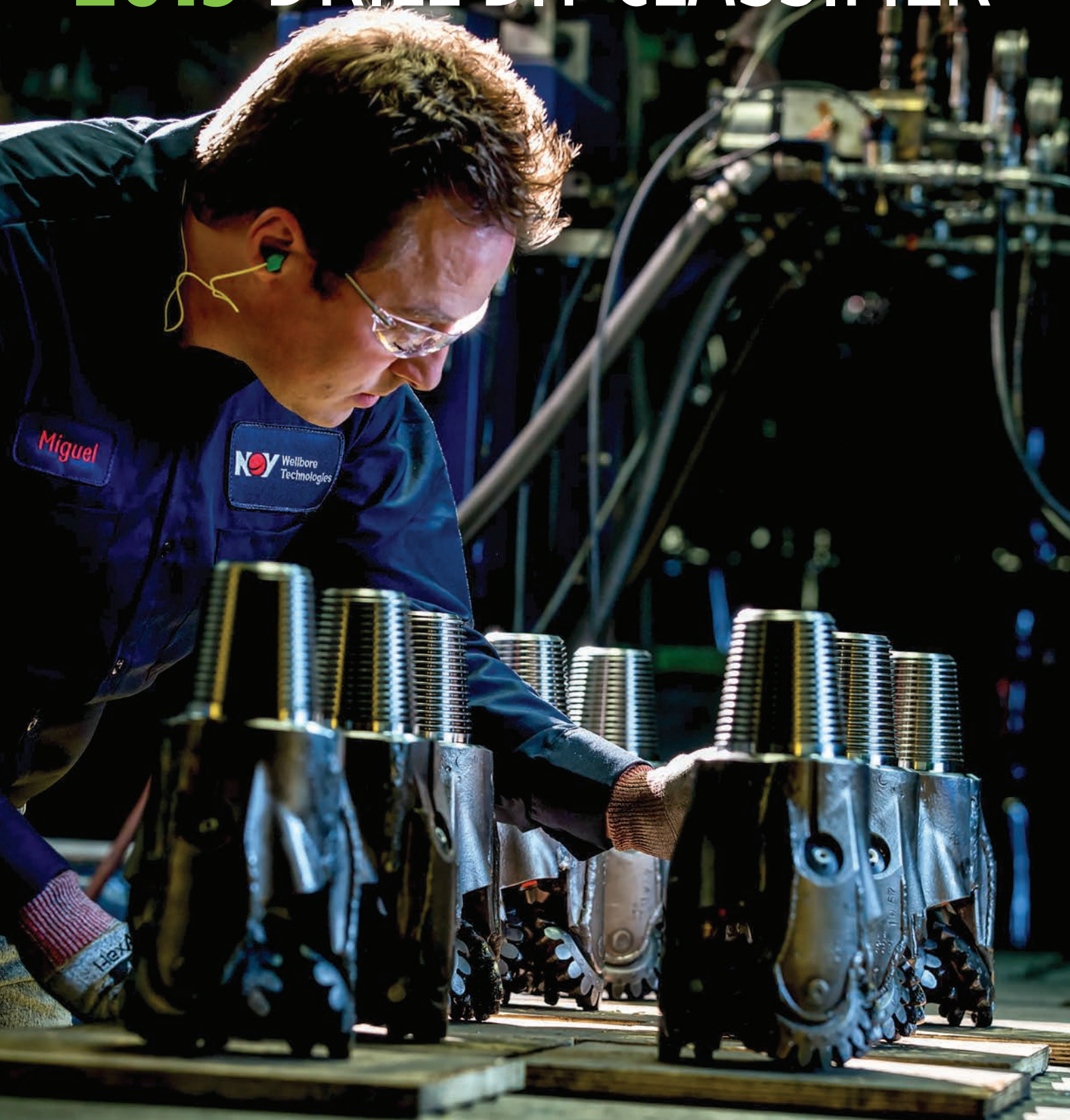
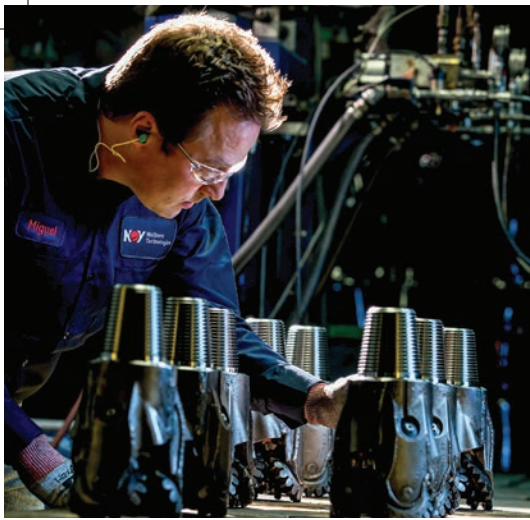


2015 DRILL BIT CLASSIFIER



SPECIAL SUPPLEMENT TO
World Oil[®]
PUBLISHED IN OCTOBER 2015



World Oil's 2015 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 Drill 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," Paper IADC/SPE 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, as described below. 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 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, e.g., 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, like quartzite and 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 shaped insert

World Oil

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, central mailing addresses and company websites are shown below.

Atlas Copco	2100 N 1st Street, Garland, Texas, 75040 www.atlascopco.com
Baker Hughes	9110 Grogans Mill Road, The Woodlands, Texas 77380 www.bakerhughes.com
Bit-Tech SPH, Inc.	P.O. Box 1298, Waskom, Texas 75692 www.bit-tech.com
Drill Master, Inc.	26797 Hanna Road #9, Oak Ridge North, Texas 77385 www.officialdrillmaster.com
Halliburton	P.O. Box 60490, Houston, Texas 77205 www.halliburton.com
Kingdream Public Limited Company	No. 5, Huagongyuan No.1 Road, Miaoshan Division, East Lake New & Hi-Tech. Devel. Zone Wuhan, Hubei Province 430223, PRC China www.kingdream.com
NOV Downhole / ReedHycalog Bits	7909 Parkwood Circle Drive, Houston, Texas 77036 www.nov.com/downhole
Smith Bits, a Schlumberger Company	P.O. Box 60068, Houston, Texas 77205 www.smith.com
Tercel Oilfield Products	14902 Sommermeyer Street, Suite 100, Houston, Texas 77041 www.terceloilfield.com
TIX-TSK Corporation	4-11-1, Shiba, Minato-ku, Tokyo 108-0014, Japan www.tix.co.jp
Ulterra Drilling Technologies L.P.	420 Throckmorton, Fort Worth, Texas 76102 www.ulterra.com
Varel International, Inc.	1625 West Crosby Road, Suite 124, Carrollton, Texas 75006 www.varelintl.com

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.

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About the cover: A National Oilwell Varco (NOV) machinist at the Conroe, Texas, facility inspects roller cone bits during the manufacturing process. NOV celebrates 100 years of offering roller cone bits during 2016.



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	
HJT447	447	8½, 8¾, 12¼	2,000-5,500	240-60	CGLY	GS12	435X	16	1,000-4,000	300-50	BGHMX	XZ15GFPC	445X	16, 17½	1,000-3,500	150-80	CGLX	
MD437	437	5½, 6, 6½, 6¾, 8½, 8¾, 9½, 9¾, 12¼	2,000-5,500	300-60	CXY	GS12B	435X	16, 17½, 22	1,000-4,000	300-50	BGHMWX	Varel						
MD447	447	6, 6½, 7½, 8½, 8¾, 8¾, 9½, 9¾, 12¼	2,000-5,500	240-60	CXY	GS12BD	435X	22	1,000-4,000	300-50	BGHMWX	HR04V	415X	14¾, 16, 17, 17½	1,000-4,000	300-50	CMW	
SMD437	437	8½, 12¼	2,000-3,000	400-100	GL	GS12HB	435X	17½	1,000-4,000	300-50	BGHMWX	HE04V	417X	12¼	1,000-5,000	300-50	CMW	
SMD447	447	8½, 12¼	2,000-3,500	400-180	GL	GS12HBD	435X	17½	1,000-4,000	300-50	BGHMWX	HE04	417X	10½, 10¾, 11, 13½, 13¾	1,000-5,000	300-50	CMW	
YC437	437	4¾, 4¾, 6	1,500-4,000	180-60		GS112B	435X	16, 17½, 22	1,000-4,000	300-50	BGHMWX	HE09V	427X	8½, 8¾	1,250-5,000	300-50	CMW	
ReedHycalog Bits						GS112HB	435X	17½	1,000-4,000	300-50	BGHMWX	ER14	435X	22, 23, 23¾, 26, 28	1,000-4,500	150-50	CMW	
R01A	417	8½	2,000-3,500	200-60	GMWX	GS112HUB	435X	16, 22, 28	1,000-4,000	300-50	BGHMWX	ER14V	435X	28, 30	1,000-4,500	150-50	CMW	
R03A	417	7½, 8¾, 12¼	2,000-3,500	200-60	CGMWX	GS11	435X	36	1,000-3,000	300-50	BGHMX	HR14V	435X	15½, 16, 17½, 18¼	1,000-4,500	300-50	CMW	
R07	427	11¾	2,000-3,500	200-60	CGMWY	SB435	435X	17½, 24, 26	1,000-3,000	160-50	X	HR13V	435V	16	1,000-4,500	300-50	CMW	
R07A	427	5¾, 5¾, 12¼	2,000-3,500	200-60	CGMX	TCT12	437T	12¼	1,000-4,000	300-50	BGHMTX	HE10V	437X	8¾, 8¾	1,250-5,000	300-50	CMW	
R09A	437	7½, 8½	2,000-6,000	200-60	GMWX	TCT11	437T	12¼	1,000-3,000	280-50	BGHMTX	HR12V	435X	14¾	1,000-4,500	300-50	CMW	
R11A	437	8½	2,000-5,000	200-60	GMWX	F1	437X	12¼	2,000-5,000	160-50	X	HE12	437X	13¾	1,250-5,000	300-50	CMW	
R12A	437	6	2,000-5,000	200-60	GMWX	GF08B	437X	8½	2,000-5,000	280-50	BGHMWX	HE12V	437X	12¼	1,250-5,000	300-50	CMW	
R14A	447	7¾	2,000-5,000	200-60	GMWX	GF10B	437X	8¾, 9¼, 12¼	2,000-5,000	280-50	BGHMWX	CM14	437X	5¾	1,250-5,000	275-50	MW	
R15A	447	9¾, 11¾, 12¼	2,000-5,000	200-60	CGMWX	GF10	437X	8¾, 8¾	2,000-5,000	280-50	BGHMX	HE14	437X	10¾	1,250-5,000	300-50	CMW	
RD12	437	8½	2,000-5,000	200-60	GMWVZ	GF12B	437X	12¼	2,000-5,000	280-50	BGHMWX	HE14V	437X	7¾, 7¾, 8¾, 8¾, 8¾, 8¾, 8¾, 10¾, 11¾, 12, 12¼	1,250-5,000	300-50	CMW	
RD15	447	8½, 12¼	2,000-5,000	200-60	CGHMWZ	GFK08B	437X	8½	2,000-5,000	280-50	BGHMWX	HR18V	445X	14¾, 16, 17½, 18¼	1,500-4,500	300-50	CMW	
RH09A	437	8¾	2,000-5,500	200-60	GMWX	GFS10	437X	10¾	2,000-5,000	280-50	BGHMX	CM18	447X	5¾, 6	1,500-5,500	275-50	CMW	
RH12A	437	6¾, 8½, 10¾, 12¼, 12¾	2,000-5,500	200-60	CGMWX	GFS10B	437X	12, 12¼	2,000-5,000	280-50	BGHMWX	HE18V	447X	7¾, 8¾, 8¾, 8¾, 8¾, 9¾, 12¼	1,500-5,500	300-50	CMW	
RH14A	447	8¾	2,000-5,500	200-60	CGMWX	GFS11	437X	8½	2,000-5,000	280-50	BGHMX	Fish tail bits						
RH15A	447	8½, 9¾, 12¼	2,000-5,500	200-60	CGMWX	GFS112	437X	8½	2,000-5,000	280-50	BGHMX	Bit-Tech						
S41A	415	16	2,000-5,500	450-60	X	SB437	437X	8½, 8¾, 12¼, 17½	1,000-4,000	160-50	X	B44-M	M232	6¼, 4¾	300-2,000	100-500	ADGMWV	
S42A	425	16	2,000-5,500	450-60	X	SB437D	437X	8½, 12¼	1,000-4,000	160-50	WX	PDC drill bits						
S43A	435, 437	8½, 12¼, 16, 17½	2,000-6,000	450-60	X	SB437DD	437X	8½	1,000-4,000	160-50	WX	Atlas Copco						
S44	445	17½	2,000-6,000	450-60	Y	XR10T	437X	6, 6¾, 6¾	1,000-5,000	300-50	HMX	D013	3-5%	400-2,000	60-250			
S44A	445, 447	8½, 12¼, 16	2,000-6,000	450-60	X	F12Y	437Y	7¾	2,000-5,000	160-50	Y	D313	3¾-5¾	400-2,000	60-250			
T41	415	16, 16½, 17, 17½, 18½, 20, 22, 26, 28	2,000-6,000	450-60	YW	GFS11YB	437Y	12¼	2,000-5,000	280-50	BGHMWY	D513	5¾-12¼	400-2,000	60-250			
T41A	415	23½, 24	2,000-6,000	450-60	XW	TCTSH18B	445T	26	1,000-4,000	280-50	BGHMTX	DP316	6¾-8¾	400-2,000	60-250			
T42	425	16, 17½	2,500-7,500	450-60	YW	G15B	445X	17½	1,500-4,000	250-50	BGHMWX	DP516	7¾-13¾	400-2,000	60-250			
T43	435	14¾, 16, 16½, 18½, 18¾, 20, 22, 23, 28	2,000-6,000	450-60	YW	G18BDB	445X	16	1,500-4,000	250-50	BGHMWX	DP616	9¾-17½	400-2,000	60-250			
T43A	435	22, 26	2,000-6,000	450-60	XW	GS15	445X	20	1,500-4,000	250-50	BGHMX	M419	5¾-17½	400-4,000	60-400	X.U		
T44	445	14¾, 16, 17, 17½	2,000-5,000	450-60	CGMWY	GS18	445X	17½, 24, 26	1,500-4,000	250-50	BGHMX	M519	6¾-17½	400-4,000	60-400	X.U		
T44A	445	24	2,000-5,000	450-60	CGMWX	GS18B	445X	16, 24, 28	1,500-4,000	250-50	BGHMWX	M619	7¾-17½	400-4,000	60-400	X.U		
TH41A	415	16, 17½	2,000-5,000	450-60	CGMWX	GS18UB	445X	16	1,500-4,000	250-50	BGHMWX	M719	9¾-17½	400-4,000	60-400	X.U		
TH42A	425	16, 17½, 22	2,000-6,000	450-60	CGMWX	GS16B	445X	16	1,500-4,000	250-50	BGHMWX	M819	10¾-17½	400-4,000	60-400	X.U		
TH43A	435	16, 17½, 22	2,000-6,000	450-60	CGMWX	GS18B	445X	16, 16½, 17, 17¼, 17½, 28	1,500-4,000	250-50	BGHMWX	M919	10¾-17½	400-4,000	60-400	X.U		
TH44A	445	16, 17½	2,000-5,000	450-60	CGMWX	M15S	445X	23	1,000-3,000	220-50	HMX	S419	5¾-12¼	400-4,000	60-400	X.U		
Smith Bits						SB445	445X	16, 17½, 20, 24, 26, 28	1,000-3,000	160-50	X	S519	6¾-14¾	400-4,000	60-400	X.U		
TCT101B	415T	17½	1,000-3,000	300-50	BGHMTWX	SB445D	445X	12¼	1,000-3,000	160-50	WX	S619	7¾-17½	400-4,000	60-400	X.U		
TCT103B	415T	17½	1,000-3,000	300-50	BGHMTWX	FH118B	447X	7¾, 8¾	2,000-5,000	220-50	WX	S719	9¾-17½	400-4,000	60-400	X.U		
TCT103BD	415T	17½	1,000-3,000	300-50	BGHMTWX	FK15	447X	8½	2,000-5,000	220-50	WX	S819	15½-36	400-4,000	60-400	X.U		
G03B	415X	18¾	1,000-4,000	300-50	BGHMTWX	GF15	447X	8½	2,000-5,000	280-50	BGHMX	S919	20-36	400-4,000	60-400	X.U		
G04B	415X	12¼, 24, 26, 30	1,000-4,000	300-50	BGHMTWX	GFS15	447X	8½	2,000-5,000	280-50	BGHMX	S1119	20-36	400-4,000	60-400	X.U		
G101B	415X	17½	1,000-4,000	300-50	BGHMTWX	GFS15WB	447X	12¼	2,000-5,000	280-50	BGHMWX	S1319	20-36	400-4,000	60-400	X.U		
G103BD	415X	17½	1,000-4,000	300-50	BGHMTWX	MF15B	447X	8¾, 10%	2,000-5,000	220-50	HMWX	S1519	20-36	400-4,000	60-400	X.U		
GS03	415X	34	1,000-4,000	300-50	BGHMX	SB447	447X	12¼	1,000-4,000	160-50	X	Baker Hughes						
GS03B	415X	16, 16½, 17½, 18¾, 18¾	1,000-4,000	300-50	BGHMWX	XR15	447X	4¾, 5¾, 5¾, 5¾	1,000-5,000	300-50	HMX	HC404	M123	3¼-28	235-2,500	350-50	DGWW	
GS04B	415X	24, 26	1,000-4,000	300-50	BGHMWX	XR15T	447X	5¾, 6, 6¾, 6¾	1,000-5,000	300-50	HMX	HC405	M333	3¼-28	235-2,500	350-50	DGWW	
GS04UB	415X	23¾, 24, 26	1,000-4,000	300-50	BGHMWX	FH118Y	447Y	7¾	2,000-5,000	220-50	Y	HC503	M123	3¼-28	235-2,500	350-50	DGWW	
GS101B	415X	16, 17½	1,000-4,000	300-50	BGHMWX	Tercel				HC504	M123	3¼-28	235-2,500	350-50	DGWW			
GS103B	415X	16, 17½	1,000-4,000	300-50	BGHMWX	G42FH	427	6, 8½, 9¾, 12¼	1,500-3,500	60-120	GW	HC505	M223	3¼-28	235-2,500	350-50	DGWW	
GS103BD	415X	17½	1,000-4,000	300-50	BGHMWX	G43FH	437	6, 8½, 9¾, 12¼	1,500-3,500	60-120	GW	HC603	M123	3¼-28	235-2,500	350-50	DGWW	
M04	415X	23	1,000-3,000	220-50	HMX	G44SH	445	17½	1,500-4,000	60-110	SG	HC604	M123	3¼-28	235-2,500	350-50	DGWW	
SB415	415X	24, 26	1,000-3,000	160-50	X	P41FH	417	8½, 9¾, 12¼	1,500-3,500	75-275	GW	HC605	M323	3¼-28	235-2,500	350-50	DGWW	
F02B	417X	10¾	2,000-5,000	160-50	X	P44SH	445	17½	1,500-4,000	75-275	GWC	HCD404	M133	3¼-28	235-2,500	350-50	DGMWV	
FH104	417X	8½	2,000-5,000	220-50	X	M41FH	417	8½, 9¾, 12¼	1,500-3,500	80-300	GWB	HCD405	M233	3¼-28	235-2,500	350-50	DGMWV	
GF04B	417X	12¼	1,000-5,000	280-50	BGHMWX	M44SH	445	17½	1,500-4,000	80-300	CGWB	HCD504	M123	3¼-28	235-2,500	350-50	DGMWV	
GFH03	417X	8¾	1,000-5,000	280-50	BGHMX	TIX-TSK				HCD505	M223	3¼-28	235-2,500	350-50	DGMWV			
GFH03	417X	8¾	1,000-5,000	280-50	BGHMX	M04GF	417X	12¼	1,000-4,000	250-60	GMX</							



