

Drill Pipe Data & Performance Sheet

4-1/2" 16.60# S-135 R2 NC46 (4-1/2 XH)

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)	EU	4.6875 in.
Elevator Capacity	1,401,038	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	NC46 (4-1/2 XH)
Tool Joint OD	6.250 in.
Tool Joint ID	3.000 in.
Tool Joint SMYS	120,000 psi.

CONNECTION PERFORMANCE

Make Up Torque (Max.) ¹	23,400 ft-lbs. (1.0 FF)	26,910 ft-lbs. (1.15 FF)
Connection Tensile Yield (@ Max. M/U TQ)	1,000,400	lbs.
Connection Torsional Yield	39,000	ft-lbs.

ENGINEERING DATA

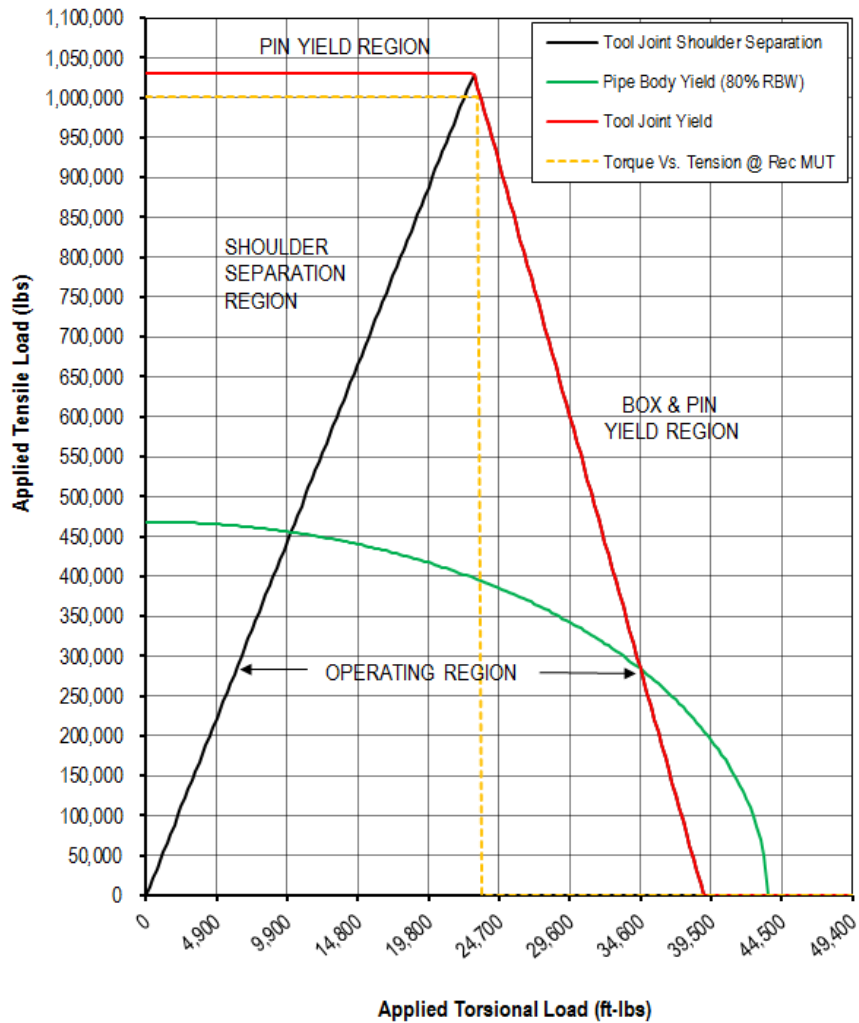
Approximate Length	31	ft.		
Drift Diameter	2.875	in.		
Adj. Weight	19.66	lbs. / ft.		
Displacement	0.3005	gal. / ft.	0.0072	bbls. / ft.
Capacity	0.5745	gal. / ft.	0.0137	bbls. / ft.

Notes:

¹Max MUT 1.0 FF is 60% 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 Premium Class Drill Pipe with 6.250 X 3.000 NC46 (4-1/2 XH) API 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

