



Tricone Rock Bit Comparison Chart - Milled Tooth

Seal Type			1. Standard Roller Bearing						4. Sealed Roller Bearing						5. Sealed Roller Bearing Gauge Protected						
Series	Formations	Types	GT Engineering	Hughes Christensen	Reed-Hycalog	Security DBS	Smith Bits	Varel International	GT Engineering	Hughes Christensen	Reed-Hycalog	Security DBS	Smith Bits	Varel International	GT Engineering	Hughes Christensen	Reed-Hycalog	Security DBS	Smith Bits	Varel International	
1	Soft Formations/ Low-Compressive Strength	1	G1	R1	Y11	XN1, S3S	DSJ	L111, L3A		GTX-1, RC114	S11	S33S	SDS	L114		GTX-G1, VG-1, T11, RC115, VM-1	ETS11G, S33SG, EMS11G	XT1, S33SG, EBXT1, XL1N	XR+, GSSH+, TCTi+, SDSH, MSDSSH	CR1G, L115, ETR1G	
		2	G2	R2, OSC3	Y12	S3, S3T	DTJ	L121, L3S		RC124	S12	S33	SDT	L124		RC125					
		3	G3	R3, OSC1G	Y13	XN3, S4	DGJ	L131, V3MO		X1G, GTX-3	S13	S44	MGG	L134		GTX-G3, MAX-GT3, MX-3, VG-3, RC135	T13, ETS13G, EMS13G	XT3, S44G, EBXT3	GGH+, SDGH, MSDGH, MGGH+	CR3G, ETR3G	
2	Med. To Med-Hard Formations/ High-Compressive Strength	1	G4	R4, OWV, RC211	Y21	XN4, M4N	V2	L2, L211		XV	S21	M44N	SV	L214		XDV, RC215	S21G	XT4	SVH	L215	
		2		DR5	Y22R	M4L	DR5														
		3		R6							S23	M44L	ST2	L234		RC235	S23G	DMM			L235
3	Hard, Semi-Abrasive Formations	1			Y31	XN5	L4	L311			S31	H77	SL4	L314			S31G		SL4H	L315	
		2		R7, RC321				LH1													
		3																			
		4		R8																	

Seal Type			6. Sealed Friction Bearing						7. Sealed Friction Bearing gauge protected					
Series	Formations	Types	GT Engineering	Hughes Christensen	Reed-Hycalog	Security DBS	Smith Bits	Varel International	GT Engineering	Hughes Christensen	Reed-Hycalog	Security DBS	Smith Bits	Varel International
1	Soft Formations/ Low-Compressive Strength	1	GT21	GT-1, ATJ-1, RC116	HP11	XS1, S33SF	FDS	L116	GT21G	GT-1, MX-1, MXL-1, GT-G1, STR-1, STX-1, RC117	TC10, TC11, SL11, TD11, D11	XSC1, XLC1, EBXS1, EBXL1	XR+, FDS+, TCTi+, FGS+, FDSH, MFDSH,	DT1GJ, ER1G, CH1G, ETD1G
		2	GT12	ATJ-2	HP12	S33F	FDT	L126	GT12G	JG2, RC127	SL12, HP12, TD12, RT2GT	QH2		CH2G
		3	GT13	ATJ-3, RC136	HP13	S44F	FDG	L136	GT13G	MX-3, VG-3, RC137, VM-3, STX-3	D13, HP13G, RT3GT	XS3, XL3	FDGH, MFDGH	CH3G, DT3GJ, ETD3G, ER3G
2	Med. To Med-Hard Formations/ High-Compressive Strength	1	GT21	ATJ-4, RC216	HP21	M44NF	FV	ETD4, L216	GT21G	ATJ-G4	HP21G	XS4, XL4	FVH, GFVH	CH4G, DT4GJ
		2												
		3		RC236		M44LF		L236						
3	Hard, Semi-Abrasive Formations	1	GT31	J7				L316	GT31G					
		2		JD7		H77F								
		3		J8										
		4		JD8, ATJ-8		H77CF				RC347, ATJ-G8		QH7		