odfjell technology

TECHNICAL SPECIFICATIONS

Equipment No's: Ref. Enclosed page **Spec. No.:** DP-5.875-01

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

New **Premium**
80% remaining Body Wall

DESCRIPTION

Type	IEU, 26.30 #
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	5,045	5,709	5,045
Wall thickness, nominal	inch	0,415		0,332	
Cross Sectional Area	$inch^2$	7,119		5,608	
Polar Sectional Modulus	$inch^3$	18,165		14,255	
Tensile yield pipe	lbf	961 000		757 100	
	kN	*4 275*		*3 368*	
Torsional yield pipe	lbf-ft	117 900		92 500	
	kNm	*159,9*		*125,4*	
80% Torsional Yield	lbf-ft	94 320		74 000	
	kNm	*127,9*		*100,3*	

CONNECTION DATA

Connection type		XT-57			
Material grade		120ksi			
Hardbanding		Arnco-300XT / TCS Titanium			
OD x ID	inch	7,000	4,250	6,762	4,250
B.S.R.	x : 1	NA		NA	
Tensile yield tooljoint	lbf	1 200 500		1 200 500	
	kN	*5 340*		*5 340*	
Torsional yield tooljoint	lbf-ft	94 300		72 100	
	kNm	*127,9*		*97,8*	
Make up torque (Max.)	lbf-ft	56 600		50 300	
	kNm	*76,7*		*68,2*	

OPERATIONAL DATA

Tool joint/Drill pipe torsional ratio	=> 0.80	0,80		1,02	
Drift diameter	inch	4,125			
Type of elevator shoulder:		18°			
Burst pressure	psi	16 690		15 260	
	Mpa	*115*		*105*	
Collapse pressure	psi	14 890		9 370	
	MPa	*103*		*65*	
Adjusted weight	lbs/ft	30,6			
	kg/mtr	*45,6*			
Approx weight each joint	lbs	976			
	kg	*443*			
Capacity	gal/ft	0,99			
	ltr/mtr	*12,30*			
Open end displacement	gal/ft	0,47			
	ltr/mtr	*5,84*			
Closed end displacement	gal/ft	1,46			
	ltr/mtr	*18,13*			
Built In Length (shoulder to shoulder)	ft	31,90			
	mtr	*9,72*			

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

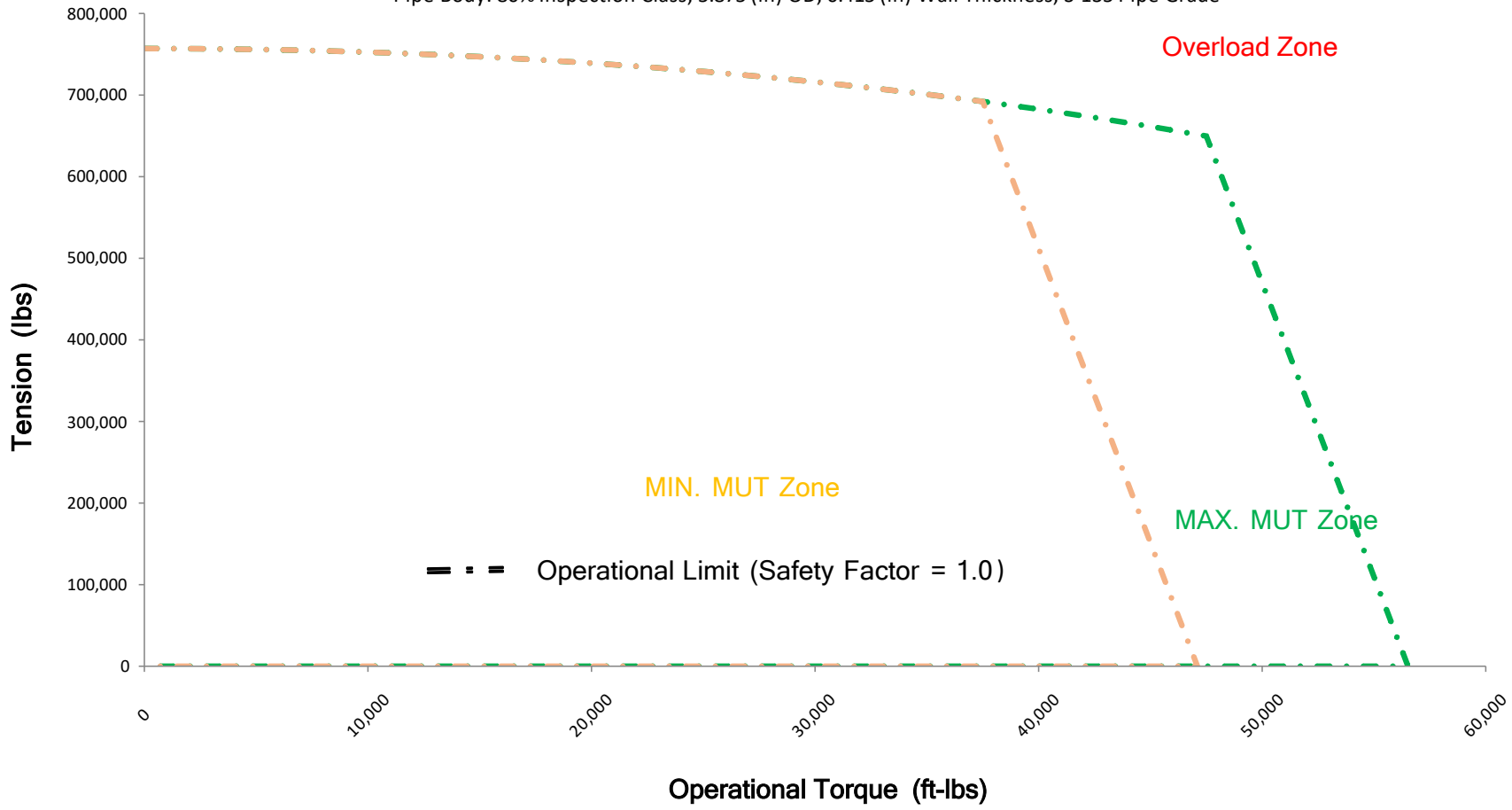
Values herein is meant as guidelines only. Odfjell will not be held liable for any damage or injuries !

