



Drill Pipe Specification & Performance Data Sheet

5", 19.50#, 0.362", S135, IEU, R2 Delta471 - 5.875" x 3.250"

QT Item #: 11558

Tube / Pipe Body Specification			Tubular Assembly			Tube / Pipe Body Performance		
OD:	5.000	in	Adjusted Weight:	23.16	lbs/ft	Inspection Class:	Premium Class 80%	
ID:	4.276	in	Length (approximate):	30 - 32	ft	Remaining Body Wall:	0.290	in
Wall Thickness:	0.362	in	Box TJ Length (nominal):	17	in	Tube Tensile:	560,760	lbs
Weight (nominal):	19.50	lbs/ft	Pin TJ Length (nominal):	12	in	Torsional Strength:	58,110	ft-lbs
Grade:	S135		Fluid Displacement:	0.0084	bbls/ft	Burst Capacity:	15,640	psi
Range:	R2		Fluid Capacity w/ IPC:	0.0166	bbls/ft	Collapse Capacity:	10,030	psi
Type of Upset:	IEU		<i>An oilfield barrel equals 42 US gallons.</i>					
Maximum Upset OD:	Special	in						

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

Connection / Tool Joint Specification		Connection Performance		
Connection:	Delta471	Thread Compound Friction Factor (FF):	1.0 FF	1.15 FF
OD:	5.875 in	Extended Make-Up Torque ¹ :	44,200	50,830 ft-lbs
ID:	3.250 in	Tension at Extended Make-Up Torque:	623,800	623,800 lbs
SMYS:	130 ksi	Standard Max Make-Up Torque ¹ : (Recommended)	37,900	43,585 ft-lbs
Drift Size:	3.125 in	Tension at Standard Make-Up Torque:	831,740	831,740 lbs
Elevator Taper:	18°	Minimum Make-Up Torque:	31,500	36,225 ft-lbs
		Tension at Minimum Make-Up Torque:	1,038,810	1,038,810 lbs
		Torsional Strength:	63,090	72,554 ft-lbs

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

The Standard Max Make-Up Torque based on the appropriate thread compound friction factor (FF) is recommended. MUTs lower than standard max 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.

See OEM NOV-Grant Prideco™ bulletin on Extended MUTs (Standard Max MUT is 60% of connection torsional whereas Extended MUT is 70%).

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.

¹The Extended MUT is recommended when downhole torque and/or backoff is a concern due to string dynamics (stick-slip, rocking, etc.) and other conditions associated with long laterals, providing it is not limited by connection tensile capacity reduction due to higher preload or rig equipment.

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™.


www.quailtools.com


Visit our website or download the Quail Tools Tubular & BOP Specification App for the latest updates and specifications!

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.

New Iberia, LA (337) 365-8154	Victoria, TX (361) 579-0244	Odessa, TX (432) 366-1491	Evanston, WY (307) 789-5860
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

Uncontrolled When Printed

QT-DP 5.000 19.50 S Delta471 5.875 x 3.250 R2 80RBW

Generated on: 6/13/2025

Drill Pipe Performance Sheet (1.00 FF)

6/13/2025



Combined Loading for Drill Pipe			
Connection: Delta™ 471 5.875" x 3.25" (130 KSI SMYS) Friction Factor: 1.0			
Pipe: 5.0" OD 0.362" Wall Thickness S135 80% Inspection Class			
At Max MUT (37900 ft-lbs)		At Min MUT (31500 ft-lbs)	
Operational Torque(ft-lbs)	Assembly Max Tension(lbs)	Operational Torque(ft-lbs)	Assembly Max Tension(lbs)
0	560800	0	560800
1800	560500	1400	560600
3500	559700	2800	560100
5300	558400	4300	559200
7100	556600	5700	558100
8900	554100	7100	556600
10600	551400	8500	554700
12400	547800	9900	552600
14200	543800	11400	549900
15900	539400	12800	547000
17700	534100	14200	543800
19500	528300	15600	540200
21200	522100	17000	536200
23000	515000	18400	531900
24800	507100	19900	526900
26600	498600	21300	521700
28300	489800	22700	516200
30100	479700	24100	510300
31900	468700	25500	503900
33600	457500	27000	496600

The Technical Information contained herein, including the product performance sheet and other attached documents, is for reference only and should not be considered as a recommendation. The user is fully responsible for the accuracy and suitability of use of the technical information. NOV Grant Prideco cannot assume responsibility for the results obtained through the use of this material. No expressed or implied warranty is intended. Drill pipe assembly properties are calculated based on uniform OD and wall thickness. No safety factor is applied. The information provided for various inspection classes and 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 the end user to determine the appropriate performance ratings, acceptable use of the product, maintain safe operating practices, and to apply a prudent safety factor suitable for the application. For API connections that have different pin and box IDs, tool joint ID refers to the pin ID. Per Chapter DS, Section DS-16 of the drilling manual, it is recommended that drilling torque should not exceed 80% of MUT.

Connection Wear Table		
Connection: Delta™ 471 5.875" x 3.25" (130 KSI SMYS) Friction Factor: 1.0		
Tool Joint OD (in)	Max MUT(ft-lbs)	Min MUT(ft-lbs)
5.875	37900	31500
5.842	37900	31500
5.808	37200	31000
5.775	36300	30200
5.741	35300	29400
5.708	34400	28600
5.674	33400	27800
5.641	32500	27100
5.607	31600	26300
5.574	30700	25600
5.54	29700	24800
5.507	28900	24100

Elevator Capacity Table						
Elevator Bore Diameter: 5.2" Elevator SMYS: 110,100 psi Box Taper Angle: 18 deg						
Connection: Delta™ 471 5.0" 0.362" wall IEU 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.
5.875	646400	618200	589900	532700	474800	416200
5.842	613000	584800	556500	499200	441300	382800
5.808	578700	550600	522200	465000	407100	348500
5.775	545700	517500	489100	431900	374000	315500
5.741	511800	483600	455300	398100	340200	281600
5.708	479200	451000	422600	365400	307500	248900
5.674	445700	417500	389200	331900	274000	215500
5.641	413400	385200	356900	299600	241800	183200
5.607	380300	352200	323800	266600	208700	150100
5.574	348400	320300	291900	234700	176800	118200
5.54	315800	287600	259200	202000	144100	85500
5.507	284200	256100	227700	170500	112600	54000

All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Drill Pipe Performance Sheet (1.00 FF)

6/13/2025

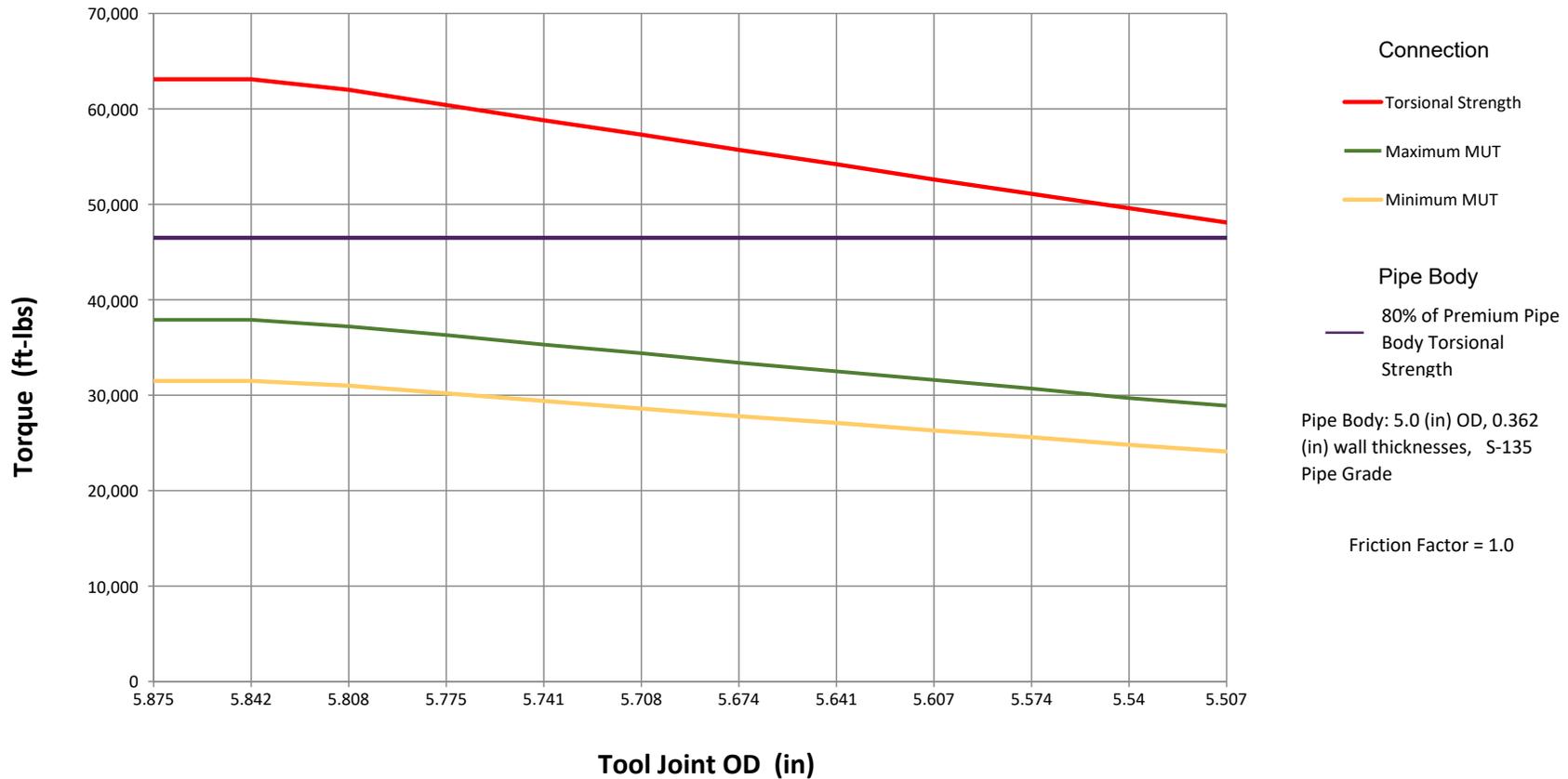


Slip Crush Capacity Table at 80% Inspection Class					
		Slip Length			
		13.75 in.	16 in.	16.5 in.	22 in.
K Factor	2.1	456600.0 lbs	470600.0 lbs	473200.0 lbs	494600.0 lbs
	2.6	434000.0 lbs	450400.0 lbs	453500.0 lbs	479200.0 lbs
	4.0	377600.0 lbs	399000.0 lbs	403100.0 lbs	438400.0 lbs
	4.2	370500.0 lbs	392300.0 lbs	396500.0 lbs	432900.0 lbs

