



Drill Pipe Performance Characteristics Sheet

PTECH Canada

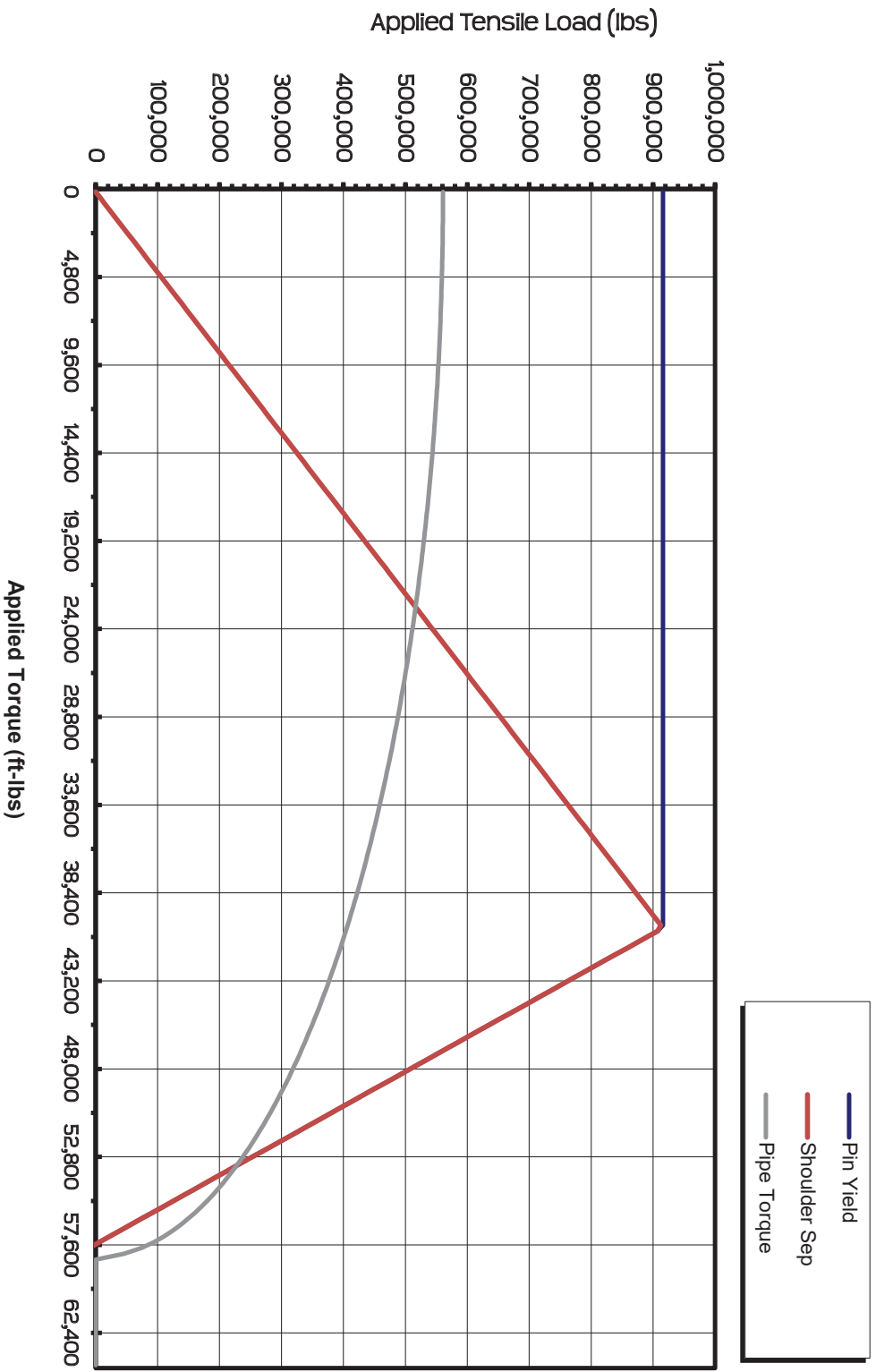
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Pipe Size and weight: 5 19.50 IEU
 Pipe Grade: S-135
 Range: 3
 Tool Joint: 5 7/8 X 3 1/2 PTECH47+