String number:	*Joints:*	*Individual serial numbers:*
OWS-DP-5783	705	NT95076 to NT95780
OWS-DP-5786	788	OWS-2100 TO OWS-2887
OWS-DP-5787	59	OWS-1970 TO OWS-2028
OWS-DP-5788	100	OWS-2900 to OWS-2999
OWS-DP-5789	395	OWS-3001 to OWS-3395
OWS-DP-57810	533	OWS-3400 to OWS-3952

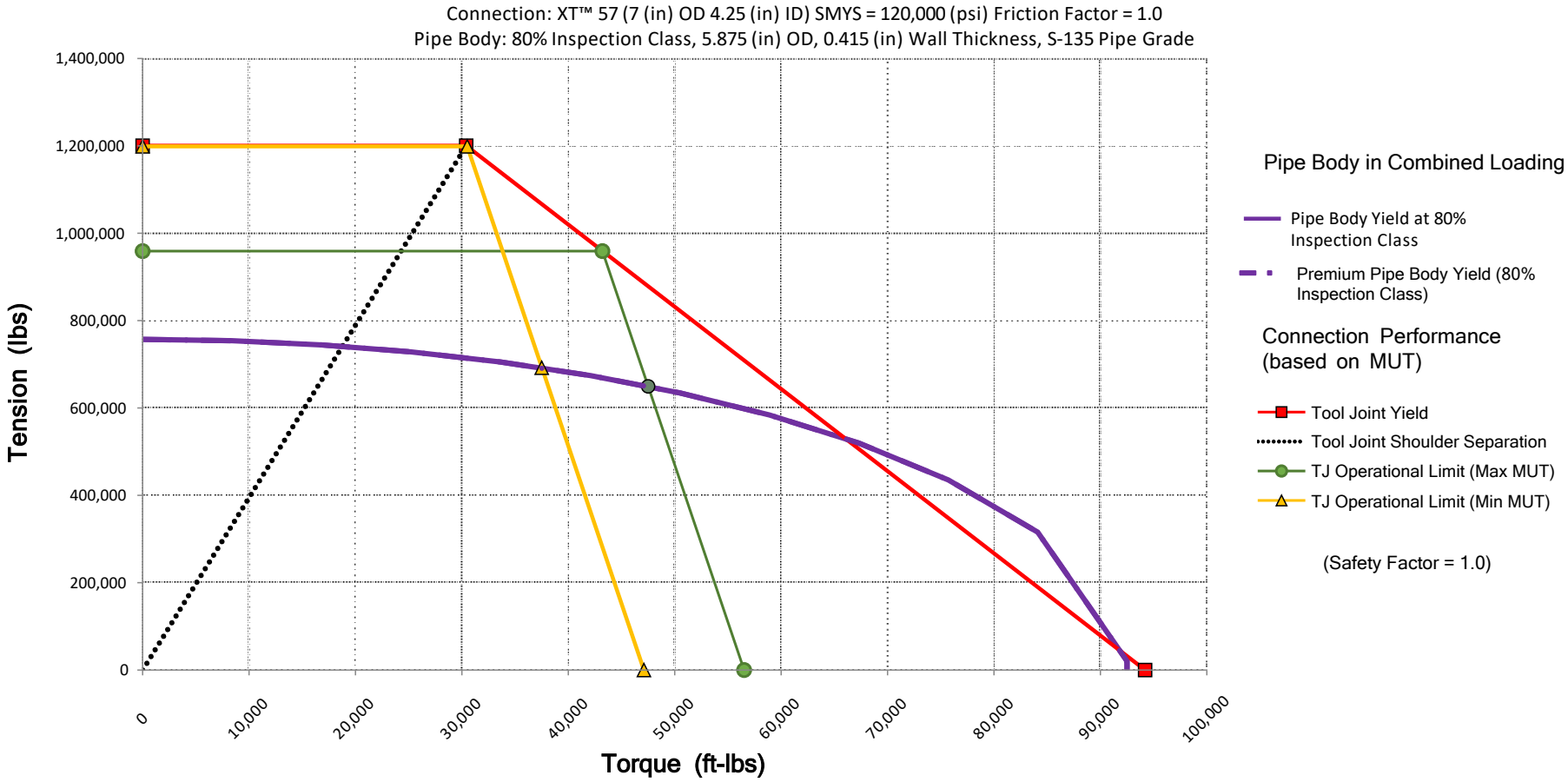
Drill Pipe Operational Limits (Connection at Recommended MUT = 56,520 (ft-lbs)) (Connection at Minimum MUT = 47,100 (ft-lbs))

