300
	J-55			1,840	2,450	3,060
	K-55			2,000	2,670	3,340
	M-65			2,140	2,850	3,560
24.00	J-55	0.352	5.921	2,360	3,140	3,930
	K-55			2,570	3,420	4,280
<b>7</b>						
17.00	H-40	0.231	6.538	920	1,220	1,530
20.00	H-40	0.272	6.456	1,320	1,760	2,200
	J-55			1,760	2,340	2,930
	K-55			1,910	2,540	3,180
	M-65			2,050	2,730	3,410
23.00	J-55	0.317	6.366	2,130	2,840	3,550
	K-55			2,320	3,090	3,860
26.00	J-55	0.362	6.276	2,510	3,340	4,180
	K-55			2,730	3,640	4,550

API Casing 8-ROUND SHORT Threads						
Weight (lb/ft)	Grade	Wall (in)	ID (in)	API Recommended Torques		
				MIN	OPT	MAX
				(ft-lb)	(ft-lb)	(ft-lb)
<b>7 5/8</b>						
24.00	H-40	0.300	7.025	1,590	2,120	2,650
26.40	J-55	0.328	6.969	2,360	3,150	3,940
	K-55			2,570	3,420	4,280
	M-65			2,760	3,680	4,600
<b>8 5/8</b>						
24.00	J-55	0.264	8.097	1,830	2,440	3,050
	K-55			1,970	2,630	3,290
	M-65			2,140	2,850	3,560
28.00	H-40	0.304	8.017	1,750	2,330	2,910
	M-65			2,720	3,620	4,530
32.00	H-40	0.352	7.921	2,090	2,790	3,490
	J-55			2,790	3,720	4,650
	K-55			3,020	4,020	5,030
	M-65			3,260	4,350	5,440
36.00	J-55	0.400	7.825	3,260	4,340	5,430
	K-55			3,510	4,680	5,850
	M-65			3,800	5,060	6,330
<b>9 5/8</b>						
32.30	H-40	0.312	9.001	1,910	2,540	3,180
36.00	H-40	0.352	8.921	2,210	2,940	3,680
	J-55			2,960	3,940	4,930
	K-55			3,170	4,230	5,290
	M-65			3,450	4,600	5,750
40.00	J-55	0.395	8.835	3,390	4,520	5,650
	K-55			3,650	4,860	6,080
	M-65			3,960	5,280	6,600
<b>10 3/4</b>						
32.75	H-40	0.279	10.192	1,540	2,050	2,560
40.50	H-40	0.350	10.050	2,360	3,140	3,930
	J-55			3,150	4,200	5,250
	K-55			3,380	4,500	5,630
	M-65			3,680	4,910	6,140
45.50	J-55	0.400	9.950	3,700	4,930	6,160
	K-55			3,960	5,280	6,600
	M-65			4,320	5,760	7,200
51.00	J-55	0.450	9.850	4,240	5,650	7,060
	K-55			4,550	6,060	7,580
	M-65			4,960	6,610	8,260
	L-80			5,960	7,940	9,930
	N-80			6,030	8,040	10,050
	C-90			6,590	8,790	10,990
	T-95			6,950	9,270	11,590
	P-110			8,090	10,790	13,490

