

# Drill Pipe Data & Performance Sheet

## 4-1/2" 16.60# S-135 R2 Delta 425™

### TUBE BODY DATA

Tube OD	4.500	in.
Wall Thickness	0.337	in.
Tube ID	3.826	in.
Tensile Yield Strength	468,300	lbs. (API Premium 80% Inspection Class)
Torsional Yield Strength	43,500	ft-lbs. (API Premium 80% Inspection Class)
Upset Type   Upset OD (max)	IEU	4.600 in.
Elevator Capacity	593,143	lbs.
Tube Burst	16,176	psi. (API Premium 80% Inspection Class)
Tube Collapse	10,964	psi. (API Premium 80% Inspection Class)
Slip-Crush Capacity (16.5" gripper contact length)	431,600	lbs.

### CONNECTION DATA

Connection	Delta 425™
Tool Joint OD	5.375 in.
Tool Joint ID	3.000 in.
Tool Joint SMYS	130,000 psi.

### CONNECTION PERFORMANCE

Make Up Torque (Max.) <sup>1</sup>	30,280	ft-lbs. (1.0 FF)
	34,822	ft-lbs. (1.15 FF)
Connection Tensile Yield (@ Max. M/U TQ)	482,850	lbs.
Connection Torsional Yield	43,260	ft-lbs.

### ENGINEERING DATA

Approximate Length	31	ft.		
Drift Diameter	2.875	in.		
Adj. Weight	17.99	lbs. / ft.		
Displacement	0.2750	gal. / ft.	0.0065	bbls. / ft.
Capacity	0.5732	gal. / ft.	0.0136	bbls. / ft.

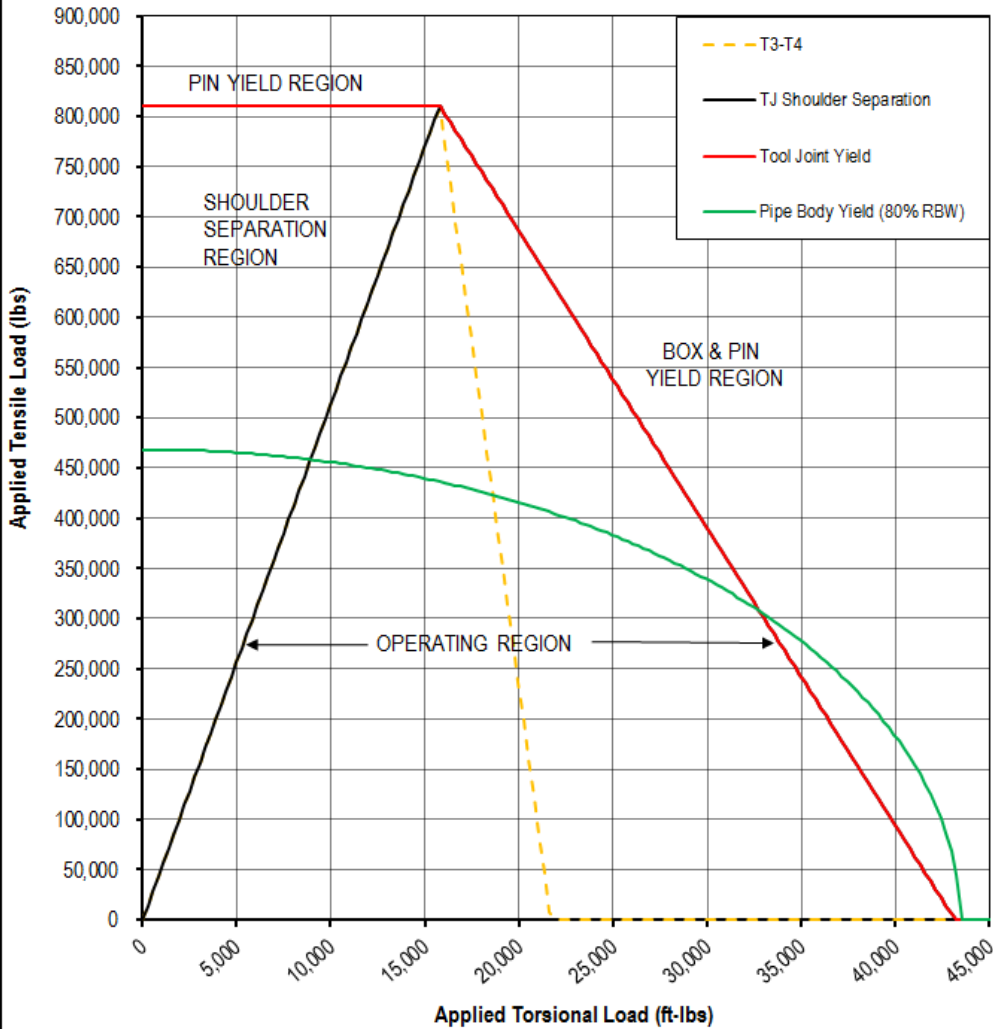
### Notes:

<sup>1</sup>Max MUT 1.0 FF is 70% of connection torsional strength. As required, adjust MUT according to applied thread compound friction factor, not exceeding 1.15. Rec MUT for most applications is that shown for 1.0 FF, regardless of dope used. Higher MUT should only be applied where rotary torque exceeds 80% of MUT 1.0 FF or when downhole torque and/or backoff is a concern.

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**Torque Tension Curve: 4-1/2" 16.60# IEU S-135 Drill Pipe with 5.375 X 3.000 Delta 425™ Tool Joint. Curve Based on Calculation Method in API RP7G. Safety Factor =1.0**



**4-1/2" 16.60# IEU S-135 Drill Pipe Tube Body Collapse Pressure Under Axial Stress - API 5C3**

