



Drill Pipe Specification & Performance Data Sheet

4", 14.00#, 0.330", S135, IU, R2 XT39 - 4.875" x 2.813"

QT Item #: 7614, 8102, 5709

Tube / Pipe Body Specification			Tubular Assembly			Tube / Pipe Body Performance		
OD:	4.000	in	Adjusted Weight:	16.27	lbs/ft	Inspection Class:	Premium Class 80%	
ID:	3.340	in	Length (approximate):	30 - 32	ft	Remaining Body Wall:	0.264	in
Wall Thickness:	0.330	in	Box TJ Length (nominal):	17	in	Tensile Strength:	403,530	lbs
Weight (nominal):	14.00	lbs/ft	Pin TJ Length (nominal):	12	in	Torsional Strength:	32,750	ft-lbs
Grade:	S135		Fluid Displacement:	0.0059	bbls/ft	Burst Capacity:	17,820	psi
Range:	R2		Fluid Capacity w/ IPC:	0.0102	bbls/ft	Collapse Capacity:	13,840	psi
Upset Type:	IU		<i>An oilfield barrel equals 42 US gallons.</i>					
Maximum Upset OD:	4.100	in						

Notes:
 -Dimensions, wall thickness, and tool joint lengths shown above are nominal if not otherwise stated.
 -Values shown may vary with actual values due to OEM tolerances, rounding, and other factors.
 -Capacity, Displacement, & Adjusted Weight are best estimates from the OEM and are based on pipe purchased at 95% RBW with longer than standard tool joints. Nominal thickness of IPC is .009" when applied.

Notes:
 -Tube / Pipe body properties are calculated based on uniform OD and wall thickness.

Connection / Tool Joint Specification			Connection Performance		
Connection:	XT39		Thread Compound Friction Factor (FF):	1.0 FF	1.15 FF
OD:	4.875	in	Maximum Make-Up Torque: (Recommended)	19,700	22,655 ft-lbs
ID:	2.813	in	Tension at Maximum Make-Up Torque:	474,400	474,400 lbs
SMYS:	120	ksi	Minimum Make-Up Torque:	16,400	18,860 ft-lbs
Drift Size:	2.688	in	Tension at Minimum Make-Up Torque:	593,000	593,000 lbs
Elevator Taper:	18°		Torsional Strength:	32,900	37,835 ft-lbs

Notes:
 -Above dimensions are nominal.
 -The following are registered trademarks of NOV-Grant Prideco™: eXtreme™ Torque, XT™
 -There is no published pressure rating for this connection.

The Maximum Make-Up Torque based on the appropriate thread compound friction factor (FF) is recommended. MUTs lower than maximum should only be applied when MUT is limited by rig equipment or connection tensile capacity. MUT values lower than Minimum MUT should never be used.

Adjust MUT values per the applied thread compound's FF greater than 1.0, without exceeding 1.15. Above values tabulated at 1.0 and 1.15 FF.

Elevator Shoulder Capacity
 -Refer to the attached OEM page(s) for capacities with wear prior to using.
 -Only Quail Tools' slimhole elevators should be used with this pipe.

For combined loading of drill pipe, connection wear table, & elevator capacity figures, please see the attached page(s) provided by NOV-Grant Prideco™.


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The technical information contained herein, including the product Specification / Performance sheets and other attached documents, have been generated from material provided by the manufacturer where available. It is for reference only and should not be construed as a recommendation. The user is fully responsible for the accuracy and suitability of use of all technical information. Quail Tools cannot assume responsibility for the results obtained through the use of this material. No expressed or implied warranty is intended. Assembly properties are based on uniform OD and wall thickness. No safety factor is applied. The information provided for various wear conditions (remaining body wall) is for information only and does not represent or imply acceptable operating limits. It is the responsibility of the customer and/or 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. The user should consider all field conditions along with combined factors which may affect the final string design used in the field. For API connections that have different pin and box ID's, tool joint ID refers to the pin ID. Per the IADC drilling manual, it is recommended that drilling torque should not exceed 80% of MUT.

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 Texarkana, TX (903) 838-1624 Williston, ND (701) 774-2280 Morgantown, WV (304) 212-5191
 Houston, TX (281) 445-1777 * Denver, CO (303) 534-1873 * Ok. City/Tulsa, OK (918) 994-4695 * Dallas, TX (972) 661-1443 * San Antonio, TX (210) 822-4801 * Pittsburgh, PA (724) 916-4643

Drill Pipe Performance Sheet (1.00 FF)

6/11/2025



Combined Loading for Drill Pipe			
Connection: XT™ 39 4.875" x 2.813" (120 KSI SMYS) Friction Factor: 1.0			
Pipe: 4.0" OD 0.330" Wall Thickness S135 80% Inspection Class			
At Max MUT (19700 ft-lbs)		At Min MUT (16400 ft-lbs)	
Operational Torque(ft-lbs)	Assembly Max Tension(lbs)	Operational Torque(ft-lbs)	Assembly Max Tension(lbs)
0	403500	0	403500
900	403400	700	403400
1800	402900	1400	403200
2600	402300	2100	402700
3500	401200	2800	402000
4400	399900	3500	401200
5300	398200	4200	400200
6100	396500	4900	399000
7000	394200	5600	397600
7900	391600	6300	396000
8800	388700	7000	394200
9700	385400	7600	392500
10500	382200	8300	390400
11400	378300	9000	388000
12300	374000	9700	385400
13200	369300	10400	382600
14100	364200	11100	379600
14900	359400	11800	376400
15800	353500	12500	373000
16700	347100	13200	369300

