



INTRODUCTION

- HSC[®] employed state-of-the-art computer hardware, CAD-CAM and FEM software complemented by worldwide experience to engineer its Premium Connection system.
- HSC[®] uses the latest computerized machine-tool technology to manufacture its Premium Connection system.
- HSC[®] Premium Connection system performs successfully down-hole in aggressive conditions throughout the world.
- HSC[®] offers a full range of Premium Threaded and Coupled options for all your applications.
- HSC[®] has supplied millions of feet, hundreds of thousands of joints in various sizes and weights of carbon and 13% Chromium steels, both tubing and casing.



HSC PREMIUM CONNECTION

The HSC[®] Premium Connection threaded and coupled system was developed to meet the needs of the Oil and Gas Industry. The design phase of HSC[®] Premium Thread Connection System employs various computer-oriented tools. Software images are created and subjected to Finite Element Analysis validated by the production of prototypes submitted to a programme of stringent mechanical testing (developed from API RP5C5). These tools, in addition to classical design methodology, are used to optimize crucial features of the joint (such as thread & seal interference and geometry) prior to "cutting metal". This highly successful premium connection is manufactured using the most modern machine-tool technology and gauging system. Maximization of product control and the accompanying close tolerancing ensure ultimate joint performance through consistency in make-up, elimination of snagging and improved running times. Verification of results of multiple made-up joints through in-field monitoring (using specialized torque-monitoring computer equipment) demonstrates excellent correlation with analysis predictions. The above improvements to an already proven concept have quickly established HSC[®] as a consistent, reliable, and cost effective threaded and coupled Premium Connection system.



TECHNICAL INFORMATION

The HSC[®] Premium Connection is a gas tight threaded and coupled tubing and casing system that is interchangeable with other premium connections with similar thread profiles.

Close Tolerances

HSC[®] uses state-of-the-art CNC machine tools and proven manufacturing systems to produce a high quality and close tolerance product, minimizing field problems.

Smooth Running

Consistency in manufacturing of HSC[®] products ensures repeatable make-up readings, both in thread and seal torque, resulting in improved running times and less snagging.

Inside the Joint

The 6 degree machined taper of the pin profile mates with the closely controlled bore of the HSC[®] coupling to allow very smooth product flow and no hang-ups of down-hole tooling.

Gas Tight Seals

Both HSC[®] tubing and casing metal to metal seal and torque shoulders ensure stored energy within the connection.

Testing

The HSC[®] tubing and casing performance and its interchangeability with other premium connections with similar thread profiles are fully proven by a stringent mechanical testing programme using helium-based pressure testing with multiple make and break checks (developed from API RP5C5). The tests have been supported by a series of rigorous field trials.

The Pin Thread

The HSC[®] pin has the classic Buttress profile, 3° load flank and 3/4" per foot taper with full thread "run-out".

The Coupling

The HSC[®] coupling is available in outside diameters to meet the following specifications:

- ES** Equal Strength
- R** Regular
- SC** Special Clearance
- SB** Special Bevel

The long coupling design ensures that the pin "run-out" thread on the pipe is always contained within the coupling thus ensuring that the tensile strength of the HSC[®] joint is at least equal to the pipe body. The long J-Section allows greater distribution of stress.

Anti-Galling Treatment

A high specification HSC[®] anti-galling surface treatment is applied to both pin and coupling. Extensive testing has proven that the occurrence of galling is reduced to an absolute minimum for assemblies of components using this preparation.

The Gauging System

The HSC[®] Gauging System, in addition to standard API 5B gauging methods, uses a precision-ground Certified Standard as the reference for the verification of the connection's dimensions.

Pin - The thread root and seal diameters are transferred from the Certified Standard to the precision-ground thread profile rolls and contact points. This gauge is then used to check the pin end.

Box - The thread crest and seal diameters are transferred from the Certified Standard to the precision-ground cylinder rolls and contact points. This gauge is then used to check the coupling.

The above system affords total control in the verification of both thread and seal interference.

The Joint in the Field

HSC[®] design ensures that the pin and coupling together are as strong as the pipe body itself and offer at least equal resistance to bending, tension, compression, internal and external pressure.

Pipe Protection

HSC[®] Tubing and Casing are externally coated with a clear mill varnish suitable for outdoor storage.

Thread Protection

HSC[®] Tubing and Casing threads are protected with polymer or polymer and steel reinforced thread protectors in types to meet customer requirements.



DIMENSIONS AND WEIGHTS

- Dimension Symbols**

- D** = Outside Diameter of pipe (inches)
- t** = Wall thickness of pipe (inches)
- d** = Nominal inside diameter of pipe (inches)
- d1** = Inside diameter of coupling (inches)
- W** = Outside diameter of regular coupling (inches)
- Wc** = Outside diameter of special clearance coupling (inches)
- L₄** = Minimum thread length (inches)
- N_L** = Length of coupling (inches)
- M_L** = Make up loss (inches)
- d^c** = Inside diameter of the coupling at root of thread at the critical cross-section
- e_w** = Weight gain or loss due to end finishing
- L^b** = Total length of bored section of assembled joint

- Dimensional Calculations**

Drift Diameter Formulae:

D	Drift Diameter
2 7/8" or less	d - 0.094"
3 1/2" to 8 5/8"	d - 0.125"
9 5/8" to 13 3/8"	d - 0.157"

(Drift size formulas taken from API 5CT Table 5.1)

- **Formula for Cross Section:**

Pipe Body: $S = \pi/4 (D^2 - d^2) \Pi$

Critical Cross Section of Couplings

Regular Couplings	Special Clearance Couplings
$S' = \pi/4 (W^2 - d^{c2})$	$S' = \pi/4 (W_c^2 - d^{c2})$

- **Calculations of Weight:**

Plain End Pipe Weight :

$W_{pe} = 10.68(D - t)$
(Calculation taken from API Buln. 5C3)

Weight gain or loss due to end finishing:

$e_W = A - B - L_4$	$W_{pe/12}$
$A = 0.2833 N_L$	$\pi/4 (W^2 - D^2)$
$B = 0.2833 L^b$	$\pi/4 (d_1^2 - D^2)$

Although prepared with great care and attention, the technical information appearing in this catalogue is for general information only. HSC® makes no representation or warranty for this information and customers should therefore carry out all necessary investigations to choose for themselves the technical solution suited to the installation and operating conditions under which our products will be used.



SIZES & GRADES OF HSC TUBING AND CASING

HSC[®] Tubing is available in sizes 2 3/8” to 4 1/2” and in Range 2 or 3

HSC[®] Casing is available in sizes 5” to 13 3/8” and in Range 2 or 3

HSC[®] Pup Joints are available for all sizes in lengths as required

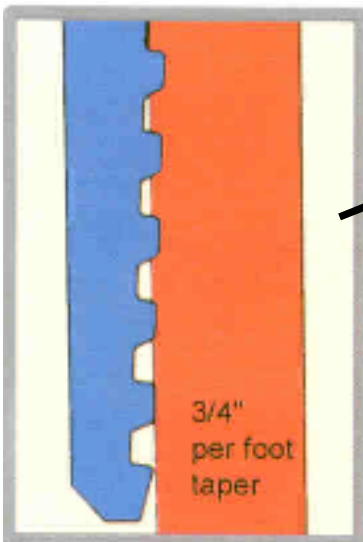
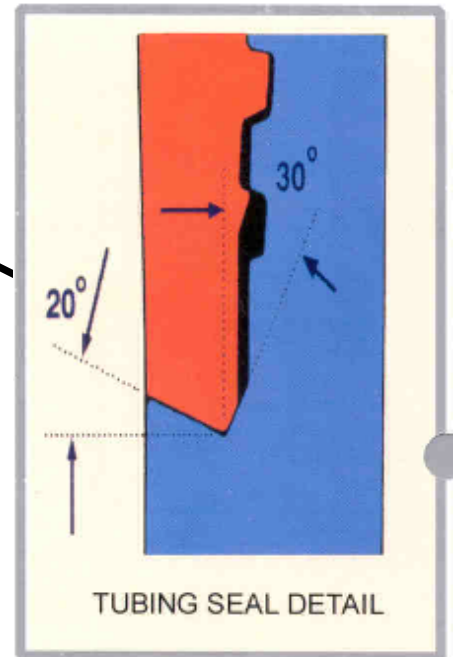
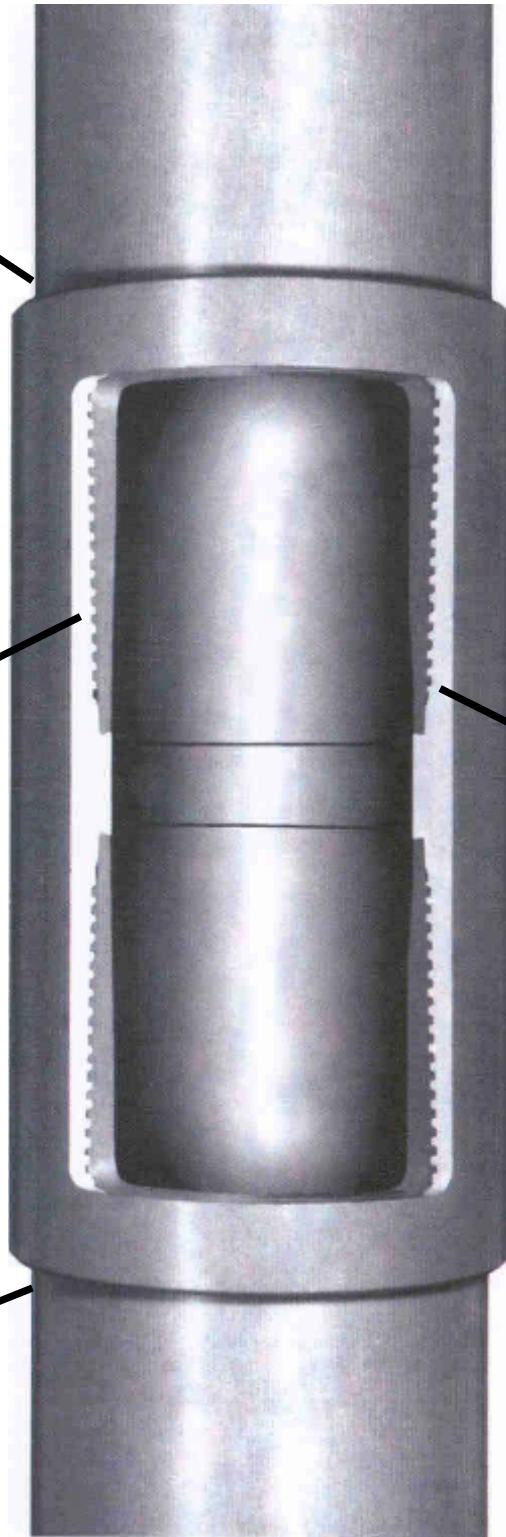
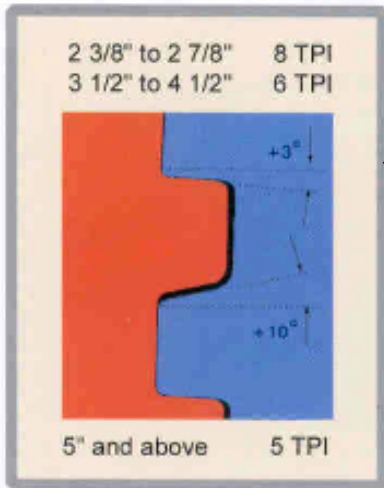
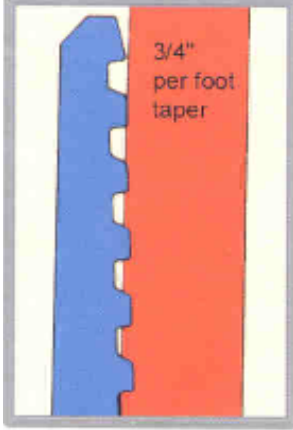
Grade		J55	K55	N80	L80	C90	C95	P110	Q125	150*
Yield Strength Yp (1000 psi)	Tubing	55	N/A	80	80	90	95	110	N/A	N/A
Tensile Strength Up	Tubing	75	N/A	100	95	100	105	125	N/A	N/A
Yield Strength Yp (1000 psi)	Casing	55	55	80	80	90	95	110	125	150
Tensile Strength Up	Casing	75	95	100	95	100	105	125	135	160

* 150 is not an API Grade



HSC PREMIUM CONNECTION

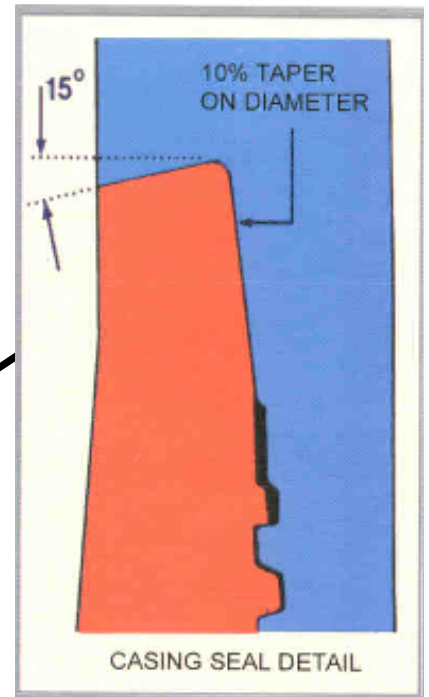
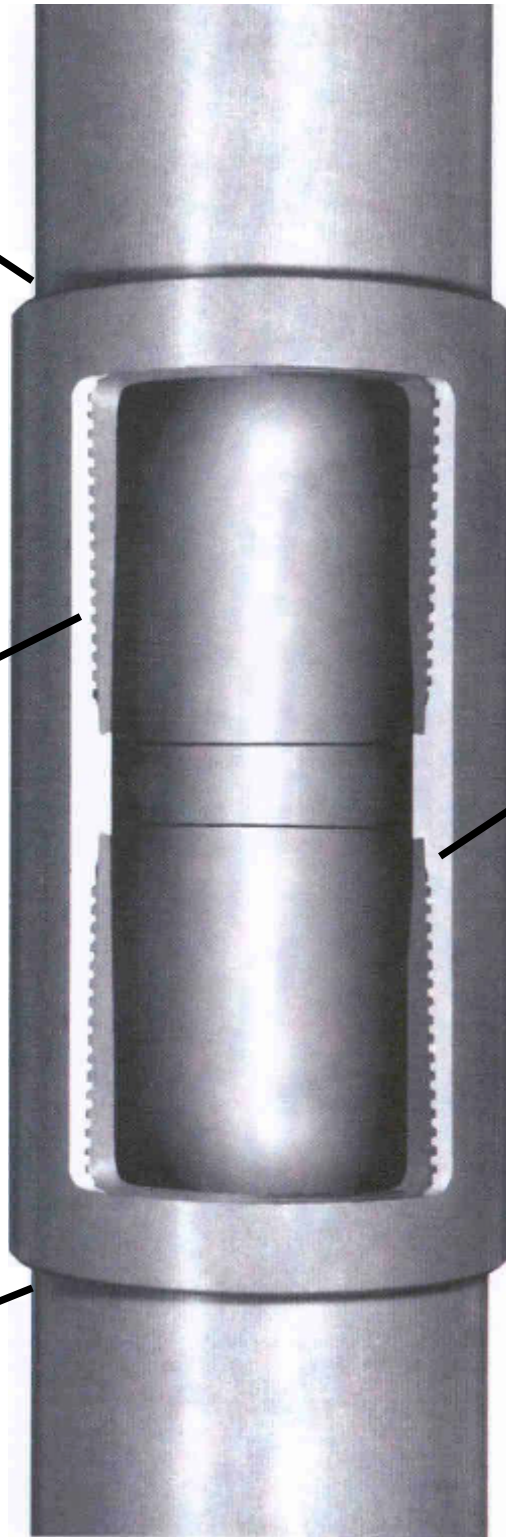
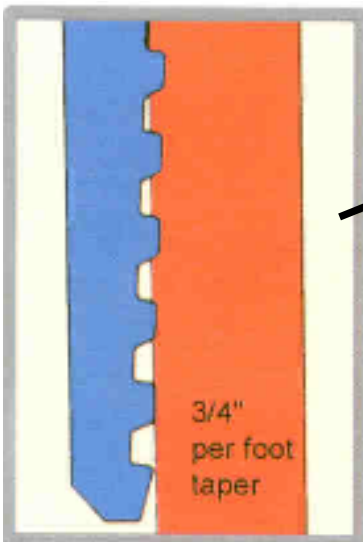
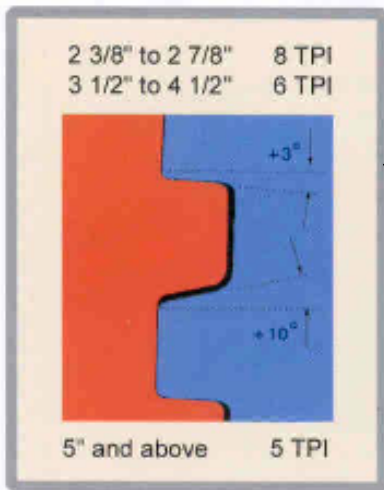
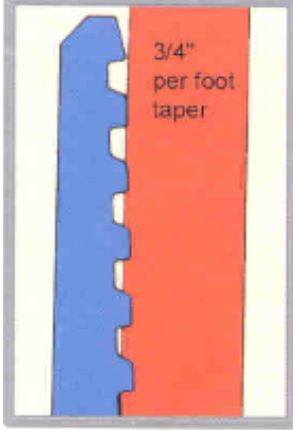
TUBING





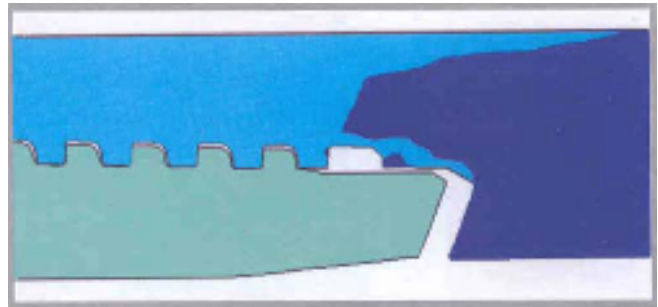
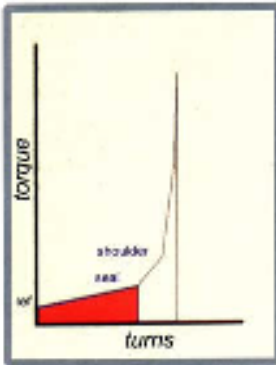
HSC PREMIUM CONNECTION

CASING

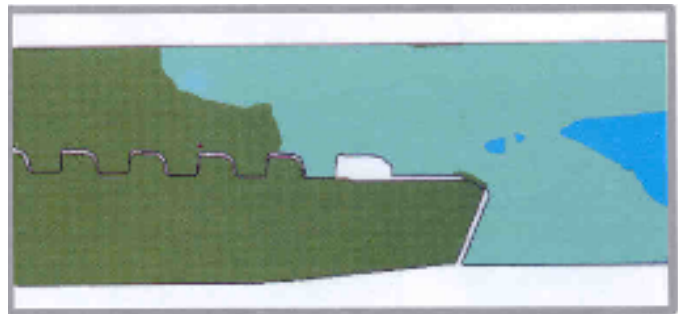
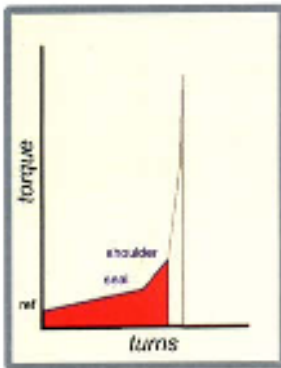




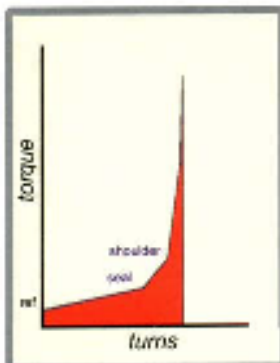
HSC TUBING MAKE-UP



Reference Torque + Thread Interference



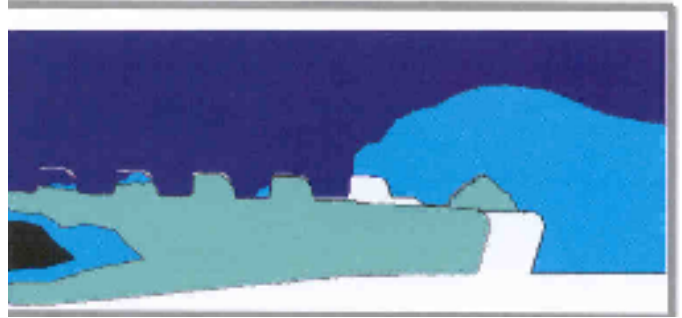
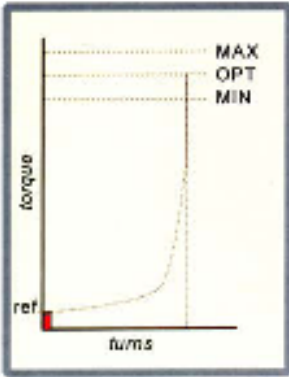
Seal Engagement



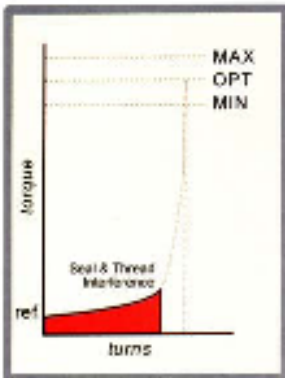
Fully Made-up with Pin Shouldering



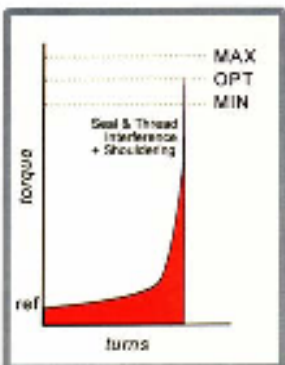
HSC CASING MAKE-UP



Reference Torque + First Stage Seal & Thread Interference



Second Stage Seal & Thread Interference up to shoulder

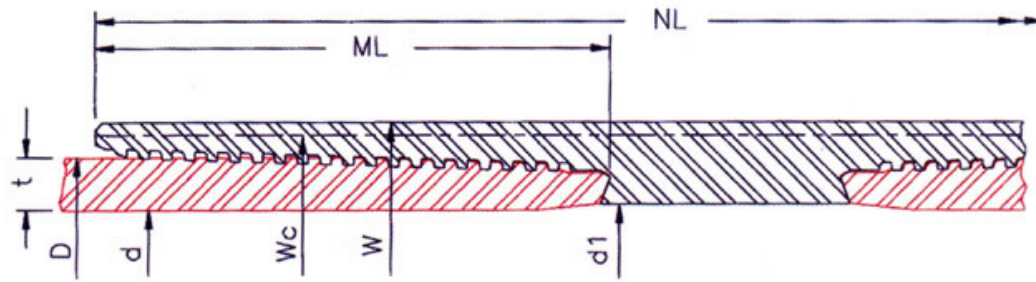


Fully Made-up with Pin Shouldering & Preloaded

TECHNICAL INFORMATION

TUBING

SIZE:	2 3/8 "
NOMINAL WEIGHT:	4.60 lb/ft
WALL THICKNESS:	0.190 "
THREADS PER INCH:	8



P I P E B O D Y	OUTSIDE DIA.(in)D	2.375	INSIDE DIA.(in) d	1.995	DRIFT DIA. (in)			1.901	PLAIN END WT (lb/ft)		4.43
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		8100	11780	11780	13250	13980	16130	17900	20660	
	INTERNAL YIELD PRESSURE (psi)		7700	11200	11200	12600	13300	15400	17500	21000	
	BODY YIELD STRENGTH (kips)		72	104	104	117	124	143	163	196	
	ULTIMATE STRENGTH (kips)		124	130	124	130	137	163	176	209	
	YIELD TORQUE (ft/lb)		3500	5100	5100	5700	6000	7000	7900	9500	

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	1050	1440	1440	1630	1630	1830	2080	2420
		OPTIMUM (ft/lb)	1160	1590	1590	1810	1810	2030	2310	2680
		MAXIMUM (ft/lb)	1270	1740	1740	1990	1990	2230	2540	2940
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	940	1290	1290	1450	1450	1630	1850	2160
		OPTIMUM (ft/lb)	1050	1440	1440	1630	1630	1830	2080	2420
		MAXIMUM (ft/lb)	1160	1590	1590	1810	1810	2030	2310	2680

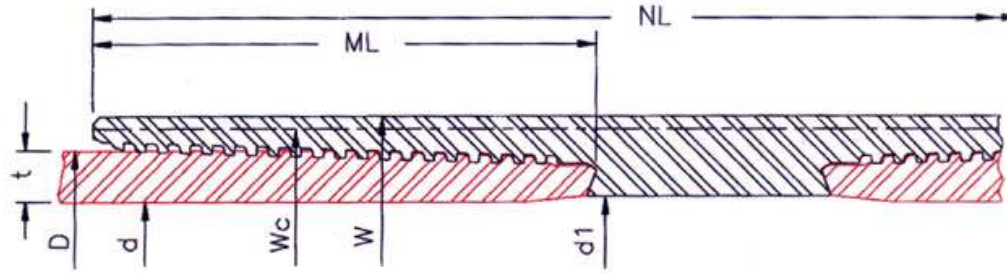
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		8100	11780	11780	13250	13980	16130	17900	20660	
	INTERNAL YIELD PRESSURE (psi)		7700	11200	11200	12600	13300	15400	17500	21000	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		43	62	62	70	74	85	97	116	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		24	36	36	40	42	49	56	67	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		113	122	116	123	129	153	166	197	
	SPECIAL CLEARANCE COUPLING O.D.		96	101	96	101	107	127	137	162	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30° JOINT MUD DISPLACEMENT (in³)		
	REGULAR COUPLING		W	2.707	1.939	3.49		107		479	
	SPECIAL CLEARANCE COUPLING		Wc	2.628	1.939	2.84		82		477	
	LENGTH OF COUPLING (in)		NL	6.908							
MAKE UP LOSS (in)		ML	2.514								

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TECHNICAL INFORMATION

TUBING

SIZE:	2 3/8 "
NOMINAL WEIGHT:	5.80 lb/ft
WALL THICKNESS:	0.254 "
THREADS PER INCH:	8



P I P E B O D Y	OUTSIDE DIA.(in)D	2.375	INSIDE DIA.(in) d	1.867	DRIFT DIA. (in)			1.773	PLAIN END WT (lb/ft)		5.75
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)			10510	15280	15280	17190	18150	21010	23880	28650
	INTERNAL YIELD PRESSURE (psi)			10290	14970	14970	16840	17780	20590	23390	28070
	BODY YIELD STRENGTH (kips)			93	135	135	152	161	186	212	254
	ULTIMATE STRENGTH (kips)			161	169	161	169	178	212	228	271
	YIELD TORQUE (ft/lb)			4300	6300	6300	7000	7400	8600	9800	11700

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	1110	1500	1500	1760	1760	1960	2160	2540
		OPTIMUM (ft/lb)	1230	1660	1660	1950	1950	2170	2390	2820
		MAXIMUM (ft/lb)	1350	1820	1820	2140	2140	2380	2620	3100
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	990	1340	1340	1570	1570	1750	1930	2260
		OPTIMUM (ft/lb)	1110	1500	1500	1760	1760	1960	2160	2540
		MAXIMUM (ft/lb)	1230	1660	1660	1950	1950	2170	2390	2820

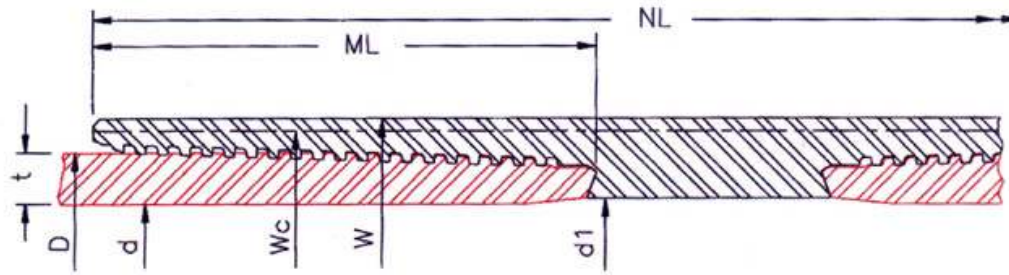
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		10510	15280	15280	17190	18150	21010	23880	28650
	INTERNAL YIELD PRESSURE (psi)		10290	14970	14970	16840	17780	20590	23390	28070
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		61	89	89	100	106	122	139	167
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		43	62	62	70	74	85	97	116
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		147	158	151	159	167	199	216	256
	SPECIAL CLEARANCE COUPLING O.D.		126	133	126	133	140	166	179	213
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	2.785	1.939	4.15		103		621
	SPECIAL CLEARANCE COUPLING		Wc	2.707	1.939	3.49		83		618
LENGTH OF COUPLING (in)		NL	6.908							
MAKE UP LOSS (in)		ML	2.514							

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TECHNICAL INFORMATION

TUBING

SIZE:	2 7/8 "
NOMINAL WEIGHT:	6.40 lb/ft
WALL THICKNESS:	0.217 "
THREADS PER INCH:	8



P I P E B O D Y	OUTSIDE DIA.(in)D	2.875	INSIDE DIA.(in) d	2.441	DRIFT DIA. (in)			2.347	PLAIN END WT (lb/ft)			6.16
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		7680	11170	11170	12390	12940	14550	16070	18400		
	INTERNAL YIELD PRESSURE (psi)		7260	10570	10570	11890	12550	14530	16510	19810		
	BODY YIELD STRENGTH (kips)		100	145	145	163	172	199	227	272		
	ULTIMATE STRENGTH (kips)		172	181	172	181	190	227	245	290		
	YIELD TORQUE (ft/lb)		5900	8600	8600	9700	10200	11900	13500	16200		

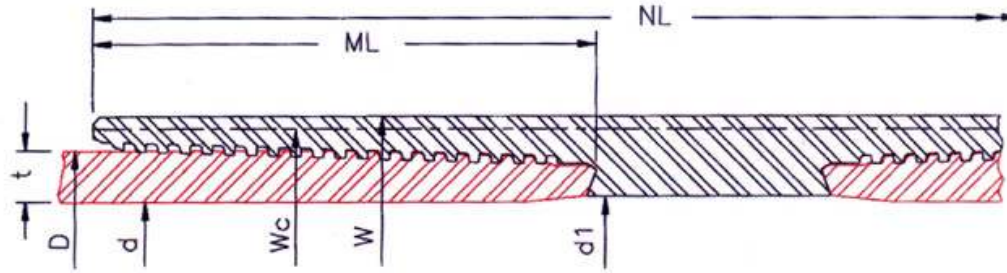
M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	1570	2160	2160	2540	2540	2870	3190	3780	
		OPTIMUM (ft/lb)	1740	2390	2390	2820	2820	3180	3540	4200	
		MAXIMUM (ft/lb)	1910	2620	2620	3100	3100	3490	3890	4620	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	1400	1930	1930	2260	2260	2560	2840	3360	
		OPTIMUM (ft/lb)	1570	2160	2160	2540	2540	2870	3190	3780	
MAXIMUM (ft/lb)		1740	2390	2390	2820	2820	3180	3540	4200		

C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		7680	11170	11170	12390	12940	14550	16070	18400	
	INTERNAL YIELD PRESSURE (psi)		7260	10570	10570	11890	12550	14530	16510	19810	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		59	87	87	97	103	119	135	162	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		37	54	54	61	64	74	84	101	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		155	168	160	170	179	212	230	273	
	SPECIAL CLEARANCE COUPLING O.D.		137	144	137	144	152	181	195	231	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	3.240	2.384	5.05		106		666	
	SPECIAL CLEARANCE COUPLING		Wc	3.159	2.384	4.17		84		663	
LENGTH OF COUPLING (in)		NL	7.538		The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information						
MAKE UP LOSS (in)		ML	2.829								

TECHNICAL INFORMATION

TUBING

SIZE:	2 7/8 "
NOMINAL WEIGHT:	7.80 lb/ft
WALL THICKNESS:	0.276 "
THREADS PER INCH:	8



PIPE BODY	OUTSIDE DIA.(in)D	2.875	INSIDE DIA.(in) d	2.323	DRIFT DIA. (in)					2.229	PLAIN END WT (lb/ft)		7.66
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			9550	13890	13890	15620	16490	19090	21700	26040		
	INTERNAL YIELD PRESSURE (psi)			9240	13440	13440	15120	15960	18480	21000	25200		
	BODY YIELD STRENGTH (kips)			124	180	180	203	214	248	282	338		
	ULTIMATE STRENGTH (kips)			214	225	214	225	237	282	304	361		
	YIELD TORQUE (ft/lb)			7100	10300	10300	11600	12200	14200	16100	19300		

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
	REGULAR	MINIMUM (ft/lb)	1700	2280	2280	2610	2610	3000	3330	3910		
		OPTIMUM (ft/lb)	1880	2530	2530	2890	2890	3330	3690	4340		
		MAXIMUM (ft/lb)	2060	2780	2780	3170	3170	3660	4050	4770		
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	1520	2030	2030	2330	2330	2670	2970	3480		
		OPTIMUM (ft/lb)	1700	2280	2280	2610	2610	3000	3330	3910		
		MAXIMUM (ft/lb)	1880	2530	2530	2890	2890	3330	3690	4340		

