

## TECHNICAL SPECIFICATIONS

Equipment No's: Ref. Enclosed page

Spec. No.: DP-5.875-09

### 5-7/8" OD Drill Pipe, S-135, VX-57 Conn's.

**New**

**Premium**

80% remaining Body Wall

#### DESCRIPTION

Type IEU, 23.40 #  
 Range 2  
 Conventional=welded T-J. / Integral=Monoblock Conventional

#### TUBE DATA

Material grade		S-135			
Internal plastic coating		TK-34P			
Tube body OD x ID	inch	5,875	5,153	5,731	5,153
Wall thickness, nominal	inch	0,361		0,289	
Cross Sectional Area	inch <sup>2</sup>	6,254		4,937	
Polar Sectional Modulus	inch <sup>3</sup>	16,251		12,793	
Tensile yield pipe	lbf	844 200		666 500	
	kN	3 755		2 965	
Torsional yield pipe	lbf-ft	105 500		83 000	
	kNm	143,0		112,5	
80% Torsional Yield	lbf-ft	84 400		66 400	
	kNm	114,4		90,0	

#### CONNECTION DATA

Connection type		VX-57			
Material grade		130ksi			
Hardbanding		TCS Titanium			
OD x ID	inch	7,000	4,250	6,733	4,250
B.S.R.	x : 1	NA		NA	
Tensile yield tooljoint	lbf	1 389 288		1 389 288	
	kN	6 180		6 180	
Torsional yield tooljoint	lbf-ft	97 916		80 000	
	kNm	132,8		108,5	
Make up torque (Max = Recommended, min 52 900)	lbf-ft	60 700		50 000	
	kNm	82,3		67,8	

#### OPERATIONAL DATA

Tool joint/Drill pipe torsional ratio	=> 0.80	0,93	1,18
Drift diameter	inch	4,125	
Type of elevator shoulder:		18°	
Burst pressure	psi	14 500	
	Mpa	100	
Collapse pressure	psi	10 800	
	MPa	74	
Adjusted weight	lbs/ft	28,6	
	kg/mtr	42,6	
Approx weight each joint	lbs	904	
	kg	410	
Capacity	gal/ft	1,02	
	ltr/mtr	12,67	
Open end displacement	gal/ft	0,44	
	ltr/mtr	5,46	
Closed end displacement	gal/ft	1,46	
	ltr/mtr	18,13	
Built In Length (shoulder to shoulder)	ft	31,60	
	mtr	9,63	