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Connection Wear Table		
Connection: XT™ 39 4.875" x 2.813" (120 KSI SMYS) Friction Factor: 1.0		
Tool Joint OD (in)	Max MUT(ft-lbs)	Min MUT(ft-lbs)
4.875	19700	16400
4.855	19700	16400
4.834	19300	16100
4.814	19000	15800
4.794	18600	15500
4.774	18200	15200
4.753	17800	14800
4.733	17400	14500
4.713	17100	14200
4.693	16700	13900
4.672	16300	13600
4.652	16000	13300

Elevator Capacity Table						
Elevator Bore Diameter: 4.19375" Elevator SMYS: 110,100 psi Box Taper Angle: 18 deg						
Connection: XT™ 39 4.0" 0.330" wall IU S135						
TJOD (in.)	Elevator Hoist Capacity (lbs) - Bore Wear					
	No Wear	Custom 0.03125 in.	1/16 in.	1/8 in.	3/16 in.	1/4 in.
4.875	534200	511500	488600	442200	395200	347500
4.855	517400	494700	471700	425400	378400	330700
4.834	499800	477100	454100	407800	360800	313100
4.814	483100	460400	437500	391100	344100	296400
4.794	466500	443800	420800	374500	327500	279800
4.774	450000	427200	404300	358000	310900	263200
4.753	432700	409900	387000	340600	293600	245900
4.733	416300	393500	370600	324200	277200	229500
4.713	399900	377200	354300	307900	260900	213200
4.693	383700	360900	338000	291600	244600	196900
4.672	366600	343900	321000	274600	227600	179900
4.652	350500	327800	304900	258500	211500	163800

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Drill Pipe Performance Sheet (1.00 FF)

6/11/2025



Slip Crush Capacity Table at 80% Inspection Class					
		Slip Length			
		13.75 in.	16 in.	16.5 in.	22 in.
K Factor	2.1	343200.0 lbs	351500.0 lbs	353000.0 lbs	365500.0 lbs
	2.6	329500.0 lbs	339500.0 lbs	341300.0 lbs	356600.0 lbs
	4.0	294400.0 lbs	307900.0 lbs	310500.0 lbs	332200.0 lbs
	4.2	289700.0 lbs	303700.0 lbs	306400.0 lbs	328900.0 lbs

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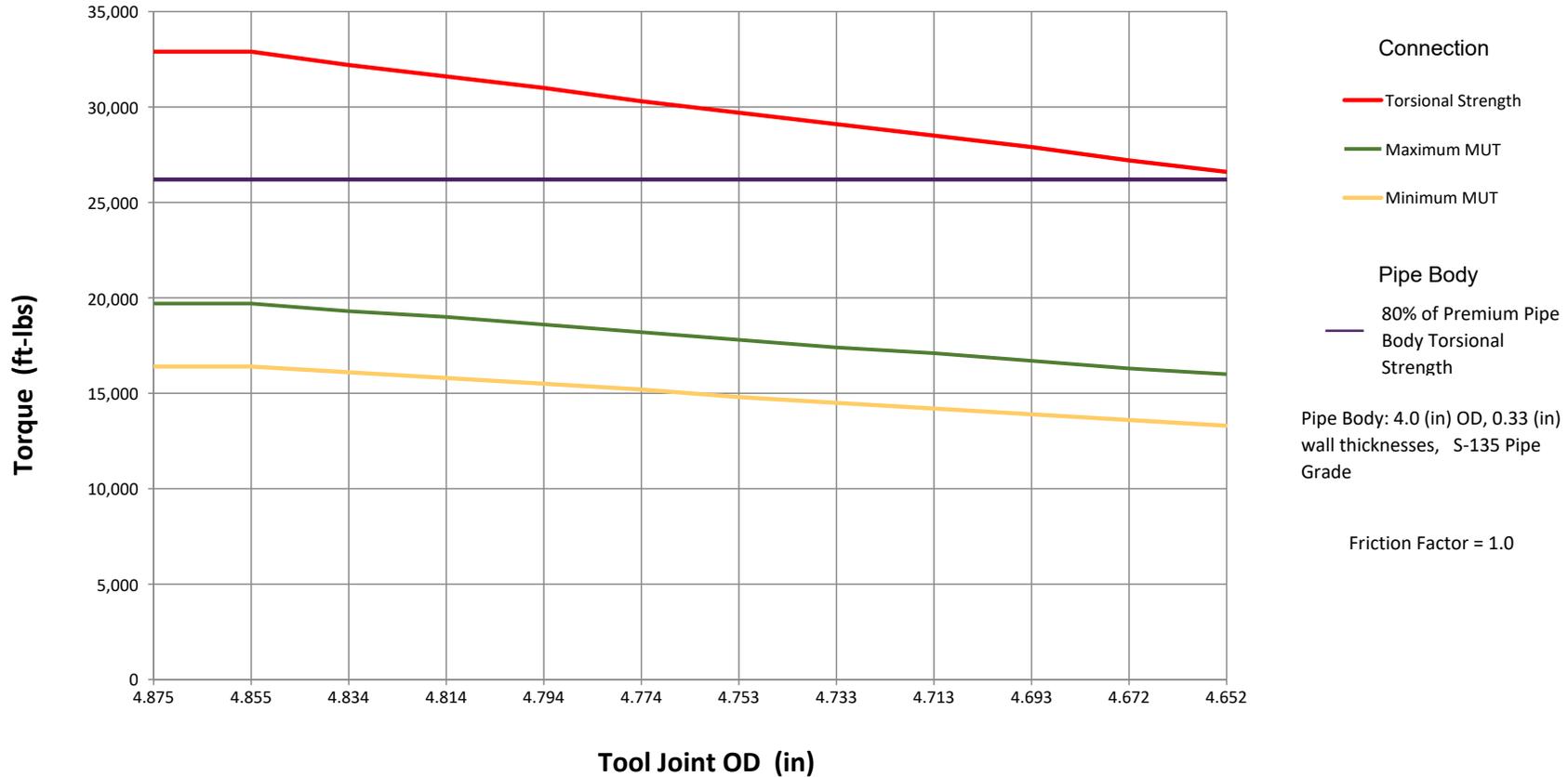
Drill Pipe Performance Sheet (1.00 FF)

