



Tricone Rock Bit Comparison Chart - TCI

Seal Type		5. Sealed Roller Bearing gauge protected						7. Sealed Friction Bearing gauge protected					
Series	Formations	Types	Hughes Christensen	Reed-Hycalog	Security DBS	Smith Bits	Varel International	GT Engineering	Hughes Christensen	Reed-Hycalog	Security DBS	Smith Bits	Varel International
4	Soft Formations/ Low-Compressive Strength	1	GTX-00, VG-03, MAX-GT00, MXL-00, GT-00, VGA-02, RC415, GTX-03, MX-03 VMA-02, MX-05	T41, EMS41, ETS41	XT00-05, EBXT00-05	GS01, GS02B, GS02T, G04B, G103B, GS04B, TCTi01	CR04, ETR04	GT41,GT04X, GTM04X	GT-00, MX-00, GT-03, MX-03, GX-00, GX-03, STR-03, HR-03, VGA-03, RC417, STX-03	TD41, TD41A, HP41, HP41A, R03A	XS00-05, QH02, QH04, QH05, EBXS00-05	GFS01, GFS04, MFS04, MFi04	CH04, V417, ETD04
		2	GTX-03C	T42, EMS42, ETS42	XT06-09, EBXT06-09	GS05, GS05B, GSi06B, G08B, GS08B		GT42, GT12X, GTM12X	STR-05C, HX05C, STX-05C	TD42, HP42, R07	XS06-09, EBXS06-09, QH09	GF05, MF05B, GFi05B, GFSi06	CH09, V427, ETD09
		3	GTX-09, MX-09, MAXGT-09, GTX-11, RC435, VGA-09, VM-11, MX-11, VMA-11	T43, S43, EMS43, ETS43	XT10-13, EBXT10-13	G10B, GSi10B, G10T, GSi12, TCT10	CR12, CR13, ETR12, ETR13	GT43, GT12X, GTM12X	GT-09, STR-09, STX-09, HX-09, GX-11, MX09, MX-11, GX09, GX09, VMA-09, VMD11, J11	TD43, TD43A, HP43, HP43A, R10, R11, R12, R10A	XS10-13, EBXS10-13, QH10, QH12	F10, F12, F12Y, GF08B, GF10b GF12T, XR12, MF10T, TCT11, TCT12	CH10, CH12, CH13, CH14, V437, ETD10, ETD12, ETD14
		4	MAXGT-18, X11, GTX-11C, GTX-12, GTX-18, MX-11C, MX-18	T44, EMS44, ETS44	XT14-17, EBXT14-17	GS15B, G15, GS18B, G11Y, M15S, 15JS, GSi20B	CR18, ETR18	GT44, GT15X, GTM15X, GT18X, GTM18X	VGA-18, GX-18, STX-18, VM-18, VMA-18, MX-18, MX-18C, GT-18	TD44, HP44, R15, R18, D44	XS14-17, EBXS14-17, QH14, QH16	FH16, FHi18, MF15T, F15, GF15, XR15, MF19	CH18, V447, ETD18
5	Soft to Medium- Hard Formations/ Low-Compressive Strength	1	VG-22, GTX-20, GTX-22, RC515, MX-20, MX-22	T51, S51, EMS51, ETS51	XT18-23, EBXT18-23, S84	2JS, GS20B, G20, 20GMS	CR24, V515, ETR24	GT51, GT22X, GT23X, GT24X, GTM22X, GTM23X, GTM24X	GT-20, STR-20, STX-20, GX-20, HX-20, MX-20, VG-20, VG-22S, GX-22, RC517, GX-23, GX-28	TD51, HP51, R20A, R22A, TD51A, HP51A	XS18-23, EBXS18-23, S84F, QH18-22	F2, F15H, MF2, FHi20, FHi21, FHi23, GFi20, GF21, GF25, XR20, XR20Y, F25Y, TCTi20	CH20, CH24, CH25, ETD20, ETD24, V517, ETD25
		2	GTX-20C, MX-28, MX-20C, GTX-28	T52, EMS52, ETS52	XT24-27, EBXT24-27	G28B, M27		GT52, GT25X, GT25Y, GT27Y, GT31X, GTM25X	VG-28, VGD25, GX-20C, STX-20C, GX-28, RC527, VMD-26, VMD-28	TD52, HP52, R24A, R24, R28A, R28	XS24-27, EBXS24-27, QH23-28	GF26, MF26Y, GF28, FH24Y, XR20TY, F26Y, FHi28, FHi29	CH26, ETD26, CH28, ETD28, CH29, ETD29, V527