All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Connection Wear for Delta™ 471-130 (5.875 (in) OD x 3.25 (in) ID)

Material SMYS (Specified Minimum Yield Strength) = 130000 (psi)



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Drill Pipe Performance Sheet (1.00 FF)

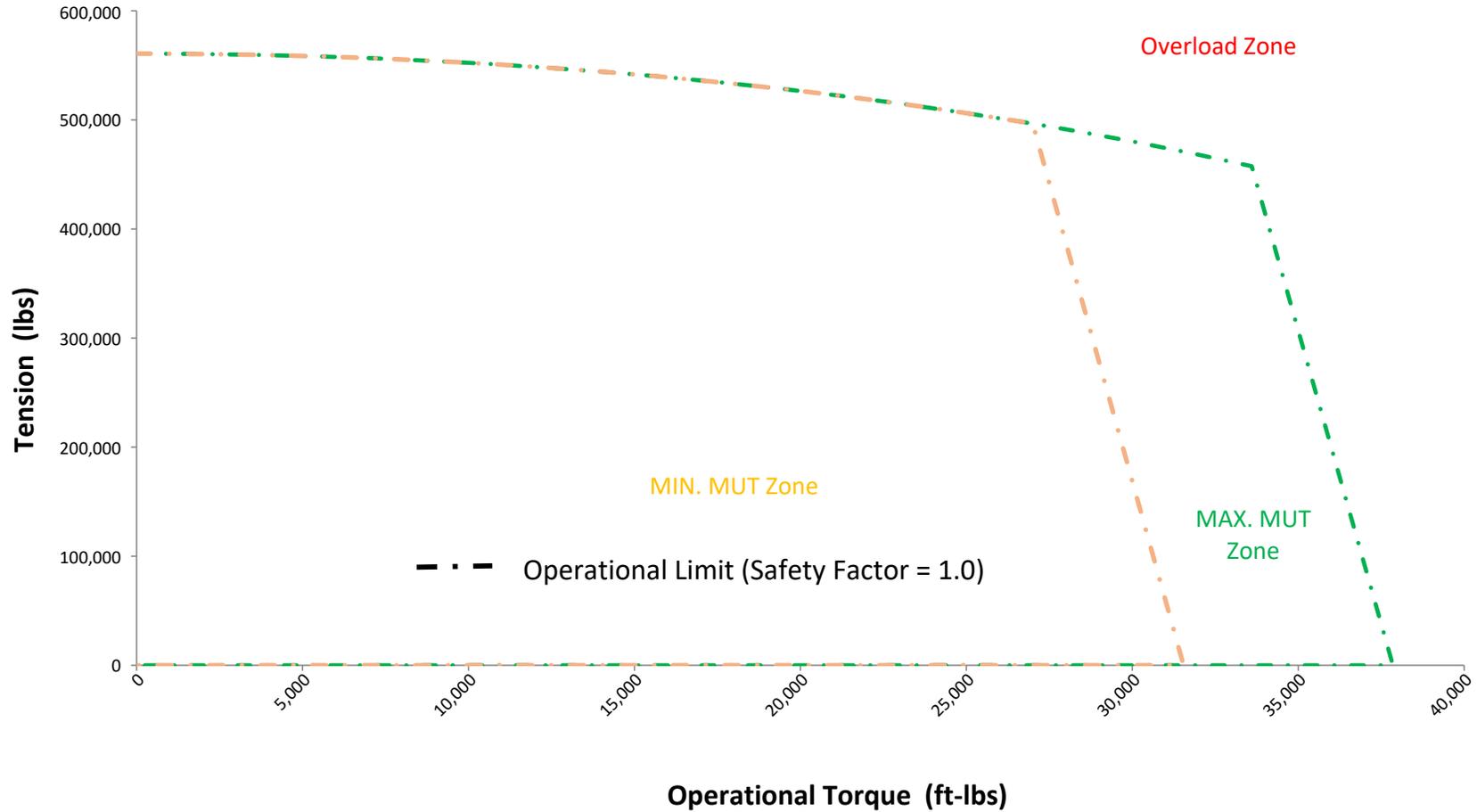
6/13/2025



Drill Pipe Operational Limits (Connection at Recommended MUT = 37854 (ft-lbs)) (Connection at Minimum MUT = 31545 (ft-lbs))

Connection: Delta™ 471-130 (5.875 (in) OD 3.25 (in) ID) SMYS = 130000 (psi) Friction Factor = 1.0

Pipe Body: 80% Inspection Class, 5.0 (in) OD, 0.362 (in) Wall Thickness, S-135 Pipe Grade



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

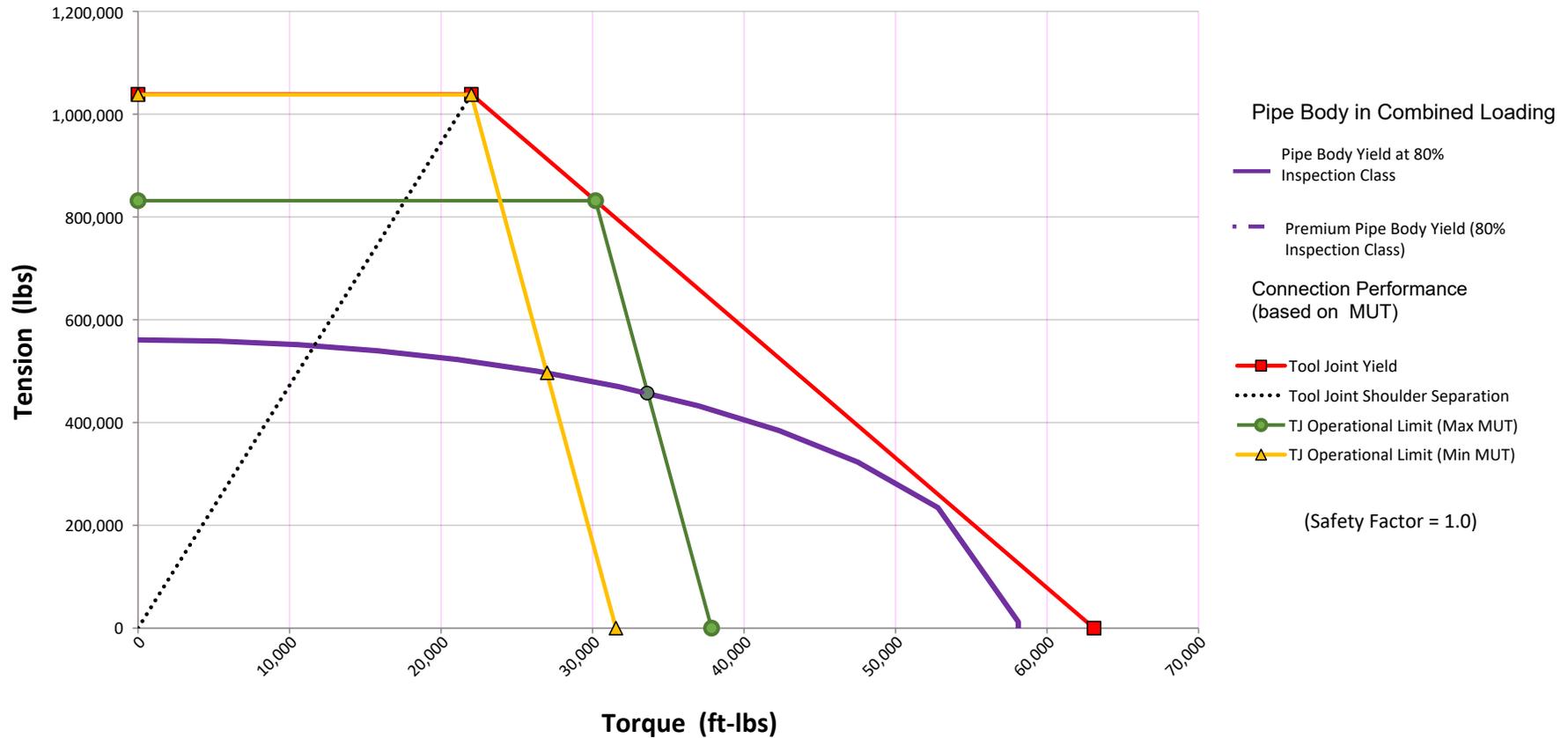
Drill Pipe Performance Sheet (1.00 FF)

6/13/2025



Torque-Tension Graph

Connection: Delta™ 471-130 (5.875 (in) OD 3.25 (in) ID) SMYS = 130000 (psi) Friction Factor = 1.0
 Pipe Body: 80% Inspection Class, 5.0 (in) OD, 0.362 (in) Wall Thickness, S-135 Pipe Grade



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

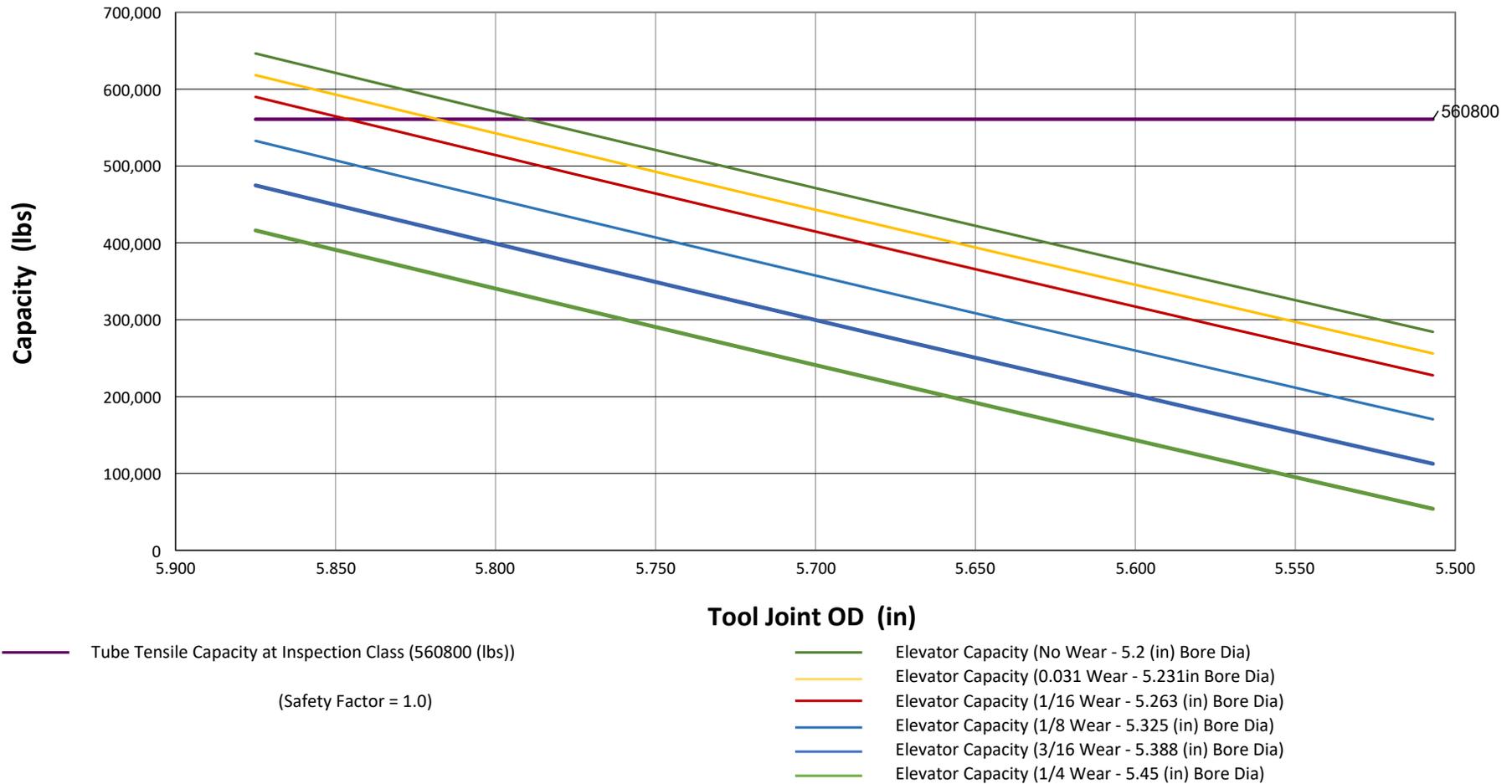
Drill Pipe Performance Sheet (1.00 FF)

