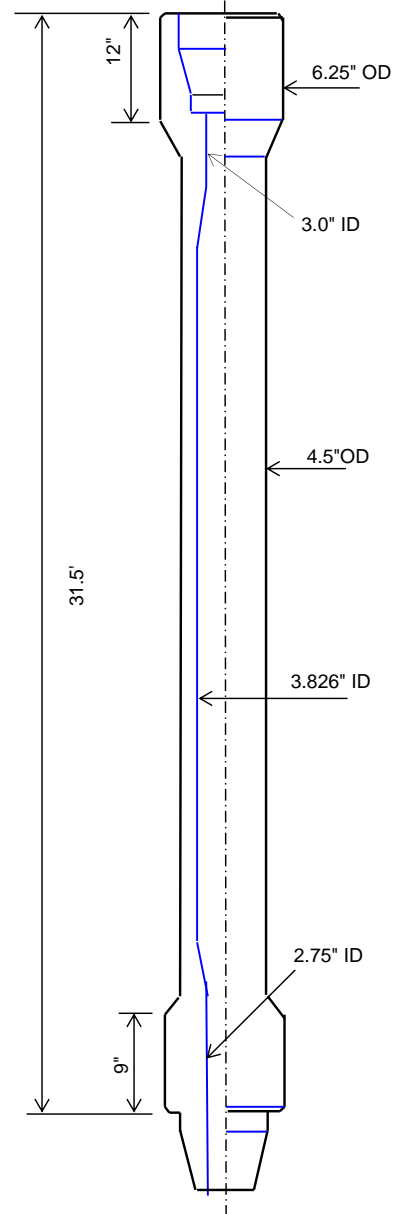


**DRILL PIPE PERFORMANCE CHARACTERISTICS SHEET**

DRILL PIPE	
<b>Pipe Size and Weight:</b>	4.5" x 16.6PPf
<b>Pipe Grade:</b>	S
<b>Range:</b>	2
<b>Tool Joint:</b>	6.1/4" x 2.75" NC46
PIPE	
Dimensional Data	New
<b>OD (in)</b>	4.500
<b>Wall thickness (in)</b>	0.337
<b>Minimum wall (%)</b>	95.0
<b>ID (in)</b>	3.826
<b>Cross sectional area pipe body (in<sup>2</sup>)</b>	4.407
<b>Cross sectional area OD (in<sup>2</sup>)</b>	15.904
<b>Cross sectional area ID (in<sup>2</sup>)</b>	11.497
<b>Section modulus (in<sup>3</sup>)</b>	4.271
<b>Polar section modulus (in<sup>3</sup>)</b>	8.543
Performance Data	New
<b>Torsional strength (ft-lbs)</b>	55,453
<b>Tensile strength (lbs)</b>	595,004
<b>80% Torsional strength (ft-lbs)</b>	44,362
<b>Burst Pressure capacity (psi)</b>	17,693
<b>Collapse capacity (psi)</b>	16,769
TOOL JOINT	
Dimensional Data	New
<b>OD (in)</b>	6.250
<b>ID (in)</b>	2.750
<b>Pin tong length (in)</b>	9
<b>Box tong length (in)</b>	12
<b>Connection</b>	NC46
Performance Data	New
<b>Torsional Strength (ft-lbs)</b>	44,871
<b>Max Recommended Make-up Torque (ft-lbs)</b>	26,923
<b>Min Recommended Make-up Torque (ft-lbs)</b>	20,192
<b>Tensile strength (lbs)</b>	1,183,908
<b>Tool joint/Drill pipe torsional ratio (New pipe)</b>	0.81
Drill pipe assembly with NC46 tool joint	
<b>Average length (ft)</b>	31.5
<b>Drift size (in)</b>	2.625



Note: Tool Joint and Pipe body values were derived as per API RP 7G and DS1 Latest edition. The above values are for reference only. DPI LLC is not responsible or liable for any loss or damage or injury resulting from the use of above information.