Connection: XT™ 57 (7 (in) OD 4.25 (in) ID) SMYS = 120,000 (psi) Friction Factor = 1.0

Pipe Body: 80% Inspection Class, 5.875 (in) OD, 0.415 (in) Wall Thickness, S-135 Pipe Grade



Torque-Tension Graph



Drill Pipe Performance Sheet

3/24/2021

Combined Loading for Drill Pipe

Connection: XT™ 57 7.0" x 4.25" (120 KSI SMYS) Friction Factor: 1.0
Pipe: 5.875" OD 0.415" Wall Thickness S135 80% Inspection Class

At Max MUT (56500 ft-lbs)		At Min MUT (47100 ft-lbs)	
Operational Torque(ft-lbs)	Assembly Max Tension(lbs)	Operational Torque(ft-lbs)	Assembly Max Tension(lbs)
0	757100	0	757100
2500	756800	2000	756900
5000	756000	3900	756400
7500	754600	5900	755600
10000	752700	7900	754400
12500	750200	9900	752800
15000	747100	11800	750900
17500	743500	13800	748600
20000	739200	15800	746000
22500	734400	17800	743000
25000	729000	19700	739800
27500	722900	21700	736000
30000	716200	23700	731900
32500	708900	25700	727300
35000	700900	27600	722700
37500	692200	29600	717300
40000	682700	31600	711600
42500	672500	33600	705400
45000	661600	35500	699200
47500	649800	37500	692200

Connection Wear Table

Connection: XT™ 57 7.0" x 4.25" (120 KSI SMYS) Friction Factor: 1.0

Tool Joint OD (in)	Max MUT(ft-lbs)	Min MUT(ft-lbs)
7.0	56500	47100
6.96	56500	47100
6.921	56200	46800
6.881	54700	45600
6.841	53200	44300
6.801	51700	43100
6.762	50300	41900
6.722	48800	40700
6.682	47400	39500
6.642	45900	38300
6.603	44600	37100
6.563	43200	36000

Elevator Capacity

Elevator Bore Diameter: 6.125" Elevator SMYS: 110,100 psi Box Taper Angle: 18 deg
Connection: XT™ 57 5.875" 0.415" wall IEU S135

Tool Joint OD (in.)	Elevator Hoist Capacity (lbs)	
	No Wear	1/32" Wear Factor
7.1875	1223100	1189900
7.131	1153200	1120000
7.074	1083100	1050000
7.017	1013700	980500
6.96	944800	911600
6.904	877700	844500
6.847	809900	776700
6.79	742700	709500
6.733	676000	642800
6.677	611100	577900
6.62	545500	512300
6.563	480600	447400