



GULF ENGINEERING SERVICES LTD. HEAVY WEIGHT DRILL PIPE PERFORMANCE CHARACTERISTICS

Pipe Size and Weight:	4.000" x 2.5625" Heavy Weight
Pipe Grade:	55ksi Standard Heavy Weight
Range:	2
Tool Joint:	4.875" x 2.5625" XT39

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 ²):	7.409
Cross Sectional Area of OD (in ²):	12.566
Cross Sectional Area of ID (in ²):	5.157
Section Modulus (in ³):	5.225
Polar Section Modulus (in ³):	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):	724 100
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):	28.24
Approximate Length (ft):	31.00
Fluid Displacement (gal/ft):	0.431
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