

## DRILL COLLAR DATA 3 1/8" - 7"

OD inches	ID inches	Connections		Overall Length ft	Recommended Make-Up Torque ft-lbs	Torsional Strength ft-lbs	Bending Strength Ratio	Weight Slick lbs	Weight Slick Kg	Weight Spiral lbs	Weight Spiral Kg	Weight Reduction for ZIP lbs	Weight Reduction for ZIP Kg
		Preferred	Other										
3 1/8	1 1/4	NC 23		31	3 300	5 860	2.57:1	674	306	NA	NA	NA	NA
3 1/2	1 1/2	NC 26	2 3/8 IF	31	4 600	8 100	2.42:1	821	372	NA	NA	NA	NA
4 1/8	2	NC 31	2 7/8 IF	31	6 900	12 100	2.44:1	1 070	485	1 010	458	-22	-10
4 3/4	2	NC 35		31	10 800	19 100	2.58:1	1 520	689	1 440	653	-26	-12
4 3/4	2	NC 38	3 1/2 IF	31	9 990	17 600	1.80:1	1 520	689	1 440	653	-29	-13
4 3/4	2 1/4	NC 38	3 1/2 IF	31	9 990	17 600	1.92:1	1 430	649	1 360	617	-29	-13
4 3/4	2 1/4	NC 35		31	9 200	16 200	2.82:1	1 430	649	1 360	617	-29	-13
4 3/4	2 1/2	NC 38	3 1/2 IF	31	9 990	17 600	2.10:1	1 340	608	1 260	572	-29	-13
5	2 1/4	NC 38	3 1/2 IF	31	12 900	22 700	2.38:1	1 630	739	1 550	703	-31	-14
5 1/4	2 1/4	NC 38	3 1/2 IF	31	12 900	22 700	2.88:1	1 840	835	1 740	789	-35	-16
5 3/4	2 1/4	NC 46	4 IF	31	17 700	31 200	1.68:1	2 290	1 039	2 190	993	-42	-19
5 3/4	2 1/4	NC 40	4 FH	31	17 000	30 000	3.04:1	2 290	1 039	2 190	993	-42	-19
6	2 1/4	NC 46	4 IF	31	23 400	41 200	2.02:1	2 530	1 148	2 410	1 093	-49	-22
6	2 13/16	NC 46	4 IF	31	22 400	39 500	2.24:1	2 300	1 043	2 170	984	-49	-22
6 1/4	2 1/4	NC 46	4 IF	31	28 000	49 300	2.38:1	2 780	1 261	2 650	1 202	-51	-23
6 1/4	2 13/16	NC 46	4 IF	31	22 400	39 500	2.64:1	2 550	1 157	2 420	1 098	-55	-25
6 1/4	2 13/16	NC 50	4 1/2 IF	31	23 000	40 500	1.71:1	2 550	1 157	2 420	1 098	-55	-25
6 1/2	2 1/4	NC 46	4 IF	31	28 000	49 300	2.77:1	3 040	1 379	2 890	1 311	-55	-25
6 1/2	2 1/4	NC 50	4 1/2 IF	31	29 700	52 200	1.89:1	3 040	1 379	2 890	1 311	-55	-25
6 1/2	2 13/16	NC 46	4 IF	31	22 400	39 500	3.07:1	2 810	1 275	2 660	1 207	-55	-25
6 1/2	2 13/16	NC 50	4 1/2 IF	31	29 700	52 200	2.03:1	2 810	1 275	2 660	1 207	-55	-25
6 3/4	2 1/4	NC 50	4 1/2 IF	31	36 700	64 700	2.21:1	3 310	1 501	3 160	1 433	-57	-26
6 3/4	2 1/2	NC 50	4 1/2 IF	31	35 800	63 000	2.26:1	3 210	1 456	3 060	1 388	-57	-26
6 3/4	2 1/2	NC 46	4 IF	31	25 700	45 200	3.30:1	3 210	1 456	3 060	1 388	-57	-26
6 3/4	2 13/16	NC 50	4 1/2 IF	31	32 300	56 800	2.37:1	3 080	1 397	2 920	1 324	-57	-26
7	2 1/4	NC 50	4 1/2 IF	31	38 400	61 400	2.54:1	3590	1 628	3 390	1 538	-60	-27
7	2 1/2	NC 50	4 1/2 IF	31	35 800	57 300	2.61:1	3 500	1 588	3 290	1 492	-60	-27
7	2 13/16	NC 50	4 1/2 IF	31	32 300	51 600	2.73:1	3 360	1 524	3 150	1 429	-60	-27
7	2 13/16	5 1/2 FH		31	32 800	52 400	1.72:1	3 360	1 524	3 150	1 429	-60	-27

