

Pipe		CDN						
		NEW	API PREMIUM	CLASS 2				
Pipe size	<i>in</i> 4.750 <i>mm</i> 120.7	OD	<i>mm</i> 120.7	117.2	95.8			
Pipe weight	<i>lb/ft</i> 17.50 <i>kg/m</i> 26.04	Thickness	<i>mm</i> 8.6	6.8	6.8			
Upset Type	IEU	X-Sec Area	<i>cm²</i> 30.1	23.7	18.9			
Tube grade	S135	Section Modulus	<i>cm³</i> 78.9	61.9	39.3			
Range	3	Polar Section Modulus	<i>cm³</i> 157.9	123.9	78.7			
Tube Yield	<i>MPa</i> 931	Tensile Yield	<i>kdaN</i> 281	221	137			
ID	<i>mm</i> 103.5	Torsional Yield	<i>ft-lbs</i> 62,500	49,100	24,200			
		80% Torsional Yield	<i>ft-lbs</i> 50,000	39,280	19,360			
		Internal Pressure Yield	<i>MPa</i> 115.8	105.5	96.5			
		Collapse Yield	<i>MPa</i> 103.4	65.5	85.5			
		D/t	14.09	17.12	14.18			
		Connection/Tube Torsional Ratio	0.679					

Tool Joint		CDN						
		NEW						
Connection Type	480 DUO	OD	<i>mm</i> 142.9					
Material Yield Strength	<i>MPa</i> 896	Tensile Yield Strength	<i>kdaN</i> 367					
OD	<i>mm</i> 142.9	Torsional Yield Strength	<i>ft-lbs</i> 42,400					
ID	<i>mm</i> 95.3	Recommended Makeup Torque	<i>ft-lbs</i> 25,500					
Pin Shoulder Angle	<i>deg</i> 18	Maximum Makeup Torque	<i>ft-lbs</i> 27,600					
Pin Tool Joint Length	<i>mm</i> 356							
Box Tool Joint Length	<i>mm</i> 356							

Drill Pipe Assembly		CDN						
	Shoulder-Shoulder Length	<i>m</i> 13.26						
	Adjusted Weight	<i>kg/m</i> 26.54						
	Closed End Displacement	<i>L/m</i> 11.70	<i>m³/m</i> 0.01170					
	Open End Displacement	<i>L/m</i> 3.38	<i>m³/m</i> 0.00338					
	Fluid Capacity	<i>L/m</i> 8.31	<i>m³/m</i> 0.00831					
	Drift Size	<i>mm</i> 92.1						

