



Rockbit "Weight on Bit" and "RPM" Operating Suggestions

		4 1/2" API Regular Pin Connection											
		Weight on Bit per Inch of Bit Diameter		Total Suggested Weight on Bit (Pulldown Force)									
IADC Class	RPM	Bit Diameter		6.75 in. 171.5 mm		7.875 in. 200 mm		8 in. 203 mm		8.5 in. 216 mm		9 in. 228.6 mm	
		Low	High										
1-1 to 1-4	70 to 120	1,000	3,000	6,750	20,250	7,875	23,625	8,000	24,000	8,500	25,500	9,000	27,000
2-1 to 2-4	60 to 100	3,000	5,000	20,250	33,750	23,625	39,375	24,000	40,000	25,500	42,500	27,000	45,000
3-1 to 3-4	60 to 80	4,000	7,000	27,000	47,250	31,500	55,125	32,000	56,000	34,000	59,500	36,000	63,000
4-1 to 4-4	50 to 150	1,000	5,000	6,750	33,750	7,875	39,375	8,000	40,000	8,500	42,500	9,000	45,000
5-1 to 5-4	50 to 150	3,000	6,500	20,250	43,875	23,625	51,188	24,000	52,000	25,500	55,250	27,000	58,500
6-1 to 6-4	50 to 120	4,000	7,000	27,000	47,250	31,500	55,125	32,000	56,000	34,000	59,500	36,000	63,000
7-1 to 7-4	50 to 90	4,000	8,000	27,000	54,000	31,500	63,000	32,000	64,000	34,000	68,000	36,000	72,000
8-1 to 8-4	40 to 80	6,000	9,000	40,500	60,750	47,250	70,875	48,000	72,000	51,000	76,500	54,000	81,000

		6 5/8" API Regular Pin Connection									
		Weight on Bit per Inch of Bit Diameter		Total Suggested Weight on Bit (Pulldown Force)							
IADC Class	RPM	Bit Diameter		9.875 in. 251 mm		10.625 in. 270 mm		11 in. 279 mm		290 mm	
		Low	High								
1-1 to 1-4	70 to 120	1,000	3,000	9,875	29,625	10,625	31,875	11,000	33,000	11,420	34,260
2-1 to 2-4	60 to 100	3,000	5,000	29,625	49,375	31,875	53,125	33,000	55,000	34,260	57,100
3-1 to 3-4	60 to 80	4,000	7,000	39,500	69,125	42,500	74,375	44,000	77,000	45,680	79,940
4-1 to 4-4	50 to 150	1,000	5,000	9,875	49,375	10,625	53,125	11,000	55,000	11,420	57,100
5-1 to 5-4	50 to 150	3,000	6,500	29,625	64,188	31,875	69,063	33,000	71,500	34,260	74,230
6-1 to 6-4	50 to 120	4,000	7,000	39,500	69,125	42,500	74,375	44,000	77,000	45,680	79,940
7-1 to 7-4	50 to 90	4,000	8,000	39,500	79,000	42,500	85,000	44,000	88,000	45,680	91,360
8-1 to 8-4	40 to 80	6,000	9,000	59,250	88,875	63,750	95,625	66,000	99,000	68,520	102,780

		6 5/8" API Regular or BECO Pin Connection											
		Weight on Bit per Inch of Bit Diameter		Total Suggested Weight on Bit (Pulldown Force)									
IADC Class	RPM	Bit Diameter		12.25 in. 311 mm		13.75 in. 349 mm		15 in. 381 mm		16 in. 406 mm		17.5 in. 444 mm	
		Low	High										
1-1 to 1-4	70 to 120	1,000	3,000	12,250	36,750	13,750	41,250	15,000	45,000	16,000	48,000	17,500	52,500
2-1 to 2-4	60 to 100	3,000	5,000	36,750	61,250	41,250	68,750	45,000	75,000	48,000	80,000	52,500	87,500
3-1 to 3-4	60 to 80	4,000	7,000	49,000	85,750	55,000	96,250	60,000	105,000	64,000	112,000	70,000	122,500
4-1 to 4-4	50 to 150	1,000	5,000	12,250	61,250	13,750	68,750	15,000	75,000	16,000	80,000	17,500	87,500
5-1 to 5-4	50 to 150	3,000	6,500	36,750	79,625	41,250	89,375	45,000	97,500	48,000	104,000	52,500	113,750
6-1 to 6-4	50 to 120	4,000	7,000	49,000	85,750	55,000	96,250	60,000	105,000	64,000	112,000	70,000	122,500
7-1 to 7-4	50 to 90	4,000	8,000	49,000	98,000	55,000	110,000	60,000	120,000	64,000	128,000	70,000	140,000
8-1 to 8-4	40 to 80	6,000	9,000	73,500	110,250	82,500	123,750	90,000	135,000	96,000	144,000	105,000	157,500