Calculated using nominal OD & ID. Safety & Dope friction factor used: 1.0

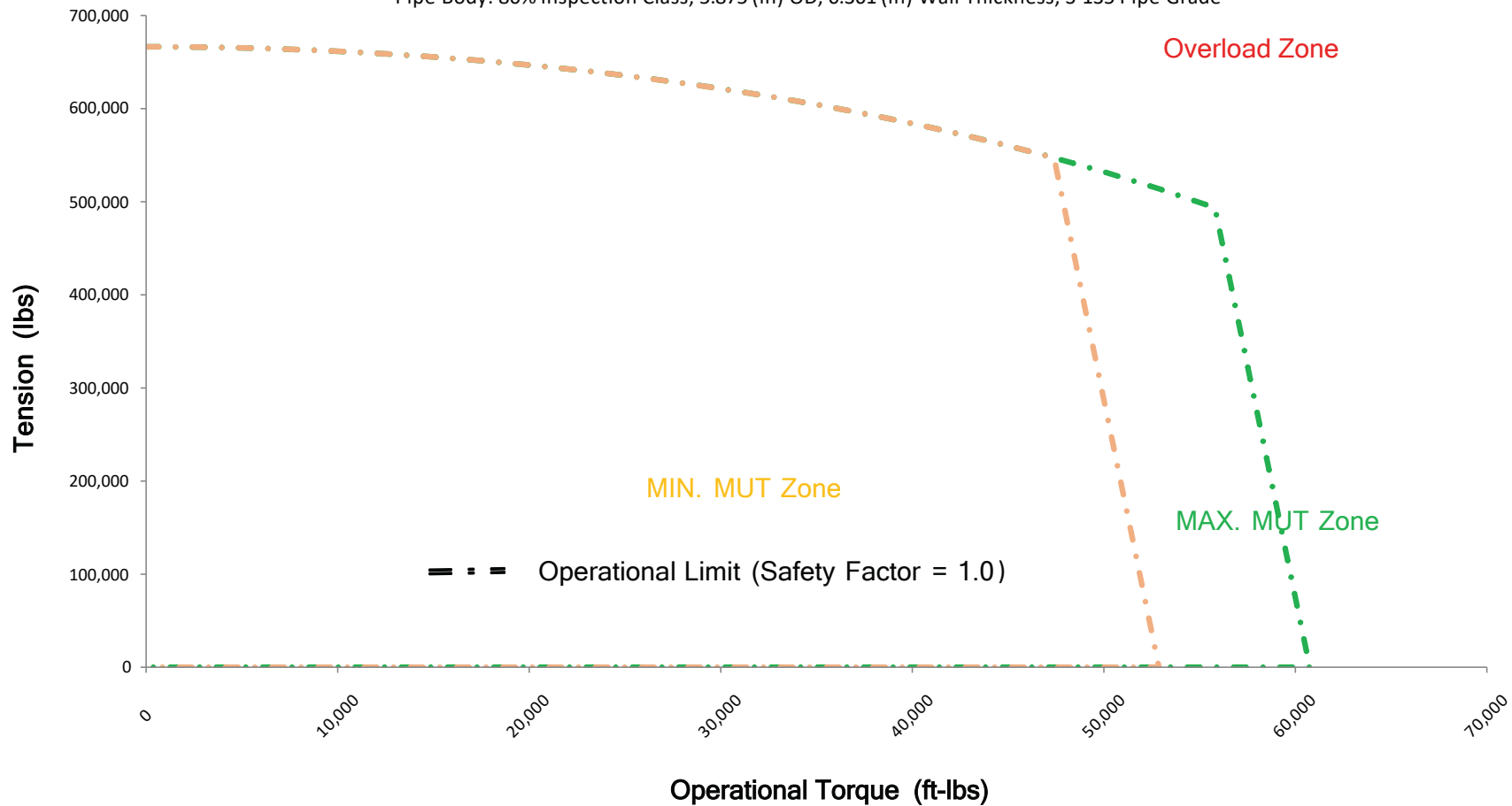
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<i>String number:</i>	<i>Joints:</i>	<i>Individual serial numbers:</i>
OWS-DP-5.875-08	406	OWS-001 TO OWS-517
OWS-DP-5.875-08	551	OWS-550 TO OWS-1203

2/4/2021

**Drill Pipe Operational Limits (Connection at Recommended MUT = 60,750 (ft-lbs)) (Connection at Minimum MUT = 52,875 (ft-lbs))**

Connection: VX™ 57-130 (7 (in) OD 4.25 (in) ID) SMYS = 130,000 (psi) Friction Factor = 1.0  
 Pipe Body: 80% Inspection Class, 5.875 (in) OD, 0.361 (in) Wall Thickness, S-135 Pipe Grade

