



DRILL PIPE PERFORMANCE DATA SHEET

IMPERIAL UNIT

Pipe Size & Weight: 5 25.60 lb/ft IEU
Pipe Grade: G105
Range: 2
Tool Joint: 6.625 X 2.75 NC50

DRILL PIPE DIMENSIONS & MATERIALS

PIPE	NEW	
Pipe size	in	5_25.60_lb/ft_IEU
Pipe Grade		G105
Pipe Body Material Yield Strength	psi	105,000
Pipe Length Range 2 or 3		2
ID	in	4.000
Calculated Plain End Weight	lbs/ft	24.030
Cross Sectional Area OD	in Sq	19.635
Cross Sectional Area ID	in Sq	12.566

DRILL PIPE WEAR & MECHANICAL PERFORMANCES

PIPE	NEW		PREMIUM	
OD	in	5.000	in	4.800
Wall Thickness	in	0.500	in	0.400
Cross Sectional Area Pipe Body	in Sq	7.069	in Sq	5.529
Section Modulus	in Cu	7.245	in Cu	5.621
Polar Section Modulus	in Cu	14.491	in Cu	11.243
Tensile Strength	lbs	742,201	lbs	580,566
Torsional Strength	ft-lbs	73,159	ft-lbs	56,762
80% Torsional Strength	ft-lbs	58,528	ft-lbs	45,409
Internal Pressure Capacity	psi	18,375	psi	16,800
Collapse Capacity	psi	18,900	psi	16,042
Tool Joint / Pipe Body Torsional Ratio		0.867		0.800

TOOL JOINT

Connection Type		NC50
Material Yield Strength	ksi	120
OD	in	6.625
ID	in	2.750
Pin Tong Length	in	9.000
Box Tong Length	in	12.000
Pin shoulder Angle	deg	35

TOOL JOINT

OD	in	6.625	in	6.281
ID	in	2.750	in	2.750
Tensile Strength	lbs	1,532,498	lbs	1,532,498
Torsional Strength	ft-lbs	63,406	ft-lbs	45,385
Max Recommended Make-up Torque	ft-lbs	44,400	ft-lbs	31,800
Recommended Make-up Torque	ft-lbs	38,000	ft-lbs	27,200
Min Recommended Make-up Torque	ft-lbs	31,700	ft-lbs	22,700
Balanced OD	in	6.620	in	6.281
Weak Connection		PIN WEAK		BOX WEAK

DRILL PIPE ASSEMBLY

Shoulder-Shoulder Length	ft	31.00
Adjusted Weight	lbs/ft	29.23
Closed End Displacement	gal/ft	1.064
Open End Displacement	gal/ft	0.447
Fluid Capacity	gal/ft	0.618
Drift Size	in	2.625

Datasheet for Reference Only

All new and premium properties are calculated based on nominal in accordance to API.
Torque performances calculated with coefficient of friction 0.08.
API recommends a torsional ratio of 0.8 or greater.
The use of the information is at reader's discretion and no warranty is implied or expressed by DP-MASTER with the use of information contained herein.
The information in this publication is subjected to change without notice, please contact DP-MASTER for the latest publication.

DP-MASTER MANUFACTURING

PUBLIC RELEASE 10/2012