

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		2			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		0.824		

Tool Joint						CDN			
						NEW			
Connection Type		480 DUO			OD	<i>mm</i>	146.1		
Material Yield Strength	<i>MPa</i>	896			Tensile Yield Strength	<i>kdaN</i>	409		
	OD	<i>mm</i>	146.1		Torsional Yield Strength	<i>ft-lbs</i>	51,500		
	ID	<i>mm</i>	92.1		Recommended Makeup Torque	<i>ft-lbs</i>	30,900		
Pin Shoulder Angle	<i>deg</i>	18			Maximum Makeup Torque	<i>ft-lbs</i>	33,500		
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>	9.60		
				Adjusted Weight	<i>kg/m</i>	28.53		
				Closed End Displacement	<i>L/m</i>	11.85	<i>m³/m</i>	0.01185
				Open End Displacement	<i>L/m</i>	3.64	<i>m³/m</i>	0.00364
				Fluid Capacity	<i>L/m</i>	8.22	<i>m³/m</i>	0.00822
				Drift Size	<i>mm</i>	88.9		

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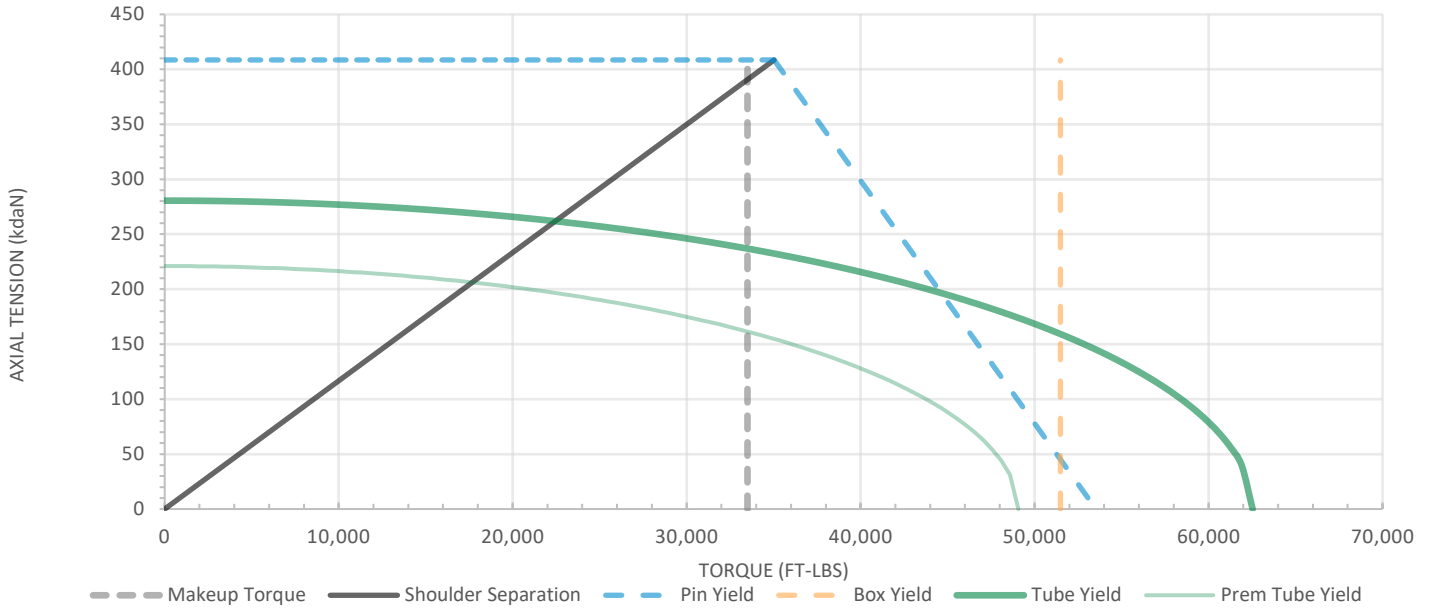
Calculations are based on uniform wall thickness and outside diameter – no safety factor has been applied. The information provided for inspection classes is based on uniform wear and is not intended to recommend or confirm operational limits of any used product. It is recommended that drilling torque 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.

The information in this publication is subject to change without notice, please contact Complete Tubular Products for the latest publication

Pipe Size: (121mm) 0 Grade: S135 Range: 2
 Pipe Weight: 5.04kg/m 0 Upset: IEU Connection: 480 DUO

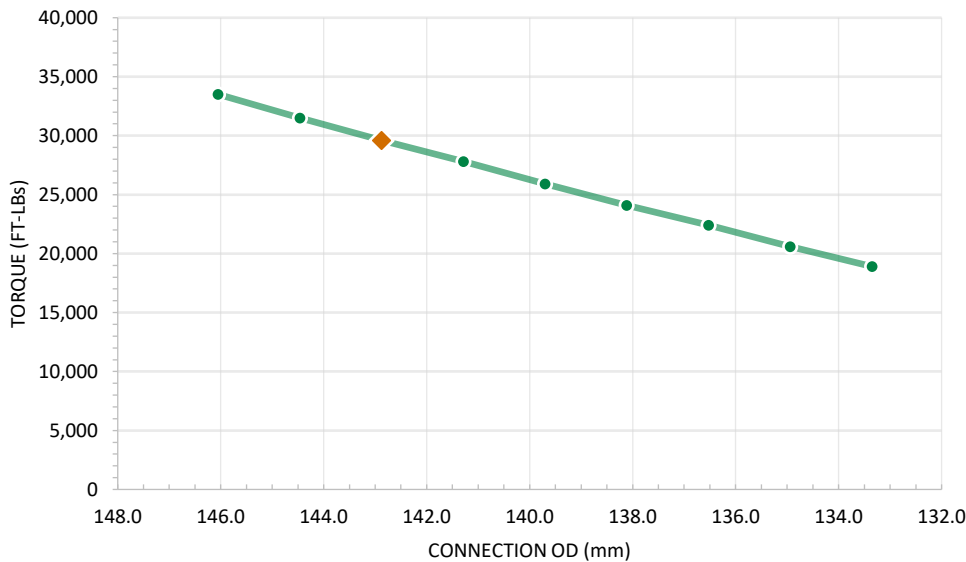
Makeup Torque Then Tension Chart

CDN



Connection Wear Chart

CDN



CONNECTION OD (mm)	MAXIMUM MAKEUP TORQUE (ft-lbs)
146.1	33,500
144.5	31,500
142.9	29,600
141.3	27,800
139.7	25,900
138.1	24,100
136.5	22,400
134.9	20,600
133.4	18,900
MIN REC OD (mm)	142.9
	29,600

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