

Pipe

					NEW	API PREMIUM
Pipe size	in	2.375	OD	in	2.375	2.263
Pipe weight	lb/ft	6.65	Thickness	in	0.280	0.224
Upset Type		EU	X-Sec Area	in ²	1.843	1.435
Tube grade		S135	Section Modulus	in ³	0.867	0.6670
Range		2	Polar Section Modulus	in ³	1.733	1.3340
Tube Yield	ksi	135	Tensile Yield	lbs	249,000	194,000
ID	in	1.815	Torsional Yield	ft-lbs	11,300	8,700
			80% Torsional Yield	ft-lbs	9,000	6,960
			Internal Pressure Yield	psi	27,900	25,500
			Collapse Yield	psi	28,100	24,100
			D/t		8.48	10.10
			Connection/Tube Torsional Ratio		0.577	

Tool Joint

					NEW	REC MIN OD
Connection Type		CTP 23	OD	in	2.875	2.813
Material Yield Strength	ksi	130	Tensile Yield Strength	lbs	232,500	232,500
OD	in	2.875	Torsional Yield Strength	ft-lbs	6,500	6,500
ID	in	1.500	Recommended Makeup Torque	ft-lbs	3,900	3,900
Pin Shoulder Angle	deg	35	Enhanced Makeup Torque	ft-lbs	4,600	4,500
Pin Tool Joint Length	in	11.0				
Box Tool Joint Length	in	13.0				

Drill Pipe Assembly

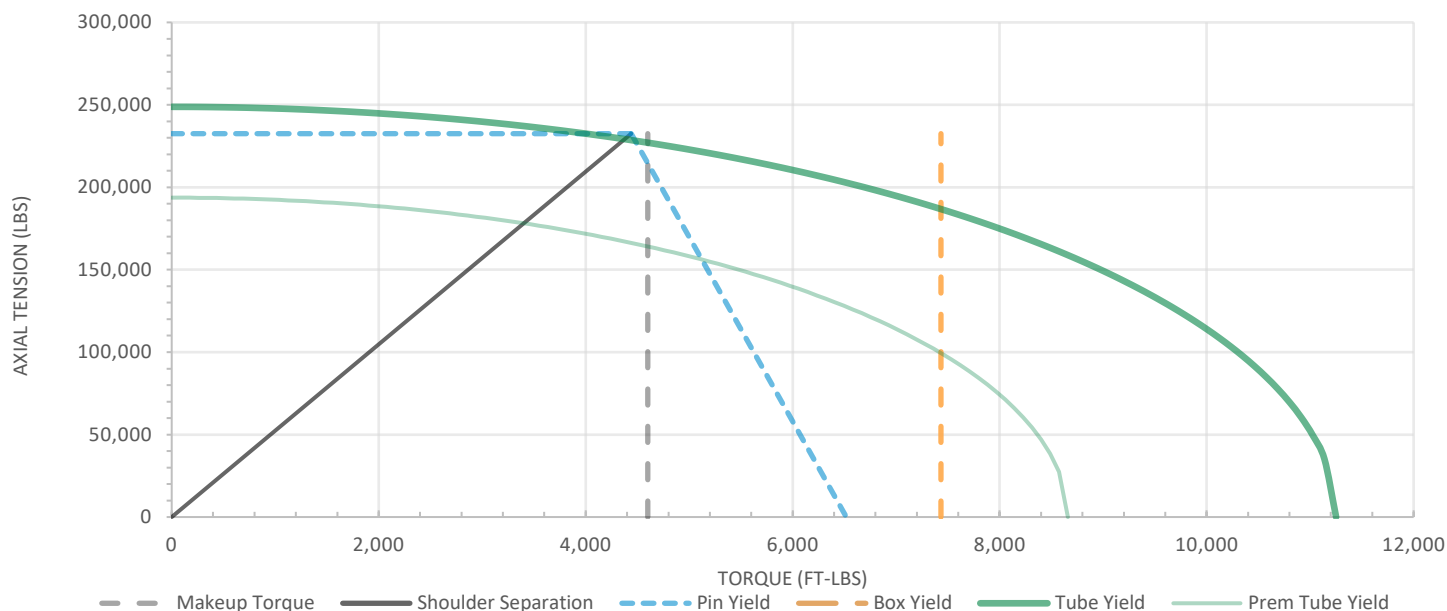
Shoulder-Shoulder Length	ft	31.5		
Adjusted Weight	lbs/ft	6.96		
Closed End Displacement	gal/ft	0.237	bbl/ft	0.0056
Open End Displacement	gal/ft	0.106	bbl/ft	0.0025
Fluid Capacity	gal/ft	0.131	bbl/ft	0.0031
Drift Size	in	1.375		

The information contained in this data sheet and other attached documentation is for reference use only. It is not intended to imply any explicit recommendation regarding processes, procedures, or performance of the end product. It is the responsibility of the end user to verify and determine the appropriate use of the technical information - no expressed or implied warranty by Complete Group is intended.

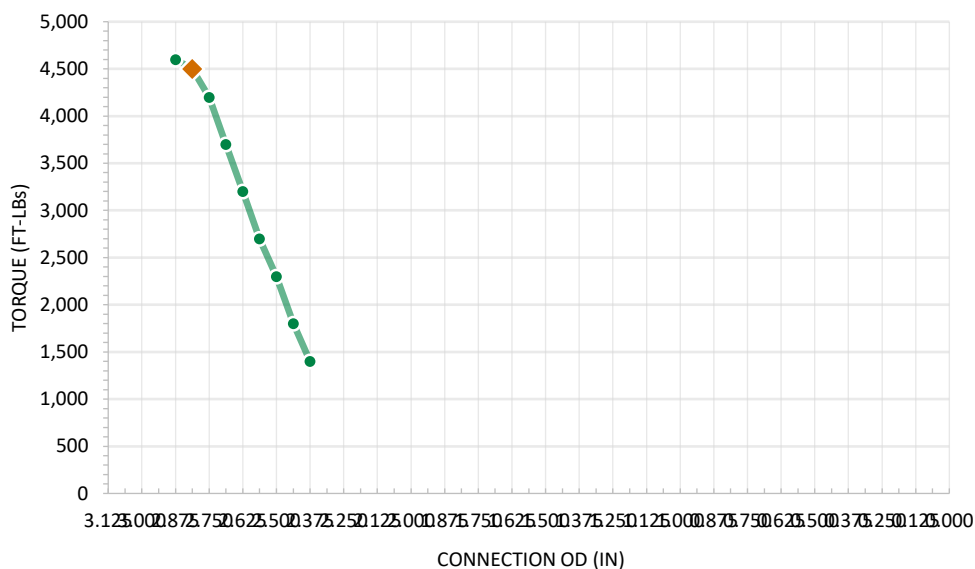
Calculations are based on uniform wall thickness and outside diameter – no safety factor has been applied. The information provided for inspection classes is based on uniform wear and is not intended to recommend or confirm operational limits of any used product. It is recommended that drilling torque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



Connection Wear Chart



CONNECTION OD (in)	ENHANCED MAKEUP TORQUE (ft-lbs)
2.875	4,600
2.813	4,500
2.750	4,200
2.688	3,700
2.625	3,200
2.563	2,700
2.500	2,300
2.438	1,800
2.375	1,400
MIN REC OD (in)	
2.813	4,500

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