



2008 Drill Bit Classifier

Special Supplement to

World Oil

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WorldOil's 2008 Drill Bit Classifier

World Oil offers this comprehensive listing of major manufacturers' drilling bits to aid drilling supervisors and engineers in field selection. While this listing has been published annually for many years, changes from year to year are significant. Prior to ordering, users should consult the manufacturer to verify availability and specifications.

How to use the tables. The following tables are divided into six formation categories. Within these categories are listed most available drilling/coring bits by type and manufacturer. To use the listings, identify the formation to be drilled, decide which bit type is appropriate, i.e., roller cone, fixed cutter, steel tooth, insert, diamond, etc., and then choose the manufacturer. Companies were asked to list bit data by: 1) IADC code, 2) readily available sizes (special sizes are often available on request), 3) recommended WOB in lb/in. diameter, and 4) codes for special features and usage, a combination of IADC and *World Oil* special codes (see Nomenclature).

IADC codes. The Bit Classifier uses the International Association of Drilling Contractors' (IADC's) classification system for roller cone and fixed cutter bits. The standards for these classifications are two technical papers that appear in the IADC Drilling Manual, 11th Edition, Chapter A, Sections 2 and 3. The two papers are "The IADC roller bit classification system," adapted from IADC/SPE Paper 23937, presented Feb. 18-21, 1992, and "Development of a new IADC fixed cutter drill bit classification system," IADC/SPE Paper 23940, presented Feb. 18-21, 1992. All manufacturers were asked to submit data based on these classification systems.

Formation categories. The tables show six formation categories corresponding to the IADC formation types. Companies were asked to list any discrete bit in only one formation type, leaving the user to decide about application in harder, or softer, rock. Nevertheless, duplication of similar bits in multiple formations remains. The formations are:

- **Soft and soft sticky.** Low compressive strength and high drillability, such as clay, marl, gumbo, unconsolidated sand.
- **Soft-medium.** Low compressive strength, inter-bedded with hard layers, such as sand, shale, anhydrite.
- **Medium.** Moderate compressive strength, such as shale, chalk, anhydrite, sand.
- **Medium-hard.** Dense with increasing compressive strength but non- or semi-abrasive, such as shale, siltstone, sand, lime, anhydrite.
- **Hard.** Hard and dense with high compressive strength and some abrasive layers, such as sand, siltstone.
- **Extremely hard.** Very hard and abrasive, such as quartzite, volcanics.

Nomenclature. *World Oil* shows special features as codes, which include 16 designed by IADC and defined in the above classification papers, plus 11 featured exclusively by *World Oil* for added descriptions. The codes are:

IADC	
A – Air drilling application	L – Lug pads
B – Special bearing seal	M – Motor application
C – Center jet	S – Standard steel tooth model
D – Deviation control	T – Two-cone bit
E – Extended jet (full length)	W – Enhanced cutting structure
G – Gauge/body protection (additional)	X – Predominantly chisel tooth insert
H – Horizontal steering application	Y – Conical tooth insert
J – Jet deflection	Z – Other shape insert

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F – Face discharge ports	Q – Lateral nozzles
I – Thermally stable synthetic diamond (TSP)	R – Radial flow hydraulics
K – Cross-flow hydraulics	RST – Rotary steerable
N – Turbine drilling	U – Cutter density: light (l), medium (m), heavy (h), e.g., Ul, Um, Uh
O – Milling applications	V – Anti-whirl characteristics
P – Percussion drilling	

Companies included. Company names and central mailing addresses are shown below.

Baker Hughes INTEQ
P.O. Box 670968, Houston, Texas 77267

Bit-Tech SPH, Inc.
P.O. Box 1298, Waskom, Texas 75692

Diamant Drilling Services S.A.
Rue Jean Mermoz 29/N, Gosselies, Belgium, B-6041

Drill Master, Inc.
26797 Hanna Road #9, Oak Ridge North, Texas 77385

Dowdco
P.O. Box 7843, Midland, Texas 79708

Halliburton Security DBS
P.O. Box 60490, Houston, Texas 77205

Hughes Christensen
P.O. Box 2539, Houston, Texas 77252

Kingdream Public Limited Company
Miaoshan Division, East Lake New & Hi-Tech. Devel. Zone
Wuhan, Hubei Province 430223, PRC

NOV ReedHycalog
400 N. Sam Houston Parkway East, Suite 900, Houston, Texas 77060

Smith Bits
P.O. Box 60068, Houston, Texas 77205

TIX Corporation
4-11-1, Shiba, Minato-ku
Tokyo 108-0014, Japan

Tri-Max Industries
6324 Cunningham Road, Houston, Texas 77041

Ulterra Drilling Technologies and United Diamond
7601 Will Rogers Blvd., Fort Worth, Texas 76140

United Diamond and Ulterra Drilling Technologies
1410, 555 Fourth Ave. SW, Calgary, Alberta T2P 3E7, Canada

Varel International Inc.
1434 Patton Place, Suite 106, Carrollton, Texas 75007

Note: Some companies list the recommended rotary speed range backwards. This is to imply that as the weight on bit increases, the recommended rotary speed generally decreases, and vice versa.

THE COVER: This view shows a Canrig 500-ton, 1,250-hp electric top drive with a 6¼-in. INTEQ motor and an 8½-in. Hughes Christensen tungsten carbide insert bit at the Baker Hughes Experimental Test Area (BETA) rig site near Tulsa, Okla. Photo courtesy of Hughes Christensen.

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
Soft and Soft Sticky																	
Steel tooth roller cone bits																	
Halliburton Security DBS																	
QH1	117	5½, 5¾, 6, 6¼, 6¾, 6¾, 8¾, 8¾, 12¼, 13½	1,000–5,000	80–300	W	GJT125	125	8½, 12¼	1,000–4,000	350–80	GL	XR+	115	13½, 13¾, 14, 14½, 14¾, 15½, 16, 16½, 17, 17½, 18½, 20, 20¾, 22, 23, 24, 26, 27, 32, 36	1,000–5,000	300–50	BGHM
QH2	127	7¾, 8¾	1,000–5,000	80–300	W	GJT135	135	8½, 11¾, 17½	1,000–4,000	350–80	CGL	XR+	117	4½, 4¾, 4¾, 5½, 6, 6¾, 6¾, 7¾, 8½, 8¾, 9½, 9¾, 12¼	1,000–5,000	300–50	BGHM
QH3	137	8¾, 11¾, 12, 12¼	2,000–5,000	60–300	W	HA116	116	4¾, 4¾, 5¾, 6, 6¾, 6¾, 7¾, 8½, 8¾, 9¾, 11¾, 12¼	2,000–5,000	150–80	CGL	HA117	117	4¾, 5½, 6, 6¾, 6¾, 6¾, 6¾, 7¾, 8½, 8¾, 9½, 9¾, 12¼	2,000–5,000	150–70	CG
QH4	217	6, 6¾, 8¾, 9½, 11½, 12¼	2,000–6,000	40–250	W	HA126	126	4¾, 4¾, 4¾, 5½, 5¾, 6¾, 6¾, 6¾, 8½, 9½, 10¾	2,000–5,000	150–70	CG	HA127	127	5½, 6¾, 6¾, 6¾, 6¾, 6¾, 6¾, 9¾	2,000–5,000	180–80	CGL
XS1	117	4¾, 5¾, 6, 6¾, 6¾, 6¾, 6¾, 7¾, 7¾, 8½, 8¾, 8¾, 9¾, 12¾	1,000–5,000	80–300	W	HA137	137	4¾, 5½, 6, 6¾, 6¾, 6¾, 6¾, 7¾, 8½, 8¾, 9¾, 11¾	2,000–6,000	120–60	CGL	HAT117	117	5¾, 6¾, 6¾, 6¾, 6¾, 6¾, 6¾, 7¾, 7¾, 8½, 8¾, 9, 9¾, 11, 12¼	2,000–5,000	180–80	CGL
XS2	127	7¾, 8¾	1,000–5,000	80–300	W	HAT127	127	6, 6¾, 6¾, 7¾, 8½, 8¾, 9½, 9¾, 10¾, 11, 12¼	2,000–5,000	180–80	CGL	HAT137	137	5¾, 5¾, 6, 6¾, 6¾, 6¾, 7¾, 8½, 8¾, 12¼	2,000–6,000	120–60	GL
XS3	137	5¾, 8¾, 8½, 11¾, 12, 12¼	2,000–5,500	60–300	W	HJ117	117	12¼	1,500–5,000	300–80	CG	HJ127	127	10¾, 12¼	1,500–5,000	300–80	CG
XS4	217	4¾, 5¾, 6, 6¾, 6¾, 6¾, 8½, 9½, 12¼	2,000–6,000	40–250	W	HJ137	137	12¼	2,000–5,000	300–80	CG	HJT117	117	8½, 8¾, 9¾, 12¼	1,500–5,000	300–80	CGL
XT1	115	14¾, 15½, 16, 17, 17½, 18, 18½, 22, 23, 24, 25¾, 26	1,000–5,000	80–300	G	HJT127	127	8½, 9¾, 10¾, 12¼	1,500–5,000	300–80	CGL	HJT137	137	8½, 9¾, 10¾, 13¾	2,000–5,000	300–80	CGL
XT3	135	15½, 16, 17, 17½, 22	2,000–5,500	60–300	G	SWT115	115	8½, 8¾, 11¾, 12¼, 13¾, 14¾, 17½	2,000–5,500	200–80	CG	SWT116	116	6, 6¾, 6¾, 7¾, 8½, 8¾, 9½, 9¾, 12¼	3,000–5,500	120–80	CG
XT4	215	14¾, 15½, 16½, 17½, 18½	2,000–6,000	40–250	G	SWT117	116	6, 6¾, 6¾, 7¾, 8½, 8¾, 9½, 9¾, 12¼	3,000–5,500	120–80	CG	SWT127	127	6, 6¾, 6¾, 7¾, 8½, 8¾, 9½, 9¾, 12¼	3,000–5,500	120–70	CG
Hughes Christensen																	
GT-1	117	7¾, 8½, 8¾, 9¾, 9¾, 10¾, 11, 12¼	2,000–5,000	180–80	GW	W111	111	12¼, 17½	1,000–4,000	200–80	CG	S-X	126	15½, 17½, 16	1,500–4,000	60–120	B
GT-G1H	117	7¾, 8¾	2,000–5,000	180–80	GW	W121	121	12¼, 17½, 26	1,000–4,000	200–80	CG	S-XZ	124	12¼	1,500–4,500	80–250	M
GT-X1	115	12¼, 13¾, 14¾, 16, 16½, 17½	2,000–5,000	180–80	GW	W131	131	12¼, 17½	1,000–4,000	200–80	CG	S-XZC	124	16, 17½	1,500–3,500	80–150	C
GTX-3	134	17½	2,000–5,000	180–80	GW	ZJT117	117	11¾	2,000–3,000	400–180	CGL	S-Z	124	11½, 12¼	1,500–4,500	80–150	B
GTX-G1	115	12¼, 14¾, 14¾, 16, 17½, 20, 22, 24, 26, 28	1,500–4,000	200–80	GW	ZJT137	137	11¾	2,000–3,000	300–100	CGL	S-Z	124	15, 17½, 26	1,500–3,500	80–150	B
GTX-G3	135	8¾, 8½, 12¼, 14¾, 17½	1,500–4,000	200–80	GW	NOV ReedHycalog											
GX-1V	117	6½, 8¾, 9¾, 10¾, 12¼, 20, 22	2,000–5,000	180–80	GW	EMS11G	115	13½, 14½, 15½, 18½, 26	1,000–5,000	450–60	M	ETS11G	115M	11¾	500–3,500	800–120	SN
GX-1X	117	7¾, 8½, 9¾, 11, 12¼, 14¾	2,000–5,000	180–80	GW	ETS13G	135M	11¾	1,000–5,000	200–60	SN	HP11	116	8½, 11, 12¼	1,000–5,000	200–60	SG
MX-1	117	5¾, 6, 6¾, 6¾, 6¾, 6¾, 7¾, 7¾, 8¾, 9½, 9¾, 10¾, 11¾, 13¾, 14¾, 16, 17½	1,000–4,000	350–80	BGMW	HP13G	137	8½, 12¼	1,000–5,000	200–60	SG	RT1G	117	4½, 5¾, 6, 6¾, 6¾, 6¾, 6¾, 8½, 12¼, 14¾, 16, 17, 17½, 18½, 20, 22, 24, 26	1,000–5,000	200–60	SN
MX-3	137	8½, 9½, 11¾, 12¼, 16, 17½	1,000–4,000	300–80	BGMW	T11	115M	12¼, 14¾, 16, 17, 17½, 18½, 20, 22, 24, 26	1,000–3,000	350–60	CGMN	T13	135M	16, 17½	1,000–3,500	350–60	SCGMN
MXL-1	117	7¾, 8½, 8¾, 9¾, 11¾, 12¼, 14¾, 16, 17½	1,000–4,000	350–80	BGMW	TC10	117W	7¾, 8½, 8¾, 12¼	1,000–5,000	200–60	WG	TC11	117W	7¾, 7¾, 8½, 9, 9¾, 9¾, 10¾, 11, 11¾, 12¼	1,000–5,000	200–60	WG
MXL-1V	117	8½, 9¾, 12¼, 17½	2,000–5,000	180–80	GW	Y11	111	12¼, 13¾, 14¾, 17½, 24, 26	1,000–3,000	250–60	SC	Smith Bits					
MXL-1X	117	8½, 8¾, 9¾, 12¼, 13½, 15½, 16, 17½	2,000–5,000	180–80	GW	DSJ	111	13½, 13¾, 17½, 23, 24, 26	1,000–4,000	180–70	S	F1	437X	12¼	2,000–5,000	220–50	X
MXL-3	117	8½, 8¾, 9¾, 11¾, 12¼, 14¾, 16, 17½, 22	1,000–4,000	350–80	BGMW	FDGH	137	5¾, 6, 8½, 11½, 12¼	2,000–5,000	160–50	S	FDS	116	9½, 11	1,000–5,000	160–50	S
MX-X1	117	7¾, 8½, 8¾, 9¾, 12¼, 16, 17½	1,000–4,000	300–80	BGMW	FDS+	116	7¾, 8¾, 9, 9¾, 9¾, 12¼	1,000–5,000	160–50	S	FDT	126	7¾, 7¾, 12¼	1,500–5,000	160–50	S
R1	111	11, 12¼, 13¾, 13¾, 14¾, 17½, 20, 22, 23, 24, 25, 26, 28, 30	2,000–5,000	250–60	S	GGH+	135	12¼, 16, 17½	1,000–5,000	300–50	BGHM	GSSH+	115	18	1,000–4,000	300–50	BGHM
R3	131	17½, 22, 26, 28	2,000–5,000	250–60	S	MFDGH	137	8¾, 8½	1,000–5,000	250–50	HM	MGG	135	34	1,000–5,000	300–50	BGHM
STX-1	116	4¾, 4¾, 4¾, 4¾, 5¾, 5¾, 6, 6¾, 6¾, 6¾	1,000–4,000	180–80	GW	MGGH+	135	12¼, 16, 17½	1,000–5,000	300–50	BGHM	MSDGH	135	12, 16, 17, 17½, 20, 23, 24, 26, 28	1,000–5,000	280–50	HM
Kingdram Public Limited Company																	
FJT117	117	8½, 11¾, 12¼	2,000–6,000	300–80	CGL	MSDSSH	115	17½, 26	1,000–4,000	280–50	HM	MSVH	215	11½	1,500–5,000	280–50	HM
FJT127	127	8½, 11¾, 12¼	2,000–6,000	300–80	CGL	MSVH	215	11½	1,500–5,000	280–50	HM	SDG	134	8¾	1,000–5,000	160–50	S
FJT137	137	8½, 11¾	2,000–6,000	300–60	CG	SDGH	135	12¼, 17½	1,000–5,000	160–50	S	TCT+	117T	8¾, 16	1,000–4,500	280–50	BGHMT
GA114	114	8½, 10¾, 12¼, 13½, 13¾, 14¾, 15½, 16, 17½	1,500–4,000	200–80	CGL	TCT+	117T	8½, 8½, 9¾, 12¼, 13½, 13¾, 17½	1,000–4,500	280–50	BGHMT	Insert roller cone bits					
GA115	115	11, 11¾, 12, 12¼, 13¾, 14¾, 15½, 16, 17½	1,500–4,000	200–80	CG	Varel International Inc.											
GA124	124	10¾, 12, 12¼, 14¾	1,500–4,000	200–80	CG	CH1G	117S	6¾, 6¾, 7¾, 8¾, 8¾, 9¾, 11, 11¾, 12¼, 13¾, 13¾	1,500–5,000	180–80	CGMW	CHSTG	117S	11, 12¼	1,500–5,000	180–80	CGMW
GA125	125	7¾, 8¾, 10¾, 17½	1,500–4,000	200–80	G	CR1G	115S	11, 12¼	1,500–5,000	250–60	CGMW	ETR1	114S	22	1,500–4,500	250–80	S
GA134	134	12, 16, 17½, 26	1,500–4,000	200–80	CG	ETR1G	115S	14¾, 15½, 22, 22¾, 23	1,500–4,500	250–80	CGS	L111	111S	14¾, 15, 16, 17½, 20, 21, 22, 23, 24, 26, 27½	1,500–4,500	250–80	CS
GA135	135	6, 6¾, 8¾, 8¾, 11¾, 12¼, 13½	1,500–4,000	200–80	CGL	L113	113S	26, 28	1,500–4,500	200–80	CS	L115	115S	26, 28	1,500–4,500	200–80	CS
GAT115	115	9¾, 12¼, 13¾, 14¾, 16, 17½	1,500–4,000	200–80	CGL	L121	121S	12¼, 13¾	2,000–5,000	250–80	S	L3A	111S	34, 36	1,500–4,500	250–80	S
GAT125	125	13¾, 14¾	1,500–4,000	200–80	CG	Halliburton Security DBS											
GAT135	135	8½	1,500–4,000	200–80	GL	QH00	417	6¾, 6¾, 7¾, 8½, 8¾, 12¼, 13½	1,000–4,000	80–250	GMW						
GJ115	115	12¼, 17½	1,000–4,000	350–80	CGL	QH05											
GJ135	135	12¼, 17½	1,000–4,000	350–80	CGL												
GJT115	115	8½, 12¼, 17½	1,000–4,000	350–80	CGL												