6/11/2025



Connection Wear for XT™ 39 (4.875 (in) OD x 2.813 (in) ID)

Material SMYS (Specified Minimum Yield Strength) = 120000 (psi)



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Drill Pipe Performance Sheet (1.00 FF)

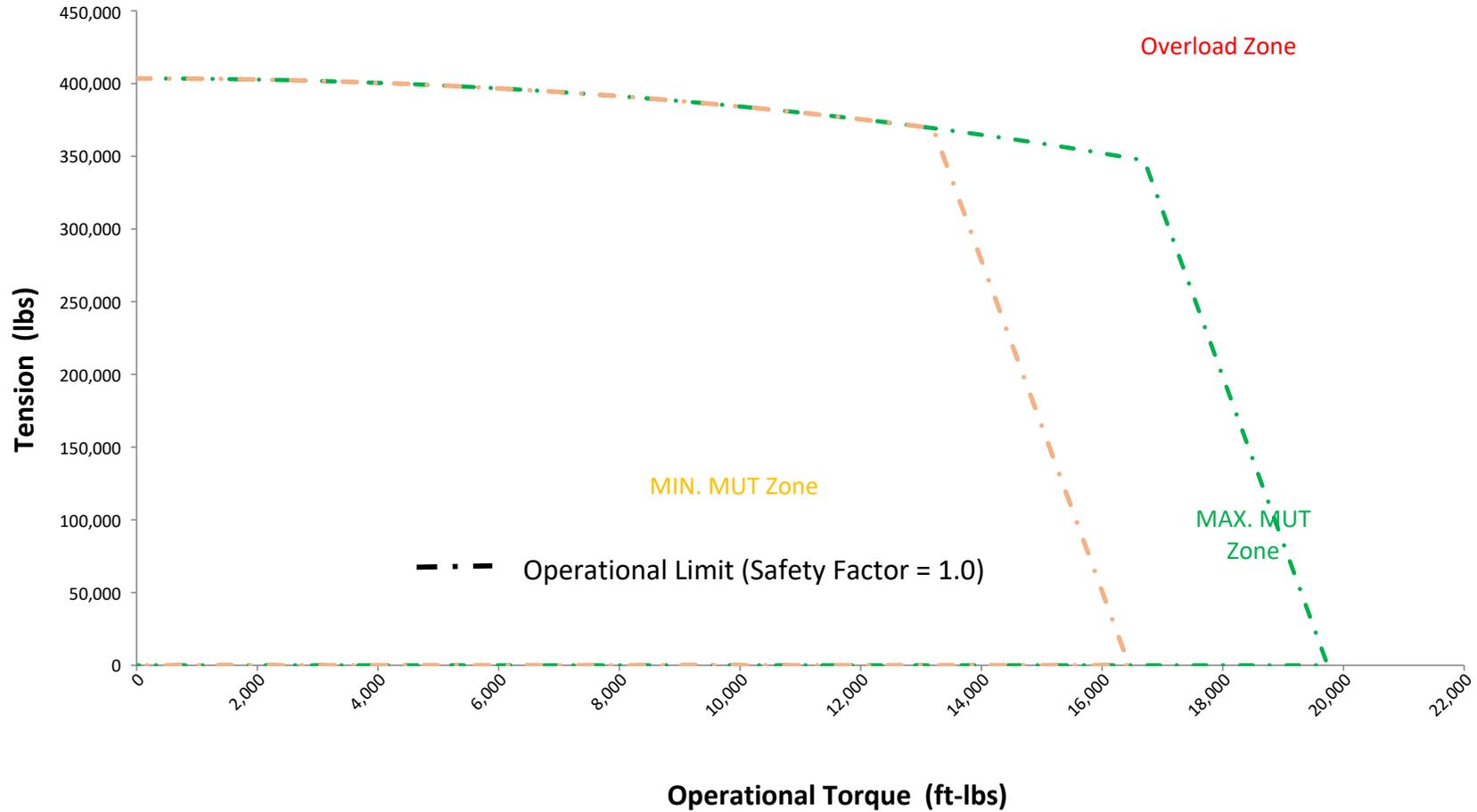
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Drill Pipe Operational Limits (Connection at Recommended MUT = 19737 (ft-lbs)) (Connection at Minimum MUT = 16447 (ft-lbs))

Connection: XT™ 39 (4.875 (in) OD 2.813 (in) ID) SMYS = 120000 (psi) Friction Factor = 1.0

Pipe Body: 80% Inspection Class, 4.0 (in) OD, 0.33 (in) Wall Thickness, S-135 Pipe Grade