6/13/2025



Elevator Capacity Curve

(Based on new Elevator Bore Diameter of 5.2 (in) (0.362 (in) wall) and the elevator yield strength of 110100 (psi))
 5.0 (in) (0.362 (in) wall) IEU S-135 Delta™ 471-130 (5.875 (in) x 3.25 (in)) Max DTE = 5.075 (in)



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Drill Pipe Performance Sheet (1.15 FF)

6/13/2025



Combined Loading for Drill Pipe			
Connection: Delta™ 471 5.875" x 3.25" (130 KSI SMYS) Friction Factor: 1.15			
Pipe: 5.0" OD 0.362" Wall Thickness S135 80% Inspection Class			
At Max MUT (43500 ft-lbs)		At Min MUT (36300 ft-lbs)	
Operational Torque(ft-lbs)	Assembly Max Tension(lbs)	Operational Torque(ft-lbs)	Assembly Max Tension(lbs)
0	560800	0	560800
2100	560400	1600	560600
4100	559400	3300	559900
6200	557600	4900	558800
8200	555200	6600	557100
10300	551900	8200	555200
12400	547800	9900	552600
14400	543300	11500	549700
16500	537700	13200	546100
18500	531600	14800	542300
20600	524400	16500	537700
22700	516200	18100	532900
24700	507600	19700	527600
26800	497600	21400	521400
28800	487100	23000	515000
30900	474900	24700	507600
33000	461600	26300	500100
35000	447700	28000	491400
37100	431600	29600	482600
39100	414900	31300	472500

The Technical Information contained herein, including the product performance sheet and other attached documents, is for reference only and should not be considered as a recommendation. The user is fully responsible for the accuracy and suitability of use of the technical information. NOV Grant Prideco cannot assume responsibility for the results obtained through the use of this material. No expressed or implied warranty is intended. Drill pipe assembly properties are calculated based on uniform OD and wall thickness. No safety factor is applied. The information provided for various inspection classes and 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 the end user to determine the appropriate performance ratings, acceptable use of the product, maintain safe operating practices, and to apply a prudent safety factor suitable for the application. For API connections that have different pin and box IDs, tool joint ID refers to the pin ID. Per Chapter DS, Section DS-16 of the drilling manual, it is recommended that drilling torque should not exceed 80% of MUT.

Connection Wear Table		
Connection: Delta™ 471 5.875" x 3.25" (130 KSI SMYS) Friction Factor: 1.15		
Tool Joint OD (in)	Max MUT(ft-lbs)	Min MUT(ft-lbs)
5.875	43500	36300
5.842	43500	36300
5.808	42800	35600
5.775	41700	34700
5.741	40600	33800
5.708	39500	32900
5.674	38400	32000
5.641	37400	31100
5.607	36300	30200
5.574	35300	29400
5.54	34200	28500
5.507	33200	27700

Elevator Capacity Table						
Elevator Bore Diameter: 5.2" Elevator SMYS: 110,100 psi Box Taper Angle: 18 deg						
Connection: Delta™ 471 5.0" 0.362" wall IEU 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.
5.875	646400	618200	589900	532700	474800	416200
5.842	613000	584800	556500	499200	441300	382800
5.808	578700	550600	522200	465000	407100	348500
5.775	545700	517500	489100	431900	374000	315500
5.741	511800	483600	455300	398100	340200	281600
5.708	479200	451000	422600	365400	307500	248900
5.674	445700	417500	389200	331900	274000	215500
5.641	413400	385200	356900	299600	241800	183200
5.607	380300	352200	323800	266600	208700	150100
5.574	348400	320300	291900	234700	176800	118200
5.54	315800	287600	259200	202000	144100	85500
5.507	284200	256100	227700	170500	112600	54000

All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Drill Pipe Performance Sheet (1.15 FF)

6/13/2025



Slip Crush Capacity Table at 80% Inspection Class					
		Slip Length			
		13.75 in.	16 in.	16.5 in.	22 in.
K Factor	2.1	456600.0 lbs	470600.0 lbs	473200.0 lbs	494600.0 lbs
	2.6	434000.0 lbs	450400.0 lbs	453500.0 lbs	479200.0 lbs
	4.0	377600.0 lbs	399000.0 lbs	403100.0 lbs	438400.0 lbs
	4.2	370500.0 lbs	392300.0 lbs	396500.0 lbs	432900.0 lbs

All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

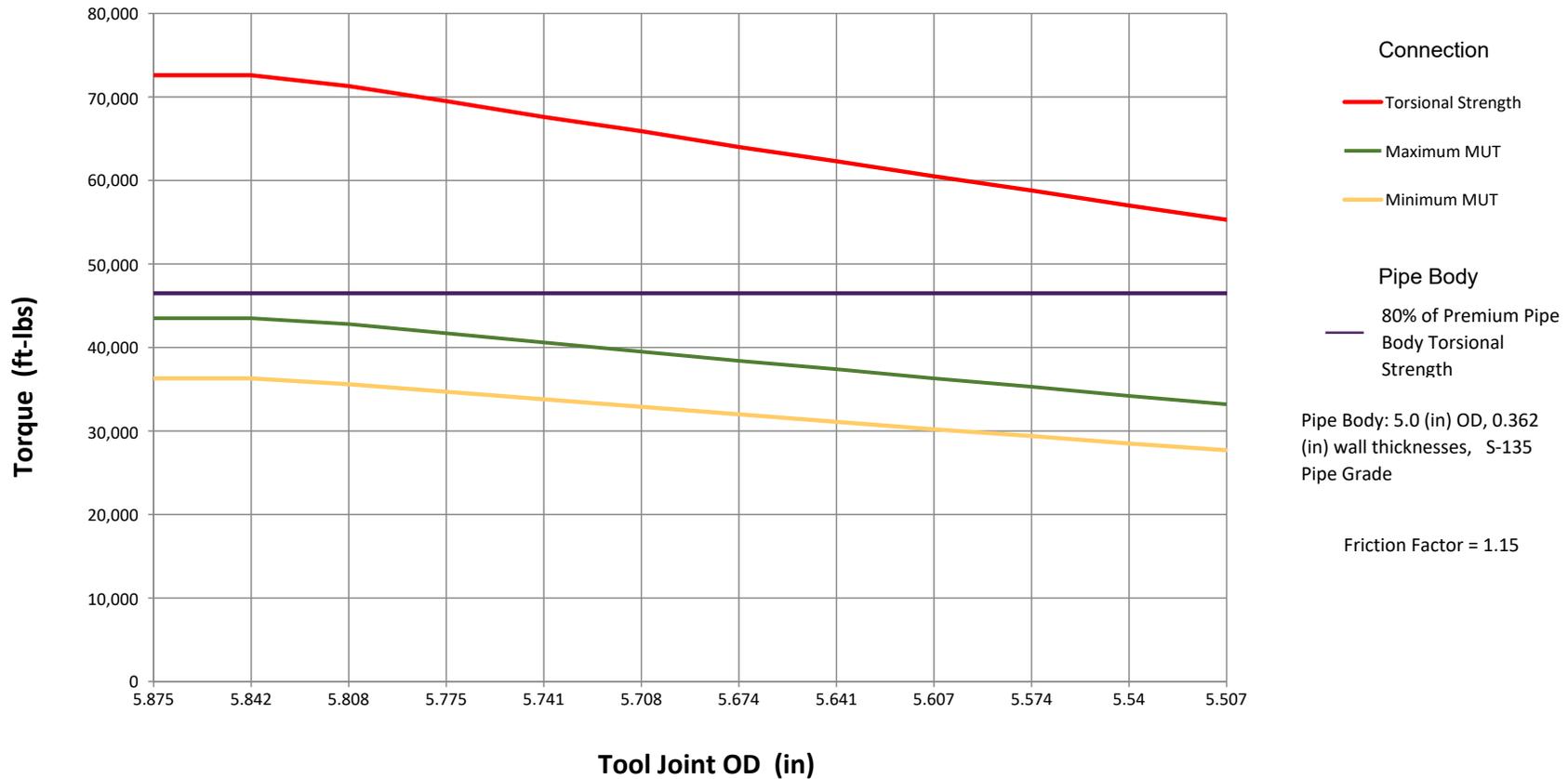
Drill Pipe Performance Sheet (1.15 FF)

6/13/2025



Connection Wear for Delta™ 471-130 (5.875 (in) OD x 3.25 (in) ID)

Material SMYS (Specified Minimum Yield Strength) = 130000 (psi)



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Drill Pipe Performance Sheet (1.15 FF)