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
QH06-QH09	427	6½, 6¾, 7½, 8½, 8¾	1,000-4,000	80-250	GMW	MXL-03	417	8½, 8¾, 9¾, 12¼, 14¾, 16, 17½	1,000-6,000	220-50	BGMWH	T41	415M	16, 17½, 22, 23½, 24, 26	2,000-5,000	350-60	CGMNYW
QH10-QH13	437	5½, 6, 6¼, 6½, 6¾, 7½, 8½, 8¾, 9½, 9¾, 11½, 12¼, 13½	2,000-5,000	60-300	GMW	MXL-05	417	8½, 8¾, 9¾, 12¼, 14¾, 16, 17½	1,000-6,000	220-50	BGMWH	T42	425M	16, 17½, 22	2,000-5,000	450-60	CGMNYW
QH14-QH17	447	6¾, 8½, 8¾, 9½, 9¾, 11½, 12¼	2,000-5,000	60-300	GMW	MXL-09	437	8½, 8¾, 9¾, 12¼, 12¾, 16, 17½	1,000-6,000	220-50	BGMWH	T43	435M	12¼, 14¾, 16, 17½, 22, 26	1,000-3,500	350-60	CGMNYW
XS00-XS05	417	4¾, 5¾, 6, 6¼, 6¾, 6¾, 6¾, 7¾, 7¾, 8½, 8¾, 9¾, 10¾, 12¼, 13½	1,000-4,000	80-250	GMW	MXL-11	437	8½, 8¾, 9¾, 12¼, 14¾, 16, 17½	1,000-6,000	220-50	BGMWH	T44	445M	12¼, 14¾, 16, 17, 17½	1,000-3,500	350-60	CGMNXW
XS06-XS09	427	4¾, 5¾, 6, 6¼, 6¾, 6¾, 6¾, 7¾, 7¾, 8½, 8¾, 9¾, 10¾, 12¼	1,000-4,000	80-250	GMW	MXL-11	447	8½, 8¾, 9¾, 12¼, 14¾, 16, 17½	1,000-6,000	220-50	BGMWH	Smith Bits					
XS10-XS13	437	4¾, 5¾, 6, 6¼, 6¾, 6¾, 6¾, 7¾, 8½, 8¾, 9¾, 9¾, 10¾, 11½, 12¼, 13½	2,000-5,000	60-300	GMW	MXL-18	447	8½, 8¾, 9¾, 12¼, 14¾, 16, 17½	1,000-6,000	220-50	BGMWH	15JS	445X	20, 20¾	1,000-5,000	70-140	X
XS14-XS17	447	4¾, 5¾, 6, 6¼, 6¾, 6¾, 6¾, 7¾, 8½, 8¾, 8¾, 9½, 9¾, 10¾, 10¾, 11½, 12¼	2,000-5,000	60-300	GMW	MXLB-09	437	8½	1,000-6,000	220-50	BGMWH	F10	437X	8½	2,000-5,000	220-50	X
XT00-XT05	415	16, 17, 17½, 22, 22¼, 22¾, 23½, 24, 26	1,000-5,000	70-300	GMW	STR-09C	427	6	2,000-5,000	250-80	GHW	F10B	437X	9¾	2,000-5,000	220-50	XW
XT06-XT09	425	14¾, 16, 17½, 20, 22, 24, 26, 28	1,000-4,000	80-250	GMW	STX-09	437	5½, 5¾, 6, 6¼, 6¼	1,000-6,000	220-50	BGMW	F12	437X	8¾	2,000-5,000	220-50	X
XT10-XT13	435	4¾, 5¾, 6, 6¼, 6¾, 6¾, 6¾, 7¾, 7¾, 8½, 8¾, 9¾, 10¾, 12¼, 13½	2,000-5,000	60-300	GMW	STX-09C	437	6¼	2,000-5,000	250-80	GHW	FG10	437X	12¼	1,000-5,000	280-50	BGHMX
XT14-XT17	445	14¾, 16, 17½, 20, 22, 24, 26, 28	2,000-5,000	60-300	GMW	STX-09H	437	6, 6¾	2,000-5,000	250-80	GHW	FH08	427X	7¾	2,000-5,000	220-50	X
Hughes Christensen						STX-18	447	3¾, 6¼, 6¼	2,000-5,000	250-80	GHW	FH18B	447X	7¾, 8¾	2,000-5,000	220-50	WX
GT-00	417	8¾	2,000-5,000	140-70	W	STX-18H	447	6¼	2,000-5,000	250-80	GHW	F18	447X	7¾	2,000-5,000	220-50	X
GT-03	417	8½, 8¾, 9¾, 19¾, 12¼, 20, 16	2,000-5,000	140-70	W	Kingdrom Public Limited Company						G02B	415X	17½	1,000-4,000	300-50	BGHMWX
GT-09	437	7¾, 8½, 8¾, 9¾, 12¼, 20	2,000-5,000	140-70	W	FJT417	417	8½, 11½	2,000-5,500	300-80	GL	G02T	415X	17½	1,000-4,000	300-50	BGHMWX
GT-09C	427	7¾, 8¾, 12¼	2,000-5,000	140-60	WY	FJT437	437	8½	2,000-5,500	300-60	GL	G04B	415X	12¼, 24, 26	1,000-4,000	300-50	BGHMWX
GT-18	447	7¾, 8½, 8¾, 9¾, 10¾, 11½	2,000-6,000	120-50	W	FJT447	447	8½	2,000-6,000	300-60	CGLY	G08B	425X	23	1,000-4,000	300-50	BGHMWX
GT-18C	447	7¾	2,000-6,000	120-50	WY	FJTS437	437	12¼	2,000-5,500	300-60	G	G10B	435X	14¾, 16, 17½	1,000-4,000	300-50	BGHMWX
GTX-00	415	24, 26	1,000-3,500	200-80	W	GA415	415	8½, 17½	1,000-3,500	200-80	CG	G10T	435X	17½	1,000-4,000	300-50	BGHMX
GTX-00	417	26	1,000-3,500	220-50	GMW	GA435	435	8½, 17½	1,000-4,000	200-80	CG	G11YB	435Y	17½	1,000-4,000	300-50	BGHMWY
GTX-00H	415	17½	1,000-3,500	200-80	W	GAT415G	415	17½	1,000-3,500	200-80	CG	G12B	435X	23	1,000-4,000	300-50	BGHMWX
GTX-03	415	16, 17½, 20, 22, 23, 24, 26, 28, 30	1,000-3,500	200-80	W	GA445	445	17½	1,000-4,000	200-80	CG	G15B	445X	17½	1,000-5,000	300-50	BGHMWX
GTX-03C	415	30	1,000-3,500	200-80	W	GAT415G	415	17½	1,000-3,500	200-80	CG	G18DB	445X	16	1,000-4,000	300-50	BGHMWX
GTX-03H	415	16, 17½, 22, 23	1,000-3,500	200-80	W	GJ415	415	17½	1,000-3,500	350-80	CG	GF05	427X	9¾, 12¼	1,000-5,000	280-50	BGHMX
GTX-09	435	16, 17½, 20, 22, 23, 26	1,000-3,500	200-80	W	GJ435	435	17½	1,000-4,000	350-80	CG	GF05B	427X	12¼	1,000-5,000	280-50	BGHMWX
GTX-09H	435	16	1,000-3,500	200-80	W	GJT415	415	8½, 11½, 12¼, 17½	1,000-3,500	350-80	CGL	GF08	437X	8¾, 8¾	1,000-5,000	280-50	BGHMWX
GTX-11	435	22	1,000-3,500	200-80	W	GJT435	435	12¼, 17½	1,000-4,000	350-80	CG	GF10B	437X	8¾, 12¼	1,000-5,000	280-50	BGHMWX
GTX-11H	435	16, 17½, 20, 22, 28	1,000-3,500	200-80	W	GJT445	445	12¼	1,000-4,000	350-80	CG	GF10HB	437X	12¼	2,000-5,000	280-50	BGHMWX
GX-00	417	8¾	1,000-6,000	220-50	GMW	HA417	417	4¾, 5¾, 8½, 8¾, 9½, 10½, 10¾, 12¼	2,000-5,000	140-70	CGL	GF10HUB	437X	12¼	2,000-5,000	280-50	BGHMWX
GX-03	437	7¾, 8¾	1,000-6,000	220-50	BGMW	HA437	437	4¾, 5¾, 5¾, 6, 6¼, 6¾, 7¾, 8¾, 8½, 9¾, 9¾, 10¾, 12¼	2,000-5,000	140-60	CGL	GF15	447X	8½, 9¾	2,000-5,000	280-50	BGHMX
GX-09	437	8½	1,000-6,000	220-50	BGMW	HA447	447	5¾, 8¾, 8½, 12¼	2,000-5,500	140-60	CGLY	GF15B	447X	8¾, 12¼	2,000-5,000	280-50	BGHMX
GX-11	435	8¾	1,000-3,500	200-80	W	HA447GJ	447	8¾	2,000-5,500	140-60	GJ	GF15H	447X	8¾	2,000-5,000	280-50	BGHMX
GX-11	447	7¾, 8¾	1,000-6,000	220-50	BGMW	HA447GX	447	9¾, 9¾, 12¼	2,000-5,500	240-60	G	GF15HB	447X	12¼, 13½	2,000-5,000	280-50	BGHMWX
GX-18	447	7¾, 8½	1,000-6,000	300-50	BGMW	HA447GX	447	8½, 9¾	2,000-5,500	140-60	G	GF15SD	447X	8½, 12¼	2,000-5,000	280-50	BGHMWX
GXD-09	437	8¾	1,000-6,000	220-50	BGMW	HAT417	417	4¾, 7¾, 8½, 8¾, 9¾, 10¾, 11, 12¼	2,000-5,000	140-70	CGL	GF05B	427X	11	1,000-5,000	280-50	BGHMWX
HX-03	427	8¾	1,000-6,000	220-50	EGW	HAT427	427	7¾, 9¾, 12¼	2,000-5,000	140-70	CGY	GF08	437X	8½	2,000-5,000	280-50	BGHMX
HX-09C	437	7¾, 8¾	1,000-6,000	220-50	EGW	HAT437	437	4¾, 5¾, 5¾, 6¼, 6¼, 7¾, 8¾, 8¾, 9¾, 10¾, 11, 12¼	2,000-5,500	140-60	CGL	GFS05B	427X	8½, 12¼	1,000-5,000	280-50	BGHMWX
MX-00	417	8½, 17¼, 17½	1,000-6,000	220-50	BGMWH	HJ417	417	8½, 9¾, 9¾, 12¼	2,000-5,000	280-70	CGL	GFS05SUB	427X	12¼	1,000-5,000	280-50	BGHMWX
MX-03	417	8½, 8¾, 9¾, 9¾, 12¼, 17½	1,000-6,000	220-50	BGMWH	HJ437	437	7¾, 8½, 8¾, 9¾, 9¾, 9¾, 12¼	2,000-5,000	280-60	CGL	GFS06	427X	8½	1,000-5,000	280-50	BGHMX
MX-09	437	6, 6¼, 6¾, 7¾, 8¾, 9¾, 9¾, 10¾, 11½, 16, 17½	1,000-6,000	220-50	BGMWH	HJ447	447	8½, 8¾, 9¾, 12¼	2,000-5,500	240-60	GY	GFS10B	437X	12¼, 13½	2,000-5,000	280-50	BGHMWX
MX-09C	427	8½, 14¾	1,000-6,000	220-50	BGMWH	HJ447GX	447	9¾, 9¾, 12¼	2,000-5,500	240-60	G	GFS11YB	437X	12¼	2,000-5,000	280-50	BGHMWX
MX-09CG	447	12¼	1,000-6,000	250-50	BGMWH	HJS417GL	417	8½	2,000-5,000	280-70	GL	GFS15	447X	12¼	2,000-5,000	280-50	BGHMX
MX-09G	437	8½, 17½	1,000-6,000	220-50	BGMWH	HJS437GL	437	8½	2,000-5,000	280-60	G	GFS15B	447X	12¼	2,000-5,000	280-50	BGHMWX
MX-09H	437	6, 6¾, 8¾, 17½	1,000-6,000	220-50	BGMWH	HJS447GL	447	8½	2,000-5,500	240-60	BGM	GFS101B	417X	12¼	1,000-5,000	280-50	BGHMWX
MX-11/11H	435	7¾, 12¼	1,000-6,000	220-50	BGMWH	HJT417	417	8½, 9¾, 12¼	2,000-5,000	280-70	CGL	GFS106B	417X	12¼	1,000-5,000	280-50	BGHMWX
MX-11H	435	12¼, 14¾, 17½	1,000-6,000	220-50	BGMWH	HJT437	437	8½, 8½, 9¾, 12¼	2,000-5,000	280-60	CGL	G103B	415X	17½	1,000-5,000	280-50	BGHMWX
MX-18	447	5¾, 6, 6¼, 6¾, 7¾, 8¾, 9¾, 12¼, 14¾	1,000-6,000	220-50	BGMWH	HJT447	447	8½, 8½, 12¼	2,000-5,500	240-60	CGLY	G18B	445X	17½	1,000-5,000	300-50	BGHMWX
MX-18C	447	9¾	1,000-6,000	220-50	BGMWH	MD437	437	6, 6¼, 6¾, 7¾, 8½, 8¾, 9¾, 12¼	2,000-5,500	300-60	GL	GS01B	415X	16	1,000-4,000	300-50	BGHMWX
MX-18CH	447	8½, 8¾	1,000-6,000	220-50	BGMWH	MD447	447	6, 6¼, 6¾, 7¾, 8½, 8¾, 9¾, 12¼	2,000-5,500	240-60	GLM	GS03B	415X	16, 17½, 18½	1,000-4,000	300-50	BGHMWX
MX-18H	447	6, 6¾, 8¾, 9¾, 12¼	1,000-6,000	300-50	BGMWH	ZJT417	417	8½, 11½	2,000-3,500	400-180	GL	GS03SUB	415X	16	1,000-4,000	300-50	BGHMWX
MXL-00	417	8½, 8¾, 9¾, 12¼, 14¾, 16, 17½	1,000-6,000	220-50	BGMWH	ZJT437	437	8½	2,000-3,000	400-100	GL	GS04B	415X	12¼, 23½, 24, 26	1,000-4,000	300-50	BGHMWX
						ZJT437EX	437	8½, 8½	2,000-3,500	400-100	GL	GS05B	425X	12, 16, 17½	1,000-4,000	300-50	BGHMWX
						ZJT437X	437	8½	2,000-3,000	400-100	GL	GS08B	425X	22	1,000-4,000	300-50	BGHMWX
						ZJT447	447	8½	2,000-3,500</								

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb./in. diameter	Recommended rotary speed, rpm	Special features/usage
TCT10	435T	17½	1,000-4,000	300-50	BGHMTX
TCT11	435T	12½	1,000-4,000	300-50	BGHMTX
TCT12	435T	12½	1,000-4,000	300-50	BGHMTX
TCT101	415T	17½	1,000-4,000	300-50	BGHMTX
XR10T	437X	6, 6½, 6¾	1,000-5,000	300-50	HMX
XR12	437X	6	1,000-5,000	300-50	HMX
XR15	447X	4¾, 4¾, 5½, 5¾, 6¾	1,000-5,000	300-50	HMX
XR15T	447X	5¾, 6, 6½, 6¾, 6¾	1,000-5,000	300-50	HMX
XR15G	447X	4¾	1,000-5,000	300-50	HMX
TIX Corporation					
M04G	417X	12½	1,000-4,000	60-250	GMX
M05GP	417X	8½, 12½	1,000-4,500	60-250	GLMX
M08GP	427X	8½, 12½	1,000-4,500	60-250	GLMX
M10GP	437X	8½, 12½	1,000-4,500	60-250	GLMX
M15GP	447X	8½, 12½	1,000-5,000	60-250	GLMX
MZ08GPC	425X	16, 17½	1,000-3,500	80-250	CGLMX
MZ10GPC	435X	16, 17½	1,000-3,500	80-250	CGLMX
MZ15GPC	445X	16, 17½	1,000-3,500	80-250	CGLMX
X10G	437X	8½, 12½	1,500-4,500	60-120	GX
X10GY	437Y	8½, 12½	1,500-4,500	60-120	GY
X15G	447X	8½, 12½	1,500-5,000	60-120	GX
XZ05GPC	415X	17½	1,000-3,500	80-150	CGX
XZ08GPC	425X	16, 17½	1,000-3,500	80-150	CGLX
XZ10G	435X	12½	1,000-4,000	80-250	GMX
XZ10GC	435X	16, 17½	1,000-3,500	80-150	CGX
XZ15G	445X	12½	1,000-4,500	80-250	GMX
XZ15GC	445X	16, 17½	1,000-3,500	80-150	CGX
Ultrerra Drilling Technologies and United Diamond					
Z05	417X	8¾, 12¼	1,500-4,000	50-240	ACGHLM
Z10	427X	12¼	1,500-4,000	50-240	ACGHLM
Z12	437X	8¾	1,500-4,000	50-240	ACGHLM
Z15	437X	6¾, 8½, 12¼	1,500-4,000	50-240	ACGHLM
Z18	447X	7¾, 8½, 12¼	2,000-5,000	50-240	ACGHLM
Varel International Inc.					
CH04	417X	8¾, 9¾, 11	1,500-5,000	250-70	CMW
CH04V	417X	8¾, 12¼	1,500-5,000	250-70	CMW
CH09	427Y	8¾	1,500-5,000	250-70	MW
CH12	437X	7¾, 13½, 13¾	1,500-5,000	250-60	CMW
CH13	437Y	7¾	1,500-5,000	250-60	MW
CH14	437X	5¾, 8½, 8¾	1,500-5,000	250-60	MW
CH14V	437X	12¼	1,500-5,000	250-60	CMW
CH18	447X	6, 7¾, 8¾, 12¼	2,500-6,000	250-60	MW
CR04	415X	16, 17½	1,500-5,000	250-60	CMW
CR12	435X	14¾	1,500-5,000	250-60	CMW
CR13	435Y	16	1,500-5,000	250-60	CMW
CR14	435X	16	2,500-4,500	250-80	CMW
CR18	445X	16, 17½, 23	1,500-5,000	250-60	CMW
CR20	445X	17½	1,000-5,000	280-50	CMW
ER18	447X	7¾	2,500-6,000	250-60	MW
ETD14	437X	4¾, 4¾, 6¾, 8¾	2,000-4,500	160-60	W
ETR04	415X	16	1,500-3,500	275-80	W
ETR14	435X	16, 17½, 22, 23, 24, 28	2,500-4,500	250-80	CW
ETR18	445X	17, 17½	2,500-4,500	250-80	CW
HE04V	417X	9¾, 11, 12¼	1,500-5,000	250-70	CMW
HE12V	437X	12¼	1,500-5,000	250-60	CMW
Fish tail bits					
Bit-Tech SPH, Inc.					
B44-M	M232	6¼, 4¾	300-2,000	100-500	ADGMWV
PDC drill bits					
Bit-Tech SPH, Inc.					
B44	M131	6¼, 4¾	300-2,000	100-500	ADGMWV
Diamant Drilling Services S.A.					
MDL539	M322	8½	1,000-4,000	50-450	
MPH419	M322	8½	1,000-4,000	50-450	
MPL439	M322	8½, 12¼	1,000-4,000	50-450	
MPL459	M322	6¾	1,000-3,500	50-450	
MPM326	M222	8½	1,000-4,000	50-450	
MPM419	M322	8½	1,000-4,000	50-450	
SPH339	S232	8½	1,000-3,500	50-450	
SPH423	S223	3¾, 4¾, 5¾, 6, 6¾	1,000-4,000	50-450	
SPH429	S224	6, 6¾, 8½, 12¼, 14¾	1,000-4,000	50-450	
SPH433	S234	6	1,000-4,000	50-450	
SPH439	S224	12¼, 17½	1,000-3,000	50-450	
SPH443	S333	6¾, 8¾, 8¾	1,000-4,000	50-450	
SPH449	S322	8¾, 8¾	1,000-4,000	50-450	
SPH453	S423	8¾	1,000-4,000	50-450	
SPL419	S422	6¾, 9¾	1,000-4,000	50-450	
SPL429	S422	6¾, 11	1,000-4,000	50-450	
SPL439	S222	11, 12¼	1,000-3,000	50-450	
SPL443	S432	4¾	1,000-4,000	50-450	
SPL459	S423	6¾	1,000-4,000	50-450	
SPL479	S424	6¾	1,000-4,000	50-450	
SPL489	S224	12¼	1,000-3,000	50-450	
SPM419	S322	8½	1,000-4,000	50-450	
SPM439	S322	12¼	1,000-3,000	50-450	
SPM439	S322	16, 17½	1,000-3,000	50-450	
SPM449	S322	8½	1,000-4,000	50-450	
Drill Master, Inc.					
DM313	M131	6¾	200-2,500	60-350	GHMIRSTUI
DM316	M121	7¾	250-2,500	60-400	GHMIRSTUI
DM319	M121	8½	250-2,500	60-400	GHMUII
Dowdco					
D316	M-122	7¾, 8½, 8¾	250-2,500	60-350	DGHMWW
D413	M-131	6, 6¾, 6¾, 6¾, 6¾, 7¾, 8½, 8¾	250-2,500	60-350	DGHMWW
D419	M-122	6, 6¾, 6¾, 6¾, 6¾, 7¾, 8½, 8¾	250-2,500	60-350	DGHMWW
D519	M-123	6¾, 7¾, 8½, 8¾, 9¾, 12¼	250-2,500	60-350	DGHMWW
Halliburton Security DBS					
FA3565	S424	8½, 12¼	500-2,000	60-400	MWV
FA3663	S323	8½, 12¼	500-2,000	60-400	MWV
FM2365/ FM3365	M124	12¼	350-2,000	60-400	MWV
FMH3365/ FMR3365	M224	9¾	350-2,000	60-400	MWV
FM2365/ FM3365	M421	8½	350-2,000	60-400	MWV
FMH3365/ FMR3365	M131	12¼	500-2,000	60-400	MWV
FM2466/ FM3446	M323	6, 6¾, 8½, 9¾, 12¼	200-3,500	60-400	MWV
FM2466/ FM3466	M111	12¼	500-2,000	60-400	MWV
FM2545/ FM3545	M333	9¾	500-2,000	60-400	MWV
FM2563/ FM3563	M121	18½	500-2,000	60-400	MWV
FM2565/ FM3565	M223	7¾, 9¾, 8¾, 8¾, 8¾	500-2,000	60-400	MWV
FM2566/ FM3566	M423	7¾, 8¾, 8½, 8¾, 9¾	500-2,000	60-400	MWV
FM2643/ FM3643	M331	5¾, 6, 6¾, 6¾, 6¾, 6¾, 9¾	500-2,000	60-400	MWV
FM2648/ FM3648	M231	12, 12¼	500-2,000	60-400	MWV
FM2662/ FM3662	M122	17½	500-2,000	60-400	MWV
FM2662/ FM3662	M323	12¼	500-2,000	60-400	MWV
FM2664/ FM3664/ FMH3664/ FMR3664					
FM2862/ FM3862	M121	14¾, 17½	500-2,000	60-400	MWV
FS2441/ FSF2441	S432	6, 6¾, 6¾, 6¾, 8½	500-2,000	60-400	MWV
FS2461/ FSF2461	S322	8½, 9¾, 12¼	500-2,000	60-400	MWV
FS2463/ FSF2463	S323	8½, 9¾, 12¼, 14¾	500-2,000	60-400	MWV
FS2465/ FSF2465	S424	8½	500-2,000	60-400	MWV
FS2467/ FSF2467	S424	6¾	500-2,000	60-400	MWV
FS2543/ FSF2543	S133	12¼	500-2,000	60-400	MWV
FS2545/ FSF2545	S334	8½	500-2,000	60-400	MWV
FS2563/ FSF2563	S323	9¾, 12¼, 14¾, 14¾, 16, 17½	500-2,000	60-400	MWV
FS2565/ FSF2565	S424	8½, 9¾, 12¼	500-2,000	60-400	MWV
FS2641/ FSF2641	S132	24	500-2,000	60-200	MWV
FS2645/ FSF2645	S434	8½, 9¾	500-2,000	60-400	MWV
FS2661/ FSF2661	S122	26	500-2,000	60-200	MWV
FS2663/ FSF2663	S323	12, 12¼, 13¾, 16, 17, 17½	500-2,000	60-400	MWV
FS2665/ FSF2665	S124	20, 22	500-2,000	60-200	MWV
SE3321A	S442	3¾	200-1,000	60-400	DWV
SE3363	M224	10¾	350-2,000	60-400	MWV
SE3363A	S323	8½, 12¼	350-2,000	60-400	MWV
SE3431	M133	3¾-4¾	200-1,000	60-400	DWV
SE3433	M133	4¾	200-1,000	60-400	DWV
SE3441	M432	6, 6¾	200-2,000	60-400	DWV
SE3442	M432	6, 6¾	200-2,000	60-400	DWV
SE3451A	S422	7¾, 8½	500-2,000	60-400	DWV
SE3452	M422	6, 6¾	200-2,000	60-400	DWV
SE3461	M422	6-12¼	200-3,000	60-400	DWV
SE3463A	S433	12¼	500-2,000	60-400	DWV
SE3463A	S433	8½, 12¼	500-2,000	60-400	DWV
Hughes Christensen					
HC503Z	M223	3½-12¼	235-2,500	350-50	DGVW
HC603Z	M223	3½-12¼	235-2,500	350-50	DGVW
HC604	M223	3-17½	235-2,500	350-50	DGVW
NOV Reedhycal					
DSR313	M132	6	750-5,500	Variable	GHMWUI
DSR416	M122	6, 6¾, 7¾, 8¾	750-5,500	Variable	GHMWUI
DSR419	M122	6¾	750-5,500	Variable	GHMWUI
DSR519	M222	7¾, 8¾	750-5,500	Variable	GHMWUm
DSR619	M223	7¾, 8¾, 8¾, 12¼	1,000-6,000	Variable	GHMWUm
DSX313	M132	6, 6¾, 6¾, 6¾	750-5,500	Variable	GHMWUI
DSX319	S132	8½	750-5,500	Variable	GHMWUI
DSX416	M122	6¾, 6¾, 7¾, 8¾	750-5,500	Variable	GHMWUI
DSX419	M323	6¾, 6¾, 8½, 8¾, 12¼	750-5,500	Variable	GHMWUI
DSX419	M423	6¾, 6¾, 8½, 8¾, 12¼	750-5,500	Variable	GHMWUm
DSX519	M222	6¾, 7¾, 8¾, 8¾, 9¾, 9¾, 12¼, 14¾, 17½	750-5,500	Variable	GHMWUm
DSX619	M223	7¾, 8¾, 8¾, 9¾, 11, 11½, 12¼, 14¾, 17½	1,000-6,000	Variable	GHMWUm
DTX519	M323	8½, 8¾, 9¾	750-5,500	Variable	GHMWUm
DTX619	M323	8½, 8¾, 9¾	750-5,500	Variable	GHMWUm
MSR416	M222	7¾	750-5,500	Variable	GHMWUmV
MSX416	M222	7¾, 9¾	750-5,500	Variable	GHMWUmV
RSR419	M222	9¾	1,000-6,000	Variable	GHMWUmV
RSR519	M323	8½, 12¼	750-5,500	Variable	GHMWUmV
RSR619	M222	12¼	750-5,500	Variable	GHMWUmV
RSX319	M122	12¼	750-5,500	Variable	GHMWUmV
RSX419	M222	9¾, 12¼	750-5,500	Variable	GHMWUmV
RSX519	M222	8½, 12¼	750-5,500	Variable	GHMWUmV

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
RSX619	M322	8½, 9½, 12¼, 13½, 16, 17	750–5,500	Variable	GHMWUmV
SDX319	-	8½	750–5,500	Variable	GHMWUm
SDX419	-	8½, 9½, 12¼	750–5,500	Variable	GHMWUm
SDX519	-	12¼	750–5,500	Variable	GHMWUm
SDX619	-	12¼	750–5,500	Variable	GHMWUm
Smith Bits					
M316		6¼	400–2,000	60–600	GMNUmVW
M413	M121	3¾, 7¼, 8½	400–2,000	60–600	GMNUmVW
M416	M121	4¼, 4¾, 5¾, 5½, 6, 6¼, 6¾, 6½, 6¾, 7¼, 8½, 9½	400–2,000	60–600	GMNUmVW
M419	M121	6½–6¾, 7¼, 8½, 8¾, 8¾, 9¼, 9½, 9¾, 10½, 12, 12¼	400–2,000	60–600	GMNUmVW
M513	M223	4¼, 6, 6½, 6¾, 6½, 7¼, 8¾	400–2,000	60–600	GMNUmVW
M519	M223	6, 6½, 6¾, 7¼, 8½, 8¾, 8¾, 9½, 9¾, 11½, 12¼	400–2,000	60–600	GMNUmVW
M619	M223	7¼, 8½, 8¾, 8¾, 9¾, 9¾, 12, 12¼, 14½, 14¾, 16, 17½	400–2,000	60–600	GMNUmVW
MA619	M223	6½, 6¾, 6¾, 7¼, 7¾, 8½, 8¾, 8¾, 9¾, 9¾, 10½, 12¼, 13½, 14¾, 16, 17½	400–2,000	60–600	GMNUmVW
MAI413		6½	400–2,000	60–600	GMNUmVW
MAI513	M233	7¼, 8¾	400–2,000	60–600	GMNUmVW
MAI619	M223	8½	400–2,000	60–600	GMNUmVW
MASI513	M233	7¼, 8¾	400–2,000	60–600	GMNUmVW
MD519	M223	8½, 12¼, 14¾	400–2,000	60–600	GMNUmVW
MD619	M223	8½, 9½, 9¾, 12¼, 13½, 16, 17, 17½	400–2,000	60–600	GMNUmVW
MDA619	M223	12¼	400–2,000	60–600	GMNUmVW
MDI416	M123	6¾	400–2,000	60–600	GMNUmVW
MDI513	M233	5½, 6½, 6¾, 7¾, 8¾	400–2,000	60–600	GMNUmVW
MDI519	M223	8½, 8¾, 14	400–2,000	60–600	GMNUmVW
MDI619	M223	12¼, 14¾, 16, 17½	400–2,000	60–600	GMNUmVW
MDSI619		14¾	400–2,000	60–600	GMNUmVW
MI316		8½	400–2,000	60–600	GMNUmVW
MI413	M133	6½	400–2,000	60–600	GMNUmVW
MI416	M123	6¾, 6¾, 6¾, 7¾, 7¾, 8½	400–2,000	60–600	GMNUmVW
MI419	M121	6½, 8½, 9¾	400–2,000	60–600	GMNUmVW
MI513	M223	6¼, 6½, 7¼, 8¾	400–2,000	60–600	GMNUmVW
MI519	M123	8½, 8¾, 9¾, 12¼	400–2,000	60–600	GMNUmVW
MI619	M223	12¼, 17	400–2,000	60–600	GMNUmVW
MV513	M223	6¾, 6¾	400–2,000	60–600	GMNUmVW
QDS5219	S223	9¼ x 10¾, 12¼ x 14¾, 17½ x 18¾, 17 x 20, 16 x 20, 17 x 22, 17½ x 23	400–2,000	60–600	GMNUmVW
S413		3¾	400–2,000	60–600	GMNUmVW
S422	S121	5½, 6, 6½, 8¾, 8¾, 12¼	400–2,000	60–600	GMNUmVW
S519	S123	6¾, 8½, 10½, 12¼, 13½, 14¾, 15½, 16, 17, 17½	400–2,000	60–600	GMNUmVW
S522	S121	8½, 9½, 12¼, 16	400–2,000	60–600	GMNUmVW
S619	S223	8½, 12¼, 13½, 17½	400–2,000	60–600	GMNUmVW
SASI513		7¾	400–2,000	60–600	GMNUmVW
SD519	S123	16, 17½	400–2,000	60–600	GMNUmVW
SDI313		8½	400–2,000	60–600	GMNUmVW
SDI519		12¼, 1½	400–2,000	60–600	GMNUmVW
SI413		6½	400–2,000	60–600	GMNUmVW
SI419	S121	8½	400–2,000	60–600	GMNUmVW
SI619	S223	12¼, 13½	400–2,000	60–600	GMNUmVW
Tri-Max Industries					
Q-2	S644	8½–17½	1,000–2,000	80–200	DGM
S-1	S315	6–17½	1,000–3,000	80–200	DGM
S-1S	S315	6–17½	1,000–2,000	80–200	DGM
United Diamond and Uterra Drilling Technologies					
MS1344	M133	5½, 6¼, 6¾, 6¾, 6¾	300–2,000	60–250	GHMWV
MS1644	M134	6, 6½	300–2,000	60–250	GHMWV
MS1646	M123	7¼, 8½	300–2,000	60–250	GHMWV
MS1946	M223	8½, 9¾, 12¼	300–2,000	60–250	GHMWV
MS1946	M223	12¼	300–2,000	60–250	GHMWV
MS1957	M123	7¼, 8½, 8¾	300–2,000	60–250	GHMWV
MS1957	M223	12¼	300–2,000	60–250	GHMWV
United Diamond and Uterra Drilling Technologies					
EDGE 516	S222	6¼, 7¼, 8¾	500–2,000	80–600	MGVUIF
RR 516	S222	6¼, 7¼, 8¾, 8¾, 12¼	500–3,200	30–600	MGVUmF
UD419, UD425, UD525	S122	6¾, 8½, 9¾, 12¼	500–2,000	60–600	MGVUIF
Varel International Inc.					
VTD313	M233	3¾–6¾	500–2,500	50–400	DGWNQV
VTD316	M123	6–8¾	500–2,500	50–400	DGWNQV
VTD319	M223	7½–12¼	500–2,500	50–400	DGWNQV
VTD413	M223	3¾–8¾	500–2,500	50–400	DGWNQV
VTD416	M223	6–10¾	500–2,500	50–400	DGWNQV
VTD419	M223	7½–12¼	500–2,500	50–400	DGWNQV
Bi-center PDC drill bits					
NOV ReedHycalog					
CSDR4213	S133	5¼ x 6½, 6 x 7	3,000–3,500	60–200	GHMWUm
CSDX4208	S143	4¼ x 4¼, 4¼ x 4¾	3,000–3,500	60–200	GHMWUm
CSDX4213	S233	5¼ x 6½, 5¼ x 6¾, 6 x 7	3,000–3,500	60–200	GHMWUm
SBX4213	S422	6 x 7, 6½ x 7½, 6½ x 8	3,000–3,500	60–200	GHMWUm
SBX4216	S422	14¼ x 17½	3,000–3,500	60–200	GHMWUm
SBX4219	S422	10¼ x 12, 10¼ x 12¼, 14¼ x 17½	2,500–3,000	60–200	GHMWUm
SRR3408	S143	2½ x 3¼	2,500–3,000	60–200	DGKMWW
SRX3108	S133	5½ x 6¾, 5¼ x 6¾	3,000–3,500	60–200	GHMWUI
Casing/Liner PDC drill bits					
Hughes Christensen					
ECZ304	S233	6, 6½, 6½, 6¾, 8½, 9½, 12¼, 17½, 20, 20, 24	235–2,500	350–60	W
ECZ306	S333	6, 6½, 6½, 6¾, 8½, 9½, 12¼, 17½, 20, 20, 24	235–2,500	350–60	W
ECZ404	S233	6¾, 8½, 9¾, 12¼, 17½, 20, 24	235–2,500	350–60	W
ECZ406	S343	6¾, 8½, 9¾, 12¼, 17½, 20, 24	235–2,500	350–60	W
PDC coring bits					
Baker Hughes INTEQ					
ARC412	M354	4¾–12¼	400–2,000	50–500	VGMF
ARC422	M254	8½–12¼	850–1,250	50–500	VGMF
BHC606	M323	8½–12¼	400–2,000	50–200	F
BHC607	M323	12¼	400–2,000	50–200	F
Bit-Tech SPH, Inc.					
CP-440E	M342	7¼, 8½, 8¾	300–2,000	60–120	AFG
Dowdco					
C4-FD	S-X41	8½ x 4	300–2,000	40–75	FGMRUI
CP-31FD	M-131	6½ x 2½, 6½ x 2¾, 6¼ x 2¾, 6¼ x 2¾, 2½, 7½ x 3½, 7½ x 4, 8½ x 4, 8¾ x 4	300–2,000	50–200	FGMRUI
Halliburton Security DBS					
FC3443	M243	8½–12¼	250–3,500	50–150	F
FC3543	S333	7½–8½	250–3,500	50–150	F
FC3636	M434	4¾	200–1,500	50–150	F
FC3643	M233	6–12¼	250–3,500	50–150	F
FC3647	M233	6–12¼	250–3,500	50–150	F
FC3653	M233	6–12¼	250–3,500	50–150	F
FC3657	M233	6–12¼	250–3,500	50–150	F
FC3663	M233	6–12¼	250–3,500	50–150	F
FC3847	M233	6–12¼	250–3,500	50–150	F
FC3943A	S234	6–12¼	250–3,500	50–150	F
Varel International Inc.					
CT100	M232	5½–12¼	100–2,000	60–120	RSTGUI
C60	M232	5½–12¼	100–2,000	60–120	RSTGUI
CK54	M132	8½	100–2,000	60–120	RSTGUI
CK56	M232	7¼–8½	1,000–3,000	50–400	DGWNQV
CK74	M122	8½	100–2,000	60–120	RSTGUI
Surface set diamond coring bits					
Halliburton Security DBS					
CT103UF	M423	8½	250–3,500	50–150	F
Bit-Tech SPH, Inc.					
CN321BL	M613	6¾	300–2,000	60–120	AGMR
Soft-Medium					
Steel tooth roller cone bits					
Halliburton Security DBS					
QH7	337	9¾, 12¾	2,000–6,000	60–300	GMW
Hughes Christensen					
ATJ-4	216	4¾, 5½, 6, 6½	2,000–5,000	180–80	SW
ATJ-G4	217	7¼, 8¾	2,000–5,000	180–80	SW
Kingdream Public Limited Company					
FJT217	217	8½, 11½	2,000–6,000	300–60	CGL
GA214	214	5½, 6¼, 8¾, 8½, 11½, 12¼, 17½	1,000–4,000	200–80	CGL
GA215	215	12¼	1,500–4,000	200–80	CG
HA216	216	4¾, 4¾, 6, 6¾, 7¼, 8¾, 8¾	2,500–6,000	90–50	GL
HA217	217	5½, 5½, 5½, 6, 6¼, 6¼, 6¾, 7¼, 8¾, 8¾, 9¾, 11½, 12¼	2,500–6,000	100–50	CG
HAT217	217	5½, 6, 6¾, 6¾, 6½, 8½, 9¾	2,500–6,000	100–50	CG
W211	211	17½	1,500–4,000	200–80	
W221	221	6¾	1,000–4,000	260–60	
TIX Corporation					
MSS	131	5½, 6, 6¾, 6¾, 7¼, 7¾	1,500–4,000	60–130	
MSS	131	8¾, 8¾, 8¾, 8¾, 9, 9¾, 9¾, 9¾, 10½, 11, 11½, 12¼	1,500–5,000	60–130	
MSS	131	13¾, 13¾, 14¾, 15, 17½, 20, 22, 23, 24, 26	1,500–4,000	60–130	
MSS-TMZ	135	16, 17½	1,500–3,500	60–250	GM
MSS-TX	137	5½, 6, 7¾	2,000–4,000	60–120	BG
MSS-TX	137	8½, 9¾, 11½, 12¼	2,000–5,000	60–120	BG
MSS-TZ	135	8¾, 8¾, 9¾, 9¾, 10½, 11½	2,000–4,500	60–120	G
MSS-X	136	5½, 6, 6¾, 6¾, 7¾	2,000–4,000	60–120	B
MSS-X	136	8¾, 8¾, 8¾, 9¾, 9¾, 10½, 11½, 12, 12¼	2,000–5,000	60–120	B
MSS-X	136	15½, 17½	2,000–4,000	60–120	B
MSS-XZ	134	12¼	1,500–4,500	60–250	M
MSS-XZ	134	17½	1,500–3,500	60–150	G
MSS-Z	134	8¾, 8¾, 9¾, 9¾, 10½, 11½, 12¼	2,000–4,500	60–110	G
MSS-Z	134	17½	1,500–3,500	60–110	G
Tri-Max Industries					
TM121	121	6–17½	1,500–3,000	80–150	
TM124	124	6–17½	2,000–4,000	80–150	
TM125	125	6–17½	2,000–4,000	80–150	
TM126	126	6–17½	2,000–4,000	80–150	B
TM131	131	6–17½	2,000–3,000	80–150	
TM134	134	6–17½	1,500–4,000	80–150	
TM135	135	6–17½	2,000–4,000	80–150	
TM136	136	6–17½	2,000–4,000	80–150	
TM137	137	6–17½	2,000–5,000	80–150	B
Varel International Inc.					
CH2G	127S	7¼, 8¾, 8¾	2,000–6,000	160–70	GMW
CH3G	137S	8¾, 8¾, 11½, 12¼	2,000–6,000	180–80	GMW
CR3G	135S	16, 17½	2,000–6,000	180–80	CGMW
ETR3G	135S	12, 17, 23, 26	2,000–6,000	180–80	GW
L126	126S	6¼, 6½	2,000–6,000	160–70	S
L127	127S	6¾, 6¾	2,000–6,000	160–70	G
L131	131S	17½, 26	2,500–6,000	250–80	S
Insert roller cone bits					
Halliburton Security DBS					
QH18–QH23	517	5½, 5½, 6, 6¾, 6¼, 6¾, 6¾, 7¼, 7½, 8¾, 8¾, 8¾, 9¾, 9¾, 10½, 11½, 12¼			

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
XT34-XT39	545	14 3/4, 16, 17 1/2, 20, 22, 24, 26, 28	3,000-7,000	40-220	GMW	STX-30	537	3 3/4, 4 1/4, 5 1/4, 6 1/4, 7 1/4, 8 1/4, 9 1/4, 10 1/4, 11 1/4, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/4	2,000-5,000	250-80	GHW	HJ517	517	7 3/8, 8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/2, 13 1/2, 14 1/2, 15 1/2, 16 1/2, 17 1/2, 18 1/2, 19 1/2, 20 1/2, 21 1/2, 22 1/2, 23 1/2, 24 1/2, 25 1/2, 26 1/2, 27 1/2, 28 1/2	2,000-6,000	240-50	CGKL
Hughes Christensen						Kingdrem Public Limited Company						NOV ReedHycalog					
GT-20	517	7 3/8, 8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/2	2,000-6,000	120-50	W	STX-30C	537	4 1/4, 5 1/4, 6 1/4, 7 1/4, 8 1/4, 9 1/4, 10 1/4, 11 1/4, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/4	2,000-5,000	250-80	GHW	HJ517GX	517	9 1/2, 10 1/2, 11 1/2, 12 1/2, 13 1/2, 14 1/2, 15 1/2, 16 1/2, 17 1/2, 18 1/2, 19 1/2, 20 1/2, 21 1/2, 22 1/2, 23 1/2, 24 1/2, 25 1/2, 26 1/2, 27 1/2, 28 1/2	2,000-6,000	240-50	GX
GT-20C	527	7 3/8, 8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/2	2,000-6,000	120-50	WY	STX-35	547	4 1/2, 5 1/2, 6 1/2, 7 1/2, 8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/2, 13 1/2, 14 1/2, 15 1/2, 16 1/2, 17 1/2, 18 1/2, 19 1/2, 20 1/2, 21 1/2, 22 1/2, 23 1/2, 24 1/2, 25 1/2, 26 1/2, 27 1/2, 28 1/2	2,000-5,000	250-80	GHW	HJ527	527	8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/2, 13 1/2, 14 1/2, 15 1/2, 16 1/2, 17 1/2, 18 1/2, 19 1/2, 20 1/2, 21 1/2, 22 1/2, 23 1/2, 24 1/2, 25 1/2, 26 1/2, 27 1/2, 28 1/2	2,000-6,000	240-50	CGLY
GT-20S	517	8 1/2	2,000-6,000	120-50	W	XL-30A	547	6 1/4, 7 1/4, 8 1/4, 9 1/4, 10 1/4, 11 1/4, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/4	3,000-6,000	180-40	AC	HJ527GJL	527	8 3/4	2,000-6,000	240-50	GJL
GT-28	527	7 3/8, 9 1/2, 11, 12 1/4	2,000-5,000	110-40	W	Kingdrem Public Limited Company						HJ537	537	8 3/8, 9 1/2, 10 1/2, 11 1/2, 12 1/2, 13 1/2, 14 1/2, 15 1/2, 16 1/2, 17 1/2, 18 1/2, 19 1/2, 20 1/2, 21 1/2, 22 1/2, 23 1/2, 24 1/2, 25 1/2, 26 1/2, 27 1/2, 28 1/2	2,800-6,000	220-40	CGL
GT-28C	527	7 3/8, 9 1/2, 11, 12 1/4	2,000-5,000	110-40	W	FJ517	517	8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/4	2,000-6,000	300-60	CGL	HJ547	547	8 3/8, 9 1/2, 10 1/2, 11 1/2, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/2	2,800-6,000	220-40	CG
GT-30	537	7 3/8, 8 1/2, 9 1/2, 9 3/4	2,000-5,000	110-40	W	FJ517GX	517	9 1/2	2,000-6,000	300-60	GX	HJ5517	517	12 1/4	2,000-6,000	240-50	CGL
GT-30C	547	8 1/2	2,000-5,000	110-40	W	FJ547GY	547	12 1/4	2,000-6,000	300-60	GY	HJ5527	527	8 1/2	2,000-6,000	240-50	GL
GT-30H	547	8 1/2	2,000-6,000	120-50	W	FJ5517GL	517	8 1/2	2,000-6,000	300-60	GL	HJ5537	537	8 3/8, 9 1/2, 10 1/2, 11 1/2, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/2	2,800-6,000	220-40	GL
GTX-20	515	17 1/2, 22, 24, 26	3,000-5,500	120-40	Y	FJT527	527	8 1/2, 11 1/4, 12 1/4	2,000-6,000	300-60	GL	HJ5547GL	547	8 3/8	2,800-6,000	220-40	GL
GTX-20C	525	16	3,000-5,500	120-40	Y	FJT537	537	8 1/2, 11 1/4	2,000-6,000	300-60	CGL	HJT517	517	8 3/8, 8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/2	2,000-6,000	240-50	CGL
GTX-20G	527	23	3,000-5,500	120-40	Y	FJT547	547	8 1/2	2,000-6,000	300-60	CGLY	HJT527	527	8 3/8, 9 1/2, 10 1/2, 11 1/2, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/2	2,000-6,000	240-50	G
GTX-22	527	20	3,000-5,500	120-40	Y	FJT5517	517	8 1/2, 12 1/4	2,000-6,000	300-60	G	HJT537	537	8 3/8, 9 1/2, 10 1/2, 11 1/2, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/2	2,800-6,000	220-40	GL
GTX-30C	545	8 1/2	3,000-5,500	120-40	Y	GA515	515	13 1/4, 16, 17 1/2	1,500-4,500	200-80	CGL	HJ537GH	537	8 3/8, 8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/2	2,800-6,000	220-40	GL
GTX-30H	545	17 1/2	3,000-5,500	120-40	Y	GA525	525	17 1/2	1,600-4,500	200-80	GY	HJ537GX	537	12 1/4	2,800-6,000	220-40	GX
GTX-33	545	17 1/2	3,000-5,500	120-40	Y	GA535	535	11 1/4, 12 1/4, 14 3/4, 17 1/2	2,000-4,500	200-80	CGY	HJ547	547	8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/2	2,800-6,000	220-40	GLY
GX-20	527	7 3/8, 8 1/2, 9 1/4, 12 1/4	1,000-6,000	220-40	BGMW	GA545	545	12 1/4, 14 3/4, 17 1/2	2,000-4,500	200-80	CGY	HJ547GHY	547	8 1/2	2,800-6,000	220-40	GLY
GX-20C	527	7 3/8, 8 1/2	1,000-6,000	220-40	BGMW	GAT515	515	8 1/2, 13 3/4, 14 3/4, 17 1/2	1,500-4,500	200-80	CGL	MD515	515	14 3/4, 17 1/2	1,500-4,500	300-80	MD515
GX-20H	527	12 1/4	1,000-6,000	220-40	BGMW	GAT535	535	13 1/2, 13 3/4, 14 3/4, 16, 17 1/2	2,000-4,500	200-80	CG	MD517	517	6 3/8, 6 1/2, 7 1/4, 8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/2	2,000-6,000	300-60	GL
GX-22	527	7 3/8, 8 1/2	1,000-6,000	220-40	BGMW	GJ515	515	16, 17 1/2	1,500-4,500	280-80	CGLY	MD517HX	517	6 3/8, 6 1/2, 7 1/4, 8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/2	2,000-6,000	300-60	GLMX
GX-22S	527	7 3/8, 8 1/2, 8 3/4	1,000-6,000	220-40	BGMW	GJ535	535	8 1/2	2,000-4,500	280-80	CGY	MD517JX	517	8 3/8, 8 1/2	2,000-6,000	300-60	GJLXM
GX-23	527	7 3/8	1,000-6,000	220-40	BGMW	GJ535GH	535	16	2,000-4,500	280-80	G	MD527	527	6 3/8, 6 1/2, 7 1/4, 8 1/2, 9 1/2, 10 1/2, 11 1/2, 12 1/4, 13 1/4, 14 1/4, 15 1/4, 16 1/4, 17 1/4, 18 1/4, 19 1/4, 20 1/4, 21 1/4, 22 1/4, 23 1/4, 24 1/4, 25 1/4, 26 1/4, 27 1/4, 28 1/2	2,000-6,000	300-60	GLM
GX-25	527	7 3/8	1,000-6,000	220-40	BGMW	GJ545	545	8 1/2	2,000-4,500	280-80	CGL	MD535	535	14 3/4, 17 1/2	2,000-4,500	280-80	CGLM
GX-28	527	7 3/8, 8 1/2, 8 3/4, 12 1/4	1,000-6,000	220-40	BGMW	HA517	517	4 1/2, 4 3/4, 4 3/4, 4 3/4, 5 1/4, 6 1/4, 6 1/4, 6 1/4, 7 1/4, 7 1/4, 8 1/4, 8 1/4, 9 1/4, 9 1/4, 10 1/4, 10 1/4, 11 1/4, 11 1/4, 12 1/4, 12 1/4, 12 1/4, 13 1/4, 13 1/4, 14 1/4, 14 1/4, 15 1/4, 15 1/4, 16 1/4, 16 1/4, 17 1/4, 17 1/4, 18 1/4, 18 1/4, 19 1/4, 19 1/4, 20 1/4, 20 1/4, 21 1/4, 21 1/4, 22 1/4, 22 1/4, 23 1/4, 23 1/4, 24 1/4, 24 1/4, 25 1/4, 25 1/4, 26 1/4, 26 1/4, 27 1/4, 27 1/4, 28 1/2, 28 1/2, 29 1/4, 29 1/4, 30 1/4, 30 1/4, 31 1/4, 31 1/4, 32 1/4, 32 1/4, 33 1/4, 33 1/4, 34 1/4, 34 1/4, 35 1/4, 35 1/4, 36 1/4, 36 1/4, 37 1/4, 37 1/4, 38 1/4, 38 1/4, 39 1/4, 39 1/4, 40 1/4, 40 1/4, 41 1/4, 41 1/4, 42 1/4, 42 1/4, 43 1/4, 43 1/4, 44 1/4, 44 1/4, 45 1/4, 45 1/4, 46 1/4, 46 1/4, 47 1/4, 47 1/4, 48 1/4, 48 1/4, 49 1/4, 49 1/4, 50 1/4, 50 1/4, 51 1/4, 51 1/4, 52 1/4, 52 1/4, 53 1/4, 53 1/4, 54 1/4, 54 1/4, 55 1/4, 55 1/4, 56 1/4, 56 1/4, 57 1/4, 57 1/4, 58 1/4, 58 1/4, 59 1/4, 59 1/4, 60 1/4, 60 1/4, 61 1/4, 61 1/4, 62 1/4, 62 1/4, 63 1/4, 63 1/4, 64 1/4, 64 1/4, 65 1/4, 65 1/4, 66 1/4, 66 1/4, 67 1/4, 67 1/4, 68 1/4, 68 1/4, 69 1/4, 69 1/4, 70 1/4, 70 1/4, 71 1/4, 71 1/4, 72 1/4, 72 1/4, 73 1/4, 73 1/4, 74 1/4, 74 1/4, 75 1/4, 75 1/4, 76 1/4, 76 1/4, 77 1/4, 77 1/4, 78 1/4, 78 1/4, 79 1/4, 79 1/4, 80 1/4, 80 1/4, 81 1/4, 81 1/4, 82 1/4, 82 1/4, 83 1/4, 83 1/4, 84 1/4, 84 1/4, 85 1/4, 85 1/4, 86 1/4, 86 1/4, 87 1/4, 87 1/4, 88 1/4, 88 1/4, 89 1/4, 89 1/4, 90 1/4, 90 1/4, 91 1/4, 91 1/4, 92 1/4, 92 1/4, 93 1/4, 93 1/4, 94 1/4, 94 1/4, 95 1/4, 95 1/4, 96 1/4, 96 1/4, 97 1/4, 97 1/4, 98 1/4, 98 1/4, 99 1/4, 99 1/4, 100 1/4, 100 1/4, 101 1/4, 101 1/4, 102 1/4, 102 1/4, 103 1/4, 103 1/4, 104 1/4, 104 1/4, 105 1/4, 105 1/4, 106 1/4, 106 1/4, 107 1/4, 107 1/4, 108 1/4, 108 1/4, 109 1/4, 109 1/4, 110 1/4, 110 1/4, 111 1/4, 111 1/4, 112 1/4, 112 1/4, 113 1/4, 113 1/4, 114 1/4, 114 1/4, 115 1/4, 115 1/4, 116 1/4, 116 1/4, 117 1/4, 117 1/4, 118 1/4, 118 1/4, 119 1/4, 119 1/4, 120 1/4, 120 1/4, 121 1/4, 121 1/4, 122 1/4, 122 1/4, 123 1/4, 123 1/4, 124 1/4, 124 1/4, 125 1/4, 125 1/4, 126 1/4, 126 1/4, 127 1/4, 127 1/4, 128 1/4, 128 1/4, 129 1/4, 129 1/4, 130 1/4, 130 1/4, 131 1/4, 131 1/4, 132 1/4, 132 1/4, 133 1/4, 133 1/4, 134 1/4, 134 1/4, 135 1/4, 135 1/4, 136 1/4, 136 1/4, 137 1/4, 137 1/4, 138 1/4, 138 1/4, 139 1/4, 139 1/4, 140 1/4, 140 1/4, 141 1/4, 141 1/4, 142 1/4, 142 1/4, 143 1/4, 143 1/4, 144 1/4, 144 1/4, 145 1/4, 145 1/4, 146 1/4, 146 1/4, 147 1/4, 147 1/4, 148 1/4, 148 1/4, 149 1/4, 149 1/4, 150 1/4, 150 1/4, 151 1/4, 151 1/4, 152 1/4, 152 1/4, 153 1/4, 153 1/4, 154 1/4, 154 1/4, 155 1/4, 155 1/4, 156 1/4, 156 1/4, 157 1/4, 157 1/4, 158 1/4, 158 1/4, 159 1/4, 159 1/4, 160 1/4, 160 1/4, 161 1/4, 161 1/4, 162 1/4, 162 1/4, 163 1/4, 163 1/4, 164 1/4, 164 1/4, 165 1/4, 165 1/4, 166 1/4, 166 1/4, 167 1/4, 167 1/4, 168 1/4, 168 1/4, 169 1/4, 169 1/4, 170 1/4, 170 1/4, 171 1/4, 171 1/4, 172 1/4, 172 1/4, 173 1/4, 173 1/4, 174 1/4, 174 1/4, 175 1/4, 175 1/4, 176 1/4, 176 1/4, 177 1/4, 177 1/4, 178 1/4, 178 1/4, 179 1/4, 179 1/4, 180 1/4, 180 1/4, 181 1/4, 181 1/4, 182 1/4, 182 1/4, 183 1/4, 183 1/4, 184 1/4, 184 1/4, 185 1/4, 185 1/4, 186 1/4, 186 1/4, 187 1/4, 187 1/4, 188 1/4, 188 1/4, 189 1/4, 189 1/4, 190 1/4, 190 1/4, 191 1/4, 191 1/4, 192 1/4, 192 1/4, 193 1/4, 193 1/4, 194 1/4, 194 1/4, 195 1/4, 195 1/4, 196 1/4, 196 1/4, 197 1/4, 197 1/4, 198 1/4, 198 1/4, 199 1/4, 199 1/4, 200 1/4, 200 1/4, 201 1/4, 201 1/4, 202 1/4, 202 1/4, 203 1/4, 203 1/4, 204 1/4, 204 1/4, 205 1/4, 205 1/4, 206 1/4, 206 1/4, 207 1/4, 207 1/4, 208 1/4, 208 1/4, 209 1/4, 209 1/4, 210 1/4, 210 1/4, 211 1/4, 211 1/4, 212 1/4, 212 1/4, 213 1/4, 213 1/4, 214 1/4, 214 1/4, 215 1/4, 215 1/4, 216 1/4, 216 1/4, 217 1/4, 217 1/4, 218 1/4, 218 1/4, 219 1/4, 219 1/4, 220 1/4, 220 1/4, 221 1/4, 221 1/4, 222 1/4, 222 1/									

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb./in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb./in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb./in. diameter	Recommended rotary speed, rpm	Special features/usage	
F26YG	527Y	7%	2,000-7,000	220-50	Y	GFS20UB	517X	12 1/4	2,000-5,000	280-50	BGHMWX	Ulterra Drilling Technologies and United Diamond						
F27	527Y	11, 12 1/4	2,000-7,000	220-50	Y	GFS26	527X	12 1/4	2,000-5,000	280-50	BGHMWX	B27LRGSP	527Y	3 1/2, 3 3/4, 4 1/4, 4 3/4	2,000-5,000	120-240	AGHLM	1-roller cone
F27A	527Y	7%	2,000-7,000	220-50	AY	GFS26U	527X	12 1/4	2,000-5,000	280-50	BGHMWX	B37LRGSP	537Y	4 1/4, 4 3/4, 5 1/4, 5 3/4, 6, 6 1/4, 6 3/4, 6 1/2	2,500-5,500	120-240	AGHLM	1-roller cone
F27I	527Y	7%	2,000-7,000	220-50	Y	GFS28H	527X	12	2,000-5,000	280-50	BGHMWX	Z20	517X	7%	2,000-5,000	50-240	AGHLM	ACGHLM
F27IY	527Y	7%, 8%	2,000-7,000	220-50	Y	GFS30	537X	8 1/2	2,000-5,000	280-50	BGHMWX	Z20K	517Y	4%	2,000-5,000	50-240	AGHLM	
F27Y	527Y	11	2,000-7,000	220-50	Y	GFS30B	537X	12 1/4	2,000-5,000	280-50	BGHMWX	Z22	517X	8%	2,000-5,000	50-240	AGHLM	
F3	537X	8 1/2, 9 1/2, 11%, 12 1/4	2,500-6,000	220-50	X	GFSI28B	527X	12 1/4	2,000-5,000	280-50	BGHMWX	Z23	517X	7%, 8 3/4, 9%	2,000-5,000	50-240	AGHLM	
F30	537X	9%, 11%, 14%	2,500-6,000	220-50	X	GFSI28UB	527X	12 1/4	2,000-5,000	280-50	BGHMWX	Z23K	517Y	7%	2,000-5,000	50-240	AGHLM	
F30T	537X	8%	2,500-6,000	220-50	X	GS20B	515X	16, 17	1,000-5,000	300-50	BGHMWX	Z25	517X	7%, 8 3/4, 9%	2,000-5,000	50-240	AGHLM	
F30WVY	537Y	7%	2,500-7,000	220-50	Y	GS20SDB	515X	16	1,000-5,000	300-50	BGHMWX	Vareli International Inc.						
F30Y	537Y	7%, 8%	2,500-7,000	220-50	Y	GS26SDB	525X	16	1,000-4,000	300-50	BGHMWX	CH20	517X	9%	2,000-5,500	220-60	MW	
F37	547Y	9%, 10%, 11, 12 1/4	3,000-7,000	160-50	Y	GS30B	535X	18 1/2	1,000-5,000	300-50	BGHMWX	CH24	517X	3 1/2, 4, 4 1/4, 5%, 5 1/2, 6, 6 1/4, 7 1/2, 8 1/4, 11, 11 1/2, 12, 12 1/4	2,000-5,000	220-60	MW	
F37HU	547Y	8%	3,000-7,000	160-50	Y	GS30SDB	535X	16	1,000-5,000	300-50	BGHMWX	CH25	527Y	11, 12 1/4	2,000-5,000	220-60	MW	
F37HY	547Y	7%, 8 1/2, 8 3/4, 9	3,000-7,000	160-50	Y	GSI20B	515X	16	1,000-5,000	300-50	BGHMWX	CH26	527X	7%	2,000-5,500	220-60	MW	
F37Y	547Y	8 1/2, 9%, 11, 12 1/4	3,000-7,000	160-50	Y	MF05HB	517X	9%	2,000-5,000	250-50	BGHMWX	CH28	527X	6	2,000-5,000	220-60	MW	
F39HY	547Y	7%, 8%	3,000-7,000	160-50	Y	MF05WB	517X	9%	2,000-5,000	250-50	BGHMWX	CH29	527Y	11	2,000-5,000	220-60	MW	
F3W	537X	11%	2,500-6,000	220-50	X	MF15H	517X	10%	2,000-5,000	250-50	BGHMWX	CH29H	527Y	8%	2,000-5,000	220-60	MW	
FH16B	517X	8%	2,000-5,000	220-50	XW	MF20	517X	8%	2,000-5,000	250-50	BGHMWX	CH29V	527Y	12 1/4	2,000-5,000	220-60	MW	
FH16HB	517X	8%	2,000-5,000	220-50	XW	MF20B	517X	8%, 8 1/2	2,000-5,000	250-50	BGHMWX	CH31	537Y	8%, 11, 12 1/4	2,500-6,000	180-50	MW	
FH20	517X	7%, 8%	2,000-5,000	220-50	X	MF3	537X	9%	2,500-6,000	250-50	BGHMWX	CH33	537Y	7%	2,500-6,000	180-50	MW	
FH20B	517X	7%	2,000-5,000	220-50	XW	MF30B	537X	8%	2,500-6,000	250-50	BGHMWX	CH34	537X	4%, 4 1/2, 5%, 5 1/2, 6, 6 1/4, 7 1/4, 8 1/4, 8%, 8 1/2, 9%	2,000-6,000	180-50	MW	
FH23	517X	7%, 8 1/2, 8 3/4, 9%	2,000-5,000	220-50	X	MF30T	537X	8%, 8 1/2	2,500-6,000	250-50	BGHMWX	CH34V	537X	12 1/4	2,000-6,000	180-50	MW	
FH24Y	527Y	12 1/4	2,000-6,000	220-50	Y	MF37	547Y	8%, 8 1/2	2,500-6,000	250-50	BGHMWX	CH35	547Y	4%, 8 1/2	2,500-6,000	180-50	MW	
FH28	527X	7%, 8 1/2, 8 3/4, 9%	2,000-6,000	220-50	X	MFS20	517X	8%	2,000-5,000	250-50	BGHMWX	CH35A	547A	7%	2,500-6,000	180-50	AW	
FH28W	527X	8%	2,000-6,000	220-50	X	MFS30	537X	8%	2,500-6,000	250-50	BGHMWX	CH37	547Y	11	2,500-6,000	180-50	MW	
FH30	537X	7%, 8 1/2, 8 3/4, 9%	2,500-6,000	220-50	X	TCT20	517T	8%	1,000-5,000	250-50	BGHMTX	CH37A	547A	11	2,500-6,000	180-50	AW	
FH30U	537X	8%	2,500-6,000	220-50	X	TCT20Y	517T	8%	1,000-5,000	250-50	BGHMTX	CH38	547X	8%	2,500-6,000	180-50	MW	
FH30UB	537X	8%	2,500-6,000	220-50	XW	TCTI20	517T	7%	1,000-5,000	250-50	BGHMTX	CH39	547Y	12 1/4	2,500-6,000	180-50	MW	
FH32	537X	8%, 9%	2,500-6,000	220-50	X	TCTI37Y	547T	8%	1,000-5,000	250-50	BGHMTY	CH39A	547Y	12 1/4	2,500-6,000	180-50	MW	
FH35	547X	7%, 8 1/2, 8 3/4, 9%	2,500-6,000	220-50	X	XR20	517X	4%, 5 1/2, 6 1/4, 6 1/2	2,000-5,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH35Y	547Y	7%	2,500-7,000	160-50	Y	XR20B	517X	6%	2,000-5,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH420	517X	7%, 8%	2,000-5,000	220-50	X	XR20HT	517X	6, 6 1/2	2,000-5,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH420B	517X	8%	2,000-5,000	220-50	XW	XR20T	517X	5 1/2, 6, 6 1/4, 6 1/2	2,000-5,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH421	517X	7%, 8%	2,000-5,000	220-50	X	XR20TY	527Y	6	2,000-5,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH421B	517X	7%, 8%	2,000-5,000	220-50	XW	XR20WT	517X	6%	2,000-5,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH421H	517X	7%	2,000-5,000	220-50	X	XR20Y	527Y	3%	2,000-5,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH423	517X	7%, 8 1/2, 8 3/4, 9%	2,000-5,000	220-50	X	XR20YDD	527Y	3%	2,000-5,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH423B	517X	8%	2,000-5,000	220-50	XW	XR25	517X	6%	2,000-5,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH423U	517X	7%, 8%	2,000-5,000	220-50	X	XR25T	517X	6%	2,000-5,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH424Y	527Y	7%	2,000-6,000	220-50	Y	XR30	537X	4%, 4 1/2, 4 3/4, 4 1/2, 5 1/2, 6 1/4	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH425	527X	8%	2,000-6,000	220-50	X	XR30T	537X	5%, 5 1/2, 6, 6 1/4, 6 1/2	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH425B	527X	8%	2,000-6,000	220-50	XW	XR30TY	547Y	6, 6 1/2, 6 1/2	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH426	527X	7%	2,000-6,000	220-50	X	XR30WT	537X	6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH428	527X	7%, 8 1/2, 8 3/4	2,000-6,000	220-50	X	XR30Y	547Y	3%, 4%, 4 1/4, 4 1/2	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH428W	527X	8%	2,000-6,000	220-50	X	XR30YA	547Y	6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH429	527X	8%	2,000-6,000	220-50	X	XR32T	537X	6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH430	537X	7%, 8%	2,500-6,000	220-50	X	XR32WT	537X	6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH430B	537X	8%	2,500-6,000	220-50	XW	XR35	547X	6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH430Y	537Y	7%	2,500-7,000	220-50	Y	XR35Y	547Y	5%, 6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH431	537X	7%, 8%	2,500-6,000	220-50	X	XR30	517X	6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH435	547X	7%, 8%	2,500-6,000	220-50	X	XR30Y	547Y	3%, 4%, 4 1/4, 4 1/2	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH437HY	547Y	8%	3,000-7,000	160-50	Y	XR32T	537X	6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
FH438Y	547Y	7%, 8%	3,000-7,000	160-50	Y	XR32WT	537X	6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
G20	515X	15 1/2	1,000-4,000	300-50	BGHMWX	XR35	547X	6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
G20B	515X	12 1/4	1,000-4,000	300-50	BGHMWX	XR35Y	547Y	5%, 6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
G25	515X	14 3/4	1,000-4,000	300-50	BGHMWX	XR30	517X	6%	2,000-6,000	300-50	BGHMTX	CR34	547Y	12 1/4	2,500-6,000	180-50	MW	
G25SD	515X	14 3/4																

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
FM2461/ FM3461 FMF3461/ FMH3461/ FMR3461	M221	9%	500-2,000	60-400	MVV	D613	M-232	7%, 8½, 8%	250-3,000	60-350	DGHMVV	FM2745/ FM3745 FMF3745/ FMH3745/ FMR3745	M433	7%, 8%, 8½, 8¾, 9½, 10½, 10%	500-2,500	60-400	MVV
FM2463/ FM3463 FMF3463/ FMH3463/ FMR3463	M421	6%	500-2,000	60-400	MVV	D619	M-223	7%, 8½, 8%, 9%, 12¼	250-3,000	60-350	DGHMVV	FM2753/ FM3753 FMF3753/ FMH3753/ FMR3753	M323	12¼	500-2,500	60-400	MVV
PDC drill bits						D719	M-223	7%, 8½, 8%, 9%, 12¼	250-3,000	60-350	DGHMVV	FM2765/ FM3765 FMF3765/ FMH3765/ FMR3765	M324	12¼	500-2,500	60-400	MVV
Diamant Drilling Services S.A.						Halliburton Security DBS						FM2841/ FM3841 FMF3841/ FMH3841/ FMR3841	M433	8%, 8½	500-2,500	60-400	MVV
MDL413	M431	6%	1,000-4,000	50-450	H	FM2443/ FM3443 FMF3443/ FMH3443/ FMR3443	M333	6, 6½	500-2,500	60-400	MVV	FM2846/ FM3846 FMF3846/ FMH3846/ FMR3846	M423	12¼	500-2,500	60-400	MVV
MDL439	M123	8½	1,000-4,000	50-450	H	FM2445/ FM3445 FMF3445/ FMH3445/ FMR3445	M334	6	500-2,000	60-400	MVV	FM2865/ FM3865 FMF3865/ FMH3865/ FMR3865	M423	12¼	500-2,500	60-400	MVV
MDL543	M433	8½	1,000-4,000	50-450	H	FM2461/ FM3461 FMF3461/ FMH3461/ FMR3461	M222	12¼	500-2,000	60-400	MVV	FM2885/ FM3885 FMF3885/ FMH3885/ FMR3885	M423	12¼	500-2,500	60-400	MVV
MDL629	M422	8½, 12¼	1,000-4,000	50-450	H	FM2545/ FM3545 FMF3545/ FMH3545/ FMR3545	M333	8¾, 9%	500-2,500	60-400	MVV	FM2934/ FM3934 FMF3934/ FMH3934/ FMR3934	M333	9%, 12, 12¼, 14¾	500-2,500	60-400	MVV
MDL639	M422	8½	1,000-4,000	50-450	H	FM2546/ FM3546 FMF3546/ FMH3546/ FMR3546	M433	7%	500-2,500	60-400	MVV	FS2743/ FSF2743	S243	12¼	500-2,000	60-400	MVV
MDM439	M323	8½	1,000-4,000	50-450	H	FM2631/ FM3631 FMF3631/ FMH3631/ FMR3631	M442	6	500-2,000	60-400	MVV	FS2863/ FSF2863	S223	16, 17½	500-2,000	60-400	MVV
MDM460	M433	3¾	1,000-4,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M443	6½, 6¼, 6½, 6¾	500-2,000	60-400	MVV	FS2963/ FSF2963	S223	16	500-2,000	60-400	MVV
MDM549	M433	6	1,000-4,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M232	6, 6½	500-2,500	60-400	MVV	HZ23-1	M342	3½, 3¾, 4¼, 4¾, 4¾	500-2,500	80-450	HM
MDM559	M433	8½	1,000-4,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M332	6½	500-2,500	60-400	MVV	HZ23-2	M232	5¾, 6, 6½, 6¾, 6¾, 8½	500-2,500	80-450	HM
MPL529	M322	8½	1,000-4,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M432	6¾	500-2,500	60-400	MVV	SE3631	M433	5½-6¾	200-2,000	60-400	DVV
MPL539	M222	12¼	1,000-4,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M432	6¾	500-2,500	60-400	MVV	SE3641	M432	5¾-8¾	200-2,000	60-400	DVV
MPL543	M433	6%	1,000-4,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M432	6¾	500-2,500	60-400	MVV	SE3641A	S433	8½	500-2,000	60-400	DVV
MPL549	M422	6	1,000-4,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M432	6¾	500-2,500	60-400	MVV	SE3643	M432	5¾-8½	200-2,000	60-400	DVV
MPL559	M422	8½	1,000-4,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M432	6¾	500-2,500	60-400	MVV	SE3651A	S433	8½	500-2,000	60-400	DVV
MPL579	M442	6%	1,000-4,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M432	6¾	500-2,500	60-400	MVV	SE3653	M223	8½, 12¼	500-2,000	60-400	DVV
MPM410	M431	3¾	1,000-4,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M432	6¾	500-2,500	60-400	MVV	SE3661	M422	8½	500-2,000	60-400	DVV
MPM529	M322	12¼	1,000-3,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M432	6¾	500-2,500	60-400	MVV	SE3662	M433	12¼	500-2,000	60-400	DVV
MPM539	M222	12¼	1,000-3,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M432	6¾	500-2,500	60-400	MVV	SE3663	M433	12¼	500-2,000	60-400	DVV
MPM543	M332	8½	1,000-4,000	50-450	H	FM2641/ FM3641 FMF3641/ FMH3641/ FMR3641	M432	6¾	500-2,500	60-400	MVV	SE3663A	S323	12¼	500-2,000	60-400	DVV
SDL529	S222	12¼	1,000-3,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M333	7%, 8%	500-2,500	60-400	MVV	HC305	M343	3¾-17½	235-2,500	350-50	DGVW
SDL619	S121	14¾, 17½, 18	1,000-3,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M333	7%, 8%	500-2,500	60-400	MVV	HC403	M233	3½-12¼	235-2,500	350-50	DGVW
SDM629	S322	10¾, 16	1,000-3,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M333	7%, 8%	500-2,500	60-400	MVV	HC404	M233	3-17½	235-2,500	350-50	DGVW
SHL529	S222	12¼	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M333	7%, 8%	500-2,500	60-400	MVV	HC405	M333	3¾-17½	235-2,500	350-50	DGVW
SPC683	S333	6	1,000-4,500	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	HC503ZX	M223	3½-12¼	235-2,500	350-50	DGVW
SPC783	S424	6	1,000-4,500	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	HC504Z	M223	3-17½	235-2,500	350-50	DGVW
SPH549	S323	9%	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	HC505	M323	3¾-17½	235-2,500	350-50	DGVW
SPH623	S432	6, 6½, 8½, 12¼	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	HC603ZX	M223	3-17½	235-2,500	350-50	DGVW
SPH629	S322	6, 6½, 8½, 8¾, 9%, 10%, 12¼, 16, 17½	1,000-3,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	HC604Z	M323	3¾-17½	235-2,500	350-50	DGVW
SPL526	S322	8½, 12¼	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	HC604ZX	M323	3¾-26	235-2,500	350-50	DGVW
SPL529	S222	12¼, 17½	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	HC605	M323	3¾-17½	235-2,500	350-50	DGVW
SPL533	S233	6%	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	HCD404	M233	3-17½	235-2,500	350-50	DGMVV
SPL539	S222	12¼	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	HCD405	M333	3¾-17½	235-2,500	350-50	DGMVV
SPL549	S323	6%	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	HCD505	M323	3¾-17½	235-2,500	350-50	DGMVV
SPL559	S323	6%	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	HCD605	M323	3¾-17½	235-2,500	350-50	DGMVV
SPL579	S424	6%	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%	500-2,500	60-400	MVV	NOV Reedhycal					
SPL612	S121	17½	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV	DSR408	M144	6½	750-5,500	Variable	GHMWUm
SPL613	S232	8½, 17½	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV	MSX619	M422, S222	12¼	1,000-6,000	Variable	GHMWUmV
SPL616	S321	17½	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV	ST1013	S132	5½, 6, 12, 12¼	1,000-3,000	Variable	GHMWUm
SPL619	S121	9%, 16, 16½, 17½, 22	1,000-3,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV	ST613	S132	6½, 6¾	1,000-3,000	Variable	GHMWUm
SPL629	S222	12¼	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV	ST711	M232, S132	6½, 6¾	1,000-3,000	Variable	GHMWUm
SPL633	S332	8½	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV	Smith Bits					
SPL639	S322	7%, 8½, 8¾, 11, 12¼	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV	HGX516	M223	7%, 12¼	400-2,000	60-600	GMNUmVW
SPL643	S332	6, 6¾	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV	M516	M223	5½, 6, 6½, 6¾, 6¾, 6¾, 7½, 8½, 8¾, 8¾, 9%, 11¾, 12, 12¼, 13¾, 14¾, 16	500-3,000	60-600	GMNUmVW
SPM559	S423	8½	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV						
SPM613	S332	8½	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV						
SPM619	S121	17½	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV						
SPM623	S432	8½, 10%, 12¼	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV						
SPM629	S322	6¾, 8½, 8¾, 10%, 12¼, 14¾, 18½	1,000-4,000	50-450	H	FM2645/ FM3645 FMF3645/ FMH3645/ FMR3645	M423	7%, 8½, 8%	500-2,500	60-400	MVV						
SPM629	S422</																

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
MDI516	M223	6", 8½"	500-3,000	60-600	GMNRSTum VW
MDI719	M323	8½, 10½, 12¼, 14½"	500-3,000	60-600	GMNRSTU IWW
MI516	M123	6½, 6¾, 7½, 8½, 8¾, 12¼"	500-3,000	60-600	GMNUmVW
MSI416	M221	7½, 8¾"	500-3,000	60-600	GMNUHVW
MSI513	M333	7¾"	500-3,000	60-600	GMNUHVW
MSI519	M223	8¾, 12¼"	500-3,000	60-400	GMNUHVW
QDG5216	S223	8½ x 9½, 10½ x 12¼, 12¼ x 14¾, 14¾ x 17¼, 16 x 20"	200-3,000	60-600	GMNUmVW
QDG5316	S243	7"	500-3,000	60-600	GMNUmVW
QDM5216	S223	9"	200-3,000	60-600	GMNUmVW
QDR5316	S223	12¼ x 13¼, 12¼ x 13½"	200-3,000	60-600	GMNUmVW
QDR5319	S223	19"	500-3,000	60-600	GMNUmVW
QDS5216	S223	8¾ x 9, 8½ x 9½, 9½ x 11¾, 10½ x 12¼, 12¼ x 14¾, 13½ x 16, 14½ x 16, 14½ x 17½"	200-3,000	60-600	GMNUmVW
S516	S222	8½, 12¼"	500-3,000	60-400	GMNUmVW
S719	S223	12¼, 16"	500-3,000	60-400	GMNUmVW
SDI416	S222	6"	500-3,000	60-600	GMNUmVW
SDI516	S222	9"	500-3,000	60-600	GMNUmVW
SI516	S222	12¼"	500-3,000	60-600	GMNUmVW
SI519	S123	8½, 12¼"	500-3,000	60-600	GMNUmVW
SI719	S123	16"	500-3,000	60-600	GMNUmVW
Tri-Max Industries					
HZ-90	S974	4½-12¼"	500-3,000	100-400	GHM
Q-1	S545	5½-17½"	1,000-4,000	85-250	DGM
Q-1L	S544	6-17½"	1,000-3,000	85-250	DG
S-1H	S316	7½-17½"	1,000-4,000	85-250	DGM
S645	S645	6-17½"	1,000-4,000	85-300	GM
Utterra Drilling Technologies and United Diamond					
MS1166	M143	4¾"	300-2,000	60-250	GHMWW
MS1355	M133	6, 6½, 6¾, 6½, 6¾, 6¾"	300-2,000	60-250	GHMWW
MS1355	M233	7½, 8½, 8¾"	300-2,000	60-250	GHMWW
MS1655	M223	6, 6½, 6¾, 6½, 6¾, 7½, 8½, 8¾"	300-2,000	60-250	GHMWW
MS1657	M223	8½, 8¾, 12¼"	300-2,000	60-250	GHMWW
United Diamond and Utterra Drilling Technologies					
EDGE 516	S222	6¼, 7½, 8¾"	500-2,000	80-600	MGVUIF
RR 516	S222	6¼, 7½, 8½, 8¾, 9½, 11, 12¼"	500-3,200	60-600	MGVUIF
UD425	S122	8½, 9½, 12¼"	500-2,000	60-600	MGVUIF
UD525	S222	3¾, 3¾, 4¼, 4¼, 4½, 4¾, 4¾, 5¾, 5¾, 6, 6¾, 6¾, 6¾, 6¾, 7½, 8½, 8¾, 9½, 9½, 10½, 12¼, 13¾, 17½"	500-4,000	30-600	MGVUmHF
UD513	S232	3¾, 3¾, 4¼, 4¼, 4½, 4¾, 4¾, 5¾, 5¾, 6, 6¾, 6¾, 6¾, 7½, 8½, 8¾, 9½, 9½, 10½, 12¼, 13¾, 17½"	500-4,000	30-600	MGVUmHF
UD516	S222	6, 6½, 6¾, 6¾, 7½, 8½, 8¾, 9½, 12, 12¼, 14¾"	500-3,500	60-600	MGVUmHF
UD519	S122	6, 6½, 6¾, 7½, 8½, 8¾, 9½, 9½, 12¼, 16, 17½"	500-2,500	60-600	MGVUmF
Varel International Inc.					
VB516	M323	6-17½"	500-3,000	50-400	DGWNQV
VM513	M233	4¾-12¼"	500-3,000	50-400	DGWNQV
VM516	M323	6-17½"	500-3,000	50-400	DGHMWNQV
VM519	M223	7½-17½"	500-3,000	50-400	DGHMWNQV
VRP516	M323	6-17½"	500-3,000	50-400	DGHWN-QRSTV
VTD413P	M223	4¾-8¾"	500-2,500	50-400	DGWNQV
VTD416P	M223	6-12¼"	500-2,500	50-400	DGWNQV
VTD513	M233	4¾-12¼"	500-3,000	50-400	DGWNQV
VTD516	M323	6-17½"	500-3,000	50-400	DGWNQV
VTD519	M223	7½-17½"	500-3,000	50-400	DGWNQV
Bi-center PDC drill bits					
Drill Master, Inc.					
DM519919	M424	12½ x 10½"	200-1,700	60-400	RSTMWUm
Downco					
BC-374	M-234	3¾ x 4¾ x 5½"	250-2,500	60-350	DGHMWW
BC-475	M-144	3¾ x 3¾ x 4¾"	250-2,500	60-350	DGHMWW
NOV ReedHycalog					
CSDR5211	S433	5¾ x 6½, 6 x 7"	3,000-3,500	60-200	GHMWUm
CSDR5213	S333	6½"	3,000-3,500	60-200	GHMWUm
CSDR5311	S333	6½ x 7½"	3,000-3,500	60-200	GHMWUm
CSDX3208	S433	2½ x 3¼"	3,000-3,500	60-200	GHMWUm
CSDX3211	S433	4¾ x 5½"	3,000-3,500	60-200	GHMWUm
CSDX5208	S233	4¾"	3,000-3,500	60-200	GHMWUm
CSDX5211	S333	5¾ x 6½, 6 x 7"	3,000-3,500	60-200	GHMWUm
CSDX5213	S233	6½ x 7½, 8¾ x 9½"	3,000-3,500	60-200	GHMWUm
SBR5213	S443	8½ x 9¾"	3,000-3,500	60-200	GHMWUm
SBX4208	S443	6 x 7, 6½ x 7½"	3,000-3,500	60-200	GHMWUm

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
SRX3208	S143	3¾ x 4, 4½ x 5, 4½ x 5¾"	3,000-3,500	60-200	GHMWUm
SRX3408	S143	2½ x 3¼"	3,000-3,500	60-200	GHMWUW
SRX3508	S233	3¾ x 4¾"	3,000-3,500	60-200	GHMWUW
SRX3611	M243	3¾ x 4¾"	3,000-3,500	60-200	GHMWUW
Casing/Liner PDC drill bits					
Hughes Christensen					
ECZ304	S233	6, 6½, 6¾, 6¾, 8½, 9½, 12¼, 17½, 20, 24"	235-2,500	350-60	W
ECZ306	S333	6, 6½, 6¾, 6¾, 8½, 9½, 12¼, 17½, 20, 24"	235-2,500	350-60	W
ECZ404	S233	6¾, 8½, 9½, 12¼, 17½, 20, 24"	235-2,500	350-60	W
ECZ406	S343	6¾, 8½, 9½, 12¼, 17½, 20, 24"	235-2,500	350-60	W
Ream while drilling					
Hughes Christensen					
RWD 2	M233	9¾ x 8½, 12¼ x 10½, 13¾ x 12¼, 14¾ x 12¼, 17 x 14½, 20 x 17"	200-3,000	200-50	DGMWV drill-out
RWD 2S	M233	3 x 2¾, 4½ x 3¾, 6½ x 5¾, 6¾ x 5¾, 5¾ x 7, 6, 7¼ x 6, 7½ x 6½, 8 x 6¾, 9½ x 8¾, 12¼ x 10½, 13¾ x 12¼, 17 x 14½, 20 x 17"	200-3,000	200-50	DGHMWW drill-out steerable
RWD 2ST	M233	3 x 2¾, 4½ x 3¾, 6½ x 5¾, 6¾ x 5¾, 5¾ x 7, 6, 7¼ x 6, 7½ x 6½, 8 x 6¾, 9½ x 8¾, 12¼ x 10½, 13¾ x 12¼, 17 x 14½, 20 x 17"	200-3,000	200-50	DGHMWW drill-out slimhole
PDC coring bits					
Baker Hughes INTEQ					
ARC412	M354	4¾-12¼"	400-2,000	50-500	VGMF
ARC413	M354	4¾-12¼"	400-2,500	50-500	VGMF
BHC405	M333	4¾-12¼"	400-2,000	50-500	DGHF
BHC406	M333	4¾ x 12¼"	300-2,400	50-500	VGMFR
Bit-Tech SPH, Inc.					
CP-440-BU	M232	7½, 8½, 8¾"	300-2,000	50-500	AFGMWV
CP-440-BU	M342	6, 6½"	300-2,000	50-500	AFGMWV
Downco					
CP-38	M-133	7½ x 4, 8½ x 4, 8½ x 4, 8¾ x 4"	2,000-5,500	50-200	FGMRUm
CP-43	M-442	5½ x 2½, 6½ x 2½, 6½ x 2½, 6½ x 3½, 6½ x 3½, 6½ x 3½, 6½ x 3½, 6½ x 3½, 6½ x 4, 8½ x 4, 8¾ x 4"	2,000-5,500	50-200	FGMRUm
Halliburton Security DBS					
CD 93	M233	6-12¼"	250-3,500	80-140	F
CMP107	M343	8½-12¼"	250-2,000	50-150	F
FC3643	M343	8½-12¼"	250-3,500	50-150	F
FC3643	M343	8½-12¼"	250-2,000	50-150	F
FC3647	M343	8½-12¼"	250-3,500	50-150	F
FC3737	M343	8½"	250-2,000	50-150	F
FC3747	M432	8½"	250-2,000	50-150	F
FC3847	M432	8½"	250-2,000	50-150	F
FC9337	M432	8½"	250-2,000	50-150	F
Varel International Inc.					
CK57	M332	6-8½"	1,000-3,000	50-400	DGWNQV
Surface set diamond coring bits					
Bit-Tech SPH, Inc.					
CG-300	M623	6, 6½, 6¾, 7½, 8¾"	400-2,500	50-500	AGIKM
CN-332	M713	6, 6½, 6¾, 6¾, 7½, 8¾"	400-2,500	60-120	AGMR
CN-402	M712	6, 6½, 6¾, 7½, 8¾"	400-2,500	50-500	AGKM
Halliburton Security DBS					
CT103	M613	6-12¼"	250-3,500	80-140	F
CT103UF	M423	8½-12¼"	250-3,500	80-140	F
Surface set diamond bits					
Bit-Tech SPH, Inc.					
DN-302	M713	4½-4¾, 5½-6½"	300-3,500	Variable	Custom
DN-332	M713	4½-4¾, 5½-6¾"	300-3,500	Variable	Custom
DN-422	M712	1¾, 1¾, 2¼, 2¼, 2¾, 3¾, 4½, 4¾, 6, 6½, 6¾, 6¾, 6¾"	300-3,500	60-600	ADGHMNR
Medium Steel tooth roller cone bits					
Hughes Christensen					
ATJ-4	216	4¾, 5½, 6, 6½"	2,000-5,000	180-80	SW
ATJ-G4	217	7½, 8¾"	2,000-5,000	180-80	SW
R7	321	6½, 8½, 12¼"	2,000-5,000	250-60	S

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
Kingdrem Public Limited Company					
HA317G	317	5", 8½, 8¾"	2,500-7,000	80-50	G
HA337G	337	8½, 9½, 12¼"	4,000-7,000	70-40	CG
TIIX Corporation					
MS	211	5½, 5½, 6, 6½, 6¾, 7½, 7½, 7½"	2,000-4,000	60-120	
MS	211	8½, 8½, 8½, 8¾, 9, 9½, 9½, 9½, 10½, 11, 11½, 12, 12¼"	2,000-5,000	60-120	
MS	211	13¾, 13¾, 14¾, 15, 15½, 17½, 20, 22, 23, 24, 26"	2,000-4,000	60-120	
MS-TMZ	215	16, 17½"	2,000-4,000	60-250	GM
MS-TX	217	5½, 6, 6¾, 7½"	2,000-4,000	50-110	BG
MS-TX	217	8½, 9½, 11½, 12¼"	2,000-5,000	50-110	BG
MS-TZ	215	8½, 8½, 9½, 9½, 11½, 12¼"	2,500-5,000	60-100	G
MS-X	216	5½, 5½, 6, 6½, 6¾, 7½, 7½, 7½"	2,000-4,000	50-110	B
MS-X	216	8½, 8½, 8½, 8¾, 9½, 9½, 9½, 11½, 12, 12¼"	2,000-5,000	50-110	B
MS-XZ	214	12¼"	2,000-5,000	60-250	M
MS-XZ	214	17½"	2,000-4,000	60-150	
MS-Z	214	8½, 8½, 8¾, 9½, 9½, 9½, 10½, 11½, 12, 12¼"	2,000-5,000	60-100	
MS-Z	214	15, 17½"	2,000-4,000	50-100	
Tri-Max Industries					
TM211	211	6-17½"	2,000-4,000	60-120	
TM214	214	6-12¼"	2,000-4,000	60-120	
TM215	215	6-12¼"	2,000-4,000	60-150	
TM216	216	6-12¼"	2,000-4,000	60-150	
TM217	217	4½-12¼"	2,000-4,000	60-120	
Insert roller cone bits					
Halliburton Security DBS					
QH40-QH45	617	6, 6½, 6¾, 6¾, 7½, 8½, 8½, 8¾, 9½, 11½, 12¼"	3,000-7,000	40-220	GMW
QH46-QH51	627	6, 6½, 6¾, 6¾, 8¾, 12¼"	3,500-7,000	40-150	GMW
QH52-QH58	637	6, 6½, 7½, 8¾, 8½, 12¼"	4,000-7,000	40-140	GMW
QH61-69	647	6, 6½, 7½, 8½, 8¾, 9½, 11½, 12¼"	4,000-7,000	40-140	GMW
XS40-XS45	617	4¾, 5½, 6, 6¾, 6¾, 6¾, 6¾, 6¾, 7½, 8½, 8½, 8¾, 9½, 10½, 12¼"	3,000-7,000	40-220	GMW
XT40-XT45	615	14¾, 16, 17½, 20, 22, 24, 26, 28"	3,000-7,000	40-220	GMW
XT46-XT51	625	14¾, 16, 17, 17½, 20, 20, 22, 24, 26, 28"	3,500-7,000	40-150	GMW
Hughes Christensen					
GTX-40C	615	17½"	1,000-6,000	220-50	GW
GX-44C	617	7½, 8½, 8¾, 12¼"	1,000-6,000	220-50	GW
GX-44C	627	7½, 8½, 8¾, 9½, 11, 12¼"	1,000-6,000	220-50	GW
GX-44G	617	8½, 8¾, 11½"	1,000-6,000	220-50	GW
GX-45C	617	7½, 8¾"	1,00		

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	
HA617	617	4%, 4%, 4%, 5%, 5%, 6, 6%, 6%, 6%, 6%, 7%, 7%, 8%, 8%, 8%, 9%, 9%, 9%, 12%	3,000-6,000	80-40	CGLY	GF47HY	627Y	12%	3,000-7,000	280-50	BGHMY	MDM733	M432	8%	1,000-4,000	50-450	UH	
HA627	627	7%, 8%, 8%, 8%, 9%, 12%	3,000-6,000	80-40	CGLY	GF47Y	617Y	12%	3,000-7,000	280-50	BGHMY	MPH623	M432	6, 6%, 7, 8%, 12%	1,000-4,000	50-450	UH	
HA627GH	627	8%	3,000-6,000	80-40	G	GF47Y	617Y	12%	3,000-7,000	280-50	BGHMY	MPH629	M422	8%, 12%	1,000-4,000	50-450	UH	
HAS617G	617	6%, 6%, 7%, 8%, 8%	3,000-6,000	80-40	GLY	GF45	617X	8%, 12%	3,000-6,500	280-50	BGHMX	MPH636	M422	8%	1,000-4,000	50-450	UH	
HAS627GLY	627	6%, 7%, 8%, 8%	3,000-6,000	80-40	GLY	MF45H	617X	7%	2,500-6,000	250-50	HMX	MPH639	M322	12%	1,000-3,000	50-450	UH	
HAT617G	617	4%, 4%, 4%, 5%, 5%, 5%, 5%, 6, 6%, 6%, 6%, 7%, 7%, 7%, 8%, 8%, 9%, 12%	3,000-6,000	80-40	GLY	MF47	617Y	8%	2,500-6,000	250-50	HMY	MPH649	M222	12%	1,000-3,000	50-450	UH	
HF615GH	615	12%	2,000-4,500	220-50	G	MF4H	617X	7%	2,500-6,000	250-50	HMX	MPL613	M431	6	1,000-4,000	50-450	UH	
HF617	617	6, 6%, 6%, 7%, 8%, 9%, 9%, 10%, 12%	3,000-6,000	80-40	CGLSY	XR38	617X	6%	2,000-6,000	270-40	HMX	MPL626	M422	8%	1,000-4,000	50-450	UH	
HF617H	617	6%, 6, 6%, 6%, 7%, 8%, 9%, 9%, 10%, 12%	3,000-6,000	80-40	GL	XR40	617X	4%, 6, 6%, 6%, 6%, 6%	2,000-6,000	270-40	HMX	MPL629	M422	6%, 8%, 8%, 12%	1,000-4,000	50-450	UH	
HF625H	625	12%	2,000-5,000	200-80	GL	XR40Y	627Y	4%, 5%, 5%, 6, 6%, 6%, 6%	2,000-6,000	270-40	HMY	MPL639	S422	12%	1,000-3,000	50-450	UH	
HF627	627	7%, 8%, 8%, 9%, 10%, 12%	3,000-6,000	80-40	GLY	XR40YA	627Y	6%, 6%, 6%	2,000-6,000	270-40	AHMY	MPL649	M422	8%, 12%	1,000-4,000	50-450	UH	
HF627GH	627	6, 6%, 6%, 7%, 8%, 8%, 12%	3,000-6,000	80-40	G	XR40YDD	627Y	5%, 6, 6%	2,000-6,000	270-40	HMWY	MPM619	S422	6%	1,000-4,000	50-450	UH	
HF627HM	627	8%, 9%	3,000-6,000	200-40	G	XR45WY	627Y	6%	2,000-6,000	270-40	HMY	MPM626	M422	8%, 9%, 12%	1,000-4,000	50-450	UH	
HJ617	617	8%	3,000-6,000	220-40	G	XR45Y	627Y	6%	2,000-6,000	270-40	HMY	MPM629	M422	8%, 8%, 9%, 9%, 12%	1,000-4,000	50-450	UH	
HJ617GH	617	8%	3,000-6,000	220-40	G	XR50	627X	4%, 5%, 6, 6%, 6%, 6%, 6%	2,000-6,000	270-40	HMX	MPM633	M432	8%	1,000-4,000	50-450	UH	
HJ627	627	8%, 12, 12%	3,000-6,000	200-40	CGLY	XRH40Y	617Y	6	2,000-6,000	270-40	HMY	MPM643	M432	6%, 12%	1,000-4,000	50-450	UH	
HJT617	617	8%, 9%, 12%, 12%	3,000-6,000	220-40	GLY	TIX Corporation						MPM646	M422	9%	1,000-4,000	50-450	UH	
HJT617GH	617	8%, 9%, 12%	3,000-6,000	220-40	GL	K50G	627X	3%, 4	1,000-2,500	40-60	GX	MPM649	M322	8%, 12%	1,000-4,000	50-450	UH	
HJT617GX	617	8%	3,000-6,000	220-40	G	X40G	617X	5%, 5%, 6%, 7%, 7%	2,500-5,000	40-80	GX	MPM683	M434	5%, 6	1,000-4,000	50-450	UH	
MD617	617	6%, 6%, 7%, 8%, 8%, 9%, 12%	3,000-6,500	220-40	GLMY	X40G	617X	8%, 8%, 9%, 10%, 12%	2,500-6,000	40-80	GX	MPM686	M424	6	1,000-4,000	50-450	UH	
Q617	617	12%	3,000-6,500	220-40	ACGLY	X40G	617X	15%	2,000-5,500	40-80	GX	MRH629	M422	8%	1,000-4,000	50-450	RST	
Q627	627	6, 6%, 12%	3,000-6,000	80-40	ACGY	X50G	627X	5%-7%	3,000-5,000	40-70	GX	MRM623	M432	4, 5%, 6, 6%	1,000-4,000	50-450	RST	
Q627H	627	5%, 6, 6%	3,000-6,000	200-40	ACG	X50G	627X	8%-12%	3,000-6,000	40-70	GX	MRM629	M422	6, 8%	1,000-4,000	50-450	RST	
NOV ReedHycalog						Z40G	615X	8%	2,500-5,500	40-120	GX	MRM629	M422	9%	1,000-4,000	50-450	RST	
EMS62	625M	17%	2,000-3,500	450-50	CGMNY	Tri-Max Industries						SDC823	S432	8%	1,000-4,000	50-450	UH	
ETS61A	615M	11%	2,000-3,500	450-50	CGMNY	TM613	613	4%-12%	2,000-4,500	60-120		SDC829	S422	8%, 12	1,000-4,000	50-450	UH	
JA62	627A	7%, 8%, 11	3,500-6,000	70-40	AGX	TM615	615	4%-12%	2,000-4,500	60-120		SDC849	S322	12%, 16, 17%	1,000-4,000	50-450	UH	
R40	617	6, 6%, 8%, 8%, 9%	3,500-6,000	120-40	Y	TM617	617	4%-12%	2,000-4,500	60-120		SDH629	S422	8%, 12%, 17%	1,000-4,000	50-450	UH	
R40A	617	6, 6%, 6%, 6%, 7%, 8%, 8%, 9%, 12%	3,500-6,000	120-40	X	TM622	622	6-17%	2,000-4,500	60-120		SDH649	S422	12%	1,000-4,000	50-450	UH	
R44A	627	6, 6%, 6%, 6%, 6%, 6%, 7%, 8%, 8%, 9%, 12%	3,500-6,000	120-40	Z	TM625	625	6-12%	2,000-4,500	60-120		SDL819	S121	17%	1,000-3,000	50-450	UH	
R45	627	4%, 6, 6%, 6%, 7%, 8%, 8%, 11, 12%	3,500-6,000	120-40	Y	Uterra Drilling Technologies and United Diamond						SDL829	S322	12	1,000-4,000	50-450	UH	
R48	627	7%, 8%	3,500-6,000	120-40	Y	Z27K	527Y	12%	2,000-5,500	50-240	ACGHLM	SDM823	S432	6%, 6%	1,000-4,000	50-450	UH	
Smith Bits						Z28	527X	7%, 8%, 8%, 9%	2,000-5,000	50-240	AGHLM	SDM829	S322	14%, 18%	1,000-3,000	50-450	UH	
45GA	612X	8%	1,000-5,000	70-140	X	Z29	527X	7%, 8%	2,000-5,000	50-240	AGHLM	SDM849	S322	17%	1,000-3,000	50-450	UH	
45J	615X	12%, 17%	1,000-5,000	70-140	X	Z30	537X	3%, 4%, 4%, 6%, 6%, 8%, 8%, 12%	2,000-5,000	50-240	ACGHLM	SPC823	S422	8%	1,000-4,000	50-450	UH	
F4	617X	8%	3,000-7,000	160-50	X	Varel International Inc.						SPC829	S422	12%	1,000-4,000	50-450	UH	
F40	617X	12%	3,000-7,000	160-50	X	CH44	617X	9%, 8%, 12%	2,500-6,000	180-50	MW	SPH633	S432	5%, 5%, 5%, 6, 6%, 8%	1,000-4,000	50-450	UH	
F40YA	617Y	8%, 8%	3,000-7,000	160-50	AY	CH45	627Y	6, 12%, 12%	2,500-6,000	180-50	MW	SPH639	S322	8%, 12%, 16, 17%	1,000-4,000	50-450	UH	
F45H	617X	7%	3,000-7,000	160-50	X	CH45A	627A	7%, 8%, 8%	2,500-6,000	180-50	AW	SPH649	S322	8%, 12%, 17%	1,000-4,000	50-450	UH	
F46HY	627Y	8%	3,000-7,000	160-50	Y	CH47	627Y	6%, 8%	4,000-6,500	90-50	MW	SPH653	S432	8%	1,000-4,000	50-450	UH	
F47HY	627Y	7%, 8%, 8%, 9%, 11%	3,000-7,000	160-50	Y	CH47A	627A	6%, 6%, 6%	3,000-6,000	140-50	AW	SPH679	S322	12%	1,000-4,000	50-450	UH	
F47WYA	617Y	7%	3,000-7,000	160-50	Y	CH47H	627Y	8%	4,000-6,500	90-50	MW	SPL729	S322	12%	1,000-4,000	50-450	UH	
F47Y	617Y	10%	3,000-7,000	160-50	Y	CH48	627X	8%	3,000-6,000	140-50	MW	SPL769	S322	17	1,000-4,000	50-450	UH	
F47YA	617Y	7%, 11, 12%	3,000-7,000	160-50	AY	CH49	627Y	7%, 8%	4,000-6,500	90-50	MW	SPRX20	S432	3%	1,000-4,000	50-450	UH	
F49YA	627Y	7%	3,000-7,000	160-50	Y	ETD44	617X	5%, 6, 6%, 6%, 6%, 6%, 6%, 8%	3,500-6,000	80-50		SPS423	S432	3%	1,000-4,000	50-450	UH	
FH40	617X	7%, 8%, 8%, 9%, 9%	3,000-7,000	160-50	X	ETD45A	627A	6%, 6%	3,500-5,500	80-50	AW	SPS620	S432	3%, 4%	1,000-4,000	50-450	UH	
FH43Y	627Y	7%, 8%, 8%	3,000-7,000	160-50	Y	ETD47	627Y	4%, 4%, 6%	4,000-6,500	40-70	W	SPS629	S422	8%	1,000-4,000	50-450	UH	
FH45	617X	7%, 8%, 8%, 9%	3,000-7,000	160-50	X	ETD48	627X	4%, 5%, 6	4,000-6,500	75-50	W	SPS683	S434	6	1,000-4,000	50-450	UH	
FH50	627X	7%, 8%, 8%, 9%, 12%	3,000-7,000	160-50	X	ETR44	615X	17%	3,500-6,000	80-50		SPS949	S222	26	1,000-4,000	50-450	UH	
FH50HY	627Y	9%	3,000-7,000	160-50	Y	HE44V	617X	7%, 8%, 8%, 12%	2,500-6,000	180-50	MW	SPX263	S432	8%	1,000-4,000	50-450	UH	
FH140	617X	7%, 8%	3,000-7,000	160-50	X	HE45A	627A	7%	2,500-6,000	180-50	AW	SRH823	S232	12%	1,000-4,000	50-450	UH	
FH145	617X	7%	3,000-7,000	160-50	X	HE47	627Y	7%, 8%	4,000-6,500	90-50	MW	SRH829	S422	8%, 12%	1,000-4,000	50-450	UH	
FH150	627X	7%, 8%	3,000-7,000	160-50	X	Fish tail bits						SRH843	S232	8%, 12%	1,000-4,000	50-450	UH	
G40WY	617Y	14%	3,000-6,500	280-50	BGHMWY	Bit-Tech SPH, Inc.						SRH849	S222	12%	1,000-3,500	50-450	UH	
G40YB	617X	8%	3,000-6,500	280-50	BGHMWY	DP-440-	M131	6%	300-2,000	100-500	ADGMWV	SSC123	S842	8%	1,000-4,000	50-450	UH	
GF40	617X	8%	3,000-6,500	280-50	BGHMWX	B1P	Halliburton Security DBS						SSC722	S842	6	1,000-4,000	50-450	UH
GF40B	617X	8%	3,000-6,500	280-50	BGHMWX	FM2563/	M221	6%	500-2,500	60-400	MWV	SSCC23	S842	16	1,000-4,000	50-450	UH	
GF40H	617X	8%	3,000-6,500	280-50	BGHMX	FMF3563/	PDC drill bits						Drill Master, Inc.					
GF40HWY	617X	8%	3,000-6,500	280-50	BGHMX	FMM3563/	Diamant Drilling Services S.A.						DM316+	M123		400-2,500	60-400	GHMIRSTUm
GF40Y	617Y	9%	3,000-6,500	280-50	BGHMWY	FMR3563/	MDH229	M422	12%	1,000-3,500	50-450	UH	DM513	M233	5%, 6%	400-2,500	60-400	GHMIRSTUm
GF40YB	617Y	8%	3,000-6,500	280-50	BGHMWY	MDH629	M4											

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage		
Halliburton Security DBS						DSR816	M422	7%, 8%, 8½, 8¾, 10%, 12¼, 13½	1,000–6,000	Variable	GHMWUm	RSR713	M432	8½, 8¾, 9%	1,000–6,000	Variable	GHMWUmV		
FM2844/FM3844	M332	12¼	500–2,500	60–400	MWV		S442	10%, 12¼, 13½	1,000–6,000	Variable	GHMWUm		RSR716	M422	8½, 10%, 12¼, 14¾	1,000–6,000	Variable	GHMWUmV	
FMF3844/FMH3844/FMR3844	M433	9%	500–2,500	60–400	MWV		M422	12¼, 14¾, 16	1,000–6,000	Variable	GHMWUUh		RSR816	M422	8½, 12¼, 14¾, 14¾, 17½, 18¼	1,000–6,000	Variable	GHMWUmV	
FM2844/FM3844	M433	9%	500–2,500	60–400	MWV		DSX1013	M432	12, 12¼, 14¾, 16	1,000–6,000	Variable		GHMWUUh	RSR819	S422	12¼	1,000–6,000	Variable	GHMWUmV
FMF3844/FMH3844/FMR3844	M433	8½	500–2,500	60–400	MWV		DSX1016	M322	14¾	1,000–6,000	Variable		GHMWUUh	RSX1016	M422	14¾	1,000–6,000	Variable	GHMWUUh
FM2845/FM3845	M433	8½	500–2,500	60–400	MWV		DSX408	S144	2¾, 6	1,000–6,000	Variable		GHMWUm	RSX413	M132	6%	1,000–6,000	Variable	GHMWUmV
FMF3845/FMH3845/FMR3845	M323	14¾	500–2,500	60–400	MWV		DSX411	S142	5½, 6, 6¾	1,000–6,000	Variable		GHMWUm	RSX508	S242	3¾, 3%	1,000–6,000	Variable	GHMWUmV
FM2863/FM3863	M323	14¾	500–2,500	60–400	MWV		DSX413	M122	3¾, 3¾, 4½, 4¾, 6, S142	1,000–6,000	Variable		GHMWUm	RSX513	M232, S232	6, 6½, 6½	1,000–6,000	Variable	GHMWUmV
FMF3863/FMH3863/FMR3863	M324	12¼	500–2,500	60–400	MWV		DSX508	M223, S242	3¾, 3¾, 3¾, 3¾, 4¾, 4¾	1,000–6,000	Variable		GHMWUm	RSX516	M122, S322	6½, 6½, 6¾, 7%, 8½, 9%, 12¼	1,000–6,000	Variable	GHMWUmV
FM2865/FM3865	M323	14¾	500–2,500	60–400	MWV		DSX511	M133, S242	3¾, 4¼, 4¼, 4¼	1,000–6,000	Variable		GHMWUm	RSX613	M222, S232	5½, 5¾, 6, 6½, 6½, 6¾, 8½, 9%	1,000–6,000	Variable	GHMWUmV
FMF3865/FMH3865/FMR3865	M324	12¼	500–2,500	60–400	MWV		DSX513	M232, S232	4½, 6, 6½, 6½, 7%, 8½, 8¾	1,000–6,000	Variable		GHMWUm	RSX616	M432, S432	7½, 8½, 8½, 8¾, 9½, 9½, 10%, 12¼, 13½, 14½, 14¾, 16, 16½, 17½	1,000–6,000	Variable	GHMWUmV
Hughes Christensen							DSX516	M122, S223	6, 6½, 6¼, 6½, 6¾, 6¾, 7½, 8½, 8¾, 9%, 9½, 12¼	1,000–6,000	Variable		GHMWUm	RSX711	M432	5¾, 5¾, 6, 6½, 6¼, 6½, 6¾	1,000–6,000	Variable	GHMWUmV
HC305Z	M343	3½–17½	235–2,500	350–50	DGVW		DSX611	M232	4¾, 6½, 6½	1,000–6,000	Variable		GHMWUm	RSX713	M432, S232	6, 6½, 8½, 8¾, 9%	1,000–6,000	Variable	GHMWUmV
HC306	M343	3½–26	235–2,500	350–50	DGVW		DSX613	S333	5½, 5½, 5½, 6, 6½, 6¼, 6½, 6¾, 7%, 7½, 8½, 8¾, 9%, 9½, 10%, 12¼	1,000–6,000	Variable		GHMWUm	RSX716	M422	8½, 10%, 12¼, 14¾, 16, 16½	1,000–6,000	Variable	GHMWUmV
HC306Z	M343	3½–26	235–2,500	350–50	DGVW		DSX616	M423, S333	6½, 7½, 8½, 8¾, 9½, 12, 12¼	1,000–6,000	Variable		GHMWUm	RSX719	M423	12¼	1,000–6,000	Variable	GHMWUmV
HC405Z	M333	3½–17½	235–2,500	350–50	DGVW		DSX711	M432, S232	5¾, 5½, 6, 6½, 6¼, 6½, 6¾	1,000–6,000	Variable		GHMWUm	RSX816	M422, S422	8½, 8½, 12¼, 14¾, 14¾, 16, 17½, 18, 18½, 18½, 18½, 26	1,000–6,000	Variable	GHMWUmV
HC406	M333	3½–26	235–2,500	350–50	DGVW		DSX713	M432, S332	5½, 6, 6½, 6½, 8½, 8½, 8¾, 9%, 12, 12¼	1,000–6,000	Variable		GHMWUm	RSX819	S422	12¼	1,000–6,000	Variable	GHMWUmV
HC406Z	M333	3½–26	235–2,500	350–50	DGVW		DSX716	M422	7½, 8½, 8¾, 9½, 9½, 12	1,000–6,000	Variable		GHMWUm	SDR513	-	7½	1,000–6,000	Variable	GHMWUm
HC407	M333	5¼–18½	235–2,500	350–50	DGVW		DSX719	M423	10½, 12, 12¼, 14¾, 16, 17	1,000–6,000	Variable		GHMWUm	SDR516	-	7½	1,000–6,000	Variable	GHMWUm
HC504ZX	M223	3–17½	235–2,500	350–50	DGVW		DSX819	S422	12¼, 16, 17½	1,000–6,000	Variable		GHMWUm	SDR613	-	6%	1,000–6,000	Variable	GHMWUm
HC505Z	M323	3½–17½	235–2,500	350–50	DGVW		DSX919	S424	14¾, 17½	1,000–6,000	Variable		GHMWUm	SDX408	-	3¾	1,000–6,000	Variable	GHMWUm
HC506	M323	3½–26	235–2,500	350–50	DGVW		DTX413	M122	3¾	1,000–6,000	Variable		GHMWUm	SDX513	-	6¾, 8½	1,000–6,000	Variable	GHMWUm
HC506Z	M323	3½–26	235–2,500	350–50	DGVW		DTX513	M422	6¼	1,000–6,000	Variable		GHMWUm	SDX516	-	7½, 8¾	1,000–6,000	Variable	GHMWUm
HC606Z	M323	3½–26	235–2,500	350–50	DGVW		DTX611	M232	6¼	1,000–6,000	Variable		GHMWUm	SDX613	-	6%	1,000–6,000	Variable	GHMWUm
HC607	M323	5¼–18½	235–2,500	350–50	DGVW		DTX616	M422, S432	9%	1,000–6,000	Variable		GHMWUm	SGX616	M422, S432	8¾	1,000–6,000	Variable	GHMWUm
HCD405Z	M333	3½–17½	235–2,500	350–50	DGMVW		DTX711	M332	6, 6½	1,000–6,000	Variable		GHMWUm	SGX716	M422	10%	1,000–6,000	Variable	GHMWUm
HCD406Z	M333	3½–26	235–2,500	350–50	DGMVW		DTX713	M322	6, 6½	1,000–6,000	Variable		GHMWUm	ST1513	S132	8%, 8½	1,000–3,000	Variable	GHMWUm
HCD407	M333	5¼–18½	235–2,500	350–50	DGMVW		DTX719	M422	12¼	1,000–6,000	Variable		GHMWUm	STX613	M233	6½, 8½, 8¾, 9%	1,000–3,000	Variable	GHMWUm
HCD505Z	M323	3½–17½	235–2,500	350–50	DGMVW		MSR413	M132	7½, 8½, 8¾	1,000–6,000	Variable		GHMWUmV	STX616	M322	6½, 8½, 8¾, 9%	1,000–3,000	Variable	GHMWUm
HCD506	M323	3½–26	235–2,500	350–50	DGMVW		MSR513	M132	5½, 6, 6½, 6¼, 6¾, 7%	1,000–6,000	Variable		GHMWUmV	STX711	M232	6½, 6¾	1,000–6,000	Variable	GHMWUm
HCD506Z	M323	3½–26	235–2,500	350–50	DGMVW		MSR516	M222	7½, 8½, 8¾	1,000–6,000	Variable		GHMWUmV	STX1013	M432	5½, 6, 12, 12¼	1,000–6,000	Variable	GHMWUm
HCD606Z	M323	3½–26	235–2,500	350–50	DGMVW		MSR616	M422	8½, 8¾, 9%, 12¼, 14¾, 18½	1,000–6,000	Variable		GHMWUmV	Smith Bits					
HCD607	M323	5¼–18½	235–2,500	350–50	DGMVW		MSR711	M432	6	1,000–6,000	Variable		GHMWUmV	HDX613	M223	7½, 8½	400–2,000	60–600	GMNUmVW
Q305	M343	3½–17½	235–2,500	350–50	DGVW	MSR713	M432	8¾	1,000–6,000	Variable	GHMWUmV	HDX616	M223	8¾, 12¼	400–2,000	60–600	GMNUmVW		
Q406	M333	3½–17½	235–2,500	350–50	DGVW	MSR716	M422	12¼	1,000–6,000	Variable	GHMWUmV	M511	M233	4½	500–3,000	60–600	GMNUmVW		
Q406Z	M333	3½–26	235–2,500	350–50	DGVW	MSR813	M432, S432	8¾, 12¼	1,000–6,000	Variable	GHMWUmV	M613	M333	5½, 6, 6½, 6¼, 6½, 6¾, 7, 7½, 7¾, 7¾, 8½, 8½, 8¾, 9%, 9½, 9½, 10%, 11%, 12¼	500–3,000	60–600	GMNUmVW		
Q503	M223	3½–12¼	235–2,500	350–50	DGVW	MSR816	M422, S432	12¼, 17½	1,000–6,000	Variable	GHMWUmV	M616	M223	6¼, 6¼, 6¾, 7¾, 7¾, 8½, 8½, 8¾, 9%, 9½, 9½, 10%, 11%, 12¼, 14¾, 16	500–3,000	60–400	GMNUmVW		
Q503X	M223	3½–12¼	235–2,500	350–50	DGVW	MSX413	M132	7½, 8½	1,000–6,000	Variable	GHMWUmV	M713	M333	5½, 6½, 6½, 7%, 8½, 8¾, 9½, 9½, 10%, 12¼	500–3,000	60–600	GMNUhVW		
Q504	M223	3–17½	235–2,500	350–50	DGVW	MSX511	M132	4%	1,000–6,000	Variable	GHMWUmV	M716	M323	6, 7½, 8½, 8½, 8¾, 9½, 9½, 10%, 11, 12¼, 14¾, 16	500–3,000	60–600	GMNUiVW		
Q504X	M223	3–17½	235–2,500	350–50	DGVW	MSX513	M132	5½, 5½, 6, 6½, 6¾, 7%	1,000–6,000	Variable	GHMWUmV	M919	M423	16	500–3,000	60–600	GMNUiVW		
Q505	M323	3½–17½	235–2,500	350–50	DGVW	MSX516	M222	7½, 8½, 8¾	1,000–6,000	Variable	GHMWUmV	MA616	M223	4¾, 5¾, 5½, 6, 6½, 6¼, 6½, 6¾, 6¾, 7½, 8½, 8½, 8¾, 8¾, 9½, 9½, 10%, 10½, 12¼	500–3,000	60–600	GMNUiVW		
Q505X	M323	3½–17½	235–2,500	350–50	DGVW	MSX519	M422	8¾, 12¼	1,000–6,000	Variable	GHMWUmV	MA616	M223	4¾, 5¾, 5½, 6, 6½, 6¼, 6½, 6¾, 6¾, 7½, 8½, 8½, 8¾, 8¾, 9½, 9½, 10%, 10½, 12¼, 13¾, 14¾, 17½	500–3,000	60–600	GMNUiVW		
Q506	M323	3½–26	235–2,500	350–50	DGVW	MSX613	S432	12¼	1,000–6,000	Variable	GHMWUmV	MA616	M223	4¾, 5¾, 5½, 6, 6½, 6¼, 6½, 6¾, 6¾, 7½, 8½, 8½, 8¾, 8¾, 9½, 9½, 10%, 10½, 12¼, 13¾, 14¾, 17½	500–3,000	60–600	GMNUiVW		
Q605	M323	3½–17½	235–2,500	350–50	DGVW	MSX616	M422	8½, 8¾, 9%, 12¼, 14¾	1,000–6,000	Variable	GHMWUmV	MA816	M323	6, 7½, 8½, 8½	500–3,000	60–600	GMNUiVW		
Q606	M323	3½–26	235–2,500	350–50	DGVW	MSX713	M432	8¾	1,000–6,000	Variable	GHMWUmV	MA819	M323	8¾, 9%, 12¼, 13½, 14½, 14¾, 16, 17½, 18½	500–3,000	60–600	GMNUiVW		
QD406	M333	3½–17½	235–2,500	350–50	DGMVW	MSX716	M432	9½, 12¼	1,000–6,000	Variable	GHMWUmV	MAI409	M613	6½	500–3,000	60–600	GMNUhVW		
QD406Z	M333	3½–26	235–2,500	350–50	DGMVW	MSX813	M432, S432	8½, 8¾, 12¼	1,000–6,000	Variable	GHMWUmV	MAI616	M613	5½, 6	500–3,000	60–600	GMNUhVW		
QD505	M323	3½–17½	235–2,500	350–50	DGMVW	MSX816	M422, S432	12¼, 17½	1,000–6,000	Variable	GHMWUmV	MAI616	M613	5½, 6	500–3,000	60–600	GMNUhVW		
QD605	M323	3½–17½	235–2,500	350–50	DGMVW	MSX819	M422	14¾	1,000–6,000	Variable	GHMWUmV	MAI616	M613	5½, 6	500–3,000	60–600	GMNUhVW		
QD606	M323	3½–26	235–2,500	350–50	DGMVW	RSR513	M232, S232	6, 6½, 6¾	1,000–6,000	Variable	GHMWUmV	MD613	M333	6, 8½, 9½	500–3,000	60–600	GMNRSTUmVW		
NOV ReedyChlog						RSR516	M122, S322	6½, 6½, 8½, 12¼	1,000–6,000	Variable	GHMWUmV	MD616	M223	6, 6½, 6¼, 6¾, 7¾, 7¾, 8½, 8½, 8¾, 9½, 9½, 10%, 12¼, 14¾, 16, 17½	500–3,000	60–400	GMNRSTUmVW		
DSR1013	M433	12¼	1,000–6,000	Variable	GHMWUUh	RSR613	M222, S232	5¾, 6½, 6½, 6¾, 6¾, 8½	1,000–6,000	Variable	GHMWUmV	MD816	M323	6, 6½, 8½, 8½, 8¾, 9½, 12¼, 16½, 17½, 18½	500–3,000	60–600	GMNRSTUmVW		
DSR1016	M432	14¾	1,000–6,000	Variable	GHMWUUh	RSR616	M422	8½, 8¾, 9½, 9%	1,000–6,000	Variable	GHMWUmV	MD816	M323	6, 6½, 8½, 8½, 8¾, 9½, 12¼, 16½, 17½, 18½	500–3,000	60–600	GMNRSTUmVW		
DSR413	M122	6, 6½, 6½	1,000–6,000	Variable	GHMWUm	RSR711	M432	5¾, 6, 6½	1,										

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb./in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb./in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb./in. diameter	Recommended rotary speed, rpm	Special features/usage	
MD919	M423	8½, 9½, 9¾, 12¼, 13½, 14¾	500-3,000	60-600	GMNRSTU IWW	SH01616		8½	400-3,000	60-600	GMNUmVW	VH619	M323	8½ x 9¾-14¾	50-3,000	50-400	DGHMWW	
MDI511		4¾	500-3,000	60-600	GMNUhVW	SHOS516		24	400-3,000	60-600	GMNUmVW	VH719	M423	8½ x 9¾-14¾	50-3,000	50-400	DGHMWW	
MDI613	M333	6¾, 8½, 8¾, 9½, 9¾	500-3,000	60-600	GMNRSTUm VV	SHOS1616	S223	12¼, 17½, 22	400-3,000	60-600	GMNUmVW	VH816	M423	8½ x 9¾-14¾	50-3,000	50-400	DGHMWW	
MDI616	M323	8½, 9½, 9¾, 9¾, 10¾, 12¼, 14½, 14¾	500-3,000	60-600	GMNRSTUm VV	SI616	S223	12¼	400-3,000	60-600	GMNUmVW	VH819	M422	8½ x 9¾-14¾	50-3,000	50-400	DGHMWW	
MDI713	M333	5¾	500-3,000	60-600	GMNRSTUu VV	SI816	S323	26	400-3,000	60-600	GMNUmVW	VH919	M422	8½ x 9¾-14¾	50-3,000	50-400	DGHMWW	
MDI716	M223	8½, 12¼, 14¾	500-3,000	60-600	GMNRSTUm VV	SI819	S223	23, 24	400-3,000	60-600	GMNUiVW	Casing/liner PDC drill bits						
MDI816	M323	8¾, 8½, 10¾, 12¼, 13¾, 17½, 18¾	500-3,000	60-600	GMNRSTUm VV	SS1616	S223	8¾	400-3,000	60-600	GMNUhVW	Hughes Christensen						
MDSI613	M333	5¾	500-3,000	60-600	GMNRSTUu VV	SS1716	S223	7¾	400-3,000	60-600	GMNUhVW	ECZ304	S233	6, 6½, 6¾, 6¾, 8½, 9¾, 12¼, 17½, 20, 24	235-2,500	350-60	W	
MDSI816		18¾	500-3,000	60-600	GMNRSTUm VV	Utterra Drilling Technologies and United Diamond						ECZ306	S333	6, 6½, 6¾, 6¾, 8½, 9¾, 12¼, 17½, 20, 24	235-2,500	350-60	W	
MI613	M233	6½, 7¾, 8½, 8¾	500-3,000	60-600	GMNUmVW	MD1968	M223	8½, 8¾	300-3,000	60-250	GHMWV	Hughes Christensen						
MI616	M323	7¾, 8½, 8¾, 9¾, 12¼	500-3,000	60-600	GMNUiVW	MS1366	M233	6, 6½, 6¾, 6¾, 6¾, 7¾, 8½	300-3,000	60-250	GHMWV	ECZ404	S233	6¾, 8½, 9¾, 12¼, 17½, 20, 24	235-2,500	350-60	W	
MI713	M333	6¾	500-3,000	60-600	GMNUhVW	MS1377	M223	6½, 6½	300-3,000	60-250	GHMWV	ECZ406	S343	6¾, 8½, 9¾, 12¼, 17½, 20, 24	235-2,500	350-60	W	
MI716	M223	7¾, 8½, 8¾, 12, 12¼, 14¾	500-3,000	60-600	GMNUmVW	MS1655D	M323	6¾, 6¾	300-3,000	60-250	GHMWV	Ream while drilling						
MI816	M323	12¼, 17½	500-3,000	60-600	GMNUmVW	MS1666	M223	6, 6½, 6¾, 6¾, 6¾, 7¾, 8½	300-3,000	60-250	GHMWV	Hughes Christensen						
MI919	M423	16	500-3,000	60-600	GMNUiVW	MS1666D	M423	7¾, 8½	300-3,000	60-250	GHMWV	RWD 2	M333	9¾ x 8½, 12¼ x 10¾, 13¾ x 12¼, 14¾ x 12¼, 17 x 14½, 20 x 17	200-3,000	200-50	DGMWV drill-out	
MS613		5¾	500-3,000	60-600	GMNUmVW	United Diamond and Utterra Drilling Technologies						RWD 2S	M333	3 x 2¾, 4½ x 3¾, 6½ x 5¾, 6.7 x 5.95, 7 x 6.7, 6 x 6.7, 7 x 6.3, 8 x 6¾, 9¾ x 8¾, 12¼ x 10¾, 13¾ x 12¼, 17 x 14½, 20 x 17	200-3,000	200-50	DGHMWW drill-out steerable	
MS816		8¾	500-3,000	60-600	GMNUmVW	RR516	S222	6¼, 7¾, 8½, 8¾, 9¾, 11, 12¼	500-3,200	60-600	MGVUmF	RWD 2ST	M333	3 x 2¾, 4½ x 3¾, 6½ x 5¾, 6.7 x 5.95, 7 x 6, 7¼ x 6	200-3,000	200-50	DGHMWW drill-out slimhole	
MSI516	M323	6¾, 7¾, 8¾	500-3,000	60-400	GMNUhVW	UD513	S232	3¾, 3¾, 4¼, 4¼, 4¼, 4¾, 4¾, 5¾, 5¾, 5¾, 6, 6½, 6¼, 6½, 6¾, 7¾, 8¾, 8¾, 9¾, 9¾, 10¾, 12¼, 13¾, 17½	500-4,000	30-600	MGVUmFH	PDC coring bits						
MSI713		6¾, 7¾	500-3,000	60-600	GMNUhVW	UD516	S222	6¾, 6¼, 6¾, 6¾, 7¾, 8½, 8¾, 12, 12¼, 14¾	500-3,500	60-600	MGVUmHF	Baker Hughes INTEQ						
MV616	M223	6¼, 7¾, 8½, 8¾	500-3,000	60-400	GMNUmVW	Varel International Inc.						BHC405	M333	4¾-12¼	400-2,000	50-500	DGHF	
MV716	M323	7¾, 8½, 8¾, 9¾, 11, 12¼	500-3,000	60-600	GMNUmVW	VB613	M333	6-12¼	500-3,000	50-400	DGWNQV	BHC406	M333	4¾ x 12¼	300-2,400	50-500	VGMFR	
MV1616		7¾, 12¼	500-3,000	60-400	GMNUmVW	VB616	M323	6-12¼	500-3,000	50-400	DGWNQV	BHC408	M333	4¾-12¼	400-2,500	50-500	VGMF	
MV1713	M333	6¾	500-3,000	60-600	GMNUhVW	VM513P	M233	4¾-12¼	500-3,000	50-400	DGWNQV	RC476	M332	6-8¾	400-2,300	60-500	Round	
QDG5313	S333	6½ x 7½, 7¾ x 8½, 9¼ x 10¼, 10¾ x 11½, 10¾ x 12¼, 12¼ x 13½	400-3,000	60-600	GMNUmVW	VM613	M333	6-12¼	500-3,000	50-400	DGHMWNQV	Bit-Tech SPH, Inc.						
QDM3209	S243	2¾ x 3, 3¾ x 4¾, 4¾ x 5¾, 5¾ x 8¾, 6 x 7, 6¾ x 7¾, 7 x 8¾, 7¾ x 8½, 8½ x 9¾, 9¾ x 11¾, 10¾ x 12¼, 12¼ x 14¾, 13½ x 17½, 14½ x 17½	200-3,000	60-600	GMNUhVW	VM616	M323	6-12¼	500-3,000	50-400	DGHMWNQV	CP-440	M342	7¾, 8½, 8¾	300-2,000	60-120	AFG	
QDM4209	M243	4¾	400-3,000	60-600	GMNUmVW	VM619	M323	6-12¼	500-3,000	50-400	DGHMWNQV	Halliburton Security DBS						
QDM4213	M132	7	400-3,000	60-600	GMNUmVW	VM719	M423	7¾-17½	1,000-3,500	50-400	DGHMWNQV	CD93	M233	6-12¼	250-3,500	50-150	F	
QDM6209	5	5	400-3,000	60-600	GMNUhVW	VM819	M422	9¾-17½	1,000-3,500	50-400	DGHMWNQV	FC3643	M343	8½-12¼	250-3,500	50-150	F	
QDM54209	M243	4¾	400-3,000	60-600	GMNUhVW	VRP613	M333	6-12¼	500-3,000	50-400	DGHWN-QRSTV	FC3743	M432	5½-12¼	250-3,500	50-150	F	
QDR5313	S333	8½ x 9¾, 9¾ x 10¾, 10¾ x 11½, 10¾ x 12¼, 12¼ x 14¾, 14½ x 17½	400-3,000	60-600	GMNUmVW	VRT613	M333	6-12¼	500-3,000	50-400	DGHWN-QRSTV	FC3747	M432	8½	250-2,000	50-150	F	
QDRS5216	S243	20	400-3,000	60-600	GMNUhVW	VRT616	M323	6-12¼	500-3,000	50-400	DGHWN-QRSTV	FC3843	M433	6½-12¼	250-3,500	50-150	F	
QDS3209	S233	5¾, 5¾	400-3,000	60-600	GMNUmVW	VRT619	M323	7¾-17½	500-3,000	50-400	DGHWN-QRSTV	FC3843A	S433	8½	250-2,500	50-150	F	
QDS4209	S243	4¾ x 5¾, 6 x 7, 6½ x 7½	200-3,000	60-600	GMNUmVW	VTD513P	M233	4¾-12¼	500-3,000	50-400	DGWNQV	FC3844	M433	8¾	250-2,500	50-150	F	
QDS5213	S233	12¼ x 14¾, 14¾ x 17½	200-3,000	60-600	GMNUmVW	VTD516P	M323	6-17½	500-3,000	50-400	DGWNQV	FC3847	M433	6¾, 7¾, 8½, 12¼	250-2,500	50-150	F	
QDS7213	S333	12¼ x 14¾, 12¼ x 14¾	200-3,000	60-600	GMNUhVW	VTD519P	M223	7¾-17½	500-3,000	50-400	DGWNQV	NOV ReedHyCatalog						
QDS7313	S333	7½ x 8½, 8½ x 9¾, 9¾ x 10¾, 9¾ x 11, 10¾ x 12¼, 10¾ x 12¼, 12¼ x 13¾, 14 x 17, 14½ x 17½, 16 x 20, 17 x 20	200-3,000	60-600	GMNUmVW	VTD613	M333	6-12¼	500-3,000	50-400	DGWNQV	CCPX911	M233, S233	6, 6½, 6¾, 6¾, 6¾	300-2,000	50-500	G, UI	
S616	S223	8½, 11, 12¼, 16, 17½	500-3,000	60-400	GMNUmVW	VTD616	M323	6-12¼	500-3,000	50-400	DGWNQV	CCPX913	M233, S233	7¾, 8½, 8¾	300-2,000	50-500	G, UI	
S816	S223	14¾, 16, 17½, 26	400-3,000	60-600	GMNUmVW	VTD619	M323	7¾-17½	500-3,000	50-400	DGWNQV	CEPX513	M233, S233	7¾, 8½	300-2,000	50-500	G, UI	
S819	S223	18½, 22, 23, 26	400-3,000	60-600	GMNUiVW	VTD719	M423	7¾-17½	1,000-3,500	50-400	DGWNQV	IEPX313	M233, S233	3, 3½	300-2,000	50-500	G, UI	
SDI613	S233	17½	400-3,000	60-600	GMNRSTUm VV	VTD819	M422	9¾-17½	1,000-3,500	50-400	DGWNQV	Varel International Inc.						
SDI616	S223	13½	400-3,000	60-600	GMNRSTUm VV	Bi-center PDC drill bits						CK58		6-8½	1,000-3,000	50-400	DGWNQV	
SDSI716		17½	400-3,000	60-600	GMNRSTUm VV	Dowdco						Surface set diamond coring bits						
SH0516	S223	6¾ x 8½, 8½ x 10¾, 12¼ x 17½	400-3,000	60-600	GMNUmVW	BC-475	M-344	4¾ x 6½ x 7½	250-3,000	60-350	DGHMWW	Bit-Tech SPH, Inc.						
SH0519	S243	6¾ x 8½, 8½ x 12¼, 8½ x 14, 8½ x 17½, 9¾ x 12¼, 12¼ x 14¾, 12¼ x 17½	400-3,000	60-600	GMNUiVW	NOV ReedHyCatalog						CG-300F	M623	6, 6½, 6¾, 7¾, 8¾	400-2,500	50-500	AGIKM	
SH0716	S243	12¼ x 17	400-3,000	60-600	GMNUmVW	CSDR5313	S333	6½ x 7½, 7½ x 8½	3,000-3,500	60-200	GHMWUm	CN-333G	M713	6¾, 6¾, 6¾, 7¾, 8¾	400-2,500	50-500	AGMR	
						CSDR5413	S333	8½ x 9½	2,500-3,000	60-200	GHMWUm	CN-403	M712	6, 6½, 6¾, 7¾, 8¾	400-2,500	50-500	AGKM	
						CSDX5311	S333	6¾ x 7¾, 6½ x 17½	3,000-3,500	60-200	GHMWUm	Dowdco						
						CSDX5313	S333	7½ x 8½, 8¾ x 9¾, 8½ x 9¾, 9¾ x 10¾	3,000-3,500	60-200	GHMWUm	CN-201	M-811	4½ x 1¾, 5½ x 2½, 6½ x 2½, 6 x 2½, 6½ x 2½, 6½ x 2½, 6½ x 3½, 6¾ x 3½, 7¾/32 x 3½, 7¾/32 x 4, 8½ x 4, 8¾ x 4	300-3,500	50-140	GMRUh	
						CSDX5319	S233	8½	2,500-3,000	60-200	GHMWUm							
						CSDX5413	S233	8½ x 9½, 9½ x 10¾, 12¼ x 13	3,000-3,500	60-200	GHMWUh							
						CSDX5416	S233	12¼ x 13	3,000-3,500	60-200	GHMWUh							
						CSDX5419	S233	12¼ x 13	2,500-3,000	60-200	GHMWUh							
						SBR5208	S443	8½ x 9¾	3,000-3,500	60-200	GHMWUm							
						SBR5208	S422	3¾ x 4¾, 8½ x 9½, 8½ x 9¾, 10¾ x 12¼, 13¾ x 17½	3,000-3,500	60-200	GHMWUm							
						SBX5213	S422	8½ x 9¾, 10¾ x 12¼, 11¾ x 14¾, 12¼ x 13¾, 12¼ x 14¾	3,000-3,500	60-200	GHMWUm							
						SBX5216	S422	14½ x 17½	3,000-3,500	60-200	GHMWUm							
						SBX5219	S422	16¾ x 20	2,500-3,000	60-200	GHMWUm							
						SRR5213	M432	6½	3,000-3,500	60-200	GHMWUm							
						SRX3213	S233	6½ x 8	3,000-3,500	60-200	GHMWUm							
						SRX5211	S443	8½ x 9¾	3,000-3,500	60-200	GHMWUm							
						SRX5213												