**API Casing 8-ROUND SHORT Threads**

Weight (lb/ft)	Grade	Wall (in)	ID (in)	API Recommended Torques		
				MIN	OPT	MAX
				(ft-lb)	(ft-lb)	(ft-lb)
<b>10 3/4</b>						
55.50	M-65	0.495	9.760	5,520	7,360	9,200
	L-80			6,630	8,840	11,050
	N-80			6,710	8,950	11,190
	C-90			7,340	9,790	12,240
	T-95			7,740	10,320	12,900
	P-110			9,020	12,020	15,030
	Q-125			10,130	13,500	16,880
60.70	C-90	0.545	9.660	8,170	10,890	13,610
	T-95			8,610	11,480	14,350
	P-110			10,030	13,370	16,710
	Q-125			11,270	15,020	18,780
65.70	C-90	0.595	9.560	8,990	11,980	14,980
	T-95			9,470	12,630	15,790
	P-110			11,030	14,710	18,390
	Q-125			12,390	16,520	20,650
<b>11 3/4</b>						
42.00	H-40	0.333	11.084	2,300	3,070	3,840
47.00	J-55	0.375	11.000	3,580	4,770	5,960
	K-55			3,820	5,090	6,360
	M-65			4,180	5,570	6,960
54.00	J-55	0.435	10.880	4,260	5,680	7,100
	K-55			4,550	6,060	7,580
	M-65			4,980	6,640	8,300
60.00	J-55	0.489	10.772	4,870	6,490	8,110
	K-55			5,200	6,930	8,660
	M-65			5,690	7,590	9,490
	L-80			6,850	9,130	11,410
	N-80			6,930	9,240	11,550
	C-90			7,580	10,110	12,640
	T-95			8,000	10,660	13,330
	P-110			9,320	12,420	15,530
	Q-125			10,460	13,950	17,440
65.00	L-80	0.534	10.682	7,550	10,070	12,590
	N-80			7,640	10,190	12,740
	C-90			8,370	11,160	13,950
	T-95			8,830	11,770	14,710
	P-110			10,280	13,700	17,130
	Q-125			11,540	15,390	19,240

API Casing 8-ROUND SHORT Threads						
Weight (lb/ft)	Grade	Wall (in)	ID (in)	API Recommended Torques		
				MIN	OPT	MAX
				(ft-lb)	(ft-lb)	(ft-lb)
<b>13 3/8</b>						
48.00	H-40	0.330	12.715	2,420	3,220	4,030
54.50	J-55	0.380	12.615	3,860	5,140	6,430
	K-55			4,100	5,470	6,840
	M-65			4,520	6,020	7,530
61.00	J-55	0.430	12.515	4,460	5,950	7,440
	K-55			4,750	6,330	7,910
	M-65			5,230	6,970	8,710
68.00	J-55	0.480	12.415	5,060	6,750	8,440
	K-55			5,390	7,180	8,980
	M-65			5,930	7,910	9,890
	L-80			7,140	9,520	11,900
	N-80			7,220	9,630	12,040
	C-90			7,930	10,570	13,210
	T-95			8,360	11,140	13,930
	P-110			9,730	12,970	16,210
72.00	L-80	0.514	12.347	7,720	10,290	12,860
	N-80			7,800	10,400	13,000
	C-90			8,570	11,420	14,280
	T-95			9,030	12,040	15,050
	P-110			10,510	14,010	17,510
	Q-125			11,820	15,760	19,700
<b>16</b>						
65.00	H-40	0.375	15.250	4,390		
75.00	J-55	0.438	15.124	7,100		
	K-55			7,520		
	M-65			8,320		
84.00	J-55	0.495	15.010	8,170		
	K-55			8,650		
	M-65			9,570		
<b>18 5/8</b>						
87.50	H-40	0.435	17.755	5,590		
	J-55			7,540		
	K-55			7,940		
	M-65			8,840		
<b>20</b>						
94.00	H-40	0.438	19.124	5,810		
	J-55			7,840		
	K-55			8,240		
	M-65			9,190		
106.50	J-55	0.500	19.000	9,130		
	K-55			9,600		
133.00	J-55	0.635	18.730	11,920		
	K-55			12,530		
	M-65			13,980		