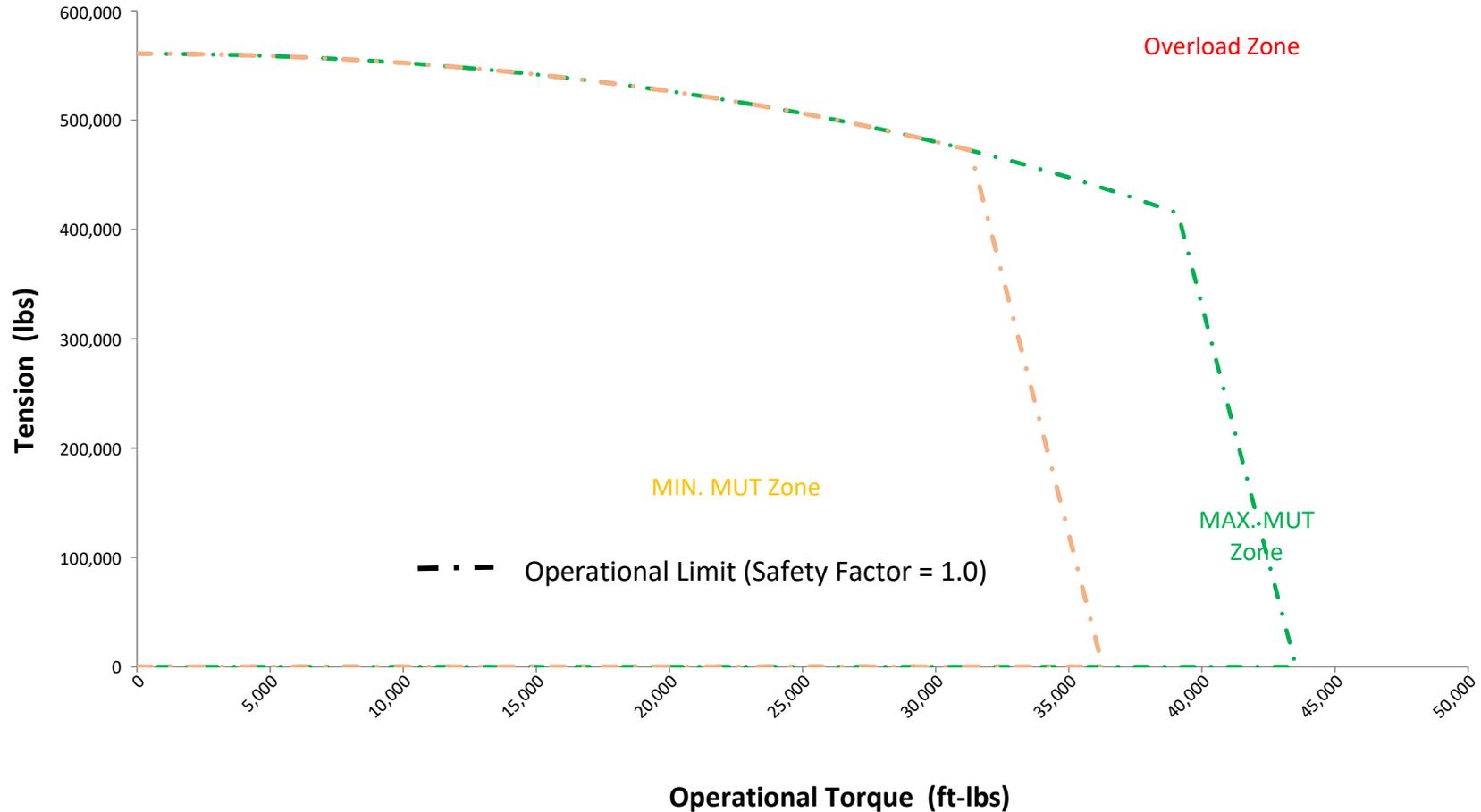
6/13/2025



Drill Pipe Operational Limits (Connection at Recommended MUT = 43533 (ft-lbs)) (Connection at Minimum MUT = 36277 (ft-lbs))

Connection: Delta™ 471-130 (5.875 (in) OD 3.25 (in) ID) SMYS = 130000 (psi) Friction Factor = 1.15

Pipe Body: 80% Inspection Class, 5.0 (in) OD, 0.362 (in) Wall Thickness, S-135 Pipe Grade



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

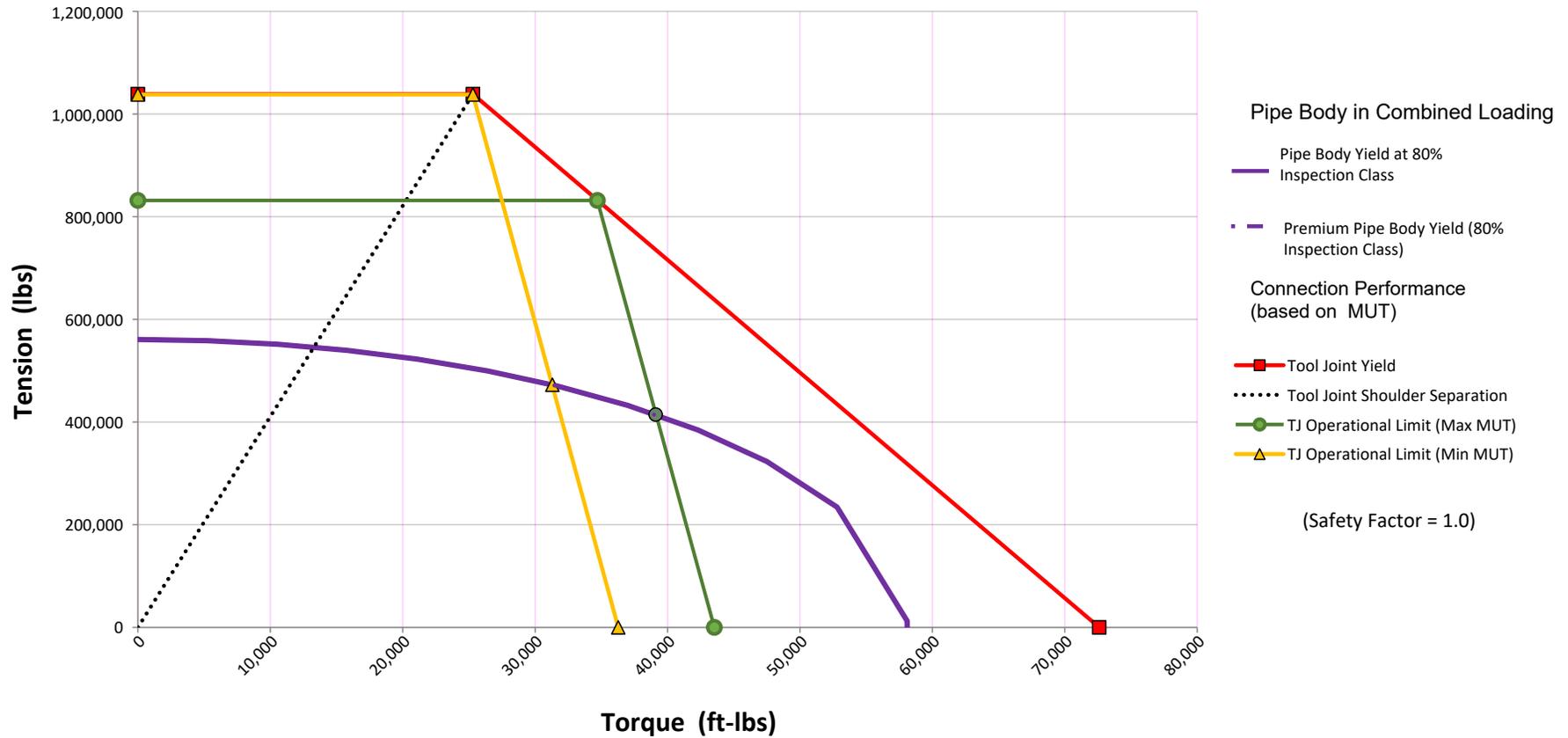
Drill Pipe Performance Sheet (1.15 FF)

6/13/2025



Torque-Tension Graph

Connection: Delta™ 471-130 (5.875 (in) OD 3.25 (in) ID) SMYS = 130000 (psi) Friction Factor = 1.15
 Pipe Body: 80% Inspection Class, 5.0 (in) OD, 0.362 (in) Wall Thickness, S-135 Pipe Grade



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

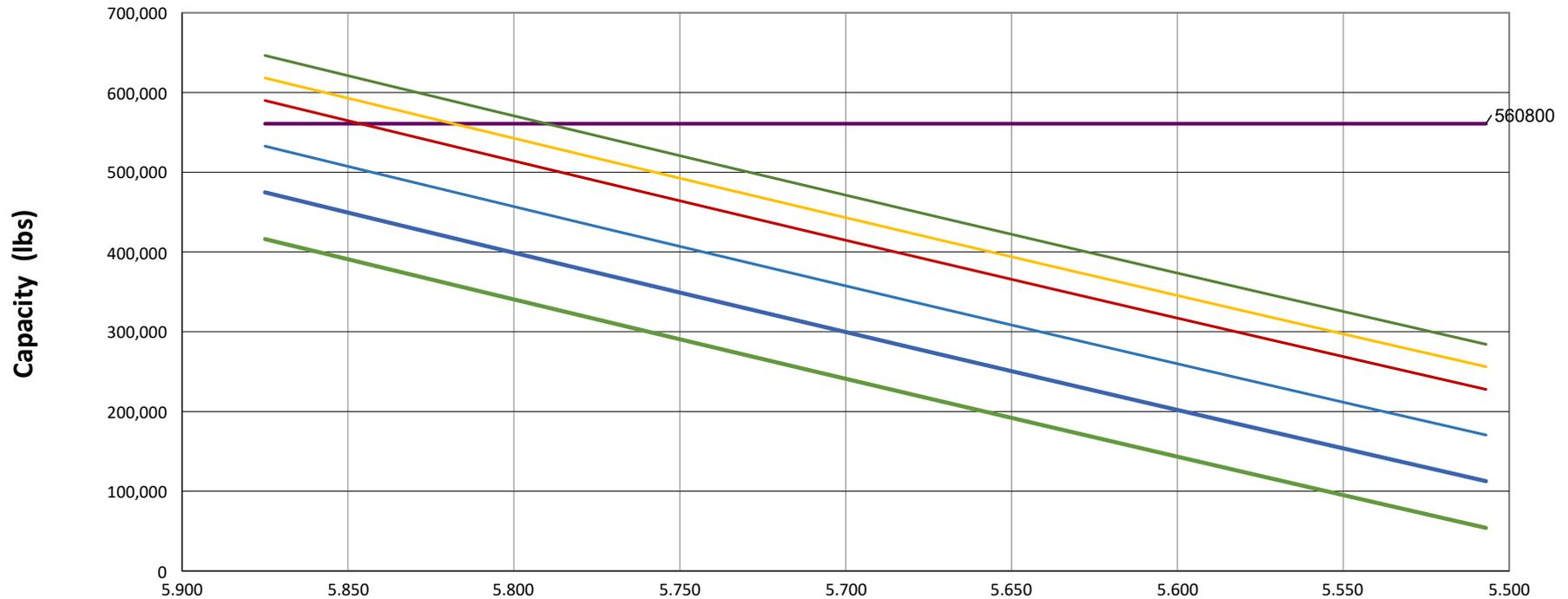
Drill Pipe Performance Sheet (1.15 FF)

