## Rule of Thumb Bit & Mill Maximum Recommended Makeup Torque

Thread	Bit Range	Shank OD	Bore	Makeup Torque
1" Reg*	1 3/4" to 2 5/16"	1 9/16"	3/4"	410 foot pounds
1" Reg (DSI)	1 3/4" to 2 5/16"	1 9/16"	3/4"	550
1 1/2" Reg*	2 3/8" to 3 1/8"	2"	1"	960
1 1/2" Reg (DSI)	2 3/8" to 3 1/8"	2"	1"	1290
2 3/8 PAC	3 1/4" to 4 3/4"	2 7/8"	1"	2960
2 3/8 PAC (DSI)	3 1/4" to 4 3/4"	2 7/8"	1"	4370
2 3/8 Reg	3 3/8" to 4 9/16"	3 1/8"	1"	3480
2 7/8 Reg	4 5/8" to 5 9/16"	3 3/4"	1 1/4"	6650
3 1/2 Reg	5 5/8" to 7 3/8"	4 1/2"	1 1/2"	9080
4 1/2 Reg	7 1/2" to 9 3/8"	5"	2 1/4"	17940
6 5/8 Reg	9 1/2" to 14 1/2"	7 3/4"	3 1/2"	50020

<sup>\*1&</sup>quot; and 1 1/2" API Regular are the same as MT, AMT, and AMMT Recommended makeup torque is with materials of 4140 HT and 4130 HT that is 32-34 HRC For material rated for H2S service check for actual hardness and reduced makeup torque.