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
CN-54-E	M-811	4½ x 1½, 5½ x 2½, 6½ x 2½, 6 x 2½, 6½ x 2½, 6½ x 3½, 6½ x 3½, 6½ x 3½, 7½ x 3½, 7½ x 4, 8½ x 4, 8½ x 4	300-3,500	50-140	GMRUH
Varel International Inc.					
C300		6-8½	500-2,500	50-1,000	GMIKTR
Surface set diamond bits					
Bit-Tech SPH, Inc.					
DG-420F	M622	1¾, 1½, 2½, 2¼, 2½, 3½, 4½, 4¾, 6½, 6¾, 6¾, 6¾	600-3,500	60-600	ADGHIMR
DN-303	M713	4½-4¾, 5½-6½	600-3,500	60-600	Custom
DN-333	M713	4½-4¾, 5½-6¾	600-3,500	60-600	Custom
DN-423	M722	1¾, 1½, 2½, 2¼, 2½, 3½, 4½, 4¾, 6½, 6¾, 6¾, 6¾	600-3,500	60-600	ADGHMNR
Halliburton Security DBS					
TB16	M713	6½, 8½, 12¼, 12½	300-3,000	80-1,000	MN
TB26	M713	3¾, 3¾, 5½, 6, 6½, 6¾, 6¾, 7½, 8, 8½, 8½, 9½, 12¼, 12½	300-3,000	80-1,000	MN
TB583	M713	6½	300-3,000	80-1,000	MN
TB593	M713	6, 6½, 6¾, 8½	300-3,000	80-1,000	MN
TBT17	M634	5½, 8½	300-3,000	80-1,000	IMN
TT521	M622	5½-12¼	300-3,000	80-1,000	IMN
TT561	M624	4½-12¼	300-3,000	80-1,000	IMN
TT593	M724	3½, 3¾	300-3,000	80-1,000	IMN
Medium-Hard					
Steel tooth roller cone bits					
NOV ReedHycalog					
HP21G	217	8½, 12¼	3,500-6,000	200-40	YG
Smith Bits					
FVH	217	6, 8½, 12¼	2,000-5,000	160-50	S
GFVH	217	9½	2,000-5,000	280-50	BGHM
SVH	215	8½, 8½, 8¾, 12¼, 17½	2,000-5,000	160-50	S
TIX Corporation					
MH	231	3, 3¾, 3¾, 4, 4½	1,500-2,500	40-60	
MH	231	4¾, 4¾, 5, 5½	1,500-3,000	40-60	
MH	231	5½, 5½, 6, 6½, 6¾, 6¾, 7½, 7½, 7½	2,000-4,500	60-100	
MH	231	8½, 8½, 8½, 8¾, 8¾, 9, 9½, 9½, 10½, 10½, 11, 11½, 12, 12¼	2,500-5,500	60-100	
MH	231	13¾, 14¾, 15, 15½, 17½, 20	2,500-4,500	60-100	
MH	231	22, 23, 24, 26	2,500-4,000	60-100	
MH-TX	237	5½, 6	2,000-4,500	50-90	BG
MH-TX	237	8½, 12¼	2,500-5,500	50-90	BG
MH-TZ	235	8½, 12¼	2,500-5,500	50-80	G
MH-X	236	5½, 5½, 6, 7½	2,000-4,500	50-90	B
MH-X	236	8½, 12¼	2,500-5,500	50-90	B
MH-XZ	234	12¼, 17½	2,500-5,500	50-150	
MH-Z	234	8½, 9½, 12¼	2,500-5,500	50-80	
Tri-Max Industries					
TM223	223	6-12¼	2,000-5,000	60-120	
TM231	231	6-12¼	2,000-5,000	60-120	
Varel International Inc.					
CH4G	217S	8½	2,500-7,000	250-80	GM
ETD4	216S	3¾, 3¾, 4¾, 4¾, 6	2,500-7,000	120-50	S
L2	211S	3½, 3¾, 3¾, 3¾, 4¾, 4¾, 4¾, 4¾, 4¾, 5½, 5½, 5½, 5½, 5¾, 5¾, 6, 6½, 6¾, 6¾, 6¾, 7½, 8½, 26	2,500-6,500	150-50	S
Insert roller cone bits					
Hughes Christensen					
HR-55RG	637	8½, 8¾, 9½	3,000-7,000	90-50	BGMW
HR-66	647	7½, 8½, 8½, 8¾, 9½, 12¼	3,000-7,000	90-50	BGMW
HR-68	647	7½, 8½, 8½, 8¾, 10½	3,000-7,000	90-50	BGMW
MX-50	647	5½, 8½	3,000-7,000	90-50	BGMW
MX-50R	647	8¾	3,000-7,000	90-50	BGMW
MX-50RG	647	8½	3,000-7,000	90-50	BGMW
MX-55	647	8½, 8½, 17½	3,000-7,000	90-50	BGMW
MX-66	647	8½, 8¾	3,000-7,000	90-50	BGMW
MXL-55	637	8½, 8¾, 9½, 12¼, 14¾, 16, 17½	3,000-7,000	90-50	BGMW
MXL-66	647	8½, 8¾, 9½, 12¼, 14¾, 16, 17½	3,000-7,000	90-50	BGMW
MLX-68					
647		8½, 8¾, 9½, 12¼, 14¾, 16, 17½	3,000-7,000	90-50	BGMW
Kingdream Public Limited Company					
GJ635GH	635	12¼	2,800-6,000	280-80	G
HA637	637	4¾, 4¾, 5½, 5½, 6, 6½, 6½, 7½, 8½, 8½, 8¾, 9½, 12¼	3,500-7,000	70-40	CLGY
HA637GH	637	6	3,500-7,000	70-40	G
HA647	647	6, 7½, 8½, 8¾, 9½, 9½, 10½, 12¼	3,500-7,000	70-40	GLY
HA647H	647	6, 7½, 8½, 8¾, 9½, 9½, 10½, 12¼	3,500-7,000	70-40	GLY
HAS637GY	637	6½, 8½, 8¾	3,500-7,000	70-40	GLY
HF637H	637	6, 6½, 6½, 8½, 8¾, 9½, 10½, 12¼	2,000-6,000	200-40	GLY
HF647HM	647	7½, 8½, 8¾, 9½, 9½, 10½, 12¼	2,000-6,000	200-40	GLY
HJ637	637	8½, 9½, 12¼	2,500-6,000	200-40	GLY
HJ637GH	637	8½	2,500-6,000	200-40	GY
HJS637GLY	637	8½	2,500-6,000	200-40	GLY
MD637	637	7½, 8½, 8¾	3,000-7,000	220-40	M
MD637HX	637	7½, 8½, 8¾	3,000-7,000	220-40	MX
MD647H	647	8½, 8¾	3,000-7,000	220-40	MY
NOV ReedHycalog					
R50	637	6, 6½, 6½, 7½, 8½, 8¾, 9½, 12¼	3,500-6,000	120-40	Z
R60	647	6½, 7½, 8¾, 9½, 12¼	3,500-6,000	120-40	YZ
R65	647	8¾	3,500-6,000	120-40	YZ
Smith Bits					
F50YA	637Y	8¾, 8¾	3,000-7,000	160-50	AY
F57Y	637Y	7½, 8½, 12¼	3,000-7,000	160-50	Y
F59HY	647Y	7½	3,000-7,000	110-50	Y
F59Y	647Y	7½, 8½, 8¾	3,000-7,000	110-50	Y
F67	647Y	12¼, 14¾	3,000-7,000	110-50	Y
F67Y	647Y	7½, 8½, 8¾, 9½	3,000-7,000	110-50	Y
FH150Y	637Y	8¾	3,000-7,000	160-50	Y
FH155	637X	8¾	3,000-7,000	160-50	Y
GF50YB	637Y	8½, 8½	3,000-7,000	280-50	BGHMWW
GF57	637Y	12¼	3,000-7,000	280-50	BGHMWW
GF65YB	647Y	8½	3,000-7,000	280-50	BGHMWW
GF150Y	637Y	8½	3,000-7,000	280-50	BGHMWW
GF150YB	637Y	8½	3,000-7,000	280-50	BGHMWW
MF57	637Y	8½, 8½	3,000-6,000	250-50	HMV
XR50WY	637Y	6½	2,000-6,000	270-40	HMV
XR50Y	637Y	4¾, 4¾, 5½, 6, 6½, 6½, 6½	2,000-6,000	270-40	HMV
XR60Y	647Y	5½, 6½	2,000-6,000	270-40	HMV
XR65Y	647Y	6½, 6½	2,000-6,000	270-40	HMV
XR165Y	647Y	6½	2,000-6,000	270-40	HMV
TIX Corporation					
A60	632Y	9½, 12¼	3,000-5,500	40-60	AGY
A60	632Y	15	2,500-5,000	40-60	AGY
X60G	637Y	5½, 5½	3,000-5,000	40-60	GY
X60G	637Y	8½, 12¼	3,000-5,000	40-60	GY
Tri-Max Industries					
TM622	622	6-12¼	3,000-5,000	60-100	
TM625	625	6-17½	3,000-5,000	60-100	
TM627	627	6-12¼	3,000-5,000	60-100	
Utterra Drilling Technologies and United Diamond					
B57LRGSP	647Y	3¾, 4¾, 4¾, 5½, 6, 6½, 6½, 6½	3,000-6,000	120-240	AGHLM 1-roller cone
Z30K	547Y	7½, 8¾	2,000-5,500	50-240	AGHLM
Z34	547X	8½	2,000-5,000	50-240	AGHLM
Z37K	547Y	4¾, 4¾, 6½, 12¼	3,000-6,000	50-220	ACGHLM
Z39	547X	7½, 8¾	3,000-6,000	50-220	AGHLM
Z39K	547Y	7½, 8¾, 12¼	3,000-6,000	50-220	AGHLM
Z40	617X	4¾, 6½, 6¾	3,000-6,000	50-220	AGHLM
Z45	617X	7½, 8¾, 12¼	3,000-6,000	50-220	AGHLM
Z47K	627Y	4¾, 4¾, 6½, 7½, 8½, 8¾, 10½, 12¼	3,000-6,000	50-220	ACGHLM
Varel International Inc.					
CH54	637X	6½, 12¼	3,500-6,000	90-50	MW
CH55	637Y	8½, 12¼	3,500-6,000	80-50	MW
CH57	637Y	8¾	3,500-6,000	80-50	MW
CH57A	637A	7½	3,500-6,000	90-50	AW
CH57AH	637A	8¾, 8¾	3,500-6,000	90-50	AW
CH67	647Y	7½, 8¾, 8½, 8¾, 12¼	3,500-6,000	90-50	W
ETD55	637Y	5½, 6½, 8¾	4,000-7,000	70-40	W
ETD57	637Y	6½	3,500-6,000	90-50	W
HE67	647Y	8¾	3,500-6,000	90-50	MW
PDC drill bits					
Bit-Tech SPH, Inc.					
DP-440-B2U	M242	7½, 8½, 8¾	200-3,000	60-600	ADGMW
DP-B45	M242	6½, 6¼, 7½, 8¾	400-3,000	60-600	ADGMW
DP-B66	M242	7½, 8¾	400-3,000	60-600	ADGMW
HP-440-B	M342	3½, 3¾, 3¾, 3¾, 4, 4¼, 4¼, 4¼, 4½, 4½, 4¾, 4¾, 5½, 6, 6½, 6½, 6½, 6¾	200-3,000	200-1,000	ADFGHM-NW
HP440-B13	M232	6, 6½, 6½, 6½, 6¾	200-3,000	60-600	ADGHMWW
Diamant Drilling Services S.A.					
MDH623	M432	6	1,000-4,000	50-450	
MDH829	M422	6	1,000-4,000	50-450	Uh
MDH843	M432	7¾	1,000-4,000	50-450	Uh
MDL813	M432	8½	1,000-4,000	50-450	Uh
MDL829	M422	8½	1,000-4,000	50-450	Uh
MDL829	M422	12, 12¼, 14¾	1,000-3,000	50-450	Uh
MDL843	M332	12¼	1,000-4,000	50-450	Uh
MDM823	M432	6, 6½, 6½, 8½, 8½, 9½	1,000-4,000	50-450	Uh
MDM826	M322	12¼	1,000-3,000	50-450	Uh
MDM829	M422	5½, 5½, 6, 8½, 8½, 9½, 12, 12¼, 14¾	1,000-4,000	50-450	Uh
MDM833	M432	6, 8½, 8½	1,000-4,000	50-450	Uh
MDM843	M432	8¾	1,000-4,000	50-450	Uh
MDM849	M322	8½	1,000-4,000	50-450	Uh
MDM876	M422	8½	1,000-4,000	50-450	Uh
MDM923	M422	7½, 8½, 8½, 9½	1,000-4,000	50-450	Uh
MDM929	M422	14¾, 16	1,000-3,000	50-450	Uh
MDM933	M432	6	1,000-4,000	50-450	Uh
MDM943	M432	8¾, 8½	1,000-4,000	50-450	Uh
MDM949	M322	8½, 12, 12¼, 14¾, 14¾, 16	1,000-4,000	50-450	Uh
MHM616	M421	12¼	1,000-3,000	50-450	Uh
MHM626	M422	8½	1,000-4,000	50-450	Uh
MHM726	M422	8¾	1,000-4,000	50-450	Uh
MHM823	M432	8½	1,000-4,000	50-450	Uh
MHM846	M422	8½, 12¼	1,000-4,000	50-450	Uh
MPH023	M432	12	1,000-4,000	50-450	Uh
MPH043	M432	12	1,000-4,000	50-450	Uh
MPH243	M322	12¼	1,000-4,000	50-450	Uh
MPH823	M432	6½	1,000-4,000	50-450	Uh
MPH829	M422	8½, 9½	1,000-4,000	50-450	Uh
MPH943	M432	9½	1,000-4,000	50-450	Uh
MPL843	M422	8½	1,000-4,000	50-450	Uh
MPM023	M422	8½	1,000-4,000	50-450	Uh

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
VRP616P	M323	6-12½	500-3,000	50-400	DGHW-NQRSTV
VRP716	M423	7½-12½	1,000-3,500	50-400	DGHW-NQRSTV
VRT813	M433	6-12½	1,000-3,500	50-400	DGHW-NQRSTV
VTD1019	M422	12½-17½	1,000-3,500	50-400	DGWNQV
VTD609	M343	3¾-8¾	500-3,000	50-400	DGWNQV
VTD613P	M333	6-12½	500-3,000	50-400	DGWNQV
VTD616P	M323	6-12½	500-3,000	50-400	DGWNQV
VTD709	M443	5½-8¾	1,000-3,500	50-400	DGWNQV
VTD713	M433	6-8¾	1,000-3,500	50-400	DGWNQV
VTD716	M423	7½-12½	1,000-3,500	50-400	DGWNQV
VTD716P	M423	7½-12½	1,000-3,500	50-400	DGWNQV
VTD719P	M423	7½-12½	1,000-3,500	50-400	DGWNQV
VTD809	M443	6½-8¾	1,000-3,500	50-400	DGWNQV
VTD813	M433	6-12½	1,000-3,500	50-400	DGWNQV
VTD813P	M433	6½-12½	1,000-3,500	50-400	DGWNQV
VTD816	M423	7½-12½	1,000-3,500	50-400	DGWNQV
VTD816P	M423	7½-12½	1,000-3,500	50-400	DGWNQV
VTD816P	M423	7½-12½	1,000-3,500	50-400	DGWNQV
Bi-center PDC drill bits					
Drill Master, Inc.					
DM7131113	M434	14¾ x 12¼	200-1,700	60-400	RSTMWU
Dowdco					
BC-3115	M-334	6¾ x 8½ x 9¾	250-3,500	60-350	DGHMWW
NOV ReedHycalog					
CSDR6411	S433	8½ x 9½	3,000-3,500	60-200	GHMWU
CSDR6413	S433	10½ x 12¼, 12¼ x 14¼	3,000-3,500	60-200	GHMWU
CSDR6613	S433	10½ x 11½	3,000-3,500	60-200	GHMWU
CSDX5513	S233	9½ x 10½	3,000-3,500	60-200	GHMWU
CSDX6311	S433	7½ x 8½, 8½ x 9½	3,000-3,500	60-200	GHMWU
CSDX6313	S433	12¼ x 14¼	3,000-3,500	60-200	GHMWU
CSDX6411	S433	8½ x 9½, 14 x 16, 14½ x 17½	3,000-3,500	60-200	GHMWU
CSDX6413	S433	10½ x 12¼, 12¼ x 14¼, 14½ x 17, 14½ x 17½, 17 x 20, 17½ x 21½, 19¼ x 23¾	3,000-3,500	60-200	GHMWU
CSDX6513	S433	10½	3,000-3,500	60-200	GHMWU
CSDX6613	S433	10½ x 11½, 14½ x 16	3,000-3,500	60-200	GHMWU
CSDX7613	S433	12¼, 14½	3,000-3,500	60-200	GHMWU
SRX6113	S333	14½ x 17½	3,000-3,500	60-200	GHMWU
SRX7113	S433	12 x 14¾	3,000-3,500	60-200	GHMWU
Varel International Inc.					
VH609	M343	3¾ x 4¾-4¾ x 5½	50-3,000	50-400	DGHMWW
VH613	M333	4¾ x 5½-8½ x 9¾	50-3,000	50-400	DGHMWW
VH709	M443	3¾ x 4¾-4¾ x 5½	50-3,000	50-400	DGHMWW
VH713	M433	5½ x 6-8½ x 9¾	50-3,000	50-400	DGHMWW
Ream while drilling					
Hughes Christensen					
RWD 2	M433	9½ x 8½, 12¼ x 10½, 13¾ x 12¼, 14¾ x 12¼, 17 x 14½, 20 x 17	200-3,000	200-50	DGMVW drill-out
RWD 2S	M433	3 x 2¾, 4¾ x 3¾, 6½ x 5¾, 6/10 x 5½, 7 x 6, 7¼ x 6, 7½ x 6.3, 8 x 6½, 9½ x 8½, 12¼ x 10½, 13¾ x 12¼, 14¾ x 12¼, 17 x 14½, 20 x 17	200-3,000	200-50	DGHMWW drill-out steerable
RWD 2ST	M433	3 x 2¾, 4¾ x 3¾, 6½ x 5¾, 6/10 x 5½, 7 x 6, 7¼ x 6	200-3,000	200-50	DGHMWW drill-out slimhole
PDC coring bits					
Baker Hughes INTEQ					
ARC325	M444	5½-8½	2,750-3,800	50-500	VGMF
ARC425	M354	4¾-12¼	400-2,500	50-500	VGMF
BHC306	M343	5¾-12¼	400-2,500	50-500	VGMF
BHC308	M443	6¾-12¼	400-2,500	50-500	VGMF
BHC406	M333	4¾x12¼	300-2,400	50-500	VGMFR
BHC408	M333	4¾-12¼	400-2,500	50-500	VGMF
Bit-Tech SPH, Inc.					
CP-440BU	M232	7½, 8½, 8¾	300-2,000	50-500	AFGMVW
CP-440P	M342	6, 6½	300-2,000	50-500	AFGMVW
CP-440P	M342	7½, 8½, 8¾	300-2,000	60-120	AFG
CP-B66	M232	6½	300-2,000	50-500	AFGMVW
Halliburton Security DBS					
FC3043	M433	8½-12¼	250-3,500	50-150	F
FC3743/FC3743i	M432	5½-12¼	250-3,500	50-150	F
FC3843	M433	6½-12¼	250-3,500	50-150	F
FC3843i	M343	8½-12¼	250-3,500	50-150	F

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
FC3844/FC3844i	M343	8½-12¼	250-3,500	50-150	F
FC3847/FC3847i	M344	8½-12¼	250-3,500	50-150	F
FC3923	M433	8½	250-3,500	50-150	F
FC3933	M433	8½	250-3,500	50-150	F
FC3943/FC3943i	M433	8½	250-3,500	50-150	F
Varel International Inc.					
CK38			1,000-3,000	50-400	DGWNQV
Surface set diamond coring bits					
Bit-Tech SPH, Inc.					
CG-300PG	M623	6, 6½, 6¾, 7½, 8¾	400-2,500	50-500	AGIKM
CN-334G	M813	6½, 6¾, 6¾, 7¾, 8¾	400-2,500	50-500	AGRM
CN-404G	M612	6, 6½, 6¾, 7½, 8¾	400-2,500	50-500	AGKM
CN-404RS	M812	6½, 7½, 8¾, 8¾	400-2,500	50-500	AGKM
CN-424BL	M842	6½, 6¾	400-2,500	50-500	AGMR
Halliburton Security DBS					
CT 103	M623	6-12¼	250-3,500	110-150	I
CT 303HS	M623	6-12¼	250-3,500	110-150	I
CT 313SB	M623	6-12¼	250-3,500	110-150	W
CT 403	M624	6-12¼	250-3,500	110-150	I
CT 93	M623	6-12¼	250-3,500	110-150	I
Varel International Inc.					
C200		6-8½	500-2,500	50-1,000	GMIKTR
Surface set diamond bits					
Bit-Tech SPH, Inc.					
DG-420PG	M622	1¾, 1¾, 2¼, 2¼, 2½, 2½, 3¾, 4½, 4¾, 6¾, 6¾, 6¾, 6¾	300-3,500	60-600	ADGHMIR
DN-304G	M813	4½-4¾, 5½-6¾	Variable	Variable	Custom
DN-334G	M813	4½-4¾, 5½-6¾	Variable	Variable	Custom
DN-424G	M812	1¾, 1¾, 2¼, 2¼, 2½, 3¾, 4½, 4¾, 6¾, 6¾, 6¾, 6¾	300-3,500	60-600	ADGHMWR
Halliburton Security DBS					
TT521	M622	3¾-12¼	300-3,000	80-1,000	IMN
TT561	M624	4½-12¼	300-3,000	80-1,000	IMN
Varel International Inc.					
VH813	M433	6 x 7-14¾ x 17½	50-3,000	50-400	DGHMWW
VN100	M614	3½-17½	400-2,500	50-1,000	GMIKTR
Impregnated diamond bits					
Halliburton Security DBS					
Ci3156C	M843	7½-8½	250-3,500	50-70	F Impregnated
Ci3156S	M843	7½-8½	250-3,500	50-70	F Impregnated
Ti3085C	M842	4½, 4¾, 5½, 6, 6½, 6½	300-3,000	80-1,200	MNR Impregnated
Ti3085D	M842	5½, 6, 6½, 6½	300-3,000	80-1,200	MNR Impregnated
Ti3085S	M842	3¾, 5½, 6, 6½, 6½	300-3,000	80-1,200	MNR Impregnated
Ti3105C	M842	7½, 8½, 8½, 9½, 10½	300-3,000	80-1,200	MNR Impregnated
Ti3105D	M842	6, 8½, 8½	300-3,000	80-1,200	MNR Impregnated
Ti3105S	M842	6, 7½, 8½, 8½, 8¾	300-3,000	80-1,200	MNR Impregnated
Ti3125D	M842	6	300-3,000	80-1,200	MNR Impregnated
Ti3125S	M842	6½, 8½	300-3,000	80-1,200	MNR Impregnated
Ti3205C	M842	12¼	300-3,500	80-1,200	MNR Impregnated
Ti3205S	M842	12¼	300-3,500	80-1,200	MNR Impregnated
Hard					
Steel tooth roller cone bits					
TIX Corporation					
H 321		3, 3¾, 4, 4½	1,500-2,500	40-60	
H 321		4¾	1,500-3,000	40-60	
H 321		5½, 5½, 6, 6¾, 6¾, 7½, 7½, 7½	2,500-5,000	40-80	
H 321		8½, 8½, 9½, 9½, 9½, 10½, 11, 12¼	3,000-6,000	40-80	
H 321		13½, 14¾, 15, 15½, 17½, 20, 22, 24	3,000-5,000	40-80	

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
HR	341	8½, 12¼	3,000-6,000	40-70	
HR-X	346	8½, 12¼	3,000-6,000	40-70	B
HR-Z	344	8½, 12¼	3,000-6,000	40-70	
HS	311	6, 6½, 7½, 7½, 7½	2,500-5,000	40-80	
HS	311	8½, 9½, 9½, 9½, 10½, 12¼	3,000-6,000	40-80	
HS	311	14¾, 15, 15½, 17½, 20, 22, 24	3,000-5,000	40-80	
HS-TX	317	5½, 6	3,000-5,000	40-70	BG
HS-TX	317	8½, 12¼	3,000-6,000	40-70	BG
HS-TXZ	315	12¼, 17½	3,000-6,000	40-100	
HS-TZ	315	8½, 12¼	3,000-6,000	40-70	G
HS-TZ	315	17½	3,000-5,000	40-70	G
HS-X	316	5½, 6	3,000-5,000	40-70	B
HS-X	316	8½, 12¼	3,000-6,000	40-70	B
HS-XZ	314	12¼, 17½	3,000-6,000	40-100	
HS-Z	314	8½, 12¼	3,000-6,000	40-70	
H-X	326	5½, 6	3,000-5,000	40-70	B
H-X	326	8½, 12¼	3,000-6,000	40-70	B
H-XZ	324	12¼, 17½	3,000-6,000	40-100	
H-Z	324	8½, 12¼	3,000-6,000	40-70	
Tri-Max Industries					
TM311	311	6-8½	2,000-5,000	60-100	
TM315	315	6-9½	2,000-5,000	60-100	
TM316	316	6-9½	2,000-5,000	60-100	
TM317	317	6-9½	2,000-5,000	60-100	
Varel International Inc.					
L1	311S	3¾, 4¾, 6½	3,500-7,000	80-40	S
LH1	321S	2½, 2½, 3¾, 4, 4½, 4¾, 4¾	4,000-8,000	80-40	S
Insert roller cone bits					
Halliburton Security DBS					
QH71-75	717	6, 6½, 6½, 6¾, 7½, 8½, 8¾, 9½, 12¼	4,000-7,500	35-140	GMW
QH77-81	737	6, 6½, 6½, 6¾, 7½, 8½, 8¾, 9½, 12¼	4,000-7,500	35-140	GMW
QH83-89	747	6, 6½, 6½, 6¾, 7½, 8½, 8¾, 9½, 12¼	4,000-7,500	35-140	GMW
QH99	837	8½, 8¾, 9½, 12¼	4,500-7,500	30-120	GMW
XS71-75	717	4¾, 5½, 6, 6½, 6½, 6½, 6¾, 7½, 8½, 8¾, 9½, 10½, 12¼	4,000-7,500	35-140	GMW
XT71-75	715	14¾, 16, 17½, 20, 22, 24, 26, 28	4,000-7,500	35-140	GMW
XT77-81	735	14¾, 16, 17½, 20, 22, 24, 26, 28	4,000-7,500	35-140	GMW
XT83-89	745	14¾, 16, 17½, 20, 22, 24, 26, 28	4,000-7,500	35-140	GMW
XT91, 93	815	14¾, 16, 17½, 20, 22, 24, 26, 28	4,500-7,500	30-120	GMW
XT95, 97	825	14¾, 16, 17½, 20, 22, 24, 26, 28	4,500-7,500	30-120	GMW
XT99	835	14¾, 16, 17½, 20, 22, 24, 26, 28	4,500-7,500	30-120	GMW
Hughes Christensen					
GX-95	827	7½, 8½, 8½, 8¾, 9½	3,000-7,000	90-50	GW
HR-70	737	7½, 8½, 8½, 8¾, 9½	2,000-5,000	80-40	GW
HR-88	817	7½, 8½, 8½, 8¾, 9½	3,000-7,000	90-50	GW
HR-89	817	7½, 8½, 8½, 8¾, 9½	3,000-7,000	90-50	GW
HR-99	837	7½, 8½, 8¾, 12¼	3,000-7,000	90-50	GW
MX-89	837	7½, 8½, 8½, 8¾, 9½	2,000-5,000	80-40	GW
STX-70	737	4¾, 6½	2,000-5,000	80-40	GW
STX-77	737	4½, 6½	2,000-5,000	80-40	GW
STX-88	837	4¾	2,000-5,000	80-40	GW
STX-90	837	4¾	2,000-5,000	80-40	GW
STX-99	837	6½, 6½	2,000-5,000	80-40	GW
Kingdrem Public Limited Company					
HA727	727	6	4,000-7,000	70-40	GL
HA727GH	727	6	4,000-7,000	70-40	GL
HA737G	737	4¾, 6½, 6½, 7½, 8½, 8¾, 9½, 12¼	4,000-7,000	70-40	GLY
HF737	737	4¾, 6½, 6½, 7½, 8½, 8¾, 9½, 12¼	3,000-7,000	200-40	GLY
HJ737GHL	737	8½	3,000-7,000	200-40	GHL
NOV ReedHycalog					
R70	737	6½, 6½, 7½, 8½, 8¾, 9½	3,500-6,500	100-40	YZ
Smith Bits					
F7	737Y	12¼	3,000-7,000	110-50	Y
XR68Y	737Y	6½, 6½	2,000-6,000	270-40	HM
XR70Y	737Y	4¾, 6, 6½, 6½	2,000-6,000	270-40	HM
TIX Corporation					
X65G	727Y	8½, 12¼	3,000-6,000	40-60	GY
X70G	737Y	5½, 5½, 7½	3,000-5,000		

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
DN-424P	M812	¾, 1½, 2½, 4, 2½, 3½, 4½, 4¾, 6½, 6¾, 6½, 6¾	1,000-3,000	60-1,000	ADGHMNR
Dowdco					
DSM	M-811	3½-12¼	200-4,000	60-120	0
DT6R	M-713	3½-8¾	200-4,000	60-500	GHMR
DT6X	M-713	3½-8¾	200-4,000	60-500	GHMK
SN-54	M-811	3½-12¼	200-4,000	80-180	GHMR
Halliburton Security DBS					
TB16	M713	6½, 12½	300-3,000	80-1,000	MN
TBT17	M634	5¾, 8½	300-3,000	80-1,000	IMN
TBT703	M734	5¾, 6, 8½	300-3,000	80-1,000	IMN
TT593	M724	3¾, 3¾	300-3,000	80-1,000	IMN
Smith Bits					
D66	M713	4¾, 4¾	400-4,000	60-2,000	GMNUHW
D72	M713	3¾, 3¾, 5¾, 8½, 12¾	800-4,000	60-2,000	GMNKNUHW
DST12	M711	3¾, 4¾, 5¾, 6, 6½, 6¾, 6¾, 7¾, 8¾, 8½, 8¾	800-4,000	60-2,000	GDMNKNUHW
K407	M842	8½	400-4,000	60-2,000	GMNUHW, Impreg
K503	M842	4¾, 5¾, 5¾, 5¾, 6, 6½, 6½, 6¾, 7¾, 8¾, 8½, 8¾, 8¾, 9, 10½, 12¾	400-4,000	60-2,000	GMNUHW, Impreg
K505	M842	3¾, 3¾, 5¾, 6, 6½, 12, 14¾	400-4,000	60-2,000	GMNUHW, Impreg
K507	M842	6½, 8¾, 8½, 8¾	400-4,000	60-2,000	GMNUHW, Impreg
K703	M842	4¾, 4¾, 5¾, 5¾, 6, 6½, 6¾, 6¾, 8¾, 8½, 8¾	400-4,000	60-2,000	GMNUHW, Impreg
K705	M842	6, 6½, 7½, 7¾, 8½, 9¾, 12¼, 14	400-4,000	60-2,000	GMNUHW, Impreg
K707	M842	6, 6½, 8½	400-4,000	60-2,000	GMNUHW, Impreg
KH1013	M433	8½	400-4,000	60-2,000	GMNUHW, Impreg
KH613	6		400-4,000	60-2,000	GMNUHW, Impreg
KH813	M433	8½, 12¼	400-4,000	60-2,000	GMNUHW, Impreg
Varel International Inc.					
VN300	M714	3½-17½	400-2,500	50-1,000	GMIKTR
Impregnated diamond bits					
Halliburton Security DBS					
TI3085C	M842	5¾-8½	300-3,000	80-1,200	MNR Impregnated
TI3085D	M842	5¾-8½	300-3,000	80-1,200	MNR Impregnated
TI3085S	M842	5¾-8½	300-3,000	80-1,200	MNR Impregnated
TI3105C	M842	8½-9½	300-3,000	80-1,200	MNR Impregnated
TI3105D	M842	8½-9½	300-3,000	80-1,200	MNR Impregnated
TI3105S	M842	8½-9½	300-3,000	80-1,200	MNR Impregnated
TI3125C	M842	10½-12¼	300-3,000	80-1,200	MNR Impregnated
TI3205C	M843	10½-12¼	300-3,000	80-1,200	MNR Impregnated
Impregnated diamond coring bits					
Dowdco					
CL-IMPREG	M-843	4½ x 1½, 5½ x 2½, 6½ x 2½, 6 x 2½, 6½ x 2½, 6½ x 3½, 6½ x 3¾, 6¾ x 3½, 7¾ x 4, 8½ x 4, 8¾ x 4	200-4,000	50-140	IMPREG
Halliburton Security DBS					
Ci3124C	M844	6-8½	250-3,500	50-70	F Impregnated
Ci3124S	M844	6-8½	250-3,500	50-70	F Impregnated
Ci3156C	M843	7½-8½	250-3,500	50-70	F Impregnated
Ci3156S	M843	7½-8½	250-3,500	50-70	F Impregnated
Ci3206C	M843	1¼	250-4,000	50-70	F Impregnated

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
Diamond bi-center surface set bit					
Dowdco					
ND-BC	M-711	3¾ x 4¾ x 5¾	200-4,000	P.D.M.	DGHMWW
Extremely Hard					
Steel tooth roller cone bits					
Tri-Max Industries					
TM321	321	6-17½	2,000-5,000	60-85	DG
Insert roller cone bits					
Halliburton Security DBS					
QH91_93	817	6½, 7½, 8¾, 8½, 9¾	4,000-7,500	55-40	GMW
QH95_97	827	6½, 7½, 8½, 8¾, 9, 9¾, 12¼	4,500-7,500	50-30	GMW
XS91_93	817	7¾, 9¾	4,000-7,500	55-40	GMW
Hughes Christensen					
GX-95	827	7¾, 8¾, 8½, 8¾, 9¾	3,000-7,000	90-50	GW
GX-99	837	7¾, 8½, 8¾, 12¼	3,000-7,000	90-50	GW
HR-88	817	7¾, 8¾, 8½, 8¾, 9¾	3,000-7,000	90-50	GW
HR-89	817	7¾, 8¾, 8½, 8¾, 9¾	3,000-7,000	90-50	GW
HR-90	827	7¾, 8¾, 8½, 8¾, 9¾	3,000-7,000	90-50	GW
HR-98	827	8¾	3,000-7,000	90-50	GW
HR-99	837	7¾, 8½, 8¾, 12¼	3,000-7,000	90-50	GW
MX-89	837	7¾, 8¾, 8½, 8¾, 9¾	2,000-5,000	80-40	GW
MX-95	827	7¾, 8¾, 8½, 8¾, 9¾	3,000-7,000	90-50	GW
STX-88	837	6¾	2,000-5,000	80-40	GW
STX-90	837	4¾	2,000-5,000	80-40	GW
STX-99	837	6¾, 6½	2,000-5,000	80-40	GW
Kingdren Public Limited Company					
HF827GHY	827	8¾	3,000-7,000	200-40	GHLV
HF827GY	827	7¾, 8¾	3,000-7,000	200-40	GHLV
HF837GY	837	7¾	3,000-7,000	200-40	GHLV
NOV ReedHycalog					
R80	817	7¾, 8¾	3,500-6,500	90-35	Y
R85	817	7¾	3,500-6,500	90-35	Y
R90	837	6¾, 6½, 7¾, 8½, 8¾, 9¾, 10¾, 12¼	3,500-6,500	60-35	Y
Smith Bits					
F80Y	817Y	7¾, 8½, 8¾, 9¾, 12¼, 14¾	4,000-7,000	110-50	Y
F85Y	827Y	7¾, 8½, 8¾, 10¾	4,000-7,000	110-50	Y
F90Y	837Y	7¾, 8½, 8¾, 9¾, 10¾, 12¼	4,000-7,000	110-50	Y
F95Y	837Y	9¾	4,000-7,000	110-50	Y
FH190Y	837Y	8½, 8¾	4,000-7,000	110-50	Y
GF80Y	817Y	8½	3,000-7,000	280-50	BGHMY
XR80Y	817Y	6¾	3,000-6,000	270-40	HMY
XR90Y	837Y	6¾, 6½	3,000-6,000	270-40	HMY
TIX Corporation					
A90	832Y	6¾, 7¾, 15	2,500-5,000	30-50	AGY
A90	832Y	9, 9¾, 9¾, 11, 12¼	3,000-6,000	30-50	AGY
X90G	837Y	8½, 12¼	3,000-6,500	40-60	GY
Tri-Max Industries					
TM832	832	6-12¼	2,000-5,500	60-100	
TM837	837	6-12¼	2,000-5,500	60-85	
Ultrera Drilling Technologies and United Diamond					
Z80K	747Y	4¾	3,000-5,500	50-180	AGHLM
Z90K	838Y	6¾, 6¾, 8¾	3,000-6,500	50-180	AGHLM
Z95K	838Y	4¾, 6¾, 8¾	3,000-6,500	50-180	AGHLM
Varel International Inc.					
HE95	837Z	8½, 8¾	5,100-9,100	60-40	MW
PDC drill bits					
Hughes Christensen					
HC410Z	M433	8½-17½	235-2,500	350-50	DGVW
HC410XZ	M433	8½-17½	235-2,500	350-50	DGVW
HC510Z	M423	8½-17½	235-2,500	350-50	DGVW
HC510XZ	M423	8½-17½	235-2,500	350-50	DGVW
HC512Z	M423	7¾-17½	235-2,500	350-50	DGVW
HC512XZ	M423	7¾-17½	235-2,500	350-50	DGVW
HC610Z	M423	8½-17½	235-2,500	350-50	DGVW
HC610XZ	M423	8½-17½	235-2,500	350-50	DGVW
HC612Z	M423	7¾-17½	235-2,500	350-50	DGVW
HC612XZ	M423	7¾-17½	235-2,500	350-50	DGVW
HCd410XZ	M433	8½-17½	235-2,500	350-50	DGMVW
HCd510Z	M423	8½-17½	235-2,500	350-50	DGMVW
HCd610Z	M423	8½-17½	235-2,500	350-50	DGMVW
HCd610XZ	M423	8½-17½	235-2,500	350-50	DGMVW
Q410	M433	8½-17½	235-2,500	350-50	DGVW
Q410X	M433	8½-17½	235-2,500	350-50	DGVW
Q510	M423	8½-17½	235-2,500	350-50	DGVW

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
Q510X	M423	8½-17½	235-2,500	350-50	DGVW
Q512	M423	7¾-17½	235-2,500	350-50	DGVW
Q512X	M423	7¾-17½	235-2,500	350-50	DGVW
Q609XX	M423	6-26	235-2,500	350-50	DGVW
Q610X	M423	8½ 17½	235-2,500	350-50	DGVW
Q612	M423	7¾-17½	235-2,500	350-50	DGVW
Q612X	M423	7¾-17½	235-2,500	350-50	DGVW
QD410	M433	8½-17½	235-2,500	350-50	DGMVW
QD410X	M433	8½-17½	235-2,500	350-50	DGMVW
QD510X	M423	8½-17½	235-2,500	350-50	DGMVW
QD610	M423	8½-17½	235-2,500	350-50	DGMVW
QD610X	M423	8½-17½	235-2,500	350-50	DGMVW
Varel International Inc.					
VTD1013P	M433	12¼-14¾	1,000-3,500	50-400	DGWNQV
Ream while drilling					
Tri-Max Industries					
EWD DTS		3¾ x 4¾, 4¾ x 6, 6 x 7¼, 8½ x 9¾, 10¾ x 12¾, 12¼ x 14¾, 14¾ x 17½, 17½ x 23 (special Hard Formation Tool)			Underream while drilling
Surface set diamond coring bits					
Bit-Tech SPH, Inc.					
CN-405RSP	M812	6¾, 7¾, 8½, 8¾	1,000-3,000	60-90	AGKHUW
CN-425BLP	M842	6¾, 6¾	1,000-3,000	60-90	AGRHUW
Varel International Inc.					
C600		6-8½	500-2,500	50-1,000	GMIKTR
Surface set diamond bits					
Baker Hughes INTEQ					
C23	M713	4¾ x 12¼	500-3,500	60-500	Round M
Bit-Tech SPH, Inc.					
DN405RSP	M812	3½-8¾	1,000-4,000	60-120	Custom
Drill Master, Inc.					
DM246	M843	6-18½	500-4,000	500-75	MNDIRWUH
Hughes Christensen					
HH152	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH156	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH170	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH172	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH176	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH280	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH336	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH350	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH352	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH354	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH356	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH358	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH370	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH372	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH374	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH376	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH636	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH654	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HH676	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HHD156	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HHD172	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HHD352	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HHD354	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HHD356	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HHD358	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HHD372	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HHD376	M841	3¾-17½	500-3,500	500-75	MNDIRWUH
HHD378	M84				

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage	Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
DDR3039	M843	6, 6½, 8½, 12¼	300–3,000	80–1,200	MNR Impregnated												
DDR3043	M843	6, 6½, 8½	300–3,000	80–1,200	MNR Impregnated												
DDR3054	M843	6, 6½	300–3,000	80–1,200	MNR Impregnated												
DDR3539	M838	5%	300–3,000	80–1,200	MNR Impregnated												
DDR3543	M838	4%, 5%	300–3,000	80–1,200	MNR Impregnated												
DDR4039	M838	7%	300–3,000	80–1,200	MNR Impregnated												
DDR4530	M838	6½	300–3,000	80–1,200	MNR Impregnated												
DDR4535	M838	6½	300–3,000	80–1,200	MNR Impregnated												
DDR4539	M838	5%, 6½, 6¾, 8%, 8½, 8¾, 10%, 14¾, 16	300–3,000	80–1,200	MNR Impregnated												
DDR4543	M838	6½	300–3,000	80–1,200	MNR Impregnated												
DDR4554	M838	8½	300–3,000	80–1,200	MNR Impregnated												
DDR5539	M843	6, 8%	300–3,000	80–1,200	MNR Impregnated												
DDR5554	M843	6	300–3,000	80–1,200	MNR Impregnated												
Varel International Inc.																	
VN500	M814	3½–17½	400–2,500	50–1,000	GMIKTR												
Impregnated diamond bits																	
Baker Hughes INTEQ																	
HHCS-112	M842	5½–8½	500–2,500	60–500	GMFR												
HHCS-114	M842	5½–8½	500–2,500	60–500	GMFR												
HHCS-116	M842	5½ 8½	500–2,500	60–500	GMFR												
HHCS-316	M842	5½ 8½	750–3,500	60–500	GMFR												
HHCS-612	M842	5½ 8½	750–3,500	60–500	GMFR												
SC281	M842	4¾–12¼	500–2,500	80–500	Round R												
Diamant Drilling Services S.A.																	
MSA22	M843	5¾, 8½	1,000–4,000	150–1,400	N												
MSS22	M843	5¾, 5¾, 6, 6¾, 6½, 8¾, 8½, 8¾, 9½, 10¾, 12¼	1,000–4,000	150–1,400	N												
MSSD2	M842	8½	1,000–4,000	150–1,400	N												
SSS22	S842	3¾, 12¼	1,000–4,000	150–1,400	N												
SSS223	S842	8¾, 8½	1,000–4,000	150–1,400	N												
SSS263	S844	12¼	1,000–4,000	150–1,400	N												
SSS623	S843	14¾, 16	1,000–4,000	150–1,400	N												
SSS82	S842	3¾, 4¾, 5¾, 6, 6¾, 6½, 6¾	1,000–4,000	150–1,400	N												
SSS822	S843	5¾, 6, 6½	1,000–4,000	150–1,400	N												
SSS823	S843	5¾, 6	1,000–4,000	150–1,400	N												
SSSD62	S844	8½	1,000–4,000	150–1,400	N												
Drill Master, Inc.																	
DM810	M841	6–18½	500–3,500	700–150	MNRUh Impregnated												
Halliburton Security DBS																	
Ti3085D	M842	5¾–8½	300–3,000	80–1,200	MNR Impregnated												
Ti3105C	M843	8¾–8½	300–3,000	80–1,000	MNR Impregnated												
Ti3105D	M842	8¾–9½	300–3,000	80–1,200	MNR Impregnated												
Ti3125B	M842	10¾–12¼	300–3,000	80–1,200	MNR Impregnated												
Ti3125C	M842	10¾–12¼	300–3,000	80–1,200	MNR Impregnated												
Ti3205C	M843	10¾–12¼	300–3,000	80–1,200	MNR Impregnated												
Impregnated diamond coring bits																	
Halliburton Security DBS																	
Ci3124C	M844	6–8½	250–3,500	50–70	F Impregnated												
Ci3124S	M844	6–8½	250–3,500	50–70	F Impregnated												
Ci3156C	M843	8¾–8½	250–3,500	50–70	F Impregnated												
Ci3156S	M843	8¾–8½	250–3,500	50–70	F Impregnated												
Ci3206C	M843	8¾–8½	250–4,000	50–70	F Impregnated												
Diamond bi-center surface set																	
Dowdco																	
DN-41T	M-814	3¾–8¾	200–4,000	TURBINE	GHKNUH												
DP9X	M-812	3¾–8¾	200–4,000	60–500	GHKMUH												