API Casing 8-ROUND LONG Threads						
Weight (lb/ft)	Grade	Wall (in)	ID (in)	API Recommended Torques		
				MIN	OPT	MAX
				(ft-lb)	(ft-lb)	(ft-lb)
<b>4 1/2</b>						
11.60	J-55	0.250	4.000	1,220	1,620	2,030
	K-55			1,350	1,800	2,250
	M-65			1,410	1,880	2,350
	L-80			1,670	2,230	2,790
	N-80			1,710	2,280	2,850
	C-90			1,840	2,450	3,060
	T-95			1,940	2,580	3,230
	P-110			2,270	3,020	3,780
13.50	M-65	0.290	3.920	1,710	2,280	2,850
	L-80			2,030	2,710	3,390
	N-80			2,070	2,760	3,450
	C-90			2,230	2,970	3,710
	T-95			2,350	3,130	3,910
	P-110			2,750	3,660	4,580
15.10	P-110	0.337	3.826	3,300	4,400	5,500
	Q-125			3,680	4,910	6,140
<b>5</b>						
13.00	J-55	0.253	4.494	1,370	1,820	2,280
	K-55			1,510	2,010	2,510
	M-65			1,590	2,120	2,650
15.00	J-55	0.296	4.408	1,670	2,230	2,790
	K-55			1,850	2,460	3,080
	M-65			1,940	2,590	3,240
	L-80			2,310	3,080	3,850
	N-80			2,360	3,140	3,930
	C-90			2,540	3,380	4,230
	T-95			2,670	3,560	4,450
	P-110			3,130	4,170	5,210
18.00	M-65	0.362	4.276	2,480	3,310	4,140
	L-80			2,950	3,930	4,910
	N-80			3,000	4,000	5,000
	C-90			3,230	4,310	5,390
	T-95			3,410	4,550	5,680
	P-110			3,980	5,310	6,640
	Q-125			4,450	5,930	7,410
21.40	M-65	0.437	4.126	3,070	4,090	5,110
	L-80			3,650	4,860	6,080
	N-80			3,710	4,950	6,190
	C-90			4,010	5,340	6,680
	T-95			4,220	5,620	7,030
	P-110			4,940	6,580	8,230
	Q-125			5,510	7,340	9,180
23.20	L-80	0.478	4.044	4,010	5,350	6,690
	N-80			4,090	5,450	6,810
	C-90			4,410	5,880	7,350
	T-95			4,650	6,200	7,750
	P-110			5,440	7,250	9,060
	Q-125			6,070	8,090	10,110
24.10	L-80	0.500	4.000	4,210	5,610	7,010
	N-80			4,290	5,720	7,150
	C-90			4,630	6,170	7,710
	T-95			4,880	6,500	8,130
	P-110			5,700	7,600	9,500
	Q-125			6,370	8,490	10,610



API Casing 8-ROUND LONG Threads						
Weight (lb/ft)	Grade	Wall (in)	ID (in)	API Recommended Torques		
				MIN	OPT	MAX
				(ft-lb)	(ft-lb)	(ft-lb)
<b>5 1/2</b>						
15.50	J-55	0.275	4.950	1,630	2,170	2,710
	K-55			1,790	2,390	2,990
	M-65			1,900	2,530	3,160
17.00	J-55	0.304	4.892	1,850	2,470	3,090
	K-55			2,040	2,720	3,400
	M-65			2,150	2,870	3,590
	L-80			2,560	3,410	4,260
	N-80			2,610	3,480	4,350
	C-90			2,810	3,750	4,690
	T-95			2,970	3,960	4,950
	P-110			3,470	4,620	5,780
	Q-125			3,870	5,160	6,450
20.00	M-65	0.361	4.778	2,650	3,530	4,410
	L-80			3,150	4,200	5,250
	N-80			3,210	4,280	5,350
	C-90			3,470	4,620	5,780
	T-95			3,650	4,870	6,090
	P-110			4,270	5,690	7,110
23.00	M-65	0.415	4.670	3,110	4,150	5,190
	L-80			3,700	4,930	6,160
	N-80			3,770	5,020	6,280
	C-90			4,070	5,430	6,790
	T-95			4,290	5,720	7,150
	P-110			5,010	6,680	8,350
	Q-125			5,600	7,470	9,340
<b>6 5/8</b>						
20.00	J-55	0.288	6.049	2,000	2,660	3,330
	K-55			2,180	2,900	3,630
	M-65			2,320	3,090	3,860
24.00	J-55	0.352	5.921	2,550	3,400	4,250
	K-55			2,790	3,720	4,650
	M-65			2,970	3,960	4,950
	L-80			3,550	4,730	5,910
	N-80			3,610	4,810	6,010
	C-90			3,910	5,210	6,510
	T-95			4,120	5,490	6,860
	P-110			4,810	6,410	8,010
28.00	M-65	0.417	5.791	3,620	4,830	6,040
	L-80			4,320	5,760	7,200
	N-80			4,400	5,860	7,330
	C-90			4,760	6,350	7,940
	T-95			5,020	6,690	8,360
	P-110			5,860	7,810	9,760
32.00	L-80	0.475	5.675	5,000	6,660	8,330
	N-80			5,090	6,780	8,480
	C-90			5,510	7,340	9,180
	T-95			5,810	7,740	9,680
	P-110			6,780	9,040	11,300
	Q-125			7,580	10,110	12,640