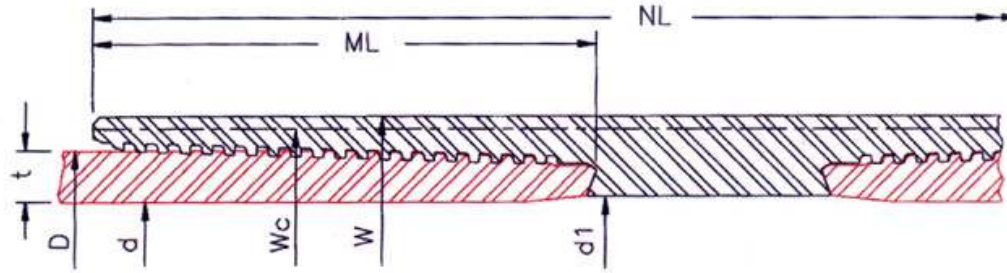
CONNECTION	COLLAPSE RESISTANCE (psi)		9550	13890	13890	15620	16490	19090	21700	26040		
	INTERNAL YIELD PRESSURE (psi)		9240	13440	13440	15120	15960	18480	21000	25200		
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		87	127	127	142	150	174	198	237		
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		69	100	100	113	119	138	157	188		
	PARTING LOAD (kips)											
	REGULAR COUPLING O.D.		193	209	199	211	222	264	286	340		
	SPECIAL CLEARANCE COUPLING O.D.		190	200	190	200	210	250	270	319		
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)			JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	3.337	2.384	6.12			108		828	
	SPECIAL CLEARANCE COUPLING		Wc	3.274	2.384	5.42			93		826	
	LENGTH OF COUPLING (in)		NL	7.538								
MAKE UP LOSS (in)		ML	2.829									

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TECHNICAL INFORMATION

TUBING

SIZE:	2 7/8 "
NOMINAL WEIGHT:	8.60 lb/ft
WALL THICKNESS:	0.308 "
THREADS PER INCH:	8



PIPE BODY	OUTSIDE DIA.(in)D	2.875	INSIDE DIA.(in) d	2.259	DRIFT DIA. (in)			2.165	PLAIN END WT (lb/ft)		8.44
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		10520	15300	15300	17220	18170	21040	23910	28700	
	INTERNAL YIELD PRESSURE (psi)		10310	15000	15000	16870	17810	20620	23430	28120	
	BODY YIELD STRENGTH (kips)		137	199	199	224	236	273	310	373	
	ULTIMATE STRENGTH (kips)		236	248	236	248	261	310	335	397	
	YIELD TORQUE (ft/lb)		7600	11100	11100	12500	13200	15300	17400	20800	

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	1890	2540	2540	2930	2930	3390	3780	4430
		OPTIMUM (ft/lb)	2100	2820	2820	3250	3250	3760	4200	4920
		MAXIMUM (ft/lb)	2310	3100	3100	3570	3570	4130	4620	5410
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	1680	2260	2260	2610	2610	3020	3360	3940
		OPTIMUM (ft/lb)	1890	2540	2540	2930	2930	3390	3780	4430
		MAXIMUM (ft/lb)	2100	2820	2820	3250	3250	3760	4200	4920

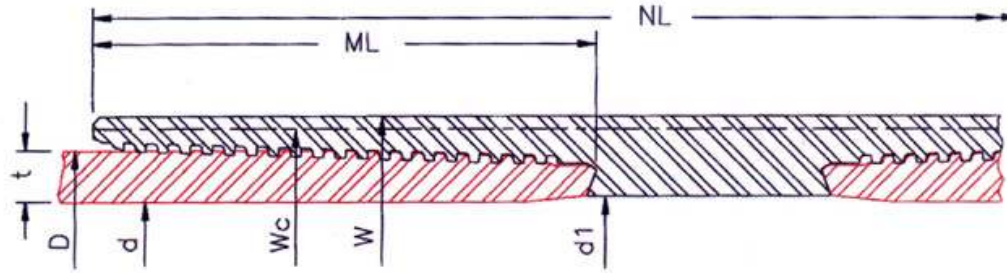
CONNECTION	COLLAPSE RESISTANCE (psi)		10520	15300	15300	17220	18170	21040	23910	28700
	INTERNAL YIELD PRESSURE (psi)		10310	15000	15000	16870	17810	20620	23430	28120
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		95	138	138	155	164	190	216	259
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		69	100	100	113	119	138	157	188
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		213	230	220	233	245	291	315	374
	SPECIAL CLEARANCE COUPLING O.D.		190	200	190	200	210	250	270	319
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	3.364	2.333	6.53		104		912
	SPECIAL CLEARANCE COUPLING		Wc	3.274	2.333	5.52		85		908
	LENGTH OF COUPLING (in)		NL	7.538						
MAKE UP LOSS (in)		ML	2.829							

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TECHNICAL INFORMATION

TUBING

SIZE:	3 1/2 "
NOMINAL WEIGHT:	7.70 lb/ft
WALL THICKNESS:	0.216 "
THREADS PER INCH:	6



P I P E B O D Y	OUTSIDE DIA.(in)D	3.500	INSIDE DIA.(in) d	3.068	DRIFT DIA. (in)					2.943	PLAIN END WT (lb/ft)		7.58
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			5970	7870	7870	8540	8850	9730	10500	11510		
	INTERNAL YIELD PRESSURE (psi)			5940	8640	8640	9720	10260	11880	13500	16200		
	BODY YIELD STRENGTH (kips)			123	178	178	201	212	245	279	334		
	ULTIMATE STRENGTH (kips)			212	223	212	223	234	279	301	357		
	YIELD TORQUE (ft/lb)			9100	13300	13300	14900	15800	18200	20700	24900		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
	REGULAR	MINIMUM (ft/lb)	2080	2800	2800	3260	3260	3650	4110	4760		
		OPTIMUM (ft/lb)	2310	3110	3110	3620	3620	4050	4560	5280		
		MAXIMUM (ft/lb)	2540	3420	3420	3980	3980	4450	5010	5800		
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
		OPTIMUM (ft/lb)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
MAXIMUM (ft/lb)		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a			

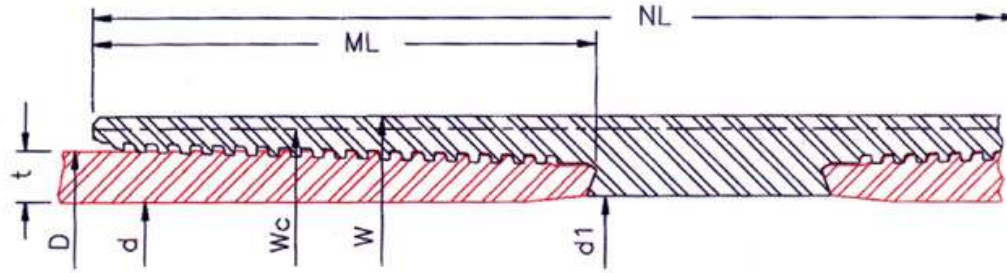
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		5970	7870	7870	8540	8850	9730	10500	11510		
	INTERNAL YIELD PRESSURE (psi)		5940	8640	8640	9720	10260	11880	13500	16200		
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		63	92	92	103	109	126	143	172		
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
	PARTING LOAD (kips)											
	REGULAR COUPLING O.D.		189	205	196	208	219	259	282	335		
	SPECIAL CLEARANCE COUPLING O.D.		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)			JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	3.841	3.022	6.45			104		820	
	SPECIAL CLEARANCE COUPLING		Wc	n/a	3.022	n/a			n/a		n/a	
LENGTH OF COUPLING (in)		NL	8.443									
MAKE UP LOSS (in)		ML	3.274									

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TECHNICAL INFORMATION

TUBING

SIZE:	3 1/2 "
NOMINAL WEIGHT:	9.20 lb/ft
WALL THICKNESS:	0.254 "
THREADS PER INCH:	6



PIPE BODY	OUTSIDE DIA.(in)D	3.500	INSIDE DIA.(in) d	2.992	DRIFT DIA. (in)			2.867	PLAIN END WT (lb/ft)		8.81
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)			7400	10540	10540	11570	12080	13530	14890	16940
	INTERNAL YIELD PRESSURE (psi)			6980	10160	10160	11430	12060	13970	15880	19050
	BODY YIELD STRENGTH (kips)			142	207	207	233	246	285	324	389
	ULTIMATE STRENGTH (kips)			246	259	246	259	272	324	350	414
	YIELD TORQUE (ft/lb)			10400	15100	15100	17000	17900	20800	23600	28300

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	2160	2930	2930	3390	3390	3850	4300	4950
		OPTIMUM (ft/lb)	2390	3250	3250	3760	3760	4270	4770	5500
		MAXIMUM (ft/lb)	2620	3570	3570	4130	4130	4690	5240	6050
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	1930	2610	2610	3020	3020	3430	3830	4400
		OPTIMUM (ft/lb)	2160	2930	2930	3390	3390	3850	4300	4950
MAXIMUM (ft/lb)		2390	3250	3250	3760	3760	4270	4770	5500	

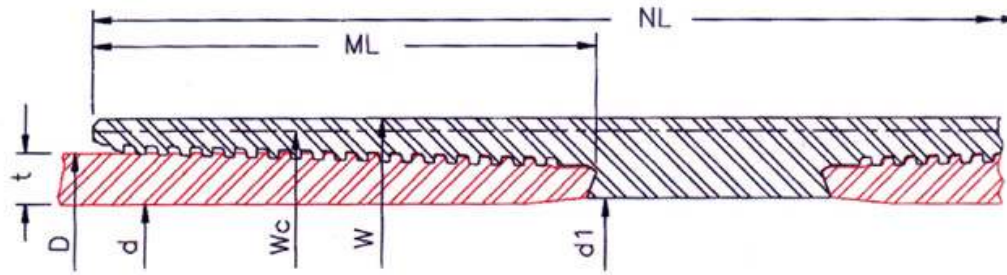
CONNECTION	COLLAPSE RESISTANCE (psi)		7400	10540	10540	11570	12080	13530	14890	16940
	INTERNAL YIELD PRESSURE (psi)		6980	10160	10160	11430	12060	13970	15880	19050
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		83	120	120	135	143	166	188	226
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		51	73	73	83	87	101	115	138
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		219	238	228	242	254	301	328	389
	SPECIAL CLEARANCE COUPLING O.D.		189	199	189	199	209	248	268	318
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	3.900	3.022	7.31		103		952
	SPECIAL CLEARANCE COUPLING		Wc	3.803	3.022	5.90		81		947
LENGTH OF COUPLING (in)		NL	8.443							
MAKE UP LOSS (in)		ML	3.274							

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TECHNICAL INFORMATION

TUBING

SIZE:	3 1/2 "
NOMINAL WEIGHT:	10.20 lb/ft
WALL THICKNESS:	0.289 "
THREADS PER INCH:	6



PIPE BODY	OUTSIDE DIA.(in)D	3.500	INSIDE DIA.(in) d	2.922	DRIFT DIA. (in)			2.797	PLAIN END WT (lb/ft)		9.91
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)			8330	12120	12120	13640	14390	16670	18940	21950
	INTERNAL YIELD PRESSURE (psi)			7950	11560	11560	13000	13730	15900	18060	21680
	BODY YIELD STRENGTH (kips)			160	233	233	262	277	321	364	437
	ULTIMATE STRENGTH (kips)			277	292	277	292	306	364	394	466
	YIELD TORQUE (ft/lb)			11500	16700	16700	18700	19800	22900	26000	31200

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	2420	3330	3330	3850	3850	4370	4880	5740
		OPTIMUM (ft/lb)	2680	3690	3690	4270	4270	4850	5420	6370
		MAXIMUM (ft/lb)	2940	4050	4050	4690	4690	5330	5960	7000
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	2160	2970	2970	3430	3430	3890	4340	5110
		OPTIMUM (ft/lb)	2420	3330	3330	3850	3850	4370	4880	5740
MAXIMUM (ft/lb)		2680	3690	3690	4270	4270	4850	5420	6370	

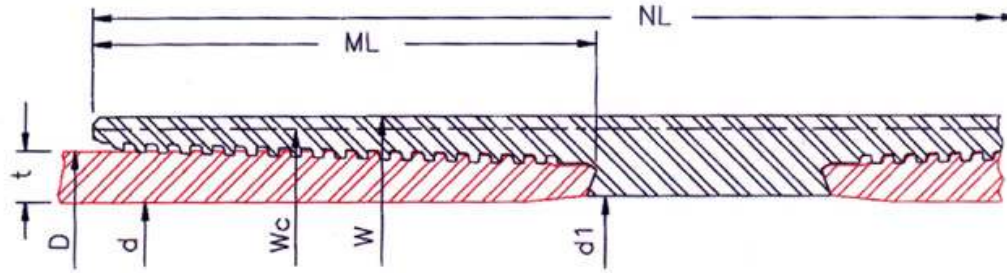
CONNECTION	COLLAPSE RESISTANCE (psi)		8330	12120	12120	13640	14390	16670	18940	21950
	INTERNAL YIELD PRESSURE (psi)		7950	11560	11560	13000	13730	15900	18060	21680
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		104	151	151	169	179	207	235	282
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		70	102	102	115	121	140	159	191
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		247	268	256	272	286	339	369	438
	SPECIAL CLEARANCE COUPLING O.D.		221	232	221	232	244	291	314	372
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	3.961	2.982	8.32		105		1072
	SPECIAL CLEARANCE COUPLING		Wc	3.862	2.982	6.86		84		1067
LENGTH OF COUPLING (in)		NL	8.443							
MAKE UP LOSS (in)		ML	3.274							

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TECHNICAL INFORMATION

TUBING

SIZE:	3 1/2 "
NOMINAL WEIGHT:	12.70 lb/ft
WALL THICKNESS:	0.375 "
THREADS PER INCH:	6



PIPE BODY	OUTSIDE DIA.(in)D	3.500	INSIDE DIA.(in) d	2.750	DRIFT DIA. (in)					2.625	PLAIN END WT (lb/ft)		12.52
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			10520	15310	15310	17220	18180	21050	23920	28700		
	INTERNAL YIELD PRESSURE (psi)			10310	15000	15000	16880	17810	20620	23440	28120		
	BODY YIELD STRENGTH (kips)			202	295	295	331	350	405	460	552		
	ULTIMATE STRENGTH (kips)			350	368	350	368	387	460	497	589		
	YIELD TORQUE (ft/lb)			13800	20100	20100	22600	23800	27600	31300	37600		

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
	REGULAR	MINIMUM (ft/lb)	2870	3850	3850	4430	4430	5020	5670	6510		
		OPTIMUM (ft/lb)	3180	4270	4270	4920	4920	5570	6290	7230		
		MAXIMUM (ft/lb)	3490	4690	4690	5410	5410	6120	6910	7950		
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	2560	3430	3430	3940	3940	4470	5050	5790		
		OPTIMUM (ft/lb)	2870	3850	3850	4430	4430	5020	5670	6510		
		MAXIMUM (ft/lb)	3180	4270	4270	4920	4920	5570	6290	7230		

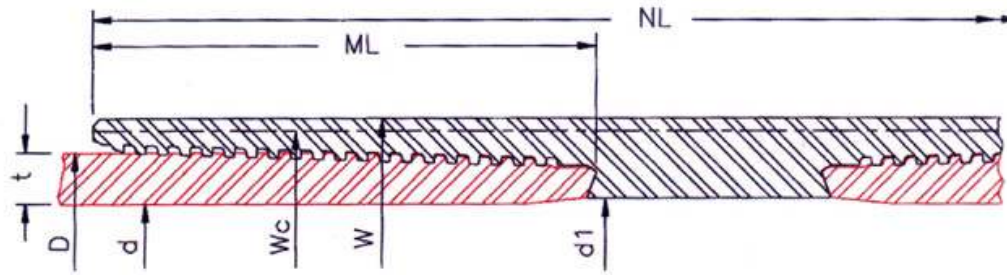
CONNECTION	COLLAPSE RESISTANCE (psi)		10520	15310	15310	17220	18180	21050	23920	28700		
	INTERNAL YIELD PRESSURE (psi)		10310	15000	15000	16880	17810	20620	23440	28120		
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		144	210	210	236	250	289	328	394		
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		104	151	151	169	179	207	235	282		
	PARTING LOAD (kips)											
	REGULAR COUPLING O.D.		312	339	324	344	361	428	466	553		
	SPECIAL CLEARANCE COUPLING O.D.		276	290	276	290	305	363	392	464		
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)			JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in³)		
	REGULAR COUPLING		W	4.079	2.935	10.23			103		1352	
	SPECIAL CLEARANCE COUPLING		Wc	3.961	2.935	8.44			83		1346	
	LENGTH OF COUPLING (in)		NL	8.443								
MAKE UP LOSS (in)		ML	3.274									

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TECHNICAL INFORMATION

TUBING

SIZE:	3 1/2 "
NOMINAL WEIGHT:	13.70 lb/ft
WALL THICKNESS:	0.413 "
THREADS PER INCH:	6



PIPE BODY	OUTSIDE DIA.(in)D	3.500	INSIDE DIA.(in) d	2.674	DRIFT DIA. (in)			2.549	PLAIN END WT (lb/ft)		13.62
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		11450	16650	16650	18730	19770	22900	26020	31220	
	INTERNAL YIELD PRESSURE (psi)		11360	16520	16520	18580	19620	22720	25810	30980	
	BODY YIELD STRENGTH (kips)		220	320	320	360	381	441	501	601	
	ULTIMATE STRENGTH (kips)		381	401	381	401	421	501	541	641	
	YIELD TORQUE (ft/lb)		14700	21400	21400	24000	25400	29400	33400	40100	

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	3330	4500	4500	5220	5220	5930	6840	7840
		OPTIMUM (ft/lb)	3690	4990	4990	5790	5790	6580	7590	8710
		MAXIMUM (ft/lb)	4050	5480	5480	6360	6360	7230	8340	9580
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	3000	4050	4050	4700	4700	5340	6160	6970
		OPTIMUM (ft/lb)	3320	4490	4490	5210	5210	5920	6830	7840
MAXIMUM (ft/lb)		3650	4930	4930	5720	5720	6510	7510	8710	

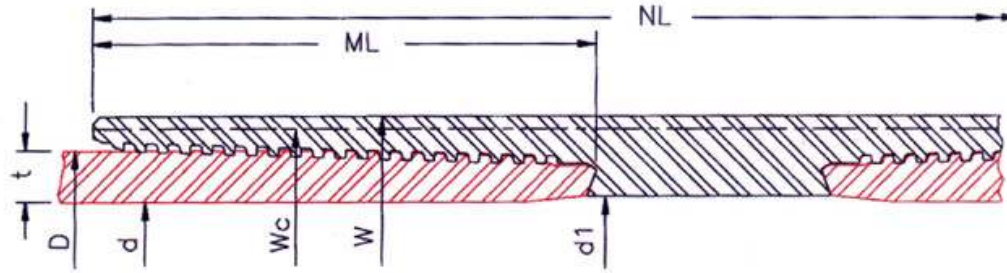
CONNECTION	COLLAPSE RESISTANCE (psi)		11450	16650	16650	18730	19770	22900	26020	31220
	INTERNAL YIELD PRESSURE (psi)		11360	16520	16520	18580	19620	22720	25810	30980
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		165	241	241	271	286	331	376	451
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		133	193	193	217	229	265	301	362
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		339	369	352	374	393	466	507	601
	SPECIAL CLEARANCE COUPLING O.D.		323	340	323	340	357	426	460	545
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	4.138	2.844	11.23		104		1472
	SPECIAL CLEARANCE COUPLING		Wc	4.045	2.844	9.80		90		1467
LENGTH OF COUPLING (in)		NL	8.443							
MAKE UP LOSS (in)		ML	3.274							

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TECHNICAL INFORMATION

TUBING

SIZE:	4 "
NOMINAL WEIGHT:	9.50 lb/ft
WALL THICKNESS:	0.226 "
THREADS PER INCH:	6



PIPE BODY	OUTSIDE DIA.(in)D	4.000	INSIDE DIA.(in) d	3.548	DRIFT DIA. (in)			3.423	PLAIN END WT (lb/ft)		9.11
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		5110	6590	6590	7080	7310	7910	8390	8900	
	INTERNAL YIELD PRESSURE (psi)		5440	7910	7910	8900	9390	10880	12360	14830	
	BODY YIELD STRENGTH (kips)		147	214	214	241	255	295	335	402	
	ULTIMATE STRENGTH (kips)		255	268	255	268	281	335	362	429	
	YIELD TORQUE (ft/lb)		12700	18400	18400	20700	21900	25300	28800	34600	

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	2610	3590	3590	4170	4170	4690	5220	6120
		OPTIMUM (ft/lb)	2890	3980	3980	4630	4630	5210	5790	6800
		MAXIMUM (ft/lb)	3170	4370	4370	5090	5090	5730	6360	7480
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	2350	3230	3230	3750	3750	4220	4700	5510
		OPTIMUM (ft/lb)	2600	3580	3580	4170	4170	4690	5210	6120
		MAXIMUM (ft/lb)	2850	3930	3930	4580	4580	5160	5720	6730

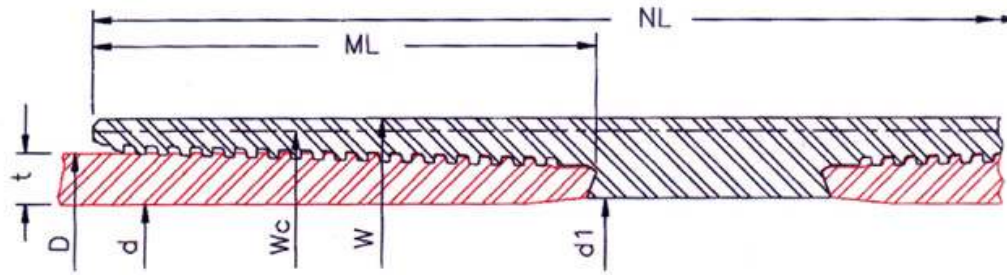
CONNECTION	COLLAPSE RESISTANCE (psi)		5110	6590	6590	7080	7310	7910	8390	8900
	INTERNAL YIELD PRESSURE (psi)		5440	7910	7910	8900	9390	10880	12360	14830
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		74	108	108	121	128	148	168	202
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		31	45	45	51	54	62	71	85
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		224	245	235	249	262	311	338	401
	SPECIAL CLEARANCE COUPLING O.D.		181	190	181	190	200	238	257	305
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	4.348	3.502	7.99		104		986
	SPECIAL CLEARANCE COUPLING		Wc	4.232	3.502	6.01		75		979
	LENGTH OF COUPLING (in)		NL	8.955						
MAKE UP LOSS (in)		ML	3.528							

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TECHNICAL INFORMATION

TUBING

SIZE:	4 "
NOMINAL WEIGHT:	10.90 lb/ft
WALL THICKNESS:	0.262 "
THREADS PER INCH:	6



P I P E B O D Y	OUTSIDE DIA.(in)D	4.000	INSIDE DIA.(in) d	3.476	DRIFT DIA. (in)			3.351	PLAIN END WT (lb/ft)		10.46
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		6590	8800	8800	9600	9980	11060	12030	13400	
	INTERNAL YIELD PRESSURE (psi)		6300	9170	9170	10320	10890	12610	14330	17190	
	BODY YIELD STRENGTH (kips)		169	246	246	277	292	338	385	462	
	ULTIMATE STRENGTH (kips)		292	308	292	308	323	385	415	492	
	YIELD TORQUE (ft/lb)		14300	20800	20800	23400	24700	28600	32500	39000	

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	2740	3710	3710	4300	4300	4880	5400	6320
		OPTIMUM (ft/lb)	3040	4120	4120	4770	4770	5420	6000	7020
		MAXIMUM (ft/lb)	3340	4530	4530	5240	5240	5960	6600	7720
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	2440	3300	3300	3830	3830	4340	4800	5620
		OPTIMUM (ft/lb)	2740	3710	3710	4300	4300	4880	5400	6320
MAXIMUM (ft/lb)		3040	4120	4120	4770	4770	5420	6000	7020	

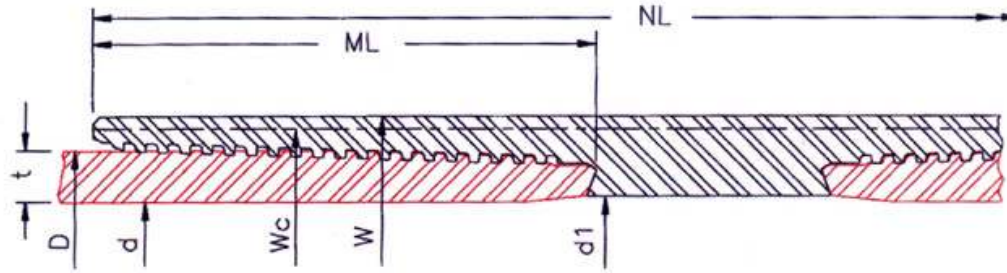
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		6590	8800	8800	9600	9980	11060	12030	13400
	INTERNAL YIELD PRESSURE (psi)		6300	9170	9170	10320	10890	12610	14330	17190
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		96	140	140	158	167	193	219	263
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		66	96	96	108	114	132	151	181
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		258	282	269	286	301	357	388	461
	SPECIAL CLEARANCE COUPLING O.D.		238	251	238	251	264	314	339	402
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	4.407	3.502	9.03		104		1132
	SPECIAL CLEARANCE COUPLING		Wc	4.327	3.502	7.63		86		1127
LENGTH OF COUPLING (in)		NL	8.955							
MAKE UP LOSS (in)		ML	3.528							

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TECHNICAL INFORMATION

TUBING

SIZE:	4 "
NOMINAL WEIGHT:	13.20 lb/ft
WALL THICKNESS:	0.330 "
THREADS PER INCH:	6



P I P E B O D Y	OUTSIDE DIA.(in)D	4.000	INSIDE DIA.(in) d	3.340	DRIFT DIA. (in)			3.215	PLAIN END WT (lb/ft)		12.93
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		8330	12110	12110	13620	14380	16650	18910	21910	
	INTERNAL YIELD PRESSURE (psi)		7940	11550	11550	12990	13720	15880	18050	21660	
	BODY YIELD STRENGTH (kips)		209	304	304	342	361	419	476	571	
	ULTIMATE STRENGTH (kips)		361	380	361	380	400	476	514	609	
	YIELD TORQUE (ft/lb)		17100	24900	24900	28000	29500	34200	38800	46600	

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	3130	4300	4300	4950	4950	5600	6320	7470
		OPTIMUM (ft/lb)	3470	4770	4770	5500	5500	6220	7020	8300
		MAXIMUM (ft/lb)	3810	5240	5240	6050	6050	6840	7720	9130
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	2790	3830	3830	4400	4400	4980	5620	6640
		OPTIMUM (ft/lb)	3130	4300	4300	4950	4950	5600	6320	7470
		MAXIMUM (ft/lb)	3470	4770	4770	5500	5500	6220	7020	8300

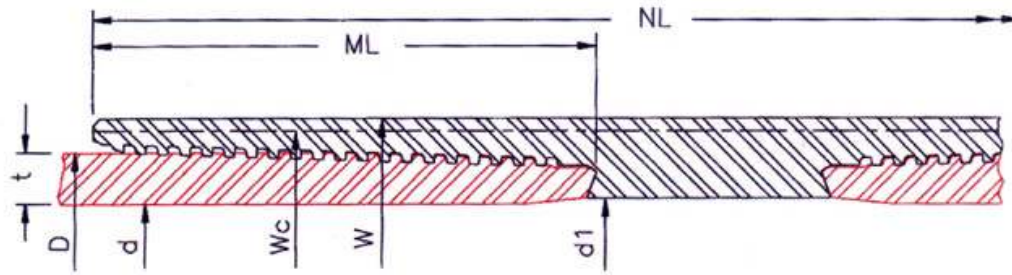
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		8330	12110	12110	13620	14380	16650	18910	21910
	INTERNAL YIELD PRESSURE (psi)		7940	11550	11550	12990	13720	15880	18050	21660
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		138	201	201	227	239	277	315	378
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		81	118	118	132	140	162	184	221
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		319	348	333	354	372	441	480	570
	SPECIAL CLEARANCE COUPLING O.D.		263	276	263	276	290	345	373	442
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	4.516	3.467	11.08		104		1399
	SPECIAL CLEARANCE COUPLING		Wc	4.366	3.467	8.42		76		1390
LENGTH OF COUPLING (in)		NL	8.955							
MAKE UP LOSS (in)		ML	3.528							

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TECHNICAL INFORMATION

TUBING

SIZE:	4 "
NOMINAL WEIGHT:	14.80 lb/ft
WALL THICKNESS:	0.380 "
THREADS PER INCH:	6



PIPE BODY	OUTSIDE DIA.(in)D	4.000	INSIDE DIA.(in) d	3.240	DRIFT DIA. (in)			3.115	PLAIN END WT (lb/ft)		14.69
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		9460	13760	13760	15480	16340	18910	21490	25790	
	INTERNAL YIELD PRESSURE (psi)		9140	13300	13300	14960	15790	18290	20780	24940	
	BODY YIELD STRENGTH (kips)		238	346	346	389	411	475	540	648	
	ULTIMATE STRENGTH (kips)		411	432	411	432	454	540	583	691	
	YIELD TORQUE (ft/lb)		18900	27500	27500	31000	32700	37900	43000	51700	

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	3910	5400	5400	6250	6250	7170	8150	9630
		OPTIMUM (ft/lb)	4340	6000	6000	6940	6940	7960	9050	10700
		MAXIMUM (ft/lb)	4770	6600	6600	7630	7630	8750	9950	11770
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	3520	4860	4860	5630	5630	6450	7340	8560
		OPTIMUM (ft/lb)	3910	5400	5400	6250	6250	7160	8150	9630
MAXIMUM (ft/lb)		4290	5940	5940	6870	6870	7880	8960	10700	

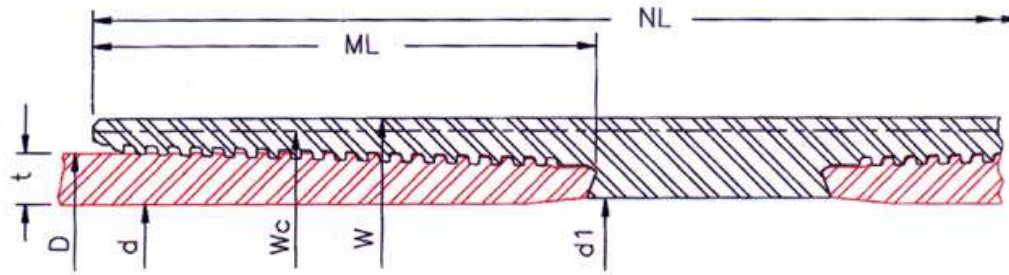
CONNECTION	COLLAPSE RESISTANCE (psi)		9460	13760	13760	15480	16340	18910	21490	25790
	INTERNAL YIELD PRESSURE (psi)		9140	13300	13300	14960	15790	18290	20780	24940
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		174	253	253	285	300	348	395	474
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		120	175	175	197	208	240	273	328
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		362	395	378	402	422	501	545	647
	SPECIAL CLEARANCE COUPLING O.D.		327	344	327	344	361	430	465	551
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	4.606	3.356	12.98		106		1591
	SPECIAL CLEARANCE COUPLING		Wc	4.469	3.356	10.49		84		1582
LENGTH OF COUPLING (in)		NL	8.955							
MAKE UP LOSS (in)		ML	3.528							

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TECHNICAL INFORMATION

TUBING

SIZE:	4 "
NOMINAL WEIGHT:	16.50 lb/ft
WALL THICKNESS:	0.430 "
THREADS PER INCH:	6



P I P E B O D Y	OUTSIDE DIA.(in)D	4.000	INSIDE DIA.(in) d	3.140	DRIFT DIA. (in)			3.015	PLAIN END WT (lb/ft)		16.39
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		10550	15350	15350	17270	18230	21110	23990	28780	
	INTERNAL YIELD PRESSURE (psi)		10350	15050	15050	16930	17870	20690	23520	28220	
	BODY YIELD STRENGTH (kips)		265	386	386	434	458	530	603	723	
	ULTIMATE STRENGTH (kips)		458	482	458	482	506	603	651	772	
	YIELD TORQUE (ft/lb)		20600	30000	30000	33800	35600	41300	46900	56300	

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	4040	5480	5480	6390	6390	7170	8150	9850
		OPTIMUM (ft/lb)	4480	6080	6080	7090	7090	7960	9050	10850
		MAXIMUM (ft/lb)	4920	6680	6680	7790	7790	8750	9950	11850
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
		OPTIMUM (ft/lb)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
		MAXIMUM (ft/lb)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

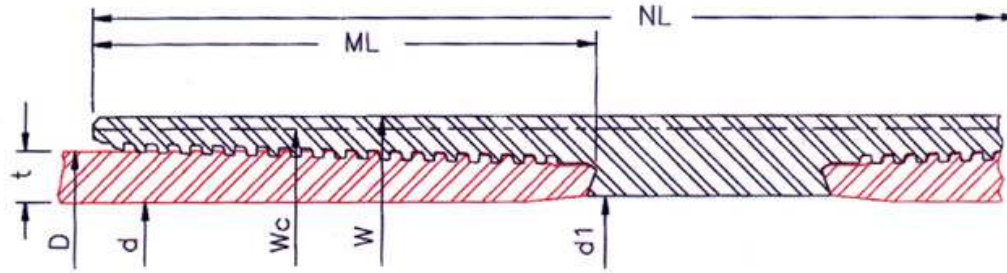
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		10550	15350	15350	17270	18230	21110	23990	28780
	INTERNAL YIELD PRESSURE (psi)		10350	15050	15050	16930	17870	20690	23520	28220
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		194	282	282	317	335	388	441	529
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		404	441	422	449	471	559	608	722
	SPECIAL CLEARANCE COUPLING O.D.		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	4.656	3.356	13.90		103		1773
	SPECIAL CLEARANCE COUPLING		Wc	n/a	3.356	n/a		n/a		n/a
	LENGTH OF COUPLING (in)		NL	8.955						
MAKE UP LOSS (in)		ML	3.528							