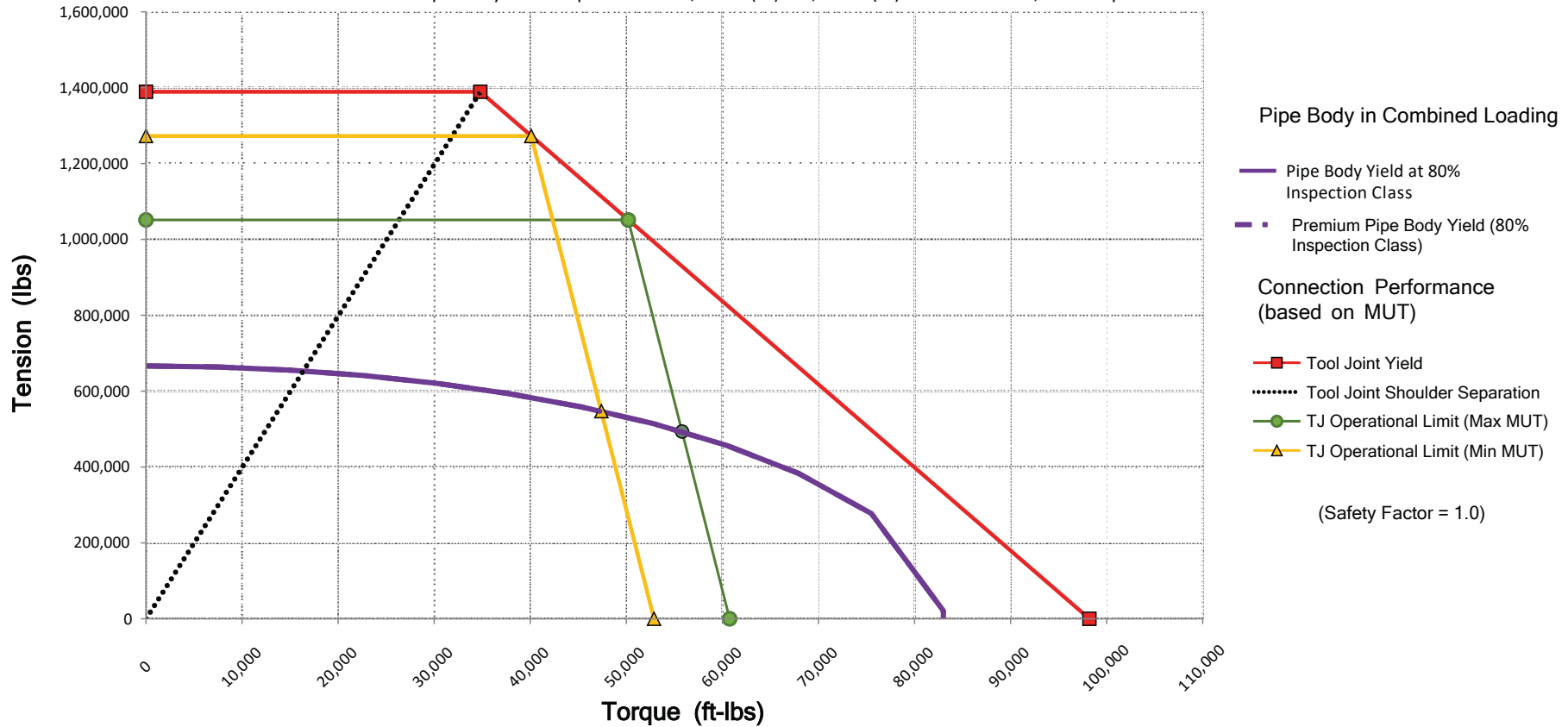


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### Torque-Tension Graph

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Combined Loading for Drill Pipe			
Connection: VX™ 57 7.0" x 4.25" (130 KSI SMYS ) Friction Factor: 1.0			
Pipe: 5.875" OD 0.361" Wall Thickness S135 80% Inspection Class			
At Max MUT (60700 ft-lbs )		At Min MUT (52900 ft-lbs )	
Operational Torque(ft-lbs)	Assembly Max Tension(lbs)	Operational Torque(ft-lbs)	Assembly Max Tension(lbs)
0	666500	0	666500
2900	666100	2500	666200
5900	664900	5000	665300
8800	662800	7500	663800
11700	659900	10000	661700
14700	656000	12500	658900
17600	651400	15000	655600
20600	645700	17500	651600
23500	639300	20000	646900
26400	632000	22500	641600
29400	623400	24900	635900
32300	614000	27400	629200
35200	603700	29900	621800
38200	591800	32400	613700
41100	579200	34900	604800
44100	564800	37400	595100
47000	549500	39900	584600
49900	532800	42400	573100
52900	513800	44900	560700
55800	493600	47400	547300

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: VX™ 57 7.0" x 4.25" (130 KSI SMYS ) Friction Factor: 1.0		
Tool Joint OD (in)	Max MUT(ft-lbs)	Min MUT(ft-lbs)
7.0	60700	52900
6.948	58600	50900
6.895	56500	49000
6.843	54400	47100
6.79	52200	45200
6.738	50200	43400
6.685	48100	41500
6.633	46100	39700
6.58	44100	37900
6.528	42200	36100
6.475	40100	34400
6.423	38100	32600