6/13/2025



Elevator Capacity Curve

(Based on new Elevator Bore Diameter of 5.2 (in) (0.362 (in) wall) and the elevator yield strength of 110100 (psi))
 5.0 (in) (0.362 (in) wall) IEU S-135 Delta™ 471-130 (5.875 (in) x 3.25 (in)) Max DTE = 5.075 (in)



— Tube Tensile Capacity at Inspection Class (560800 (lbs))

(Safety Factor = 1.0)

Tool Joint OD (in)

- Elevator Capacity (No Wear - 5.2 (in) Bore Dia)
- Elevator Capacity (0.031 Wear - 5.231in Bore Dia)
- Elevator Capacity (1/16 Wear - 5.263 (in) Bore Dia)
- Elevator Capacity (1/8 Wear - 5.325 (in) Bore Dia)
- Elevator Capacity (3/16 Wear - 5.388 (in) Bore Dia)
- Elevator Capacity (1/4 Wear - 5.45 (in) Bore Dia)

All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Drill Pipe Performance Sheet (Extended, 1.00 FF)

6/13/2025



Combined Loading for Drill Pipe			
Connection: Delta™ 471 5.875" x 3.25" (130 KSI SMYS) Friction Factor: 1.0			
Pipe: 5.0" OD 0.362" Wall Thickness S135 80% Inspection Class			
At Max MUT (44200 ft-lbs)		At Min MUT (31500 ft-lbs)	
Operational Torque(ft-lbs)	Assembly Max Tension(lbs)	Operational Torque(ft-lbs)	Assembly Max Tension(lbs)
0	560800	0	560800
2100	560400	1400	560600
4300	559200	2800	560100
6400	557400	4300	559200
8500	554700	5700	558100
10600	551400	7100	556600
12800	547000	8500	554700
14900	542000	9900	552600
17000	536200	11400	549900
19200	529300	12800	547000
21300	521700	14200	543800
23400	513300	15600	540200
25500	503900	17000	536200
27700	493000	18400	531900
29800	481400	19900	526900
31900	468700	21300	521700
34100	454100	22700	516200
36200	438700	24100	510300
38300	421700	25500	503900
40400	403100	27000	496600

The Technical Information contained herein, including the product performance sheet and other attached documents, is for reference only and should not be considered as a recommendation. The user is fully responsible for the accuracy and suitability of use of the technical information. NOV Grant Prideco cannot assume responsibility for the results obtained through the use of this material. No expressed or implied warranty is intended. Drill pipe assembly properties are calculated based on uniform OD and wall thickness. No safety factor is applied. The information provided for various inspection classes and 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 the end user to determine the appropriate performance ratings, acceptable use of the product, maintain safe operating practices, and to apply a prudent safety factor suitable for the application. For API connections that have different pin and box IDs, tool joint ID refers to the pin ID. Per Chapter DS, Section DS-16 of the drilling manual, it is recommended that drilling torque should not exceed 80% of MUT.

Connection Wear Table		
Connection: Delta™ 471 5.875" x 3.25" (130 KSI SMYS) Friction Factor: 1.0		
Tool Joint OD (in)	Max MUT(ft-lbs)	Min MUT(ft-lbs)
5.875	44200	31500
5.842	44200	31500
5.808	43400	31000
5.775	42300	30200
5.741	41200	29400
5.708	40100	28600
5.674	39000	27800
5.641	37900	27100
5.607	36800	26300
5.574	35800	25600
5.54	34700	24800
5.507	33700	24100

Elevator Capacity Table						
Elevator Bore Diameter: 5.2" Elevator SMYS: 110,100 psi Box Taper Angle: 18 deg						
Connection: Delta™ 471 5.0" 0.362" wall IEU 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.
5.875	646400	618200	589900	532700	474800	416200
5.842	613000	584800	556500	499200	441300	382800
5.808	578700	550600	522200	465000	407100	348500
5.775	545700	517500	489100	431900	374000	315500
5.741	511800	483600	455300	398100	340200	281600
5.708	479200	451000	422600	365400	307500	248900
5.674	445700	417500	389200	331900	274000	215500
5.641	413400	385200	356900	299600	241800	183200
5.607	380300	352200	323800	266600	208700	150100
5.574	348400	320300	291900	234700	176800	118200
5.54	315800	287600	259200	202000	144100	85500
5.507	284200	256100	227700	170500	112600	54000

All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Drill Pipe Performance Sheet (Extended, 1.00 FF)

6/13/2025



Slip Crush Capacity Table at 80% Inspection Class					
		Slip Length			
		13.75 in.	16 in.	16.5 in.	22 in.
K Factor	2.1	456600.0 lbs	470600.0 lbs	473200.0 lbs	494600.0 lbs
	2.6	434000.0 lbs	450400.0 lbs	453500.0 lbs	479200.0 lbs
	4.0	377600.0 lbs	399000.0 lbs	403100.0 lbs	438400.0 lbs
	4.2	370500.0 lbs	392300.0 lbs	396500.0 lbs	432900.0 lbs

All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

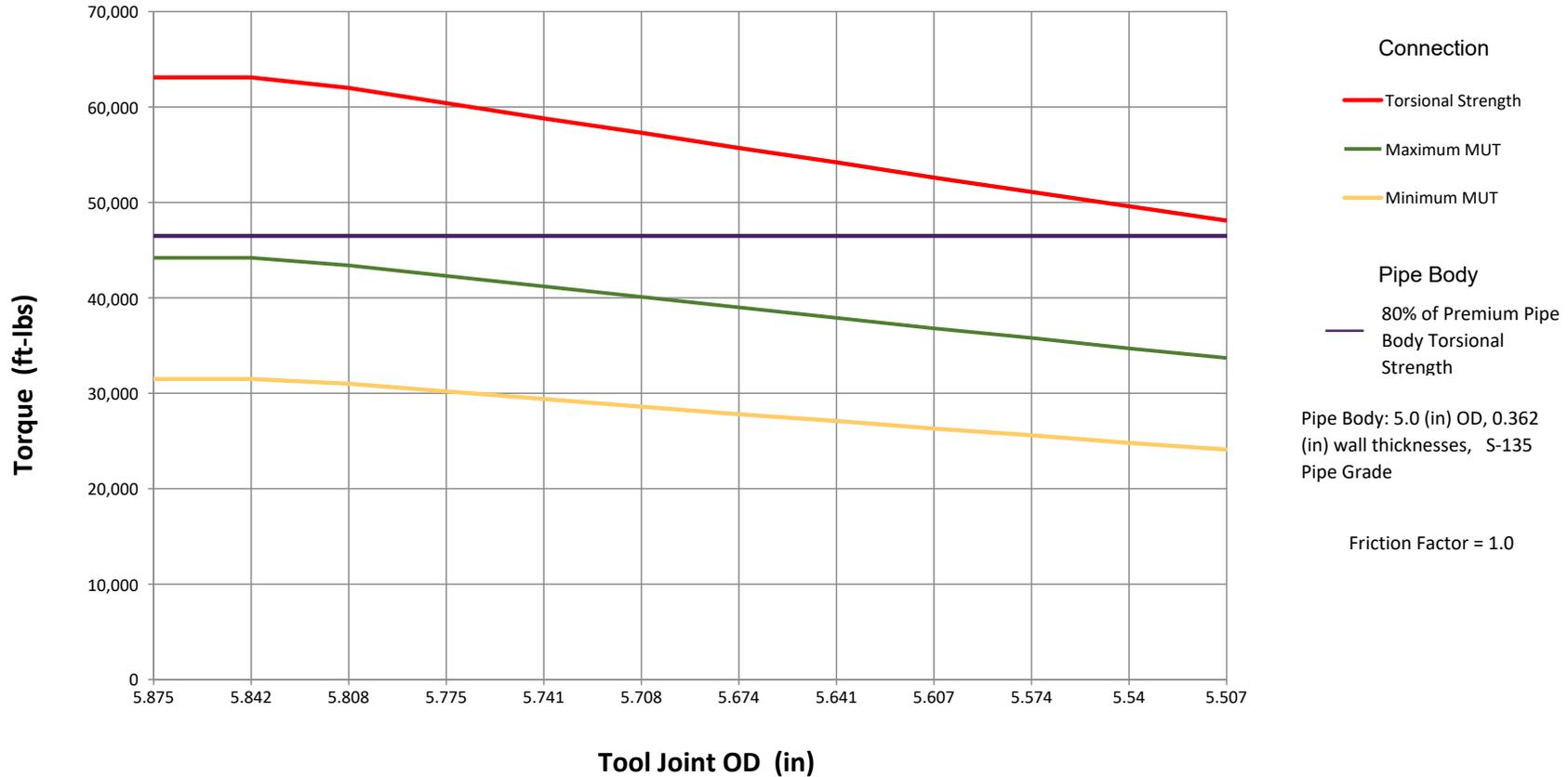
Drill Pipe Performance Sheet (Extended, 1.00 FF)

6/13/2025



Connection Wear for Delta™ 471-130 (5.875 (in) OD x 3.25 (in) ID)

Material SMYS (Specified Minimum Yield Strength) = 130000 (psi)



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Drill Pipe Performance Sheet (Extended, 1.00 FF)

