



## GULF ENGINEERING SERVICES LTD. HEAVY WEIGHT DRILL PIPE PERFORMANCE CHARACTERISTICS

<b>Pipe Size and Weight:</b>	<b>4.000" x 2.5625" Tri-Spiral Heavy Weight</b>
<b>Pipe Grade:</b>	<b>55ksi Standard Heavy Weight</b>
<b>Range:</b>	<b>2</b>
<b>Tool Joint:</b>	<b>4.875" x 2.5625" XT39</b>

### PIPE BODY:

	New (Nominal)
OD (in):	4.000
Wall Thickness (in):	0.719
ID (in):	2.563
Calculated Plain End Weight (lbs/ft):	25.188
Tensile Strength (lbs):	407 600
Torsional Strength (ft-lbs):	27 600
80% Torsional Strength (ft-lbs):	22 080
Burst Pressure (psi):	17 301
Collapse Pressure (psi):	16 218

	New (Nominal)
Cross Sectional Area of Pipe Body (in <sup>2</sup> ):	7.409
Cross Sectional Area of OD (in <sup>2</sup> ):	12.566
Cross Sectional Area of ID (in <sup>2</sup> ):	5.157
Section Modulus (in <sup>3</sup> ):	5.225
Polar Section Modulus (in <sup>3</sup> ):	10.450

### TOOL JOINT 120 000 psi MATERIAL YIELD STRENGTH: XT39

OD (in):	4.875
ID (in):	2.563
Pin Tong Length (in):	24.0
Box Tong Length (in):	24.0
Torsional Strength (ft-lbs):	37 000
Max Recommended Make-up Torque (ft-lbs):	22 200
Min Recommended Make-up Torque (ft-lbs):	12 400
Tensile Strength (lbs):	729 700
Tool Joint/ Drill Pipe Torsional Ratio (New Pipe):	1.34
Balance OD (in):	4.992

### DRILL PIPE ASSEMBLY WITH GRANT PRIDECO XT39 eXtreme TORQUE CONNECTION:

Adjusted Weight (lbs/ft):	29.99
Approximate Length (ft):	31.00
Fluid Displacement (gal/ft):	0.459
Fluid Capacity (gal/ft):	0.268
Fluid Capacity (bbls/ft):	0.00638
Drift Size (in):	2.3125

Note: Minimum make-up is based on shoulder separation caused by bending

The technical information contained herein, including the product performance sheet and other attached documents, has been extracted from information available from the manufacturer and is for reference only and not a recommendation. The user is fully responsible for the accuracy and suitability of use of the technical information. Gulf Engineering Services Ltd. cannot assume responsibility for the results obtained through the use of this material. No expressed or implied warranty is intended. Drill pipe assembly properties are calculated based on uniform OD and wall thickness. No safety factor is applied. The information provided for various inspection classes and for various wear conditions (remaining body wall) is for information only and does not represent or imply acceptable operation limits. It is the responsibility of the customer and the end user to determine the appropriate performance ratings, acceptable use of the product, maintain safe operational practices, and to apply a prudent safety factor suitable for the application. For API connections that have different pin and box IDs, tool joint ID refers to the pin ID. Per Chapter B, Section 4 VII of the IADC drilling manual, it is recommended that drilling torque should not exceed 80% of MUT.