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
T605S	S323	5½-28	235-2,500	350-50	DGWW	FX56s	S122	14¾-23	500-2,000	60-400	MVWRst	SK416		4½, 5½, 6½, 7½, 8½, 9½, 10½, 11½, 12½	750-5,500	Variable	GHMW-UmRst
T605FS	S323	5½-28	235-2,500	350-50	DGWW	FX86s	S122	14¾-23	500-2,000	60-400	MVWRst	SK419		4½, 5½, 6½, 7½, 8½, 9½, 10½, 11½, 12½	750-5,500	Variable	GHMW-UmRst
TD505S	S323	5½-28	235-2,500	350-50	DGMVW	FX95s	S122	14¾-23	500-2,000	60-400	MVWRst	Smith Bits					
TD505FS	S323	5½-28	235-2,500	350-50	DGMVW	GT86Ds	S122	14¾-23	500-2,000	60-400	MVWRst	H0X616	M223	8½, 8¾, 10%, 12½	500-4,000	60-400	GHM-NUmVW
TD605S	S323	5½-28	235-2,500	350-50	DGMVW	SF56	S122	14¾-23	500-2,000	60-400	MVWRst	H0X5616	M223	8¾	500-4,000	60-400	GHM-NUmVW
TD605FS	S323	5½-28	235-2,500	350-50	DGMVW	SF86	S122	14¾-23	500-2,000	60-400	MVWRst	JZ616		8½	500-4,000	60-400	GHM-NUmVW
Bit-Tech						FX46s	S123	8½-26	500-2,000	60-400	MVWRst	M419	M121	8½, 8¾	400-3,000	60-400	GHM-NRstUmVW
	M131	6¼, 4¾	300-2,000	100-500	ADGMVW	FX55Rs	S123	8½-26	500-2,000	60-400	MVWRst	M516	M223	8½, 11%, 12½	500-4,000	60-400	GHM-NRstUmVW
DB Bits						FX55s	S123	8½-26	500-2,000	60-400	MVWRst	M519	M223	8½, 10%	400-3,000	60-400	GHM-NRstUmVW
D316	M122	6¾, 7¾, 8½, 8¾	250-2,500	60-350	DGHMWW	FX56Rs	S123	8½-26	500-2,000	60-400	MVWRst	M616	M223	7¾, 8½, 8¾, 9¾, 10%	500-4,000	60-400	GHM-NRstUmVW
D413	M132	6, 6½, 6¾, 6½, 6¾, 7¾, 8½, 8¾, 9¾	250-2,500	60-350	DGHMWW	FX56s	S123	8½-26	500-2,000	60-400	MVWRst	M619		12½	400-3,000	60-400	GHM-NRstUmVW
D416	M122	6, 6½, 6¾, 6½, 6¾, 7¾, 8½, 8¾, 9¾	250-2,500	60-350	DGHMWW	FX65Ds	S123	8½-26	500-2,000	60-400	MVWRst	M716	M323	6, 8¾, 9¾, 11, 12, 14¾	500-4,000	60-400	GHM-NRstUmVW
D419	M122	6, 6½, 6¾, 6½, 6¾, 7¾, 8½, 8¾, 9¾	250-2,500	60-350	DGHMWW	FX65Rs	S123	8½-26	500-2,000	60-400	MVWRst	M816		8%	500-4,000	60-400	GHM-NRstUmVW
D519	M122	6¾, 7¾, 8½, 8¾, 9¾, 12½	250-2,500	60-350	DGHMWW	FX65s	S123	8½-26	500-2,000	60-400	MVWRst	M819		9¾	400-3,000	60-400	GHM-NRstUmVW
Drill Master, Inc.						FX66s	S123	8½-26	500-2,000	60-400	MVWRst	M916	M423	16	500-4,000	60-400	GHM-NRstUmVW
M313	M131	6¾	200-2,500	60-350	GHMIRSTUI	SF46	S123	8½-26	500-2,000	60-400	MVWRst	MA616	M223	5½, 6, 8¾, 8½	500-4,000	60-400	GHM-NRstUmVW
M316	M121	7¾	250-2,500	60-400	GHMIRSTUI	SF55	S123	8½-26	500-2,000	60-400	MVWRst	MA619	M223	8½, 12½, 18½	400-3,000	60-400	GHM-NRstUmVW
M319	M121	8½	250-2,500	60-400	GHMUI	SF56	S123	8½-26	500-2,000	60-400	MVWRst	MA89		8%	500-4,000	60-400	GHM-NRstUmVW
Halliburton						SF66	S123	8½-26	500-2,000	60-400	MVWRst	MAI616		5%	500-4,000	60-400	GHM-NRstUmVW
FX46	M122	12¼-17½	500-2,000	60-400	MVWRst	SF66D	S123	8½-26	500-2,000	60-400	MVWRst	MAS1716		7¾, 8¾	500-4,000	60-400	GHM-NRstUmVW
FX76	M122	12¼-17½	500-2,000	60-400	MVWRst	SF75	S123	8½-26	500-2,000	60-400	MVWRst	MAX89		8%	500-4,000	60-400	GHM-NRstUmVW
MM66	M122	12¼-17½	500-2,000	60-400	MVWRst	SF86	S123	8½-26	500-2,000	60-400	MVWRst	MAZ616		8½	500-4,000	60-400	GHM-NRstUmVW
FX55	M123	12¼-18½	500-2,000	60-400	MVWRst	SF95D	S123	8½-26	500-2,000	60-400	MVWRst	MAZ89		8%	500-4,000	60-400	GHM-NRstUmVW
FX56	M123	12¼-18½	500-2,000	60-400	MVWRst	FX36s	S124	12¼-26	500-2,000	60-400	MVWRst	MD519	M223	8½, 12½	400-3,000	60-400	GHM-NRstUmVW
FX56M	M123	12¼-18½	500-2,000	60-400	MVWRst	FX46s	S124	12¼-26	500-2,000	60-400	MVWRst	MD616	M223	8¾, 8½, 9½, 12¼, 14¾	500-4,000	60-400	GHM-NRstUmVW
FX65	M123	12¼-18½	500-2,000	60-400	MVWRst	FX56s	S124	12¼-26	500-2,000	60-400	MVWRst	MD716		12	500-4,000	60-400	GHM-NRstUmVW
FX65D	M123	12¼-18½	500-2,000	60-400	MVWRst	FX75s	S124	12¼-26	500-2,000	60-400	MVWRst	MDA619		12½	400-3,000	60-400	GHM-NRstUmVW
FX65i	M123	12¼-18½	500-2,000	60-400	MVWRst	FX75s	S124	12¼-26	500-2,000	60-400	MVWRst	MDI319		8½	400-3,000	60-400	GHM-NRstUmVW
FX65R	M123	12¼-18½	500-2,000	60-400	MVWRst	FX85s	S124	12¼-26	500-2,000	60-400	MVWRst	MDI416	M123	6¾, 8¾, 12½	500-4,000	60-400	GHM-NRstUmVW
FX66	M123	12¼-18½	500-2,000	60-400	MVWRst	FX85R	S124	12¼-26	500-2,000	60-400	MVWRst	MDI419	M121	8¾, 8¾, 9, 9½, 11½, 12½	400-3,000	60-400	GHM-NRstUmVW
FX66DM	M123	12¼-18½	500-2,000	60-400	MVWRst	FX86R	M123	12¼-18½	500-2,000	60-400	MVWRst	MDI516	M223	6, 6½, 6¾, 6¾, 7¾, 8½, 8¾, 9¾, 12¼	500-4,000	60-400	GHM-NRstUmVW
FX66M	M123	12¼-18½	500-2,000	60-400	MVWRst	FX96D	M123	12¼-18½	500-2,000	60-400	MVWRst	MDI519	M223	8½, 8¾, 9¾, 12¼, 14, 14¾, 17	400-3,000	60-400	GHM-NRstUmVW
FX75	M123	12¼-18½	500-2,000	60-400	MVWRst	MM55	M123	12¼-18½	500-2,000	60-400	MVWRst	MDI616	M323	6, 6¾, 7¾, 8¾, 8½, 8¾, 9¾, 9¾, 10½, 10½, 11½, 12¼, 13½, 14½, 14¾, 16, 17, 17½	500-4,000	60-400	GHM-NRstUmVW
FX75i	M123	12¼-18½	500-2,000	60-400	MVWRst	MM56M	M123	12¼-18½	500-2,000	60-400	MVWRst	MDI619	M223	7¾, 8½, 8¾, 12¼, 14½, 14¾, 16, 16½, 17½	400-3,000	60-400	GHM-NRstUmVW
FX75M	M123	12¼-18½	500-2,000	60-400	MVWRst	MM65	M123	12¼-18½	500-2,000	60-400	MVWRst	MDI716	M223	8¾, 8½, 9½, 10½, 11½, 12, 12¼, 14¾, 14¾, 16, 16½, 17½	500-4,000	60-400	GHM-NRstUmVW
FX76	M123	12¼-18½	500-2,000	60-400	MVWRst	MM66	M123	12¼-18½	500-2,000	60-400	MVWRst	MDI816	M323	8¾, 8½, 12¼, 13¾, 14½, 17, 17½, 18½	500-4,000	60-400	GHM-NRstUmVW
FX76R	M123	12¼-18½	500-2,000	60-400	MVWRst	MM66M	M123	12¼-18½	500-2,000	60-400	MVWRst	MDI916		17½	500-4,000	60-400	GHM-NRstUmVW
FX85	M123	12¼-18½	500-2,000	60-400	MVWRst	MM66M	M123	12¼-18½	500-2,000	60-400	MVWRst	MDIZ516		7¾, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW
FX85M	M123	12¼-18½	500-2,000	60-400	MVWRst	MM66M	M123	12¼-18½	500-2,000	60-400	MVWRst	MDIZ519		8½, 12½	400-3,000	60-400	GHM-NRstUmVW
FX85R	M123	12¼-18½	500-2,000	60-400	MVWRst	MM75M	M123	12¼-18½	500-2,000	60-400	MVWRst	MDIZ616		7¾, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW
FX86R	M123	12¼-18½	500-2,000	60-400	MVWRst	MM85M	M123	12¼-18½	500-2,000	60-400	MVWRst	MDIZ619		12½	400-3,000	60-400	GHM-NRstUmVW
FX96D	M123	12¼-18½	500-2,000	60-400	MVWRst	FX56	M124	12¼-17½	500-2,000	60-400	MVWRst	MDIZ716		8½	500-4,000	60-400	GHM-NRstUmVW
MM55	M123	12¼-18½	500-2,000	60-400	MVWRst	FX56R	M124	12¼-17½	500-2,000	60-400	MVWRst	MDS616		9½, 14¾	500-4,000	60-400	GHM-NRstUmVW
MM56M	M123	12¼-18½	500-2,000	60-400	MVWRst	FX65	M124	12¼-17½	500-2,000	60-400	MVWRst	MDSI416	M123	8½, 9¾, 12½	500-4,000	60-400	GHM-NRstUmVW
MM65	M123	12¼-18½	500-2,000	60-400	MVWRst	FX65i	M124	12¼-17½	500-2,000	60-400	MVWRst						
MM66	M123	12¼-18½	500-2,000	60-400	MVWRst	FX75	M124	12¼-17½	500-2,000	60-400	MVWRst						
MM66M	M123	12¼-18½	500-2,000	60-400	MVWRst	FX75D	M124	12¼-17½	500-2,000	60-400	MVWRst						
MM75M	M123	12¼-18½	500-2,000	60-400	MVWRst	FX75i	M124	12¼-17½	500-2,000	60-400	MVWRst						
MM85M	M123	12¼-18½	500-2,000	60-400	MVWRst	FX76	M124	12¼-17½	500-2,000	60-400	MVWRst						
FX56	M124	12¼-17½	500-2,000	60-400	MVWRst	FX85	M124	12¼-17½	500-2,000	60-400	MVWRst						
FX56R	M124	12¼-17½	500-2,000	60-400	MVWRst	FX85D	M124	12¼-17½	500-2,000	60-400	MVWRst						
FX65	M124	12¼-17½	500-2,000	60-400	MVWRst	FX85R	M124	12¼-17½	500-2,000	60-400	MVWRst						
FX75	M124	12¼-17½	500-2,000	60-400	MVWRst	MM56	M124	12¼-17½	500-2,000	60-400	MVWRst						
FX75D	M124	12¼-17½	500-2,000	60-400	MVWRst	MM65	M124	12¼-17½	500-2,000	60-400	MVWRst						
FX75i	M124	12¼-17½	500-2,000	60-400	MVWRst	MM75D	M124	12¼-17½	500-2,000	60-400	MVWRst						
FX76	M124	12¼-17½	500-2,000	60-400	MVWRst	MM76	M124	12¼-17½	500-2,000	60-400	MVWRst						
FX85	M124	12¼-17½	500-2,000	60-400	MVWRst	FX54	M132	12¼	500-2,000	60-400	MVWRst						
FX85D	M124	12¼-17½	500-2,000	60-400	MVWRst	FX24i	M133	8½-17½	500-2,000	60-400	MVWRst						
FX85R	M124	12¼-17½	500-2,000	60-400	MVWRst	FX34	M133	8½-17½	500-2,000	60-400	MVWRst						
MM56	M124	12¼-17½	500-2,000	60-400	MVWRst	FX54	M133	8½-17½	500-2,000	60-400	MVWRst						



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
MDSI516		6, 6½, 6¾, 7¼, 8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	MSI616	M433	6, 6½, 6¾, 7¼, 8½, 8¾, 9½, 9¾, 10½, 11, 12¼, 13¼, 13½, 16	500-4,000	60-400	GHM-NRstUmVW	SDXIZ513		8½	500-4,000	60-400	GHM-NRstUmVW
MDSI519	M123	8½, 8¾, 9½, 12¼	400-3,000	60-400	GHM-NRstUmVW							SI416		8½	500-4,000	60-400	GHM-NRstUmVW
MDSI616	M222	6¾, 6¾, 7¼, 8¾, 8¾, 8¾, 8¾, 9½, 10¼, 10¾, 11¾, 12¼, 14½, 14¾, 16, 17	500-4,000	60-400	GHM-NRstUmVW	MSI619		8¾, 8¾, 12¼	400-3,000	60-400	GHM-NRstUmVW	SI419		8½	400-3,000	60-400	GHM-NRstUmVW
						MSI716	M433	7½, 7¾, 8½, 8¾, 9¾, 12, 12¼, 16, 17½	500-4,000	60-400	GHM-NRstUmVW	SI516		6¼, 12¼	500-4,000	60-400	GHM-NRstUmVW
MDSI619	M223	12¼, 14¾	400-3,000	60-400	GHM-NRstUmVW	MSI719		8¾, 12¼	400-3,000	60-400	GHM-NRstUmVW	SI519	S123	8½, 12¼, 15½	400-3,000	60-400	GHM-NRstUmVW
MDSI716	M223	8¾, 8¾, 8¾, 8¾, 8¾, 9½, 9¾, 10¼, 10¾, 12¼, 14¾, 16, 16½	500-4,000	60-400	GHM-NRstUmVW	MSI816	M432	8¾, 8¾, 8¾, 9¾, 9¾, 12¼, 13½, 16, 17, 17½	500-4,000	60-400	GHM-NRstUmVW	SI616		7¾, 8½, 8¾, 11, 12¼, 13½, 16	500-4,000	60-400	GHM-NRstUmVW
						MSI916		16	500-4,000	60-400	GHM-NRstUmVW	SI619	S223	12¼, 13½, 17½, 26	400-3,000	60-400	GHM-NRstUmVW
MDSI816		8¾, 8¾, 12¼, 17½, 18¾, 18¾	500-4,000	60-400	GHM-NRstUmVW	MSI916		16	500-4,000	60-400	GHM-NRstUmVW	SI819		18½, 23	400-3,000	60-400	GHM-NRstUmVW
MDSI916		8¾	500-4,000	60-400	GHM-NRstUmVW	MSIR616		9¾	500-4,000	60-400	GHM-NRstUmVW	SI913		16	500-4,000	60-400	GHM-NRstUmVW
MDSIR516		6¾	500-4,000	60-400	GHM-NRstUmVW	MSIZ516		8½	500-4,000	60-400	GHM-NRstUmVW	SI916		12¼	500-4,000	60-400	GHM-NRstUmVW
MDSIR616		8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MSIZ519		8½, 8¾	400-3,000	60-400	GHM-NRstUmVW	SI919		22	400-3,000	60-400	GHM-NRstUmVW
MDSIR716		6¾	500-4,000	60-400	GHM-NRstUmVW	MSIZ616		8½, 8¾, 9¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	SI2516		8¾	500-4,000	60-400	GHM-NRstUmVW
MDSIR816		9¾	500-4,000	60-400	GHM-NRstUmVW	MSIZ619		8¾	400-3,000	60-400	GHM-NRstUmVW	SI2616		8½	500-4,000	60-400	GHM-NRstUmVW
MDSIZ516		8¾	500-4,000	60-400	GHM-NRstUmVW	MSIZ716		8½	500-4,000	60-400	GHM-NRstUmVW	SPSI616		17½	500-4,000	60-400	GHM-NRstUmVW
MDSIZ519		8¾	400-3,000	60-400	GHM-NRstUmVW	MSIZ816		16	500-4,000	60-400	GHM-NRstUmVW	SSI516		12¼	500-4,000	60-400	GHM-NRstUmVW
MDSIZ616		8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	MSX616		8½	500-4,000	60-400	GHM-NRstUmVW	SSI616		12¼, 17½	500-4,000	60-400	GHM-NRstUmVW
MDSIZ619		12¼	400-3,000	60-400	GHM-NRstUmVW	MSX619		12¼	400-3,000	60-400	GHM-NRstUmVW	SSI619		20, 23	400-3,000	60-400	GHM-NRstUmVW
MDSIZ716		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MSX716		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	SSI716		12¼	500-4,000	60-400	GHM-NRstUmVW
MDSIZ816		12¼	500-4,000	60-400	GHM-NRstUmVW	MSZ716		12	500-4,000	60-400	GHM-NRstUmVW	SSI916		22	500-4,000	60-400	GHM-NRstUmVW
MDSIZR-816		12¼	500-4,000	60-400	GHM-NRstUmVW	MV616		6¼	500-4,000	60-400	DGHM-NRstUmVW	SSI2616		16	500-4,000	60-400	GHM-NRstUmVW
MDSXI616		12¼	500-4,000	60-400	GHM-NRstUmVW	MV716	M323	8½, 12¼	500-4,000	60-400	DGHM-NRstUmVW	SSXI616		12¼	500-4,000	60-400	GHM-NRstUmVW
MDX516		8½	500-4,000	60-400	GHM-NRstUmVW	MZ616		8½, 12¼, 16	500-4,000	60-400	GHM-NRstUmVW	SSXI619		12¼	400-3,000	60-400	GHM-NRstUmVW
MDX616		12¼	500-4,000	60-400	GHM-NRstUmVW	MZ716		12	500-4,000	60-400	GHM-NRstUmVW	SXI616		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW
MDZI616		14½	500-4,000	60-400	GHM-NRstUmVW	R716		6¾	500-4,000	60-400	GHM-NRstUmVW	SXI619		12¼	400-3,000	60-400	GHM-NRstUmVW
MI316	M123	8½	500-4,000	60-400	GHM-NRstUmVW	S516	S123	17	500-4,000	60-400	GHM-NRstUmVW	VIS416		8½	500-4,000	60-400	GHM-NRstUmVW
MI416	M123	6¾, 7¼, 8½	500-4,000	60-400	GHM-NRstUmVW	S519	S123	8½, 9½, 10¾, 12¼, 13½, 13¾, 14¾, 17, 17½	400-3,000	60-400	GHM-NRstUmVW	VIS419		8½, 12¼	400-3,000	60-400	GHM-NRstUmVW
MI516	M123	5¾, 6, 6½, 6¼, 7¾, 7¾, 8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	S619	S223	8½, 12¼, 17	400-3,000	60-400	GHM-NRstUmVW	VIS516		8½	500-4,000	60-400	GHM-NRstUmVW
MI519	M123	7¾, 8½, 8¾, 9¾, 12¼	400-3,000	60-400	GHM-NRstUmVW	S919		22	500-4,000	60-400	GHM-NRstUmVW	VIS519		12¼	400-3,000	60-400	GHM-NRstUmVW
MI616	M323	7¾, 8½, 8¾, 9¾, 10¾, 11, 12¼, 13½	500-4,000	60-400	GHM-NRstUmVW	SD516		11%	500-4,000	60-400	GHM-NRstUmVW	Z316		7¾	500-4,000	60-400	GHM-NRstUmVW
MI619	M223	7¾, 8¾, 12¼, 17	400-3,000	60-400	GHM-NRstUmVW	SDI416		7¾	500-4,000	60-400	GHM-NRstUmVW	Z319		8¾	400-3,000	60-400	GHM-NRstUmVW
MI622		12¼	400-3,000	60-400	GHM-NRstUmVW	SDI419		11%, 12¼, 17½	400-3,000	60-400	GHM-NRstUmVW	Z416		8½	500-4,000	60-400	GHM-NRstUmVW
MI716	M223	6, 7¾, 8½, 9¾, 12, 12¼	500-4,000	60-400	GHM-NRstUmVW	SDI516		7¾, 8½, 8¾, 8¾, 8¾, 9¾, 11%	500-4,000	60-400	GHM-NRstUmVW	Z519		12¼	400-3,000	60-400	GHM-NRstUmVW
MI916		16	500-4,000	60-400	GHM-NRstUmVW	SDI519	S123	8½, 8¾, 12¼, 16, 17½, 18½	400-3,000	60-400	GHM-NRstUmVW	Z616		17½	500-4,000	60-400	GHM-NRstUmVW
MIR616		6¼	500-4,000	60-400	GHM-NRstUmVW	SDI616	S223	8½, 8¾, 11%, 12¼, 13½, 17½	500-4,000	60-400	GHM-NRstUmVW	ZR816		12¼	500-4,000	60-400	GHM-NRstUmVW
MIZ516		8¾	500-4,000	60-400	GHM-NRstUmVW	SDI619		12¼, 14¾, 16, 17½	400-3,000	60-400	GHM-NRstUmVW						
MIZ616		8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	SDI716		8½	500-4,000	60-400	GHM-NRstUmVW						
MIZ716		8½	500-4,000	60-400	GHM-NRstUmVW	SDI816		17½, 26	500-4,000	60-400	GHM-NRstUmVW						
MS419		8½, 8¾	400-3,000	60-400	GHM-NRstUmVW	SDIZ419		12¼	400-3,000	60-400	GHM-NRstUmVW	MP313	M233	6½, 6¾, 8½, 8¾, 9¾	500-2,500	50-400	G
MS516		8½	500-4,000	60-400	GHM-NRstUmVW	SDIZ516		8½	500-4,000	60-400	GHM-NRstUmVW	MP313C	M233	6½, 6¾, 8½, 8¾, 9¾	500-2,500	50-400	G
MS519		16½	400-3,000	60-400	GHM-NRstUmVW	SDIZ519		14¾	400-3,000	60-400	GHM-NRstUmVW	MP313M	M233	6½, 6¾, 8½, 8¾, 9¾	500-2,500	50-400	G
MS616		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	SDSI516		11%	500-4,000	60-400	GHM-NRstUmVW	MP313MC	M233	6½, 6¾, 8½, 8¾, 9¾	500-2,500	50-400	G
MS816		8¾	500-4,000	60-400	GHM-NRstUmVW	SDSI519	S423	12¼, 17½	400-3,000	60-400	GHM-NRstUmVW	MP316	M123	6½	500-2,500	50-400	G
MSI416	M221	6¾, 6¾, 7¼, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	SDSI616		8½, 11%, 12¼, 13½	500-4,000	60-400	GHM-NRstUmVW	MP316C	M123	6½	500-2,500	50-400	G
MSI516	M323	6¾, 6½, 7¼, 8½, 8¾, 9½, 9¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	SDSI619		12¼	400-3,000	60-400	GHM-NRstUmVW	MP316M	M123	6½	500-2,500	50-400	G
MSI519	M223	7¾, 8½, 8¾, 9¾, 12¼	400-3,000	60-400	GHM-NRstUmVW	SDSI716		17½	500-4,000	60-400	GHM-NRstUmVW	MP316MC	M123	6½	500-2,500	50-400	G
						SDXI516		8½	400-3,000	60-400	GHM-NRstUmVW	MP416	M223	8½, 8¾, 9¾, 10¾, 12¼	500-2,500	50-400	G
						SDXI519		8½	400-3,000	60-400	GHM-NRstUmVW	MP416C	M223	8½, 8¾, 9¾, 10¾, 12¼	500-2,500	50-400	G
												MP416M	M223	8½, 8¾, 9¾, 10¾, 12¼	500-2,500	50-400	G



Manufacturer/Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
MP416MC	M223	8½, 8¾, 9%, 10%, 12¼	500-2,500	50-400	G
MP419	M122	6¾, 12¼	500-2,500	50-400	G
MP419C	M122	6¾, 12¼	500-2,500	50-400	G
MP419M	M122	6¾, 12¼	500-2,500	50-400	G
MP419MC	M122	6¾, 12¼	500-2,500	50-400	G
MR313	M233	9%	500-2,500	50-200	G
MR313C	M233	9%	500-2,500	50-200	G
MR313M	M233	9%	500-2,500	50-200	G
MR313MC	M233	9%	500-2,500	50-200	G
MR319	M224	12¼, 17½	500-2,500	50-400	
MR319C	M224	12¼, 17½	500-2,500	50-400	
MR319M	M224	12¼, 17½	500-2,500	50-400	
MR319MC	M224	12¼, 17½	500-2,500	50-400	
SP316	S122	8½, 8¾	500-2,500	50-400	UL G H M RST W V
SP316C	S122	8½, 8¾	500-2,500	50-400	UL G H M RST W V
SP316M	S122	8½, 8¾	500-2,500	50-400	UL G H M RST W V
SP316MC	S122	8½, 8¾	500-2,500	50-400	UL G H M RST W V
SP319	S122	6, 8½, 12¼, 17½	500-2,500	50-400	UL G H M RST W V
SP319C	S122	6, 8½, 12¼, 17½	500-2,500	50-400	UL G H M RST W V
SP319M	S122	6, 8½, 12¼, 17½	500-2,500	50-400	UL G H M RST W V
SP319MC	S122	6, 8½, 12¼, 17½	500-2,500	50-400	UL G H M RST W V
Tri-Max					
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
Ulterra					
U313S	S132	8¾	500-4,000	Variable	BCDEFGSU
U309M	M343	6½	500-4,000	Variable	BCDEFGSU
U413M	M133, 4¾, 5½, 6%, 6¼, M134, 6½, 7%		500-4,000	Variable	BCDEFGSU
U416M	M123, 6, 6½, 6¾, 7%, 8%, M134, 8¾, 9%		500-4,000	Variable	BCDEFGSU
U419M	M123, 7%, 8½, 9%, 12¼		500-4,000	Variable	BCDEFGSU
U513M	M123, 5½, 6, 6¼, 6¾, M124, 6½, 6¾, 7%, 8%, M132, 8¾, 9½		500-4,000	Variable	BCDEFGSU
U516M	M122, 6, 6½, 6¾, 6¾, M123, 7%, 8½, 8¾, 9½, M124, 9%, 12¼		500-4,000	Variable	BCDEFGSU
U519M	M123, 6¼, 7%, 8½, 8¾, M132, 9%, 9½, 12¼		500-4,000	Variable	BCDEFGSU
U619M	M123, 7%, 8½, 8¾, 10%, M124, 11, 12¼, 13½		500-4,000	Variable	BCDEFGSU
U313S	S132	8¾	500-4,000	Variable	BCDEFGSU
U413S	S133	6¾	500-4,000	Variable	BCDEFGSU
U416S	S122	7%, 8½, 8¾	500-4,000	Variable	BCDEFGSU
U513S	S132, 6%, 6¼, 6¾, 7%, S232, 8½, 8¾, 9½, 9%, S233, 10%		500-4,000	Variable	BCDEFGSU
U516S	S122, 6%, 6¾, 7%, 8%, S123, 8¾, 11, 12¼, 13½		500-4,000	Variable	BCDEFGSU
U519S	S122, 7%, 8½, 8¾, 9½, S123, 12¼		500-4,000	Variable	BCDEFGSU
U619S	S122, 9%, 12¼		500-4,000	Variable	BCDEFGSU
Varel					
V316	M223, S223	6¼, 6½, 6¾, 7%, 8½	500-2,500	50-400	BGTPDG-1G2G3-LHNOUR
V319	M233, S233	7%, 8½, 12¼	500-2,500	50-400	BGTPDG-1G2G3-LHNOUR
V416	M233, S233	4½, 5½, 6, 6¾, 6¾, 6¾, 7%, 7½, 8½, 8¾, 9%, 12¼, 16, 17½	500-2,500	50-400	BGTPDG-1G2G3-LHNOUR
V419	M123, S123	6, 7½, 7¾, 8½, 8½, 8¾, 9%, 10%, 11½, 12¼, 17, 17½	500-2,500	50-400	BGTPDG-1G2G3-LHNOUR
R316	M223, S223	6¼, 6½, 6¾, 7%, 8½	500-2,500	50-400	BGTPDG-1G2G3-LHNOUR
R319	M223, S223	7%, 8½, 12¼	500-2,500	50-400	BGTPDG-1G2G3-LHNOUR
R416	M223, S223	4½, 5½, 6, 6¾, 6¾, 6¾, 6¾, 7%, 7½, 8, ½, 8¾, 9%, 12¼, 16, 17½	500-2,500	50-400	BGTPDG-1G2G3-LHNOUR
R419	M223, S223	6, 7½, 7¾, 8½, 8½, 8¾, 9%, 10%, 11½, 12¼, 17, 17½	500-2,500	50-400	BGTPDG-1G2G3-LHNOUR
PDC Reaming/Enlarge While Drilling					
Tri-Max EWD		4½x6, 6x7¼, 8½x9½, 10½x12¾, 12¼x14¾, 14¾x17½, 17½x23			Underream while drilling
Bi-center PDC drill bits					
Atlas Copco					
S419BCRU		7¼x9½	400-4,000	60-400	
ReedHycalog Bits					
CSD3211		4½x5½	3,000-3,500	80-200	GHMWUM
CSD3311		4½x5½	3,000-3,500	80-200	GHMWUM
PSD3211		4½x5½	3,000-3,500	80-200	GHMWUM
PSD3213		5½x6½, 6x7	3,000-3,500	80-200	GHMWUM
PSD4213		6½x7½	3,000-3,500	80-200	GHMWUM
SBR4213	S422	6x7	3,000-3,500	80-200	GHMWUM
SBR4219	S422	10½x12, 10¾x12¼	2,500-3,000	80-200	GHMWUM
Smith Bits					
QDMI5216		7	200-3,000	60-400	GHM-NRStUmVW
QDMI5219		13%	200-3,000	60-400	GHM-NRStUmVW
QDS5216		9%, 12¼	200-3,000	60-400	GHM-NRStUmVW
QDSI4219		9½	200-3,000	60-400	GHM-NRStUmVW
QDSI5216		14¾, 17½	200-3,000	60-400	GHM-NRStUmVW
QDSI5316		9½	200-3,000	60-400	GHM-NRStUmVW
SH0716		16, 16¾, 16½	200-3,000	60-400	GHM-NumVW
SHOI516		17½	200-3,000	60-400	GHM-NumVW
SHOI616		9%, 10%, 14½, 14¾	200-3,000	60-400	GHM-NumVW
SHOS616		17½, 18%	200-3,000	60-400	GHM-NumVW
SHOSI616		12¼, 17½, 24	200-3,000	60-400	GHM-NumVW
Varel					
VH416	M323, S323	8½x9%	500-2,500	100-400	BGDH-NOUR
VH616	M323, S323	6x7, 8½x9%, 10½x12¼, 10½x12¼, 12¼x14¾, 13½x17½, 14½x16	500-2,500	100-400	BGDH-NOUR
VH619	M323, S323	8½x9%, 12¼x14¾	500-2,500	100-400	BGDH-NOUR
PDC coring bits					
Bit-Tech					
CP-440E	M342	7½, 8½, 8¾	300-2,000	60-120	AFG
Dowdco Coring					
C4-FD	S-x41	8½x4	300-2,000	40-75	FGMRUI
CP-613	M-131	6x2½, 6½x2½, 6½x3½, 6¾x3½, 7½x3½, 7½x4, 8½x4, 8¾x4	300-2,000	50-150	FGMRUI
Halliburton					
FC3443	M243	8½-12¼	250-3,500	50-150	F
FC3445A	S243	5½-6¾	250-2,000	50-150	F
FC3543A	S333	7½-8½	250-3,500	50-150	F
FC3636	M434	4¾	200-1,500	50-150	F
FC3643	M233	7½-12¼	250-3,500	50-150	F
FC3645	M233	5½-6¾	250-2,000	50-150	F
FC3645A	S233	5½-6¾	250-2,000	50-150	F
FC3647	M233	6-12¼	250-3,500	50-150	F
FC3647A	S233	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
ReedHycalog Bits					
CSP313	S132	6%	300-2,000	50-150	GUI
CCP513	S132, S233	6¼, 6¾, 8¾, 9%	300-2,000	50-150	GUI
CD453	S323	5%, 6, 6¾, 8½	300-2,000	50-150	GUI
CDP519	S323	12¼	300-2,000	50-150	GUI
CEP513	S232, S233	8½, 8¾, 8¾	300-2,000	50-150	GUI
CN455	S222	6, 6¼	300-2,000	50-150	GUI
CSP516	S222	8%	300-2,000	50-150	GUI
IEP513	S222	3, 3½	300-2,000	50-150	GUI
Tercel					
CMP611	M132	7%	250-1,000	50-400	UL G H M RST W V
CMP613	M132	7%	250-1,000	50-400	UL G H M RST W V
Varel					
CB413	M132	8½	100-2,000	60-120	DGNU
CB613	M232	7¾, 8½	1,000-3,000	50-400	DGNU
CB419	M122	8½	100-2,000	60-120	DGNU
Surface set diamond coring bits					
Bit-Tech					
CN321BL	M613	6%	300-2,000	60-120	AGMR
Halliburton					
CT103UF	M423	8%	250-3,500	50-150	FI
Varel					
CN300	M713	40½	100-1,500	60-150	G
Soft-Medium					
Steel tooth roller cone bits					
Baker Hughes					
RC127	127	8½, 12¼	1,900-5,100	215-80	S
VG-2D0	127	4½, 4%	1,300-3,300	300-80	BGWX
VM-2	127	8%	2,100-5,000	350-80	BCGMSW
VMD-2	127	8%	2,100-5,000	350-80	BCGMSW
Halliburton					
XN4	211	5½-6	2,000-6,000	60-300	S
XT4	215	14¼-18½	2,000-6,000	60-300	GMW
QH4	216	12¼	2,000-6,000	60-300	S
Q4, QH4	217	4½-12¼	2,000-6,000	60-300	GMW
Kingdram					
GA214	214	5½, 6%, 8%, 8½, 10%, 10½, 11%, 12, 12¼, 17, 17½	1,000-4,000	200-80	CGL
GA215	215	5½, 6%, 6¾, 8%, 10%, 11%, 12¼, 13%, 17, 17½	1,000-4,000	200-80	CG
GAT214	214	12¼	1,000-4,000	200-80	
GAT215	215	12¼	1,500-4,000	200-80	CG
HA216	216	3¾, 4, 4½, 4½, 4¾, 4¾, 5½, 5½, 6, 6½, 7½, 7¾, 8%, 8%	2,500-6,000	90-50	GL
HA217	217	3¾, 3¾, 4½, 4½, 4¾, 4¾, 4¾, 5½, 5½, 5½, 6, 6½, 6¾, 7½, 7¾, 8%, 8%, 10%, 10½, 11%, 12¼, 12½	2,500-6,000	100-50	CGL
HAT217	217	5½, 6, 6¾, 6¾, 6¾, 8%, 8½, 8¾, 9%, 10%, 12¼	2,500-6,000	100-50	CG
W211	211	17½	1,500-4,000	200-80	
W221	221	6%	1,000-4,000	260-60	
ReedHycalog Bits					
RT4	217	6, 6%	1,000-3,000	200-60	GMW
S21	217	6, 6%, 7½, 8½, 10%, 11%, 12¼, 12%	1,000-5,000	200-60	CGS
Smith Bits					
SB214	214	14¾, 16, 17½, 18%, 20	2,000-4,000	160-50	S
GVH+	215	26	1,000-4,000	300-50	BGHM
SB215	215	8½, 12¼, 16, 17½	2,000-4,000	160-50	S
SVH	215	8½, 8½, 12¼, 14¾, 17½	2,000-4,000	160-50	S
FVH	216	5½, 6, 6½, 12	2,000-5,000	160-50	S
FVH2	216	4¾	2,000-5,000	160-50	S
SB216	216	4¾, 17½	2,000-4,000	160-50	S
FKVH	217	6%	2,000-5,000	160-50	BS
FVH	217	4¾, 6, 6½, 8½, 8¾, 12¼	2,000-5,000	160-50	S

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	
Q16	447	6-12½	3,000-7,000	40-220	GMW	HJS537	537	8½, 12¼	2,800-6,000	220-40	GL	Smith Bits						
QH16	447	6-12½	3,000-7,000	40-220	GMW	HJS547GL	547	8½	2,800-6,000	220-40	GL	20GM	16	1,500-4,000	250-50	BGHMX		
Kingdream						HJT517	517	8½, 8¾, 8¾, 9½, 10½, 12¼, 12½, 13%	2,000-6,000	240-50	CGL	2JS	15X	17, 17½, 23, 26	1,000-4,000	140-70	X	
A537	537	8½, 12¼	2,000-4,000	120-50	ACG							G20	515X	15½	1,500-4,000	250-50	BGHMX	
A547	547	8½	1,500-4,000	120-50	ACG	HJT527	527	8½, 12¼	2,000-6,000	240-50	G	G20B	515X	17	1,500-4,000	250-50	BGHMWX	
GA515	515	13¾, 14¾, 16, 17½	1,500-4,500	200-80	CGL	HJT537	537	8½, 9½, 12¼, 12½, 12¾, 12¾, 12¾, 13%	2,800-6,000	220-40	GL	G25	515X	14½, 14¾	1,500-4,000	250-50	BGHMX	
GA525	525	17½	1,600-4,500	200-80	CGY							GI20B	515X	16	1,000-4,000	250-50	BGHMWX	
GA535	535	11¾, 12¼, 14¾, 17½	2,000-4,500	200-80	CGY	HJT537GH	537	8½, 8¾, 12¼	2,800-6,000	220-40	GL	GI20BD	515X	16	1,000-4,000	250-50	BGHMWX	
GA545	545	12¼, 14¾, 17½	2,000-4,500	200-80	CGY	HJT537GX	537	12¼	2,800-6,000	220-40	Gx	GS20UB	515X	17	1,000-4,000	250-50	BGHMWX	
GAT515	515	8½, 13¾, 14¾, 17½	1,500-4,500	200-80	CGL	HJT547	547	8½, 9½, 12½, 12¾, 12¾	2,800-6,000	220-40	GLY	GS20B	515X	16, 16½	1,000-4,000	250-50	BGHMWX	
GAT525	525	14¾	1,500-4,500	200-80	CGY							GSK20B	515X	17	1,000-4,000	250-50	BGHMWX	
GAT535	535	12¼, 13¾, 13¾, 14¾, 16, 17½	2,000-4,500	200-80	CGL	HJT-547GHY	547	8½	2,800-6,000	220-40	GLY	SB515	515X	14½, 20	1,000-4,000	160-50	X	
GAT545	545	14¾	2,000-4,500	200-80	GYC	MD517	517	5½, 5¾, 6, 6¾, 6¾, 6¾, 6¾, 7¼, 7¾, 8¾, 8¾, 9¾, 11, 12, 12¼, 12¾, 12¾, 17½	2,000-6,000	300-60	GL	FH23	517X	8½, 9½	2,000-5,000	220-50	X	
GJ515	515	16, 17½	1,500-4,500	300-80	CGLY							FH20	517X	7¾, 8½, 8¾, 11	2,000-5,000	220-50	X	
GJ535	535	8½, 12, ¼, 16, 17½	2,000-4,500	280-80	CGLx							FH21	517X	8¾	2,000-5,000	220-50	X	
GJ515	515	8½, 12, 16, 17½	1,500-4,500	300-80	CGLx	MD517HX	517	6, 6½, 8¾, 9½, 9¾	2,000-6,000	300-60	GLM	FH21B	517X	7¾, 8½, 8¾	2,000-5,000	220-50	WX	
GJ535	535	8½, 16, 17½	2,000-4,500	280-80	CGLY	MD527	527	7¾, 8¾, 8¾, 9½, 11, 12¼	2,000-6,000	300-60	GLM	FH21D	517X	8¾	2,000-5,000	220-50	WX	
GJ535GH	535	16	2,000-4,500	280-80	G							FH23	517X	7¾, 8½, 8¾	2,000-5,000	220-50	X	
GJ545	545	8½	2,000-4,500	280-80	CGLY	MD537	537	5½, 6, 6¾, 6¾, 7¾, 8¾, 8¾, 9½, 10½, 11, 12¼	2,000-6,000	300-60	GLMx	FKH23	517X	9¾	2,000-5,000	220-50	BX	
HA517	517	3¾, 4¾, 4¾, 4¾, 4¾, 4¾, 4¾, 4¾, 5, 5½, 5½, 6, 6¾, 6¾, 6¾, 6¾, 7¾, 7¾, 8¾, 8¾, 9¾, 9¾, 10¾, 11, 12, 12¼, 12¾, 12¾, 17½	2,000-6,000	120-50	CGLY							FHK20	517X	7¾, 8½	2,000-5,000	220-50	BX	
												GF15H	517X	8¾	2,000-5,000	280-50	BGHMX	
												GF20	517X	8¾, 8¾, 11½, 12	2,000-5,000	280-50	BGHMX	
												GF20B	517X	12, 12¼	2,000-5,000	280-50	BGHMWX	
												GF20BD	517X	12¼	2,000-5,000	280-50	BGHMWX	
												GF20D	517X	8½	2,000-5,000	280-50	BGHMWX	
												GF21	517X	9½	2,000-5,000	280-50	BGHMX	
												GF25	517X	8½	2,000-5,000	280-50	BGHMX	
												GF21	517X	9½	2,000-5,000	280-50	BGHMX	
												GF23	517X	8½	2,000-5,000	280-50	BGHMX	
												GF23B	517X	12¼	2,000-5,000	280-50	BGHMWX	
												GF20B	517X	12¼	2,000-5,000	280-50	BGHMWX	
												GFS20	517X	8½, 10¾	2,000-5,000	280-50	BGHMX	
												GFS20B	517X	12¼	2,000-5,000	280-50	BGHMWX	
												GFS120	517X	10¾	2,000-5,000	280-50	BGHMX	
												GFS123	517X	8½	2,000-5,000	280-50	BGHMX	
												MF15H	517X	10¾	2,000-5,000	220-50	BGHMX	
												MF15HB	517X	10¾	2,000-5,000	220-50	BGHMX	
												MF15HUB	517X	10¾	2,000-5,000	220-50	BGHMX	
												MF15HUBD	517X	10¾	2,000-5,000	220-50	BGHMX	
												MF20B	517X	8¾, 8¾	2,000-5,000	220-50	HMWX	
												MFS20	517X	8½	2,000-5,000	220-50	HMX	
												MFS20T	517X	8½	2,000-5,000	220-50	HMX	
												SB517	517X	8¾, 8¾, 12¼, 17½	2,000-4,000	160-50	X	
												SB517D	517X	8½, 12¼	2,000-4,000	160-50	X	
												XR20	517X	4¾, 5½, 6½	2,000-5,000	300-50	HMX	
												XR20B	517X	6¾	2,000-5,000	300-50	HMWX	
												XR20D	517X	6¾	2,000-5,000	300-50	HMWX	
												XR20Y	517X	3¾, 3¾	2,000-5,000	300-50	HMWX	
												XR20T	517X	5¾, 6, 6¾, 6¾, 6¾, 6¾	2,000-5,000	300-50	HMWX	
												XR20TD	517X	6	2,000-5,000	300-50	HMWX	
												XR20W	517X	6¾	2,000-5,000	300-50	HMWX	
												XR25T	517X	6¾	2,000-5,000	300-50	HMX	
												XR120	517X	6, 6¾	2,000-5,000	300-50	HMX	
												XRS20T	517X	5¾	2,000-5,000	300-50	HMX	
												XRS120	517X	6, 6¾	2,000-5,000	300-50	HMX	
												F17Y	517Y	7¾	2,000-6,000	160-50	Y	
												F21YA	517Y	12¼	2,000-6,000	160-50	Y	
												F25Y	517Y	12¼	2,000-6,000	160-50	Y	
												FH120Y	517Y	7¾	2,000-5,000	220-50	Y	
												GF20Y	517Y	8½	2,000-5,000	280-50	BGHMY	
												XR20Y	517Y	3¾, 3¾	2,000-5,000	300-50	BGHMY	
												XR20YDD	517Y	3¾	2,000-5,000	270-50	BGHMWX	
												XRS120Y	517Y	6¾	2,000-5,000	300-50	BGHMY	
												G28B	525X	17½	1,500-4,000	250-50	BGHMWX	
												GS25	525X	14¾, 14¾	1,000-4,000	250-50	BGHMX	
												GS28B	525X	17½	1,000-4,000	250-50	BGHMX	
												FH25	527X	7¾	2,000-6,000	220-50	X	
												FH28	527X	9¾	2,000-6,000	220-50	X	
												FH125	527X	8¾	2,000-6,000	220-50	X	
												FH125D	527X	8¾	2,000-6,000	220-50	WX	
												FH126	527X	7¾	2,000-6,000	220-50	X	
												FH128	527X	7¾, 8, 8½, 8¾	2,000-6,000	220-50	X	
												FH128D	527X	8¾, 8¾	2,000-6,000	220-50	WX	
												FH129	527X	8¾	2,000-6,000	220-50	X	
												FH129D	527X	8¾	2,000-6,000	220-50	WX	
												FHK128	527X	8½	2,000-6,000	220-50	BX	

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FH124Y	527Y	7%	2,000-7,000	220-50	Y	G53SH	535	8½, 9½, 12¼	2,500-5,000	50-80	SG	AF37	547A	11, 12¼	2,500-6,000	300-50	AW
GF25Y	527Y	8½	2,000-5,000	280-50	BGHPY	P51SH	515	12¼	2,000-4,500	50-160	GW	CM35	547Y	4¼, 4¾, 6¼	2,500-7,000	275-50	MW
GFS25HY	527Y	8½	2,000-5,000	280-50	BGHPWX	P51FH	517	6¾, 7¾, 8½, 8¾, 9¾, 12¼	2,000-4,500	50-250	GW	CM38	547X	6¼, 6¾, 6¾	2,500-7,000	275-50	MW
XR20YA	527Y	6%	2,000-5,000	300-50	AHMY	P53SH	535	8½, 8¾, 9¾, 12 ¼	2,500-5,000	60-250	GW	HE38V	547X	7¾, 8¾	2,500-7,000	300-50	CMW
25JS	535X	20	1,000-4,000	140-70	X	P53FH	537	8½, 8¾, 9¾, 12¼	2,500-5,000	60-250	GW	HE37V	547Y	7¾, 8¾, 8¾	2,500-7,000	300-50	CMW
3JS	535X	17½	1,000-4,000	140-70	X	TIX-TSK						HE37	547Y	11	2,500-7,000	300-50	CMW
3JSY	535X	20	1,000-4,000	140-70	Y	K30G	537X	4, 4½	1,000-2,500	60-50	GX	HE39	547Y	7¾, 8¾, 12¼	2,500-7,000	300-50	CMW
G30	535X	15½	1,500-4,000	240-50	BGHPWX	M20GFP	517X	8½, 8¾, 8¾, 9¾, 11½, 12, 12¼	1,000-5,000	250-60	GLMX	HE39H	547Y	7¾	2,500-7,000	300-50	CMW
G30B	535X	17½	1,500-4,000	240-50	BGHPWX	M20GFP	517X	8½, 8¾, 8¾, 9¾, 11½, 12, 12¼	1,000-5,000	250-60	GLMX	Fish tail bits					
G30WD	535X	14¾	1,500-4,000	240-50	BGHPWX	M20GFSP	517X	8½, 8¾, 8¾, 9¾, 11½, 12, 12¼	1,000-5,000	250-60	GLMX	Bit-Tech					
GS30	535X	34	1,000-4,000	240-50	BGHPWX	M20GFP	517X	5½, 5¾, 6, 6½	1,000-4,000	300-60	GLMY	DP-440-BG	M131	6¼	300-2,000	100-500	ADGMW
GS30B	535X	16, 18½	1,500-4,000	240-50	BGHPWX	M20GYFP	527Y	8½, 12¼	1,000-5,000	250-60	GLMY	Halliburton					
SB535	535X	15, 17½, 20, 24, 26	2,000-4,000	160-50	X	M25GFP	527X	8½, 12¼	1,000-5,000	250-60	GLMX	FM3443	M431	6¼, 6¾	500-2,000	60-400	MW
F3	537X	7¾, 8½, 12¼	2,500-6,000	160-50	X	M25GFSP	527X	8½, 12¼	1,000-5,000	250-60	GLMX	FMF3443	M431	6¼, 6¾	500-2,000	60-400	MW
F30	537X	10¾, 14¾	2,500-6,000	160-50	X	M25GFP	527X	8½, 12¼	1,000-5,000	250-60	GLMX	FMH3443	M431	6¼, 6¾	500-2,000	60-400	MW
F30T	537X	8¾	2,500-6,000	160-50	X	M30GFP	537X	8½, 8¾, 8¾, 9¾, 11½, 12, 12¼	1,000-5,000	250-60	GLMX	FMR3443	M431	6¼, 6¾	500-2,000	60-400	MW
F30W	537X	8½	2,500-6,000	160-50	X	M30GFSP	537X	8½, 8¾, 8¾, 9¾, 11½, 12, 12¼	1,000-5,000	250-60	GLMX	FM3445	M121	6¼	500-2,000	60-400	MW
F3D	537X	7¾	2,500-6,000	160-50	X	M30GFP	537X	8½, 8¾, 8¾, 9¾, 11½, 12, 12¼	1,000-5,000	250-60	GLMX	FMF3445	M121	6¼	500-2,000	60-400	MW
FH30	537X	8½, 8¾, 9¾	2,500-6,000	220-50	X	M30GFSP	537X	8½, 8¾, 8¾, 9¾, 11½, 12, 12¼	1,000-5,000	250-60	GLMX	FMH3445	M121	6¼	500-2,000	60-400	MW
FH30B	537X	8½, 8¾	2,500-6,000	220-50	X	M30GFP	537X	8½, 8¾, 8¾, 9¾, 11½, 12, 12¼	1,000-5,000	250-60	GLMX	FMR3445	M121	6¼	500-2,000	60-400	MW
FH30D	537X	8½, 8¾	2,500-6,000	220-50	WX	MZ20GFP	515X	16, 17½	1,500-4,000	250-60	GLMX	FM3445	M121	6¼	500-2,000	60-400	MW
FH30	537X	7¾, 8¾	2,500-6,000	220-50	X	MZ30GFP	515X	16, 17½	1,500-4,000	250-60	GLMX	FMF3445	M121	6¼	500-2,000	60-400	MW
FH30U	537X	7¾	2,500-6,000	220-50	X	X20G	517X	5½, 5¾, 6, 6¼, 7¾, 7¾	1,500-4,000	120-60	GX	FMR3445	M131	9¾, 12¼	500-2,000	60-400	MW
FH30W	537X	8¾	2,500-6,000	220-50	X	X20G	517X	8½, 8¾, 8¾, 9¾, 10¾, 11½, 12, 12¼	2,000-5,000	120-60	GX	FM3445	M331	8½	500-2,000	60-400	MW
FH32	537X	8¾	2,500-6,000	220-50	X	X20G	517X	16, 17½	1,500-4,500	120-60	GX	FMR3445	M331	8½	500-2,000	60-400	MW
FH32D	537X	8¾	2,500-6,000	220-50	WX	X25G	527X	8½, 12¼	2,000-5,000	120-60	GX	FM3461	M221	9¾	500-2,000	60-400	MW
FH32U	537X	8¾	2,500-6,000	220-50	X	X30G	537X	4¾, 5¾, 5¾, 6, 6¼, 7¾, 7¾	1,000-3,500	110-50	GX	FMF3461	M221	9¾	500-2,000	60-400	MW
FHK30	537X	8 ½, 9¾	2,500-6,000	220-50	BX	X30G	537X	8½, 8¾, 8¾, 9¾, 10¾, 11½, 12, 12¼	2,500-5,500	110-50	GX	FMR3461	M221	9¾	500-2,000	60-400	MW
GF30	537X	8½, 8¾, 9¾, 11½	2,000-5,000	280-50	BGHPWX	X30G	537X	8½, 8¾, 8¾, 9¾, 10¾, 11½, 12, 12¼	2,500-5,500	110-50	GX	FM3463	M421	6¼	500-2,000	60-400	MW
GF30B	537X	12¼	2,000-5,000	280-50	BGHPWX	XZ20GFP	515X	8½, 12¼	1,500-4,500	250-70	GLMX	FMF3463	M421	6¼	500-2,000	60-400	MW
GF30BD	537X	12¼	2,000-5,000	280-50	BGHPWX	XZ20GFP	515X	16, 17½	1,500-4,000	150-70	GLX	FMH3463	M421	6¼	500-2,000	60-400	MW
GF30D	537X	8½	2,000-5,000	280-50	BGHPWX	XZ30GFP	535X	8½, 12¼	2,000-5,000	250-50	GLMX	FM3463	M421	6¼	500-2,000	60-400	MW
GF30W	537X	8½, 8¾	2,000-5,000	280-50	BGHPWX	XZ30GFP	535X	16, 17½	2,000-4,500	150-60	GLX	PDC drill bits					
GF30	537X	8½	2,000-5,000	280-50	BGHPWX	Z20G	515X	8½, 12¼	1,500-4,500	100-50	GX	M413	5¼-12¼	400-4,000	60-400	X,U	
GF30B	537X	12¼	2,000-5,000	280-50	BGHPWX	Z20G	515X	20, 22, 23, 24, 26	1,000-3,000	100-50	GX	M513	5¼-12¼	400-4,000	60-400	X,U	
GF30BD	537X	12¼	2,000-5,000	280-50	BGHPWX	Z30G	535X	8½, 12¼	2,000-5,000	100-45	GX	M613	5¼-12¼	400-4,000	60-400	X,U	
GF30D	537X	8½	2,000-5,000	280-50	BGHPWX	Z30G	535X	20, 22, 23, 24, 26	1,500-3,500	100-45	GX	M713	5¼-12¼	400-4,000	60-400	X,U	
GF30W	537X	8½, 8¾	2,000-5,000	280-50	BGHPWX	Tri-Max						M813	5¼-12¼	400-4,000	60-400	X,U	
GF30	537X	12¼	2,000-5,000	280-50	BGHPWX	TM515	515	6-17½	2,000-4,000	80-150		S413	6¼-12¼	400-4,000	60-400	X,U	
GF30B	537X	12¼	2,000-5,000	280-50	BGHPWX	TM517	517	6-17½	2,000-5,000	65-120		S513	6¼-12¼	400-4,000	60-400	X,U	
GF30BD	537X	12¼	2,000-5,000	280-50	BGHPWX	TM527	527	6-17½	2,000-5,000	65-120		S613	6¼-12¼	400-4,000	60-400	X,U	
GF30D	537X	8½	2,000-5,000	280-50	BGHPWX	TM537	537	6-17½	2,000-5,000	65-120		S713	6¼-12¼	400-4,000	60-400	X,U	
GF30W	537X	8½, 8¾	2,000-5,000	280-50	BGHPWX	TM545	545	6-17½	2,000-4,000	80-150		S813	6¼-12¼	400-4,000	60-400	X,U	
GF30	537X	12¼	2,000-5,000	280-50	BGHPWX	TM547	547	6-17½	2,500-5,000	65-120		M416	5¼-12¼	400-4,000	60-400	X,U	
GF30B	537X	12¼	2,000-5,000	280-50	BGHPWX	Varel						M516	5¼-14¾	400-4,000	60-400	X,U	
GF30BD	537X	12¼	2,000-5,000	280-50	BGHPWX	HR24V	515X	16, 17½	1,500-4,750	300-50	CMW	M616	5¼-14¾	400-4,000	60-400	X,U	
GF30D	537X	8½, 11½	2,000-5,000	280-50	BGHPWX	ER24	515X	26, 27	1,500-4,750	150-50	CMW	M716	5¼-17½	400-4,000	60-400	X,U	
GF30W	537X	12¼	2,000-5,000	280-50	BGHPWX	HR20V	515X	17½	1,500-4,750	300-50	CMW	M816	5¼-17½	400-4,000	60-400	X,U	
GF30	537X	8½, 11½	2,000-5,000	280-50	BGHPWX	CM24V	516X	3%	2,000-6,000	275-50	MW	M916	5¼-17½	400-4,000	60-400	X,U	
GF30B	537X	12¼	2,000-5,000	280-50	BGHPWX	HE20V	517X	7¾, 8¾, 9¾	2,000-6,000	300-50	MW	S416	6¼-12¼	400-4,000	60-400	X,U	
GF30BD	537X	12¼	2,000-5,000	280-50	BGHPWX	HE21V	517Y	7¾, 8¾, 8¾	2,000-6,000	300-50	MW	S516	6¼-14¾	400-4,000	60-400	X,U	
GF30D	537X	8½, 11½	2,000-5,000	280-50	BGHPWX	HE22V	517X	7¾, 8¾	2,000-6,000	300-50	MW	S616	6¼-17½	400-4,000	60-400	X,U	
GF30W	537X	8½, 8¾	2,000-5,000	280-50	BGHPWX	HE23V	517Y	7¾, 8¾	2,000-6,000	300-50	MW	S716	6¼-17½	400-4,000	60-400	X,U	
GF30	537Y	8½, 9½, 9¾	2,000-6,000	180-50	BGHPWX	CM24	517X	4¾, 4¾, 5¾, 5¾, 6, 6¼, 6¼, 6¼	2,000-6,000	275-50	MW	S816	7¾-17½	400-4,000	60-400	X,U	
GF30B	537Y	8½	2,000-4,000	160-50	Y	CM24V	517X	6¾	2,000-6,000	275-50	MW	S916	15½-36	400-4,000	60-400	X,U	
GF30BD	537Y	8½	2,000-4,000	160-50	Y	HE24	517X	11	2,000-6,000	300-50	CMW	S1116	20-36	400-4,000	60-400	X,U	
GF30D	537Y	8½	2,000-4,000	160-50	Y	HE24V	517X	7¾, 7¾, 8¾, 8¾, 9¾, 11½, 12, 12¼	2,000-6,000	300-50	CMW	S1316	20-36	400-4,000	60-400	X,U	
GF30W	537Y	8½	2,000-4,000	160-50	Y	CM25	517Y	6, 6¼, 6¼	2,000-6,000	275-50	MW	S1516	20-36	400-4,000	60-400	X,U	
GF30	537Y	8½	2,000-4,000	160-50	X	HE25	517Y	11	2,000-6,000	300-50	MW	Baker Hughes					
GF30B	537Y	8½	2,000-4,000	160-50	X	HE25V	517Y	12¼	2,000-6,000	300-50	MW	AT605					



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	
M816		8%	500-4,000	60-400	GHM-NRstUmVW	MDIZ713		8½	500-4,000	60-400	GHM-NRstUmVW	MDZXZ713		8½	500-4,000	60-400	GHM-NRstUmVW	
M819		9%	400-3,000	60-400	GHM-NRstUmVW	MDIZ716		8½	500-4,000	60-400	GHM-NRstUmVW	M1316	M123	8½	500-4,000	60-400	GHM-NRstUmVW	
M916	M423	16	500-4,000	60-400	GHM-NRstUmVW	MDS616		9½, 14%	500-4,000	60-400	GHM-NRstUmVW	M1413		6½	500-4,000	60-400	GHM-NRstUmVW	
MA616	M223	5½, 6, 8%, 8½	500-4,000	60-400	GHM-NRstUmVW	MDSI413		6½, 6¾, 7%	500-4,000	60-400	GHM-NRstUmVW	M1416	M123	6½, 7%, 8½	500-4,000	60-400	GHM-NRstUmVW	
MA619	M223	8½, 12¼, 18½	400-3,000	60-400	GHM-NRstUmVW	MDSI416	M123	8½, 9½, 12¼	500-4,000	60-400	GHM-NRstUmVW	M1513	M223	6½, 6¾, 6½, 7%, 8%	500-4,000	60-400	GHM-NRstUmVW	
MA813		6	500-4,000	60-400	GHM-NRstUmVW	MDSI513		6, 6¾, 8½, 8%	500-4,000	60-400	GHM-NRstUmVW	M1516	M123	5¾, 6, 6½, 6¾, 7%, 7½, 8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	
MA89		8%	500-4,000	60-400	GHM-NRstUmVW	MDSI516		6, 6½, 6¾, 7%, 8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	M1519	M123	7½, 8½, 8¾, 9%, 12¼	400-3,000	60-400	GHM-NRstUmVW	
MAI616		5%	500-4,000	60-400	GHM-NRstUmVW	MDSI519	M123	8½, 8¾, 9½, 12¼	400-3,000	60-400	GHM-NRstUmVW	M1613	M233	6, 6½, 6¾, 6½, 6¾, 6¾, 7%, 8%	500-4,000	60-400	GHM-NRstUmVW	
MASI513	M233	7½, 8½, 8%	500-4,000	60-400	GHM-NRstUmVW	MDSI613	M333	5½, 6, 6½, 6¾, 7%, 8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	M1616	M323	7½, 8½, 8¾, 9%, 10%, 11, 12¼, 13½	500-4,000	60-400	GHM-NRstUmVW	
MASI613		8%	500-4,000	60-400	GHM-NRstUmVW	MDSI616	M222	6%, 6¾, 7%, 8%, 8½, 8¾, 9½, 10¼, 10½, 11%, 12¼, 14½, 14¾, 16, 17	500-4,000	60-400	GHM-NRstUmVW	M1619	M223	7½, 8%, 12¼, 17	400-3,000	60-400	GHM-NRstUmVW	
MASI716		7%, 8%	500-4,000	60-400	GHM-NRstUmVW	MDSI619	M223	12¼, 14¾	400-3,000	60-400	GHM-NRstUmVW	M1622		12¼	400-3,000	60-400	GHM-NRstUmVW	
MASIZ513		8%	500-4,000	60-400	GHM-NRstUmVW	MDSI713		5¾, 5½, 6, 7%, 8½, 8¾, 8¾, 8%	500-4,000	60-400	GHM-NRstUmVW	M1716	M223	6, 7%, 8½, 9%, 12, 12¼	500-4,000	60-400	GHM-NRstUmVW	
MAX89		8%	500-4,000	60-400	GHM-NRstUmVW	MDSI716	M223	8%, 8½, 8¾, 8¾, 8¾, 9½, 9¾, 10¼, 10½, 12¼, 14¾, 16, 16½	500-4,000	60-400	GHM-NRstUmVW	M1813	M333	6¾, 12¼, 16, 17½	500-4,000	60-400	GHM-NRstUmVW	
MAZ616		8½	500-4,000	60-400	GHM-NRstUmVW	MDSI813	M333	8%, 8½, 8¾, 10%, 12¼	500-4,000	60-400	GHM-NRstUmVW	M1913	M433	7½, 8%, 8½, 8¾, 8¾, 11½, 12¼	500-4,000	60-400	GHM-NRstUmVW	
MAZ89		8%	500-4,000	60-400	GHM-NRstUmVW	MDSI816		8%, 8½, 12¼, 17½, 18½, 18¾	500-4,000	60-400	GHM-NRstUmVW	M1916		16	500-4,000	60-400	GHM-NRstUmVW	
MD519	M223	8½, 12¼	400-3,000	60-400	GHM-NRstUmVW	MDSI913		8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MIR616		6¾	500-4,000	60-400	GHM-NRstUmVW	
MD616	M223	8¼, 8½, 9½, 12¼, 14¾	500-4,000	60-400	GHM-NRstUmVW	MDSI916		8%	500-4,000	60-400	GHM-NRstUmVW	MIZ516		8%	500-4,000	60-400	GHM-NRstUmVW	
MD713		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MDSIR516		6%	500-4,000	60-400	GHM-NRstUmVW	MIZ613		7%	500-4,000	60-400	GHM-NRstUmVW	
MD716		12	500-4,000	60-400	GHM-NRstUmVW	MDSIR613		8%	500-4,000	60-400	GHM-NRstUmVW	MIZ616		8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	
MDA619		12¼	400-3,000	60-400	GHM-NRstUmVW	MDSIR616		8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MIZ716		8½	500-4,000	60-400	GHM-NRstUmVW	
MDI313		6½, 8½	500-4,000	60-400	GHM-NRstUmVW	MDSIR713		6½, 6¾, 8½	500-4,000	60-400	GHM-NRstUmVW	MR613		5%	500-4,000	60-400	GHM-NRstUmVW	
MDI319		8½	400-3,000	60-400	GHM-NRstUmVW	MDSIR716		6%	500-4,000	60-400	GHM-NRstUmVW	MS413		6%	500-4,000	60-400	GHM-NRstUmVW	
MDI413		4%, 6, 6½, 6¾, 6¾, 7%	500-4,000	60-400	GHM-NRstUmVW	MDSIR813		8½	500-4,000	60-400	GHM-NRstUmVW	MS419		8½, 8¾	400-3,000	60-400	GHM-NRstUmVW	
MDI416	M123	6½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	MDSIR816		9%	500-4,000	60-400	GHM-NRstUmVW	MS516		8½	500-4,000	60-400	GHM-NRstUmVW	
MDI419	M121	8½, 8¾, 9, 9½, 11%, 12¼	400-3,000	60-400	GHM-NRstUmVW	MDSI2513		8½	500-4,000	60-400	GHM-NRstUmVW	MS519		16½	400-3,000	60-400	GHM-NRstUmVW	
MDI513	M233	5½, 6, 6½, 6¾, 6¾, 6¾, 7%, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MDSI2516		8%	500-4,000	60-400	GHM-NRstUmVW	MS613		12¼	500-4,000	60-400	GHM-NRstUmVW	
MDI516	M223	6, 6½, 6¾, 6¾, 7%, 8½, 8¾, 9%, 12¼	500-4,000	60-400	GHM-NRstUmVW	MDSI2519		8%	400-3,000	60-400	GHM-NRstUmVW	MS616		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	
MDI519	M223	8½, 8¾, 9½, 12¼, 14, 14¾, 17	400-3,000	60-400	GHM-NRstUmVW	MDSI2613		5½, 6, 7%	500-4,000	60-400	GHM-NRstUmVW	MS713		12¼	500-4,000	60-400	GHM-NRstUmVW	
MDI613	M333	5½, 5½, 5½, 5½, 6, 6½, 6¾, 7, 8½, 8¾, 8¾, 9, 9½, 9½, 11%, 12¼	500-4,000	60-400	GHM-NRstUmVW	MDSI2616		8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	MS816		8%	500-4,000	60-400	GHM-NRstUmVW	
MDI616	M323	6, 6¾, 7½, 8½, 8½, 8¾, 9½, 9½, 10½, 10¾, 11%, 12¼, 13½, 14½, 14¾, 16, 17, 17½	500-4,000	60-400	GHM-NRstUmVW	MDSI2619		12¼	400-3,000	60-400	GHM-NRstUmVW	MSI413		6, 6¾	500-4,000	60-400	GHM-NRstUmVW	
MDI619	M223	7½, 8½, 8¾, 12¼, 14½, 14¾, 16, 16½, 17½	400-3,000	60-400	GHM-NRstUmVW	MDSI2713		5½, 8½	500-4,000	60-400	GHM-NRstUmVW	MSI416	M221	6½, 6¾, 7%, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	
MDI713	M333	5½, 6, 8½, 9½, 12¼, 14¾	500-4,000	60-400	GHM-NRstUmVW	MDSI2716		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MSI513	M333	6½, 6¾, 6½, 6¾, 8%	500-4,000	60-400	GHM-NRstUmVW	
MDI716	M223	8½, 8½, 9½, 10%, 11½, 12, 12¼, 14¾, 14¾, 16, 16½, 17½	500-4,000	60-400	GHM-NRstUmVW	MDSI2813		12¼	500-4,000	60-400	GHM-NRstUmVW	MSI516	M323	6½, 6¾, 7%, 8½, 8¾, 9½, 9½, 12¼	500-4,000	60-400	GHM-NRstUmVW	
MDI813	M333	5½, 8½, 9½, 11%, 12¼, 13½, 14½, 14¾, 16, 16½	500-4,000	60-400	GHM-NRstUmVW	MDSI2816		12¼	500-4,000	60-400	GHM-NRstUmVW	MSI519	M223	7½, 8½, 8¾, 9%, 12¼	400-3,000	60-400	GHM-NRstUmVW	
MDI816	M323	8½, 8½, 12¼, 13¾, 14½, 17, 17½, 18½	500-4,000	60-400	GHM-NRstUmVW	MDSIZR816		12¼	500-4,000	60-400	GHM-NRstUmVW	MSI613	M433	6, 6½, 6¾, 6¾, 6¾, 6¾, 7½, 8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	
MDI916		17½	500-4,000	60-400	GHM-NRstUmVW	MDSIXI613		8½	500-4,000	60-400	GHM-NRstUmVW	MSI616	M433	6, 6½, 6¾, 7%, 8½, 8¾, 9½, 9½, 10%, 11, 12¼, 13¾, 13½, 16	500-4,000	60-400	GHM-NRstUmVW	
MDIR613		6%	500-4,000	60-400	GHM-NRstUmVW	MDSIXI616		12¼	500-4,000	60-400	GHM-NRstUmVW	MSI619		8½, 8¾, 12¼	400-3,000	60-400	GHM-NRstUmVW	
MDIZ413		6	500-4,000	60-400	GHM-NRstUmVW	MDSIXI713		8½	500-4,000	60-400	GHM-NRstUmVW	MSI713	M433	6, 6½, 6¾, 6¾, 7%, 8½, 8¾, 9%, 12¼	500-4,000	60-400	GHM-NRstUmVW	
MDIZ513		6%	500-4,000	60-400	GHM-NRstUmVW	MDSIXI813		8½	500-4,000	60-400	GHM-NRstUmVW	MSI716	M433	7½, 7½, 8½, 8¾, 9%, 12, 12¼, 16, 17½	500-4,000	60-400	GHM-NRstUmVW	
MDIZ516		7%, 8½, 8%	500-4,000	60-400	GHM-NRstUmVW	MDSIXZ713		8½	500-4,000	60-400	GHM-NRstUmVW	MSI719		8¾, 12¼	400-3,000	60-400	GHM-NRstUmVW	
MDIZ519		8½, 12¼	400-3,000	60-400	GHM-NRstUmVW	MDX516		8½	500-4,000	60-400	GHM-NRstUmVW	MSI813	M433	6½, 6¾, 8½, 8¾, 9%, 12¼	500-4,000	60-400	GHM-NRstUmVW	
MDIZ613		6, 8¾	500-4,000	60-400	GHM-NRstUmVW	MDX613		6%	500-4,000	60-400	GHM-NRstUmVW	MSI816	M432	8½, 8½, 8¾, 9%, 9½, 12¼, 13½, 16, 17, 17½	500-4,000	60-400	GHM-NRstUmVW	
MDIZ616		7%, 8½, 8%	500-4,000	60-400	GHM-NRstUmVW	MDXI616		12¼	500-4,000	60-400	GHM-NRstUmVW	MSI916		16	500-4,000	60-400	GHM-NRstUmVW	
MDIZ619		12¼	400-3,000	60-400	GHM-NRstUmVW	MDXI713		8½	500-4,000	60-400	GHM-NRstUmVW	MSIR513		6%	500-4,000	60-400	GHM-NRstUmVW	
						MDZ1616		14½	500-4,000	60-400	GHM-NRstUmVW	MSIR613		6½, 6¾	500-4,000	60-400	GHM-NRstUmVW	
						MDZ1713		10%	500-4,000	60-400	GHM-NRstUmVW	MSIR616		9%	500-4,000	60-400	GHM-NRstUmVW	
						MDZ1713		10%	500-4,000	60-400	GHM-NRstUmVW							
						MDZIXI713		8½	500-4,000	60-400	GHM-NRstUmVW							





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
MSIR713		6%	500-4,000	60-400	GHM-NRstUmVW	SDI716		8%	500-4,000	60-400	GHM-NRstUmVW	Z519		12%	400-3,000	60-400	GHM-NRstUmVW
MSIZ413		6%	500-4,000	60-400	GHM-NRstUmVW	SDI816		17½, 26	500-4,000	60-400	GHM-NRstUmVW	Z616		17%	500-4,000	60-400	GHM-NRstUmVW
MSIZ513		6%, 6¼	500-4,000	60-400	GHM-NRstUmVW	SDIZ419		12¼	400-3,000	60-400	GHM-NRstUmVW	Z8		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW
MSIZ516		8½	500-4,000	60-400	GHM-NRstUmVW	SDIZ513		6%, 8½	500-4,000	60-400	GHM-NRstUmVW	ZR713		8%	500-4,000	60-400	GHM-NRstUmVW
MSIZ519		8½, 8¾	400-3,000	60-400	GHM-NRstUmVW	SDIZ516		8%	500-4,000	60-400	GHM-NRstUmVW	ZR816		12¼	500-4,000	60-400	GHM-NRstUmVW
MSIZ613		6%, 6¾, 7%	500-4,000	60-400	GHM-NRstUmVW	SDIZ519		14%	400-3,000	60-400	GHM-NRstUmVW	Tercel					
MSIZ616		8½, 8¾, 9%, 12¼	500-4,000	60-400	GHM-NRstUmVW	SDSI516		11%	500-4,000	60-400	GHM-NRstUmVW						
MSIZ619		8%	400-3,000	60-400	GHM-NRstUmVW	SDSI519	S423	12¼, 17½	400-3,000	60-400	GHM-NRstUmVW	MD519C	M421	12¼, 17½	500-2,500	50-400	
MSIZ713		8½	500-4,000	60-400	GHM-NRstUmVW	SDSI616		8%, 11%, 12¼, 13½	500-4,000	60-400	GHM-NRstUmVW	MD519M	M421	12¼, 17½	500-2,500	50-400	
MSIZ716		8½	500-4,000	60-400	GHM-NRstUmVW	SDSI619		12¼	400-3,000	60-400	GHM-NRstUmVW	MD519MC	M421	12¼, 17½	500-2,500	50-400	
MSIZ813		8½	500-4,000	60-400	GHM-NRstUmVW	SDSI713		8%	500-4,000	60-400	GHM-NRstUmVW	MP316	M222	8½	500-3,000	50-400	UM G H M RST W V
MSIZ816		16	500-4,000	60-400	GHM-NRstUmVW	SDSI716		17½	500-4,000	60-400	GHM-NRstUmVW	MP316C	M222	8½	500-3,000	50-400	UM G H M RST W V
MST913		5%	500-4,000	60-400	GHM-NRstUmVW	SDXI516		8½	400-3,000	60-400	GHM-NRstUmVW	MP316M	M222	8½	500-3,000	50-400	UM G H M RST W V
MSXI613		8½	500-4,000	60-400	GHM-NRstUmVW	SDXI519		8½	400-3,000	60-400	GHM-NRstUmVW	MP316MC	M222	8½	500-3,000	50-400	UM G H M RST W V
MSXI616		8½	500-4,000	60-400	GHM-NRstUmVW	SI416		8½	500-4,000	60-400	GHM-NRstUmVW	MP416	M222	5%, 8 ½	500-3,000	50-400	UM G H M RST W V
MSXI619		12¼	400-3,000	60-400	GHM-NRstUmVW	SI419		8½	400-3,000	60-400	GHM-NRstUmVW	MP416C	M222	5%, 8 ½	500-3,000	50-400	UM G H M RST W V
MSXI716		8%, 12¼	500-4,000	60-400	GHM-NRstUmVW	SI516		6¼, 12¼	500-4,000	60-400	GHM-NRstUmVW	MP416M	M222	5%, 8 ½	500-3,000	50-400	UM G H M RST W V
MSXIZ616		8½	500-4,000	60-400	GHM-NRstUmVW	SI519	S123	8½, 12¼, 15½	400-3,000	60-400	GHM-NRstUmVW	MP416MC	M222	5%, 8½	500-3,000	50-400	UM G H M RST W V
MSZ713		5%	500-4,000	60-400	GHM-NRstUmVW	SI616		7%, 8½, 8¾, 11, 12¼, 13½, 16	500-4,000	60-400	GHM-NRstUmVW	MP513	M232	6, 6¼, 7%, 8%, 8½, 8¾, 8¾	500-2,500	50-400	UM G H M RST W V
MSZ716		12	500-4,000	60-400	GHM-NRstUmVW	SI619	S223	12¼, 13½, 17½, 26	400-3,000	60-400	GHM-NRstUmVW	MP513C	M232	6, 6¼, 7%, 8%, 8½, 8¾, 8¾	500-2,500	50-400	UM G H M RST W V
MV616		6¼	500-4,000	60-400	DGHM-NRstUmVW	SI819		18½, 23	400-3,000	60-400	GHM-NRstUmVW	MP513M	M232	6, 6¼, 7%, 8%, 8½, 8¾, 8¾	500-2,500	50-400	UM G H M RST W V
MV716	M323	8½, 12¼	500-4,000	60-400	DGHM-NRstUmVW	SI916		12¼	500-4,000	60-400	GHM-NRstUmVW	MP513MC	M232	6, 6¼, 7%, 8%, 8½, 8¾, 8¾	500-2,500	50-400	UM G H M RST W V
MZ616		8½, 12¼, 16	500-4,000	60-400	GHM-NRstUmVW	SI919		22	400-3,000	60-400	GHM-NRstUmVW	MP516	M323	7%, 8½, 8¾, 9%	500-2,500	50-400	UM G H M RST W V
MZ713		5%	500-4,000	60-400	GHM-NRstUmVW	SIZ516		8%	500-4,000	60-400	GHM-NRstUmVW	MP516C	M222	15½	500-3,000	50-400	UM G H M RST W V
MZ716		12	500-4,000	60-400	GHM-NRstUmVW	SIZ616		8%	500-4,000	60-400	GHM-NRstUmVW	MP516M	M323	7%, 8½, 8¾, 9%	500-2,500	50-400	UM G H M RST W V
MZI813		8½	500-4,000	60-400	GHM-NRstUmVW	SPSI616		17½	500-4,000	60-400	GHM-NRstUmVW	MP516MC	M222	15½	500-3,000	50-400	UM G H M RST W V
MZR813		8%	500-4,000	60-400	GHM-NRstUmVW	SSI516		12¼	500-4,000	60-400	GHM-NRstUmVW	MP516MC	M323	7%, 8½, 8¾, 9%	500-2,500	50-400	UM G H M RST W V
MZR813		8%	500-4,000	60-400	GHM-NRstUmVW	SSI616		12¼, 17½	500-4,000	60-400	GHM-NRstUmVW	MP516MC	M222	15½	500-3,000	50-400	UM G H M RST W V
R613		8%	500-4,000	60-400	GHM-NRstUmVW	SSI619		20, 23	400-3,000	60-400	GHM-NRstUmVW	MP519	M223	6%, 8½, 8¾, 12¼	500-2,500	50-400	UM G H M RST W V
R716		6%	500-4,000	60-400	GHM-NRstUmVW	SSI716		12¼	500-4,000	60-400	GHM-NRstUmVW	MP519C	M223	6%, 8½, 8¾, 12¼	500-2,500	50-400	UM G H M RST W V
R813		8%	500-4,000	60-400	GHM-NRstUmVW	SSI916		22	500-4,000	60-400	GHM-NRstUmVW	MP519M	M223	6%, 8½, 8¾, 12¼	500-2,500	50-400	UM G H M RST W V
S413		3%	500-4,000	60-400	GHM-NRstUmVW	SSIZ516		12¼	500-4,000	60-400	GHM-NRstUmVW	MP519MC	M223	6%, 8½, 8¾, 12¼	500-2,500	50-400	UM G H M RST W V
S516	S123	17	500-4,000	60-400	GHM-NRstUmVW	SSIZ516		12¼	500-4,000	60-400	GHM-NRstUmVW	MR316	M234	17½	500-2,000	50-400	UM G H M RST W V
S519	S123	8½, 9½, 10%, 12¼, 13½, 13¾, 14¾, 17, 17½	400-3,000	60-400	GHM-NRstUmVW	SSIZ616		16	500-4,000	60-400	GHM-NRstUmVW	MR316C	M234	17½	500-2,000	50-400	UM G H M RST W V
S619	S223	8½, 12¼, 17	400-3,000	60-400	GHM-NRstUmVW	SST1213		12¼	500-4,000	60-400	GHM-NRstUmVW	MR316M	M234	17½	500-2,000	50-400	UM G H M RST W V
S919		22	500-4,000	60-400	GHM-NRstUmVW	SST913		6, 8½	500-4,000	60-400	GHM-NRstUmVW	MR316MC	M234	17½	500-2,000	50-400	UM G H M RST W V
SD516		11%	500-4,000	60-400	GHM-NRstUmVW	SSXI616		12¼	500-4,000	60-400	GHM-NRstUmVW	MR413	M232	5%, 6%, 6%	500-2,000	50-400	UM G H M RST W V
SDAI513		8½	500-4,000	60-400	GHM-NRstUmVW	SSXI619		12¼	400-3,000	60-400	GHM-NRstUmVW	MR413C	M232	5%, 6%, 6%	500-2,000	50-400	UM G H M RST W V
SDI313		8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	SXI616		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MR413M	M232	5%, 6%, 6%	500-2,000	50-400	UM G H M RST W V
SDI413		6%, 6¾, 7%, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	SXI619		12¼	400-3,000	60-400	GHM-NRstUmVW	MR413MC	M232	5%, 6%, 6%	500-2,000	50-400	UM G H M RST W V
SDI416		7%	500-4,000	60-400	GHM-NRstUmVW	TBRS613		6, 7½, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MR416	M422	7%, 8½, 8¾, 9%, 11, 12¼	500-2,500	50-400	UH G H M RST W V
SDI419		11%, 12¼, 17½	400-3,000	60-400	GHM-NRstUmVW	VIS416		8½	500-4,000	60-400	GHM-NRstUmVW	MR416C	M422	7%, 8½, 8¾, 9%, 11, 12¼	500-2,500	50-400	UH G H M RST W V
SDI513		6, 6¼, 6¾, 6¾, 7%, 8½, 8¾, 8¾, 8¾, 9%, 11½	500-4,000	60-400	GHM-NRstUmVW	VIS419		8½, 12¼	400-3,000	60-400	GHM-NRstUmVW	MR416M	M422	7%, 8½, 8¾, 9%, 11, 12¼	500-2,500	50-400	UH G H M RST W V
SDI516		7%, 8½, 8¾, 8¾, 8¾, 9%, 11½	500-4,000	60-400	GHM-NRstUmVW	VIS516		8½	500-4,000	60-400	GHM-NRstUmVW	MR416MC	M422	7%, 8½, 8¾, 9%, 11, 12¼	500-2,500	50-400	UH G H M RST W V
SDI519	S123	8½, 8¾, 12¼, 16, 17½, 18½	400-3,000	60-400	GHM-NRstUmVW	VIS519		12¼	400-3,000	60-400	GHM-NRstUmVW	SD519	S222	10%, 12¼	1,000-4,000	50-400	UM G H M RST W V
SDI613		8½, 8¾, 17½	500-4,000	60-400	GHM-NRstUmVW	VIS613		8%	500-4,000	60-400	GHM-NRstUmVW	SD519C	S222	10%, 12¼	1,000-4,000	50-400	UM G H M RST W V
SDI616	S223	8½, 8¾, 11%, 12¼, 13½, 17½	500-4,000	60-400	GHM-NRstUmVW	Z316		7%	500-4,000	60-400	GHM-NRstUmVW	SD519M	S222	10%, 12¼	1,000-4,000	50-400	UM G H M RST W V
SDI619		12¼, 14¾, 16, 17½	400-3,000	60-400	GHM-NRstUmVW	Z319		8%	400-3,000	60-400	GHM-NRstUmVW	SD519MC	S222	10%, 12¼	1,000-4,000	50-400	UM G H M RST W V
						Z416		8%	500-4,000	60-400	GHM-NRstUmVW	SP413	S232	6, 7%, 8%, 8½, 8¾, 12¼	1,000-4,000	50-400	UM G H M RST W V



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	
SP413C	S232	6, 7½, 8½, 8½, 8½, 12¼	1,000-4,000	50-400	UM G H M RST W V	U613M	M133, M232, M233, M234, M332, M333	5½, 6, 6½, 6¼, 6¼, 7½, 8½, 8¼, 9½	500-4,000	Variable	BCDEFGSU	R616	M223, S223	6, 6½, 6¼, 6½, 6½, 7½, 7½, 8½, 8½, 8½, 9½, 9½, 10½, 11, 12, 11½, 11½, 12¼, 13½, 14½, 14¾, 15½, 16, 17, 17½, 23, 26	500-3,000	50-400	BGTP-DG1G2G3L-HNOUXR	
SP413M	S232	6, 7½, 8½, 8½, 8½, 8½, 12¼	1,000-4,000	50-400	UM G H M RST W V	U616M	M123, M222, M223, M224, M322, M323	6½, 6¼, 6¾, 7½, 8½, 8½, 8¾, 9½, 10½, 11, 12¼, 13½	500-4,000	Variable	BCDEFGSU	R419	M323, S323	6, 7½, 7½, 8½, 8½, 8½, 9½, 10½, 11½, 12¼, 10½, 11½, 12¼, 17, 17½	500-3,000	50-400	BGTP-DG1G2G3L-HNOUXR	
SP413MC	S232	6, 7½, 8½, 8½, 8½, 8½, 12¼	1,000-4,000	50-400	UM G H M RST W V	U619M	M123, M124, M223, M224, M323	7½, 8½, 8¾, 10½, 11, 12¼, 13½	500-4,000	Variable	BCDEFGSU	R519	M323, S323	7½, 8½, 8½, 8¾, 9½, 10½, 11½, 12¼, 13½, 14¾, 15½, 16, 17, 17½	500-3,000	50-400	BGTP-DG1G2G3L-HNOUXR	
SP416	S222	7½, 8½, 8½, 8½, 11½, 17½	1,000-4,000	50-400	UM G H M RST W V	U716M	M223, M323	7½, 8½, 8¾, 9½, 12¼	500-4,000	Variable	BCDEFGSU	R619	M223, S223	7½, 8½, 8½, 8¾, 9½, 10½, 11½, 12¼, 13½, 14¾, 15½, 16, 17, 17½, 18½, 26	500-3,000	50-400	BGTP-DG1G2G3L-HNOUXR	
SP416C	S222	7½, 8½, 8½, 8½, 11½, 17½	1,000-4,000	50-400	UM G H M RST W V	U719M	M323	12¼	500-4,000	Variable	BCDEFGSU	Hybrid bits						
SP416M	S222	7½, 8½, 8½, 8½, 11½, 17½	1,000-4,000	50-400	UM G H M RST W V	U313S	S132	8¾	500-4,000	Variable	BCDEFGSU	Tri-Max EWD DTS	4½×6, 6×7¼, 8½×9½, 10½×12¼, 12¼×14¾, 14¾×17½, 17½×23			Underream while drilling		
SP416MC	S222	7½, 8½, 8½, 8½, 11½, 17½	1,000-4,000	50-400	UM G H M RST W V	U413S	S133	6¾	500-4,000	Variable	BCDEFGSU	Bi-center PDC drill bits						
SP419	S222	8½, 8½, 8½, 8¾, 9½, 11, 11½, 12¼, 14¾, 16, 17½, 22	1,000-4,000	50-400	UM G H M RST W V	U416S	S122	7½, 8½, 8¾	500-4,000	Variable	BCDEFGSU	Atlas Copco						
SP419C	S222	8½, 8½, 8½, 8¾, 9½, 11, 11½, 12¼, 14¾, 16, 17½, 22	1,000-4,000	50-400	UM G H M RST W V	U513S	S132, S232, S233, S332	6½, 6¼, 6¾, 7½, 8½, 8½, 9½, 9½, 10½	500-4,000	Variable	BCDEFGSU	S313BCRU	4¾×7	400-4,000	60-400			
SP419M	S222	8½, 8½, 8½, 8¾, 9½, 11, 11½, 12¼, 14¾, 16, 17½, 22	1,000-4,000	50-400	UM G H M RST W V	U516S	S122, S123, S222, S233, S322, S323	6½, 6¾, 7½, 8½, 8¾, 11, 12¼, 13½	500-4,000	Variable	BCDEFGSU	S413BCRU	4¾×7¼	400-4,000	60-400			
SP419MC	S222	8½, 8½, 8½, 8¾, 9½, 11, 11½, 12¼, 14¾, 16, 17½, 22	1,000-4,000	50-400	UM G H M RST W V	U519S	S122, S123, S222, S233, S323	7½, 8½, 8¾, 9½, 12¼	500-4,000	Variable	BCDEFGSU	S513BCRU	4¾×7¾	400-4,000	60-400			
SP516	S222	11½, 12¼	1,000-4,000	50-400	UM G H M RST W V	U611S	S132	6, 6½, 6¾	500-4,000	Variable	BCDEFGSU	S416BCRU	6½×9½	400-4,000	60-400			
SP516C	S222	11½, 12¼	1,000-4,000	50-400	UM G H M RST W V	U613S	S131, S132, S232, S233, S332	6½, 6¼, 6½, 6¾, 7½, 8¾	500-4,000	Variable	BCDEFGSU	Drill Master, Inc.						
SP516M	S222	11½, 12¼	1,000-4,000	50-400	UM G H M RST W V	U616S	S122, S222, S233, S322, S323	7½, 8½, 8¾, 9½, 11, 17½	500-4,000	Variable	BCDEFGSU	MBC19919	12½×10%	200-1,700	60-400	RSTMWUm		
SP516MC	S222	11½, 12¼	1,000-4,000	50-400	UM G H M RST W V	U619S	S122, S223, S323	8½, 9½, 12¼	500-4,000	Variable	BCDEFGSU	ReedHycalog Bits						
SP519	S222	8½, 12¼, 16, 17½, 22	1,000-4,000	50-400	UM G H M RST W V	V416	M233, S233	4½, 5½, 6, 6½, 6¼, 6½, 7½, 7½, 8½, 8½, 9½, 12¼, 16, 17½	500-3,000	50-400	BGTP-DG1G2G3L-HNOUXR	CSD5213	S233	6½×7½	3,000-3,500	80-200	GHMWUm	
SP519C	S222	8½, 12¼, 16, 17½, 22	1,000-4,000	50-400	UM G H M RST W V	V516	M323, S323	6, 6½, 6¼, 6½, 6¾, 7½, 7½, 8½, 8½, 8¾, 9½, 10½, 11, 11½, 12¼, 13½	500-3,000	50-400	BGTP-DG1G2G3L-HNOUXR	CSD5208		4¾×5½	3,000-3,500	80-200	GHMWUm	
SP519M	S222	8½, 12¼, 16, 17½, 22	1,000-4,000	50-400	UM G H M RST W V	V616	M223, S223	6, 6½, 6¼, 6½, 6¾, 7½, 7½, 8½, 8½, 8¾, 9½, 10½, 11, 11½, 12¼, 13½, 15½, 16, 17, 17½, 23, 26	500-3,000	50-400	BGTP-DG1G2G3L-HNOUXR	CSD5311		6½×7½	3,000-3,500	80-200	GHMWUm	
SR513	S232	11½	1,000-4,000	50-400	UM G H M RST W V	V419	M223, S223	7½, 7½, 8½, 8½, 10½, 11½, 12¼, 17, 17½	500-3,000	50-400	BGTP-DG1G2G3L-HNOUXR	CSD5313		8½×9½	3,000-3,500	80-200	GHMWUm	
SR513C	S232	11½	1,000-4,000	50-400	UM G H M RST W V	V519	M223, S223	7½, 8½, 8½, 8¾, 9½, 10½, 11½, 12¼, 13½, 15½, 16, 17, 17½, 18½, 26	500-3,000	50-400	BGTP-DG1G2G3L-HNOUXR	PSD4313		8½×9½, 9½×10¼	3,000-3,500	80-200	GHMWUm	
SR513M	S232	11½	1,000-4,000	50-400	UM G H M RST W V	V619	M233, S233	7½, 8½, 8½, 8¾, 9½, 10½, 11½, 12¼, 13½, 15½, 16, 17, 17½, 18½, 26	500-3,000	50-400	BGTP-DG1G2G3L-HNOUXR	PSD4316		8½×9½	3,000-3,500	80-200	GHMWUm	
SR513MC	S232	11½	1,000-4,000	50-400	UM G H M RST W V	R416	M233, S233	4½, 5½, 6, 6½, 6¼, 6½, 7½, 7½, 8½, 8½, 8¾, 9½, 12¼, 16, 17½			BGTP-DG1G2G3L-HNOUXR	PSD4319	S443	8½×9, 8½×9½	3,000-3,500	80-200	GHMWUm	
SR519	S222	11½, 12¼, 17½	1,000-4,000	50-400	UM G H M RST W V	R516	M323, S323	6, 6½, 6¼, 6½, 6¾, 7½, 7½, 8½, 8½, 8¾, 9½, 10½, 11, 11½, 12¼, 13½			BGTP-DG1G2G3L-HNOUXR	SB4208	S443	5½×6½, 6×7	3,000-3,500	80-200	GHMWUm	
SR519C	S222	11½, 12¼, 17½	1,000-4,000	50-400	UM G H M RST W V							SR3108	S133	5½×6¾	3,000-3,500	80-200	GHMWUm	
SR519M	S222	11½, 12¼, 17½	1,000-4,000	50-400	UM G H M RST W V							SR3208	S143	4½×5	3,000-3,500	80-200	GHMWUm	
SR519MC	S222	11½, 12¼, 17½	1,000-4,000	50-400	UM G H M RST W V							SR3408	M243	2½×3	3,000-3,500	80-200	GHMWUm	
Tri-Max						Varel						SR3611		3¾×4¼	3,000-3,500	80-200	GHMWUm	
HZ-90	S974	4½-12¼	500-3,000	100-400	GHM							Smith Bits						
Q-1	S545	5½-17½	1,000-4,000	85-250	DGM							QDM4213		7, 7½	200-3,500	60-400	GHM-NRstUmVW	
Q-1L	S544	6-17½	1,000-3,000	85-250	DG							QDM7313		9½, 12¼	200-3,500	60-400	GHM-NRstUmVW	
S-1H	S316	7½-17½	1,000-4,000	85-250	DGM							QDM7413		9, 9½	200-3,500	60-400	GHM-NRstUmVW	
S645	S645	6-17½	1,000-4,000	85-300	GM							QDM14213		7½	200-3,500	60-400	GHM-NRstUmVW	
Ulterra												QDM5216		7	200-3,000	60-400	GHM-NRstUmVW	
U309M	M343	6½	500-4,000	Variable	BCDEFGSU							QDM5219		13½	200-3,000	60-400	GHM-NRstUmVW	
U413M	M133, M134, M233	4¾, 5½, 6½, 6¼, 6½, 7½	500-4,000	Variable	BCDEFGSU							QDS4213		7	200-3,500	60-400	GHM-NRstUmVW	
U416M	M123, M134, M223, M323	6, 6½, 6¼, 7½, 8½, 8¾, 9½	500-4,000	Variable	BCDEFGSU							QDS5216		9½, 12¼	200-3,000	60-400	GHM-NRstUmVW	
U419M	M123, M223, M323	7½, 8½, 9½, 12¼	500-4,000	Variable	BCDEFGSU							QDS7313	S333	8½, 9½, 11, 12¼, 20	200-3,500	60-400	GHM-NRstUmVW	
U513M	M123, M124, M132, M133, M134, M232, M332	5½, 6, 6½, 6¼, 6½, 6¾, 7½, 8½, 8½, 8¾, 9½	500-4,000	Variable	BCDEFGSU							QDSI4219		9½	200-3,000	60-400	GHM-NRstUmVW	
U516M	M122, M222, M223, M224, M233, M323	6, 6½, 6¼, 6¾, 7½, 8½, 8½, 9½, 12¼	500-4,000	Variable	BCDEFGSU							QDSI5216		14¾, 17½	200-3,000	60-400	GHM-NRstUmVW	
U519M	M123, M132, M133, M134, M232, M332	6½, 7½, 8½, 8¾, 9½, 10½, 11, 11½, 12¼, 13½	500-4,000	Variable	BCDEFGSU							QDSI5316		9½	200-3,000	60-400	GHM-NRstUmVW	
U611M	M233, M332, M333	6, 6¾	500-4,000	Variable	BCDEFGSU							QDSI6213		6¼	200-3,500	60-400	GHM-NRstUmVW	
												SH0716		16, 16½, 16½	200-3,000	60-400	GHM-NRstUmVW	
												SH0I516		17½	200-3,000	60-400	GHM-NUmVW	
												SH0I616		9½, 10½, 14½, 14¾	200-3,000	60-400	GHM-NUmVW	
												SH0S616		17½, 18½	200-3,000	60-400	GHM-NUmVW	
												SH0SI616		12¼, 17½, 24	200-3,000	60-400	GHM-NUmVW	
												Varel						
												VH719	M423	8½×9, 12¼×13½, 21×22	500-2,500	100-400	BGDH-NOUXR	
												VH816	S323	17×22	500-2,500	100-400	BGDH-NOUXR	
												VH819	S323	14¾×17¾, 17×19, 21×22	500-2,500	100-400	BGDH-NOUXR	

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
PDC coring bits					
Bit-Tech					
CP-440-BU	M232	7½, 8½, 8¾	300-2,000	50-500	AFGMVW
CP-440-BU	M342	6, 6½	300-2,000	50-500	AFGMVW
Dowdco Coring					
CP-128	M-442	5½x2½, 6½x2½, 6½x3, 6½x3, 6½x3, 7½x4, 8½x4, 8½x4, 9½x4	2,000-5,500	50-150	FGMRUm
CP-813	M-133	7½x4, 8½x4, 8½x4, 8¾x4	2,000-5,500	50-150	FGMRUm
Halliburton					
CD93	M233	6-12¼	250-3,500	80-140	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
FC3743	M233	7½-12¼	250-3,500	50-150	F
FC3747	M432	8½	250-2,000	50-150	F
FC3843	M233	7½-12¼	250-3,500	50-150	F
FC3847	M432	8½	250-2,000	50-150	F
FC3937	M432	8½	250-2,000	50-150	F
ReedHycalog Bits					
CCP711	S132, S232, S332	5½, 6¼, 6½, 6¾, 8¾	300-2,000	50-150	GUI
CCP713	S133, S232, S332	6¼, 6½, 6¾, 7¾, 8¾	300-2,000	50-150	GUI
CCP813	S332	8½, 9¾	300-2,000	50-150	GUI
CDP713	S232, S333	5½, 8¾	300-2,000	50-150	GUI
CEP616	S223, S322, S323	7¾, 8½, 8¾, 8¾	300-2,000	50-150	GUI
CEP713	S232, S332, S333, S433	7¾, 8½, 8¾, 8¾, 8¾, 8¾	300-2,000	50-150	GUI
CVP713	S133, S232	6½, 6¾	300-2,000	50-150	GUI
IEP616	3	3	300-2,000	50-150	GUI
IEP713	3	3, 3½	300-2,000	50-150	GUI
IVP713	3	3	300-2,000	50-150	GUI
Tercel					
CMP611	M232	6½, 6¾	500-2,500	50-400	
CMP613	M232	8½, 8¾	500-2,500	50-400	
CMP611	M331	6¾	500-2,500	50-400	
CMP811	M331	8¾	500-2,500	50-400	
Varel					
C613	M232	7¾, 8½	1,000-3,000	50-400	G
Surface set diamond coring bits					
Bit-Tech					
CG-300	M623	6, 6½, 6¾, 7¾, 8¾, 8¾	400-2,500	50-500	AGIKM
CN-332	M713	6½, 6¾, 6¾, 7¾, 8¾	400-2,500	60-120	AGMR
CN-402	M712	6, 6½, 6¾, 7¾, 8¾	400-2,500	50-500	AGKM
Halliburton					
CT103	M613	6-12¼	250-3,500	80-140	I
CT103UF	M423	8½-12¼	250-3,500	80-140	FI
Surface set diamond bits					
Bit-Tech					
DN-302	M713	4½-4¾, 5½-6¼	300-3,500	Variable	Custom
DN-332	M713	4½-4¾, 5½-6¼	300-3,500	Variable	Custom
DN-422	M712	1¾, 1¾, 2½, 2¾, 2¾, 3¾, 4¾, 4¾, 6, 6½, 6¾, 6¾, 6¾	300-3,500	60-600	ADGHMNR
Medium					
Steel tooth roller cone bits					
Baker Hughes					
RC217	217	3¾, 5¼, 5½, 5½, 6, 6½, 7¾, 7¾, 8½, 8¾, 9¼, 9½, 12¼	2,500-6,300	170-80	S
RC217	217	3¾, 5¼, 5½, 5½, 6, 6½, 7¾, 7¾, 8½, 8¾, 9¼, 9½, 9½	2,500-6,300	170-80	S
Halliburton					
XT5	315	14¾	2,000-6,000	40-250	GMW
Q7, QH7	337	9½-12¼	2,000-6,000	40-250	GMW
Kingdram					
HA317G	317	5½, 8½, 8¾	2,500-7,000	80-50	G
HA337G	337	8½, 9¾, 12¼	4,000-7,000	70-40	CG
Smith Bits					
SB315	315	8½	2,000-4,000	160-50	S
SB316	316	6	2,000-4,000	160-50	S
SB321	321	8½	2,000-4,000	160-50	S
Baker Hughes					
GX-44	617	8½, 8¾, 12¼	2,900-7,300	140-70	GXWY
GX-44G	617	8½, 8¾, 11¾, 12¼	2,900-7,300	140-70	GXWY
MX-40	617	6	2,600-6,800	130-65	BCMSX
MX-44	617	8½	2,900-7,400	100-50	BCMSX
MX-44G	617	8½, 12¼	2,900-7,400	100-50	BCMSX
RC617	617	6½	2,000-5,300	205-80	X
STX-40	617	5½, 6, 6½, 6¾, 6¾, 6¾	2,000-5,300	205-80	WX
VG-35A	617	8½	2,900-7,300	140-70	BGWXA
VG-44G	617	12¼	2,900-7,300	140-70	BGWX
VGD-40	617	6½, 6¾	2,000-5,300	205-80	BGWX
VGD-40H	617	5½	2,000-5,300	205-80	BGWX
VGD-44	617	7¾	2,900-7,300	140-70	BGWX
VGD-44G	617	8¾	2,900-7,300	140-70	BGWX
VM-44G	617	12¼	2,900-7,400	100-50	BCGMSWY
VM-44G	617	8½, 8¾, 11¾	2,900-7,400	100-50	BCGMSWY
Baker Hughes					
GX-44	627	7¾, 8½, 8¾, 9¾, 12¼	3,200-7,600	130-65	GXWY
FLH	327	8½	2,000-5,000	160-50	S
SB347	347	12¼	2,000-4,000	160-50	S
Tercel					
G31F	316	6, 6¼, 7¾, 8¾, 8¾, 8¾, 9¾, 12¼	4,000-9,000	45-70	
G31FH	317	6, 6¼, 7¾, 8¾, 8¾, 8¾, 9¾, 12¼	4,000-9,000	45-70	GW
G31S	314	6, 6¼, 6¾, 7¾, 8¾, 8¾, 8¾, 9¾, 10½, 12, 12¼, 13½, 13¾, 14¾, 16, 17, 17½	4,000-9,000	45-75	S
G31SH	315	6, 6¼, 6¾, 7¾, 8¾, 8¾, 8¾, 9¾, 10½, 12, 12¼, 13½, 13¾, 14¾, 16, 17, 17½	4,000-9,000	45-75	SG
G32F	326	6, 6¼, 7¾, 8¾, 8¾, 8¾, 9¾, 12¼	4,000-9,000	45-70	
G32FH	327	6, 6¼, 7¾, 8¾, 8¾, 8¾, 9¾, 12¼	4,000-9,000	45-70	GW
G32S	324	6, 6¼, 6¾, 7¾, 8¾, 8¾, 8¾, 9¾, 10½, 12, 12¼, 13½, 13¾, 14¾, 16, 17, 17½	4,000-9,000	45-75	S
G32SH	325	6, 6¼, 6¾, 7¾, 8¾, 8¾, 8¾, 9¾, 10½, 12, 12¼, 13½, 13¾, 14¾, 16, 17, 17½	4,000-9,000	45-75	SG
P31SH	315	7¾, 8½, 8¾, 9¾, 10½, 10½, 12¼, 13½, 13¾, 14¾, 16, 17, 17½	4,000-9,000	60-160	CGW
P31FH	317	8½, 8¾, 9¾, 12¼	4,000-9,000	60-160	GW
P32SH	325	7¾, 8½, 8¾, 9¾, 10½, 10½, 12¼, 13½, 13¾, 14¾, 16, 17, 17½	4,000-9,000	60-160	CGW
P32FH	327	8½, 8¾, 9¾, 10½, 12¼	4,000-9,000	60-160	GW
TIX-TSK					
MS	211	5½, 5½, 6, 6½, 6¾, 7¾, 7¾, 7¾	2,000-4,000	120-60	S
MS	211	8½, 8½, 8¾, 8¾, 9¾, 9¾, 10½, 11, 11½, 12, 12¼	2,000-5,000	120-60	S
MS	211	13¾, 13¾, 14¾, 14¾, 15, 15½, 17½, 20, 22, 23, 24, 26	2,000-4,000	120-60	S
MS-TMZ	215	16, 17½	2,000-4,000	250-60	GMW
MS-TMG	217	8½, 9¾, 11¾, 12¼	2,000-5,000	250-50	GMW
MS-TX	217	5½, 6, 6¼, 7¾	2,000-4,000	110-50	S
MS-TX	217	8½, 9¾, 11¾, 12¼	2,000-5,000	110-50	S
MS-TZ	215	8½, 8½, 9¾, 11¾, 12¼	2,000-5,000	100-60	S
MS-X	216	5½, 5½, 6, 6½, 6¾, 7¾, 7¾	2,000-4,000	110-50	S
MS-X	216	8½, 8½, 8¾, 8¾, 9¾, 9¾, 11¾, 12, 12¼	2,000-5,000	110-50	S
MS-X	216	16, 17½	2,000-4,000	110-50	S
MS-YZ	214	8½, 12¼	2,000-5,000	250-60	GMW
MS-XZ	214	16, 17½	2,000-4,000	150-60	W
MS-Z	214	8½, 8½, 8¾, 9¾, 9¾, 10½, 11¾, 12, 12¼	2,000-5,000	100-60	S
MS-Z	214	16, 17½, 20, 22, 23, 24, 26	2,000-4,000	100-50	S
Tri-Max					
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					
Baker Hughes					
GX-44	617	8½, 8¾, 12¼	2,900-7,300	140-70	GXWY
GX-44G	617	8½, 8¾, 11¾, 12¼	2,900-7,300	140-70	GXWY
Q30	537	4¾-12¼	4,000-7,000	40-220	GMW
MX-44	617	8½	2,900-7,400	100-50	BCMSX
MX-44G	617	8½, 12¼	2,900-7,400	100-50	BCMSX
RC617	617	6½	2,000-5,300	205-80	X
STX-40	617	5½, 6, 6½, 6¾, 6¾, 6¾	2,000-5,300	205-80	WX
VG-35A	617	8½	2,900-7,300	140-70	BGWXA
VG-44G	617	12¼	2,900-7,300	140-70	BGWX
VGD-40	617	6½, 6¾	2,000-5,300	205-80	BGWX
VGD-40H	617	5½	2,000-5,300	205-80	BGWX
VGD-44	617	7¾	2,900-7,300	140-70	BGWX
VGD-44G	617	8¾	2,900-7,300	140-70	BGWX
VM-44G	617	12¼	2,900-7,400	100-50	BCGMSWY
VM-44G	617	8½, 8¾, 11¾	2,900-7,400	100-50	BCGMSWY
Halliburton					
GX-44C	627	7¾, 8½, 8¾, 9¾, 12¼	3,200-7,600	130-65	GXWY
GX-45C	627	8¾	3,200-7,600	130-65	GXWY
MX-40C	627	6½, 6¾	2,600-6,800	125-65	BCMSY
MX-40CG	627	8¾, 8½, 12	2,900-7,100	95-50	BCMSX
MX-44C	627	12¼	2,900-7,100	95-50	BCMSY
MXB-40CG	627	12	2,900-7,100	95-50	BCMSX
STX-40C	627	6	2,000-5,300	190-80	WY
STX-44C	627	4¾, 4¾, 6¾, 6¾	2,000-5,300	190-80	WY
VG-40A	627	8¾, 8¾, 9¾, 12¼, 12¾	3,200-7,600	130-65	BGWXA
VG-40C	627	6¾	2,000-5,300	190-80	BGWY
VG-44C	627	6¾, 7¾, 8½, 8¾, 9¾, 12¼	3,200-7,600	130-65	BGWY
VG-45A	627	12¼	3,200-7,600	130-65	BGWXA
VG-45C	627	7¾, 8¾, 12¼	3,200-7,600	130-65	BGWY
VG-50ADX	627	12¼	3,200-7,600	130-65	BGWX
VGD-40C	627	6¾	2,000-5,300	190-80	BGWY
VGD-44	627	8½	3,200-7,600	130-65	BGWX
VGD-44C	627	7¾, 8½, 12¼	3,200-7,600	130-65	BGWY
VGD-45C	627	8½	3,200-7,600	130-65	BGWY
VM-40C	627	10½	2,900-7,100	95-50	BCGMSWY
VM-40CG	627	10½	2,900-7,100	95-50	BCGMSWY
VM-44C	627	6¾, 8½, 8¾, 12¼	2,900-7,100	95-50	BCGMSWY
VMD-44C	627	6¾, 8½, 8¾	2,900-7,100	95-50	BCGMSWY
VMD-45C	627	8¾	2,900-7,100	95-50	BCGMSWY
VMG-40CG	627	10½	2,900-7,100	95-50	BCGMSWY
VMG-44C	627	8¾, 10½, 12¼	2,900-7,100	95-50	BCGMSWY
VMG-44C	627	8¾, 8¾, 9¾, 12¼	2,900-7,100		