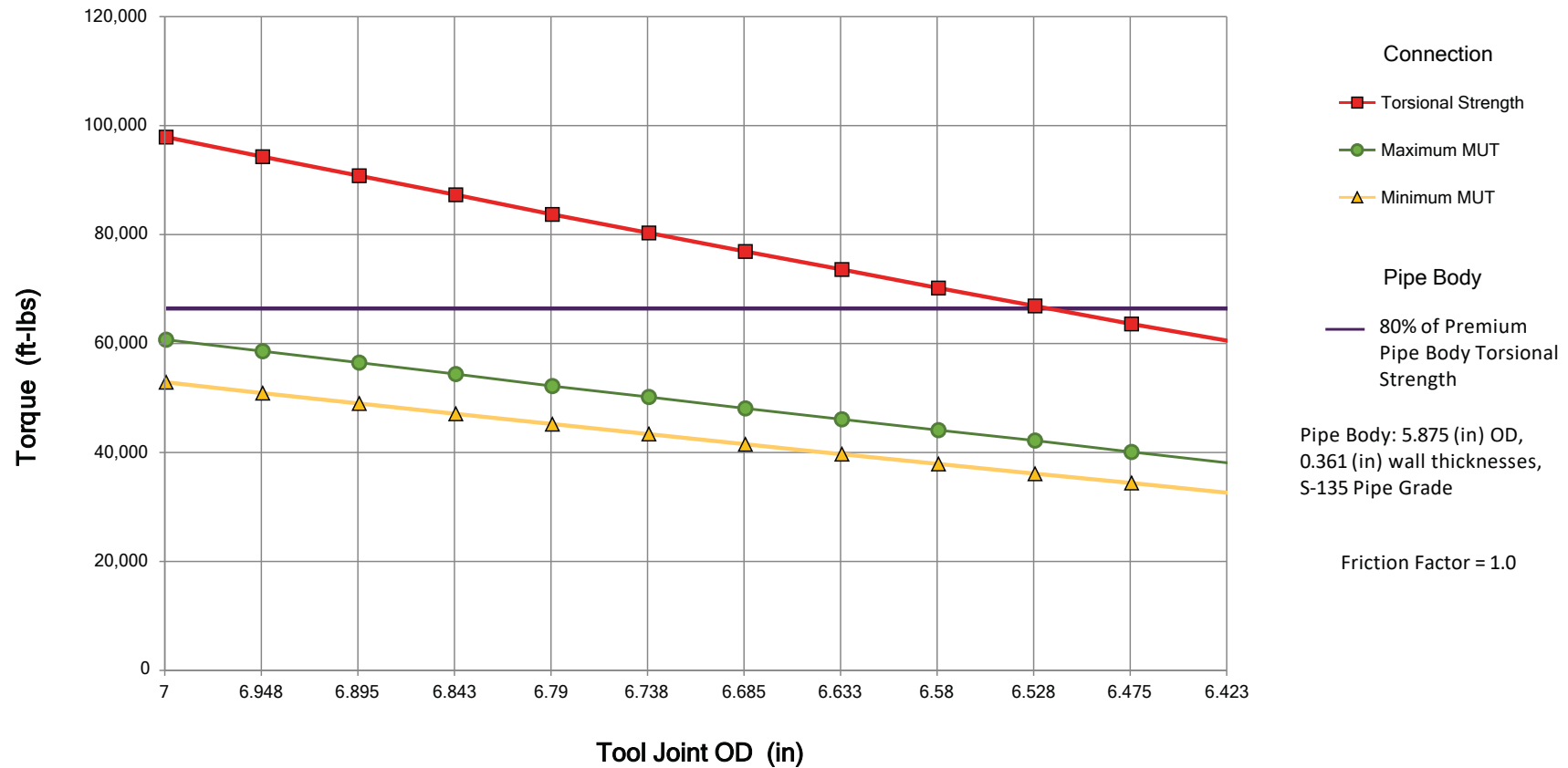
Elevator Capacity		
Elevator Bore Diameter: 6.125" Elevator SMYS: 110,100 psi Box Taper Angle: 18 deg		
Connection: VX™ 57 5.875" 0.361" wall IEU S135		
Tool Joint OD (in.)	Elevator Hoist Capacity (lbs)	
	No Wear	1/32" Wear Factor
7.1875	1223100	1189900
7.118	1137100	1103900
7.049	1052600	1019400
6.979	967700	934500
6.91	884800	851600
6.84	801600	768400
6.771	720400	687200
6.701	638800	605700
6.632	559300	526100
6.562	479400	446200
6.493	401500	368300
6.423	323300	290200

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**Connection Wear for VX™ 57-130 (7 (in) OD x 4.25 (in) ID)**

Material SMYS (Specified Minimum Yield Strength) = 130,000 (psi)



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