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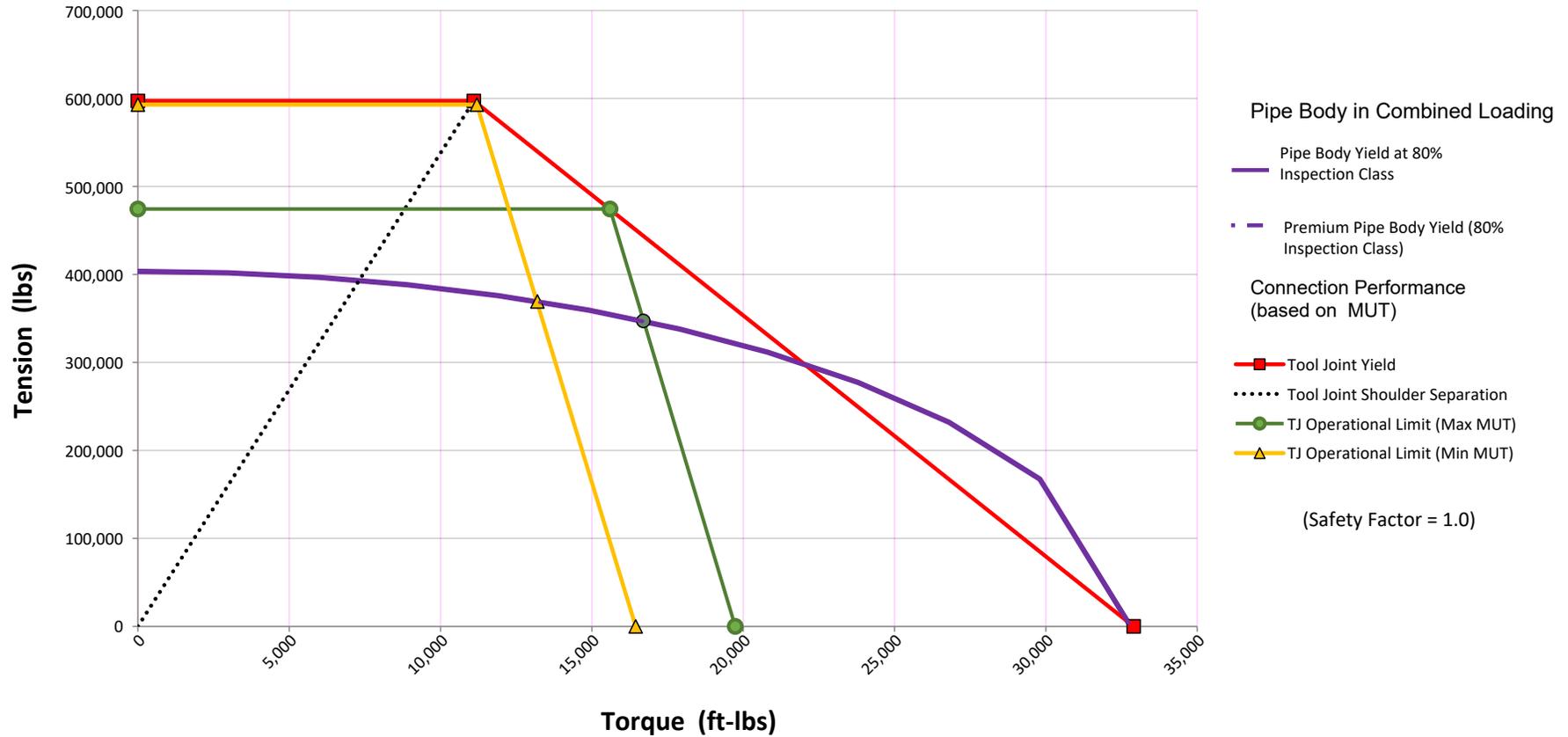
Drill Pipe Performance Sheet (1.00 FF)

6/11/2025



Torque-Tension Graph

Connection: XT™ 39 (4.875 (in) OD 2.813 (in) ID) SMYS = 120000 (psi) Friction Factor = 1.0
 Pipe Body: 80% Inspection Class, 4.0 (in) OD, 0.33 (in) Wall Thickness, S-135 Pipe Grade



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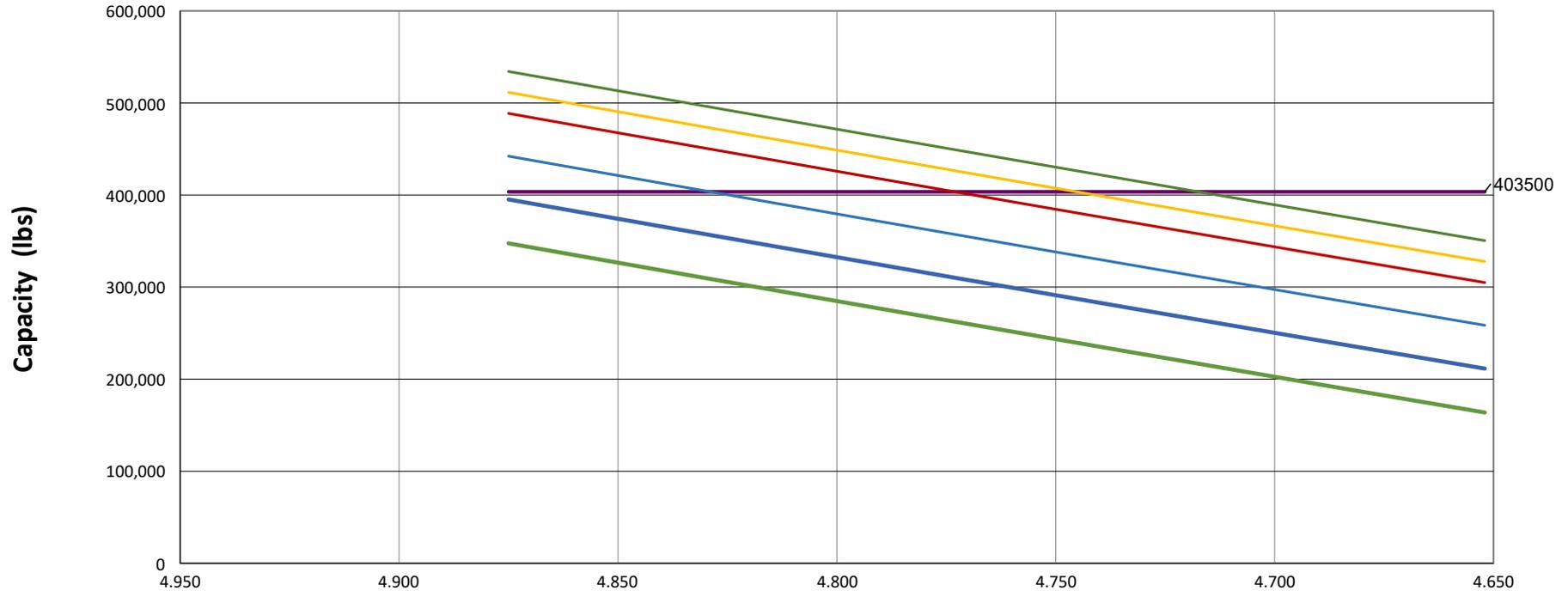
Drill Pipe Performance Sheet (1.00 FF)