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TECHNICAL INFORMATION

TUBING

SIZE:	4 1/2 "
NOMINAL WEIGHT:	10.50 lb/ft
WALL THICKNESS:	0.224 "
THREADS PER INCH:	6



P I P E B O D Y	OUTSIDE DIA.(in)D	4.500	INSIDE DIA.(in) d	4.052	DRIFT DIA. (in)					3.927	PLAIN END WT (lb/ft)	10.23
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)			4010	4940	4940	5200	5310	5550	5820	6240	
	INTERNAL YIELD PRESSURE (psi)			4790	6970	6970	7840	8280	9580	10890	13070	
	BODY YIELD STRENGTH (kips)			166	241	241	271	286	331	376	451	
	ULTIMATE STRENGTH (kips)			286	301	286	301	316	376	406	481	
	YIELD TORQUE (ft/lb)			16200	23600	23600	26500	28000	32400	36900	44200	

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	3060	4040	4040	4690	4690	5280	5930	6840	
		OPTIMUM (ft/lb)	3400	4480	4480	5210	5210	5860	6580	7590	
		MAXIMUM (ft/lb)	3740	4920	4920	5730	5730	6440	7230	8340	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	2720	3600	3600	4170	4170	4700	5280	6090	
		OPTIMUM (ft/lb)	3060	4040	4040	4690	4690	5280	5930	6840	
		MAXIMUM (ft/lb)	3400	4480	4480	5210	5210	5860	6580	7590	

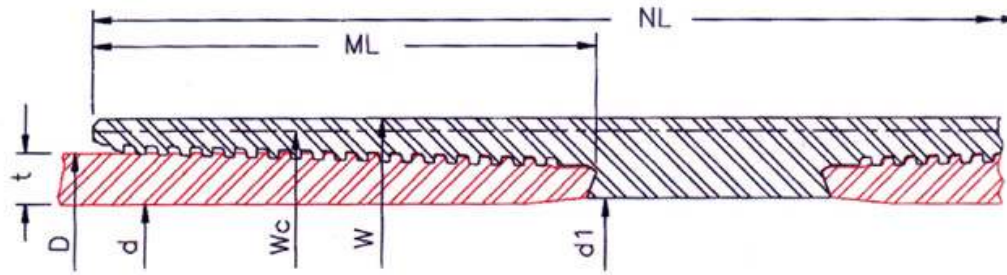
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		4010	4940	4940	5200	5310	5550	5820	6240	
	INTERNAL YIELD PRESSURE (psi)		4790	6970	6970	7840	8280	9580	10890	13070	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		89	129	129	145	153	177	202	242	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		68	99	99	112	118	136	155	186	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		249	274	262	279	293	347	378	449	
	SPECIAL CLEARANCE COUPLING O.D.		249	274	262	279	293	347	378	449	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)			JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	4.862	3.994	10.20			114		1111
	SPECIAL CLEARANCE COUPLING		Wc	4.813	3.994	9.17			101		1107
	LENGTH OF COUPLING (in)		NL	9.821							
MAKE UP LOSS (in)		ML	3.969								

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TECHNICAL INFORMATION

TUBING

SIZE:	4 1/2 "
NOMINAL WEIGHT:	11.60 lb/ft
WALL THICKNESS:	0.250 "
THREADS PER INCH:	6



PIPE BODY	OUTSIDE DIA.(in)D	4.500	INSIDE DIA.(in) d	4.000	DRIFT DIA. (in)					3.875	PLAIN END WT (lb/ft)		11.35
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			4960	6350	6350	6820	7030	7580	8000	8430		
	INTERNAL YIELD PRESSURE (psi)			5350	7780	7780	8750	9240	10690	12150	14580		
	BODY YIELD STRENGTH (kips)			184	267	267	300	317	367	417	501		
	ULTIMATE STRENGTH (kips)			317	334	317	334	350	417	451	534		
	YIELD TORQUE (ft/lb)			17800	25900	25900	29100	30700	35600	40400	48500		

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
	REGULAR	MINIMUM (ft/lb)	3130	4170	4170	4820	4820	5400	6060	7170		
		OPTIMUM (ft/lb)	3470	4630	4630	5350	5350	6000	6730	7960		
		MAXIMUM (ft/lb)	3810	5090	5090	5880	5880	6600	7400	8750		
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	2790	3710	3710	4290	4290	4800	5390	6380		
		OPTIMUM (ft/lb)	3130	4170	4170	4820	4820	5400	6060	7170		
MAXIMUM (ft/lb)		3470	4630	4630	5350	5350	6000	6730	7960			

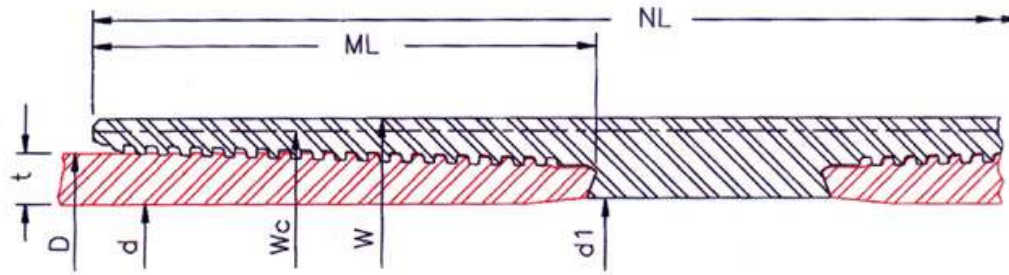
CONNECTION	COLLAPSE RESISTANCE (psi)		4960	6350	6350	6820	7030	7580	8000	8430	
	INTERNAL YIELD PRESSURE (psi)		5350	7780	7780	8750	9240	10690	12150	14580	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		89	129	129	145	153	177	202	242	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		68	99	99	112	118	136	155	186	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		277	304	291	309	325	385	420	498	
	SPECIAL CLEARANCE COUPLING O.D.		275	289	275	289	304	361	390	463	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)			JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	4.862	3.994	10.20			102		1229
	SPECIAL CLEARANCE COUPLING		Wc	4.813	3.994	9.17			91		1225
LENGTH OF COUPLING (in)		NL	9.821								
MAKE UP LOSS (in)		ML	3.969								

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TECHNICAL INFORMATION

TUBING

SIZE:	4 1/2 "
NOMINAL WEIGHT:	12.60 lb/ft
WALL THICKNESS:	0.271 "
THREADS PER INCH:	6



PIPE BODY	OUTSIDE DIA.(in)D	4.500	INSIDE DIA.(in) d	3.958	DRIFT DIA. (in)			3.833	PLAIN END WT (lb/ft)		12.24
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		5730	7500	7500	8120	8410	9210	9890	10760	
	INTERNAL YIELD PRESSURE (psi)		5800	8430	8430	9480	10010	11590	13170	15810	
	BODY YIELD STRENGTH (kips)		198	288	288	324	342	396	450	540	
	ULTIMATE STRENGTH (kips)		342	360	342	360	378	450	486	576	
	YIELD TORQUE (ft/lb)		19000	27700	27700	31100	32800	38000	43200	51800	

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	3190	4300	4300	4950	4950	5540	6190	7170
		OPTIMUM (ft/lb)	3540	4770	4770	5500	5500	6150	6870	7960
		MAXIMUM (ft/lb)	3890	5240	5240	6050	6050	6760	7550	8750
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	2840	3830	3830	4400	4400	4930	5510	6380
		OPTIMUM (ft/lb)	3190	4300	4300	4950	4950	5540	6190	7170
MAXIMUM (ft/lb)		3540	4770	4770	5500	5500	6150	6870	7960	

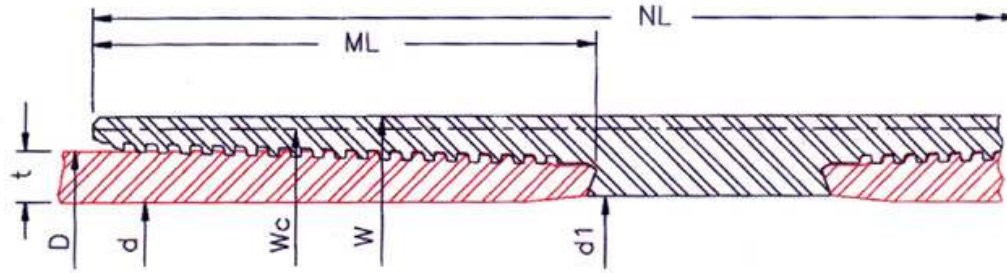
CONNECTION	COLLAPSE RESISTANCE (psi)		5730	7500	7500	8120	8410	9210	9890	10760
	INTERNAL YIELD PRESSURE (psi)		5800	8430	8430	9480	10010	11590	13170	15810
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		101	147	147	166	175	203	230	276
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		68	99	99	112	118	136	155	186
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		298	328	314	334	351	416	453	537
	SPECIAL CLEARANCE COUPLING O.D.		275	289	275	289	304	361	390	463
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	4.892	3.994	10.84		101		1325
	SPECIAL CLEARANCE COUPLING		Wc	4.813	3.994	9.17		85		1319
LENGTH OF COUPLING (in)		NL	9.821							
MAKE UP LOSS (in)		ML	3.969							

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TECHNICAL INFORMATION

TUBING

SIZE:	4 1/2 "
NOMINAL WEIGHT:	13.50 lb/ft
WALL THICKNESS:	0.290 "
THREADS PER INCH:	6



PIPE BODY	OUTSIDE DIA.(in)D	4.500	INSIDE DIA.(in) d	3.920	DRIFT DIA. (in)			3.795	PLAIN END WT (lb/ft)		13.04
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		6420	8540	8540	9300	9660	10690	11600	12880	
	INTERNAL YIELD PRESSURE (psi)		6200	9020	9020	10150	10710	12410	14100	16920	
	BODY YIELD STRENGTH (kips)		211	307	307	345	364	422	479	575	
	ULTIMATE STRENGTH (kips)		364	384	364	384	403	479	518	614	
	YIELD TORQUE (ft/lb)		20100	29200	29200	32900	34700	40200	45600	54800	

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	3330	4430	4430	5080	5080	5740	6320	7470
		OPTIMUM (ft/lb)	3690	4920	4920	5640	5640	6370	7020	8300
		MAXIMUM (ft/lb)	4050	5410	5410	6200	6200	7000	7720	9130
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	2970	3940	3940	4520	4520	5110	5620	6640
		OPTIMUM (ft/lb)	3330	4430	4430	5080	5080	5740	6320	7470
MAXIMUM (ft/lb)		3690	4920	4920	5640	5640	6370	7020	8300	

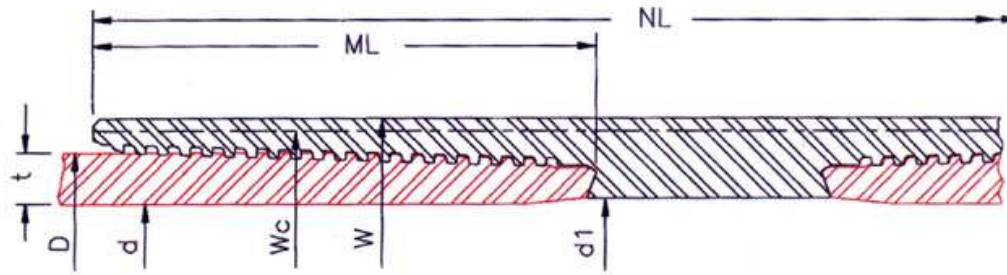
CONNECTION	COLLAPSE RESISTANCE (psi)		6420	8540	8540	9300	9660	10690	11600	12880
	INTERNAL YIELD PRESSURE (psi)		6200	9020	9020	10150	10710	12410	14100	16920
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		131	190	190	214	226	261	297	357
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		68	99	99	112	118	136	155	186
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		318	349	334	355	374	443	482	573
	SPECIAL CLEARANCE COUPLING O.D.		275	289	275	289	304	361	390	463
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	4.961	3.994	12.33		109		1414
	SPECIAL CLEARANCE COUPLING		Wc	4.813	3.994	9.17		79		1403
LENGTH OF COUPLING (in)		NL	9.821							
MAKE UP LOSS (in)		ML	3.969							

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TECHNICAL INFORMATION

TUBING

SIZE:	4 1/2 "
NOMINAL WEIGHT:	15.10 lb/ft
WALL THICKNESS:	0.337 "
THREADS PER INCH:	6



PIPE BODY	OUTSIDE DIA.(in)D	4.500	INSIDE DIA.(in) d	3.826	DRIFT DIA. (in)			3.701	PLAIN END WT (lb/ft)		14.98
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		7620	11080	11080	12220	12760	14340	15830	18100	
	INTERNAL YIELD PRESSURE (psi)		7210	10480	10480	11800	12450	14420	16380	19660	
	BODY YIELD STRENGTH (kips)		242	353	353	397	419	485	551	661	
	ULTIMATE STRENGTH (kips)		419	441	419	441	463	551	595	705	
	YIELD TORQUE (ft/lb)		22600	32900	32900	37000	39000	45200	51400	61700	

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	3780	5220	5220	5990	5990	6840	7470	8780
		OPTIMUM (ft/lb)	4200	5790	5790	6650	6650	7590	8300	9750
		MAXIMUM (ft/lb)	4620	6360	6360	7310	7310	8340	9130	10720
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	3360	4650	4650	5330	5330	6090	6640	7810
		OPTIMUM (ft/lb)	3780	5220	5220	5990	5990	6840	7470	8780
		MAXIMUM (ft/lb)	4200	5790	5790	6650	6650	7590	8300	9750

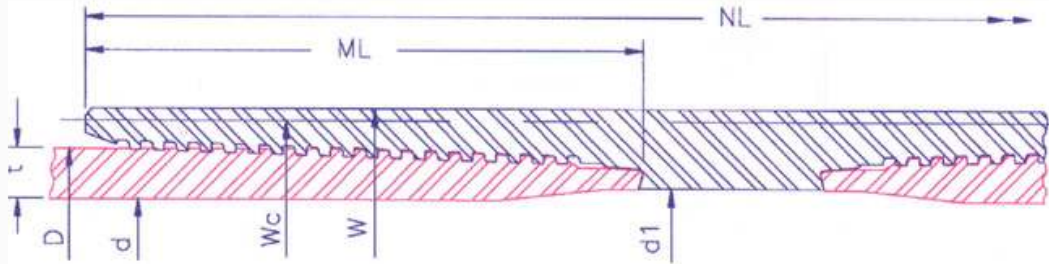
CONNECTION	COLLAPSE RESISTANCE (psi)		7620	11080	11080	12220	12760	14340	15830	18100
	INTERNAL YIELD PRESSURE (psi)		7210	10480	10480	11800	12450	14420	16380	19660
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		152	221	221	248	262	304	345	414
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		101	147	147	166	175	203	230	276
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		365	401	384	408	429	509	554	658
	SPECIAL CLEARANCE COUPLING O.D.		329	346	329	346	364	433	468	554
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)	
	REGULAR COUPLING		W	5.010	3.943	13.58		104		1623
	SPECIAL CLEARANCE COUPLING		Wc	4.892	3.943	11.02		83		1614
	LENGTH OF COUPLING (in)		NL	9.821						
MAKE UP LOSS (in)		ML	3.969							

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TECHNICAL INFORMATION

CASING

SIZE:	5 "
NOMINAL WEIGHT:	13.00 lb/ft
WALL THICKNESS:	0.253 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.000	INSIDE DIA.(in) d		4.494	DRIFT DIA. (in)		4.369	PLAIN END WT (lb/ft)		12.83
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		4140	5140	5140	5430	5560	5840	6040	6510	
	INTERNAL YIELD PRESSURE (psi)		4870	7080	7080	7970	8410	9740	11070	13280	
	BODY YIELD STRENGTH (kips)		208	302	302	340	358	415	472	566	
	ULTIMATE STRENGTH (kips)		358	377	358	377	396	472	509	604	
	YIELD TORQUE (ft/lb)		22600	32800	32800	36900	39000	45100	51300	61500	

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	3780	4110	4110	4370	4370	4560	4760	5140	
		OPTIMUM (ft/lb)	4200	4560	4560	4850	4850	5060	5280	5710	
		MAXIMUM (ft/lb)	4620	5010	5010	5330	5330	5560	5800	6280	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	3780	4110	4110	4370	4370	4560	4760	5140	
		OPTIMUM (ft/lb)	4200	4560	4560	4850	4850	5060	5280	5710	
MAXIMUM (ft/lb)		4620	5010	5010	5330	5330	5560	5800	6280		

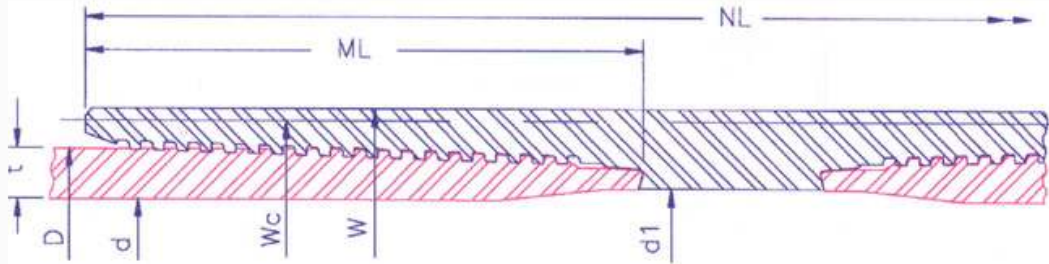
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		4140	5140	5140	5430	5560	5840	6040	6510	
	INTERNAL YIELD PRESSURE (psi)		4870	7080	7080	7970	8410	9740	11070	13280	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		179	261	261	294	310	359	408	489	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		86	125	125	141	149	172	195	235	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		309	341	327	348	366	434	473	562	
	SPECIAL CLEARANCE COUPLING O.D.		309	341	327	348	366	434	473	562	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	5.587	4.459	18.84		146		1414	
	SPECIAL CLEARANCE COUPLING		Wc	5.390	4.459	13.37		101		1395	
LENGTH OF COUPLING (in)		NL	11.357								
MAKE UP LOSS (in)		ML	4.724								

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TECHNICAL INFORMATION

CASING

SIZE:	5 "
NOMINAL WEIGHT:	15.00 lb/ft
WALL THICKNESS:	0.296 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.000	INSIDE DIA.(in) d	4.408	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		5560	7250	7250	7830	8110	8850	9480	10250
	INTERNAL YIELD PRESSURE (psi)		5700	8290	8290	9320	9840	11400	12950	15540
	BODY YIELD STRENGTH (kips)		241	350	350	394	416	481	547	656
	ULTIMATE STRENGTH (kips)		416	437	416	437	459	547	591	700
	YIELD TORQUE (ft/lb)		25700	37400	37400	42100	44400	51400	58400	70100

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	4230	4630	4630	4820	4820	5020	5280	5670
		OPTIMUM (ft/lb)	4700	5140	5140	5350	5350	5570	5860	6290
		MAXIMUM (ft/lb)	5170	5650	5650	5880	5880	6120	6440	6910
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	4230	4630	4630	4820	4820	5020	5280	5670
		OPTIMUM (ft/lb)	4700	5140	5140	5350	5350	5570	5860	6290
MAXIMUM (ft/lb)		5170	5650	5650	5880	5880	6120	6440	6910	

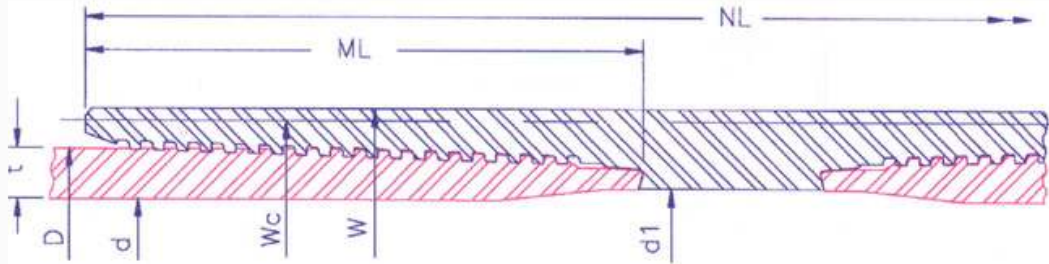
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		5560	7250	7250	7830	8110	8850	9480	10250	
	INTERNAL YIELD PRESSURE (psi)		5700	8290	8290	9320	9840	11400	12950	15540	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		179	261	261	294	310	359	408	489	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		86	125	125	141	149	172	195	235	
			PARTING LOAD (kips)								
	REGULAR COUPLING O.D.		359	396	379	404	424	503	548	651	
	SPECIAL CLEARANCE COUPLING O.D.		345	363	345	363	381	454	490	581	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING	W	5.587	4.459	18.84		126		1629		
	SPECIAL CLEARANCE COUPLING	Wc	5.390	4.459	13.37		87		1610		
LENGTH OF COUPLING (in)	NL	11.357									
MAKE UP LOSS (in)	ML	4.724									

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TECHNICAL INFORMATION

CASING

SIZE:	5 "
NOMINAL WEIGHT:	18.00 lb/ft
WALL THICKNESS:	0.362 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.000	INSIDE DIA.(in) d	4.276	DRIFT DIA. (in)					4.151	PLAIN END WT (lb/ft)		17.93
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150			
	COLLAPSE RESISTANCE (psi)		7390	10490	10490	11520	12030	13470	14820	16860			
	INTERNAL YIELD PRESSURE (psi)		6970	10140	10140	11400	12040	13940	15840	19000			
	BODY YIELD STRENGTH (kips)		290	422	422	475	501	580	659	791			
	ULTIMATE STRENGTH (kips)		501	527	501	527	554	659	712	844			
	YIELD TORQUE (ft/lb)		30200	43900	43900	49400	52200	60400	68700	82400			

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	5140	5540	5540	5800	5800	6060	6390	6840
		OPTIMUM (ft/lb)	5710	6150	6150	6440	6440	6730	7090	7590
		MAXIMUM (ft/lb)	6280	6760	6760	7080	7080	7400	7790	8340
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	5140	5540	5540	5800	5800	6060	6390	6840
		OPTIMUM (ft/lb)	5710	6150	6150	6440	6440	6730	7090	7590
		MAXIMUM (ft/lb)	6280	6760	6760	7080	7080	7400	7790	8340

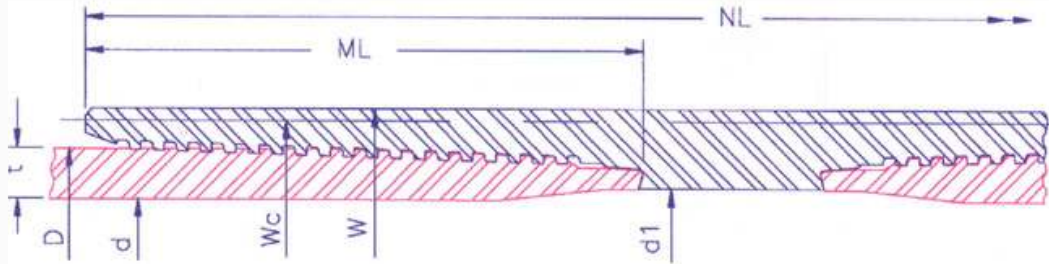
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		7390	10490	10490	11520	12030	13470	14820	16860	
	INTERNAL YIELD PRESSURE (psi)		6970	10140	10140	11400	12040	13940	15840	19000	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		179	261	261	294	310	359	408	489	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		86	125	125	141	149	172	195	235	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		432	477	457	487	512	606	661	785	
	SPECIAL CLEARANCE COUPLING O.D.		345	363	345	363	381	454	490	581	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	5.587	4.419	18.99		105		1950	
	SPECIAL CLEARANCE COUPLING		Wc	5.390	4.419	13.53		72		1931	
LENGTH OF COUPLING (in)		NL	11.357								
MAKE UP LOSS (in)		ML	4.724								

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TECHNICAL INFORMATION

CASING

SIZE:	5 "
NOMINAL WEIGHT:	20.30 lb/ft
WALL THICKNESS:	0.408 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.000	INSIDE DIA.(in) d		4.184	DRIFT DIA. (in)			4.059	PLAIN END WT (lb/ft)		20.01
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		8240	11990	11990	13490	14240	16490	18550	21460		
	INTERNAL YIELD PRESSURE (psi)		7850	11420	11420	12850	13570	15710	17850	21420		
	BODY YIELD STRENGTH (kips)		324	471	471	530	559	647	736	883		
	ULTIMATE STRENGTH (kips)		559	589	559	589	618	736	795	942		
	YIELD TORQUE (ft/lb)		33100	48100	48100	54200	57200	66200	75200	90300		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	6190	6840	6840	7170	7170	7470	7830	8390	
		OPTIMUM (ft/lb)	6870	7590	7590	7960	7960	8300	8700	9310	
		MAXIMUM (ft/lb)	7550	8340	8340	8750	8750	9130	9570	10230	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	6190	6840	6840	7170	7170	7470	7830	8390	
		OPTIMUM (ft/lb)	6870	7590	7590	7960	7960	8300	8700	9310	
MAXIMUM (ft/lb)		7550	8340	8340	8750	8750	9130	9570	10230		

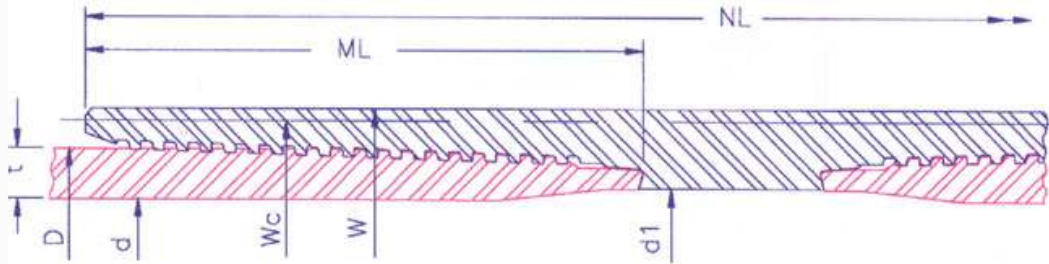
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		8240	11990	11990	13490	14240	16490	18550	21460		
	INTERNAL YIELD PRESSURE (psi)		7850	11420	11420	12850	13570	15710	17850	21420		
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		179	261	261	294	310	359	408	489		
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		86	125	125	141	149	172	195	235		
	PARTING LOAD (kips)											
	REGULAR COUPLING O.D.		482	524	498	524	551	655	708	839		
	SPECIAL CLEARANCE COUPLING O.D.		345	363	345	363	381	454	490	581		
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)			
	REGULAR COUPLING		W	5.587	4.313	19.41		94		2171		
	SPECIAL CLEARANCE COUPLING		Wc	5.390	4.313	13.94		65		2152		
LENGTH OF COUPLING (in)		NL	11.357									
MAKE UP LOSS (in)		ML	4.724									

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TECHNICAL INFORMATION

CASING

SIZE:	5 "
NOMINAL WEIGHT:	21.40 lb/ft
WALL THICKNESS:	0.437 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.000	INSIDE DIA.(in) d		4.126	DRIFT DIA. (in)			4.001	PLAIN END WT (lb/ft)		21.30
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		8770	12760	12760	14360	15150	17550	19940	23930		
	INTERNAL YIELD PRESSURE (psi)		8410	12240	12240	13770	14530	16820	19120	22940		
	BODY YIELD STRENGTH (kips)		345	501	501	564	595	689	783	940		
	ULTIMATE STRENGTH (kips)		595	626	595	626	658	783	846	1002		
	YIELD TORQUE (ft/lb)		34800	50700	50700	57000	60200	69700	79200	95000		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	6450	7170	7170	7470	7470	7830	8150	8780	
		OPTIMUM (ft/lb)	7160	7960	7960	8300	8300	8700	9050	9750	
		MAXIMUM (ft/lb)	7870	8750	8750	9130	9130	9570	9950	10720	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	6450	7170	7170	7470	7470	7830	8150	8780	
		OPTIMUM (ft/lb)	7160	7960	7960	8300	8300	8700	9050	9750	
MAXIMUM (ft/lb)		7870	8750	8750	9130	9130	9570	9950	10720		

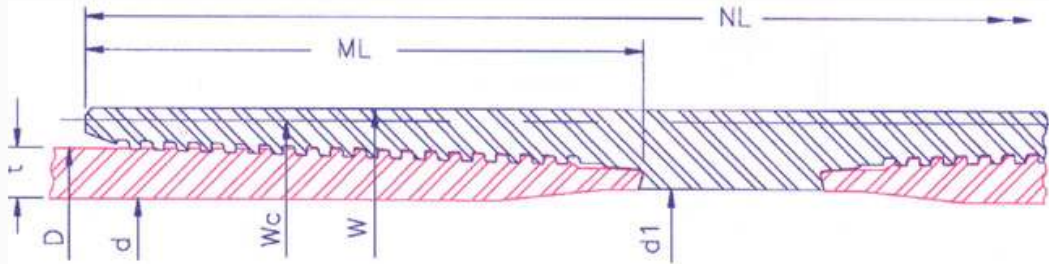
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		8770	12760	12760	14360	15150	17550	19940	23930	
	INTERNAL YIELD PRESSURE (psi)		8410	12240	12240	13770	14530	16820	19120	22940	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		179	261	261	294	310	359	408	489	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		86	125	125	141	149	172	195	235	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		498	524	498	524	551	655	708	839	
	SPECIAL CLEARANCE COUPLING O.D.		345	363	345	363	381	454	490	581	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	5.587	4.313	19.41		88		2305	
	SPECIAL CLEARANCE COUPLING		Wc	5.390	4.313	13.94		61		2286	
LENGTH OF COUPLING (in)		NL	11.357								
MAKE UP LOSS (in)		ML	4.724								

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TECHNICAL INFORMATION

CASING

SIZE:	5 "
NOMINAL WEIGHT:	23.20 lb/ft
WALL THICKNESS:	0.478 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.000	INSIDE DIA.(in) d	4.044	DRIFT DIA. (in)					3.919	PLAIN END WT (lb/ft)		23.08
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150			
	COLLAPSE RESISTANCE (psi)		9510	13830	13830	15560	16430	19020	21620	25940			
	INTERNAL YIELD PRESSURE (psi)		9200	13380	13380	15060	15890	18400	20910	25100			
	BODY YIELD STRENGTH (kips)		373	543	543	611	645	747	849	1019			
	ULTIMATE STRENGTH (kips)		645	679	645	679	713	849	917	1086			
	YIELD TORQUE (ft/lb)		37200	54000	54000	60800	64200	74300	84400	101300			

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	6840	7470	7470	7830	7830	8150	8460	9150
		OPTIMUM (ft/lb)	7590	8300	8300	8700	8700	9050	9400	10150
		MAXIMUM (ft/lb)	8340	9130	9130	9570	9570	9950	10340	11150
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	6840	7470	7470	7830	7830	8150	8460	9150
		OPTIMUM (ft/lb)	7590	8300	8300	8700	8700	9050	9400	10150
MAXIMUM (ft/lb)		8340	9130	9130	9570	9570	9950	10340	11150	

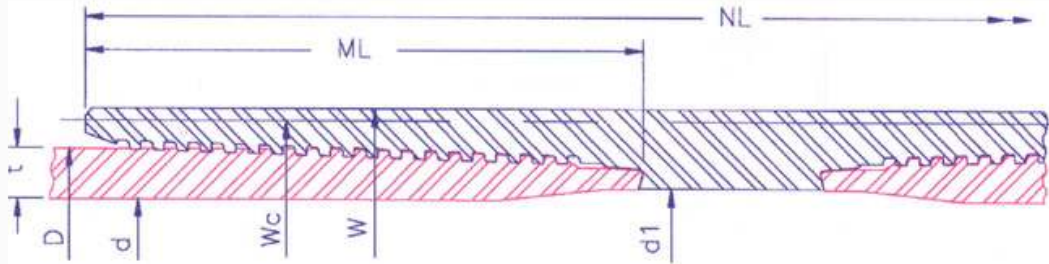
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		9510	13830	13830	15560	16430	19020	21620	25940
	INTERNAL YIELD PRESSURE (psi)		9200	13380	13380	15060	15890	18400	20910	25100
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		179	261	261	294	310	359	408	489
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		86	125	125	141	149	172	195	235
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		498	524	498	524	551	655	708	839
	SPECIAL CLEARANCE COUPLING O.D.		345	363	345	363	381	454	490	581
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	5.587	4.313	19.41		81		2492
	SPECIAL CLEARANCE COUPLING		Wc	5.390	4.313	13.94		56		2473
LENGTH OF COUPLING (in)		NL	11.357							
MAKE UP LOSS (in)		ML	4.724							

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TECHNICAL INFORMATION

CASING

SIZE:	5 "
NOMINAL WEIGHT:	24.10 lb/ft
WALL THICKNESS:	0.500 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.000	INSIDE DIA.(in) d	4.000	DRIFT DIA. (in)					3.875	PLAIN END WT (lb/ft)		24.03
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			9900	14400	14400	16200	17100	19800	22500	27000		
	INTERNAL YIELD PRESSURE (psi)			9620	14000	14000	15750	16620	19250	21880	26250		
	BODY YIELD STRENGTH (kips)			389	565	565	636	672	778	884	1060		
	ULTIMATE STRENGTH (kips)			672	707	672	707	742	884	954	1131		
	YIELD TORQUE (ft/lb)			38300	55800	55800	62700	66200	76700	87100	104600		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
	REGULAR	MINIMUM (ft/lb)	6840	7470	7470	7830	7830	8460	8780	9490		
		OPTIMUM (ft/lb)	7590	8300	8300	8700	8700	9400	9750	10530		
		MAXIMUM (ft/lb)	8340	9130	9130	9570	9570	10340	10720	11570		
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	6840	7470	7470	7830	7830	8460	8780	9490		
		OPTIMUM (ft/lb)	7590	8300	8300	8700	8700	9400	9750	10530		
MAXIMUM (ft/lb)		8340	9130	9130	9570	9570	10340	10720	11570			

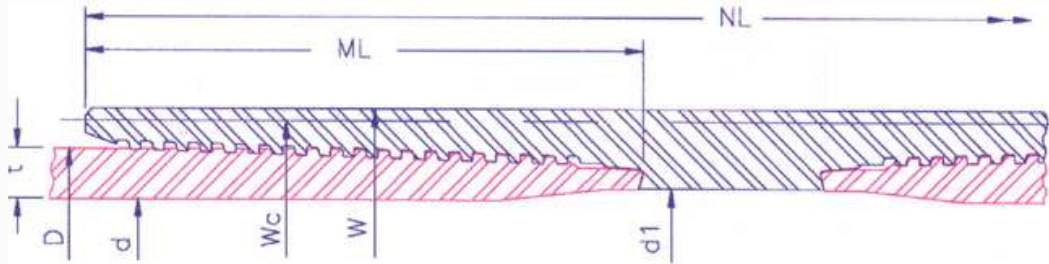
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)			9900	14400	14400	16200	17100	19800	22500	27000		
	INTERNAL YIELD PRESSURE (psi)			9620	14000	14000	15750	16620	19250	21880	26250		
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)			179	261	261	294	310	359	408	489		
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)			86	125	125	141	149	172	195	235		
	PARTING LOAD (kips)												
	REGULAR COUPLING O.D.			498	524	498	524	551	655	708	839		
	SPECIAL CLEARANCE COUPLING O.D.			345	363	345	363	381	454	490	581		
				OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)			
	REGULAR COUPLING			W	5.587	4.313	19.41		78		2590		
	SPECIAL CLEARANCE COUPLING			Wc	5.390	4.313	13.94		54		2571		
LENGTH OF COUPLING (in)			NL	11.357									
MAKE UP LOSS (in)			ML	4.724									

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TECHNICAL INFORMATION

CASING

SIZE:	5 1/2 "
NOMINAL WEIGHT:	15.50 lb/ft
WALL THICKNESS:	0.275 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.500	INSIDE DIA.(in) d	4.950	DRIFT DIA. (in)					4.825	PLAIN END WT (lb/ft)		15.35
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150			
	COLLAPSE RESISTANCE (psi)		4040	4990	4990	5260	5380	5630	5880	6310			
	INTERNAL YIELD PRESSURE (psi)		4810	7000	7000	7880	8310	9620	10940	13120			
	BODY YIELD STRENGTH (kips)		248	361	361	406	429	497	564	677			
	ULTIMATE STRENGTH (kips)		429	451	429	451	474	564	609	722			
	YIELD TORQUE (ft/lb)		29700	43200	43200	48600	51300	59500	67600	81100			

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	4230	4630	4630	4880	4880	5140	5400	5860	
		OPTIMUM (ft/lb)	4700	5140	5140	5420	5420	5710	6000	6510	
		MAXIMUM (ft/lb)	5170	5650	5650	5960	5960	6280	6600	7160	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	4230	4630	4630	4880	4880	5140	5400	5860	
		OPTIMUM (ft/lb)	4700	5140	5140	5420	5420	5710	6000	6510	
MAXIMUM (ft/lb)		5170	5650	5650	5960	5960	6280	6600	7160		

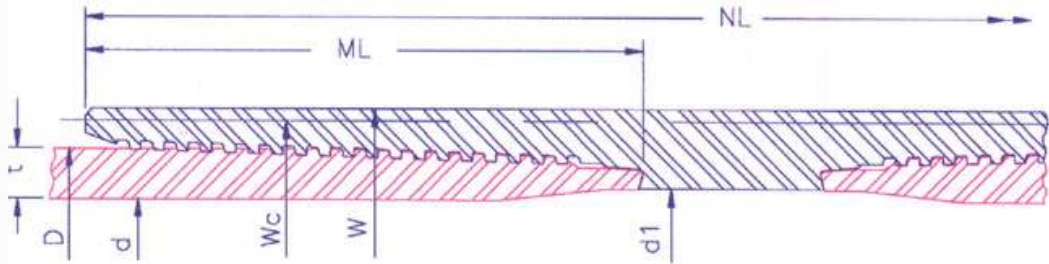
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		4040	4990	4990	5260	5380	5630	5880	6310		
	INTERNAL YIELD PRESSURE (psi)		4810	7000	7000	7880	8310	9620	10940	13120		
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		192	279	279	314	331	383	436	523		
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		96	140	140	157	166	192	218	262		
	PARTING LOAD (kips)											
	REGULAR COUPLING O.D.		366	406	389	415	436	517	564	670		
	SPECIAL CLEARANCE COUPLING O.D.		366	404	384	404	424	505	545	646		
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)			
	REGULAR COUPLING		W	6.075	4.951	20.75		133		1686		
	SPECIAL CLEARANCE COUPLING		Wc	5.890	4.951	15.04		94		1665		
LENGTH OF COUPLING (in)		NL	11.593									
MAKE UP LOSS (in)		ML	4.850									

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TECHNICAL INFORMATION

CASING

SIZE:	5 1/2 "
NOMINAL WEIGHT:	17.00 lb/ft
WALL THICKNESS:	0.304 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.500	INSIDE DIA.(in) d	4.892	DRIFT DIA. (in)			PLAIN END WT (lb/ft)			16.87
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		4910	6290	6290	6740	6940	7480	7890	8290	
	INTERNAL YIELD PRESSURE (psi)		5320	7740	7740	8710	9190	10640	12090	14510	
	BODY YIELD STRENGTH (kips)		273	397	397	447	471	546	620	744	
	ULTIMATE STRENGTH (kips)		471	496	471	496	521	620	670	794	
	YIELD TORQUE (ft/lb)		32300	47000	47000	52900	55900	64700	73500	88200	

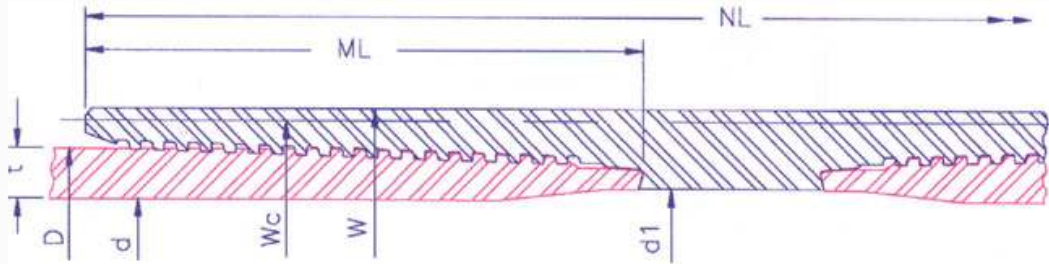
M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	4560	4950	4950	5220	5220	5480	5740	6190	
		OPTIMUM (ft/lb)	5060	5500	5500	5790	5790	6080	6370	6870	
		MAXIMUM (ft/lb)	5560	6050	6050	6360	6360	6680	7000	7550	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	4560	4950	4950	5220	5220	5480	5740	6190	
		OPTIMUM (ft/lb)	5060	5500	5500	5790	5790	6080	6370	6870	
MAXIMUM (ft/lb)		5560	6050	6050	6360	6360	6680	7000	7550		

C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		4910	6290	6290	6740	6940	7480	7890	8290	
	INTERNAL YIELD PRESSURE (psi)		5320	7740	7740	8710	9190	10640	12090	14510	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		192	279	279	314	331	383	436	523	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		96	140	140	157	166	192	218	262	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		402	446	428	456	480	568	620	736	
	SPECIAL CLEARANCE COUPLING O.D.		384	404	384	404	424	505	545	646	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	6.075	4.951	20.75		121		1845	
	SPECIAL CLEARANCE COUPLING		Wc	5.890	4.951	15.04		86		1825	
LENGTH OF COUPLING (in)		NL	11.593		The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information						
MAKE UP LOSS (in)		ML	4.850								

TECHNICAL INFORMATION

CASING

SIZE:	5 1/2 "
NOMINAL WEIGHT:	20.00 lb/ft
WALL THICKNESS:	0.361 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.500	INSIDE DIA.(in) d	4.778	DRIFT DIA. (in)					4.653	PLAIN END WT (lb/ft)		19.81
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150			
	COLLAPSE RESISTANCE (psi)		6620	8830	8830	9630	10020	11100	12080	13470			
	INTERNAL YIELD PRESSURE (psi)		6320	9190	9190	10340	10910	12640	14360	17230			
	BODY YIELD STRENGTH (kips)		321	466	466	525	554	641	729	874			
	ULTIMATE STRENGTH (kips)		554	583	554	583	612	729	787	933			
	YIELD TORQUE (ft/lb)		37200	54100	54100	60900	64300	74400	84600	101500			

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	5340	5860	5860	6120	6120	6450	6840	7170	
		OPTIMUM (ft/lb)	5930	6510	6510	6800	6800	7160	7590	7960	
		MAXIMUM (ft/lb)	6520	7160	7160	7480	7480	7870	8340	8750	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	5340	5860	5860	6120	6120	6450	6840	7170	
		OPTIMUM (ft/lb)	5930	6510	6510	6800	6800	7160	7590	7960	
MAXIMUM (ft/lb)		6520	7160	7160	7480	7480	7870	8340	8750		

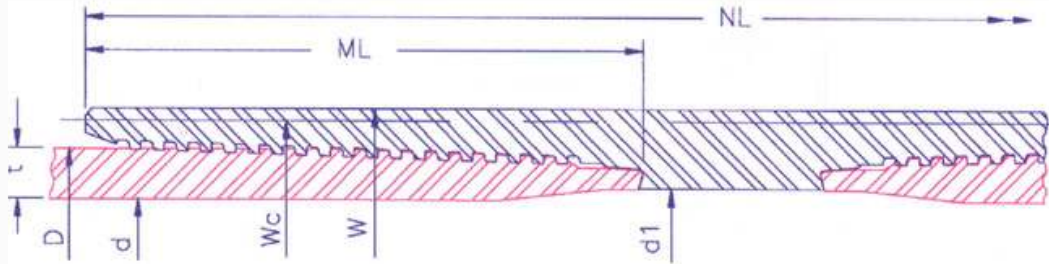
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		6620	8830	8830	9630	10020	11100	12080	13470	
	INTERNAL YIELD PRESSURE (psi)		6320	9190	9190	10340	10910	12640	14360	17230	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		192	279	279	314	331	383	436	523	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		96	140	140	157	166	192	218	262	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		472	524	503	536	563	667	728	865	
	SPECIAL CLEARANCE COUPLING O.D.		384	404	384	404	424	505	545	646	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	6.075	4.919	20.89		103		2154	
	SPECIAL CLEARANCE COUPLING		Wc	5.890	4.919	15.18		73		2134	
LENGTH OF COUPLING (in)		NL	11.593								
MAKE UP LOSS (in)		ML	4.850								

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TECHNICAL INFORMATION

CASING

SIZE:	5 1/2 "
NOMINAL WEIGHT:	23.00 lb/ft
WALL THICKNESS:	0.415 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.500	INSIDE DIA.(in) d	4.670	DRIFT DIA. (in)					4.545	PLAIN END WT (lb/ft)		22.54
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150			
	COLLAPSE RESISTANCE (psi)		7670	11160	11160	12380	12930	14540	16060	18390			
	INTERNAL YIELD PRESSURE (psi)		7260	10560	10560	11880	12540	14520	16510	19810			
	BODY YIELD STRENGTH (kips)		365	530	530	597	630	729	829	994			
	ULTIMATE STRENGTH (kips)		630	663	630	663	696	829	895	1061			
	YIELD TORQUE (ft/lb)		41500	60400	60400	67900	71700	83000	94300	113200			

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	6390	7170	7170	7470	7470	7830	8460	9150	
		OPTIMUM (ft/lb)	7090	7960	7960	8300	8300	8700	9400	10150	
		MAXIMUM (ft/lb)	7790	8750	8750	9130	9130	9570	10340	11150	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	6390	7170	7170	7470	7470	7830	8460	9150	
		OPTIMUM (ft/lb)	7090	7960	7960	8300	8300	8700	9400	10150	
MAXIMUM (ft/lb)		7790	8750	8750	9130	9130	9570	10340	11150		

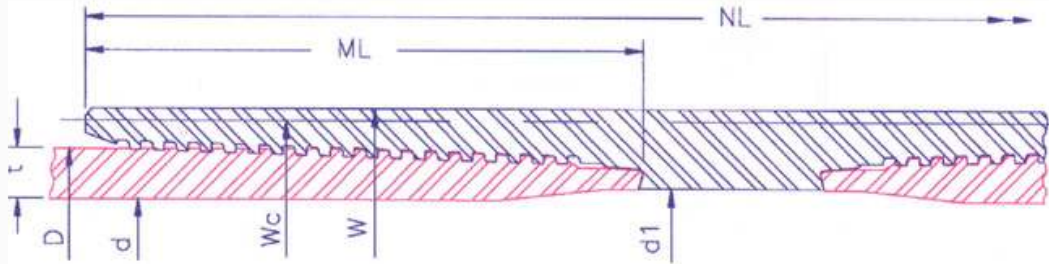
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		7670	11160	11160	12380	12930	14540	16060	18390	
	INTERNAL YIELD PRESSURE (psi)		7260	10560	10560	11880	12540	14520	16510	19810	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		192	279	279	314	331	383	436	523	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		96	140	140	157	166	192	218	262	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		537	569	541	569	598	711	768	910	
	SPECIAL CLEARANCE COUPLING O.D.		384	404	384	404	424	505	545	646	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	6.075	4.833	21.26		90		2442	
	SPECIAL CLEARANCE COUPLING		Wc	5.890	4.833	15.55		64		2422	
LENGTH OF COUPLING (in)		NL	11.593								
MAKE UP LOSS (in)		ML	4.850								

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TECHNICAL INFORMATION

CASING

SIZE:	5 1/2 "
NOMINAL WEIGHT:	26.00 lb/ft
WALL THICKNESS:	0.476 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	5.500	INSIDE DIA.(in) d	4.548	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		8700	12650	12650	14230	15020	17390	19760	23720
	INTERNAL YIELD PRESSURE (psi)		8330	12120	12120	13630	14390	16660	18930	22720
	BODY YIELD STRENGTH (kips)		413	601	601	676	714	826	939	1127
	ULTIMATE STRENGTH (kips)		714	751	714	751	789	939	1014	1202
	YIELD TORQUE (ft/lb)		46000	66900	66900	75300	79500	92100	104600	125500

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	6840	7470	7470	8150	8150	8460	8780	9850
		OPTIMUM (ft/lb)	7590	8300	8300	9050	9050	9400	9750	10850
		MAXIMUM (ft/lb)	8340	9130	9130	9950	9950	10340	10720	11850
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	6840	7470	7470	8150	8150	8460	8780	9850
		OPTIMUM (ft/lb)	7590	8300	8300	9050	9050	9400	9750	10850
MAXIMUM (ft/lb)		8340	9130	9130	9950	9950	10340	10720	11850	

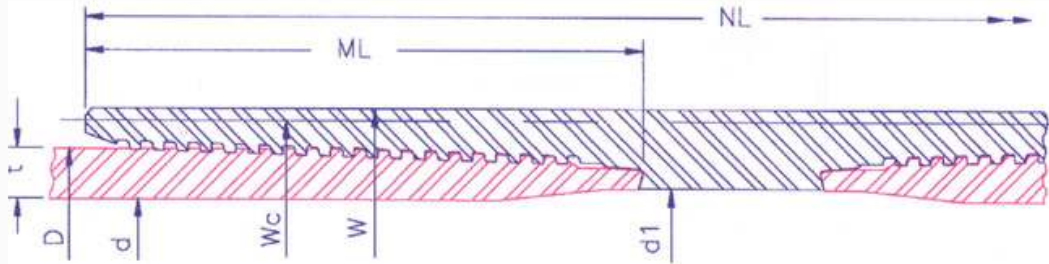
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		8700	12650	12650	14230	15020	17390	19760	23720	
	INTERNAL YIELD PRESSURE (psi)		8330	12120	12120	13630	14390	16660	18930	22720	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		192	279	279	314	331	383	436	523	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		96	140	140	157	166	192	218	262	
			PARTING LOAD (kips)								
	REGULAR COUPLING O.D.		541	569	541	569	598	711	768	910	
	SPECIAL CLEARANCE COUPLING O.D.		384	404	384	404	424	505	545	646	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING	W	6.075	4.833	21.26		80		2756		
	SPECIAL CLEARANCE COUPLING	Wc	5.890	4.833	15.55		57		2735		
LENGTH OF COUPLING (in)	NL	11.593									
MAKE UP LOSS (in)	ML	4.850									

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TECHNICAL INFORMATION

CASING

SIZE:	6 5/8 "
NOMINAL WEIGHT:	20.00 lb/ft
WALL THICKNESS:	0.288 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	6.625	INSIDE DIA.(in) d	6.049	DRIFT DIA. (in)					5.924	PLAIN END WT (lb/ft)		19.49
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			2970	3470	3470	3690	3790	4020	4160	4220		
	INTERNAL YIELD PRESSURE (psi)			4180	6090	6090	6850	7230	8370	9510	11410		
	BODY YIELD STRENGTH (kips)			315	459	459	516	545	631	717	860		
	ULTIMATE STRENGTH (kips)			545	573	545	573	602	717	774	917		
	YIELD TORQUE (ft/lb)			46100	67000	67000	75400	79600	92200	104700	125700		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
	REGULAR	MINIMUM (ft/lb)	5080	5740	5740	6060	6060	6450	6840	7470		
		OPTIMUM (ft/lb)	5640	6370	6370	6730	6730	7160	7590	8300		
		MAXIMUM (ft/lb)	6200	7000	7000	7400	7400	7870	8340	9130		
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	5080	5740	5740	6060	6060	6450	6840	7470		
		OPTIMUM (ft/lb)	5640	6370	6370	6730	6730	7160	7590	8300		
MAXIMUM (ft/lb)		6200	7000	7000	7400	7400	7870	8340	9130			

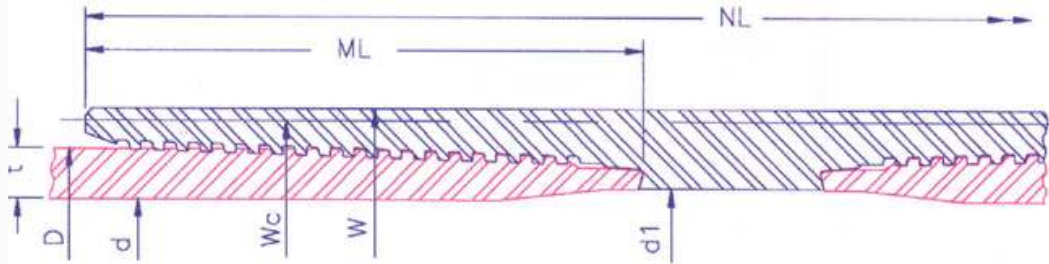
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)			2970	3470	3470	3690	3790	4020	4160	4220	
	INTERNAL YIELD PRESSURE (psi)			4180	6090	6090	6850	7230	8370	9510	11410	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)			392	570	570	642	677	784	891	1070	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)			145	211	211	237	250	289	329	395	
	PARTING LOAD (kips)											
	REGULAR COUPLING O.D.			453	509	489	523	550	650	711	845	
	SPECIAL CLEARANCE COUPLING O.D.			453	493	468	493	518	616	666	789	
				OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING			W	7.413	6.069	30.67		169		2166	
	SPECIAL CLEARANCE COUPLING			Wc	7.016	6.069	15.59		91		2113	
LENGTH OF COUPLING (in)			NL	11.829								
MAKE UP LOSS (in)			ML	4.965								

The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information

TECHNICAL INFORMATION

CASING

SIZE:	6 5/8 "
NOMINAL WEIGHT:	23.20 lb/ft
WALL THICKNESS:	0.330 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	6.625	INSIDE DIA.(in) d	5.965	DRIFT DIA. (in)					5.840	PLAIN END WT (lb/ft)		22.19
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			4010	4940	4940	5210	5320	5570	5830	6250		
	INTERNAL YIELD PRESSURE (psi)			4790	6970	6970	7850	8280	9590	10900	13080		
	BODY YIELD STRENGTH (kips)			359	522	522	587	620	718	816	979		
	ULTIMATE STRENGTH (kips)			620	653	620	653	685	816	881	1044		
	YIELD TORQUE (ft/lb)			51800	75300	75300	84700	89500	103600	117700	141200		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
	REGULAR	MINIMUM (ft/lb)	5600	6250	6250	6510	6510	7170	7470	8170		
		OPTIMUM (ft/lb)	6220	6940	6940	7230	7230	7960	8300	9080		
		MAXIMUM (ft/lb)	6840	7630	7630	7950	7950	8750	9130	9980		
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	5600	6250	6250	6510	6510	7170	7470	8170		
		OPTIMUM (ft/lb)	6220	6940	6940	7230	7230	7960	8300	9080		
MAXIMUM (ft/lb)		6840	7630	7630	7950	7950	8750	9130	9980			

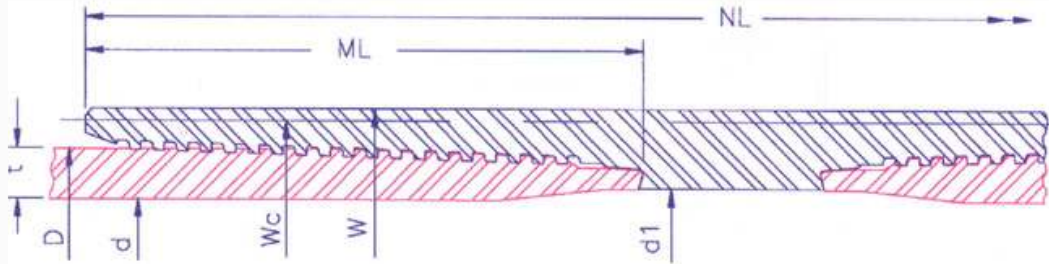
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)			4010	4940	4940	5210	5320	5570	5830	6250		
	INTERNAL YIELD PRESSURE (psi)			4790	6970	6970	7850	8280	9590	10900	13080		
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)			392	570	570	642	677	784	891	1070		
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)			145	211	211	237	250	289	329	395		
	PARTING LOAD (kips)												
	REGULAR COUPLING O.D.			516	579	556	595	626	740	809	962		
	SPECIAL CLEARANCE COUPLING O.D.			468	493	468	493	518	616	666	789		
				OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)			
	REGULAR COUPLING			W	7.413	6.069	30.67		149		2448		
	SPECIAL CLEARANCE COUPLING			Wc	7.016	6.069	15.59		80		2395		
LENGTH OF COUPLING (in)			NL	11.829									
MAKE UP LOSS (in)			ML	4.965									

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TECHNICAL INFORMATION

CASING

SIZE:	6 5/8 "
NOMINAL WEIGHT:	24.00 lb/ft
WALL THICKNESS:	0.352 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	6.625	INSIDE DIA.(in) d	5.921	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		23.58
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		4560	5760	5760	6140	6310	6730	7020	7330
	INTERNAL YIELD PRESSURE (psi)		5110	7440	7440	8370	8830	10230	11620	13950
	BODY YIELD STRENGTH (kips)		382	555	555	624	659	763	867	1041
	ULTIMATE STRENGTH (kips)		659	694	659	694	728	867	936	1110
	YIELD TORQUE (ft/lb)		54700	79500	79500	89500	94500	109400	124300	149100

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	6250	7170	7170	7470	7470	7830	8460	9150
		OPTIMUM (ft/lb)	6940	7960	7960	8300	8300	8700	9400	10150
		MAXIMUM (ft/lb)	7630	8750	8750	9130	9130	9570	10340	11150
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	6250	7170	7170	7470	7470	7830	8460	9150
		OPTIMUM (ft/lb)	6940	7960	7960	8300	8300	8700	9400	10150
MAXIMUM (ft/lb)		7630	8750	8750	9130	9130	9570	10340	11150	

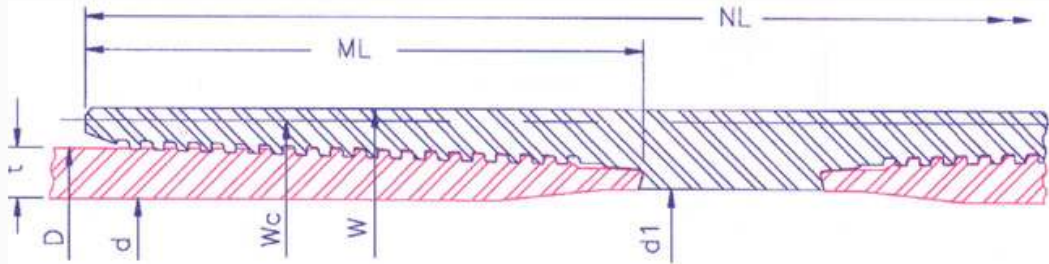
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		4560	5760	5760	6140	6310	6730	7020	7330
	INTERNAL YIELD PRESSURE (psi)		5110	7440	7440	8370	8830	10230	11620	13950
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		392	570	570	642	677	784	891	1070
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		145	211	211	237	250	289	329	395
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		548	615	591	633	665	786	860	1023
	SPECIAL CLEARANCE COUPLING O.D.		468	493	468	493	518	616	666	789
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	7.413	6.029	30.89		140		2596
	SPECIAL CLEARANCE COUPLING		Wc	7.016	6.029	15.81		75		2543
LENGTH OF COUPLING (in)		NL	11.829							
MAKE UP LOSS (in)		ML	4.965							

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TECHNICAL INFORMATION

CASING

SIZE:	6 5/8 "
NOMINAL WEIGHT:	28.00 lb/ft
WALL THICKNESS:	0.417 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	6.625	INSIDE DIA.(in) d	5.791	DRIFT DIA. (in)	5.666	PLAIN END WT (lb/ft)			27.65
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		6170	8170	8170	8880	9220	10160	10990	12120
	INTERNAL YIELD PRESSURE (psi)		6060	8810	8810	9910	10460	12120	13770	16520
	BODY YIELD STRENGTH (kips)		447	651	651	732	773	895	1017	1220
	ULTIMATE STRENGTH (kips)		773	813	773	813	854	1017	1098	1301
	YIELD TORQUE (ft/lb)		62900	91500	91500	102900	108600	125800	142900	171500

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	7830	8780	8780	9500	9500	10100	10450	11700
		OPTIMUM (ft/lb)	8700	9750	9750	10500	10500	11200	11550	13000
		MAXIMUM (ft/lb)	9570	10720	10720	11500	11500	12300	12650	14300
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	7830	8780	8780	9500	9500	10100	10450	11700
		OPTIMUM (ft/lb)	8700	9750	9750	10500	10500	11200	11550	13000
MAXIMUM (ft/lb)		9570	10720	10720	11500	11500	12300	12650	14300	

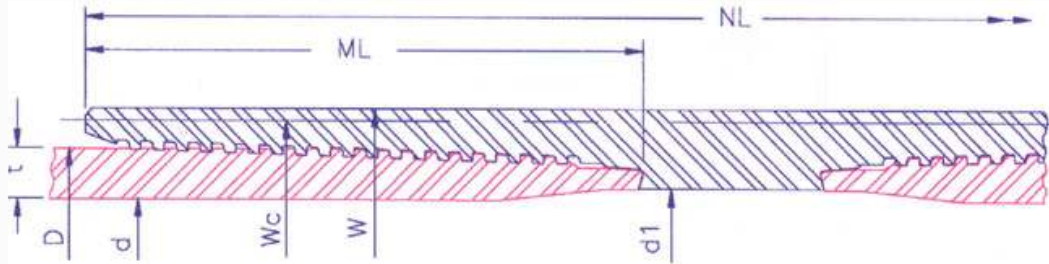
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		6170	8170	8170	8880	9220	10160	10990	12120
	INTERNAL YIELD PRESSURE (psi)		6060	8810	8810	9910	10460	12120	13770	16520
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		392	570	570	642	677	784	891	1070
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		145	211	211	237	250	289	329	395
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		643	721	693	742	780	922	1008	1199
	SPECIAL CLEARANCE COUPLING O.D.		468	493	468	493	518	616	666	789
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	7.413	5.955	31.28		119		3024
	SPECIAL CLEARANCE COUPLING		Wc	7.016	5.955	16.20		64		2971
LENGTH OF COUPLING (in)		NL	11.829							
MAKE UP LOSS (in)		ML	4.965							

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TECHNICAL INFORMATION

CASING

SIZE:	6 5/8 "
NOMINAL WEIGHT:	32.00 lb/ft
WALL THICKNESS:	0.475 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	6.625	INSIDE DIA.(in) d	5.675	DRIFT DIA. (in)					5.550	PLAIN END WT (lb/ft)		31.20
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150			
	COLLAPSE RESISTANCE (psi)		7320	10320	10320	11330	11820	13220	14540	16510			
	INTERNAL YIELD PRESSURE (psi)		6900	10040	10040	11290	11920	13800	15680	18820			
	BODY YIELD STRENGTH (kips)		505	734	734	826	872	1010	1147	1377			
	ULTIMATE STRENGTH (kips)		872	918	872	918	964	1147	1239	1468			
	YIELD TORQUE (ft/lb)		69700	101400	101400	114100	120500	139500	158500	190200			

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
	REGULAR	MINIMUM (ft/lb)	8150	9500	9500	10100	10100	10450	11100	12450		
		OPTIMUM (ft/lb)	9050	10500	10500	11200	11200	11550	12300	13750		
		MAXIMUM (ft/lb)	9950	11500	11500	12300	12300	12650	13500	15050		
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	8150	9500	9500	10100	10100	10450	11100	12450		
		OPTIMUM (ft/lb)	9050	10500	10500	11200	11200	11550	12300	13750		
MAXIMUM (ft/lb)		9950	11500	11500	12300	12300	12650	13500	15050			

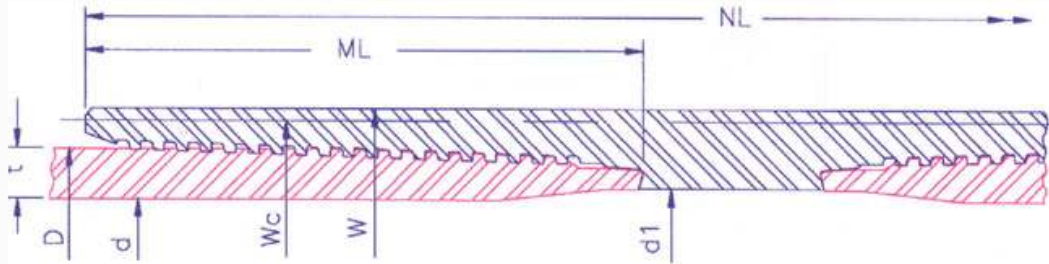
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		7320	10320	10320	11330	11820	13220	14540	16510		
	INTERNAL YIELD PRESSURE (psi)		6900	10040	10040	11290	11920	13800	15680	18820		
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		392	570	570	642	677	784	891	1070		
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		145	211	211	237	250	289	329	395		
	PARTING LOAD (kips)											
	REGULAR COUPLING O.D.		725	814	783	837	880	1040	1138	1353		
	SPECIAL CLEARANCE COUPLING O.D.		468	493	468	493	518	616	666	789		
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)			
	REGULAR COUPLING		W	7.413	5.955	31.28		106		3395		
	SPECIAL CLEARANCE COUPLING		Wc	7.016	5.955	16.20		57		3342		
LENGTH OF COUPLING (in)		NL	11.829									
MAKE UP LOSS (in)		ML	4.965									

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TECHNICAL INFORMATION

CASING

SIZE:	6 5/8 "
NOMINAL WEIGHT:	35.00 lb/ft
WALL THICKNESS:	0.525 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	6.625	INSIDE DIA.(in) d	5.575	DRIFT DIA. (in)					5.450	PLAIN END WT (lb/ft)		34.20
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			8030	11670	11670	13130	13860	15860	17590	20280		
	INTERNAL YIELD PRESSURE (psi)			7630	11090	11090	12480	13170	15250	17330	20800		
	BODY YIELD STRENGTH (kips)			553	805	805	905	956	1107	1258	1509		
	ULTIMATE STRENGTH (kips)			956	1006	956	1006	1056	1258	1358	1610		
	YIELD TORQUE (ft/lb)			75300	109600	109600	123300	130100	150600	171200	205400		

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	8780	9850	9850	10450	10450	11100	11700	13160
		OPTIMUM (ft/lb)	9750	10850	10850	11550	11550	12300	13000	14530
		MAXIMUM (ft/lb)	10720	11850	11850	12650	12650	13500	14300	15910
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	8780	9850	9850	10450	10450	11100	11700	13160
		OPTIMUM (ft/lb)	9750	10850	10850	11550	11550	12300	13000	14530
		MAXIMUM (ft/lb)	10720	11850	11850	12650	12650	13500	14300	15910

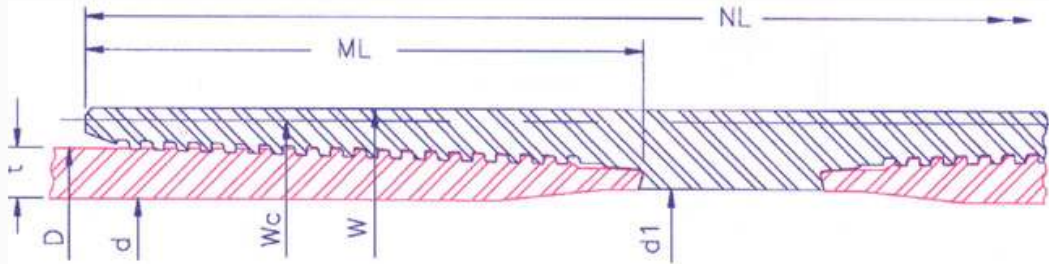
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)			8030	11670	11670	13130	13860	15860	17590	20280
	INTERNAL YIELD PRESSURE (psi)			7630	11090	11090	12480	13170	15250	17330	20800
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)			392	570	570	642	677	784	891	1070
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)			145	211	211	237	250	289	329	395
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.			795	892	858	918	965	1141	1243	1473
	SPECIAL CLEARANCE COUPLING O.D.			468	493	468	493	518	616	666	789
				OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING			W	7.413	5.955	31.28		96		3707
	SPECIAL CLEARANCE COUPLING			Wc	7.016	5.955	16.20		52		3654
	LENGTH OF COUPLING (in)			NL	11.829						
MAKE UP LOSS (in)			ML	4.965							

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TECHNICAL INFORMATION

CASING

SIZE:	7 "
NOMINAL WEIGHT:	23.00 lb/ft
WALL THICKNESS:	0.317 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.000	INSIDE DIA.(in) d	6.366	DRIFT DIA. (in)					6.241	PLAIN END WT (lb/ft)		22.63
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			3270	3830	3830	4020	4140	4430	4640	4780		
	INTERNAL YIELD PRESSURE (psi)			4360	6340	6340	7130	7530	8720	9910	11890		
	BODY YIELD STRENGTH (kips)			366	532	532	599	632	732	832	998		
	ULTIMATE STRENGTH (kips)			632	666	632	666	699	832	898	1065		
	YIELD TORQUE (ft/lb)			56300	81900	81900	92100	97300	112600	128000	153600		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
	REGULAR	MINIMUM (ft/lb)	5600	6320	6320	6840	6840	7170	7470	8460		
		OPTIMUM (ft/lb)	6220	7020	7020	7590	7590	7960	8300	9400		
		MAXIMUM (ft/lb)	6840	7720	7720	8340	8340	8750	9130	10340		
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	5600	6320	6320	6840	6840	7170	7470	8460		
		OPTIMUM (ft/lb)	6220	7020	7020	7590	7590	7960	8300	9400		
MAXIMUM (ft/lb)		6840	7720	7720	8340	8340	8750	9130	10340			

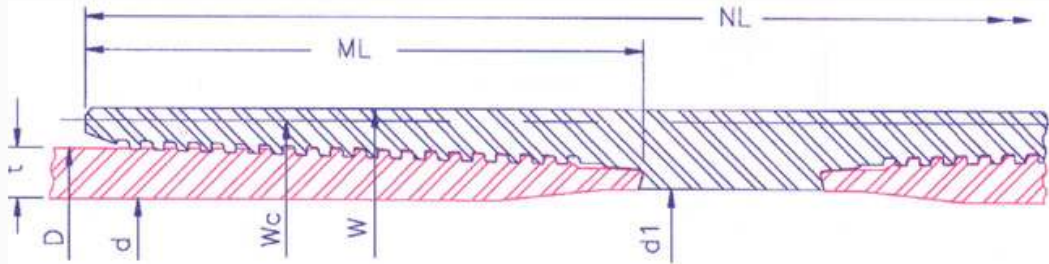
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)			3270	3830	3830	4020	4140	4430	4640	4780	
	INTERNAL YIELD PRESSURE (psi)			4360	6340	6340	7130	7530	8720	9910	11890	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)			311	452	452	509	537	622	707	848	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)			122	177	177	199	210	243	276	332	
	PARTING LOAD (kips)											
	REGULAR COUPLING O.D.			522	588	565	605	636	752	823	979	
	SPECIAL CLEARANCE COUPLING O.D.			509	536	509	536	563	670	723	857	
				OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING			W	7.681	6.427	32.66		137		2491	
	SPECIAL CLEARANCE COUPLING			Wc	7.390	6.427	20.61		85		2448	
LENGTH OF COUPLING (in)			NL	12.341								
MAKE UP LOSS (in)			ML	5.228								

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TECHNICAL INFORMATION

CASING

SIZE:	7 "
NOMINAL WEIGHT:	26.00 lb/ft
WALL THICKNESS:	0.362 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.000	INSIDE DIA.(in) d		6.276	DRIFT DIA. (in)		6.151	PLAIN END WT (lb/ft)		25.66
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		4330	5410	5410	5740	5890	6230	6450	6870	
	INTERNAL YIELD PRESSURE (psi)		4980	7240	7240	8140	8600	9960	11310	13580	
	BODY YIELD STRENGTH (kips)		415	604	604	679	717	830	944	1132	
	ULTIMATE STRENGTH (kips)		717	755	717	755	793	944	1019	1208	
	YIELD TORQUE (ft/lb)		63100	91700	91700	103200	108900	126100	143300	172000	

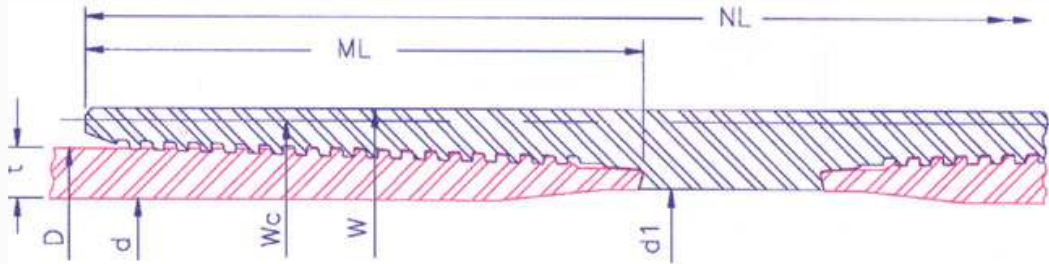
RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	6510	7470	7470	7830	7830	8460	9150	9850
		OPTIMUM (ft/lb)	7230	8300	8300	8700	8700	9400	10150	10850
		MAXIMUM (ft/lb)	7950	9130	9130	9570	9570	10340	11150	11850
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	6510	7470	7470	7830	7830	8460	9150	9850
		OPTIMUM (ft/lb)	7230	8300	8300	8700	8700	9400	10150	10850
		MAXIMUM (ft/lb)	7950	9130	9130	9570	9570	10340	11150	11850

C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		4330	5410	5410	5740	5890	6230	6450	6870	
	INTERNAL YIELD PRESSURE (psi)		4980	7240	7240	8140	8600	9960	11310	13580	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		311	452	452	509	537	622	707	848	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		122	177	177	199	210	243	276	332	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		592	667	641	687	722	853	934	1110	
	SPECIAL CLEARANCE COUPLING O.D.		509	536	509	536	563	670	723	857	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	7.681	6.388	32.88		120		2810	
	SPECIAL CLEARANCE COUPLING		Wc	7.390	6.388	20.83		75		2768	
	LENGTH OF COUPLING (in)		NL	12.341		The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information					
MAKE UP LOSS (in)		ML	5.228								

TECHNICAL INFORMATION

CASING

SIZE:	7 "
NOMINAL WEIGHT:	29.00 lb/ft
WALL THICKNESS:	0.408 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.000	INSIDE DIA.(in) d		6.184	DRIFT DIA. (in)			6.059	PLAIN END WT (lb/ft)		28.72
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		5410	7030	7030	7580	7840	8530	9110	9790		
	INTERNAL YIELD PRESSURE (psi)		5610	8160	8160	9180	9690	11220	12750	15300		
	BODY YIELD STRENGTH (kips)		465	676	676	760	803	929	1056	1267		
	ULTIMATE STRENGTH (kips)		803	845	803	845	887	1056	1141	1352		
	YIELD TORQUE (ft/lb)		69700	101300	101300	114000	120300	139300	158300	190000		

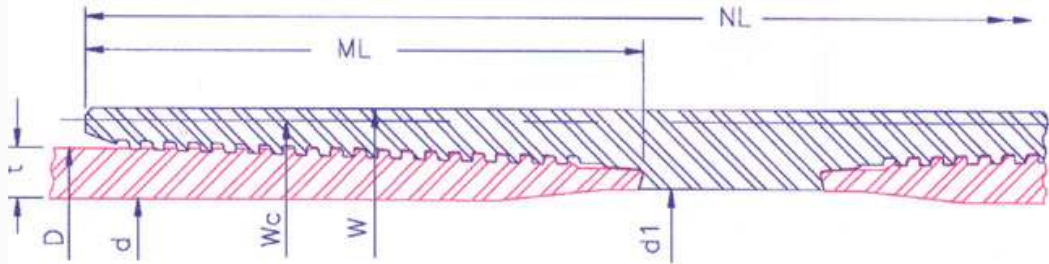
M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	7470	8460	8460	9150	9150	9850	10450	11450	
		OPTIMUM (ft/lb)	8300	9400	9400	10150	10150	10850	11550	12650	
		MAXIMUM (ft/lb)	9130	10340	10340	11150	11150	11850	12650	13850	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	7470	8460	8460	9150	9150	9850	10450	11450	
		OPTIMUM (ft/lb)	8300	9400	9400	10150	10150	10850	11550	12650	
MAXIMUM (ft/lb)		9130	10340	10340	11150	11150	11850	12650	13850		

C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		5410	7030	7030	7580	7840	8530	9110	9790	
	INTERNAL YIELD PRESSURE (psi)		5610	8160	8160	9180	9690	11220	12750	15300	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		311	452	452	509	537	622	707	848	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		122	177	177	199	210	243	276	332	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		662	746	718	768	808	955	1045	1243	
	SPECIAL CLEARANCE COUPLING O.D.		509	536	509	536	563	670	723	857	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	7.681	6.340	33.14		108		3133	
	SPECIAL CLEARANCE COUPLING		Wc	7.390	6.340	21.10		67		3090	
LENGTH OF COUPLING (in)		NL	12.341		The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information						
MAKE UP LOSS (in)		ML	5.228								

TECHNICAL INFORMATION

CASING

SIZE:	7 "
NOMINAL WEIGHT:	32.00 lb/ft
WALL THICKNESS:	0.453 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.000	INSIDE DIA.(in) d		6.094	DRIFT DIA. (in)			5.969	PLAIN END WT (lb/ft)		31.67
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		6460	8600	8600	9380	9740	10780	11710	13010		
	INTERNAL YIELD PRESSURE (psi)		6230	9060	9060	10190	10760	12460	14160	16990		
	BODY YIELD STRENGTH (kips)		512	745	745	839	885	1025	1165	1398		
	ULTIMATE STRENGTH (kips)		885	932	885	932	978	1165	1258	1491		
	YIELD TORQUE (ft/lb)		75800	110300	110300	124100	131000	151700	172400	206900		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	8150	9150	9150	9850	9850	10450	11100	12100	
		OPTIMUM (ft/lb)	9050	10150	10150	10850	10850	11550	12300	13400	
		MAXIMUM (ft/lb)	9950	11150	11150	11850	11850	12650	13500	14700	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	8150	9150	9150	9850	9850	10450	11100	12100	
		OPTIMUM (ft/lb)	9050	10150	10150	10850	10850	11550	12300	13400	
MAXIMUM (ft/lb)		9950	11150	11150	11850	11850	12650	13500	14700		

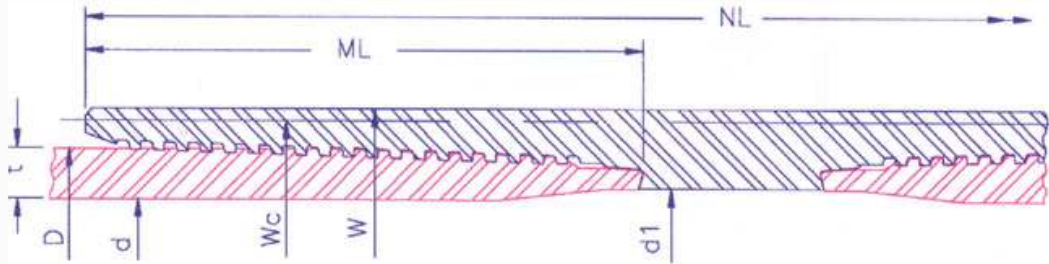
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		6460	8600	8600	9380	9740	10780	11710	13010		
	INTERNAL YIELD PRESSURE (psi)		6230	9060	9060	10190	10760	12460	14160	16990		
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		311	452	452	509	537	622	707	848		
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		122	177	177	199	210	243	276	332		
	PARTING LOAD (kips)											
	REGULAR COUPLING O.D.		730	823	791	847	891	1053	1152	1370		
	SPECIAL CLEARANCE COUPLING O.D.		509	536	509	536	563	670	723	857		
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)			
	REGULAR COUPLING		W	7.681	6.340	33.14		98		3441		
	SPECIAL CLEARANCE COUPLING		Wc	7.390	6.340	21.10		61		3398		
LENGTH OF COUPLING (in)		NL	12.341									
MAKE UP LOSS (in)		ML	5.228									

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TECHNICAL INFORMATION

CASING

SIZE:	7 "
NOMINAL WEIGHT:	35.00 lb/ft
WALL THICKNESS:	0.498 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.000	INSIDE DIA.(in) d	6.004	DRIFT DIA. (in)			PLAIN END WT (lb/ft)			34.58
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		7270	10180	10180	11170	11650	13030	14310	16230	
	INTERNAL YIELD PRESSURE (psi)		6850	9960	9960	11200	11830	13700	15560	18680	
	BODY YIELD STRENGTH (kips)		559	814	814	916	966	1119	1272	1526	
	ULTIMATE STRENGTH (kips)		966	1017	966	1017	1068	1272	1373	1628	
	YIELD TORQUE (ft/lb)		81800	118900	118900	133800	141200	163500	185800	223000	

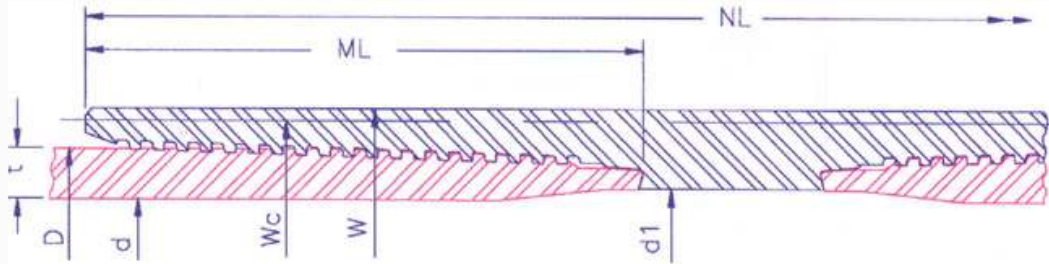
M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	8460	9500	9500	10100	10100	10850	11450	12450	
		OPTIMUM (ft/lb)	9400	10500	10500	11200	11200	11950	12650	13750	
		MAXIMUM (ft/lb)	10340	11500	11500	12300	12300	13050	13850	15050	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	8460	9500	9500	10100	10100	10850	11450	12450	
		OPTIMUM (ft/lb)	9400	10500	10500	11200	11200	11950	12650	13750	
MAXIMUM (ft/lb)		10340	11500	11500	12300	12300	13050	13850	15050		

C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		7270	10180	10180	11170	11650	13030	14310	16230	
	INTERNAL YIELD PRESSURE (psi)		6850	9960	9960	11200	11830	13700	15560	18680	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		311	452	452	509	537	622	707	848	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		122	177	177	199	210	243	276	332	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		797	863	820	863	906	1079	1165	1381	
	SPECIAL CLEARANCE COUPLING O.D.		509	536	509	536	563	670	723	857	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	7.681	6.340	33.14		89		3743	
	SPECIAL CLEARANCE COUPLING		Wc	7.390	6.340	21.10		55		3701	
LENGTH OF COUPLING (in)		NL	12.341		The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information						
MAKE UP LOSS (in)		ML	5.228								

TECHNICAL INFORMATION

CASING

SIZE:	7 "
NOMINAL WEIGHT:	38.00 lb/ft
WALL THICKNESS:	0.540 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.000	INSIDE DIA.(in) d	5.920	DRIFT DIA. (in)		5.795	PLAIN END WT (lb/ft)		37.26
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		7830	11390	11390	12810	13430	15130	16740	19230
	INTERNAL YIELD PRESSURE (psi)		7420	10800	10800	12150	12820	14850	16880	20250
	BODY YIELD STRENGTH (kips)		603	877	877	986	1041	1206	1370	1644
	ULTIMATE STRENGTH (kips)		1041	1096	1041	1096	1151	1370	1479	1753
	YIELD TORQUE (ft/lb)		87000	126600	126600	142400	150400	174100	197800	237400

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	8780	10100	10100	10450	10450	11100	11700	13050
		OPTIMUM (ft/lb)	9750	11200	11200	11550	11550	12300	13000	14450
		MAXIMUM (ft/lb)	10720	12300	12300	12650	12650	13500	14300	15850
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	8780	10100	10100	10450	10450	11100	11700	13050
		OPTIMUM (ft/lb)	9750	11200	11200	11550	11550	12300	13000	14450
MAXIMUM (ft/lb)		10720	12300	12300	12650	12650	13500	14300	15850	

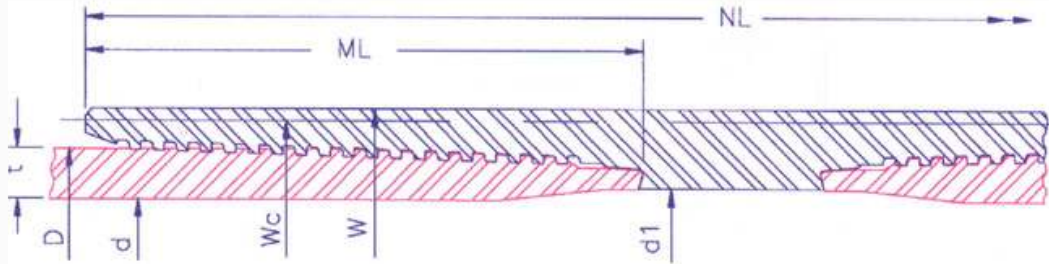
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		7830	11390	11390	12810	13430	15130	16740	19230
	INTERNAL YIELD PRESSURE (psi)		7420	10800	10800	12150	12820	14850	16880	20250
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		311	452	452	509	537	622	707	848
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		122	177	177	199	210	243	276	332
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		820	863	820	863	906	1079	1165	1381
	SPECIAL CLEARANCE COUPLING O.D.		509	536	509	536	563	670	723	857
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	7.681	6.340	33.14		83		4021
	SPECIAL CLEARANCE COUPLING		Wc	7.390	6.340	21.10		52		3979
LENGTH OF COUPLING (in)		NL	12.341							
MAKE UP LOSS (in)		ML	5.228							

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TECHNICAL INFORMATION

CASING

SIZE:	7 "
NOMINAL WEIGHT:	41.00 lb/ft
WALL THICKNESS:	0.590 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.000	INSIDE DIA.(in) d	5.820	DRIFT DIA. (in)					5.695	PLAIN END WT (lb/ft)		40.39
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			8490	12350	12350	13890	14660	16980	19300	22810		
	INTERNAL YIELD PRESSURE (psi)			8110	11800	11800	13280	14010	16220	18440	22120		
	BODY YIELD STRENGTH (kips)			653	950	950	1069	1129	1307	1485	1782		
	ULTIMATE STRENGTH (kips)			1129	1188	1129	1188	1248	1485	1604	1901		
	YIELD TORQUE (ft/lb)			93100	135400	135400	152300	160700	186100	211500	253800		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	9500	10450	10450	11100	11100	11700	12450	13800
		OPTIMUM (ft/lb)	10500	11550	11550	12300	12300	13000	13750	15280
		MAXIMUM (ft/lb)	11500	12650	12650	13500	13500	14300	15050	16760
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	9500	10450	10450	11100	11100	11700	12450	13800
		OPTIMUM (ft/lb)	10500	11550	11550	12300	12300	13000	13750	15280
MAXIMUM (ft/lb)		11500	12650	12650	13500	13500	14300	15050	16760	

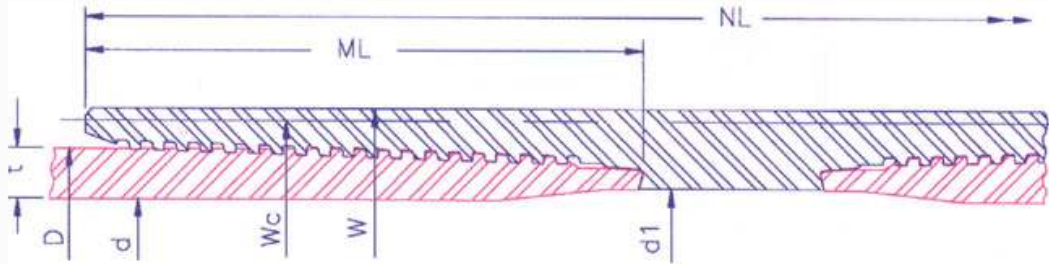
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)			8490	12350	12350	13890	14660	16980	19300	22810
	INTERNAL YIELD PRESSURE (psi)			8110	11800	11800	13280	14010	16220	18440	22120
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)			311	452	452	509	537	622	707	848
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)			122	177	177	199	210	243	276	332
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.			820	863	820	863	906	1079	1165	1381
	SPECIAL CLEARANCE COUPLING O.D.			509	536	509	536	563	670	723	857
				OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING			W	7.681	6.340	33.14		77		4346
	SPECIAL CLEARANCE COUPLING			Wc	7.390	6.340	21.10		48		4304
LENGTH OF COUPLING (in)			NL	12.341							
MAKE UP LOSS (in)			ML	5.228							

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TECHNICAL INFORMATION

CASING

SIZE:	7 5/8 "
NOMINAL WEIGHT:	26.40 lb/ft
WALL THICKNESS:	0.328 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.625	INSIDE DIA.(in) d	6.969	DRIFT DIA. (in)					6.844	PLAIN END WT (lb/ft)		25.56
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			2900	3400	3400	3610	3700	3920	4040	4080		
	INTERNAL YIELD PRESSURE (psi)			4140	6020	6020	6780	7150	8280	9410	11290		
	BODY YIELD STRENGTH (kips)			414	602	602	677	714	827	940	1128		
	ULTIMATE STRENGTH (kips)			714	752	714	752	790	940	1015	1203		
	YIELD TORQUE (ft/lb)			69600	101300	101300	113900	120200	139200	158200	189900		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
	REGULAR	MINIMUM (ft/lb)	6450	7170	7170	7830	7830	8150	8780	9850		
		OPTIMUM (ft/lb)	7160	7960	7960	8700	8700	9050	9750	10850		
		MAXIMUM (ft/lb)	7870	8750	8750	9570	9570	9950	10720	11850		
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	6450	7170	7170	7830	7830	8150	8780	9850		
		OPTIMUM (ft/lb)	7160	7960	7960	8700	8700	9050	9750	10850		
MAXIMUM (ft/lb)		7870	8750	8750	9570	9570	9950	10720	11850			

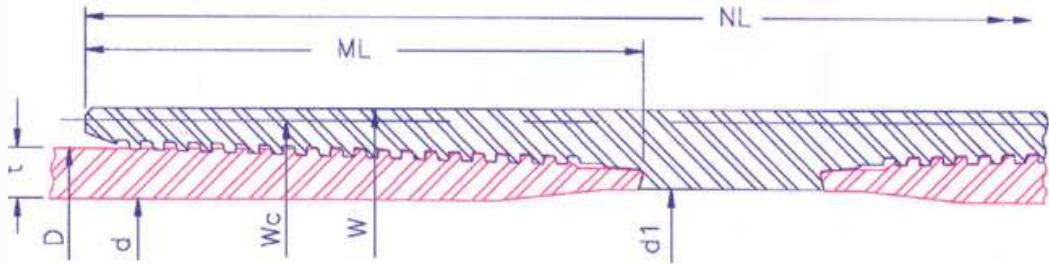
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)			2900	3400	3400	3610	3700	3920	4040	4080		
	INTERNAL YIELD PRESSURE (psi)			4140	6020	6020	6780	7150	8280	9410	11290		
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)			493	717	717	807	852	986	1121	1345		
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)			215	313	313	352	372	431	489	587		
	PARTING LOAD (kips)												
	REGULAR COUPLING O.D.			581	659	635	681	716	845	926	1102		
	SPECIAL CLEARANCE COUPLING O.D.			581	659	635	681	716	845	926	1102		
				OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)			
	REGULAR COUPLING			W	8.528	7.041	62.94		172		2849		
	SPECIAL CLEARANCE COUPLING			Wc	8.142	7.041	44.76		105		2785		
LENGTH OF COUPLING (in)			NL	12.695									
MAKE UP LOSS (in)			ML	5.406									

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TECHNICAL INFORMATION

CASING

SIZE:	7 5/8 "
NOMINAL WEIGHT:	29.70 lb/ft
WALL THICKNESS:	0.375 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.625	INSIDE DIA.(in) d	6.875	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		3910	4790	4790	5030	5130	5350	5670	6050
	INTERNAL YIELD PRESSURE (psi)		4730	6890	6890	7750	8180	9470	10760	12910
	BODY YIELD STRENGTH (kips)		470	683	683	769	811	940	1068	1281
	ULTIMATE STRENGTH (kips)		811	854	811	854	897	1068	1153	1367
	YIELD TORQUE (ft/lb)		78100	113600	113600	127800	134900	156200	177500	213000

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	7470	8460	8460	9150	9150	9850	10450	11450
		OPTIMUM (ft/lb)	8300	9400	9400	10150	10150	10850	11550	12650
		MAXIMUM (ft/lb)	9130	10340	10340	11150	11150	11850	12650	13850
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	7470	8460	8460	9150	9150	9850	10450	11450
		OPTIMUM (ft/lb)	8300	9400	9400	10150	10150	10850	11550	12650
MAXIMUM (ft/lb)		9130	10340	10340	11150	11150	11850	12650	13850	

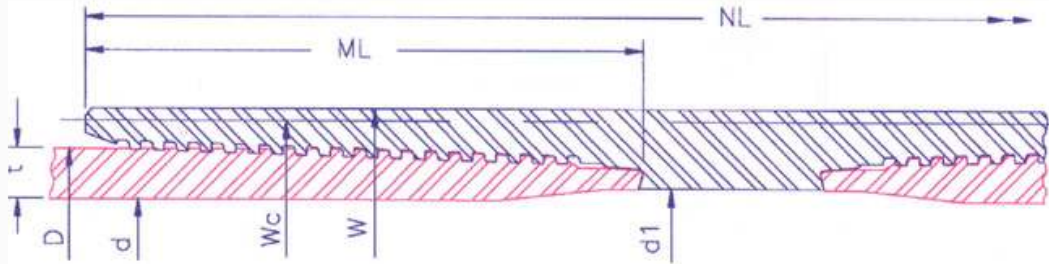
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		3910	4790	4790	5030	5130	5350	5670	6050
	INTERNAL YIELD PRESSURE (psi)		4730	6890	6890	7750	8180	9470	10760	12910
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		493	717	717	807	852	986	1121	1345
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		215	313	313	352	372	431	489	587
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		660	749	721	773	813	960	1052	1252
	SPECIAL CLEARANCE COUPLING O.D.		660	749	713	750	788	938	1013	1201
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	8.528	7.002	63.18		152		3215
	SPECIAL CLEARANCE COUPLING		Wc	8.142	7.002	45.00		93		3151
LENGTH OF COUPLING (in)		NL	12.695							
MAKE UP LOSS (in)		ML	5.406							

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TECHNICAL INFORMATION

CASING

SIZE:	7 5/8 "
NOMINAL WEIGHT:	33.70 lb/ft
WALL THICKNESS:	0.430 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.625	INSIDE DIA.(in) d	6.765	DRIFT DIA. (in)					6.640	PLAIN END WT (lb/ft)		33.04
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			5100	6560	6560	7050	7280	7870	8340	8850		
	INTERNAL YIELD PRESSURE (psi)			5430	7900	7900	8880	9380	10860	12340	14800		
	BODY YIELD STRENGTH (kips)			535	778	778	875	923	1069	1215	1458		
	ULTIMATE STRENGTH (kips)			923	972	923	972	1021	1215	1312	1555		
	YIELD TORQUE (ft/lb)			87600	127400	127400	143400	151300	175200	199100	239000		

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	9150	10450	10450	11100	11100	12100	12700	14400
		OPTIMUM (ft/lb)	10150	11550	11550	12300	12300	13400	14100	15900
		MAXIMUM (ft/lb)	11150	12650	12650	13500	13500	14700	15500	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	9150	10450	10450	11100	11100	12100	12700	14400
		OPTIMUM (ft/lb)	10150	11550	11550	12300	12300	13400	14100	15900
		MAXIMUM (ft/lb)	11150	12650	12650	13500	13500	14700	15500	17400

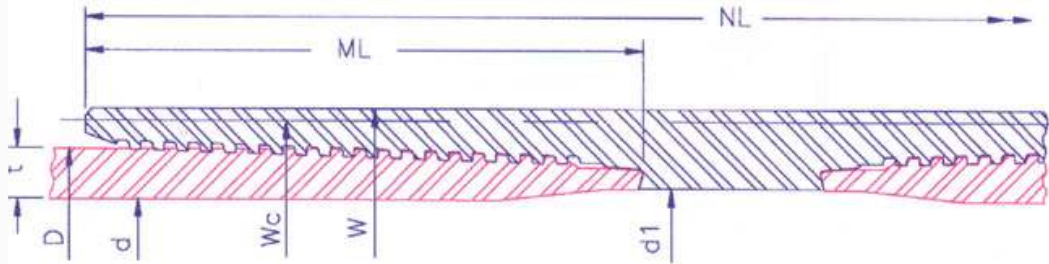
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)			5100	6560	6560	7050	7280	7870	8340	8850
	INTERNAL YIELD PRESSURE (psi)			5430	7900	7900	8880	9380	10860	12340	14800
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)			493	717	717	807	852	986	1121	1345
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)			215	313	313	352	372	431	489	587
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.			751	852	820	880	925	1093	1197	1424
	SPECIAL CLEARANCE COUPLING O.D.			713	750	713	750	788	938	1013	1201
				OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING			W	8.528	6.939	63.56		133		3637
	SPECIAL CLEARANCE COUPLING			Wc	8.142	6.939	45.38		81		3573
	LENGTH OF COUPLING (in)			NL	12.695						
MAKE UP LOSS (in)			ML	5.406							

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TECHNICAL INFORMATION

CASING

SIZE:	7 5/8 "
NOMINAL WEIGHT:	35.80 lb/ft
WALL THICKNESS:	0.465 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.625	INSIDE DIA.(in) d	6.695	DRIFT DIA. (in)					6.570	PLAIN END WT (lb/ft)		35.56
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			5850	7690	7690	8330	8640	9480	10200	11140		
	INTERNAL YIELD PRESSURE (psi)			5870	8540	8540	9600	10140	11740	13340	16010		
	BODY YIELD STRENGTH (kips)			575	837	837	941	994	1151	1307	1569		
	ULTIMATE STRENGTH (kips)			994	1046	994	1046	1098	1307	1412	1674		
	YIELD TORQUE (ft/lb)			93400	135900	135900	152900	161400	186900	212400	254800		

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	9500	10850	10850	11700	11700	12450	13340	14400
		OPTIMUM (ft/lb)	10500	11950	11950	13000	13000	13750	14450	15900
		MAXIMUM (ft/lb)	11500	13050	13050	14300	14300	15050	15850	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	9500	10850	10850	11700	11700	12450	13340	14400
		OPTIMUM (ft/lb)	10500	11950	11950	13000	13000	13750	14450	15900
		MAXIMUM (ft/lb)	11500	13050	13050	14300	14300	15050	15850	17400

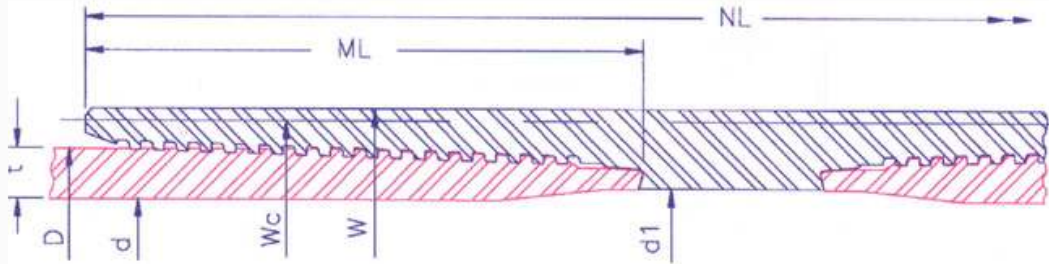
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)			5850	7690	7690	8330	8640	9480	10200	11140
	INTERNAL YIELD PRESSURE (psi)			5870	8540	8540	9600	10140	11740	13340	16010
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)			493	717	717	807	852	986	1121	1345
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)			215	313	313	352	372	431	489	587
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.			808	917	883	947	996	1176	1289	1533
	SPECIAL CLEARANCE COUPLING O.D.			713	750	713	750	788	938	1013	1201
				OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING			W	8.528	6.939	63.56		124		3899
	SPECIAL CLEARANCE COUPLING			Wc	8.142	6.939	45.38		76		3835
LENGTH OF COUPLING (in)			NL	12.695							
MAKE UP LOSS (in)			ML	5.406							

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TECHNICAL INFORMATION

CASING

SIZE:	7 5/8 "
NOMINAL WEIGHT:	39.00 lb/ft
WALL THICKNESS:	0.500 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.625	INSIDE DIA.(in) d		6.625	DRIFT DIA. (in)			6.500	PLAIN END WT (lb/ft)		38.05
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		6610	8820	8820	9620	10000	11080	12060	13440		
	INTERNAL YIELD PRESSURE (psi)		6310	9180	9180	10330	10900	12620	14340	17210		
	BODY YIELD STRENGTH (kips)		616	895	895	1007	1063	1231	1399	1679		
	ULTIMATE STRENGTH (kips)		1063	1119	1063	1119	1175	1399	1511	1791		
	YIELD TORQUE (ft/lb)		99100	144100	144100	162100	171100	198100	225200	270200		

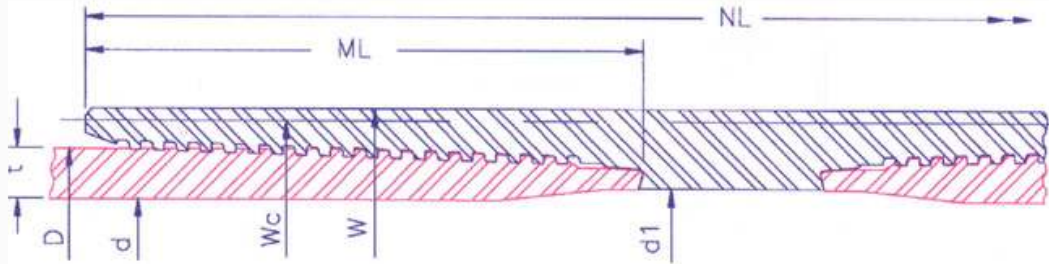
M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	9850	11100	11100	12100	12100	12700	13700	14400	
		OPTIMUM (ft/lb)	10850	12300	12300	13400	13400	14100	15200	15900	
		MAXIMUM (ft/lb)	11850	13500	13500	14700	14700	15500	16700	17400	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	9850	11100	11100	12100	12100	12700	13700	14400	
		OPTIMUM (ft/lb)	10850	12300	12300	13400	13400	14100	15200	15900	
MAXIMUM (ft/lb)		11850	13500	13500	14700	14700	15500	16700	17400		

C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		6610	8820	8820	9620	10000	11080	12060	13440	
	INTERNAL YIELD PRESSURE (psi)		6310	9180	9180	10330	10900	12620	14340	17210	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		493	717	717	807	852	986	1121	1345	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		215	313	313	352	372	431	489	587	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		864	981	945	1013	1065	1258	1379	1640	
	SPECIAL CLEARANCE COUPLING O.D.		713	750	713	750	788	938	1013	1201	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	8.528	6.939	63.56		116		4159	
	SPECIAL CLEARANCE COUPLING		Wc	8.142	6.939	45.38		71		4095	
LENGTH OF COUPLING (in)		NL	12.695		The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information						
MAKE UP LOSS (in)		ML	5.406								

TECHNICAL INFORMATION

CASING

SIZE:	7 5/8 "
NOMINAL WEIGHT:	42.80 lb/ft
WALL THICKNESS:	0.562 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.625	INSIDE DIA.(in) d	6.501	DRIFT DIA. (in)			PLAIN END WT (lb/ft)			42.39
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		7510	10810	10810	11890	12410	13930	15350	17510	
	INTERNAL YIELD PRESSURE (psi)		7090	10320	10320	11610	12250	14190	16120	19350	
	BODY YIELD STRENGTH (kips)		686	998	998	1122	1185	1372	1559	1871	
	ULTIMATE STRENGTH (kips)		1185	1247	1185	1247	1309	1559	1683	1995	
	YIELD TORQUE (ft/lb)		108600	158000	158000	177800	187600	217300	246900	296300	

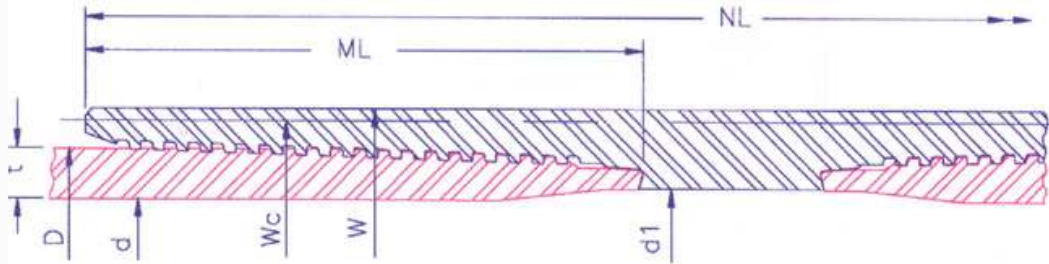
M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	10850	12100	12100	12700	12700	13700	14400	14400	
		OPTIMUM (ft/lb)	11950	13400	13400	14100	14100	15200	15900	15900	
		MAXIMUM (ft/lb)	13050	14700	14700	15500	15500	16700	17400	17400	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	10850	12100	12100	12700	12700	13700	14400	14400	
		OPTIMUM (ft/lb)	11950	13400	13400	14100	14100	15200	15900	15900	
MAXIMUM (ft/lb)		13050	14700	14700	15500	15500	16700	17400	17400		

C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		7510	10810	10810	11890	12410	13930	15350	17510	
	INTERNAL YIELD PRESSURE (psi)		7090	10320	10320	11610	12250	14190	16120	19350	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		493	717	717	807	852	986	1121	1345	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		215	313	313	352	372	431	489	587	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		963	1093	1053	1129	1187	1402	1536	1827	
	SPECIAL CLEARANCE COUPLING O.D.		713	750	713	750	788	938	1013	1201	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	8.528	6.939	63.56		104		4610	
	SPECIAL CLEARANCE COUPLING		Wc	8.142	6.939	45.38		63		4546	
LENGTH OF COUPLING (in)		NL	12.695		The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information						
MAKE UP LOSS (in)		ML	5.406								

TECHNICAL INFORMATION

CASING

SIZE:	7 5/8 "
NOMINAL WEIGHT:	45.30 lb/ft
WALL THICKNESS:	0.595 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.625	INSIDE DIA.(in) d	6.435	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
					6.310			44.67		
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		7910	11510	11510	12950	13670	15440	17100	19680
	INTERNAL YIELD PRESSURE (psi)		7510	10920	10920	12290	12970	15020	17070	20480
	BODY YIELD STRENGTH (kips)		723	1051	1051	1183	1248	1445	1643	1971
	ULTIMATE STRENGTH (kips)		1248	1314	1248	1314	1380	1643	1774	2103
YIELD TORQUE (ft/lb)		113500	165100	165100	185700	196000	227000	257900	309500	

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	11100	12450	12450	13050	13050	13700	14400	14400
		OPTIMUM (ft/lb)	12300	13750	13750	14450	14450	15200	15900	15900
		MAXIMUM (ft/lb)	13500	15050	15050	15850	15850	16700	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	11100	12450	12450	13050	13050	13700	14400	14400
		OPTIMUM (ft/lb)	12300	13750	13750	14450	14450	15200	15900	15900
MAXIMUM (ft/lb)		13500	15050	15050	15850	15850	16700	17400	17400	

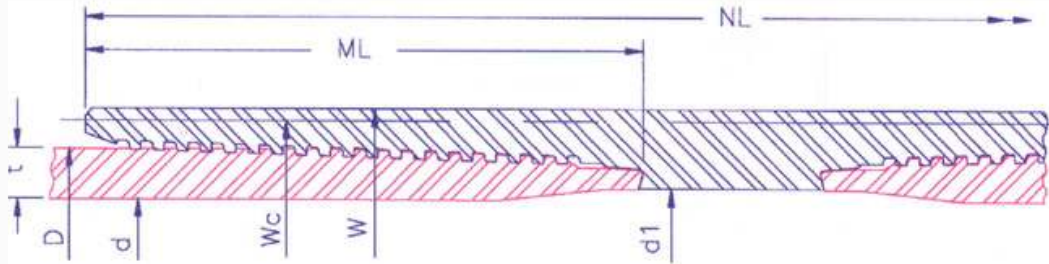
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		7910	11510	11510	12950	13670	15440	17100	19680
	INTERNAL YIELD PRESSURE (psi)		7510	10920	10920	12290	12970	15020	17070	20480
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		493	717	717	807	852	986	1121	1345
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		215	313	313	352	372	431	489	587
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1015	1152	1109	1189	1251	1477	1619	1926
	SPECIAL CLEARANCE COUPLING O.D.		713	750	713	750	788	938	1013	1201
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	8.528	6.939	63.56		99		4847
	SPECIAL CLEARANCE COUPLING		Wc	8.142	6.939	45.38		60		4782
LENGTH OF COUPLING (in)		NL	12.695							
MAKE UP LOSS (in)		ML	5.406							

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TECHNICAL INFORMATION

CASING

SIZE:	7 5/8 "
NOMINAL WEIGHT:	47.10 lb/ft
WALL THICKNESS:	0.625 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	7.625	INSIDE DIA.(in) d	6.375	DRIFT DIA. (in)			PLAIN END WT (lb/ft)			46.72
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		8280	12040	12040	13540	14300	16550	18700	21650	
	INTERNAL YIELD PRESSURE (psi)		7890	11480	11480	12910	13630	15780	17930	21520	
	BODY YIELD STRENGTH (kips)		756	1100	1100	1237	1306	1512	1718	2062	
	ULTIMATE STRENGTH (kips)		1306	1374	1306	1374	1443	1718	1856	2199	
	YIELD TORQUE (ft/lb)		117800	171300	171300	192800	203500	235600	267700	321300	

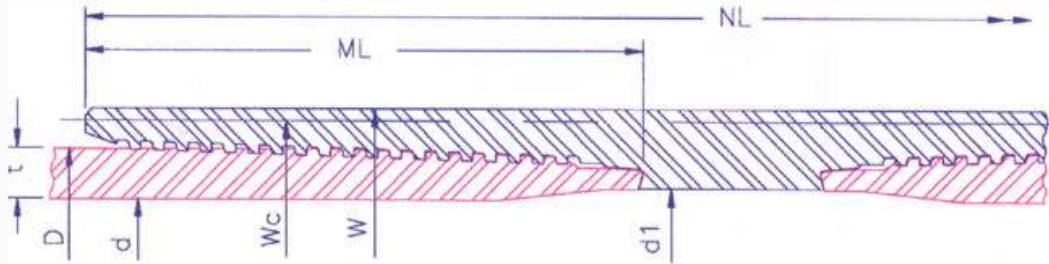
M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	11450	12700	12700	13700	13700	14400	14400	14400	
		OPTIMUM (ft/lb)	12650	14100	14100	15200	15200	15900	15900	15900	
		MAXIMUM (ft/lb)	13850	15500	15500	13540	13540	17400	17400	17400	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	11450	12700	12700	13700	13700	14400	14400	14400	
		OPTIMUM (ft/lb)	12650	14100	14100	15200	15200	15900	15900	15900	
MAXIMUM (ft/lb)		13850	15500	15500	13540	13540	17400	17400	17400		

C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		8280	12040	12040	13540	14300	16550	18700	21650	
	INTERNAL YIELD PRESSURE (psi)		7890	11480	11480	12910	13630	15780	17930	21520	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		493	717	717	807	852	986	1121	1345	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		215	313	313	352	372	431	489	587	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		1062	1205	1160	1230	1292	1538	1661	1969	
	SPECIAL CLEARANCE COUPLING O.D.		713	750	713	750	788	938	1013	1201	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	8.528	6.939	63.56		94		5059	
	SPECIAL CLEARANCE COUPLING		Wc	8.142	6.939	45.38		58		4995	
LENGTH OF COUPLING (in)		NL	12.695		The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information						
MAKE UP LOSS (in)		ML	5.406								

TECHNICAL INFORMATION

CASING

SIZE:	8 5/8 "
NOMINAL WEIGHT:	28.00 lb/ft
WALL THICKNESS:	0.304 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	8.625	INSIDE DIA.(in) d	8.017	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		27.02
	GRADE	K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)	1880	2160	2160	2200	2210	2210	2210	2210	
	INTERNAL YIELD PRESSURE (psi)	3390	4930	4930	5550	5860	6780	7710	9250	
	BODY YIELD STRENGTH (kips)	437	636	636	715	755	874	993	1192	
	ULTIMATE STRENGTH (kips)	755	795	755	795	834	993	1073	1272	
	YIELD TORQUE (ft/lb)	84500	122900	122900	138300	146000	169000	192100	230500	

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	6840	7830	7830	8460	8460	9150	9850	10850
		OPTIMUM (ft/lb)	7590	8700	8700	9400	9400	10150	10850	11950
		MAXIMUM (ft/lb)	8340	9570	9570	10340	10340	11150	11850	13050
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	6840	7830	7830	8460	8460	9150	9850	10850
		OPTIMUM (ft/lb)	7590	8700	8700	9400	9400	10150	10850	11950
MAXIMUM (ft/lb)		8340	9570	9570	10340	10340	11150	11850	13050	

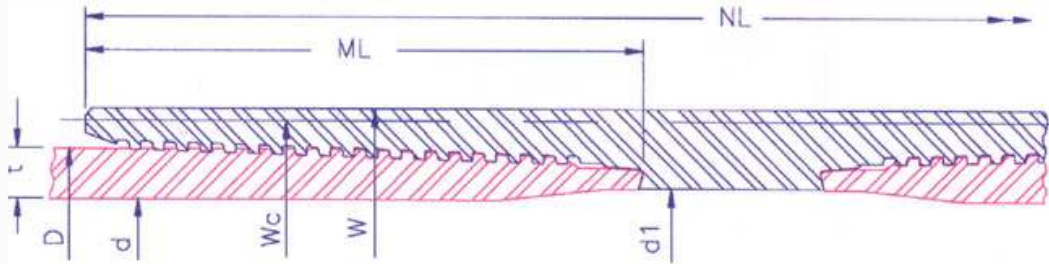
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)	1880	2160	2160	2200	2210	2210	2210	2210	
	INTERNAL YIELD PRESSURE (psi)	3390	4930	4930	5550	5860	6780	7710	9250	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)	653	950	950	1069	1128	1306	1484	1781	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)	241	350	350	394	416	481	547	656	
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.	599	688	664	714	751	886	973	1158	
	SPECIAL CLEARANCE COUPLING O.D.	599	688	664	714	751	886	973	1158	
		OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING	W	9.650	8.037	60.96		207		3051	
	SPECIAL CLEARANCE COUPLING	Wc	9.142	8.037	33.41		112		2953	
LENGTH OF COUPLING (in)	NL	12.971								
MAKE UP LOSS (in)	ML	5.545								

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TECHNICAL INFORMATION

CASING

SIZE:	8 5/8 "
NOMINAL WEIGHT:	32.00 lb/ft
WALL THICKNESS:	0.352 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	8.625	INSIDE DIA.(in) d	7.921	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		2530	3050	3050	3210	3280	3420	3470	3470
	INTERNAL YIELD PRESSURE (psi)		3930	5710	5710	6430	6780	7860	8930	10710
	BODY YIELD STRENGTH (kips)		503	732	732	823	869	1006	1144	1372
	ULTIMATE STRENGTH (kips)		869	915	869	915	961	1144	1235	1464
	YIELD TORQUE (ft/lb)		96200	140000	140000	157500	166200	192500	218700	262400

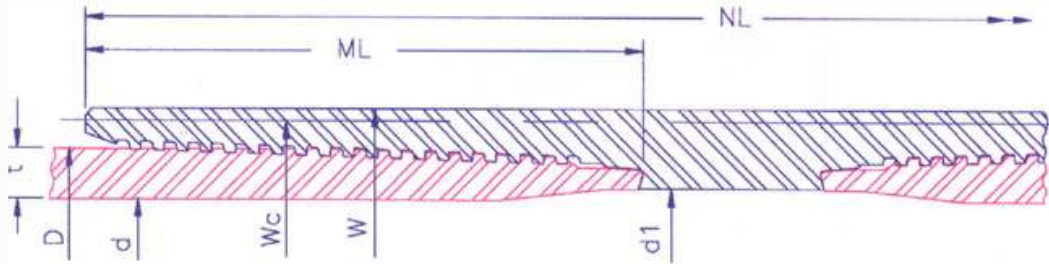
M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	7470	8460	8460	9150	9150	9850	10450	11700
		OPTIMUM (ft/lb)	8300	9400	9400	10150	10150	10850	11550	13000
		MAXIMUM (ft/lb)	9130	10340	10340	11150	11150	11850	12650	14300
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	7470	8460	8460	9150	9150	9850	10450	11700
		OPTIMUM (ft/lb)	8300	9400	9400	10150	10150	10850	11550	13000
MAXIMUM (ft/lb)		9130	10340	10340	11150	11150	11850	12650	14300	

C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		2530	3050	3050	3210	3280	3420	3470	3470
	INTERNAL YIELD PRESSURE (psi)		3930	5710	5710	6430	6780	7860	8930	10710
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		653	950	950	1069	1128	1306	1484	1781
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		241	350	350	394	416	481	547	656
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		690	792	764	822	864	1020	1120	1333
	SPECIAL CLEARANCE COUPLING O.D.		690	792	764	822	864	1020	1120	1333
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	9.650	8.037	60.96		180		3479
	SPECIAL CLEARANCE COUPLING		Wc	9.142	8.037	33.41		98		3381
LENGTH OF COUPLING (in)		NL	12.971		The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information					
MAKE UP LOSS (in)		ML	5.545							

TECHNICAL INFORMATION

CASING

SIZE:	8 5/8 "
NOMINAL WEIGHT:	36.00 lb/ft
WALL THICKNESS:	0.400 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	8.625	INSIDE DIA.(in) d	7.825	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
					7.700					35.14
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		3450	4100	4100	4250	4350	4680	4930	5130
	INTERNAL YIELD PRESSURE (psi)		4460	6490	6490	7300	7710	8930	10140	12170
	BODY YIELD STRENGTH (kips)		568	827	827	930	982	1137	1292	1550
	ULTIMATE STRENGTH (kips)		982	1034	982	1034	1085	1292	1395	1654
YIELD TORQUE (ft/lb)		107500	156400	156400	175900	185700	215000	244400	293200	

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	9150	10450	10450	11100	11100	12100	13050	14400
		OPTIMUM (ft/lb)	10150	11550	11550	12300	12300	13400	14450	15900
		MAXIMUM (ft/lb)	11150	12650	12650	13500	13500	14700	15850	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	9150	10450	10450	11100	11100	12100	13050	14400
		OPTIMUM (ft/lb)	10150	11550	11550	12300	12300	13400	14450	15900
MAXIMUM (ft/lb)		11150	12650	12650	13500	13500	14700	15850	17400	

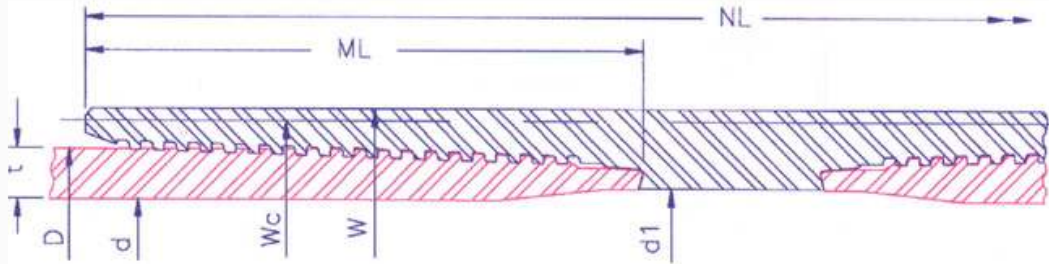
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		3450	4100	4100	4250	4350	4680	4930	5130
	INTERNAL YIELD PRESSURE (psi)		4460	6490	6490	7300	7710	8930	10140	12170
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		653	950	950	1069	1128	1306	1484	1781
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		241	350	350	394	416	481	547	656
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		780	895	864	928	976	1152	1265	1506
	SPECIAL CLEARANCE COUPLING O.D.		780	849	806	849	891	1061	1146	1358
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	9.650	7.982	61.35		159		3904
	SPECIAL CLEARANCE COUPLING		Wc	9.142	7.982	33.79		87		3807
LENGTH OF COUPLING (in)		NL	12.971							
MAKE UP LOSS (in)		ML	5.545							

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TECHNICAL INFORMATION

CASING

SIZE:	8 5/8 "
NOMINAL WEIGHT:	40.00 lb/ft
WALL THICKNESS:	0.450 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	8.625	INSIDE DIA.(in) d	7.725	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
					7.600					39.29
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		4400	5520	5520	5870	6020	6390	6630	7020
	INTERNAL YIELD PRESSURE (psi)		5020	7300	7300	8220	8670	10040	11410	13700
	BODY YIELD STRENGTH (kips)		636	925	925	1040	1098	1271	1445	1734
	ULTIMATE STRENGTH (kips)		1098	1156	1098	1156	1213	1445	1560	1849
YIELD TORQUE (ft/lb)		118800	172900	172900	194500	205300	237700	270100	324100	

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	9850	11100	11100	12100	12100	12700	13700	14400
		OPTIMUM (ft/lb)	10850	12300	12300	13400	13400	14100	15200	15900
		MAXIMUM (ft/lb)	11850	13500	13500	14700	14700	15500	16700	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	9850	11100	11100	12100	12100	12700	13700	14400
		OPTIMUM (ft/lb)	10850	12300	12300	13400	13400	14100	15200	15900
MAXIMUM (ft/lb)		11850	13500	13500	14700	14700	15500	16700	17400	

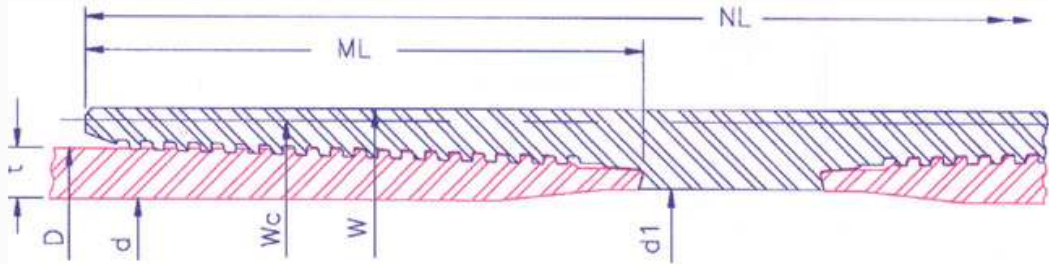
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		4400	5520	5520	5870	6020	6390	6630	7020
	INTERNAL YIELD PRESSURE (psi)		5020	7300	7300	8220	8670	10040	11410	13700
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		653	950	950	1069	1128	1306	1484	1781
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		241	350	350	394	416	481	547	656
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		872	1001	966	1038	1092	1288	1415	1683
	SPECIAL CLEARANCE COUPLING O.D.		806	849	806	849	891	1061	1146	1358
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	9.650	7.982	61.35		142		4337
	SPECIAL CLEARANCE COUPLING		Wc	9.142	7.982	33.79		77		4240
LENGTH OF COUPLING (in)		NL	12.971							
MAKE UP LOSS (in)		ML	5.545							

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TECHNICAL INFORMATION

CASING

SIZE:	8 5/8 "
NOMINAL WEIGHT:	44.00 lb/ft
WALL THICKNESS:	0.500 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	8.625	INSIDE DIA.(in) d	7.625	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		43.39
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		5360	6950	6950	7490	7740	8420	8980	9640
	INTERNAL YIELD PRESSURE (psi)		5580	8120	8120	9130	9640	11160	12680	15220
	BODY YIELD STRENGTH (kips)		702	1021	1021	1149	1212	1404	1595	1914
	ULTIMATE STRENGTH (kips)		1212	1276	1212	1276	1340	1595	1723	2042
	YIELD TORQUE (ft/lb)		129700	188700	188700	212300	224100	259500	294900	353800

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	10450	11700	11700	12700	12700	13700	14400	14400
		OPTIMUM (ft/lb)	11550	13000	13000	14100	14100	15200	15900	15900
		MAXIMUM (ft/lb)	12650	14300	14300	15500	15500	16700	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	10450	11700	11700	12700	12700	13700	14400	14400
		OPTIMUM (ft/lb)	11550	13000	13000	14100	14100	15200	15900	15900
		MAXIMUM (ft/lb)	12650	14300	14300	15500	15500	16700	17400	17400

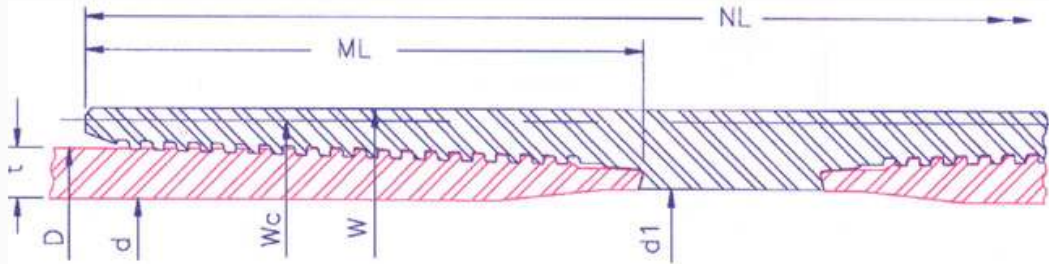
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		5360	6950	6950	7490	7740	8420	8980	9640
	INTERNAL YIELD PRESSURE (psi)		5580	8120	8120	9130	9640	11160	12680	15220
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		653	950	950	1069	1128	1306	1484	1781
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		241	350	350	394	416	481	547	656
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		963	1105	1066	1146	1206	1423	1562	1859
	SPECIAL CLEARANCE COUPLING O.D.		806	849	806	849	891	1061	1146	1358
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	9.650	7.982	61.35		129		4764
	SPECIAL CLEARANCE COUPLING		Wc	9.142	7.982	33.79		70		4667
LENGTH OF COUPLING (in)		NL	12.971							
MAKE UP LOSS (in)		ML	5.545							

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TECHNICAL INFORMATION

CASING

SIZE:	8 5/8 "
NOMINAL WEIGHT:	49.00 lb/ft
WALL THICKNESS:	0.557 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	8.625	INSIDE DIA.(in) d	7.511	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
					7.386			47.99		
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		6440	8570	8570	9340	9700	10730	11660	12940
	INTERNAL YIELD PRESSURE (psi)		6220	9040	9040	10170	10740	12430	14130	16950
	BODY YIELD STRENGTH (kips)		776	1129	1129	1271	1341	1553	1765	2118
	ULTIMATE STRENGTH (kips)		1341	1412	1341	1412	1482	1765	1906	2259
YIELD TORQUE (ft/lb)		141600	206000	206000	231800	244700	283300	321900	386300	

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	11100	12450	12450	13700	13700	14400	14400	14400
		OPTIMUM (ft/lb)	12300	13750	13750	15200	15200	15900	15900	15900
		MAXIMUM (ft/lb)	13500	15050	15050	16700	16700	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	11100	12450	12450	13700	13700	14400	14400	14400
		OPTIMUM (ft/lb)	12300	13750	13750	15200	15200	15900	15900	15900
		MAXIMUM (ft/lb)	13500	15050	15050	16700	16700	17400	17400	17400

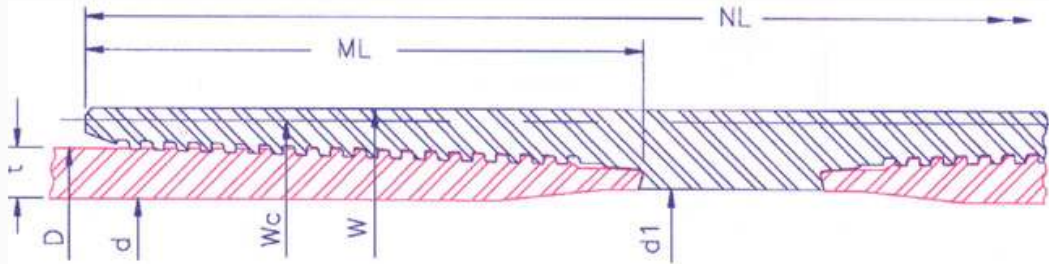
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		6440	8570	8570	9340	9700	10730	11660	12940
	INTERNAL YIELD PRESSURE (psi)		6220	9040	9040	10170	10740	12430	14130	16950
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		653	950	950	1069	1128	1306	1484	1781
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		241	350	350	394	416	481	547	656
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1065	1222	1180	1268	1334	1574	1728	2056
	SPECIAL CLEARANCE COUPLING O.D.		806	849	806	849	891	1061	1146	1358
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	9.650	7.982	61.35		116		5242
	SPECIAL CLEARANCE COUPLING		Wc	9.142	7.982	33.79		63		5145
LENGTH OF COUPLING (in)		NL	12.971							
MAKE UP LOSS (in)		ML	5.545							

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TECHNICAL INFORMATION

CASING

SIZE:	8 5/8 "
NOMINAL WEIGHT:	52.00 lb/ft
WALL THICKNESS:	0.595 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	8.625	INSIDE DIA.(in) d	7.435	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
	GRADE	K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)	7060	9650	9650	10570	11010	12280	13440	15150	
	INTERNAL YIELD PRESSURE (psi)	6640	9660	9660	10870	11470	13280	15090	18110	
	BODY YIELD STRENGTH (kips)	826	1201	1201	1351	1426	1651	1876	2252	
	ULTIMATE STRENGTH (kips)	1426	1501	1426	1501	1576	1876	2026	2402	
	YIELD TORQUE (ft/lb)	149300	217100	217100	244300	257900	298600	339300	407100	

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0									
	REGULAR	MINIMUM (ft/lb)	11700	13050	13050	13700	13700	14400	14400	14400
		OPTIMUM (ft/lb)	13000	14450	14450	15200	15200	15900	15900	15900
		MAXIMUM (ft/lb)	14300	15850	15850	16700	16700	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	11700	13050	13050	13700	13700	14400	14400	14400
		OPTIMUM (ft/lb)	13000	14450	14450	15200	15200	15900	15900	15900
MAXIMUM (ft/lb)		14300	15850	15850	16700	16700	17400	17400	17400	

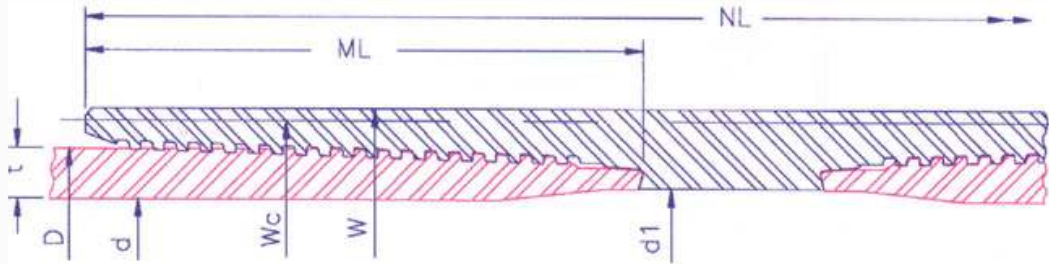
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		7060	9650	9650	10570	11010	12280	13440	15150	
	INTERNAL YIELD PRESSURE (psi)		6640	9660	9660	10870	11470	13280	15090	18110	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		653	950	950	1069	1128	1306	1484	1781	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		241	350	350	394	416	481	547	656	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		1132	1300	1254	1348	1418	1673	1837	2186	
	SPECIAL CLEARANCE COUPLING O.D.		806	849	806	849	891	1061	1146	1358	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	9.650	7.982	61.35		110		5556	
	SPECIAL CLEARANCE COUPLING		Wc	9.142	7.982	33.79		60		5459	
LENGTH OF COUPLING (in)		NL	12.971								
MAKE UP LOSS (in)		ML	5.545								

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TECHNICAL INFORMATION

CASING

SIZE:	9 5/8 "
NOMINAL WEIGHT:	36.00 lb/ft
WALL THICKNESS:	0.352 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	9.625	INSIDE DIA.(in) d		8.921	DRIFT DIA. (in)			8.765	PLAIN END WT (lb/ft)		34.86
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		2020	2370	2370	2440	2460	2470	2470	2470		
	INTERNAL YIELD PRESSURE (psi)		3520	5120	5120	5760	6080	7040	8000	9600		
	BODY YIELD STRENGTH (kips)		564	820	820	923	974	1128	1282	1538		
	ULTIMATE STRENGTH (kips)		974	1025	974	1025	1077	1282	1384	1641		
	YIELD TORQUE (ft/lb)		121400	176600	176600	198600	209700	242800	275900	331100		

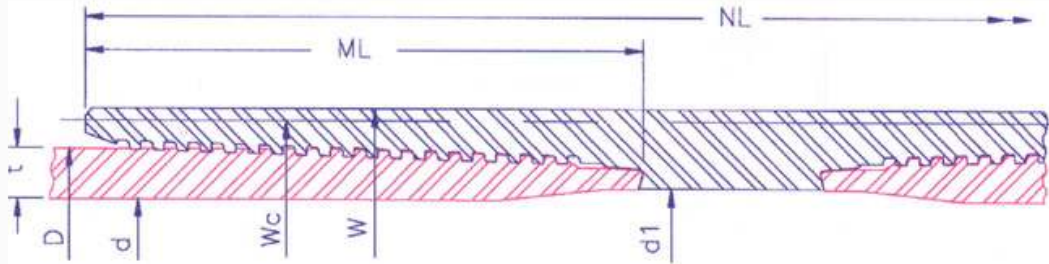
M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	7830	9150	9150	10100	10100	10850	11700	13050	
		OPTIMUM (ft/lb)	8700	10150	10150	11200	11200	11950	13000	14450	
		MAXIMUM (ft/lb)	9570	11150	11150	12300	12300	13050	14300	15850	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	7830	9150	9150	10100	10100	10850	11700	13050	
		OPTIMUM (ft/lb)	8700	10150	10150	11200	11200	11950	13000	14450	
MAXIMUM (ft/lb)		9570	11150	11150	12300	12300	13050	14300	15850		

C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		2020	2370	2370	2440	2460	2470	2470	2470	
	INTERNAL YIELD PRESSURE (psi)		3520	5120	5120	5760	6080	7040	8000	9600	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		723	1051	1051	1183	1249	1446	1643	1971	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		267	388	388	436	461	533	606	727	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		755	877	848	914	962	1133	1247	1485	
	SPECIAL CLEARANCE COUPLING O.D.		755	877	848	914	962	1133	1247	1485	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	10.650	9.037	67.69		178		3897	
	SPECIAL CLEARANCE COUPLING		Wc	10.142	9.037	37.20		97		3789	
LENGTH OF COUPLING (in)		NL	12.971		The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information						
MAKE UP LOSS (in)		ML	5.545								

TECHNICAL INFORMATION

CASING

SIZE:	9 5/8 "
NOMINAL WEIGHT:	40.00 lb/ft
WALL THICKNESS:	0.395 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	9.625	INSIDE DIA.(in) d	8.835	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		2570	3080	3080	3250	3320	3470	3520	3530
	INTERNAL YIELD PRESSURE (psi)		3950	5750	5750	6460	6820	7900	8980	10770
	BODY YIELD STRENGTH (kips)		630	916	916	1031	1088	1260	1432	1718
	ULTIMATE STRENGTH (kips)		1088	1145	1088	1145	1203	1432	1546	1833
	YIELD TORQUE (ft/lb)		134400	195500	195500	219900	232100	268800	305400	366500

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	9500	11100	11100	12100	12100	13050	14400	14400
		OPTIMUM (ft/lb)	10500	12300	12300	13400	13400	14450	15900	15900
		MAXIMUM (ft/lb)	11500	13500	13500	14700	14700	15850	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	9500	11100	11100	12100	12100	13050	14400	14400
		OPTIMUM (ft/lb)	10500	12300	12300	13400	13400	14450	15900	15900
		MAXIMUM (ft/lb)	11500	13500	13500	14700	14700	15850	17400	17400

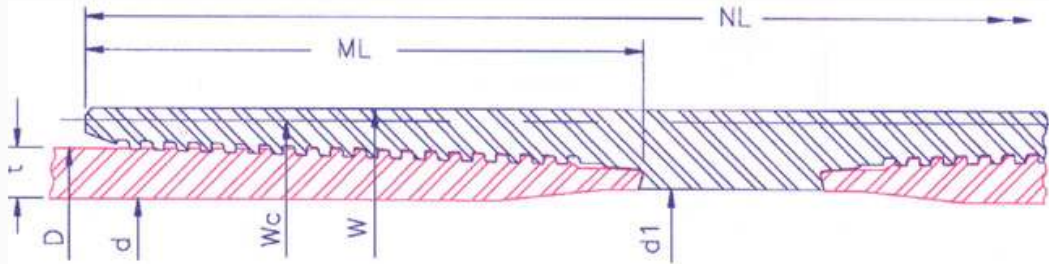
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		2570	3080	3080	3250	3320	3470	3520	3530	
	INTERNAL YIELD PRESSURE (psi)		3950	5750	5750	6460	6820	7900	8980	10770	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		723	1051	1051	1183	1249	1446	1643	1971	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		267	388	388	436	461	533	606	727	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		843	979	947	1021	1074	1266	1393	1658	
	SPECIAL CLEARANCE COUPLING O.D.		843	945	898	945	992	1181	1276	1512	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	10.650	8.990	68.06		159		4326	
	SPECIAL CLEARANCE COUPLING		Wc	10.142	8.990	37.57		87		4219	
LENGTH OF COUPLING (in)		NL	12.971								
MAKE UP LOSS (in)		ML	5.545								

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TECHNICAL INFORMATION

CASING

SIZE:	9 5/8 "
NOMINAL WEIGHT:	43.50 lb/ft
WALL THICKNESS:	0.435 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	9.625	INSIDE DIA.(in) d		8.755	DRIFT DIA. (in)		8.599	PLAIN END WT (lb/ft)		42.69
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		3250	3810	3810	4010	4120	4410	4620	4750	
	INTERNAL YIELD PRESSURE (psi)		4350	6330	6330	7120	7510	8700	9890	11860	
	BODY YIELD STRENGTH (kips)		691	1005	1005	1130	1193	1381	1570	1884	
	ULTIMATE STRENGTH (kips)		1193	1256	1193	1256	1319	1570	1695	2009	
	YIELD TORQUE (ft/lb)		146100	212600	212600	239100	252400	292300	332100	398500	

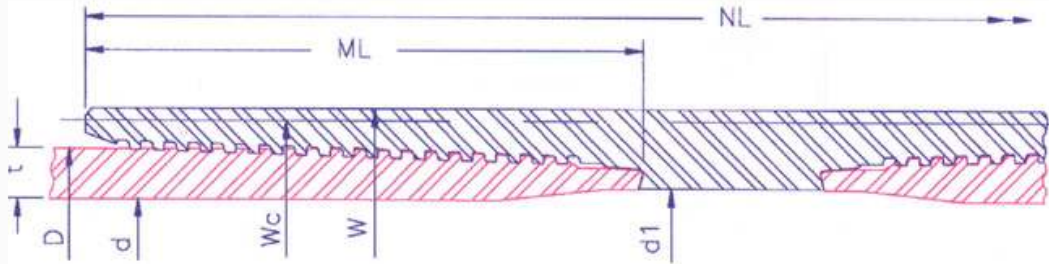
M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	10850	12700	12700	13700	13700	14400	14400	14400	
		OPTIMUM (ft/lb)	11950	14100	14100	15200	15200	15900	15900	15900	
		MAXIMUM (ft/lb)	13050	15500	15500	16700	16700	17400	17400	17400	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	10850	12700	12700	13700	13700	14400	14400	14400	
		OPTIMUM (ft/lb)	11950	14100	14100	15200	15200	15900	15900	15900	
MAXIMUM (ft/lb)		13050	15500	15500	16700	16700	17400	17400	17400		

C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		3250	3810	3810	4010	4120	4410	4620	4750	
	INTERNAL YIELD PRESSURE (psi)		4350	6330	6330	7120	7510	8700	9890	11860	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		723	1051	1051	1183	1249	1446	1643	1971	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		267	388	388	436	461	533	606	727	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		925	1074	1038	1119	1178	1388	1527	1818	
	SPECIAL CLEARANCE COUPLING O.D.		898	945	898	945	992	1181	1276	1512	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	10.650	8.947	68.40		145		4722	
	SPECIAL CLEARANCE COUPLING		Wc	10.142	8.947	37.91		79		4614	
LENGTH OF COUPLING (in)		NL	12.971		The above information is for reference only. The information is subject to change or modification without notice. Please contact HSC for the latest information						
MAKE UP LOSS (in)		ML	5.545								

TECHNICAL INFORMATION

CASING

SIZE:	9 5/8 "
NOMINAL WEIGHT:	47.00 lb/ft
WALL THICKNESS:	0.472 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	9.625	INSIDE DIA.(in) d	8.681	DRIFT DIA. (in)					8.525	PLAIN END WT (lb/ft)		46.14
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150			
	COLLAPSE RESISTANCE (psi)		3890	4750	4750	4990	5090	5300	5630	6000			
	INTERNAL YIELD PRESSURE (psi)		4720	6870	6870	7720	8150	9440	10730	12870			
	BODY YIELD STRENGTH (kips)		746	1086	1086	1222	1289	1493	1697	2036			
	ULTIMATE STRENGTH (kips)		1289	1357	1289	1357	1425	1697	1832	2172			
	YIELD TORQUE (ft/lb)		156700	228000	228000	256500	270700	313400	356200	427400			

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
M A K E U P	REGULAR	MINIMUM (ft/lb)	11100	13050	13050	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	12300	14450	14450	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	13500	15850	15850	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	11100	13050	13050	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	12300	14450	14450	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	13500	15850	15850	17400	17400	17400	17400	17400	17400

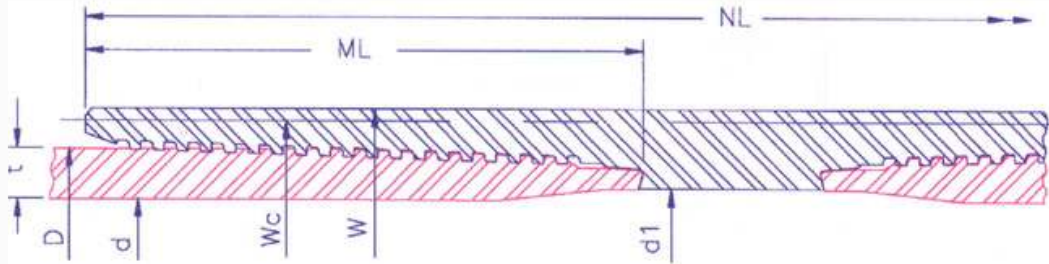
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		3890	4750	4750	4990	5090	5300	5630	6000	
	INTERNAL YIELD PRESSURE (psi)		4720	6870	6870	7720	8150	9440	10730	12870	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		723	1051	1051	1183	1249	1446	1643	1971	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		267	388	388	436	461	533	606	727	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		999	1161	1122	1210	1273	1500	1650	1965	
	SPECIAL CLEARANCE COUPLING O.D.		898	945	898	945	992	1181	1276	1512	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	10.650	8.947	68.40		134		5081	
	SPECIAL CLEARANCE COUPLING		Wc	10.142	8.947	37.91		73		4974	
	LENGTH OF COUPLING (in)		NL	12.971							
MAKE UP LOSS (in)		ML	5.545								

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TECHNICAL INFORMATION

CASING

SIZE:	9 5/8 "
NOMINAL WEIGHT:	53.50 lb/ft
WALL THICKNESS:	0.545 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	9.625	INSIDE DIA.(in) d		8.535	DRIFT DIA. (in)			8.379	PLAIN END WT (lb/ft)		52.85
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		5130	6620	6620	7110	7340	7950	8440	8960		
	INTERNAL YIELD PRESSURE (psi)		5450	7930	7930	8920	9410	10900	12390	14860		
	BODY YIELD STRENGTH (kips)		855	1244	1244	1399	1477	1710	1943	2332		
	ULTIMATE STRENGTH (kips)		1477	1555	1477	1555	1632	1943	2099	2487		
	YIELD TORQUE (ft/lb)		176800	257200	257200	289400	305400	353700	401900	482300		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	12100	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	13400	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	14700	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	12100	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	13400	15900	15900	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		14700	17400	17400	17400	17400	17400	17400	17400	17400	

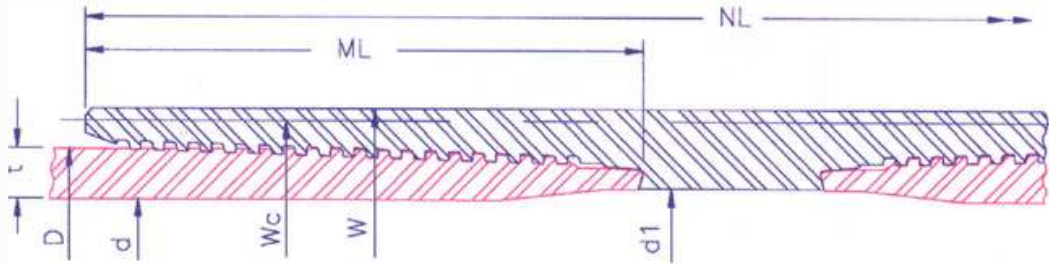
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		5130	6620	6620	7110	7340	7950	8440	8960
	INTERNAL YIELD PRESSURE (psi)		5450	7930	7930	8920	9410	10900	12390	14860
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		723	1051	1051	1183	1249	1446	1643	1971
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		267	388	388	436	461	533	606	727
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1145	1329	1285	1386	1458	1718	1890	2251
	SPECIAL CLEARANCE COUPLING O.D.		898	945	898	945	992	1181	1276	1512
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	10.650	8.947	68.40		117		5779
	SPECIAL CLEARANCE COUPLING		Wc	10.142	8.947	37.91		64		5672
LENGTH OF COUPLING (in)		NL	12.971							
MAKE UP LOSS (in)		ML	5.545							

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TECHNICAL INFORMATION

CASING

SIZE:	9 5/8 "
NOMINAL WEIGHT:	58.40 lb/ft
WALL THICKNESS:	0.595 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	9.625	INSIDE DIA.(in) d	8.435	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		5990	7890	7890	8570	8890	9770	10540	11560
	INTERNAL YIELD PRESSURE (psi)		5950	8650	8650	9740	10280	11900	13520	16230
	BODY YIELD STRENGTH (kips)		928	1350	1350	1519	1604	1857	2110	2532
	ULTIMATE STRENGTH (kips)		1604	1688	1604	1688	1772	2110	2279	2701
	YIELD TORQUE (ft/lb)		190000	276400	276400	310900	328200	380000	431900	518200

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	12700	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	14100	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	15500	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	12700	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	14100	15900	15900	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		15500	17400	17400	17400	17400	17400	17400	17400	17400	

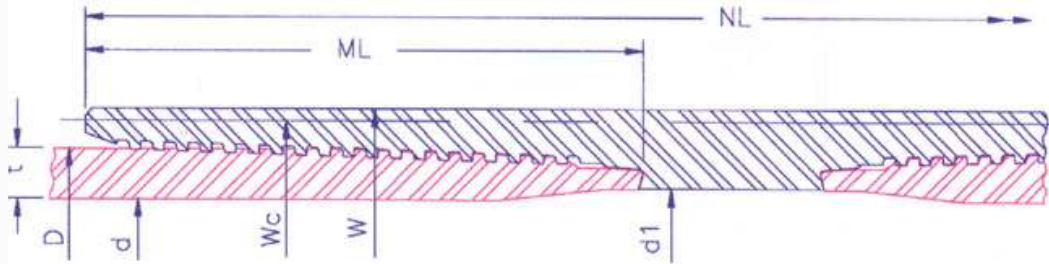
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		5990	7890	7890	8570	8890	9770	10540	11560
	INTERNAL YIELD PRESSURE (psi)		5950	8650	8650	9740	10280	11900	13520	16230
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		723	1051	1051	1183	1249	1446	1643	1971
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		267	388	388	436	461	533	606	727
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1243	1443	1396	1505	1583	1865	2052	2444
	SPECIAL CLEARANCE COUPLING O.D.		898	945	898	945	992	1181	1276	1512
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	10.650	8.947	68.40		108		6249
	SPECIAL CLEARANCE COUPLING		Wc	10.142	8.947	37.91		59		6141
LENGTH OF COUPLING (in)		NL	12.971							
MAKE UP LOSS (in)		ML	5.545							

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TECHNICAL INFORMATION

CASING

SIZE:	9 5/8 "
NOMINAL WEIGHT:	59.40 lb/ft
WALL THICKNESS:	0.609 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	9.625	INSIDE DIA.(in) d	8.407	DRIFT DIA. (in)			PLAIN END WT (lb/ft)			58.64
	GRADE	K55		N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)	6230		8250	8250	8970	9320	10280	11130	12290	
	INTERNAL YIELD PRESSURE (psi)	6090		8860	8860	9970	10520	12180	13840	16610	
	BODY YIELD STRENGTH (kips)	949		1380	1380	1552	1639	1897	2156	2587	
	ULTIMATE STRENGTH (kips)	1639		1725	1639	1725	1811	2156	2329	2760	
	YIELD TORQUE (ft/lb)	193600		281600	281600	316900	334500	387300	440100	528100	

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	13050	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	14450	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	15850	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	13050	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	14450	15900	15900	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		15850	17400	17400	17400	17400	17400	17400	17400	17400	

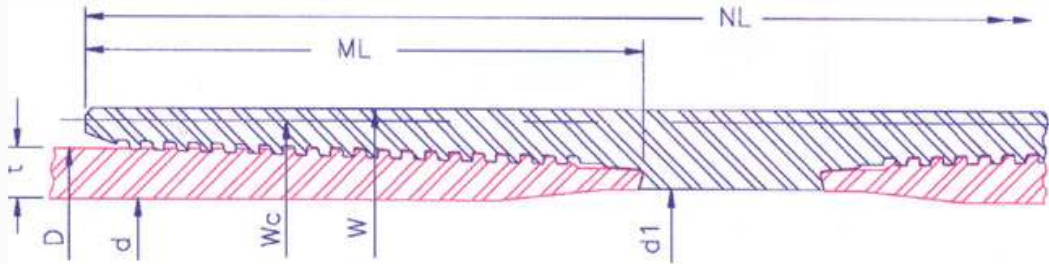
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)	6230		8250	8250	8970	9320	10280	11130	12290	
	INTERNAL YIELD PRESSURE (psi)	6090		8860	8860	9970	10520	12180	13840	16610	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)	723		1051	1051	1183	1249	1446	1643	1971	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)	267		388	388	436	461	533	606	727	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.	1270		1475	1426	1538	1618	1906	2098	2498	
	SPECIAL CLEARANCE COUPLING O.D.	898		945	898	945	992	1181	1276	1512	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING	W	10.650	8.947	68.40		106		6379		
	SPECIAL CLEARANCE COUPLING	Wc	10.142	8.947	37.91		58		6272		
LENGTH OF COUPLING (in)	NL	12.971									
MAKE UP LOSS (in)	ML	5.545									

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TECHNICAL INFORMATION

CASING

SIZE:	10 3/4 "
NOMINAL WEIGHT:	40.50 lb/ft
WALL THICKNESS:	0.350 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	10.750	INSIDE DIA.(in) d		10.050	DRIFT DIA. (in)			9.894	PLAIN END WT (lb/ft)		38.88	
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150			
	COLLAPSE RESISTANCE (psi)		1580	1730	1730	1730	1730	1730	1730	1730	1730		
	INTERNAL YIELD PRESSURE (psi)		3130	4560	4560	5130	5410	6270	7120	8550			
	BODY YIELD STRENGTH (kips)		629	915	915	1029	1086	1258	1429	1715			
	ULTIMATE STRENGTH (kips)		1086	1144	1086	1144	1201	1429	1544	1830			
	YIELD TORQUE (ft/lb)		152400	221700	221700	249400	263200	304800	346400	415600			

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	8460	10100	10100	11100	11100	12100	13050	14400	
		OPTIMUM (ft/lb)	9400	11200	11200	12300	12300	13400	14450	15900	
		MAXIMUM (ft/lb)	10340	12300	12300	13500	13500	14700	15850	17400	
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	8460	10100	10100	11100	11100	12100	13050	14400	
		OPTIMUM (ft/lb)	9400	11200	11200	12300	12300	13400	14450	15900	
MAXIMUM (ft/lb)		10340	12300	12300	13500	13500	14700	15850	17400		

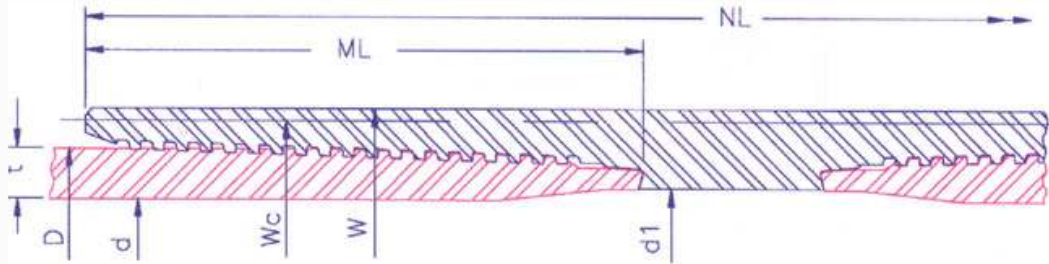
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		1580	1730	1730	1730	1730	1730	1730	1730	
	INTERNAL YIELD PRESSURE (psi)		3130	4560	4560	5130	5410	6270	7120	8550	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		800	1164	1164	1309	1382	1600	1819	2182	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		299	434	434	489	516	597	679	814	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		819	964	934	1010	1063	1251	1380	1644	
	SPECIAL CLEARANCE COUPLING O.D.		819	964	934	1010	1063	1251	1380	1644	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	11.772	10.157	75.93		177		4347	
	SPECIAL CLEARANCE COUPLING		Wc	11.268	10.157	42.11		98		4227	
LENGTH OF COUPLING (in)		NL	13.089								
MAKE UP LOSS (in)		ML	5.589								

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TECHNICAL INFORMATION

CASING

SIZE:	10 3/4 "
NOMINAL WEIGHT:	45.50 lb/ft
WALL THICKNESS:	0.400 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	10.750	INSIDE DIA.(in) d		9.950	DRIFT DIA. (in)		9.794	PLAIN END WT (lb/ft)		44.22
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		2090	2470	2470	2560	2580	2610	2610	2610	
	INTERNAL YIELD PRESSURE (psi)		3580	5210	5210	5860	6190	7160	8140	9770	
	BODY YIELD STRENGTH (kips)		715	1040	1040	1171	1236	1431	1626	1951	
	ULTIMATE STRENGTH (kips)		1236	1301	1236	1301	1366	1626	1756	2081	
	YIELD TORQUE (ft/lb)		171700	249800	249800	281000	296600	343500	390300	468400	

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	10450	12700	12700	13700	13700	14400	14400	14400
		OPTIMUM (ft/lb)	11550	14100	14100	15200	15200	15900	15900	15900
		MAXIMUM (ft/lb)	12650	15500	15500	16700	16700	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	10450	12700	12700	13700	13700	14400	14400	14400
		OPTIMUM (ft/lb)	11550	14100	14100	15200	15200	15900	15900	15900
		MAXIMUM (ft/lb)	12650	15500	15500	16700	16700	17400	17400	17400

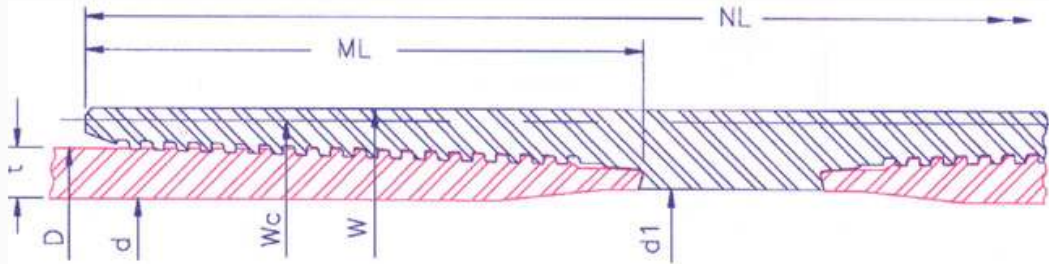
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		2090	2470	2470	2560	2580	2610	2610	2610
	INTERNAL YIELD PRESSURE (psi)		3580	5210	5210	5860	6190	7160	8140	9770
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		800	1164	1164	1309	1382	1600	1819	2182
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		299	434	434	489	516	597	679	814
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		931	1097	1063	1149	1209	1423	1570	1870
	SPECIAL CLEARANCE COUPLING O.D.		931	1060	1007	1060	1113	1325	1431	1696
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	11.772	10.110	76.35		156		4909
	SPECIAL CLEARANCE COUPLING		Wc	11.268	10.110	42.53		86		4789
	LENGTH OF COUPLING (in)		NL	13.089						
MAKE UP LOSS (in)		ML	5.589							

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TECHNICAL INFORMATION

CASING

SIZE:	10 3/4 "
NOMINAL WEIGHT:	51.00 lb/ft
WALL THICKNESS:	0.450 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	10.750	INSIDE DIA.(in) d		9.850	DRIFT DIA. (in)			9.694	PLAIN END WT (lb/ft)		49.50
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		2710	3210	3210	3400	3480	3660	3740	3750		
	INTERNAL YIELD PRESSURE (psi)		4030	5860	5860	6590	6960	8060	9160	10990		
	BODY YIELD STRENGTH (kips)		801	1165	1165	1311	1383	1602	1820	2184		
	ULTIMATE STRENGTH (kips)		1383	1456	1383	1456	1529	1820	1966	2330		
	YIELD TORQUE (ft/lb)		190500	277100	277100	311700	329000	381000	432900	519500		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	11100	13050	13050	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	12300	14450	14450	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	13500	15850	15850	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	11100	13050	13050	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	12300	14450	14450	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		13500	15850	15850	17400	17400	17400	17400	17400	17400	

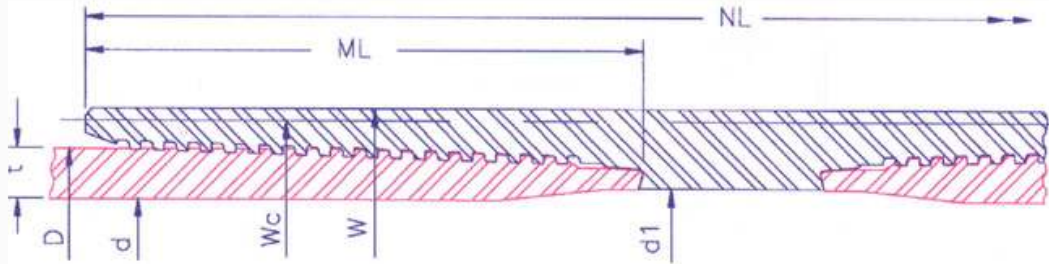
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		2710	3210	3210	3400	3480	3660	3740	3750
	INTERNAL YIELD PRESSURE (psi)		4030	5860	5860	6590	6960	8060	9160	10990
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		800	1164	1164	1309	1382	1600	1819	2182
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		299	434	434	489	516	597	679	814
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1043	1228	1190	1287	1354	1594	1758	2094
	SPECIAL CLEARANCE COUPLING O.D.		1007	1060	1007	1060	1113	1325	1431	1696
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	11.772	10.039	76.99		139		5466
	SPECIAL CLEARANCE COUPLING		Wc	11.268	10.039	43.17		77		5347
LENGTH OF COUPLING (in)		NL	13.089							
MAKE UP LOSS (in)		ML	5.589							

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TECHNICAL INFORMATION

CASING

SIZE:	10 3/4 "
NOMINAL WEIGHT:	55.50 lb/ft
WALL THICKNESS:	0.495 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	10.750	INSIDE DIA.(in) d	9.760	DRIFT DIA. (in)					9.604	PLAIN END WT (lb/ft)		54.21
	GRADE			K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)			3390	4020	4020	4160	4290	4610	4840	5030		
	INTERNAL YIELD PRESSURE (psi)			4430	6450	6450	7250	7660	8860	10070	12090		
	BODY YIELD STRENGTH (kips)			877	1276	1276	1435	1515	1754	1993	2392		
	ULTIMATE STRENGTH (kips)			1515	1595	1515	1595	1674	1993	2153	2552		
	YIELD TORQUE (ft/lb)			206900	300900	300900	338600	357400	413800	470200	564300		

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	11700	13700	13700	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	13000	15200	15200	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	14300	16700	16700	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	11700	13700	13700	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	13000	15200	15200	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	14300	16700	16700	17400	17400	17400	17400	17400

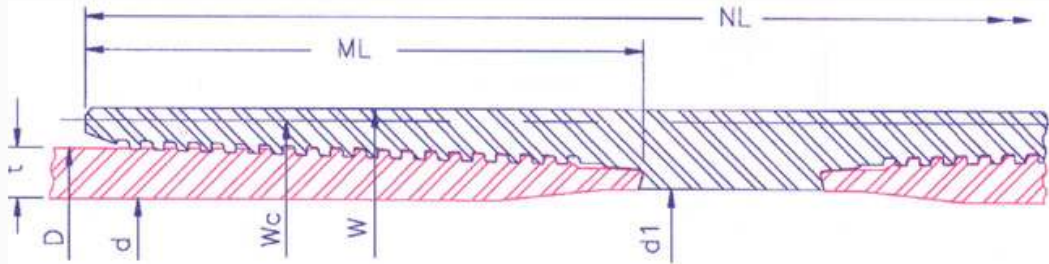
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)			3390	4020	4020	4160	4290	4610	4840	5030
	INTERNAL YIELD PRESSURE (psi)			4430	6450	6450	7250	7660	8860	10070	12090
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)			800	1164	1164	1309	1382	1600	1819	2182
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)			299	434	434	489	516	597	679	814
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.			1142	1345	1303	1409	1483	1745	1925	2293
	SPECIAL CLEARANCE COUPLING O.D.			1007	1060	1007	1060	1113	1325	1431	1696
				OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING			W	11.772	10.039	76.99		127		5958
	SPECIAL CLEARANCE COUPLING			Wc	11.268	10.039	43.17		70		5838
	LENGTH OF COUPLING (in)			NL	13.089						
MAKE UP LOSS (in)			ML	5.589							

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TECHNICAL INFORMATION

CASING

SIZE:	10 3/4 "
NOMINAL WEIGHT:	60.70 lb/ft
WALL THICKNESS:	0.545 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	10.750	INSIDE DIA.(in) d		9.660	DRIFT DIA. (in)		9.504	PLAIN END WT (lb/ft)		59.40
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		4160	5160	5160	5460	5580	5880	6060	6540	
	INTERNAL YIELD PRESSURE (psi)		4880	7100	7100	7980	8430	9760	11090	13310	
	BODY YIELD STRENGTH (kips)		961	1398	1398	1573	1660	1922	2184	2621	
	ULTIMATE STRENGTH (kips)		1660	1747	1660	1747	1835	2184	2359	2796	
	YIELD TORQUE (ft/lb)		224600	326700	326700	367500	387900	449200	510400	612500	

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
M A K E U P	REGULAR	MINIMUM (ft/lb)	12450	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	13750	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	15050	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	12450	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	13750	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	15050	17400	17400	17400	17400	17400	17400	17400	17400

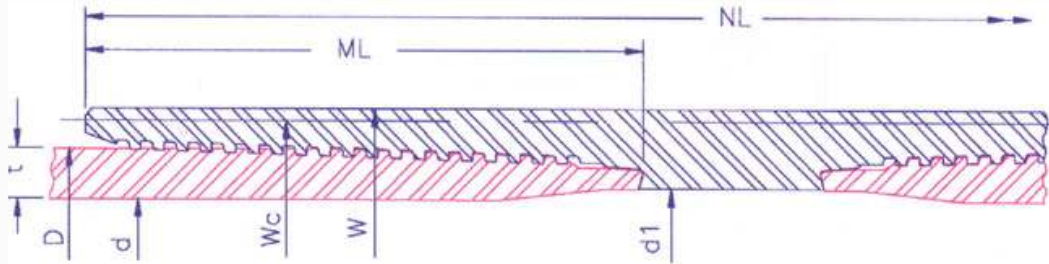
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		4160	5160	5160	5460	5580	5880	6060	6540	
	INTERNAL YIELD PRESSURE (psi)		4880	7100	7100	7980	8430	9760	11090	13310	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		800	1164	1164	1309	1382	1600	1819	2182	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		299	434	434	489	516	597	679	814	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		1251	1473	1428	1544	1625	1912	2109	2513	
	SPECIAL CLEARANCE COUPLING O.D.		1007	1060	1007	1060	1113	1325	1431	1696	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	11.772	10.039	76.99		116		6497	
	SPECIAL CLEARANCE COUPLING		Wc	11.268	10.039	43.17		64		6378	
	LENGTH OF COUPLING (in)		NL	13.089							
MAKE UP LOSS (in)		ML	5.589								

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TECHNICAL INFORMATION

CASING

SIZE:	10 3/4 "
NOMINAL WEIGHT:	65.70 lb/ft
WALL THICKNESS:	0.595 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	10.750	INSIDE DIA.(in) d		9.560	DRIFT DIA. (in)			9.404	PLAIN END WT (lb/ft)		64.53
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		4920	6300	6300	6760	6970	7500	7920	8320		
	INTERNAL YIELD PRESSURE (psi)		5330	7750	7750	8720	9200	10650	12110	14530		
	BODY YIELD STRENGTH (kips)		1044	1519	1519	1708	1803	2088	2373	2847		
	ULTIMATE STRENGTH (kips)		1803	1898	1803	1898	1993	2373	2563	3037		
	YIELD TORQUE (ft/lb)		241800	351600	351600	395600	417600	483500	549400	659300		

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
M A K E U P	REGULAR	MINIMUM (ft/lb)	13050	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	14450	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	15850	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	13050	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	14450	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	15850	17400	17400	17400	17400	17400	17400	17400	17400