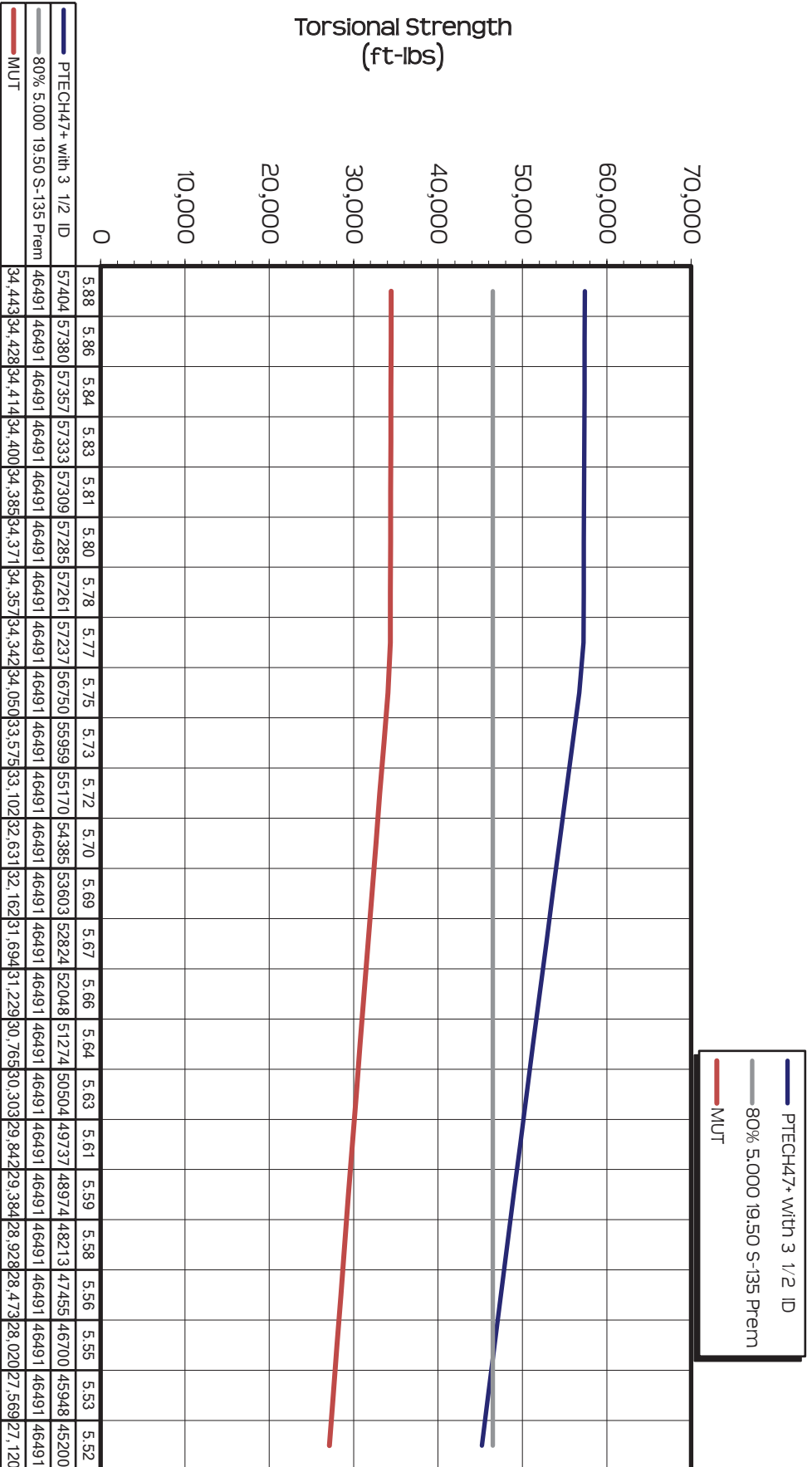
Pipe Body				
		New-API	New-95%RBW	Premium
OD (in)		5.000	5.000	4.855
Wall Thickness (in)		0.362	0.389	0.290
ID (in)		4.276	4.222	4.276
Calculated Plain End weights (lbs/ft)		17.923	19.154	14.114
Note: Premium properties are calculated based on uniform OD and wall thickness.				
Cross sectional area pipe body (in ²)		5.275	5.637	4.154
Cross sectional area OD (in ²)		19.635	19.635	18.514
Cross sectional area ID (in ²)		14.360	13.998	14.360
Section Modulus (in ³)		5.708	6.035	4.476
Polar Section Modulus (in ³)		11.415	12.070	8.953
		New-API	New-95%RBW	Premium
Torsional Strength (ft-lbs)		74,100	78,300	58,100
Tensile Strength (lbs)		712,100	761,000	560,800
80% Torsional Strength (ft-lbs)		59,300	62,600	46,500
Pressure Capacity (psi)		17,105	18,387	15,638
Collapse Capacity (psi)		18,133	19,379	10,024
Tool Joint				
PTECH+ CONNECTION		PTECH47+		
		OD (in)	5 7/8	
		ID (in)	3 1/2	
Tool Joint with a Material Yield Strength of 135000 psi				
		Pin Tong length (in)	13	
		Box Tong length (in)	15	
		Torsional Strength (ft-lbs)	57,400	
		Recommended Make-up Torque (ft-lbs)	34,400	
		Min Recommended Make-up Torque (ft-lbs)	28,700	
		Balance OD (in)	5.759	
		Tensile Strength (lbs)	924,800	
		Tool joint/Drill pipe torsional ratio (New pipe)	0.77	
		Tool joint/Drill pipe torsional ratio (95% New pipe)	0.73	
		Tool joint/Drill pipe torsional ratio (Prem pipe)	0.99	
		Min OD for premium class (in)	5.594	
Drill Pipe Assembly with PTECH+ Tool Joint		Drill Pipe Bend Radius		
API Adjusted weight (lbs/ft)	20.56	* These calculations are based on new pipe with nominal wall		
95% Adjusted weight (lbs/ft)	21.73	Based on Bending Stress (psi) at Pipe OD	15,000	
Approximate length (ft)	45.00	Radius of Curvature (R) (ft.) (@ OD of pipe)	416.7	
95% Fluid Disp (l/M) (gal/ft)	4.13	BUR (dogleg) deg/100 ft.	13.8	
API Fluid Displ (l/M) (gal/ft)	3.91			
Fluid Capacity (l/M) (gal/ft)	9.02			
Drift Size	3.375			

TORQUE TENSION COMBINED LOAD CURVE

For PTECH47+ 5 7/8 X 3 1/2 Tool Joint with a Material Strength of 135000 psi, using a Coefficient of Friction factor of 0.08 and a Safety Factor of 1.0. On Pipe: 5 19.50 S-135 Premium Class.



PTECH47+ 5 7/8 X 3 1/2 TOOL JOINT OD WEAR CURVE



Tool Joint Box OD (in.)

THIS TECHNICAL DATA IS FOR REFERENCE ONLY.

PTECH Drilling Tubulars, LLC.

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