API Casing 8-ROUND LONG Threads						
Weight (lb/ft)	Grade	Wall (in)	ID (in)	API Recommended Torques		
				MIN	OPT	MAX
				(ft-lb)	(ft-lb)	(ft-lb)
<b>7</b>						
23.00	J-55	0.317	6.366	2,350	3,130	3,910
	K-55			2,560	3,410	4,260
	M-65			2,730	3,640	4,550
	L-80			3,260	4,350	5,440
	N-80			3,320	4,420	5,530
	C-90			3,590	4,790	5,990
	T-95			3,790	5,050	6,310
26.00	J-55	0.362	6.276	2,750	3,670	4,590
	K-55			3,010	4,010	5,010
	M-65			3,210	4,280	5,350
	L-80			3,830	5,110	6,390
	N-80			3,890	5,190	6,490
	C-90			4,220	5,630	7,040
	T-95			4,450	5,930	7,410
	P-110			5,200	6,930	8,660
29.00	M-65	0.408	6.184	3,690	4,920	6,150
	L-80			4,400	5,870	7,340
	N-80			4,480	5,970	7,460
	C-90			4,860	6,480	8,100
	T-95			5,120	6,830	8,540
	P-110			5,980	7,970	9,960
32.00	M-65	0.453	6.094	4,160	5,540	6,930
	L-80			4,960	6,610	8,260
	N-80			5,040	6,720	8,400
	C-90			5,470	7,290	9,110
	T-95			5,760	7,680	9,600
	P-110			6,730	8,970	11,210
35.00	L-80	0.498	6.004	5,510	7,340	9,180
	N-80			5,600	7,460	9,330
	C-90			6,070	8,090	10,110
	T-95			6,400	8,530	10,660
	P-110			7,470	9,960	12,450
	Q-125			8,360	11,150	13,940
38.00	L-80	0.540	5.920	6,010	8,010	10,010
	N-80			6,110	8,140	10,180
	C-90			6,620	8,830	11,040
	T-95			6,980	9,310	11,640
	P-110			8,150	10,870	13,590
	Q-125			9,120	12,160	15,200
<b>7 5/8</b>						
26.40	J-55	0.328	6.969	2,600	3,460	4,330
	K-55			2,830	3,770	4,710
	M-65			3,030	4,040	5,050
	L-80			3,620	4,820	6,030
	N-80			3,680	4,900	6,130
	C-90			3,990	5,320	6,650
	T-95			4,200	5,600	7,000
29.70	M-65	0.375	6.875	3,560	4,740	5,930
	L-80			4,250	5,670	7,090
	N-80			4,310	5,750	7,190
	C-90			4,690	6,250	7,810
	T-95			4,940	6,590	8,240
	P-110			5,770	7,690	9,610