6/11/2025



Elevator Capacity Curve

(Based on new Elevator Bore Diameter of 4.194 (in) (0.33 (in) wall) and the elevator yield strength of 110100 (psi)
 4.0 (in) (0.33 (in)wall) IU S-135 XT™ 39 (4.875 (in) x 2.813 (in)) Max DTE = 4.1 (in)



— Tube Tensile Capacity at Inspection Class (403500 (lbs))

(Safety Factor = 1.0)

Tool Joint OD (in)

- Elevator Capacity (No Wear - 4.194 (in) Bore Dia)
- Elevator Capacity (0.031 Wear - 4.225in Bore Dia)
- Elevator Capacity (1/16 Wear - 4.256 (in) Bore Dia)
- Elevator Capacity (1/8 Wear - 4.319 (in) Bore Dia)
- Elevator Capacity (3/16 Wear - 4.381 (in) Bore Dia)
- Elevator Capacity (1/4 Wear - 4.444 (in) Bore Dia)

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Drill Pipe Performance Sheet (1.15 FF)

6/11/2025



Combined Loading for Drill Pipe			
Connection: XT™ 39 4.875" x 2.813" (120 KSI SMYS) Friction Factor: 1.15			
Pipe: 4.0" OD 0.330" Wall Thickness S135 80% Inspection Class			
At Max MUT (22700 ft-lbs)		At Min MUT (18900 ft-lbs)	
Operational Torque(ft-lbs)	Assembly Max Tension(lbs)	Operational Torque(ft-lbs)	Assembly Max Tension(lbs)
0	403500	0	403500
1000	403300	800	403400
2000	402800	1600	403000
3100	401700	2400	402400
4100	400400	3200	401600
5100	398600	4000	400500
6100	396500	4800	399200
7200	393700	5600	397600
8200	390700	6400	395700
9200	387300	7300	393400
10200	383500	8100	391000
11200	379200	8900	388300
12300	374000	9700	385400
13300	368800	10500	382200
14300	363000	11300	378700
15300	356800	12100	375000
16400	349300	12900	370900
17400	341900	13700	366500
18400	333800	14500	361800
19400	325100	15300	356800

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Connection Wear Table		
Connection: XT™ 39 4.875" x 2.813" (120 KSI SMYS) Friction Factor: 1.15		
Tool Joint OD (in)	Max MUT(ft-lbs)	Min MUT(ft-lbs)
4.875	22700	18900
4.855	22700	18900
4.834	22200	18500
4.814	21800	18200
4.794	21400	17800
4.774	20900	17400
4.753	20500	17100
4.733	20100	16700
4.713	19600	16400
4.693	19200	16000
4.672	18800	15700
4.652	18400	15300

Elevator Capacity Table						
Elevator Bore Diameter: 4.19375" Elevator SMYS: 110,100 psi Box Taper Angle: 18 deg						
Connection: XT™ 39 4.0" 0.330" wall IU S135						
TJOD (in.)	Elevator Hoist Capacity (lbs) - Bore Wear					
	No Wear	Custom 0.03125 in.	1/16 in.	1/8 in.	3/16 in.	1/4 in.
4.875	534200	511500	488600	442200	395200	347500
4.855	517400	494700	471700	425400	378400	330700
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4.774	450000	427200	404300	358000	310900	263200
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4.733	416300	393500	370600	324200	277200	229500
4.713	399900	377200	354300	307900	260900	213200
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Drill Pipe Performance Sheet (1.15 FF)

6/11/2025



Slip Crush Capacity Table at 80% Inspection Class					
		Slip Length			
		13.75 in.	16 in.	16.5 in.	22 in.
K Factor	2.1	343200.0 lbs	351500.0 lbs	353000.0 lbs	365500.0 lbs
	2.6	329500.0 lbs	339500.0 lbs	341300.0 lbs	356600.0 lbs
	4.0	294400.0 lbs	307900.0 lbs	310500.0 lbs	332200.0 lbs
	4.2	289700.0 lbs	303700.0 lbs	306400.0 lbs	328900.0 lbs