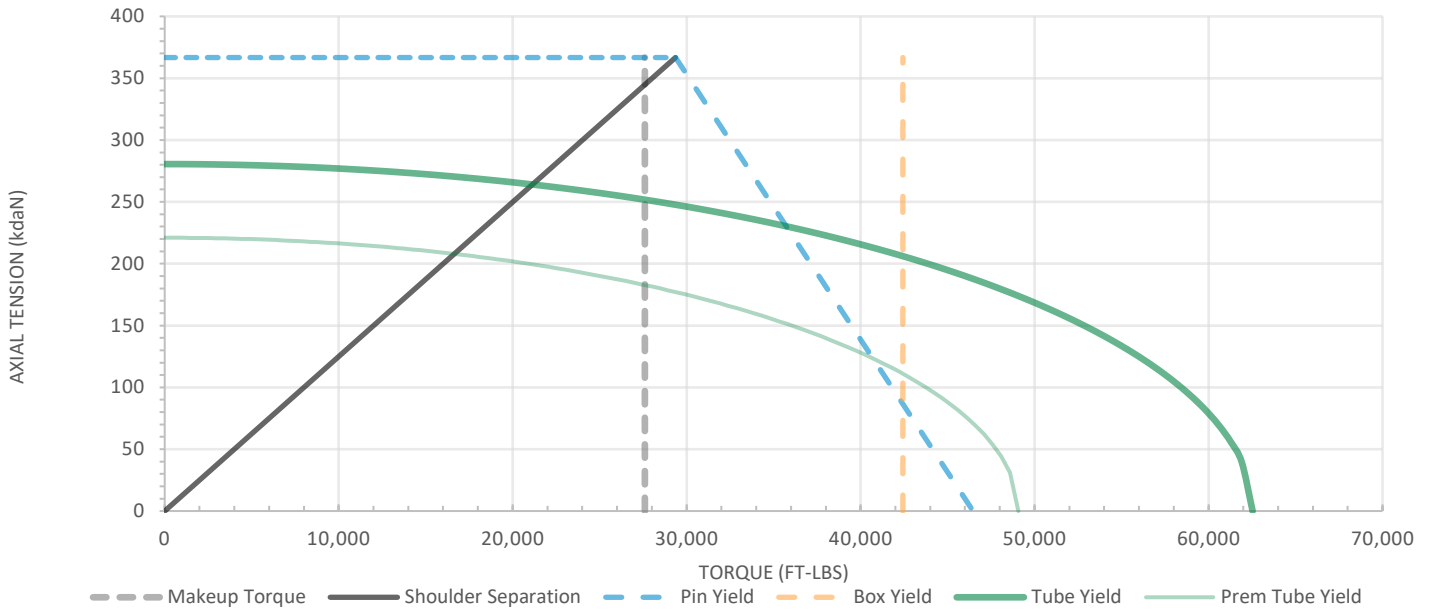
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Calculations are based on uniform wall thickness and outside diameter – no safety factor has been applied. The information provided for inspection classes is based on uniform wear and is not intended to recommend or confirm operational limits of any used product. It is recommended that drilling torque not exceed 80% of the makeup torque, however it is the responsibility of the end user to determine the acceptable use of the end product including appropriate performance ratings and safety factors where applicable. All connection torque calculations have been performed using a thread compound friction factor of 1.0. Complete Tubular Products does not endorse any specific thread compound and waives all responsibility in determining appropriate makeup torque values for any specific drilling circumstance. Modifying makeup torque values for any reason shall be done at the end users discretion and risk.

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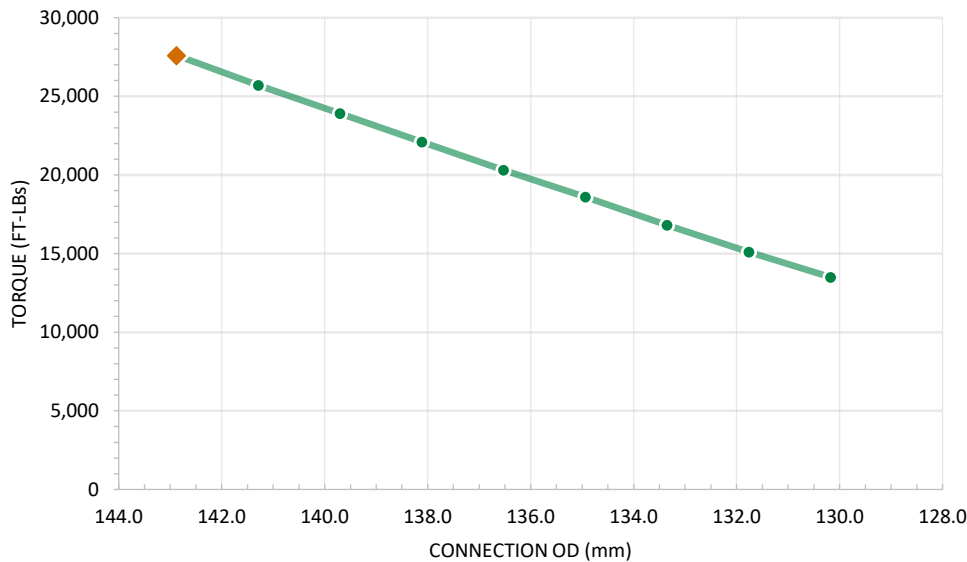
Makeup Torque Then Tension Chart

CDN



Connection Wear Chart

CDN



CONNECTION OD (mm)	MAXIMUM MAKEUP TORQUE (ft-lbs)
142.9	27,600
141.3	25,700
139.7	23,900
138.1	22,100
136.5	20,300
134.9	18,600
133.4	16,800
131.8	15,100
130.2	13,500
MIN REC OD (mm)	27,600
142.9	

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