

TECHNICAL SPECIFICATIONS

Equipment No's: Ref. Enclosed page

Spec. No.: DP-5.5-08

5-1/2" OD Drill Pipe, S-135, TT-550 Conn's.

New

Premium

80% remaining Body Wall

DESCRIPTION

Type
Range
Conventional=welded T-J. / Integral=Monoblock

IEU, 24.7 #
2
Conventional

TUBE DATA

Material grade		S-135			
Internal plastic coating		TK-34P			
Tube body OD x ID	inch	5,500	4,670	5,334	4,670
Wall thickness, nominal	inch	0,415		0,332	
Cross Sectional Area	inch ²	6,630		5,217	
Polar Sectional Modulus	inch ³	15,688		12,290	
Tensile yield pipe	lbf	581 000		704 300	
	kN	3 981,2		3 132,9	
Torsional yield pipe	lbf-ft	101 800		79 800	
	kNm	138,0		108,2	
80% Torsional Yield	lbf-ft	81 500		63 800	
	kNm	110,5		86,5	

CONNECTION DATA

Connection type		Turbo Torque 550			
Material grade		130 ksi			
Hardbanding		TCS-Titanium			
OD x ID	inch	6,625	4,250	6,315	4,250
B.S.R.	x : 1	NA		NA	
Tensile yield tooljoint	lbf	1 046 600		831 700	
	kN	4 655,5		3 699,6	
Torsional yield tooljoint	lbf-ft	84 800		70 400	
	kNm	115,0		95,4	
Make up torque (Max.)	lbf-ft	59 300		49 300	
	kNm	80,4		66,8	

OPERATIONAL DATA

Tool joint/Drill pipe torsional ratio	=> 0.80 *	0,83		1,06	
Drift diameter	inch			4,125	
Type of elevator shoulder:				18°	
Burst pressure	psi	17 830		16 298	
	Mpa	123		112	
Collapse pressure	psi	17 020		11 177	
	MPa	117		77	
Adjusted weight	lbs/ft			26,58	
	kg/mtr			39,6	
Approx weight each joint	lbs			848	
	kg			384,6	
Capacity	gal/ft			0,88	
	ltr/mtr			10,94	
Open end displacement	gal/ft			0,41	
	ltr/mtr			5,09	
Closed end displacement	gal/ft			1,29	
	ltr/mtr			16,03	
Built In Length (shoulder to shoulder)	ft			31,90	
	mtr.			9,72	

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

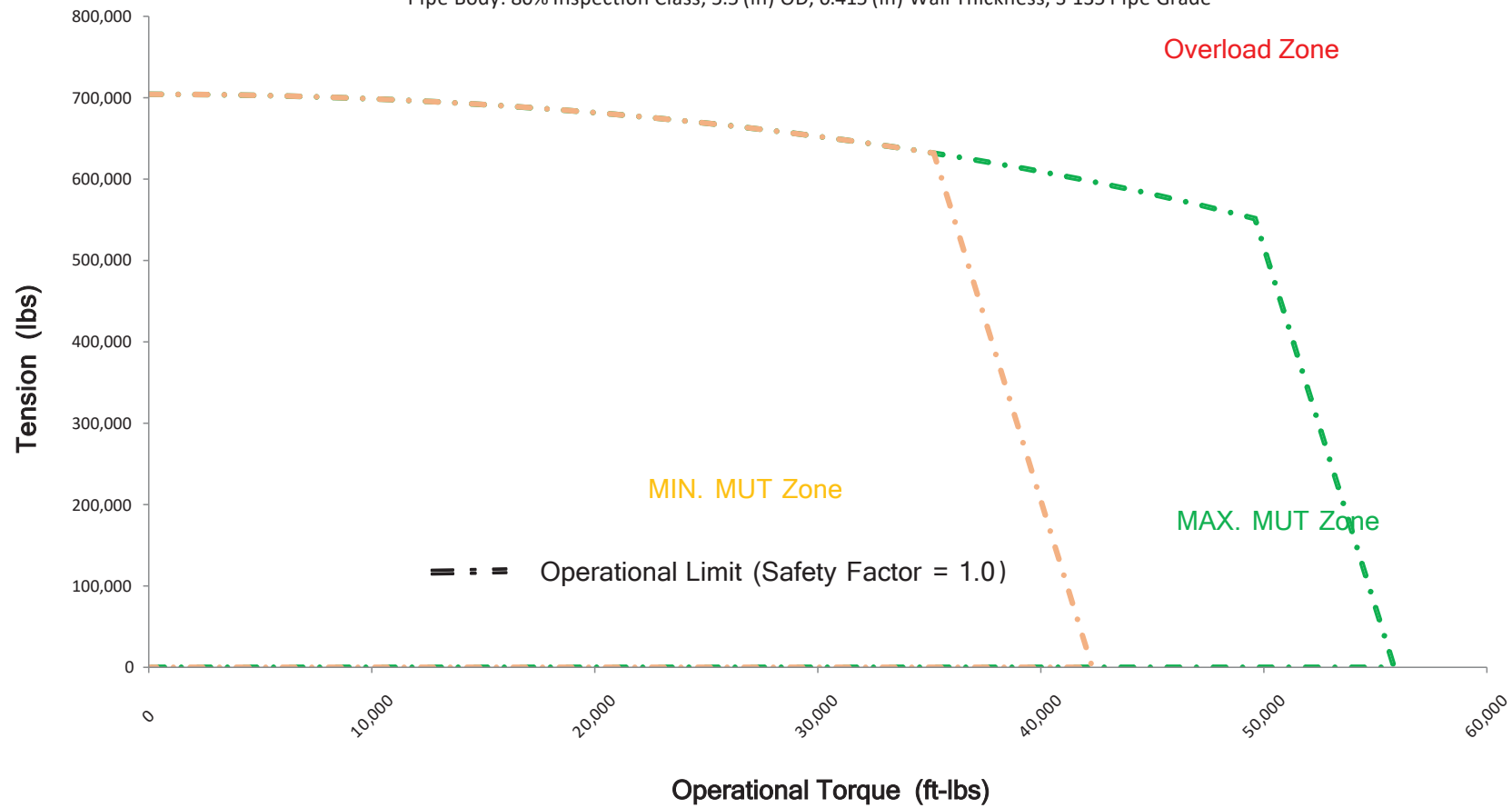
Values herein is meant as guidelines only. Odfjell will not be held liable for any damage or injuries !

<i>String number:</i>	<i>Joints:</i>	<i>Individual serial numbers:</i>
OWS-DP-TT550-01	740	OWS-1001 to OWS-1741
OWS-DP-TT550-02	107	OWS-T101A to OWS-T207A NSA44051 - 44157

Drill Pipe Operational Limits (Connection at Recommended MUT = 55,840 (ft-lbs)) (Connection at Minimum MUT = 42,303 (ft-lbs))

Connection: TurboTorque™ 550-130 (6.625 (in) OD 4.25 (in) ID) SMYS = 130,000 (psi) Friction Factor = 1.0

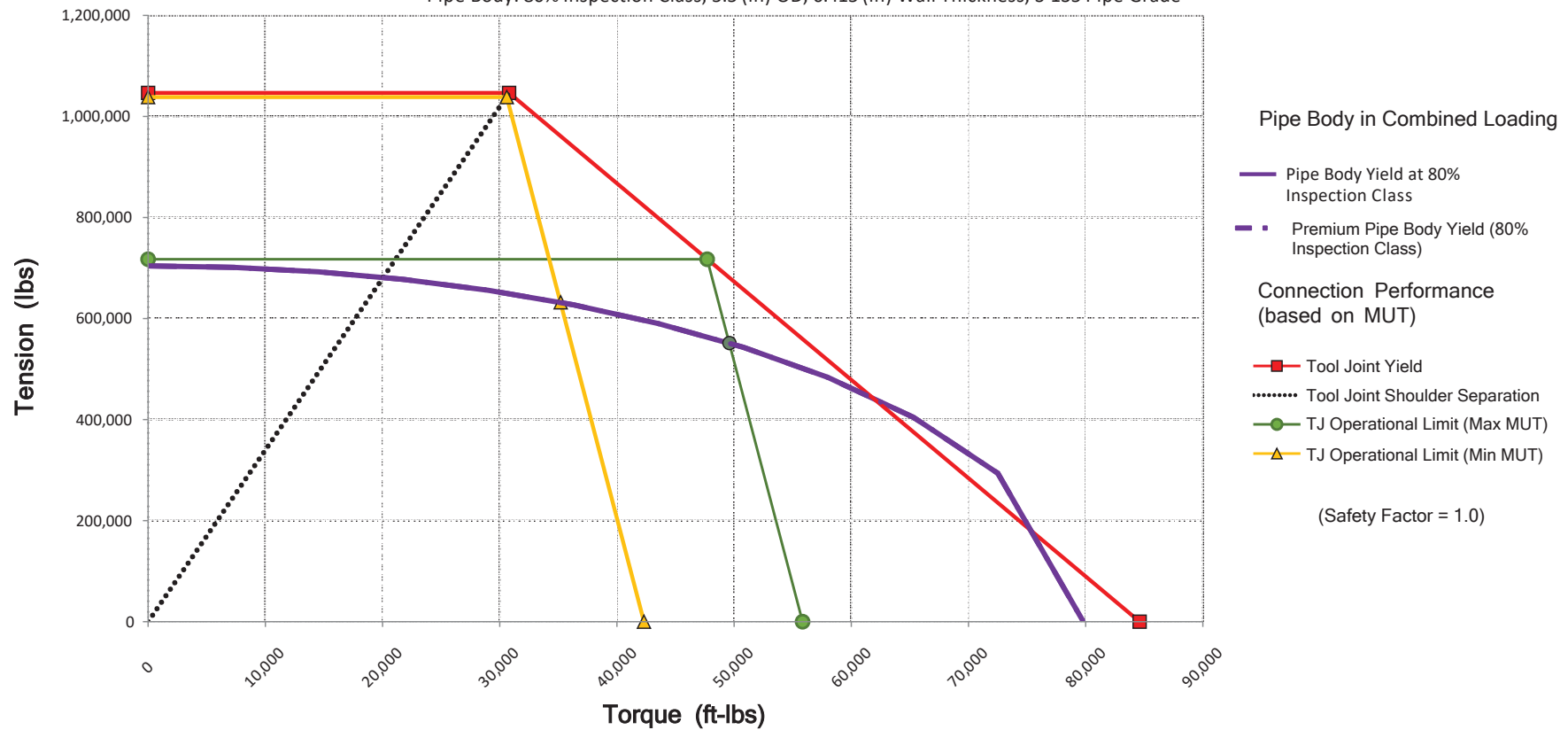
Pipe Body: 80% Inspection Class, 5.5 (in) OD, 0.415 (in) Wall Thickness, S-135 Pipe Grade



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Torque-Tension Graph

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Combined Loading for Drill Pipe			
Connection: TurboTorque™ 550 6.625" x 4.25" (130 KSI SMYS) Friction Factor: 1.0			
Pipe: 5.5" OD 0.415" Wall Thickness S135 80% Inspection Class			
At Max MUT (55800 ft-lbs)		At Min MUT (42300 ft-lbs)	
Operational Torque(ft-lbs)	Assembly Max Tension(lbs)	Operational Torque(ft-lbs)	Assembly Max Tension(lbs)
0	704300	0	704300
2600	703900	1900	704100
5200	702800	3700	703600
7800	700900	5600	702600
10400	698300	7400	701300
13100	694800	9300	699500
15700	690500	11100	697500
18300	685500	13000	694900
20900	679700	14800	692100
23500	673100	16700	688700
26100	665600	18500	685100
28700	657200	20400	680900
31300	647800	22200	676500
33900	637600	24100	671400
36600	625800	25900	666200
39200	613400	27800	660200
41800	599900	29600	654000
44400	585200	31500	647100
47000	569100	33300	640000
49600	551600	35200	632000

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.

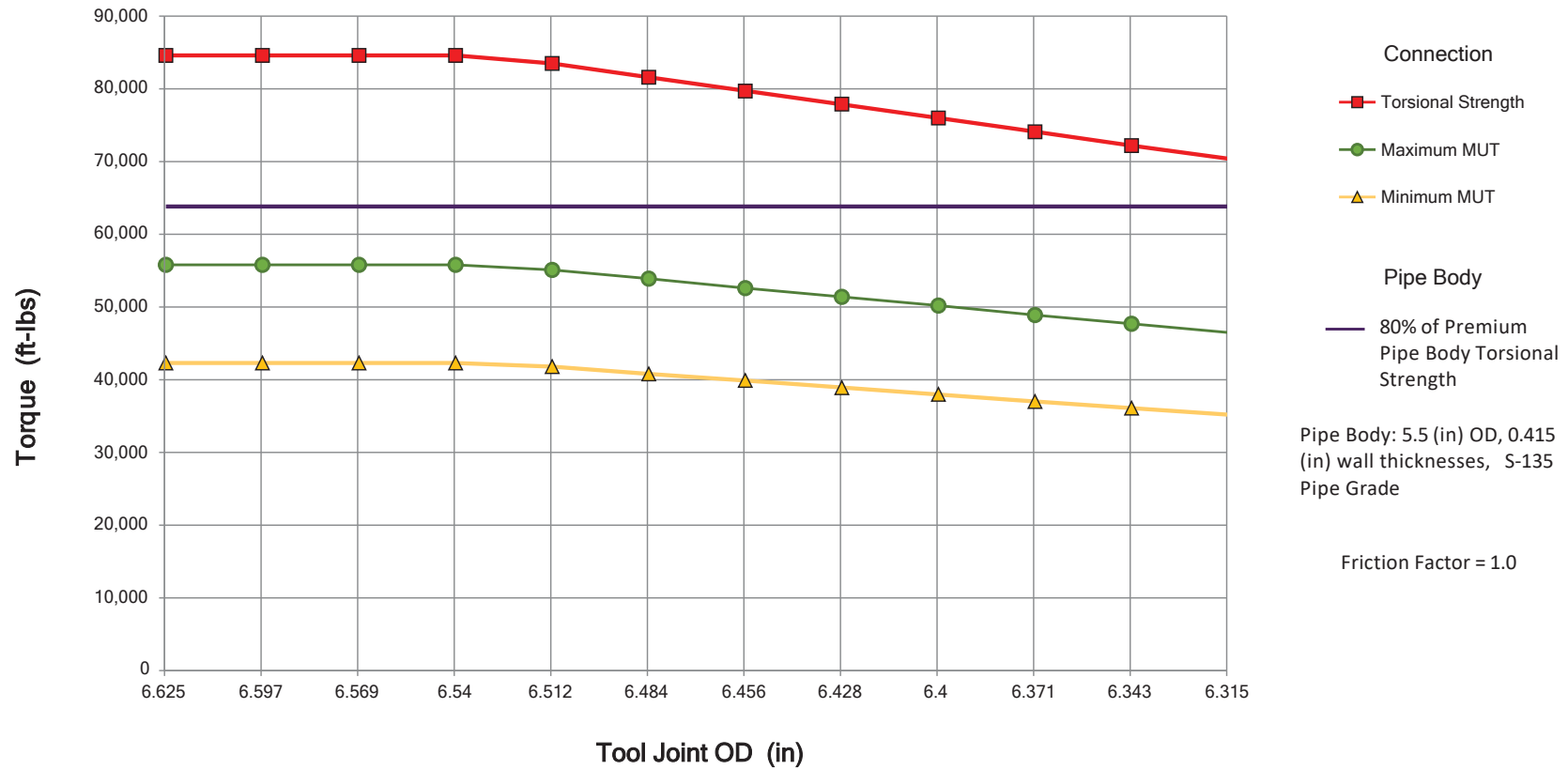
Connection Wear Table		
Connection: TurboTorque™ 550 6.625" x 4.25" (130 KSI SMYS) Friction Factor: 1.0		
Tool Joint OD (in)	Max MUT(ft-lbs)	Min MUT(ft-lbs)
6.625	55800	42300
6.597	55800	42300
6.569	55800	42300
6.54	55800	42300
6.512	55100	41800
6.484	53900	40800
6.456	52600	39900
6.428	51400	38900
6.4	50200	38000
6.371	48900	37000
6.343	47700	36100
6.315	46500	35200

Elevator Capacity		
Elevator Bore Diameter: 5.813" Elevator SMYS: 110,100 psi Box Taper Angle: 18 deg		
Connection: TurboTorque™ 550 5.5" 0.415" wall IEU S135		
Tool Joint OD (in.)	Elevator Hoist Capacity (lbs)	
	No Wear	1/32" Wear Factor
6.8125	1091200	1059700
6.767	1037800	1006300
6.722	985300	953800
6.677	933200	901700
6.632	881400	849900
6.586	828800	797300
6.541	777700	746200
6.496	727000	695500
6.451	676600	645100
6.405	625500	594000
6.36	575800	544300
6.315	526500	495000

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Connection Wear for TurboTorque™ 550-130 (6.625 (in) OD x 4.25 (in) ID)

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



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