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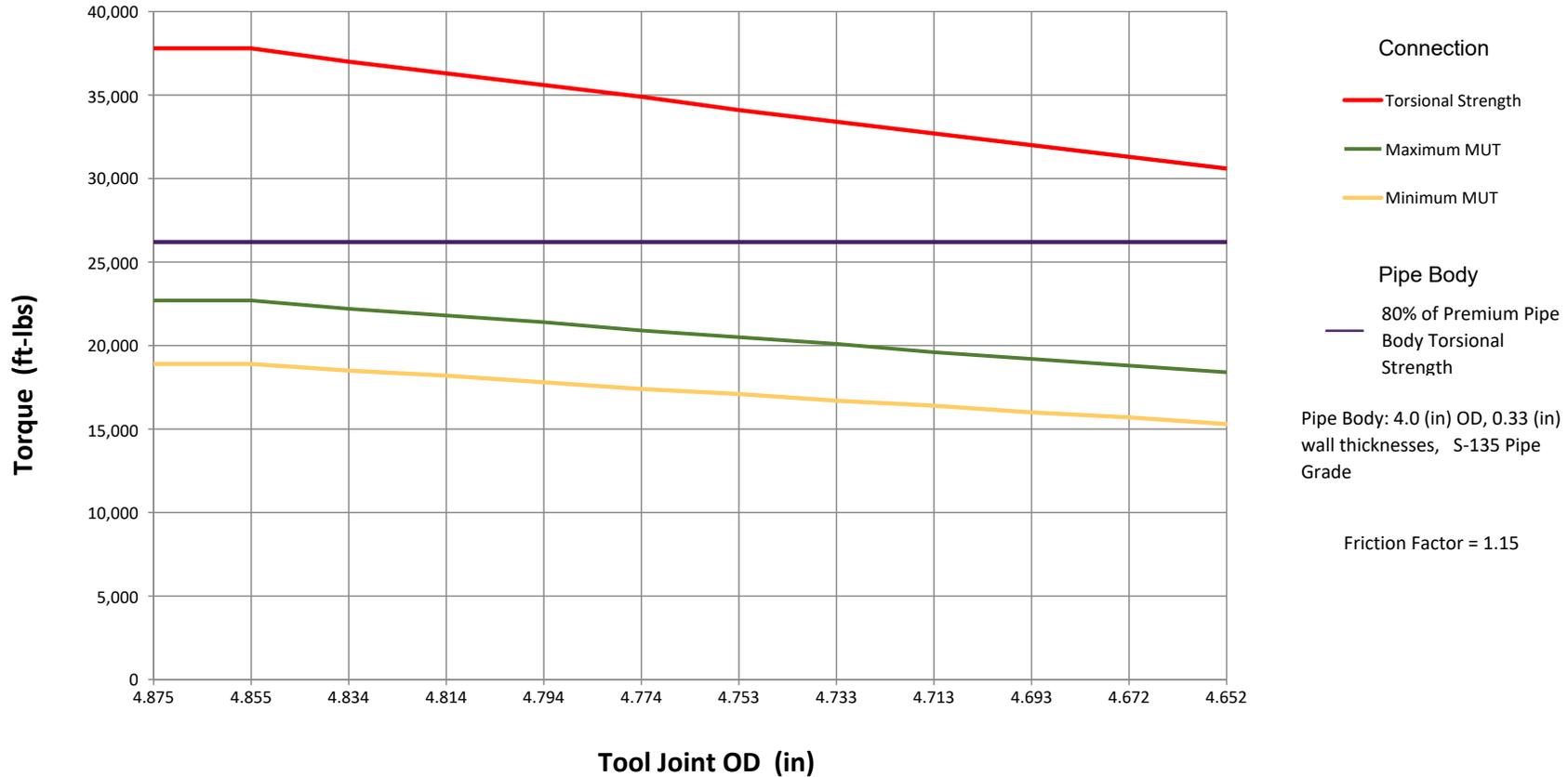
Drill Pipe Performance Sheet (1.15 FF)

6/11/2025



Connection Wear for XT™ 39 (4.875 (in) OD x 2.813 (in) ID)

Material SMYS (Specified Minimum Yield Strength) = 120000 (psi)



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Drill Pipe Performance Sheet (1.15 FF)

