

Drill Bit Comparison Chart



Mill Tooth by Type

Formations	IADC Code	GT Engineering	Hughes	Reed	Security	Smith	Varel
Soft Formations/Low Compressive Strength	111	G1	R1	Y11	XN1, S3S	DSJ	L111, L3A
	113						L113
	114		GTX-1, X3A	S11	S33S	SDS	L114
	115		GX-1, GTX-G1, MX-1, MXL-1	T11, EMS11G, ETS11G	XT1, S33SG, EBXT1	XR+, GSSH+	CR1G, ETR1G, L115
	116	GT11	GT-1	HP11	XS1, S33SF	FDS	L116
	117	GT11G	STX-1, STR-1, MX-1	SL11, TC11, TD11, D11	XSC1, XL1	XR+, FDS+	CH1G
	121	G2	R2, OSC3	Y12	S3, S3T	DTJ	L121, L3S
	124		ATX3	S12	S33	SDT	L124
	126	GT12	ATJ-2	HP12	S33F	FDT	L126
	127	GT12G	JG2	SL12, HP12	QH2		CH2G
	131	G3	R3, OSC1G	Y13	XN3, S4	DGJ	L131, V3MO
	134		GTX-3	S13	S44	MGG	L134
	135		GTX-G3	T13 EMS13G, ETS13G	XT3, S44G, EBXT3	GGH+ MSDGH	CR3G, ETR3G
	136		ATJ-3	HP13	S44F	FDG	L136
	137		STX-3, STR-1, MX-3, MXL-3	D13, HP13G	XS3, XL3, QH3	MFDGH, FDGH	CH3G
Med. To Med. Hard Formations/High Compressive Strength	211		DR5, R4, OWV	Y21	XN4	V2	L211, L2
	213			Y21G		V2H	
	214		XV	S21	M44N	SV	L214
	215		XDV	S21G	XT4	SVH	L215
	216	GT21	ATJ-4	HP21	M44NF	FV	ETD4
	217	GT21G	ATJ-G4	HP21G	XS4, XL4	GFVH, FVH	CH4G
	221		DR5	Y22R	M4L		
	234			S23	M44L	ST2	L234
	235			S23G	DMM		L235
	236				M44LF		L236
Hard, Semi-Abrasive Formations	311		R7	Y31	XN5	L4	L311, L1
	313			Y13G		L4H	
	314				H77	SL4	L314
	315			S31G		SL4H	L315
	316		J7		H77F		L316
	317		JD7	HP31G			L317
	321		R8				LH1
	346		J8		H77CF		
	347		ATJ-G8, JD8		QH7		

