

light in 2002

FOR REFERENCE ONLY



~~XXXXXXXXXX~~

Drill Pipe Performance Characteristics ©		Pipe Size and Weight: 2-7/8" 10.40 IU	
		Pipe Grade: XD™-105	
		Range: 2	
		Tool Joint: 3.375 X 1.750 XTM26	
Pipe			
OD (in)	New 2.875	Premium 2.730	New 16,200
Wall thickness (in)	0.362	0.290	300,100
ID (in)	2.151	2.151	
Calculated plain end weight (lbs/ft)	9.706	7.541	12,900
Note: Premium properties are calculated based on uniform OD and wall thickness.			
Cross sectional area pipe body (in ²)	2.858	2.220	22,275
Cross sectional area OD (in ²)	6.492	5.854	23,112
Cross sectional area ID (in ²)	3.634	3.634	
Section modulus (in ³)	1.602	1.228	
Polar section modulus (in ³)	3.204	2.456	
Torsional strength (ft-lbs)			Premium 12,400
Tensile strength (lbs)			233,100
80% Torsional strength (ft-lbs)			9,900
Pressure capacity (psi)			
Collapse capacity (psi)			
Drill pipe assembly with Grant Prideco XTM26 HI TORQUE® Connection			
Adjusted weight (lbs/ft)			10.81
Approximate length (ft)			31.55
Fluid displacement (gal/ft)			0.165
Fluid capacity (gal/ft)			0.184
Drift size (in)			1.625
Tool Joint (105000psi material Yield Strength) XTM26		OD (in)	3.375
		ID (in)	1.750
Pin tong length (in)		10.0	
Box tong length (in)		15.0	
Torsional Strength (ft-lbs)		8,700	
Max Recommended Make-up Torque (ft-lbs)		5,200	
Min Recommended Make-up Torque (ft-lbs)		3,600	
Balance OD (in)		3.352	
Tensile strength (lbs)		254,500	
Tool joint/Drill pipe torsional ratio (New pipe)		0.54	
Tool joint/Drill pipe torsional ratio (Prem pipe)		0.70	
Min OD for premium class (in)		Not Appl.	
Minimum make-up is based on shoulder separation caused by bending.			