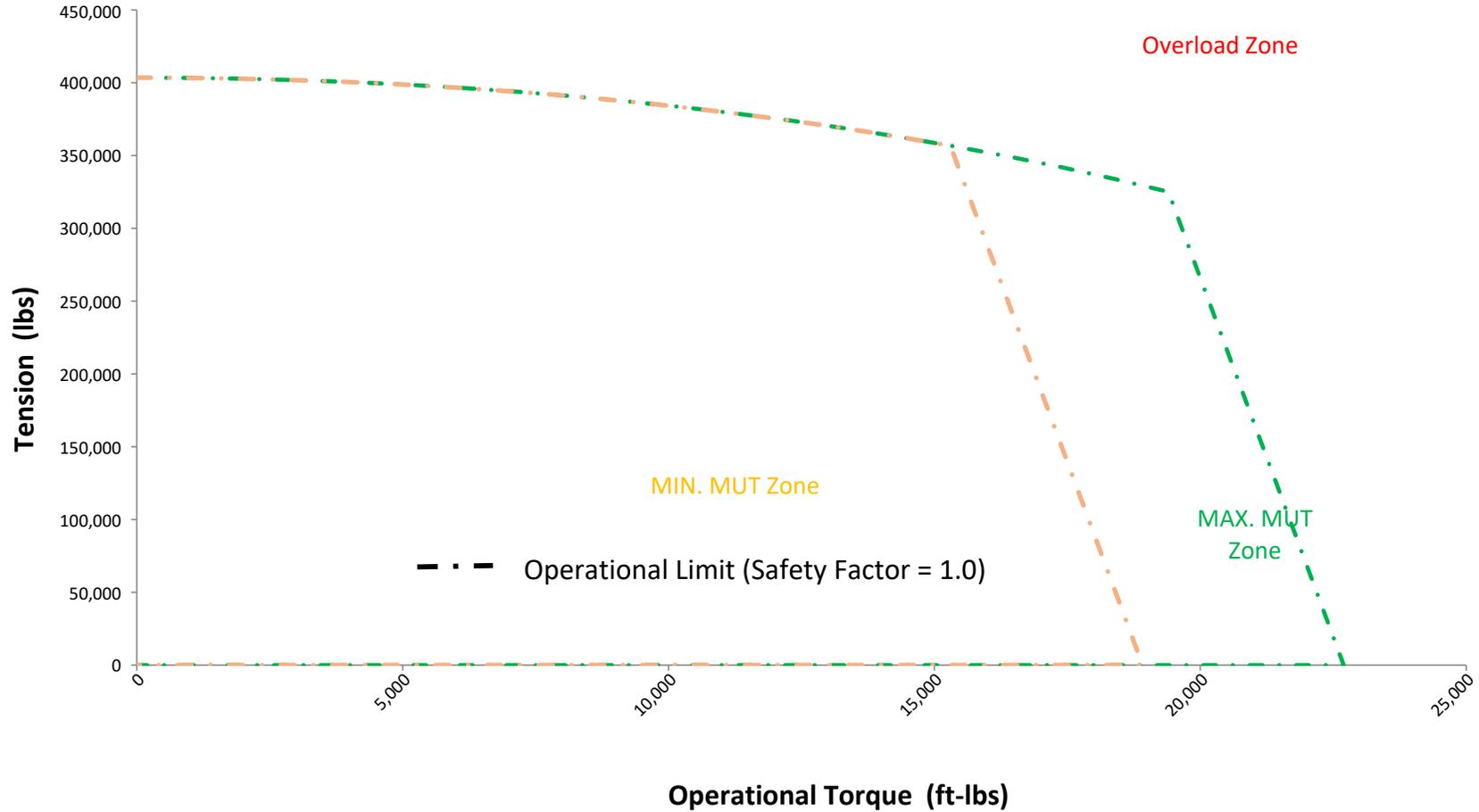
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Drill Pipe Operational Limits (Connection at Recommended MUT = 22697 (ft-lbs)) (Connection at Minimum MUT = 18914 (ft-lbs))

Connection: XT™ 39 (4.875 (in) OD 2.813 (in) ID) SMYS = 120000 (psi) Friction Factor = 1.15

Pipe Body: 80% Inspection Class, 4.0 (in) OD, 0.33 (in) Wall Thickness, S-135 Pipe Grade



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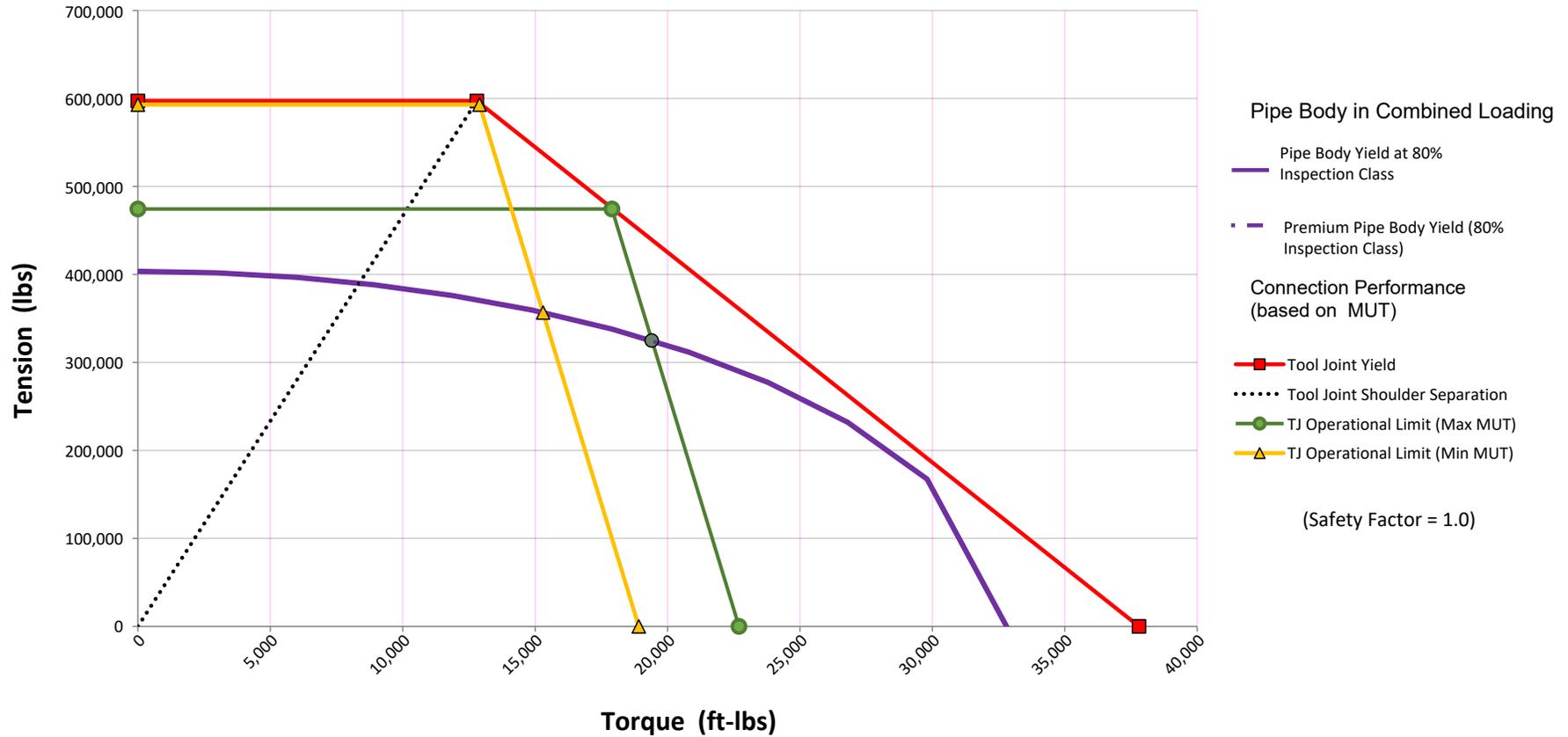
Drill Pipe Performance Sheet (1.15 FF)