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
QH37	547	6½-12¼	4,000-7,000	40-220	GMW	F4	617X	12¼	3,000-7,000	160-50	X	Varel	617A	6¼, 6½, 6¾, 6¾, 7¾	2,500-7,000	300-50	AW
QH38	547	6½-12¼	4,000-7,000	40-220	GMW	F40W	617X	8½	3,000-7,000	160-50	X	AF45	617A	6¼, 6½, 6¾, 6¾, 7¾	2,500-7,000	300-50	AW
QH39	547	6½-12¼	4,000-7,000	40-220	GMW	F45A	617X	8¾	3,000-7,000	160-50	AX	AF45H	617A	8½, 8¾, 8¾	2,500-7,000	300-50	AW
Kingdream						FH45	617X	8½, 9¾	3,000-7,000	160-50	X	CM41	617Y	6¼	2,500-7,000	275-50	MW
A617	617	12¼	3,000-6,500	220-40	CGLY	FH40	617X	7¾, 8¾	3,000-7,000	160-50	X	CM44	617X	4¾, 4¾, 5¾, 5¾, 6, 6, 6¼, 6¾	2,500-7,000	275-50	MW
A627	627	6, 6½, 12¼	3,000-6,000	80-40	CGY	FH45	617X	7¾, 8¾	3,000-7,000	160-50	X	CM45	617Y	6	2,500-7,000	275-50	MW
A627H	627	5¾, 6, 6¾	3,000-6,000	200-40	CG	FHK40B	617X	8½	3,000-7,000	160-50	BWX	ER44	615X	26	1,500-4,750	150-50	CMW
GA615G	615	11¾, 12¼, 17½	2,000-4,500	220-50	CL	GF40	617X	12¼, 17½	3,000-6,500	280-50	BGHMX	HR44	615X	17½	2,250-5,000	300-50	CMW
GA625G	625	17½	2,000-5,000	200-80	CGLY	GF40B	617X	8¾	3,000-6,500	280-50	BGHMWX	HE44	615X	8½, 12¼	2,250-5,000	300-50	CMW
GAT615G	615	13¾, 13¾, 14¾, 16, 17½	2,000-4,500	220-50	CG	GF45	617X	8½, 12¼	3,000-6,500	280-50	BGHMX	HR45	615Y	17½	2,250-5,000	300-50	CMW
GAT625G	625	16, 17½	2,000-4,500	220-50	CY	SB617	617X	8½	2,500-5,000	160-50	Y	HE44	617X	8¼, 8¾, 10¾, 11¾, 12¼	2,500-7,000	300-50	CMW
GAT615GH	615	17½	2,000-4,500	220-50	CY	SB617D	617X	8½	2,500-5,000	160-50	BWY	HE44V	617X	7¾, 8¼, 8¾, 8¾, 9¾	2,500-7,000	300-50	CMW
GJ615GC	615	11¾, 12, ¼, 16, 17½	2,000-4,500	300-80	C	XR38	617X	6¾	2,000-6,000	270-40	HMX	HE45V	617Y	8¼, 8¾, 11¾, 12¼, 12¾	2,500-7,000	300-50	CMW
GJ615GH	615	12¼	2,000-4,500	300-80	C	XR40	617X	4¾, 6, 6¾, 6¾, 6¾, 6¾	2,000-6,000	270-40	HMX	HE45	617Y	8¼, 8¾, 11¾, 12¼, 12¾	2,500-7,000	300-50	CMW
GJT615GH	615	12¼, 16, 17½	2,000-4,500	300-80	GC	XR40KDD	617X	6	2,000-6,000	270-40	BGHMWX	HE47	627Y	7¾, 8¼, 8¾, 12¼	2,500-7,000	300-50	CMW
HA617G	617	4¾, 4¾, 4¾, 5¾, 5¾, 6, 6¾, 6¾, 6¾, 7¾, 7¾, 8¾, 8¾, 9¾, 9¾, 12¼	3,000-6,000	80-40	CLY	XR40	617X	6¾	2,000-6,000	270-40	HMX	HE47	627Y	7¾, 8¼, 8¾, 12¼	2,500-7,000	300-50	CMW
HA627G	627	5¾, 6¾, 7¾, 8¾, 8¾, 8¾, 9¾, 12¼	3,000-6,000	80-40	CLY	F40WUY	617Y	8½	3,000-7,000	160-50	Y	CM47	627Y	7¾, 8¼, 8¾, 12¼	2,500-7,000	300-50	CMW
HA627GH	627	8½	3,000-6,000	80-40	G	F40YA	617Y	8¾	3,000-7,000	160-50	AY	Fish tail bits					
HAS617G	617	6¼, 6¾, 7¾, 8¾, 8¾	3,000-6,000	80-40	GLY	F47Y	617Y	8¾, 9¾, 10¾, 12¾	3,000-7,000	160-50	Y	Bit-Tech	M131	6¼	300-2,000	100-500	ADGMWV
HAS-627GLY	627	6¼, 7¾, 8¾, 8¾	3,000-6,000	80-40	GLY	F47YA	617Y	7¾, 8¼, 8¾, 11, 12¼, 12¾	3,000-7,000	160-50	AY	DP-440-BIP					
HAT617G	617	4¾, 4¾, 4¾, 5¾, 5¾, 5¾, 6, 6¾, 6¾, 6¾, 7¾, 7¾, 8¾, 8¾, 9¾, 12¼	3,000-6,000	80-40	GLY	FH43Y	617Y	7¾, 8¾	3,000-7,000	160-50	Y	Halliburton					
HF615GH	615	12¼	2,000-4,500	220-50	G	GF40UYB	617Y	8½	3,000-6,500	280-50	BHMWY	FM3563	M221	6¼	500-2,500	60-400	MWV
HF617	617	6, 6¾, 6¾, 7¾, 8¾, 9¾, 9¾, 10¾, 12¼	3,000-6,000	80-40	CGLSY	GF40YB	617Y	8½	3,000-6,500	280-50	BHMWY	FMF3563	M221	6¼	500-2,500	60-400	MWV
HF617H	617	6, 6¾, 6¾, 7¾, 8¾, 9¾, 9¾, 10¾, 12¼	3,000-6,000	80-40	CGLSY	GF47Y	617Y	12¼	3,000-7,000	280-50	BGHMY	FMH3563	M221	6¼	500-2,500	60-400	MWV
HF625H	625	12¼	2,000-5,000	200-80	GL	GF47Y	617Y	12¼	3,000-7,000	280-50	BGHMY	FMR3563	M221	6¼	500-2,500	60-400	MWV
HF627	627	7¾, 8¾, 8¾, 9¾, 10¾, 12¼	3,000-6,000	80-40	GLY	GF47Y	617Y	12¼	3,000-7,000	280-50	BGHMY	PDC drill bits					
HF627GH	627	6, 6¾, 6¾, 7¾, 8¾, 8¾, 8¾, 12¼	3,000-6,000	80-40	G	GF47Y	617Y	10¾	3,000-7,000	280-50	BHMY	Baker Hughes					
HF627HM	627	8½, 9¾	3,000-6,000	200-40	G	GRK40YD	617Y	6	2,000-6,000	270-40	BGHMWY	AT505	M223	3¼-28	235-2,500	350-50	DRStGWW
HJ617	617	8½, 8¾, 9¾, 12¼	3,000-6,000	220-40	CG	GI47HY	625Y	16	1,500-4,000	240-50	BGHMY	AT505F	M223	3¼-28	235-2,500	350-50	DRStGWW
HJ617GH	617	8½	3,000-6,000	220-40	G	FH50	627X	8½, 8¾, 12¼	3,000-7,000	160-50	X	AT505S	S223	5¼-28	235-2,500	350-50	DRStGWW
HJ627	627	8½, 12, 12¼	3,000-6,000	200-40	CGLY	FH50	627X	7¾, 8¾	3,000-7,000	160-50	X	AT506	M223	3¼-28	235-2,500	350-50	DRStGWW
HJT617G	617	8½, 9¾, 12¼, 12¾	3,000-6,000	220-40	LY	FH50	627X	7¾, 8¾	3,000-7,000	160-50	X	AT506F	M223	3¼-28	235-2,500	350-50	DRStGWW
HJT617GH	617	8½, 9¾, 12¾	3,000-6,000	220-40	L	XR50	627X	6, 6¾, 6¾, 6¾, 6¾	2,000-6,000	270-40	HMX	AT506F	S223	5¼-28	235-2,500	350-50	DRStGWW
HJT617GH	617	8½	3,000-6,000	220-40	L	XR50	627X	6	2,000-6,000	270-40	HMX	AT507	M223	3¼-28	235-2,500	350-50	DRStGWW
MD617	617	4¾, 5¾, 6, 6¾, 6¾, 6¾, 6¾, 7¾, 8¾, 8¾, 9¾, 10¾, 12¼	3,000-6,500	220-40	GHLMY	XR50	627X	6	2,000-6,000	270-40	HMX	AT507F	M223	3¼-28	235-2,500	350-50	DRStGWW
ReedHycalog Bits						F47HY	627Y	7¾, 8¼, 8¾, 9¾, 11¾	3,000-7,000	160-50	Y	AT605	M223	3¼-28	235-2,500	350-50	DRStGWW
JA62	627	7¾, 8¾, 8¾, 11	3,500-6,000	80-40	AY	F47HYA	627Y	8¾, 12¼	3,000-7,000	160-50	AY	AT605F	M223	3¼-28	235-2,500	350-50	DRStGWW
JA45	627	12¼	3,500-6,000	80-40	AY	F47HYAD	627Y	8¾	3,000-7,000	160-50	GWY	AT606	M223	3¼-28	235-2,500	350-50	DRStGWW
R40	617	6, 6¾, 6¾, 6¾, 8¾, 12¾	2,500-6,000	120-40	CGMWY	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	AT606F	M223	3¼-28	235-2,500	350-50	DRStGWW
R40A	617	6, 6¾, 6¾, 6¾, 7¾, 8¾, 9¾, 12¼	2,500-6,000	120-40	CGMWX	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	AT607	M223	3¼-28	235-2,500	350-50	DRStGWW
R44	627	6½, 10¾	2,500-6,000	120-40	CGMWY	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	AT607F	M223	3¼-28	235-2,500	350-50	DRStGWW
R44A	627	4¾, 5¾, 6, 6¾, 6¾, 6¾, 7¾, 9¾, 10¾, 12¼	2,500-6,000	120-40	GMWX	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC405	M33	3¼-28	235-2,500	350-50	DGWW
R45	627	4¾, 4¾, 4¾, 4¾, 5, 5¾, 6, 6¾, 6¾, 8¾, 9¾, 11¾, 12¼	2,500-6,000	120-40	CGMWY	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC406	M233	3¼-28	235-2,500	350-50	DGWW
R45A	627	8¾	3,500-6,000	120-40	GMWX	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC407	M333	3¼-28	235-2,500	350-50	DGWW
R48	627	8¾	3,500-6,000	120-40	GMWY	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC505	M333	3¼-28	235-2,500	350-50	DGWW
RH40	617	6¼, 8¾, 8¾	2,500-6,000	120-40	GMWY	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC506	M223	3¼-28	235-2,500	350-50	DGWW
RH40A	617	6¼, 6¾, 8¾, 8¾	2,500-6,000	120-40	GMWX	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC507	M323	3¼-28	235-2,500	350-50	DGWW
RH44A	627	8½	3,500-6,000	120-40	GMWX	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC605	M323	3¼-28	235-2,500	350-50	DGWW
RH45	627	8½	3,500-6,000	120-40	GMWY	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC606	M223	3¼-28	235-2,500	350-50	DGWW
RH45A	627	8¾	3,500-6,000	120-40	GMWX	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC607	M223	3¼-28	235-2,500	350-50	DGWW
RH48	627	7¾	3,500-6,000	120-40	GMWY	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC608	M223	3¼-28	235-2,500	350-50	DGWW
S61	615	17½	3,500-6,000	450-60	CY	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC609	M223	3¼-28	235-2,500	350-50	DGWW
S61A	617	8½	3,500-6,000	120-40	X	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC610	M223	3¼-28	235-2,500	350-50	DGWW
S62	625, 627	7¾, 17½	3,500-6,000	450-40	Y	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC611	M223	3¼-28	235-2,500	350-50	DGWW
S62A	627	8½	3,500-6,000	120-40	X	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC612	M223	3¼-28	235-2,500	350-50	DGWW
TH61	615	17½	3,500-5,100	450-60	CGMWY	F47HYD	627Y	8¾	3,000-7,000	160-50	Y	HC613	M223	3¼-28	235-2,500	350-50	DGWW
Smith Bits						XR40Y	627Y	4¾, 5¾, 5¾, 5¾, 6, 6¾, 6¾	2,000-6,000	270-40	HMY	HC614	M223	3¼-28	235-2,500	350-50	DGWW
47YGA	612Y	8½	2,000-4,000	160-50	AX	XR40YA	627Y	6¼, 6¾	2,000-6,000	270-40							



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
FX54	M333	5½-17½	500-3,000	45-300	MVWRst	MM83	M343	4½-8¼	500-3,000	45-300	MVWRst	KM1365	M432	8½	857-2,685	60-300	
FX54DR	M333	5½-17½	500-3,000	45-300	MVWRst	MM83D	M343	4½-8¼	500-3,000	45-300	MVWRst	KS1052	S424	4½-8½	857-2,685	60-300	SGADTR
FX54R	M333	5½-17½	500-3,000	45-300	MVWRst	MM92	M343	4½-8¼	500-3,000	45-300	MVWRst	KS1355	S323	4½-17½	857-2,685	60-300	SGADTR
FX64	M333	5½-17½	500-3,000	45-300	MVWRst	MM63	M343	4½-8¼	500-3,000	45-300	MVWRst	KS1362	S333	4½-17½	857-2,685	60-300	SGADTR
FX64D	M333	5½-17½	500-3,000	45-300	MVWRst	MM73D	M343	4½-8¼	500-3,000	45-300	MVWRst	KS1382	S333	8½-17½	857-2,685	60-300	SGADTR
FX64R	M333	5½-17½	500-3,000	45-300	MVWRst	FX53	M344	4½-6	500-3,000	45-300	MVWRst	KS1392	S434	8½-17½	857-2,685	60-300	SGADTR
FX74	M333	5½-17½	500-3,000	45-300	MVWRst	FX63	M344	4½-6	500-3,000	45-300	MVWRst	KS1653	S323	4½-17½	857-2,685	60-300	SGADTR
FX74D	M333	5½-17½	500-3,000	45-300	MVWRst	MM63	M344	4½-6	500-3,000	45-300	MVWRst	KS1662	S323	4½-17½	857-2,685	60-300	SGADTR
FX74DI	M333	5½-17½	500-3,000	45-300	MVWRst	MM63,	M345	5½-6¼	500-3,000	45-300	MVWRst	KS1952	S323	4½-17½	857-2,685	60-300	SGADTR
FX74I	M333	5½-17½	500-3,000	45-300	MVWRst	MM73i	M345	5½-6¼	500-3,000	45-300	MVWRst	KS1953	S323	4½-17½	857-2,685	60-300	SGADTR
FX74R	M333	5½-17½	500-3,000	45-300	MVWRst	FX46Rs	S322	6½-17½	500-3,000	45-300	MVWRst	Reedhycalog Bits					
FX74R	M333	5½-17½	500-3,000	45-300	MVWRst	FX65Ds	S322	6½-17½	500-3,000	45-300	MVWRst	DS711	M232,	5½, 6, 6½, 6¼, 6¾	1,000-6,000	Variable	GHMWUmv
FX84	M333	5½-17½	500-3,000	45-300	MVWRst	SF46	S322	6½-17½	500-3,000	45-300	MVWRst	M233,	M322,				
FX84D	M333	5½-17½	500-3,000	45-300	MVWRst	SF55	S322	6½-17½	500-3,000	45-300	MVWRst	M332,	M332				
FX84DR	M333	5½-17½	500-3,000	45-300	MVWRst	SF56	S322	6½-17½	500-3,000	45-300	MVWRst	DS713	M232,	5½, 5¾, 6, 6¼, 6¾, 6¾, 7½, 8½, 8¾, 12¼	1,000-6,000	Variable	GHMWUmv
FX94	M333	5½-17½	500-3,000	45-300	MVWRst	SF65	S322	6½-17½	500-3,000	45-300	MVWRst	M233,	M332,				
FX94I	M333	5½-17½	500-3,000	45-300	MVWRst	SF65D	S322	6½-17½	500-3,000	45-300	MVWRst	M332,	M332				
GT54	M333	5½-17½	500-3,000	45-300	MVWRst	SF75	S322	6½-17½	500-3,000	45-300	MVWRst	M432,	M432,				
GT64	M333	5½-17½	500-3,000	45-300	MVWRst	SF86D	S322	6½-17½	500-3,000	45-300	MVWRst	DS716	M422,	7½, 8½, 8¾, 9¾, 12¼	1,000-6,000	Variable	GHMWUmv
GT84D	M333	5½-17½	500-3,000	45-300	MVWRst	FX45s	S323	6½-22	500-3,000	45-300	MVWRst	M422,	M432,				
GT94DI	M333	5½-17½	500-3,000	45-300	MVWRst	FX46s	S323	6½-22	500-3,000	45-300	MVWRst	M432,	M432				
MM54	M333	5½-17½	500-3,000	45-300	MVWRst	FX55Ds	S323	6½-22	500-3,000	45-300	MVWRst	DS719	M421,	12¼, 16	1,000-6,000	Variable	GHMWUmv
MM54D	M333	5½-17½	500-3,000	45-300	MVWRst	FX55Rs	S323	6½-22	500-3,000	45-300	MVWRst	M423	M423				
MM54R	M333	5½-17½	500-3,000	45-300	MVWRst	FX55s	S323	6½-22	500-3,000	45-300	MVWRst	SK719	S422,	16, 17	1,000-6,000	Variable	
MM64	M333	5½-17½	500-3,000	45-300	MVWRst	FX56Ds	S323	6½-22	500-3,000	45-300	MVWRst	S423	S423				
MM64D	M333	5½-17½	500-3,000	45-300	MVWRst	FX56Rs	S323	6½-22	500-3,000	45-300	MVWRst	SK508	M242	6½	1,000-6,000	Variable	GHMWUmv-Vrst
MM64R	M333	5½-17½	500-3,000	45-300	MVWRst	FX56s	S323	6½-22	500-3,000	45-300	MVWRst	SK511	M123,	3½, 4½, 4¾, 4¾, 4¾, 6½, 6¾, 6¾, 6¾	1,000-6,000	Variable	GHMWUmv-Vrst
MM74	M333	5½-17½	500-3,000	45-300	MVWRst	FX65Ds	S323	6½-22	500-3,000	45-300	MVWRst	M132,	M132,				
MM74D	M333	5½-17½	500-3,000	45-300	MVWRst	FX65s	S323	6½-22	500-3,000	45-300	MVWRst	M133,	M133,				
MM74R	M333	5½-17½	500-3,000	45-300	MVWRst	FX66Ds	S323	6½-22	500-3,000	45-300	MVWRst	S312,	S312,				
MM84	M333	5½-17½	500-3,000	45-300	MVWRst	FX66s	S323	6½-22	500-3,000	45-300	MVWRst	SK513	M122,	4½, 5½, 5¾, 5¾, 5¾, 6½, 6¾, 6¾, 6¾, 6¾, 7½, 8½, 8¾	1,000-6,000	Variable	GHMWUmv-Vrst
MM84D	M333	5½-17½	500-3,000	45-300	MVWRst	FX76Ds	S323	6½-22	500-3,000	45-300	MVWRst	M132,	M132,				
MM84D	M333	5½-17½	500-3,000	45-300	MVWRst	GT55Ds	S323	6½-22	500-3,000	45-300	MVWRst	M232,	M232,				
MM84R	M333	5½-17½	500-3,000	45-300	MVWRst	SF46	S323	6½-22	500-3,000	45-300	MVWRst	M233,	M233,				
MM94	M333	5½-17½	500-3,000	45-300	MVWRst	SF55	S323	6½-22	500-3,000	45-300	MVWRst	M234,	M234,				
MM94D	M333	5½-17½	500-3,000	45-300	MVWRst	SF55D	S323	6½-22	500-3,000	45-300	MVWRst	M322,	M322,				
FX24I	M334	6-12¼	500-3,000	45-300	MVWRst	SF56	S323	6½-22	500-3,000	45-300	MVWRst	M234,	M234,				
FX44	M334	6-12¼	500-3,000	45-300	MVWRst	SF56D	S323	6½-22	500-3,000	45-300	MVWRst	M233,	M233,				
FX54	M334	6-12¼	500-3,000	45-300	MVWRst	SF65	S323	6½-22	500-3,000	45-300	MVWRst	M332,	M332,				
FX64D	M334	6-12¼	500-3,000	45-300	MVWRst	SF65D	S323	6½-22	500-3,000	45-300	MVWRst	M332,	M332,				
FX74	M334	6-12¼	500-3,000	45-300	MVWRst	SF65R	S323	6½-22	500-3,000	45-300	MVWRst	M332,	M332,				
FX84	M334	6-12¼	500-3,000	45-300	MVWRst	SF66	S323	6½-22	500-3,000	45-300	MVWRst	M332,	M332,				
FX84R	M334	6-12¼	500-3,000	45-300	MVWRst	SF66D	S323	6½-22	500-3,000	45-300	MVWRst	M422,	M422,				
FX94	M334	6-12¼	500-3,000	45-300	MVWRst	SF75D	S323	6½-22	500-3,000	45-300	MVWRst	M432,	M432,				
FX94R	M334	6-12¼	500-3,000	45-300	MVWRst	SF96	S323	6½-22	500-3,000	45-300	MVWRst	S132,	S132,				
GT34D	M334	6-12¼	500-3,000	45-300	MVWRst	SF96D	S323	6½-22	500-3,000	45-300	MVWRst	S232,	S232,				
MM34D	M334	6-12¼	500-3,000	45-300	MVWRst	FX55s	S324	6½-22	500-3,000	45-300	MVWRst	SK516	M122,	5½, 6, 6½, 6¼, 6¾, 6¾, 7½, 8½, 8¾, 8¾, 9½, 9½, 10½, 12¼	1,000-6,000	Variable	GHMWUmv-Vrst
MM44	M334	6-12¼	500-3,000	45-300	MVWRst	GT56s	S324	6½-22	500-3,000	45-300	MVWRst	M222,	M222,				
MM44D	M334	6-12¼	500-3,000	45-300	MVWRst	SF46	S324	6½-22	500-3,000	45-300	MVWRst	M223,	M223,				
MM54	M334	6-12¼	500-3,000	45-300	MVWRst	SF55	S324	6½-22	500-3,000	45-300	MVWRst	M232,	M232,				
MM54	M334	6-12¼	500-3,000	45-300	MVWRst	SF55D	S324	6½-22	500-3,000	45-300	MVWRst	M234,	M234,				
MM64	M334	6-12¼	500-3,000	45-300	MVWRst	SF56	S324	6½-22	500-3,000	45-300	MVWRst	M322,	M322,				
MM64D	M334	6-12¼	500-3,000	45-300	MVWRst	SF65D	S324	6½-22	500-3,000	45-300	MVWRst	M323,	M323,				
MM74D	M334	6-12¼	500-3,000	45-300	MVWRst	SF66	S324	6½-22	500-3,000	45-300	MVWRst	M422,	M422,				
MM74R	M334	6-12¼	500-3,000	45-300	MVWRst	SF86D	S324	6½-22	500-3,000	45-300	MVWRst	M424,	M424,				
MM84	M334	6-12¼	500-3,000	45-300	MVWRst	SF96R	S324	6½-22	500-3,000	45-300	MVWRst	S122,	S122,				
MM84D	M334	6-12¼	500-3,000	45-300	MVWRst	SF66D	S325	12¼	500-3,000	45-300	MVWRst	S222,	S222,				
MM84I	M334	6-12¼	500-3,000	45-300	MVWRst	SF54	S332	6-12¼	500-3,001	45-301	MVWRst	S224,	S224,				
MM94	M334	6-12¼	500-3,000	45-300	MVWRst	SF64	S332	6-12¼	500-3,001	45-301	MVWRst	S322,	S322,				
FX04i	M335	6¼-12¼	500-3,000	45-300	MVWRst	SF74D	S332	6-12¼	500-3,001	45-301	MVWRst	S333,	S333,				
FX64	M335	6¼-12¼	500-3,000	45-300	MVWRst	SF75R	S332	6-12¼	500-3,001	45-301	MVWRst	SK519	M122,	6½, 7½, 8½, 8¾, 8¾, 9½, 10½, 11½, 12¼	1,000-6,000	Variable	GHMWUmv-Vrst
FX94	M335	6¼-12¼	500-3,000	45-300	MVWRst	S333	S332	6-12¼	500-3,001	45-301	MVWRst	M222,	M222,				
MM04D	M335	6¼-12¼	500-3,000	45-300	MVWRst	FX34Ds	S332	6-12¼	500-3,001	45-301	MVWRst	M223,	M223,				
MM44	M335	6¼-12¼	500-3,000	45-300	MVWRst	FX64Ds	S332	6-12¼	500-3,001	45-301	MVWRst	M322,	M322,				
MM64	M335	6¼-12¼	500-3,000	45-300	MVWRst	FX64s	S332	6-12¼	500-3,001	45-301	MVWRst	M332,	M332,				
MM64D	M335	6¼-12¼	500-3,000	45-300	MVWRst	SF44	S332	6-12¼	500-3,001	45-301	MVWRst	M422,	M422,				
MM94	M335	6¼-12¼	500-3,000	45-300	MVWRst	SF54	S332	6-12¼	500-3,001	45-301	MVWRst	M423,	M423,				
FX73	M341	6½	500-3,000	45-300	MVWRst	FX34Ds	S333	4¾-9½	500-3,000	45-300	MVWRst	S222,	S222,				
FX63	M342	4¾-8¾	500-3,000	45-300	MVWRst	FX64Ds	S333	4¾-9½	500-3,000	45-300	MVWRst	S323,	S323,				
FX64	M342	4¾-8¾	500-3,000	45-300	MVWRst	FX64s	S333	4¾-9½	500-3,000	45-300	MVWRst	S422,	S422,				
FX64D	M342	4¾-8¾	500-3,000	45-300	MVWRst	SF44	S333	4¾-9½	500-3,000	45-300	MVWRst	S423,	S423,				
FX73	M342	4¾-8¾	500-3,000	45-300	MVWRst	SF54	S333	4¾-9½	500-3,000	45-300	MVWRst	SK611	M132,	6½, 7½, 8½, 8¾	1,000-6,000	Variable	GHMWUmv-Vrst
FX83	M342	4¾															