Drill Bit Comparison Chart



Insert Bit by Type

Formations	IADC Code	GT Engineering	Hughes	Reed	Security	Smith	Varel
Soft Formations	415		GTX-00/03, MX-00/03	T41, EMS41	XT(D)00-05	GS01, GS02, GS04	CR04
	417	GT04X, GT09X	GT-00/03, STR-03, MX-00/03, H-03	TD41, HP41	XS(D)00-05, QH02, 04, 05	GFS04, MFS04	CH04
	425		GTX-03C	T42, EMS42	XT(D)06-09	GS05, GS06, GS08	
	427	GT12X	STR-05C, HX-05C	TD42, R07A	XS(D)06-09, QH09	GF05, GFS06, MF05B	CH09
	435		GTX-09, GTX11	T43, EMS43	XT(D)10-13	G10, GS10-12	CR12, CR13
	437		GT-09, STR-09, H-09, MX-09/11, J11	SL43, TD43, D43, HP43	XS(D)10-13, QH10, QH12	F10, F12, GF08-12, XR12, MF10	CH10, CH12, CH13, CH14
	445		MAXGT-18, MX-18, X11	T44, EMS44	XT(D)14-17	GS11-GS20, M15S, 15JS	CR18
	447	GT15X, GT18X	GT-18, STR-18, HX-18, MX-18	TD44, D44, HP44	XS(D)14-17, QH14, QH16	FH16-18, MF15-19, GF15, XR15	CH18
	515		GTX-20, X22	T51, EMS51	XT(D)18-23, S84	G20/25, GS20, 2Js, 20GMS	ETR24, V515
	517	GT20X, GT22X, GT23X	GT-20, STR-20, STX-20, HX-20, MX-20, J22	SL51, TD51, D51, HP51	XS(D)18-23, QH18-QH22, S84F	F15, MF15, F2, MF2, FH20-23, GF20-25, XR20-25, F25Y	CH20, CH24, CH25
	525		GTX-20C, MX-28G	T52, EMS52	XT(D)24-27	G28B, M27D	
	527	GT25X, GT25Y, GT31X	GT-28, GT-20C, MX-28, MX-20C	TD52, HP52	XS(D)24-27, QH23-28	F27, F26Y, GF26-28, FH25-29, XR20TY	CH26, CH28, CH29, CH29H
Soft to Medium Formations	532		HH33				
	535		MX-30H, MAXGT-30	T53, EMS53	XT(D)28-33	G30, GS30, 3JS, M36	CR34, CR35
	537	GT33Y, GT35X, GT30A	XL-30A, STR-30, STX-35, GT-30, HX-30, MX-30, J33	SL53, TD53, D53, HP53	XS(D)28-33, QH29-33, S86F	F3, F30, FH30-32, GF30, MF30T, XR30, XR32	CH31, CH33, CH34
	542				S8JA		
	545		GTX-30C, MAXGT-30CG	T54	XT(D)34-39, S88		ETR38
	547	GT35Y, GT38Y, GT39Y	GT-30C, STR-30C, STX-30C, HR-38C, MX-35C	TD54, R34A	XS(D)34-39, QH34-39, S88F	F30Y, F37Y, F39Y, FH35-38, GF35, XR30Y, XR35Y	CH37, CH38, CH39, CH35A, CH37A
	612		HH44			4JA	
	615		GTX-40C, X44	ETS61A	XT(D)40-45	G40, 4JS	
	617	GT42X, GT43X, GT40A	STR-40, HR-40/44, STX-40, MX-40, J44	SL61, TD61, HP61	XS(D)40-45, QH40-45, M84F	F4, F40, F45, FH40-45, GF40, XR38-45, F47Y, GF47Y	CH44, CH45, CH45A
	622				Y62JA	5JA	
	625		STX-40C, STX-44C	EMS62, S62	XT(D)46-51	5JS, 47JS	
627	GT44X, GT44Y, GT45Y	XL-40A, STR-40/44C, STX-44C, HR-40/44C, MX-40/44C(H)	SL62, TD62, HP62, JA62	XS(D)26-51, QH47-50, M88F	F5, F50, F46HY, F47HY, GF45Y, GF50Y, XR40Y, XR45Y, XR50	CH47/48/49, ETD47, CH47A	
Medium to Hard Formations	632		HH55	Y63JA			
	635			S63	XT(D)52-59	M57S	
	637	GT55Y	XL-50A, STR-50, STX-50, HR-50/55, MX-50/55, J55	SL63, TD63, HP63	XS(D)52-59, QH55, QH57, M89F	F57Y, F57HY, GF50YB, F50YA, XR50Y	CH54, CH55, CH57(AH)
	645				XT(D)61-69		
	647		HR-60, HR-66	TD64, HP64	XS(D)61-69, QH69	F59Y, F67Y, GF67Y, XRI65Y	CH67
Hard Formations	717				XS(D)71-75, QH67, QH69	F6	
	722					7JA	
	725				S72	7JS	
	727	GT57Y			FP72		
	732		HH77	Y73JA			
	737		STR-70, STX-70, HR-70, J77	SL73, HP73	XS(D)77-81, H84F	F7, XR68Y, XR70Y	
	742				H8JA		
	745				S74	XT(D)83-89, H88	
	747			TD74, HP74	XS(D)83-89, H88F	XR75Y	
	817		HR-80/88, STX-80, STR-80	TD81, HP81	XS(D)91, 93, QH93		CH81
	832		HH99	Y83JA	H10JA	9JA	
	835				S83	XT(D)99, H100	9JS
837		HR-89/99, STX-90, STR-90, J99	SL83, TD83, HP83	XS(D)99, EBXS99, QH91/99, H100F	F90Y, FHi90Y, XR90Y	CH85, CH91	