

# Heavy Weight Drill Pipe Performance Sheet

7/27/2016

Pipe Body Specification		
Nominal OD	in	4.0
Nominal ID	in	2.563
Design		Welded
Heavy Weight Type		Standard
Pipe Body Grade		Standard HW
Approximate Length	ft	31.0
Max Upset OD	in	4.188
Tong Length includes handbanding if applicable		

HWDP Assembly Performance		
Adjusted Weight *	lbs/ft	28.27
Fluid Displacement *	US gal/ft	0.43
	bbls/ft	0.0103
Fluid Capacity *	US gal/ft	0.27
	bbls/ft	0.0064
Drift Size	in	2.313
Pipe Burst **	psi	17,290
Pipe Collapse **	psi	16,213
Pipe Cross Sectional Area of OD	in <sup>2</sup>	12.57
Pipe Cross Sectional Area of ID	in <sup>2</sup>	5.157
Pipe Section Modulus	in <sup>3</sup>	5.225
Pipe Polar Section Modulus	in <sup>3</sup>	10
Pipe Tensile Strength	lbs	407,500
Pipe Torsional Strength	ft-lbs	27,600
Tool Joint/Pipe Body Torsional Ratio		1.28
* At Nominal Wall Thickness Note: Nominal burst calculated at 87.5% RBW per API		
** With no axial load or bending in string Note: Oil field barrel equivalent to 42 US gal		

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Tool Joint Specification		
Connection Type and Size		XT™39
SmoothEdge™ Height	in	N/A
Tool Joint SMYS	psi	120,000
Connection OD	in	4.875
Connection ID	in	2.563
Connection ID Chamfer	in	2.688
Pin Tong	in	24.0
Box Tong	in	24.0
Friction Factor of Thread Compound		1.0
Number of Wearpads		1
Wearpad Length (per Wearpad)	in	26.0

Tool Joint Performance		
Min. TJ OD for Counterbore	in	4.653
<b>Max. Make-Up Torque (Recommended)</b>	ft-lbs	<b>21,200</b>
Tension at Shoulder Separation @ Max. MUT	lbs	652,500
Tension at Connection Yield @ Max. MUT	lbs	652,500
<b>Min. Make-Up Torque</b>	ft-lbs	<b>17,700</b>
Tension at Shoulder Separation @ Min. MUT	lbs	665,300
Tension at Connection Yield @ Min. MUT	lbs	723,900
Tensile Strength	lbs	723,900
Torsional Strength	ft-lbs	35,300
Balanced OD	in	4.992
The maximum make-up torque should be applied when possible. To maximize connection operational tensile, a MUT (T4) = 19,300 should be applied.		

## Advisories and Warnings for HWDP

### Advisories:

### Warnings: