



TECHNICAL INFORMATION BULLETIN

T-18-03

(All Drilling Rig and Service Rig Contractors)

April 24, 2018

Subject: Determination of Abnormal or Accelerated Wear in Tubular Equipment

The purpose of this bulletin is to reiterate the wear rate characteristics of tubular equipment previously described in CAODC Technical Information Bulletins: T-17-04, T-10-02, T-10-02A, and T-95-15, and address the issues regarding previous life expectancy of tubular equipment versus current industry experience in relation to compensation.

When negotiating contractual provisions with customers, members are strongly encouraged to establish provisions that address the accelerated and/or abnormal wear of tubular equipment. For the purposes of providing a framework to establish such provisions, the CAODC considers:

1. Abnormal drill pipe, heavy weight drill pipe, collar wear as wear on the circumference of a tubular product that results in a flat spot on the tube, the tool joint, or the hardbanding. Additionally:
 - The repair of abnormal wear, if possible, would be considered a cost outside of the operating day rate, and
 - Any abnormal wear causing total loss or downgrade would be charged back to the customer accordingly.

Note: *the repair of drill pipe tubes and tool joints, collars, and hardbanding has been open to interpretation in the past. As such it is recommended that legal counsel be sought to ensure this type of wear is covered.*

2. Accelerated wear to be any wear that exceeds the characteristics outlined on page 2. Additionally:
 - Wear rates that have accelerated beyond these characteristics decrease the lifespan of the drill pipe tube and tool joint and would need to be accounted for in the daily rig rate, or as a contractual provision that requires the operator to reimburse the accelerated wear.

Any further questions with respect to this bulletin can be directed to Mark Scholz at mscholz@caodc.ca or (403) 264-4311 ext. 113.

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President

NORMAL WEAR RATE OF DRILL PIPE TUBES							
SIZE		NOMINAL WEIGHT (KG/M)	NEW WALL (MM)	MINIMUM PREMIUM (MM)	MAXIMUM WEAR (MM)	DAILY WEAR (MM)	TOTAL (DAYS)*
(MM)	(INCHES)						
88.9	3 ½	19.79	9.35	7.487	1.863	0.00124	1500
88.9	3 ½	23.07	11.4	9.12	2.28	0.00152	1500
101.6	4	20.83	8.38	6.71	1.67	0.00111	1500
101.6	4	23.36	9.65	7.72	1.93	0.00129	1500
114.3	4 ½	24.7	8.56	6.85	1.71	0.00114	1500
114.3	4 ½	29.76	10.92	8.74	2.18	0.00145	1500
127	5	29.02	9.19	7.36	1.83	0.00122	1500
127	5	38.1	12.7	10.16	2.54	0.00169	1500

NORMAL WEAR RATE OF DRILL PIPE TOOL JOINTS								
SIZE		NOMINAL WEIGHT (KG/M)	CONNECTION	NEW TJ OD (MM)	MINIMUM PREMIUM (MM)	MAXIMUM WEAR (MM)	DAILY WEAR (MM)	TOTAL (DAYS)*
(MM)	(INCHES)							
88.9	3 ½ E	19.79	NC 38	120.7	114.3	6.4	0.00427	1500
88.9	3 ½ E	23.07	NC 38	127.0	115.1	11.9	0.00793	1500
101.6	4 E	20.83	NC 38	127.0	118.0	9.0	0.00600	1500
101.6	4 E	20.83	NC 40	133.4	122.2	11.2	0.00747	1500
101.6	4 E	20.83	4 SH	117.5	112.7	4.8	0.00320	1500
101.6	4 X95	20.83	NC 40	133.4	125.4	8.0	0.00533	1500
101.6	4 E	23.36	NC 40	133.4	123.8	9.6	0.00640	1500
101.6	4 X95	23.36	NC 38	127.0	122.0	5.0	0.00333	1500
101.6	4 X95	23.36	NC 40	139.7	127.0	12.7	0.00847	1500
114.3	4 ½ E	24.70	NC 46	158.8	136.5	22.3	0.01487	1500
114.3	4 ½ SS	24.70	NC 46	158.8	140.5	18.3	0.01220	1500
114.3	4 ½ E	29.76	NC 46	158.8	139.7	19.1	0.01273	1500
114.3	4 ½ X95	29.76	NC 46	158.8	143.7	15.1	0.01007	1500
127	5 E	29.02	NC 50	168.3	149.2	19.1	0.01273	1500
127	5 X95	29.02	NC 50	168.3	153.2	15.1	0.01007	1500
127	5 G105	29.02	NC 50	168.3	154.3	14	0.00933	1500
127	5 E	38.10	NC 50	168.3	153.2	15.1	0.01007	1500
127	5 X95	38.10	NC 50	168.3	158.0	10.3	0.00687	1500
127	5 G105	38.10	NC50	168.3	159.5	8.8	0.00587	1500
127	5 S135	29.02	NC50	168.3	160.34	7.96	0.00531	1500

* The charts above reference an expected tubular lifetime of 1500 days. If this differs from experienced expectation, the chart will need to be modified accordingly based on the calculation below.

$$\frac{(\text{New TJ OD}) - (\text{Minimum Premium})}{\text{Total Days}} = \text{Daily Wear}$$