



DRILL PIPE PERFORMANCE DATA SHEET

IMPERIAL UNIT

Pipe Size & Weight: 5.50_21.90_lb/ft_EU
 Pipe Grade: CYX105-120
 Range: 3
 Tool Joint: 7 X 4 DS-55

DRILL PIPE DIMENSIONS & MATERIALS				DRILL PIPE WEAR & MECHANICAL PERFORMANCES			
PIPE		New (Nominal)	API Premium	PIPE		NEW (Nominal)	API Premium
Pipe Outside Diameter (OD)	in	5.500	5.356	Internal Pressure Capacity	psi	12,061	11,027
Pipe Inside Diameter (ID)	in	4.778	4.778	Collapse Capacity	psi	10,753	6,865
Wall Thickness	in	0.361	0.289	Cross Sectional Area Pipe Body	in Sq	5.828	4.597
Calculated Plain End Weight	lbs/ft	19.814	15.628	Section Modulus	in Cu	7.031	5.527
Pipe Body Min Yield Strength	psi	105,000	105,000	Polar Section Modulus	in Cu	14.062	11.054
Tensile Strength	lbs	612,000	482,700	Tool Joint / Pipe Body Torsional Ratio		1.030	1.310
Torsional Strength	ft-lbs	71,000	55,800	Cross Sectional Area OD	in Sq	23.758	22.527
80% Torsional Strength	ft-lbs	56,800	44,640	Cross Sectional Area ID	in Sq	17.930	17.930
TOOL JOINT				DRILL PIPE ASSEMBLY			
		New (Nominal)	API Premium			New (Nominal)	
Connection Type		DS-55	DS-55	Approx. Length	ft	44.10	
Material Yield Strength	ksi	120,000	120,000	Adjusted Weight	lbs/ft	24.13	
Outside Diameter (OD)	in	7.000	6.594	Drift Size	in	3.875	
Inside Diameter (ID)	in	4.000	4.000	Maximum Upset OD	in	5.688	
Pin Tong Length	in	12.000	12.000	Fluid Displacement	gal/ft	0.369	
Box Tong Length	in	15.000	14.000	Fluid Capacity	gal/ft	0.907	
Pin shoulder Angle	deg	35	35				
Tensile Strength	lbs	1,244,500	1,244,500				
Torsional Strength	ft-lbs	76,100	59,100				
Recomm. Make-Up Torque	ft-lbs	43,800	33,900				
Balanced OD	in	6.872	5.779				

Premium properties are calculated based on uniform Outside Diameter and Wall Thickness

Torque performances are calculated with coefficient of friction factor , 0.08.

API recommends a torsional ratio of 0.8 or greater

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The information contained in this Performance Data Sheet is subject to revision without notice.