Pipe Body Specification

Pipe Body OD	in	5.0
Pipe Body Wall Thickness - Nominal Weight		0.362 in - 19.5 lb/ft
Pipe Body Grade		S135
Drill Pipe Length		Range 2
- Max	ft	33.0
- Min	ft	32.0
Type of Upset		IEU
Max Upset OD	in	5.125

Tong Length includes hardbanding if applicable

Pipe Body Performance

		Nominal	API Premium 80% Inspection Class
Burst Pressure *	psi	17,100	15,600
Collapse Pressure *	psi	15,670	10,030
Slip Crushing Capacity *	lbs	498,400	396,500
- Assumed Slip Length	in		16.5
- Assumed Transverse Load Factor (K)			4.2
Adjusted Weight **	lbs/ft		25.68
Fluid Displacement **	US gal/ft		0.39
	Bbls/ft		0.0093
Fluid Capacity **	US gal/ft		0.69
	Bbls/ft		0.0165

* With no axial load or bending in string

** Best estimate with coating

Note: Oil field barrel equivalent to 42 US gal

Note: Nominal burst calculated at 87.5% RBW per API

Tool Joint Specification

Connection Type and Size		GPDS™ 50
Benchmark		GPmark™
SmoothEdge™ Height per side	in	0.09375
Tool Joint SMYS	psi	120,000
Connection OD	in	6.625
Connection ID	in	3.25
Pin Tong Length	in	14.0
Box Tong Length	in	17.0
Thread Compound Friction Factor (FF)		1.0

Tool Joint Performance

Max Make-Up Torque (Recommended)	ft-lbs	**43,000**
Min Make-Up Torque	ft-lbs	**35,900**
Min TJ OD (API Premium)	in	5.93
Min TJ OD for Counterbore	in	5.93
Drift Size	in	3.125

The maximum make-up torque should be applied when possible.
To maximize connection operational tensile, a MUT (T4) = 37,500 should be applied.

Advisories and Warnings for Drill Pipe

Advisories:

Warnings:

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Combined Loading for Drill Pipe

Connection: GPDS™ 50 6.625" x 3.25" (120 KSI SMYS) Friction Factor: 1.0
Pipe: 5.0" OD 0.362" Wall Thickness S135 80% Inspection Class

At Max MUT (43000 ft-lbs)		At Min MUT (35900 ft-lbs)	
Operational Torque(ft-lbs)	Assembly Max Tension(lbs)	Operational Torque(ft-lbs)	Assembly Max Tension(lbs)
0	560800	0	560800
2100	560400	1700	560500
4200	559300	3400	559800
6200	557600	5000	558700
8300	555000	6700	557000
10400	551700	8400	554900
12500	547600	10100	552200
14600	542800	11700	549300
16700	537100	13400	545700
18700	530900	15100	541500
20800	523600	16800	536800
22900	515400	18500	531600
25000	506200	20100	526200
27100	496100	21800	519800
29100	485400	23500	512900
31200	473100	25200	505300
33300	459600	26900	497100
35400	444700	28500	488700
37500	428400	30200	479100
39600	410400	31900	468700

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Connection Wear Table

Connection: GPDS™ 50 6.625" x 3.25" (120 KSI SMYS) Friction Factor: 1.0

Tool Joint OD (in)	Max MUT(ft-lbs)	Min MUT(ft-lbs)
6.625	43000	35900
6.562	43000	35900
6.499	43000	35900
6.435	43000	35900
6.372	42700	35600
6.309	40800	34000
6.246	38900	32400
6.183	37000	30800
6.12	35200	29300
6.056	33300	27800
5.993	31500	26300
5.93	29800	24800

Elevator Capacity

Elevator Bore Diameter: 5.25" Elevator SMYS: 110,100 psi Box Taper Angle: 18 deg
Connection: GPDS™ 50 5.0" 0.362" wall IEU S135

Tool Joint OD (in.)	Elevator Hoist Capacity (lbs)	
	No Wear	1/32" Wear Factor
6.8125	1629800	1601300
6.732	1535500	1507100
6.652	1442900	1414500
6.572	1351400	1323000
6.492	1261100	1232600
6.411	1170700	1142200
6.331	1082600	1054100
6.251	995500	967100
6.171	909600	881100
6.09	823700	795200
6.01	740000	711500
5.93	657400	628900

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