		3	MX-30H, X33, MAXGT-30, VG-30, GTX-30, GTX-33, RC535	T53, S53, EMS53, ETS53	XT28-33, EBXT28-33	G30, GS30, 3JS, M36	CR34, CR35, ETR34, V535, ETR35	GT30A, GT33Y, GT35X, GT53, GTM35X	XL-30A, STR-30, STX-30, GT-30, GX-30, VG-30, RC537, VMD33, MX-30, J33, HX-30	TD53, TD53A, HP53, HP53A, R30A, R30	XS28-33, EBXS28-33, QH29-33, S86F	F3, F30, FH30, FH31, FH32, GF30, MF30T, XR30, XR32, F30Y, FH30Y	CH31, ETD31, CH33, ETD33, CH34, ETD34, V537
		4	GTX-30C, GTX33C, RC545, MAXGT30C	T54, S54, EMS54, ETS54	XT34-39, EBXT34-39, S88		CR38, ETR38	GT54, GT35Y, GT38Y, GT39Y	VG-38, STR-30C, STX-30C, GT-30C, RC547, GX-35, STX-35, MX-35	TD54, R34, HP54, R35A, TD54A, R34A, R36A	XS34-39, EBXS34-39, QH34-39, S88F	FH35, GF35, F37Y, F39Y, XR30Y, XRI35, XR35Y, FH38Y	CH37, ETD37, CH38, ETD38, CH39, ETD39, V547
6	Medium- Hard Formations/ High-Compressive Strength	1	GTX-40, X44	T61, S61, EMS61, ETS61A	XT40-45, EBXT40-45, M84	G40, G40Y, 4JS		GT40A, GT42X, GT61, GT43X	VG-40, VG44G, STR40, STX-40, GX-44, MX-40	TD61, R40, HP61, R40A	XS40-45, EBXS40-45, M84F	FH40, XR45Y, XR38, XR40, F40YA, GF47Y	CH44, ETD44, CH45, ETD45, V617
		2	GTX-40C, RC615, GTX-44C	EMS62, S62	XT46-51, EBXT46-51	5JS, 47JS		GT44X, GT44Y, GT45Y, GT62	VG-44C, STX-40C, GX-44C, STX-44C, GX45, MX-40C, MX-44C, VM44C	SL62A, TD62, R44, HP62, R44A	XS46-51, EBXS46-51, QH47-50, M88F	F50, FHi50Y, GF45Y, XR40Y, XR50, XR45Y, F5, GF50Y	CH47, ETD47, CH48, ETD49, CH49, ETD49
		3	MX-55	EMS63, S63	XT52-59, EBXT52-59	M57S, 57JS		GT55Y, GT63	VG-50, STX-50, STR-50, GX-55, STX-55, MX-50, MX-55, VMD-55	SL63, R50, TD63, HP63	XS52-59, EBXS52-59, QH55-57, M89F	F57Y, GF50YB, XR50Y	CH54, ETD54, CH55, ETD55, CH57, ETD57
		4			XT61-69, EBXT61-69	67JS			VG-66, GX-66, STX-66, GX-68, MX-66, MX-68	TD64, R60, HP64, R65	XS61-69, EBXS61-69, QH69	F59Y, F67Y, GF67Y, XR65Y	CH67, ETD67
7	Hard, Semi-Abrasive and Abrasive Formations	1			XT71-75, EBXT71-75						XS71-75, EBXS71-75		
		2						GT57Y, GT72		FP72			
		3			XT77-81, H84				STR-70, STX-70, STR-77, STX-77, J77, HR-70, VG-70	SL73, HP73, TD73	XS77-81, EBXS77-81, H84F	F7, XR68Y, XR70Y	
		4		S74	XT83-89, H88					SL74, HP74, TD74, R75	XS83-89, H88F	XR75Y	
8	Extremely Hard and Abrasive Formations	1			XT91-93, EBXT91-93				STX-88, STR-88, HR-80, HR-88	TD81, R80, HP81, R85	XS91-93, EBXS91-93	F8, F80Y, GF80Y, XR80Y	CH81, ETD81
		2			XT95-97, EBXT95-97				HR-89, GX-89		XS95-97, EBXS95-97	F85Y	
		3		S83	XT99, H100	9JS			STX-90/99, J99, VG-90, GX90/99	SL83, R90, TD83, R95	XS99, H100F	F90Y, FHi90Y, XR90Y, F9	CH85, ETD85, CH91, ETD91