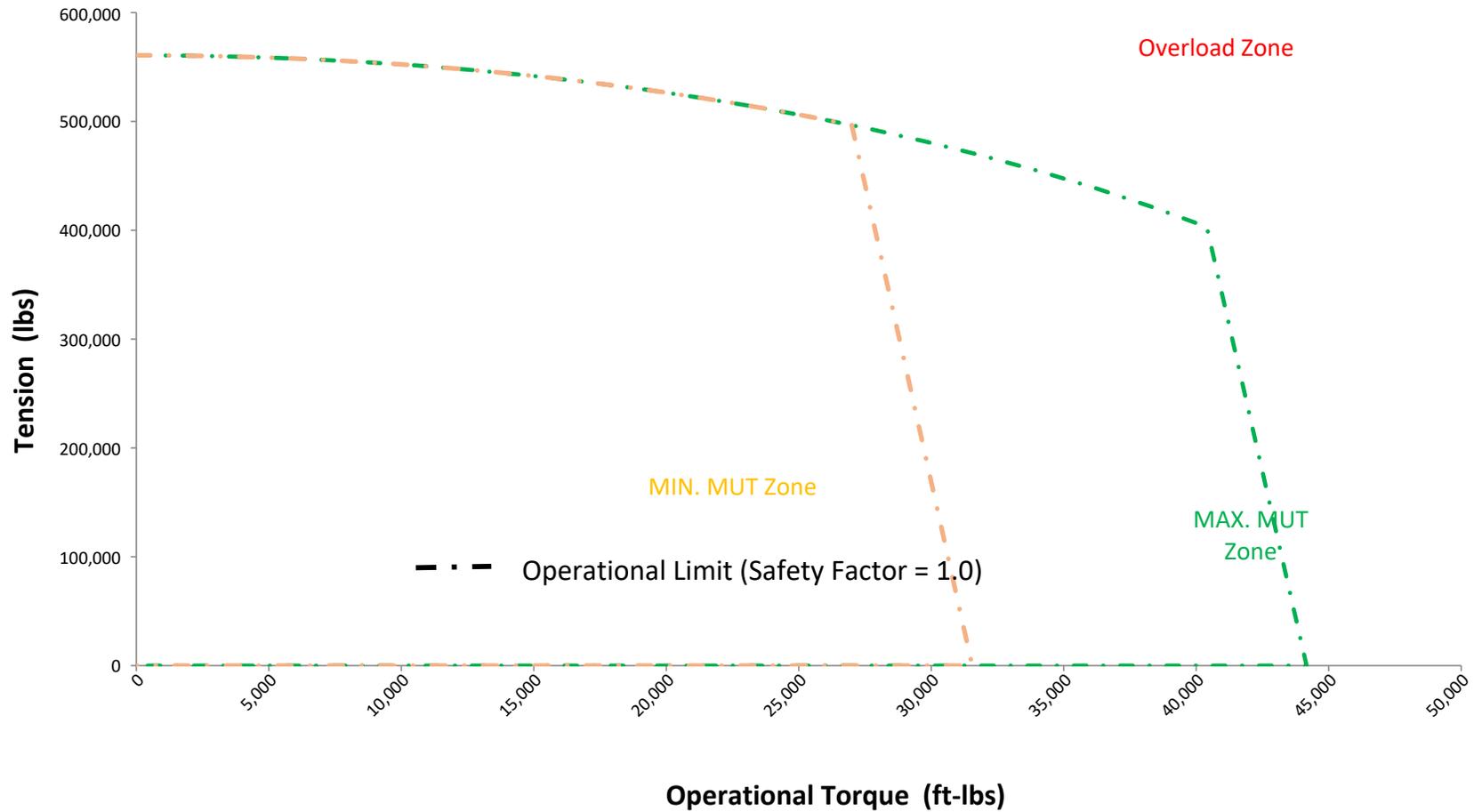
6/13/2025



Drill Pipe Operational Limits (Connection at Recommended MUT = 44164 (ft-lbs)) (Connection at Minimum MUT = 31545 (ft-lbs))

Connection: Delta™ 471-130 (5.875 (in) OD 3.25 (in) ID) SMYS = 130000 (psi) Friction Factor = 1.0

Pipe Body: 80% Inspection Class, 5.0 (in) OD, 0.362 (in) Wall Thickness, S-135 Pipe Grade



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

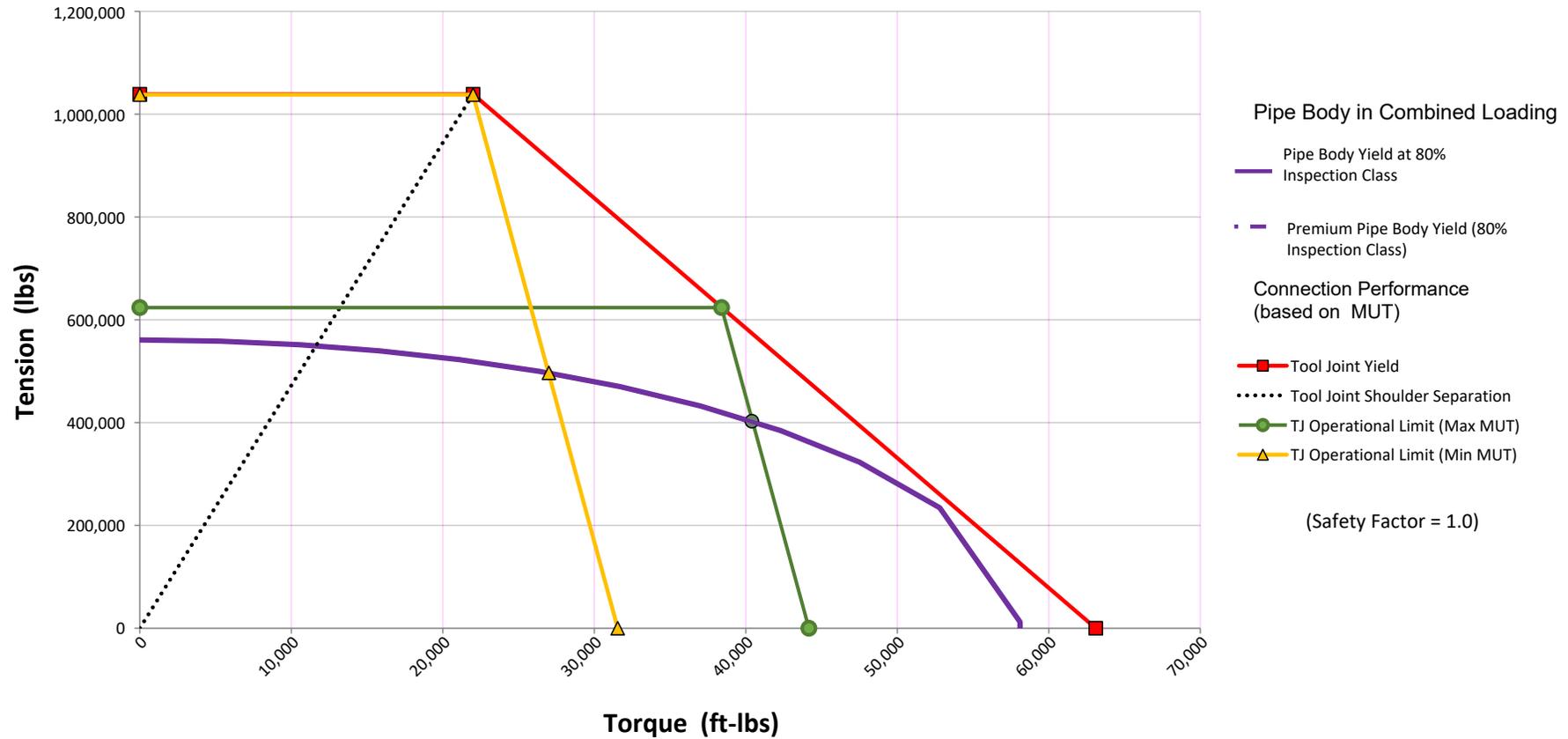
Drill Pipe Performance Sheet (Extended, 1.00 FF)

6/13/2025



Torque-Tension Graph

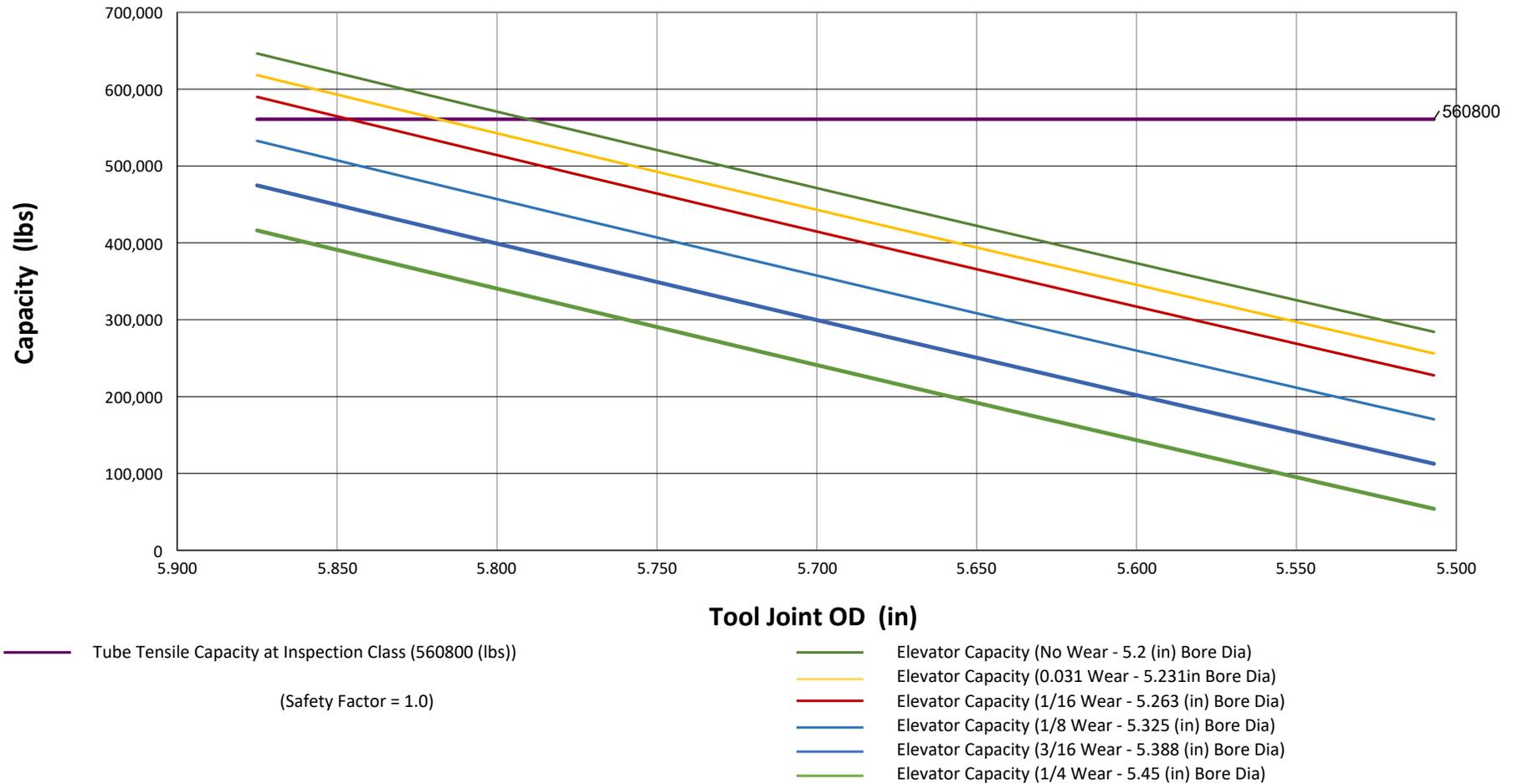
Connection: Delta™ 471-130 (5.875 (in) OD 3.25 (in) ID) SMYS = 130000 (psi) Friction Factor = 1.0
 Pipe Body: 80% Inspection Class, 5.0 (in) OD, 0.362 (in) Wall Thickness, S-135 Pipe Grade