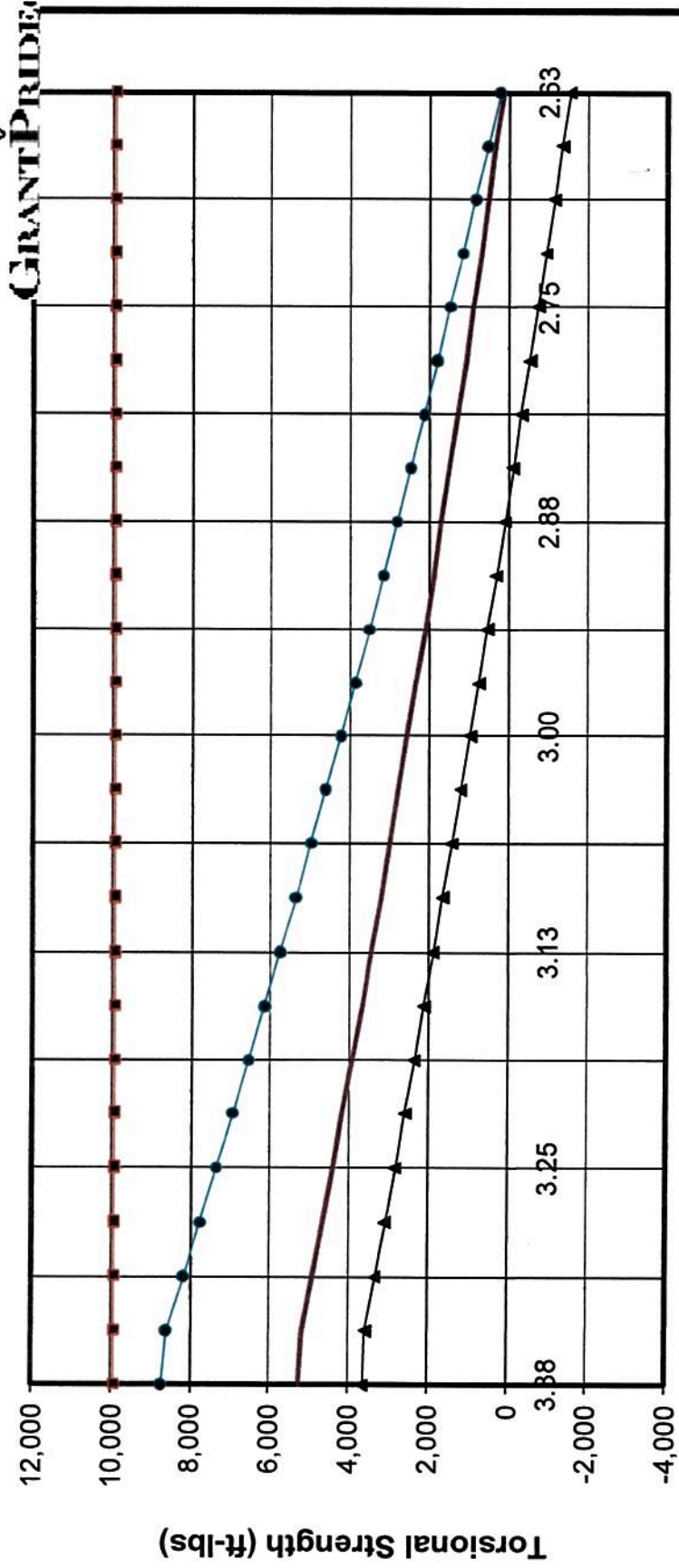
Brian Christen 6/20/2002

958 42919

Hans E. Johnson



3.375 X 1.750 XTM26 Tool Joint Wear



Tool Joint OD (in)

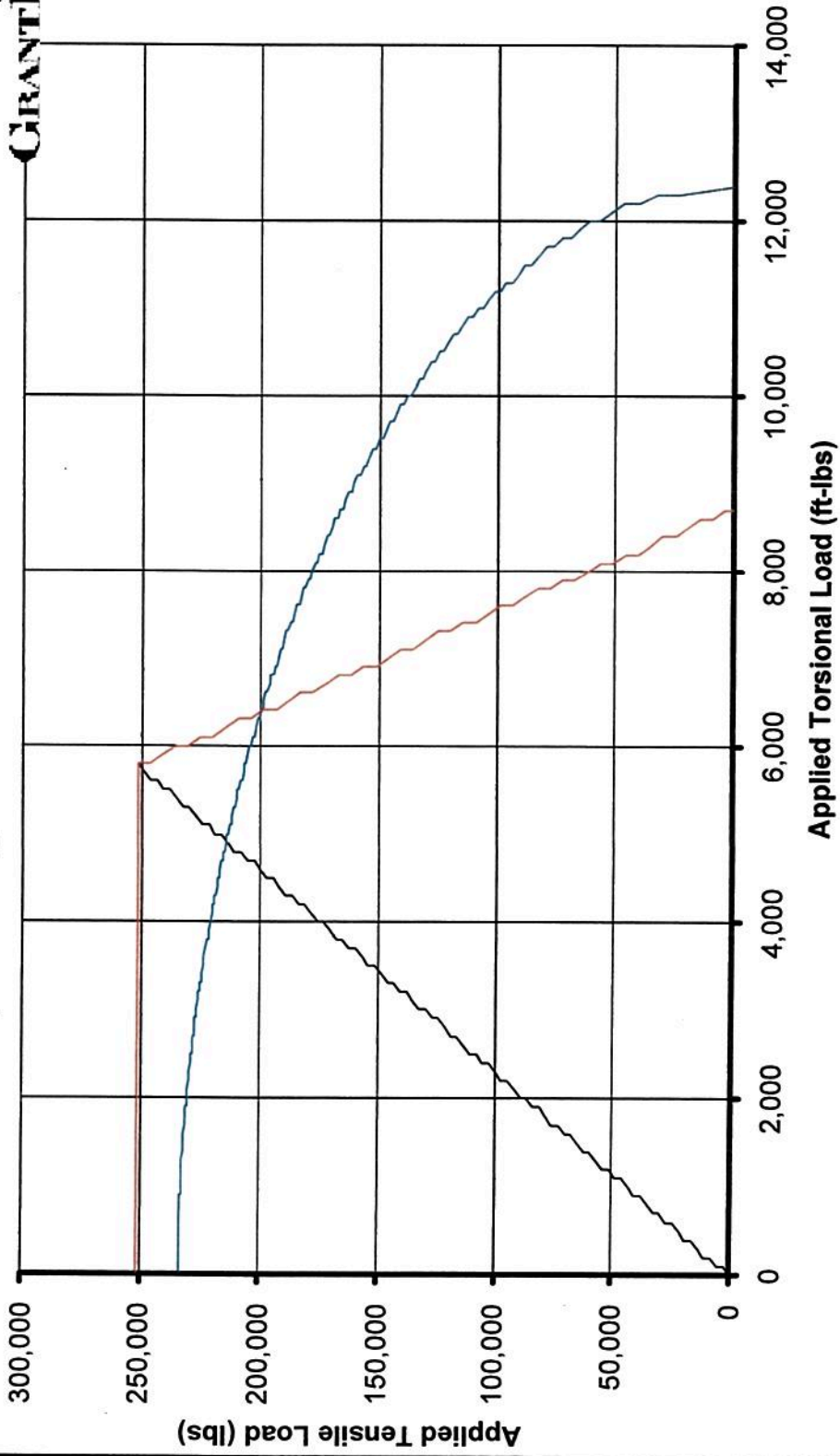
- 1.750 in ID XTM26
- 80% IU XD™-105 Prem Pipe
- Max Recommended Make-up Torque
- ▲ Min Recommended Make-up Torque

Brian Christen

**Torque Tension Curve: 2-7/8" 10.40 IU XD™-105 Premium Class Drill Pipe with
3.375 X 1.750 XTM26 HI TORQUE® Tool Joint. Curve Based on Calculation
Method in API RP7G. Safety Factor =1.0**



GRANTPRD



GrantPRD

FOR REFERENCE ONLY



GRANT PIPECO

Drill Pipe Performance Characteristics Sheet ©

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

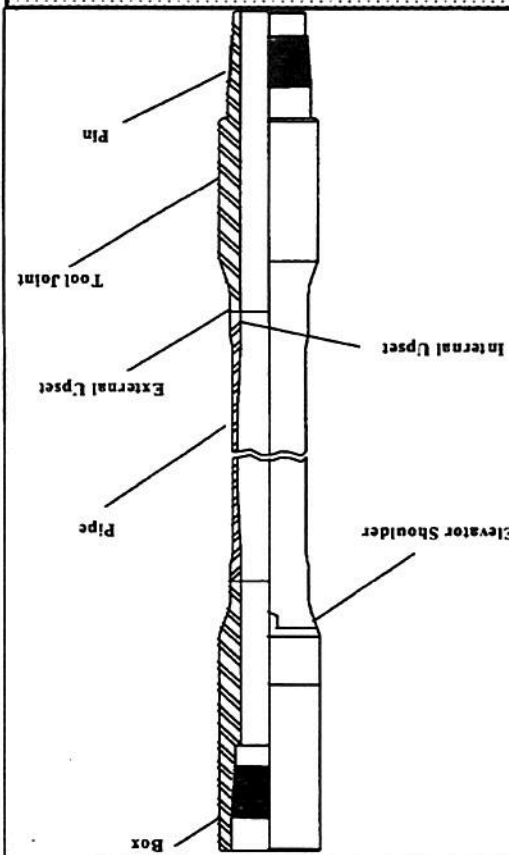
Pipe Size and Weight: 2-7/8" 10.40 IU

Pipe Grade: CY-105

Range: 2

Tool Joint: 3.375 X 1.750 XTM26

Pipe		2-7/8" 10.40 IU	
<p>Dimensional Data</p> <p>OD (in) 2.875 Wall thickness (in) 0.362 ID (in) 2.151 Cross sectional area pipe body (in²) 2.858 Cross sectional area OD (in²) 6.492 Cross sectional area ID (in²) 3.634 Section modulus (in³) 1.602 Polar section modulus (in³) 3.204</p>			
Performance Data		New	Premium
Torsional strength (ft-lbs)	16,200	12,400	12,400
Tensile strength (lbs)	300,100	233,100	233,100
80% Torsional strength (ft-lbs)	12,900	9,900	9,900
Pressure capacity (psi)	23,137	22,275	22,275
Collapse capacity (psi)	23,112	19,912	19,912
<p>Dimensional Data</p> <p>OD (in) 3.375 ID (in) 1.750 Pin long length (in) 10.0 Box long length (in) 15.0</p>			
<p>Performance Data</p> <p>Torsional Strength (ft-lbs) 9,700 Max Recommended Make-up Torque (ft-lbs) 5,800 Min Recommended Make-up Torque (ft-lbs) 4,200 Balance OD (in) 3.35 Tensile strength (lbs) 290,900 Tool joint/Drill pipe torsional ratio (New pipe) 0.60 Tool joint/Drill pipe torsional ratio (Prem pipe) 0.78 Min OD for premium class (in) Not Appl.</p>			
<p>Drill pipe assembly with HI TORQUE® tool joint</p> <p>Adjusted weight (lbs/ft) 10.75 Approximate length (ft) 31.58 Fluid displacement (gal/ft) 0.164 Fluid capacity (gal/ft) 0.184 Drift size (in) 1.625</p>			



Handwritten notes:
 NY DP
 Weight 177
 2004

1450 Lake Robbins Drive
 Suite 600
 The Woodlands, TX 77380 U.S.A.
 Phone: 281-297-8500
 Fax: 281-297-4525
 Toll Free: 800-231-0283



GRANT PRIDECO

Description: 2-7/8"OD 10.40 LB/FT. "H-SERIES" IU UPSET RANGE 2 GRADE CY-105 DRILL STRING

Sales Order #: 1000014021

Customer: STATOIL

Purchase Order #: T.12663/4500767367

Date: July 23, 2004

Grant Prideco Representative

Date

July 23, 2004

(312) joints of 2-7/8"OD 10.40 LB/FT. "H-SERIES" IU UPSET RANGE 2 GRADE CY-105 DRILL STRING

Sales Order Number: 1000014021

STATOIL,

material for:

This hereby certifies that Grant Prideco has met or exceeded the manufacturing and quality requirements of the above referenced specification(s) in manufacturing the following below described

API Specification 5D, Latest Edition

API Specification 7, Latest Edition

Grant Prideco Specification for Grade CY-105

Customer Purchase Order Number: T.12663/4500767367



Certificate of Compliance