API Casing 8-ROUND LONG Threads						
Weight (lb/ft)	Grade	Wall (in)	ID (in)	API Recommended Torques		
				MIN	OPT	MAX
				(ft-lb)	(ft-lb)	(ft-lb)
<b>7 5/8</b>						
33.70	M-65	0.430	6.765	4,170	5,560	6,950
	L-80			4,980	6,640	8,300
	N-80			5,060	6,740	8,430
	C-90			5,500	7,330	9,160
	T-95			5,790	7,720	9,650
	P-110			6,760	9,010	11,260
39.00	L-80	0.500	6.625	5,900	7,860	9,830
	N-80			5,990	7,980	9,980
	C-90			6,500	8,670	10,840
	T-95			6,860	9,140	11,430
	P-110			8,000	10,660	13,330
	Q-125			8,960	11,940	14,930
42.80	L-80	0.562	6.501	6,680	8,910	11,140
	N-80			6,800	9,060	11,330
	C-90			7,380	9,840	12,300
	T-95			7,780	10,370	12,960
	P-110			9,080	12,100	15,130
	Q-125			10,160	13,550	16,940
45.30	L-80	0.595	6.435	7,100	9,470	11,840
	N-80			7,220	9,620	12,030
	C-90			7,840	10,450	13,060
	T-95			8,260	11,010	13,760
	P-110			9,640	12,850	16,060
	Q-125			10,790	14,390	17,990
47.10	L-80	0.625	6.375	7,480	9,970	12,460
	N-80			7,600	10,130	12,660
	C-90			8,250	11,000	13,750
	T-95			8,690	11,590	14,490
	P-110			10,150	13,530	16,910
	Q-125			11,360	15,150	18,940
<b>8 5/8</b>						
28.00	H-40	0.304	8.017	1,960	2,610	3,260
	M-65			3,050	4,060	5,080
32.00	J-55	0.352	7.921	3,130	4,170	5,210
	K-55			3,390	4,520	5,650
	M-65			3,650	4,870	6,090
36.00	J-55	0.400	7.825	3,650	4,860	6,080
	K-55			3,950	5,260	6,580
	M-65			4,250	5,670	7,090
	L-80			5,090	6,780	8,480
	N-80			5,160	6,880	8,600
	C-90			5,620	7,490	9,360
	T-95			5,920	7,890	9,860
40.00	M-65	0.450	7.725	4,870	6,490	8,110
	L-80			5,820	7,760	9,700
	N-80			5,910	7,880	9,850
	C-90			6,440	8,580	10,730
	T-95			6,780	9,040	11,300
	P-110			7,910	10,550	13,190
44.00	L-80	0.500	7.625	6,560	8,740	10,930
	N-80			6,650	8,870	11,090
	C-90			7,240	9,650	12,060
	T-95			7,630	10,170	12,710
	P-110			8,900	11,860	14,830

API Casing 8-ROUND LONG Threads						
Weight (lb/ft)	Grade	Wall (in)	ID (in)	API Recommended Torques		
				MIN	OPT	MAX
				(ft-lb)	(ft-lb)	(ft-lb)
<b>8 5/8</b>						
49.00	L-80	0.557	7.511	7,370	9,830	12,290
	N-80			7,480	9,970	12,460
	C-90			8,140	10,850	13,560
	T-95			8,580	11,440	14,300
	P-110			10,010	13,350	16,690
	Q-125			11,220	14,960	18,700
<b>9 5/8</b>						
36.00	J-55	0.352	8.921	3,400	4,530	5,660
	K-55			3,670	4,890	6,110
	M-65			3,970	5,290	6,610
40.00	J-55	0.395	8.835	3,900	5,200	6,500
	K-55			4,210	5,610	7,010
	M-65			4,550	6,070	7,590
	L-80			5,450	7,270	9,090
	N-80			5,530	7,370	9,210
	C-90			6,030	8,040	10,050
43.50	T-95	0.435	8.755	6,350	8,470	10,590
	M-65			5,090	6,790	8,490
	L-80			6,100	8,130	10,160
	N-80			6,190	8,250	10,310
	C-90			6,740	8,990	11,240
	T-95			7,110	9,480	11,850
47.00	P-110	0.472	8.681	8,290	11,050	13,810
	M-65			5,590	7,450	9,310
	L-80			6,700	8,930	11,160
	N-80			6,790	9,050	11,310
	C-90			7,400	9,870	12,340
	T-95			7,800	10,400	13,000
53.50	P-110	0.545	8.535	9,100	12,130	15,160
	Q-125			10,200	13,600	17,000
	L-80			7,850	10,470	13,090
	N-80			7,970	10,620	13,280
	C-90			8,680	11,570	14,460
	T-95			9,150	12,200	15,250
58.40	P-110	0.595	8.435	10,670	14,220	17,780
	Q-125			11,960	15,950	19,940
	L-80			8,630	11,510	14,390
	N-80			8,750	11,670	14,590
	C-90			9,540	12,720	15,900
	T-95			10,060	13,410	16,760
<b>20</b>						
94.00	P-110	0.438	19.124	11,720	15,630	19,540
	Q-125			13,160	17,540	21,930
	H-40			6,730		
	J-55			9,070		
106.50	K-55	0.500	19.000	9,550		
	M-65			11,490		
	J-55			10,570		
133.00	K-55	0.635	18.730	11,130		
	J-55			13,800		
	M-65			14,530		
				17,490		