## DRILL COLLAR DATA 7 1/4" - 11"

OD inches	ID inches	Connections		Overall Length ft	Recommended Make-Up Torque ft-lbs	Torsional Strength ft-lbs	Bending Strength Ratio	Weight Slick lbs	Weight Slick Kg	Weight Spiral lbs	Weight Spiral Kg	Weight Reduction for ZIP lbs	Weight Reduction for ZIP Kg
		Preferred	Other										
7 1/4	2 13/16	NC 50	4 1/2 IF	31	32 300	47 300	3.12:1	3 769	1 710	3 511	1 593	-66	-30
7 1/4	3	5 1/2 FH		31	41 000	49 600	2.05:1	3 670	1 665	3 419	1 551	-66	-30
7 3/4	2 13/16	6 5/8 REG		31	53 300	79 000	2.30:1	4 405	1 998	4 100	1 860	-71	-32
7 3/4	3	6 5/8 REG		31	50 700	78 500	2.35:1	4 310	1 955	3 920	1 778	-71	-32
8	2 13/16	6 5/8 REG		31	53 300	85 400	2.60:1	4 580	2 077	4 330	1 964	-75	-34
8	3	6 5/8 REG		31	50 700	81 100	2.66:1	4 490	2 037	4 240	1 923	-75	-34
8 1/4	2 13/16	6 5/8 REG		31	53 300	85 400	2.93:1	4 910	2 227	4 630	2 100	-77	-35
8 1/4	3	6 5/8 REG		31	50 700	81 100	2.99:1	4 820	2 186	4 540	2 059	-77	-35
8 1/2	2 13/16	6 5/8 REG		31	53 300	85 400	3.27:1	5 250	2 381	4 960	2 250	-79	-36
8 1/2	3	6 5/8 REG		31	50 700	81 100	3.34:1	5 160	2 341	4 870	2 209	-79	-36
8 1/2	3 1/4	6 5/8 REG		31	46 900	75 100	3.46:1	5 040	2 286	4 750	2 155	-79	-36
9	2 13/16	7 5/8 REG		31	84 400	135 000	2.28:1	5 960	2 703	5 430	2 463	-84	-38
9	2 13/16	6 5/8 FH		31	84 000	134 000	2.41:1	5 970	2 708	5 440	2 468	-84	-38
9	3	7 5/8 REG		31	84 400	135 000	2.31:1	5 880	2 667	5 340	2 422	-84	-38
9	3	6 5/8 FH		31	81 100	130 000	2.44:1	5 880	2 667	5 340	2 422	-84	-38
9	3 1/2	6 5/8 FH		31	72 100	115 000	2.56:1	5 610	2 545	5 080	2 304	-84	-38
9 1/2	2 13/16	7 5/8 REG		31	91 600	147 000	2.78:1	6 720	3 048	6 170	2 799	-88	-40
9 1/2	3	7 5/8 REG		31	88 600	142 000	2.81:1	6 630	3 007	6 080	2 758	-88	-40
9 1/2	3 1/16	7 5/8 REG		31	87 500	140 000	2.83:1	6 600	2 994	6 050	2 744	-88	-40
9 3/4	3	7 5/8 REG		31	91 800	147 000	3.10:1	7 020	3 184	6 470	2 935	-104	-47
10	3	8 5/8 REG		31	109 000	175 000	1.98:1	7 420	3 366	6 800	3 084	-106	-48
11	3	8 5/8 REG		31	131 000	209 000	2.84:1	9 140	4 166	8 410	3815	-115	-52
11	3	8 5/8 REG		31	131 000	209 000	2.84:1	9 140	4 166	8 410	3815	-115	-52
9 3/4	3	7 5/8 REG		31	91 800	147 000	3.10:1	7 020	3 184	6 470	2 935	-104	-47
10	3	8 5/8 REG		31	109 000	175 000	1.98:1	7 420	3 366	6 800	3 084	-106	-48
11	3	8 5/8 REG		31	131 000	209 000	2.84:1	9 140	4 166	8 410	3815	-115	-52