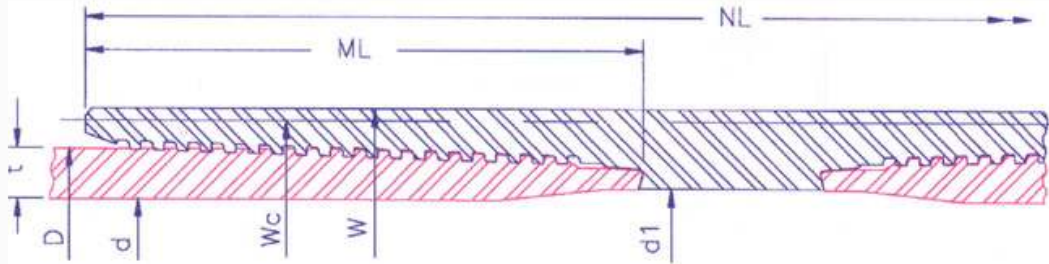
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		4920	6300	6300	6760	6970	7500	7920	8320	
	INTERNAL YIELD PRESSURE (psi)		5330	7750	7750	8720	9200	10650	12110	14530	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		800	1164	1164	1309	1382	1600	1819	2182	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		299	434	434	489	516	597	679	814	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		1359	1600	1551	1677	1765	2077	2291	2730	
	SPECIAL CLEARANCE COUPLING O.D.		1007	1060	1007	1060	1113	1325	1431	1696	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	11.772	10.039	76.99		107		7030	
	SPECIAL CLEARANCE COUPLING		Wc	11.268	10.039	43.17		59		6910	
LENGTH OF COUPLING (in)		NL	13.089								
MAKE UP LOSS (in)		ML	5.589								

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TECHNICAL INFORMATION

CASING

SIZE:	11 3/4 "
NOMINAL WEIGHT:	47.00 lb/ft
WALL THICKNESS:	0.375 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	11.750	INSIDE DIA.(in) d		11.000	DRIFT DIA. (in)			10.844	PLAIN END WT (lb/ft)		45.56	
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150			
	COLLAPSE RESISTANCE (psi)		1510	1630	1630	1630	1630	1630	1630	1630	1630		
	INTERNAL YIELD PRESSURE (psi)		3070	4470	4470	5030	5310	6140	6980	8380			
	BODY YIELD STRENGTH (kips)		737	1072	1072	1206	1273	1474	1675	2010			
	ULTIMATE STRENGTH (kips)		1273	1340	1273	1340	1407	1675	1809	2144			
	YIELD TORQUE (ft/lb)		195500	284300	284300	319800	337600	390900	444200	533100			

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	9500	11450	11450	12700	12700	13700	14400	14400
		OPTIMUM (ft/lb)	10500	12650	12650	14100	14100	15200	15900	15900
		MAXIMUM (ft/lb)	11500	13850	13850	15500	15500	16700	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	9500	11450	11450	12700	12700	13700	14400	14400
		OPTIMUM (ft/lb)	10500	12650	12650	14100	14100	15200	15900	15900
		MAXIMUM (ft/lb)	11500	13850	13850	15500	15500	16700	17400	17400

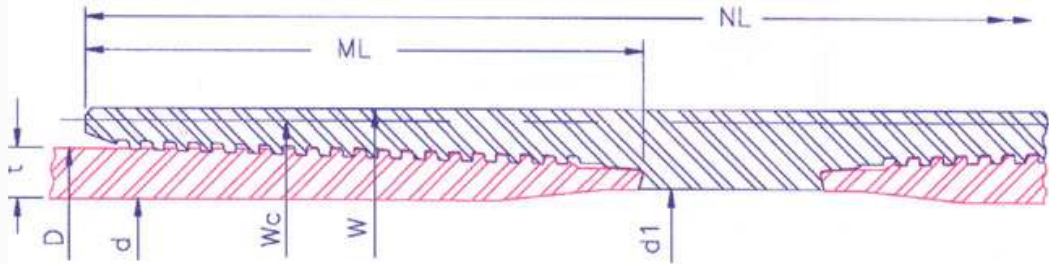
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		1510	1630	1630	1630	1630	1630	1630	1630	
	INTERNAL YIELD PRESSURE (psi)		3070	4470	4470	5030	5310	6140	6980	8380	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		871	1266	1266	1425	1504	1741	1979	2374	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		325	473	473	533	562	651	740	888	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		935	1116	1084	1175	1237	1454	1607	1915	
	SPECIAL CLEARANCE COUPLING O.D.		935	1116	1084	1157	1215	1446	1562	1851	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	12.772	11.108	83.22		165		5075	
	SPECIAL CLEARANCE COUPLING		Wc	12.268	11.108	46.46		91		4945	
	LENGTH OF COUPLING (in)		NL	13.089							
MAKE UP LOSS (in)		ML	5.589								

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TECHNICAL INFORMATION

CASING

SIZE:	11 3/4 "
NOMINAL WEIGHT:	54.00 lb/ft
WALL THICKNESS:	0.435 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	11.750	INSIDE DIA.(in) d	10.880	DRIFT DIA. (in)					10.724	PLAIN END WT (lb/ft)	52.57
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		2070	2440	2440	2520	2550	2570	2570	2570		
	INTERNAL YIELD PRESSURE (psi)		3560	5180	5180	5830	6150	7130	8100	9720		
	BODY YIELD STRENGTH (kips)		850	1237	1237	1392	1469	1701	1933	2319		
	ULTIMATE STRENGTH (kips)		1469	1546	1469	1546	1624	1933	2088	2474		
	YIELD TORQUE (ft/lb)		223300	324700	324700	365300	385600	446500	507400	608900		

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
M A K E U P	REGULAR	MINIMUM (ft/lb)	13050	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	14450	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	15850	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	13050	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	14450	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	15850	17400	17400	17400	17400	17400	17400	17400	17400

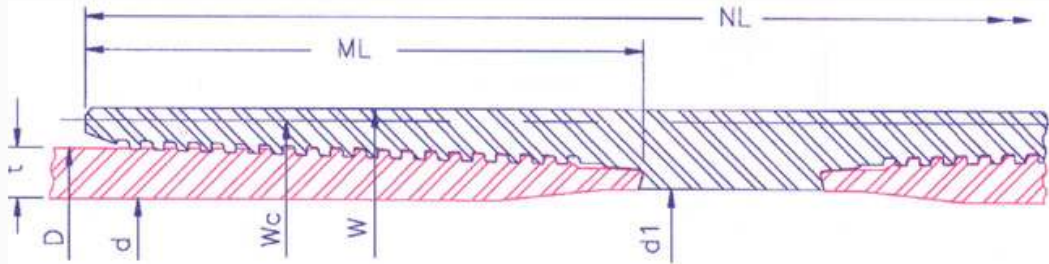
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		2070	2440	2440	2520	2550	2570	2570	2570	
	INTERNAL YIELD PRESSURE (psi)		3560	5180	5180	5830	6150	7130	8100	9720	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		871	1266	1266	1425	1504	1741	1979	2374	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		325	473	473	533	562	651	740	888	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		1079	1287	1250	1356	1427	1677	1854	2210	
	SPECIAL CLEARANCE COUPLING O.D.		1079	1157	1099	1157	1215	1446	1562	1851	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	12.772	11.043	83.86		143		5813	
	SPECIAL CLEARANCE COUPLING		Wc	12.268	11.043	47.10		79		5683	
	LENGTH OF COUPLING (in)		NL	13.089							
MAKE UP LOSS (in)		ML	5.589								

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TECHNICAL INFORMATION

CASING

SIZE:	11 3/4 "
NOMINAL WEIGHT:	60.00 lb/ft
WALL THICKNESS:	0.489 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	11.750	INSIDE DIA.(in) d	10.772	DRIFT DIA. (in)			PLAIN END WT (lb/ft)		
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150
	COLLAPSE RESISTANCE (psi)		2670	3170	3170	3360	3430	3600	3680	3680
	INTERNAL YIELD PRESSURE (psi)		4010	5830	5830	6550	6920	8010	9100	10920
	BODY YIELD STRENGTH (kips)		951	1384	1384	1557	1643	1903	2162	2595
	ULTIMATE STRENGTH (kips)		1643	1730	1643	1730	1816	2162	2335	2768
	YIELD TORQUE (ft/lb)		247500	360000	360000	405000	427500	495000	562500	675000

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	13700	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15200	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	16700	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	13700	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15200	15900	15900	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		16700	17400	17400	17400	17400	17400	17400	17400	17400	

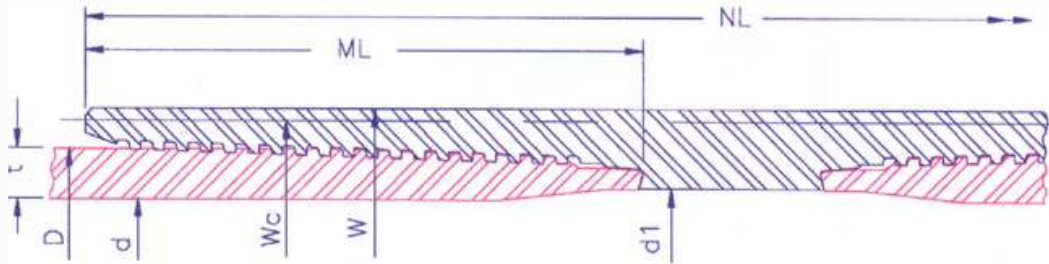
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		2670	3170	3170	3360	3430	3600	3680	3680
	INTERNAL YIELD PRESSURE (psi)		4010	5830	5830	6550	6920	8010	9100	10920
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		871	1266	1266	1425	1504	1741	1979	2374
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		325	473	473	533	562	651	740	888
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1208	1440	1399	1517	1596	1877	2074	2473
	SPECIAL CLEARANCE COUPLING O.D.		1099	1157	1099	1157	1215	1446	1562	1851
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	12.772	11.023	84.06		128		6466
	SPECIAL CLEARANCE COUPLING		Wc	12.268	11.023	47.30		70		6337
LENGTH OF COUPLING (in)		NL	13.089							
MAKE UP LOSS (in)		ML	5.589							

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TECHNICAL INFORMATION

CASING

SIZE:	11 3/4 "
NOMINAL WEIGHT:	65.00 lb/ft
WALL THICKNESS:	0.534 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	11.750	INSIDE DIA.(in) d		10.682	DRIFT DIA. (in)		10.526	PLAIN END WT (lb/ft)		63.97
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150	
	COLLAPSE RESISTANCE (psi)		3300	3870	3870	4050	4170	4470	4680	4830	
	INTERNAL YIELD PRESSURE (psi)		4370	6360	6360	7160	7560	8750	9940	11930	
	BODY YIELD STRENGTH (kips)		1035	1505	1505	1693	1788	2070	2352	2822	
	ULTIMATE STRENGTH (kips)		1788	1882	1788	1882	1976	2352	2540	3011	
	YIELD TORQUE (ft/lb)		267100	388600	388600	437100	461400	534300	607100	728600	

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	17400	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		17400	17400	17400	17400	17400	17400	17400	17400	17400	

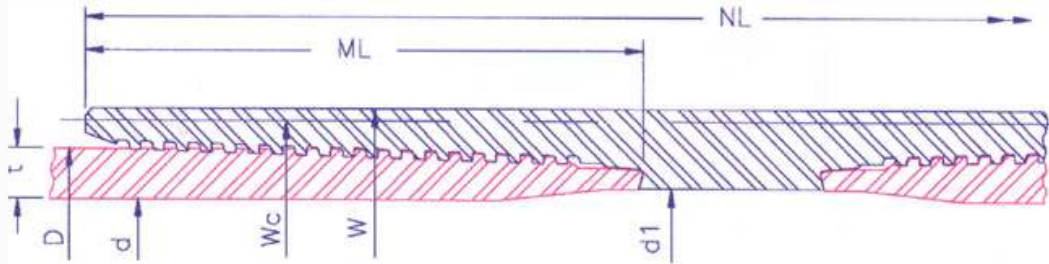
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		3300	3870	3870	4050	4170	4470	4680	4830
	INTERNAL YIELD PRESSURE (psi)		4370	6360	6360	7160	7560	8750	9940	11930
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		871	1266	1266	1425	1504	1741	1979	2374
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		325	473	473	533	562	651	740	888
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1313	1566	1521	1650	1736	2041	2256	2689
	SPECIAL CLEARANCE COUPLING O.D.		1099	1157	1099	1157	1215	1446	1562	1851
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	12.772	11.023	84.06		117		7003
	SPECIAL CLEARANCE COUPLING		Wc	12.268	11.023	47.30		65		6873
LENGTH OF COUPLING (in)		NL	13.089							
MAKE UP LOSS (in)		ML	5.589							

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TECHNICAL INFORMATION

CASING

SIZE:	13 3/8 "
NOMINAL WEIGHT:	54.50 lb/ft
WALL THICKNESS:	0.380 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	13.375	INSIDE DIA.(in) d		12.615	DRIFT DIA. (in)			12.459	PLAIN END WT (lb/ft)		52.74
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		1130	1140	1140	1140	1140	1140	1140	1140		
	INTERNAL YIELD PRESSURE (psi)		2730	3980	3980	4470	4720	5470	6210	7460		
	BODY YIELD STRENGTH (kips)		853	1241	1241	1396	1474	1706	1939	2327		
	ULTIMATE STRENGTH (kips)		1474	1551	1474	1551	1629	1939	2094	2482		
	YIELD TORQUE (ft/lb)		259400	377300	377300	424400	448000	518800	589500	707400		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	10450	13050	13050	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	11550	14450	14450	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	12650	15850	15850	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	10450	13050	13050	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	11550	14450	14450	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		12650	15850	15850	17400	17400	17400	17400	17400	17400	

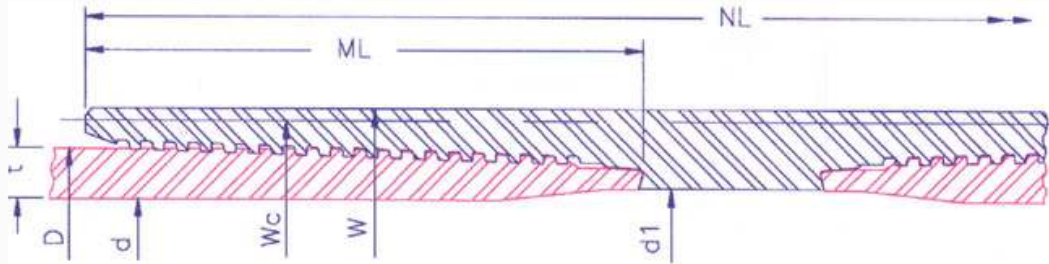
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		1130	1140	1140	1140	1140	1140	1140	1140
	INTERNAL YIELD PRESSURE (psi)		2730	3980	3980	4470	4720	5470	6210	7460
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		986	1435	1435	1614	1704	1973	2241	2690
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		651	947	947	1065	1125	1302	1480	1776
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1038	1265	1233	1343	1414	1659	1840	2195
	SPECIAL CLEARANCE COUPLING O.D.		1038	1265	1233	1343	1414	1659	1840	2195
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	14.398	12.758	94.00		162		5866
	SPECIAL CLEARANCE COUPLING		Wc	14.126	12.758	71.41		123		5786
LENGTH OF COUPLING (in)		NL	13.089							
MAKE UP LOSS (in)		ML	5.642							

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TECHNICAL INFORMATION

CASING

SIZE:	13 3/8 "
NOMINAL WEIGHT:	61.00 lb/ft
WALL THICKNESS:	0.430 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	13.375	INSIDE DIA.(in) d		12.515	DRIFT DIA. (in)			12.359	PLAIN END WT (lb/ft)		59.45	
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150			
	COLLAPSE RESISTANCE (psi)		1540	1670	1670	1670	1670	1670	1670	1670	1670		
	INTERNAL YIELD PRESSURE (psi)		3090	4500	4500	5060	5340	6190	7030	8440			
	BODY YIELD STRENGTH (kips)		962	1399	1399	1574	1661	1924	2186	2623			
	ULTIMATE STRENGTH (kips)		1661	1749	1661	1749	1836	2186	2361	2798			
	YIELD TORQUE (ft/lb)		290200	422100	422100	474900	501300	580400	659600	791500			

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	13700	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15200	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	16700	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	13700	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15200	15900	15900	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		16700	17400	17400	17400	17400	17400	17400	17400	17400	

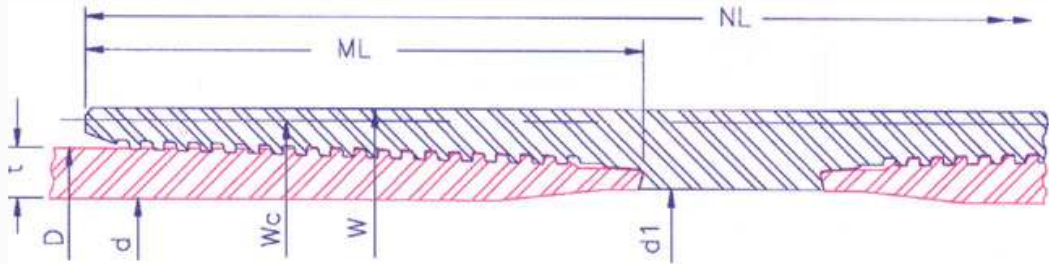
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		1540	1670	1670	1670	1670	1670	1670	1670	
	INTERNAL YIELD PRESSURE (psi)		3090	4500	4500	5060	5340	6190	7030	8440	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		986	1435	1435	1614	1704	1973	2241	2690	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		651	947	947	1065	1125	1302	1480	1776	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		1170	1426	1389	1514	1594	1870	2074	2474	
	SPECIAL CLEARANCE COUPLING O.D.		1170	1426	1389	1514	1594	1870	2074	2474	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	14.398	12.689	94.74		144		6574	
	SPECIAL CLEARANCE COUPLING		Wc	14.126	12.689	72.14		109		6494	
LENGTH OF COUPLING (in)		NL	13.089								
MAKE UP LOSS (in)		ML	5.642								

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TECHNICAL INFORMATION

CASING

SIZE:	13 3/8 "
NOMINAL WEIGHT:	68.00 lb/ft
WALL THICKNESS:	0.480 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	13.375	INSIDE DIA.(in) d		12.415	DRIFT DIA. (in)			12.259	PLAIN END WT (lb/ft)		66.10
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		1950	2260	2260	2320	2330	2330	2330	2330		
	INTERNAL YIELD PRESSURE (psi)		3450	5020	5020	5650	5970	6910	7850	9420		
	BODY YIELD STRENGTH (kips)		1069	1556	1556	1750	1847	2139	2431	2917		
	ULTIMATE STRENGTH (kips)		1847	1945	1847	1945	2042	2431	2625	3111		
	YIELD TORQUE (ft/lb)		320300	465900	465900	524100	553200	640600	727900	873500		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	17400	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		17400	17400	17400	17400	17400	17400	17400	17400	17400	

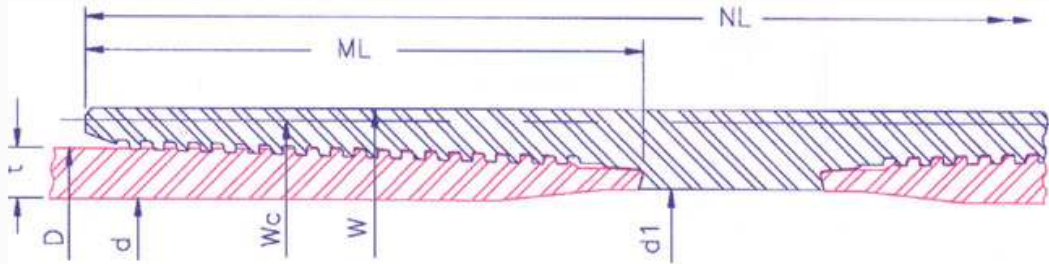
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		1950	2260	2260	2320	2330	2330	2330	2330
	INTERNAL YIELD PRESSURE (psi)		3450	5020	5020	5650	5970	6910	7850	9420
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		986	1435	1435	1614	1704	1973	2241	2690
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		651	947	947	1065	1125	1302	1480	1776
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1300	1585	1545	1683	1772	2079	2306	2752
	SPECIAL CLEARANCE COUPLING O.D.		1300	1585	1545	1683	1772	2079	2306	2752
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	14.398	12.594	95.76		129		7278
	SPECIAL CLEARANCE COUPLING		Wc	14.126	12.594	73.16		98		7198
LENGTH OF COUPLING (in)		NL	13.089							
MAKE UP LOSS (in)		ML	5.642							

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TECHNICAL INFORMATION

CASING

SIZE:	13 3/8 "
NOMINAL WEIGHT:	72.00 lb/ft
WALL THICKNESS:	0.514 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	13.375	INSIDE DIA.(in) d		12.347	DRIFT DIA. (in)			12.191	PLAIN END WT (lb/ft)		70.60
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		2220	2670	2670	2780	2820	2880	2880	2880		
	INTERNAL YIELD PRESSURE (psi)		3700	5380	5380	6050	6390	7400	8410	10090		
	BODY YIELD STRENGTH (kips)		1142	1661	1661	1869	1973	2284	2596	3115		
	ULTIMATE STRENGTH (kips)		1973	2077	1973	2077	2181	2596	2804	3323		
	YIELD TORQUE (ft/lb)		340400	495100	495100	556900	587900	680700	773500	928200		

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
M A K E U P	REGULAR	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	17400	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	17400	17400	17400	17400	17400	17400	17400	17400	17400

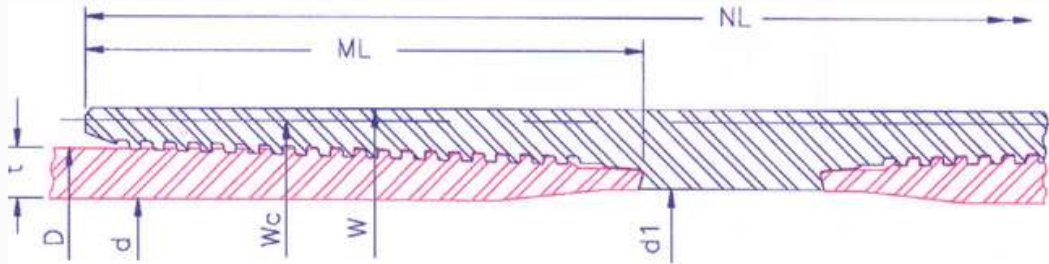
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		2220	2670	2670	2780	2820	2880	2880	2880	
	INTERNAL YIELD PRESSURE (psi)		3700	5380	5380	6050	6390	7400	8410	10090	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		986	1435	1435	1614	1704	1973	2241	2690	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		651	947	947	1065	1125	1302	1480	1776	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		1389	1693	1650	1797	1893	2221	2463	2939	
	SPECIAL CLEARANCE COUPLING O.D.		1389	1693	1650	1797	1893	2221	2440	2891	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)		
	REGULAR COUPLING		W	14.398	12.594	95.76		121		7747	
	SPECIAL CLEARANCE COUPLING		Wc	14.126	12.594	73.16		92		7668	
	LENGTH OF COUPLING (in)		NL	13.089							
MAKE UP LOSS (in)		ML	5.642								

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TECHNICAL INFORMATION

CASING

SIZE:	13 3/8 "
NOMINAL WEIGHT:	77.00 lb/ft
WALL THICKNESS:	0.550 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	13.375	INSIDE DIA.(in) d		12.275	DRIFT DIA. (in)			12.119	PLAIN END WT (lb/ft)		75.33
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		2580	3100	3100	3270	3340	3490	3550	3550		
	INTERNAL YIELD PRESSURE (psi)		3960	5760	5760	6480	6840	7920	9000	10790		
	BODY YIELD STRENGTH (kips)		1219	1773	1773	1994	2105	2438	2770	3324		
	ULTIMATE STRENGTH (kips)		2105	2216	2105	2216	2327	2770	2992	3546		
	YIELD TORQUE (ft/lb)		361200	525400	525400	591100	623900	722500	821000	985200		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	17400	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		17400	17400	17400	17400	17400	17400	17400	17400	17400	

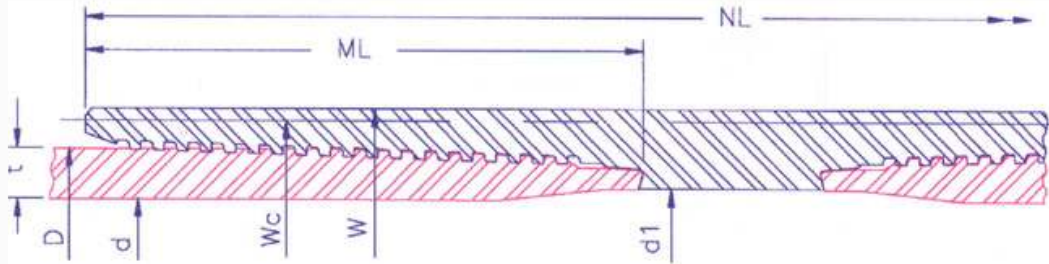
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		2580	3100	3100	3270	3340	3490	3550	3550
	INTERNAL YIELD PRESSURE (psi)		3960	5760	5760	6480	6840	7920	9000	10790
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		986	1435	1435	1614	1704	1973	2241	2690
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		651	947	947	1065	1125	1302	1480	1776
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1482	1806	1761	1918	2019	2370	2628	3136
	SPECIAL CLEARANCE COUPLING O.D.		1482	1806	1717	1807	1897	2259	2440	2891
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	14.398	12.594	95.76		113		8241
	SPECIAL CLEARANCE COUPLING		Wc	14.126	12.594	73.16		86		8161
LENGTH OF COUPLING (in)		NL	13.089							
MAKE UP LOSS (in)		ML	5.642							

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TECHNICAL INFORMATION

CASING

SIZE:	13 3/8 "
NOMINAL WEIGHT:	80.70 lb/ft
WALL THICKNESS:	0.580 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	13.375	INSIDE DIA.(in) d		12.215	DRIFT DIA. (in)			12.059	PLAIN END WT (lb/ft)		79.26
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		2950	3450	3450	3670	3770	4000	4140	4180		
	INTERNAL YIELD PRESSURE (psi)		4170	6070	6070	6830	7210	8350	9490	11380		
	BODY YIELD STRENGTH (kips)		1282	1865	1865	2098	2215	2565	2914	3497		
	ULTIMATE STRENGTH (kips)		2215	2331	2215	2331	2448	2914	3147	3730		
	YIELD TORQUE (ft/lb)		378300	550300	550300	619100	653500	756700	859900	1031800		

RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
M A K E U P	REGULAR	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	17400	17400	17400	17400	17400	17400	17400	17400

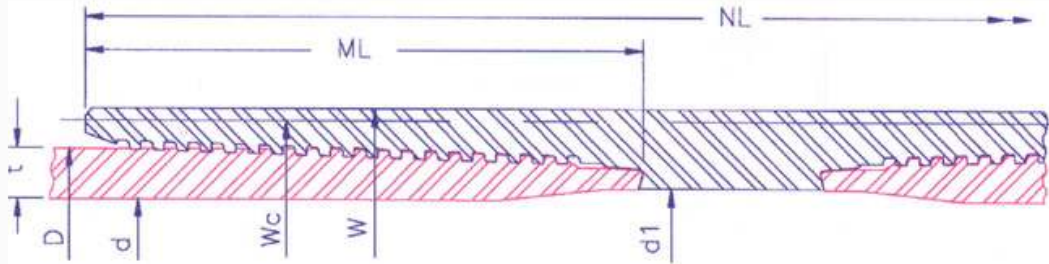
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		2950	3450	3450	3670	3770	4000	4140	4180
	INTERNAL YIELD PRESSURE (psi)		4170	6070	6070	6830	7210	8350	9490	11380
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		986	1435	1435	1614	1704	1973	2241	2690
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		651	947	947	1065	1125	1302	1480	1776
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1559	1901	1852	2018	2125	2493	2765	3299
	SPECIAL CLEARANCE COUPLING O.D.		1559	1807	1717	1807	1897	2259	2440	2891
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	14.398	12.594	95.76		108		8649
	SPECIAL CLEARANCE COUPLING		Wc	14.126	12.594	73.16		82		8569
	LENGTH OF COUPLING (in)		NL	13.089						
MAKE UP LOSS (in)		ML	5.642							

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TECHNICAL INFORMATION

CASING

SIZE:	13 3/8 "
NOMINAL WEIGHT:	85.00 lb/ft
WALL THICKNESS:	0.608 "
THREADS PER INCH:	5



P I P E B O D Y	OUTSIDE DIA.(in)D	13.375	INSIDE DIA.(in) d		12.159	DRIFT DIA. (in)			12.003	PLAIN END WT (lb/ft)		82.90
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		3300	3870	3870	4050	4170	4470	4690	4830		
	INTERNAL YIELD PRESSURE (psi)		4380	6360	6360	7160	7560	8750	9940	11930		
	BODY YIELD STRENGTH (kips)		1341	1951	1951	2195	2317	2682	3048	3658		
	ULTIMATE STRENGTH (kips)		2317	2439	2317	2439	2561	3048	3292	3902		
	YIELD TORQUE (ft/lb)		394100	573200	573200	644900	680700	788200	895700	1074800		

M A K E U P	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0										
	REGULAR	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	17400	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		17400	17400	17400	17400	17400	17400	17400	17400	17400	

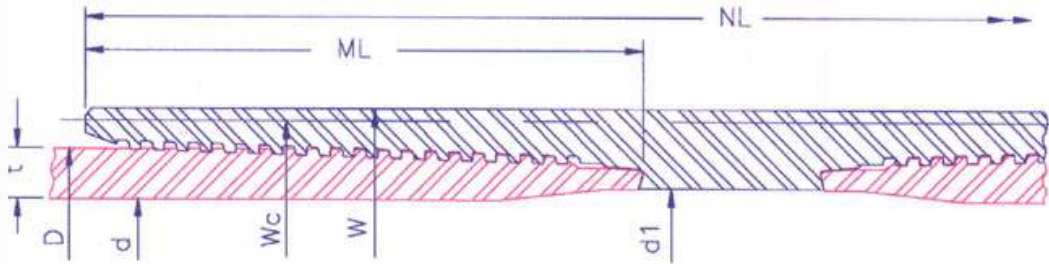
C O N N E C T I O N	COLLAPSE RESISTANCE (psi)		3300	3870	3870	4050	4170	4470	4690	4830
	INTERNAL YIELD PRESSURE (psi)		4380	6360	6360	7160	7560	8750	9940	11930
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		986	1435	1435	1614	1704	1973	2241	2690
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		651	947	947	1065	1125	1302	1480	1776
	PARTING LOAD (kips)									
	REGULAR COUPLING O.D.		1631	1988	1938	2111	2222	2608	2892	3451
	SPECIAL CLEARANCE COUPLING O.D.		1631	1807	1717	1807	1897	2259	2440	2891
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ²)	
	REGULAR COUPLING		W	14.398	12.594	95.76		103		9027
	SPECIAL CLEARANCE COUPLING		Wc	14.126	12.594	73.16		78		8947
LENGTH OF COUPLING (in)		NL	13.089							
MAKE UP LOSS (in)		ML	5.642							

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TECHNICAL INFORMATION

CASING

SIZE:	13 3/8 "
NOMINAL WEIGHT:	86.00 lb/ft
WALL THICKNESS:	0.625 "
THREADS PER INCH:	5



PIPE BODY	OUTSIDE DIA.(in)D	13.375	INSIDE DIA.(in) d	12.125	DRIFT DIA. (in)					11.969	PLAIN END WT (lb/ft)	85.11
	GRADE		K55	N80	L80	C90	C95	P110	Q125	150		
	COLLAPSE RESISTANCE (psi)		3510	4190	4190	4350	4420	4760	5020	5250		
	INTERNAL YIELD PRESSURE (psi)		4500	6540	6540	7360	7770	9000	10220	12270		
	BODY YIELD STRENGTH (kips)		1377	2003	2003	2253	2378	2754	3129	3755		
	ULTIMATE STRENGTH (kips)		2378	2503	2378	2503	2629	3129	3380	4006		
	YIELD TORQUE (ft/lb)		403600	587000	587000	660400	697000	807100	917200	1100600		

MAKEUP	RECOMMENDED MAKEUP TORQUE USING A THREAD COMPOUND WITH FRICTION CORRECTION FACTOR OF 1.0											
	REGULAR	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900	15900
		MAXIMUM (ft/lb)	17400	17400	17400	17400	17400	17400	17400	17400	17400	17400
	SPECIAL CLEARANCE	MINIMUM (ft/lb)	14400	14400	14400	14400	14400	14400	14400	14400	14400	14400
		OPTIMUM (ft/lb)	15900	15900	15900	15900	15900	15900	15900	15900	15900	15900
MAXIMUM (ft/lb)		17400	17400	17400	17400	17400	17400	17400	17400	17400	17400	

CONNECTION	COLLAPSE RESISTANCE (psi)		3510	4190	4190	4350	4420	4760	5020	5250	
	INTERNAL YIELD PRESSURE (psi)		4500	6540	6540	7360	7770	9000	10220	12270	
	MAXIMUM LOAD OF REG. COUPLING FACE (kips)		986	1435	1435	1614	1704	1973	2241	2690	
	MAXIMUM LOAD OF S.C. COUPLING FACE (kips)		651	947	947	1065	1125	1302	1480	1776	
	PARTING LOAD (kips)										
	REGULAR COUPLING O.D.		1674	2041	1989	2167	2281	2677	2969	3542	
	SPECIAL CLEARANCE COUPLING O.D.		1674	1807	1717	1807	1897	2259	2440	2891	
			OUTSIDE DIA.(in)	INSIDE DIA.(in)	WEIGHT (lb)		JOINT EFFICIENCY (%)		30' JOINT MUD DISPLACEMENT (in ³)		
	REGULAR COUPLING		W	14.398	12.594	95.76		100		9256	
	SPECIAL CLEARANCE COUPLING		Wc	14.126	12.594	73.16		76		9176	
LENGTH OF COUPLING (in)		NL	13.089								
MAKE UP LOSS (in)		ML	5.642								

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