API Casing BUTTRESS Threads				
Weight	Grade	Wall	ID	Approx. Torque (no rings) (ft-lb)
<b>4 1/2</b>				
9.50	H-40 J-55 K-55	0.205	4.090	4,500 4,500 4,500
10.50	J-55 K-55 M-65	0.224	4.052	4,500 4,500 4,500
11.60	J-55 K-55 M-65 L-80 N-80 C-90 T-95 P-110	0.250	4.000	4,500 4,500 4,500 4,500 4,500 4,500 4,500
13.50	M-65 L-80 N-80 C-90 T-95 P-110	0.290	3.920	4,500 4,500 4,500 4,500 4,500
15.10	P-110 Q-125	0.337	3.826	4,500 4,500
<b>5</b>				
11.50	J-55 K-55 M-65	0.220	4.560	5,000 5,000 5,000
13.00	J-55 K-55 M-65	0.253	4.494	5,000 5,000 5,000
15.00	J-55 K-55 M-65 L-80 N-80 C-90 T-95 P-110	0.296	4.408	5,000 5,000 5,000 5,000 5,000 5,000 5,000
18.00	M-65 L-80 N-80 C-90 T-95 P-110 Q-125	0.362	4.276	5,000 5,000 5,000 5,000 5,000 5,000 5,000
21.40	M-65 L-80 N-80 C-90 T-95 P-110 Q-125	0.437	4.126	5,000 5,000 5,000 5,000 5,000 5,000 5,000



API Casing BUTTRESS Threads				
Weight	Grade	Wall	ID	Approx. Torque (no rings) (ft-lb)
<b>6 5/8</b>				
28.00	M-65 L-80 N-80 C-90 T-95 P-110	0.417	5.791	6,630 6,630 6,630 6,630 6,630 6,630
32.00	L-80 N-80 C-90 T-95 P-110 Q-125	0.475	5.675	6,630 6,630 6,630 6,630 6,630 6,630
<b>7</b>				
20.00	H-40 J-55 K-55 M-65	0.272	6.456	7,000 7,000 7,000 7,000
23.00	J-55 K-55 M-65 L-80 N-80 C-90 T-95	0.317	6.366	7,000 7,000 7,000 7,000 7,000 7,000 7,000
26.00	J-55 K-55 M-65 L-80 N-80 C-90 T-95 P-110	0.362	6.276	7,000 7,000 7,000 7,000 7,000 7,000 7,000 7,000
29.00	M-65 L-80 N-80 C-90 T-95 P-110	0.408	6.184	7,000 7,000 7,000 7,000 7,000 7,000
32.00	M-65 L-80 N-80 C-90 T-95 P-110	0.453	6.094	7,000 7,000 7,000 7,000 7,000 7,000
35.00	L-80 N-80 C-90 T-95 P-110 Q-125	0.498	6.004	7,000 7,000 7,000 7,000 7,000 7,000
38.00	L-80 N-80 C-90 T-95 P-110 Q-125	0.540	5.920	7,000 7,000 7,000 7,000 7,000 7,000