6/11/2025



Torque-Tension Graph

Connection: XT™ 39 (4.875 (in) OD 2.813 (in) ID) SMYS = 120000 (psi) Friction Factor = 1.15
 Pipe Body: 80% Inspection Class, 4.0 (in) OD, 0.33 (in) Wall Thickness, S-135 Pipe Grade



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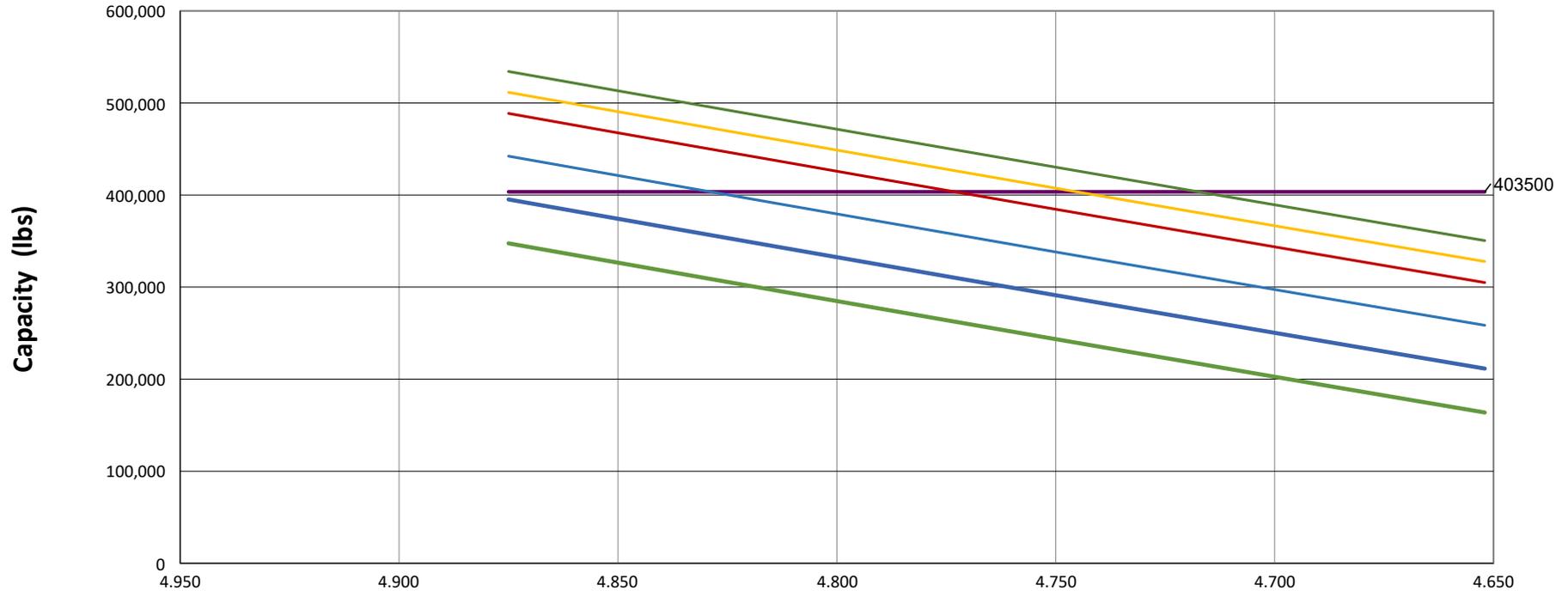
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6/11/2025



Elevator Capacity Curve

(Based on new Elevator Bore Diameter of 4.194 (in) (0.33 (in) wall) and the elevator yield strength of 110100 (psi)
 4.0 (in) (0.33 (in)wall) IU S-135 XT™ 39 (4.875 (in) x 2.813 (in)) Max DTE = 4.1 (in)



— Tube Tensile Capacity at Inspection Class (403500 (lbs))

(Safety Factor = 1.0)

Tool Joint OD (in)

- Elevator Capacity (No Wear - 4.194 (in) Bore Dia)
- Elevator Capacity (0.031 Wear - 4.225in Bore Dia)
- Elevator Capacity (1/16 Wear - 4.256 (in) Bore Dia)
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