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Elevator Capacity Curve

(Based on new Elevator Bore Diameter of 5.2 (in) (0.362 (in) wall) and the elevator yield strength of 110100 (psi))
 5.0 (in) (0.362 (in) wall) IEU S-135 Delta™ 471-130 (5.875 (in) x 3.25 (in)) Max DTE = 5.075 (in)



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Drill Pipe Performance Sheet (Extended, 1.15 FF)

6/13/2025



Combined Loading for Drill Pipe			
Connection: Delta™ 471 5.875" x 3.25" (130 KSI SMYS) Friction Factor: 1.15			
Pipe: 5.0" OD 0.362" Wall Thickness S135 80% Inspection Class			
At Max MUT (50800 ft-lbs)		At Min MUT (36300 ft-lbs)	
Operational Torque(ft-lbs)	Assembly Max Tension(lbs)	Operational Torque(ft-lbs)	Assembly Max Tension(lbs)
0	560800	0	560800
2500	560200	1600	560600
5000	558700	3300	559900
7500	556100	4900	558800
10000	552400	6600	557100
12500	547600	8200	555200
14900	542000	9900	552600
17400	535000	11500	549700
19900	526900	13200	546100
22400	517400	14800	542300
24900	506700	16500	537700
27400	494500	18100	532900
29900	480800	19700	527600
32400	465500	21400	521400
34900	448400	23000	515000
37400	429200	24700	507600
39900	407700	26300	500100
42400	383500	28000	491400
44800	357200	29600	482600
47300	325800	31300	472500

The Technical Information contained herein, including the product performance sheet and other attached documents, is for reference only and should not be considered as a recommendation. The user is fully responsible for the accuracy and suitability of use of the technical information. NOV Grant Prideco cannot assume responsibility for the results obtained through the use of this material. No expressed or implied warranty is intended. Drill pipe assembly properties are calculated based on uniform OD and wall thickness. No safety factor is applied. The information provided for various inspection classes and 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 the end user to determine the appropriate performance ratings, acceptable use of the product, maintain safe operating practices, and to apply a prudent safety factor suitable for the application. For API connections that have different pin and box IDs, tool joint ID refers to the pin ID. Per Chapter DS, Section DS-16 of the drilling manual, it is recommended that drilling torque should not exceed 80% of MUT.

Connection Wear Table		
Connection: Delta™ 471 5.875" x 3.25" (130 KSI SMYS) Friction Factor: 1.15		
Tool Joint OD (in)	Max MUT(ft-lbs)	Min MUT(ft-lbs)
5.875	50800	36300
5.842	50800	36300
5.808	49900	35600
5.775	48600	34700
5.741	47300	33800
5.708	46100	32900
5.674	44800	32000
5.641	43600	31100
5.607	42300	30200
5.574	41100	29400
5.54	39900	28500
5.507	38700	27700

Elevator Capacity Table						
Elevator Bore Diameter: 5.2" Elevator SMYS: 110,100 psi Box Taper Angle: 18 deg						
Connection: Delta™ 471 5.0" 0.362" wall IEU 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.
5.875	646400	618200	589900	532700	474800	416200
5.842	613000	584800	556500	499200	441300	382800
5.808	578700	550600	522200	465000	407100	348500
5.775	545700	517500	489100	431900	374000	315500
5.741	511800	483600	455300	398100	340200	281600
5.708	479200	451000	422600	365400	307500	248900
5.674	445700	417500	389200	331900	274000	215500
5.641	413400	385200	356900	299600	241800	183200
5.607	380300	352200	323800	266600	208700	150100
5.574	348400	320300	291900	234700	176800	118200
5.54	315800	287600	259200	202000	144100	85500
5.507	284200	256100	227700	170500	112600	54000

All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Drill Pipe Performance Sheet (Extended, 1.15 FF)

6/13/2025



Slip Crush Capacity Table at 80% Inspection Class					
		Slip Length			
		13.75 in.	16 in.	16.5 in.	22 in.
K Factor	2.1	456600.0 lbs	470600.0 lbs	473200.0 lbs	494600.0 lbs
	2.6	434000.0 lbs	450400.0 lbs	453500.0 lbs	479200.0 lbs
	4.0	377600.0 lbs	399000.0 lbs	403100.0 lbs	438400.0 lbs
	4.2	370500.0 lbs	392300.0 lbs	396500.0 lbs	432900.0 lbs

All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

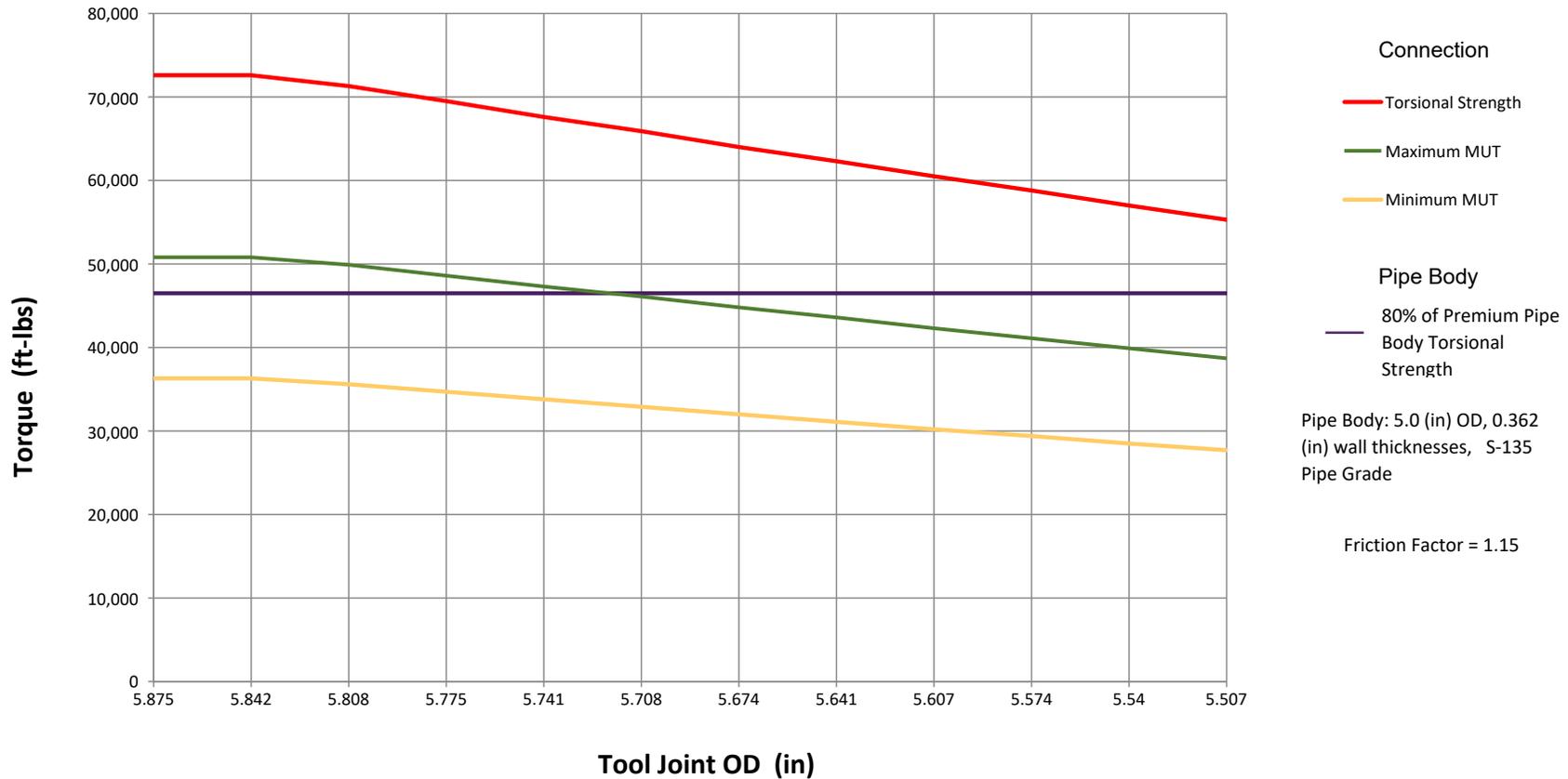
Drill Pipe Performance Sheet (Extended, 1.15 FF)

6/13/2025



Connection Wear for Delta™ 471-130 (5.875 (in) OD x 3.25 (in) ID)

Material SMYS (Specified Minimum Yield Strength) = 130000 (psi)



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

Drill Pipe Performance Sheet (Extended, 1.15 FF)