API Casing BUTTRESS Threads				
Weight	Grade	Wall	ID	Approx. Torque (no rings) (ft-lb)
<b>7 5/8</b>				
26.40	J-55	0.328	6.969	7,630
	K-55			7,630
	M-65			7,630
	L-80			7,630
	N-80			7,630
	C-90			7,630
	T-95			7,630
29.70	M-65	0.375	6.875	7,630
	L-80			7,630
	N-80			7,630
	C-90			7,630
	T-95			7,630
	P-110			7,630
33.70	M-65	0.430	6.765	7,630
	L-80			7,630
	N-80			7,630
	C-90			7,630
	T-95			7,630
	P-110			7,630
39.00	L-80	0.500	6.625	7,630
	N-80			7,630
	C-90			7,630
	T-95			7,630
	P-110			7,630
	Q-125			7,630
<b>8 5/8</b>				
24.00	J-55	0.264	8.097	8,630
	K-55			8,630
	M-65			8,630
28.00	H-40	0.304	8.017	8,630
	M-65			8,630
32.00	H-40	0.352	7.921	8,630
	J-55			8,630
	K-55			8,630
	M-65			8,630
36.00	J-55	0.400	7.825	8,630
	K-55			8,630
	M-65			8,630
	L-80			8,630
	N-80			8,630
	C-90			8,630
	T-95			8,630
40.00	M-65	0.450	7.725	8,630
	L-80			8,630
	N-80			8,630
	C-90			8,630
	T-95			8,630
	P-110			8,630
44.00	L-80	0.500	7.625	8,630
	N-80			8,630
	C-90			8,630
	T-95			8,630
	P-110			8,630



API Casing BUTTRESS Threads				
Weight	Grade	Wall	ID	Approx. Torque (no rings) (ft-lb)
<b>9 5/8</b>				
36.00	H-40 J-55 K-55 M-65	0.352	8.921	9,630 9,630 9,630 9,630
40.00	J-55 K-55 M-65 L-80 N-80 C-90 T-95	0.395	8.835	9,630 9,630 9,630 9,630 9,630 9,630 9,630
43.50	M-65 L-80 N-80 C-90 T-95 P-110	0.435	8.755	9,630 9,630 9,630 9,630 9,630 9,630
47.00	M-65 L-80 N-80 C-90 T-95 P-110 Q-125	0.472	8.681	9,630 9,630 9,630 9,630 9,630 9,630 9,630
53.50	L-80 N-80 C-90 T-95 P-110 Q-125	0.545	8.535	9,630 9,630 9,630 9,630 9,630 9,630
<b>10 3/4</b>				
40.50	H-40 J-55 K-55 M-65	0.350	10.050	10,750 10,750 10,750 10,750
45.50	J-55 K-55 M-65	0.400	9.950	10,750 10,750 10,750
51.00	J-55 K-55 M-65 L-80 N-80 C-90 T-95 P-110	0.450	9.850	10,750 10,750 10,750 10,750 10,750 10,750 10,750 10,750
55.50	M-65 L-80 N-80 C-90 T-95 P-110 Q-125	0.495	9.760	10,750 10,750 10,750 10,750 10,750 10,750 10,750

<b>API Casing BUTTRESS Threads</b>				
Weight	Grade	Wall	ID	Approx. Torque (no rings) (ft-lb)
<b>10 3/4</b>				
60.70	C-90 T-95 P-110 Q-125	0.545	9.660	10,750 10,750 10,750 10,750
<b>11 3/4</b>				
47.00	J-55 K-55 M-65	0.375	11.000	11,750 11,750 11,750
54.00	J-55 K-55 M-65	0.435	10.880	11,750 11,750 11,750
60.00	J-55 K-55 M-65 L-80 N-80 C-90 T-95 P-110 Q-125	0.489	10.772	11,750 11,750 11,750 11,750 11,750 11,750 11,750 11,750 11,750
65.00	L-80 N-80 C-90 T-95 P-110 Q-125	0.534	10.682	11,750 11,750 11,750 11,750 11,750 11,750
<b>13 3/8</b>				
54.50	J-55 K-55 M-65	0.380	12.615	13,380 13,380 13,380
61.00	J-55 K-55 M-65	0.430	12.515	13,380 13,380 13,380
68.00	J-55 K-55 M-65 L-80 N-80 C-90 T-95 P-110	0.480	12.415	13,380 13,380 13,380 13,380 13,380 13,380 13,380 13,380
72.00	L-80 N-80 C-90 T-95 P-110 Q-125	0.514	12.347	13,380 13,380 13,380 13,380 13,380 13,380