Heavy Weight Drill Pipe Performance Sheet

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Pipe Body Specification		
Nominal OD	in	3.5
Nominal ID	in	2.25
Design		Welded
Heavy Weight Type		Standard
Pipe Body Grade		Standard HW
Approximate Length	ft	31.1
Max Upset OD	in	3.875
Tong Length includes hardbanding if applicable		

HWDP Assembly Performance		
Adjusted Weight *	lbs/ft	24.26
Fluid Displacement *	US gal/ft	0.37
	bbls/ft	0.0088
Fluid Capacity *	US gal/ft	0.21
	bbls/ft	0.0049
Drift Size	in	2.0
Pipe Burst **	psi	17,190
Pipe Collapse **	psi	16,135
Pipe Cross Sectional Area of OD	in^2	9.62
Pipe Cross Sectional Area of ID	in^2	3.976
Pipe Section Modulus	in^3	3.49
Pipe Polar Section Modulus	in^3	7
Pipe Tensile Strength	lbs	310,500
Pipe Torsional Strength	ft-lbs	18,500
Tool Joint/Pipe Body Torsional Ratio		1.17
* At Nominal Wall Thickness	** With no axial load or bending in string	
Note: Nominal burst calculated at 87.5% RBW per API	Note: Oil field barrel equivalent to 42 US gal	

Tool Joint Specification		
Connection Type and Size		NC38
SmoothEdge™ Height	in	N/A
Tool Joint SMYS	psi	120,000
Connection OD	in	5.0
Connection ID	in	2.25
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	N/A
Max. Make-Up Torque (Recommended)	ft-lbs	**13,000**
Tension at Shoulder Separation @ Max. MUT	lbs	607,900
Tension at Connection Yield @ Max. MUT	lbs	607,900
Min. Make-Up Torque	ft-lbs	**10,800**
Tension at Shoulder Separation @ Min. MUT	lbs	617,900
Tension at Connection Yield @ Min. MUT	lbs	682,700
Tensile Strength	lbs	682,700
Torsional Strength	ft-lbs	21,700
Balanced OD	in	4.834
The maximum make-up torque should be applied when possible.		
To maximize connection operational tensile, a MUT (T4) = 11,900 should be applied.		

Advisories and Warnings for HWDP

Advisories:

Warnings:

Connection Wear Table		
Connection: NC38 5.0" x 2.25" (120 KSI SMYS)		
Tool Joint OD (in)	**Max MUT**	**Min MUT**
5.0	13000	10800
4.932	13000	10800
4.864	13000	10800
4.795	12300	10300
4.727	11100	9300
4.659	9900	8300
4.591	8800	7300
4.523	7700	6400
4.455	6500	5500
4.386	5500	4500
4.318	4400	3700
4.25	3400	2800