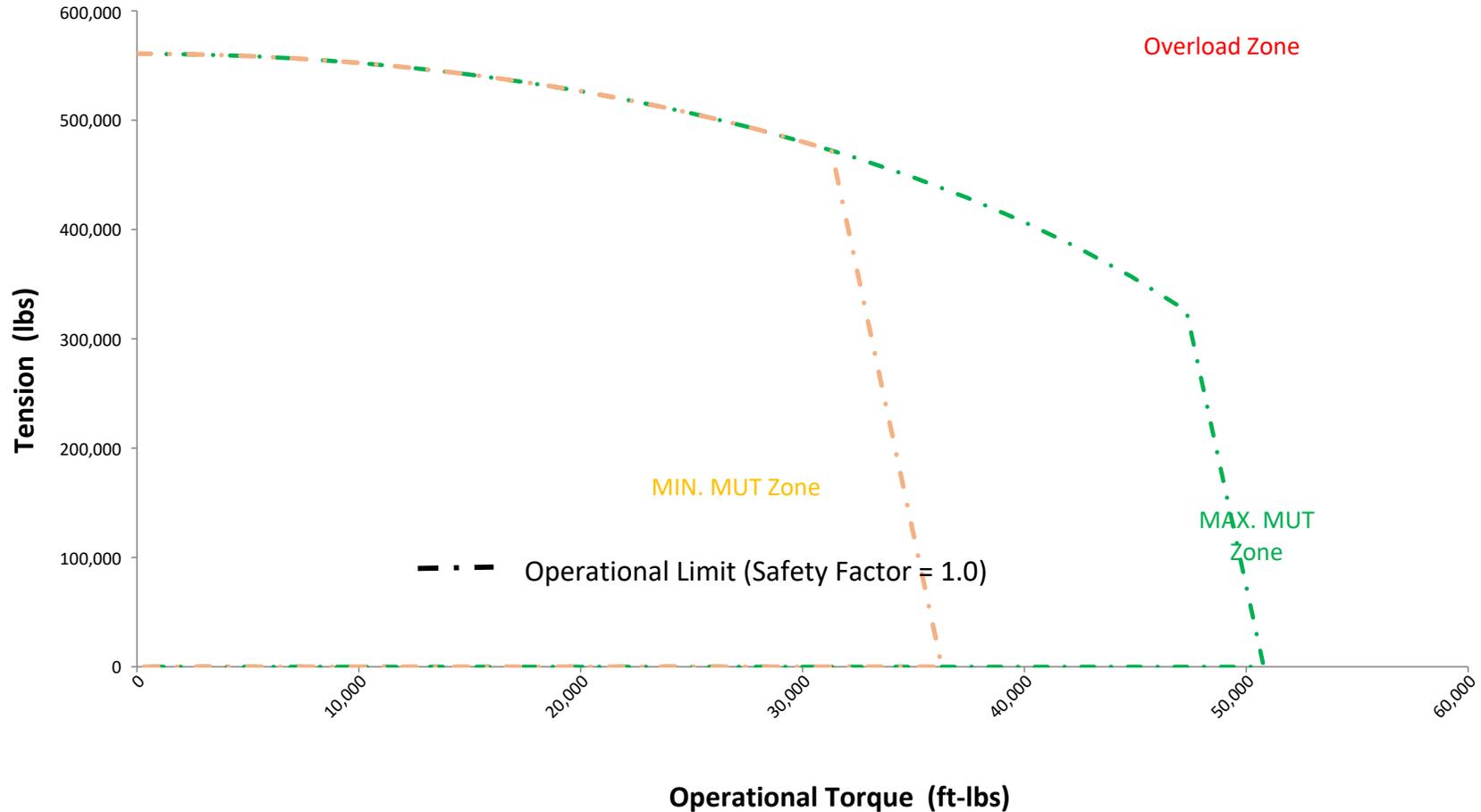
6/13/2025



Drill Pipe Operational Limits (Connection at Recommended MUT = 50788 (ft-lbs)) (Connection at Minimum MUT = 36277 (ft-lbs))

Connection: Delta™ 471-130 (5.875 (in) OD 3.25 (in) ID) SMYS = 130000 (psi) Friction Factor = 1.15

Pipe Body: 80% Inspection Class, 5.0 (in) OD, 0.362 (in) Wall Thickness, S-135 Pipe Grade



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

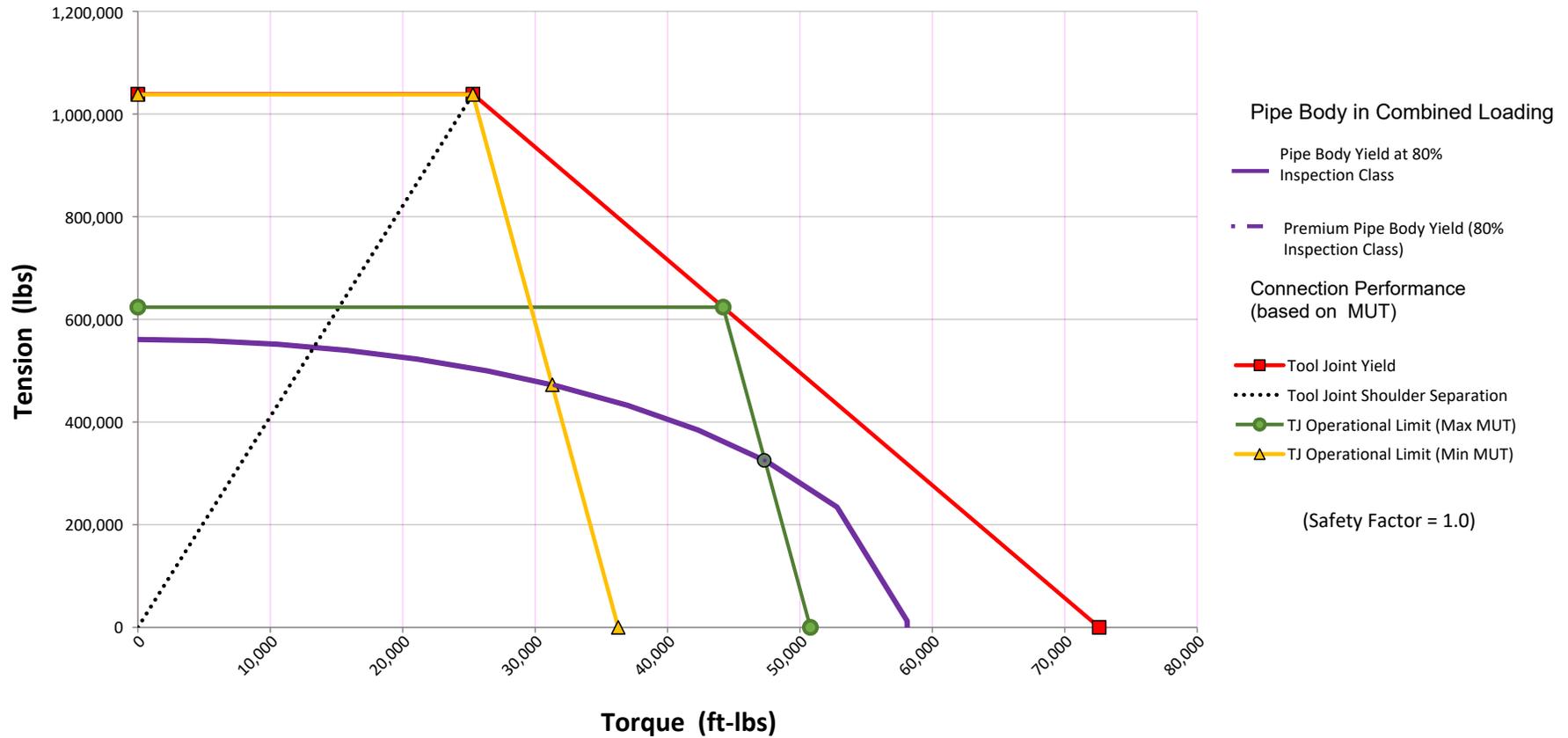
Drill Pipe Performance Sheet (Extended, 1.15 FF)

6/13/2025



Torque-Tension Graph

Connection: Delta™ 471-130 (5.875 (in) OD 3.25 (in) ID) SMYS = 130000 (psi) Friction Factor = 1.15
 Pipe Body: 80% Inspection Class, 5.0 (in) OD, 0.362 (in) Wall Thickness, S-135 Pipe Grade



All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.

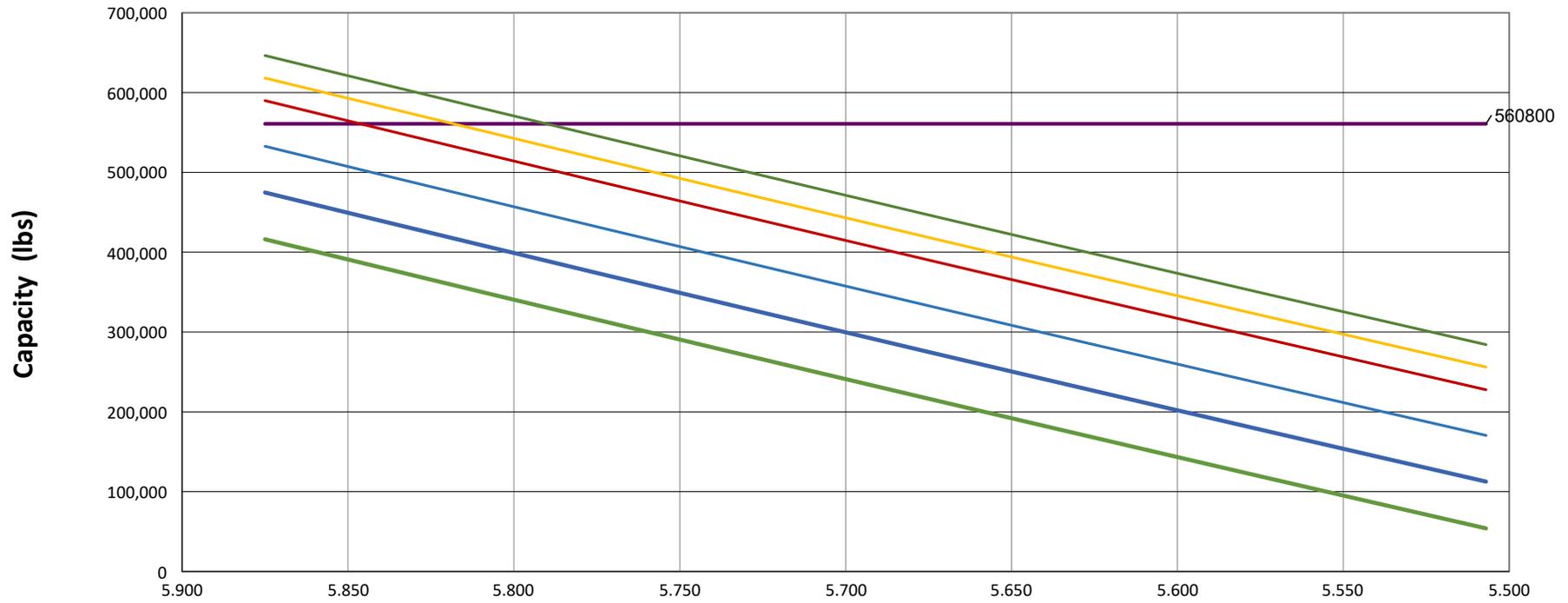
Drill Pipe Performance Sheet (Extended, 1.15 FF)

6/13/2025



Elevator Capacity Curve

(Based on new Elevator Bore Diameter of 5.2 (in) (0.362 (in) wall) and the elevator yield strength of 110100 (psi))
 5.0 (in) (0.362 (in) wall) IEU S-135 Delta™ 471-130 (5.875 (in) x 3.25 (in)) Max DTE = 5.075 (in)



— Tube Tensile Capacity at Inspection Class (560800 (lbs))

(Safety Factor = 1.0)

Tool Joint OD (in)

- Elevator Capacity (No Wear - 5.2 (in) Bore Dia)
- Elevator Capacity (0.031 Wear - 5.231in Bore Dia)
- Elevator Capacity (1/16 Wear - 5.263 (in) Bore Dia)
- Elevator Capacity (1/8 Wear - 5.325 (in) Bore Dia)
- Elevator Capacity (3/16 Wear - 5.388 (in) Bore Dia)
- Elevator Capacity (1/4 Wear - 5.45 (in) Bore Dia)

All references to any internal standards or specifications are per the current edition/revision at the point of manufacturing, unless otherwise stated. All references to any external standards or specifications are per the current edition/revision at the original purchase order (P.O.) date, unless otherwise stated.