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
MDX1713		8½	500-4,000	60-400	GHM-NRstUmVW	MSI816	M432	8½, 8½, 8¾, 9%, 9½, 12¼, 13½, 16, 17, 17½	500-4,000	60-400	GHM-NRstUmVW	SDI513		6, 6½, 6¾, 6¾, 6¾, 7½, 8½, 8½, 8¾, 8¾, 8¾, 9%, 11%	500-4,000	60-400	GHM-NRstUmVW
MDZI616		14½	500-4,000	60-400	GHM-NRstUmVW	MSI916		16	500-4,000	60-400	GHM-NRstUmVW	SDI516		7½, 8½, 8½, 8¾, 8¾, 8¾, 9%, 11%	500-4,000	60-400	GHM-NRstUmVW
MDZI713		10%	500-4,000	60-400	GHM-NRstUmVW	MSIR513		6%	500-4,000	60-400	GHM-NRstUmVW	SDI519	S123	8½, 8¾, 12¼, 16, 17½, 18½	400-3,000	60-400	GHM-NRstUmVW
MDZXi713		8½	500-4,000	60-400	GHM-NRstUmVW	MSIR613		6½, 6¼	500-4,000	60-400	GHM-NRstUmVW	SDI611		6, 6¼, 6½, 6¾, 7%, 8½, 8¾, 9%	500-4,500	60-400	GHM-NRstUmVW
MDZXiZ713		8½	500-4,000	60-400	GHM-NRstUmVW	MSIR616		9%	500-4,000	60-400	GHM-NRstUmVW	SDI613		8½, 8¾, 17½	500-4,000	60-400	GHM-NRstUmVW
MI316	M123	8½	500-4,000	60-400	GHM-NRstUmVW	MSIR713		6%	500-4,000	60-400	GHM-NRstUmVW	SDI616	S223	8½, 8¾, 11%, 12¼, 13½, 17½	500-4,000	60-400	GHM-NRstUmVW
MI413		6½	500-4,000	60-400	GHM-NRstUmVW	MSIZ413		6¾	500-4,000	60-400	GHM-NRstUmVW	SDI619		12¼, 14¾, 16, 17½	400-3,000	60-400	GHM-NRstUmVW
MI416	M123	6½, 7%, 8½	500-4,000	60-400	GHM-NRstUmVW	MSIZ513		6½, 6¼	500-4,000	60-400	GHM-NRstUmVW	SDI711		6, 6¼, 6½, 6¾	500-4,500	60-400	GHM-NRstUmVW
MI513	M223	6½, 6¼, 6½, 7½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MSIZ516		8½	500-4,000	60-400	GHM-NRstUmVW	SDI716		8½	500-4,000	60-400	GHM-NRstUmVW
MI516	M123	5¾, 6, 6½, 6¾, 7%, 7½, 8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	MSIZ519		8½, 8¾	400-3,000	60-400	GHM-NRstUmVW	SDI816		17½, 26	500-4,000	60-400	GHM-NRstUmVW
MI519	M123	7%, 8½, 8¾, 9%, 12¼	400-3,000	60-400	GHM-NRstUmVW	MSIZ613		6%, 6¾, 7%	500-4,000	60-400	GHM-NRstUmVW	SDIZ419		12¼	400-3,000	60-400	GHM-NRstUmVW
MI613	M233	6, 6½, 6¾, 6¾, 6¾, 6¾, 7%, 8¾	500-4,000	60-400	GHM-NRstUmVW	MSIZ616		8½, 8¾, 9%, 12¼	500-4,000	60-400	GHM-NRstUmVW	SDIZ513		6½, 8½	500-4,000	60-400	GHM-NRstUmVW
MI616	M323	7%, 8½, 8¾, 9%, 10%, 11, 12¼, 13½	500-4,000	60-400	GHM-NRstUmVW	MSIZ619		8%	400-3,000	60-400	GHM-NRstUmVW	SDIZ516		8½	500-4,000	60-400	GHM-NRstUmVW
MI619	M223	7%, 8%, 12¼, 17	400-3,000	60-400	GHM-NRstUmVW	MSIZ713		8½	500-4,000	60-400	GHM-NRstUmVW	SDIZ519		14¾	400-3,000	60-400	GHM-NRstUmVW
MI711	M333	6	500-4,500	60-400	GHM-NRstUmVW	MSIZ716		8½	500-4,000	60-400	GHM-NRstUmVW	SDIZ611		8¾	500-4,500	60-400	GHM-NRstUmVW
MI716	M223	6, 7%, 8½, 9%, 12, 12¼	500-4,000	60-400	GHM-NRstUmVW	MSIZ813		8½	500-4,000	60-400	GHM-NRstUmVW	SDSI516		11%	500-4,000	60-400	GHM-NRstUmVW
MI813	M333	6¾, 12¼, 16, 17½	500-4,000	60-400	GHM-NRstUmVW	MSIZ816		16	500-4,000	60-400	GHM-NRstUmVW	SDSI519	S423	12¼, 17½	400-3,000	60-400	GHM-NRstUmVW
MI913	M433	7%, 8%, 8½, 8¾, 8¾, 11%, 12¼	500-4,000	60-400	GHM-NRstUmVW	MST913		5%	500-4,000	60-400	GHM-NRstUmVW	SDSI616		8½, 11%, 12¼, 13½	500-4,000	60-400	GHM-NRstUmVW
MI916		16	500-4,000	60-400	GHM-NRstUmVW	MSX1613		8½	500-4,000	60-400	GHM-NRstUmVW	SDSI619		12¼	400-3,000	60-400	GHM-NRstUmVW
MIR616		6¼	500-4,000	60-400	GHM-NRstUmVW	MSX1616		8½	500-4,000	60-400	GHM-NRstUmVW	SDSI713		8½	500-4,000	60-400	GHM-NRstUmVW
MIZ516		8¾	500-4,000	60-400	GHM-NRstUmVW	MSX1619		12¼	400-3,000	60-400	GHM-NRstUmVW	SDSI716		17½	500-4,000	60-400	GHM-NRstUmVW
MIZ613		7%	500-4,000	60-400	GHM-NRstUmVW	MSX1716		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	SDXI516		8½	400-3,000	60-400	GHM-NRstUmVW
MIZ616		8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	MSXIZ616		8½	500-4,000	60-400	GHM-NRstUmVW	SDXI519		8½	400-3,000	60-400	GHM-NRstUmVW
MIZ716		8½	500-4,000	60-400	GHM-NRstUmVW	MSZ713		5%	500-4,000	60-400	GHM-NRstUmVW	SDXIZ513		8½	500-4,000	60-400	GHM-NRstUmVW
MR613		5%	500-4,000	60-400	GHM-NRstUmVW	MSZ716		12	500-4,000	60-400	GHM-NRstUmVW	SI416		8½	500-4,000	60-400	GHM-NRstUmVW
MS413		6%	500-4,000	60-400	GHM-NRstUmVW	MV616		6¼	500-4,000	60-400	GHM-NRstUmVW	SI419		8 ½	400-3,000	60-400	GHM-NRstUmVW
MS419		8½, 8¾	400-3,000	60-400	GHM-NRstUmVW	MV716	M323	8½, 12¼	500-4,000	60-400	DGHM-NRstUmVW	SI516		6¼, 12¼	500-4,000	60-400	GHM-NRstUmVW
MS516		8½	500-4,000	60-400	GHM-NRstUmVW	MZ616		8½, 12¼, 16	500-4,000	60-400	GHM-NRstUmVW	SI519	S123	8½, 12¼, 15½	400-3,000	60-400	GHM-NRstUmVW
MS519		16½	400-3,000	60-400	GHM-NRstUmVW	MZ713		5%	500-4,000	60-400	GHM-NRstUmVW	SI616		7½, 8½, 8¾, 11, 12¼, 13½, 16	500-4,000	60-400	GHM-NRstUmVW
MS613		12¼	500-4,000	60-400	GHM-NRstUmVW	MZ716		12	500-4,000	60-400	GHM-NRstUmVW	SI619	S223	12¼, 13½, 17½, 26	400-3,000	60-400	GHM-NRstUmVW
MS616		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MZI813		8½	500-4,000	60-400	GHM-NRstUmVW	SI819		18½, 23	400-3,000	60-400	GHM-NRstUmVW
MS713		12¼	500-4,000	60-400	GHM-NRstUmVW	MZR813		8%	500-4,000	60-400	GHM-NRstUmVW	SI913		16	500-4,000	60-400	GHM-NRstUmVW
MS816		8%	500-4,000	60-400	GHM-NRstUmVW	R35Y		5%, 8%	500-4,000	60-400	GHM-NRstUmVW	SI916		12¼	500-4,000	60-400	GHM-NRstUmVW
MSI413		6, 6¾	500-4,000	60-400	GHM-NRstUmVW	R613		8¾	500-4,000	60-400	GHM-NRstUmVW	SI919		22	400-3,000	60-400	GHM-NRstUmVW
MSI416	M221	6¼, 6¾, 7¼, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	R716		6%	500-4,000	60-400	GHM-NRstUmVW	SIZ516		8¾	500-4,000	60-400	GHM-NRstUmVW
MSI513	M333	6½, 6¼, 6½, 8¾	500-4,000	60-400	GHM-NRstUmVW	R813		8¾	500-4,000	60-400	GHM-NRstUmVW	SIZ616		8½	500-4,000	60-400	GHM-NRstUmVW
MSI516	M323	6½, 6½, 7%, 8½, 8¾, 9½, 9½, 12¼	500-4,000	60-400	GHM-NRstUmVW	S413		3%	500-4,000	60-400	GHM-NRstUmVW	SPSI616		17½	500-4,000	60-400	GHM-NRstUmVW
MSI519	M223	7%, 8½, 8¾, 9%, 12¼	400-3,000	60-400	GHM-NRstUmVW	SS16	S123	17	500-4,000	60-400	GHM-NRstUmVW	SSI516		12¼	500-4,000	60-400	GHM-NRstUmVW
MSI613	M433	6, 6½, 6¾, 6¾, 6¾, 6¾, 7%, 8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	SS19	S123	8½, 9½, 10%, 12¼, 13½, 13¾, 14¾, 17, 17½	400-3,000	60-400	GHM-NRstUmVW	SSI616		12¼, 17½	500-4,000	60-400	GHM-NRstUmVW
MSI616	M433	6, 6½, 6¾, 7%, 8½, 8¾, 9½, 9%, 10%, 11, 12¼, 13½, 13½, 16	500-4,000	60-400	GHM-NRstUmVW	S619	S223	8½, 12¼, 17	400-3,000	60-400	GHM-NRstUmVW	SSI619		20, 23	400-3,000	60-400	GHM-NRstUmVW
MSI619		8%, 8¾, 12¼	400-3,000	60-400	GHM-NRstUmVW	S919		22	500-4,000	60-400	GHM-NRstUmVW	SSI716		12¼	500-4,000	60-400	GHM-NRstUmVW
MSI711	M433	5¾, 5¾, 5¾, 6, 6½, 6¼	500-4,500	60-400	GHM-NRstUmVW	SDS16		11%	500-4,000	60-400	GHM-NRstUmVW	SSI916		22	500-4,000	60-400	GHM-NRstUmVW
MSI713	M433	6, 6½, 6½, 6¾, 7%, 8½, 8¾, 9%, 12¼	500-4,000	60-400	GHM-NRstUmVW	SDAI513		8½	500-4,000	60-400	GHM-NRstUmVW	SSIZ516		12¼	500-4,000	60-400	GHM-NRstUmVW
MSI716	M433	7½, 7½, 8½, 8¾, 9%, 12, 12¼, 16, 17½	500-4,000	60-400	GHM-NRstUmVW	SDI313		8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	SSIZ616		16	500-4,000	60-400	GHM-NRstUmVW
MSI719		8¾, 12¼	400-3,000	60-400	GHM-NRstUmVW	SDI413		6%, 6¾, 7%, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	SST1213		12¼	500-4,000	60-400	GHM-NRstUmVW
MSI813	M433	6½, 6½, 8½, 8¾, 9%, 12¼	500-4,000	60-400	GHM-NRstUmVW	SDI416		7%	500-4,000	60-400	GHM-NRstUmVW	SST913		6, 8½	500-4,000	60-400	GHM-NRstUmVW
						SDI419		11%, 12¼, 17½	400-3,000	60-400	GHM-NRstUmVW	SSXI616		12¼	500-4,000	60-400	GHM-NRstUmVW
						SDI511		6%	500-4,500	60-400	GHM-NRstUmVW	SSXI619		12¼	400-3,000	60-400	GHM-NRstUmVW
												SXI616		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW





Manufacturer/Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
Surface set diamond bits					
Bit-Tech					
DG-420F	M622	1 3/4, 1 1/2, 2 1/4, 2 1/2, 3 3/4, 4 1/4, 4 3/4, 6 1/4, 6 3/4, 6 1/2	600-3,500	60-600	ADGHIMR
DN-303	M713	4 1/2-4 3/4, 5 1/2-6 1/2	600-3,500	60-600	Custom
DN-333	M713	4 1/2-4 3/4, 5 1/2-6 1/2	600-3,500	60-600	Custom
DN-423	M722	1 3/4, 1 1/2, 2 1/4, 2 1/2, 3 3/4, 4 1/4, 4 3/4, 6 1/4, 6 3/4, 6 1/2	600-3,500	60-600	ADGHIMNR
Halliburton					
TB16	M713	6 3/8, 8 1/2, 12 1/4, 12 5/8	300-3,000	80-1,000	MN
TB26	M713	3 3/4, 3 1/2, 5 1/2, 6, 6 1/4, 6 3/4, 7 1/2, 7 3/4, 8 1/4, 8 1/2, 8 3/4, 9 1/4, 12 1/4, 12 5/8	300-3,000	80-1,000	MN
TB583	M713	6 3/8	300-3,000	80-1,000	MN
TB593	M713	6 3/8, 8 1/2, 12 1/4	300-3,000	80-1,000	MN
TBT17	M634	5 1/2, 8 1/2	300-3,000	80-1,000	IMN
TT521	M622	5 1/2-12 1/4	300-3,000	80-1,000	IMN
TT561	M624	4 1/2-12 1/4	300-3,000	80-1,000	IMN
TT593	M724	3 3/4, 3 1/2	300-3,000	80-1,000	IMN
Hammer bits					
Smith Bits					
H1006D	HAMM	6, 6 1/4, 6 3/8, 6 1/2	250-500	40-20	AWP
H1206	HAMM	8 1/2, 8 3/8	250-500	40-20	AP
H1206D	HAMM	8 1/2, 8 3/8	250-500	40-20	AWP
H1209	HAMM	8 1/2, 9 1/8, 9 1/4, 9 3/8, 9 1/2, 12 1/4, 12 1/2	300-700	40-20	AP
H1209D	HAMM	7 1/2, 8 1/8, 8 1/2, 8 3/4, 8 7/8, 11	300-700	40-20	AWP
H1411D	HAMM	12, 12 1/4, 12 1/2	300-700	40-20	AWP
H1509	HAMM	8 1/2, 10 1/8, 11, 12 1/4, 12 1/2	300-600	40-20	AP
H1512	HAMM	8 3/4, 8 1/2, 12 1/4	400-650	40-20	AP
Medium-Hard Steel tooth roller cone bits					
Baker Hughes					
RC347	347	8 1/2, 10 1/2, 12 1/4	2,900-7,300	105-55	S
RC347	347	12 1/4	2,900-7,300	105-55	S
Smith Bits					
GF128	527X	8 1/2	2,000-5,000	280-50	BGHMX
GF128B	527X	12 1/4	2,000-5,000	280-50	BGHMXX
GF128D	527X	8 1/2	2,000-5,000	280-50	BGHMXX
GF5128	527X	8 1/2	2,000-5,000	280-50	BGHMX
XR128	527X	6 1/2	2,000-5,000	300-50	HMX
F271Y	527Y	7 3/8, 8 1/4	2,000-7,000	220-50	Y
TIX-TSK					
MH	231	3 3/4, 4, 4 1/4, 4 1/2	1,500-2,500	60-40	S
MH	231	4 1/4, 4 3/4, 5, 5 1/4	1,500-3,000	60-40	S
MH	231	5 1/8, 5 1/2, 6, 6 1/4, 6 3/4, 7 1/8, 7 3/8, 7 1/2	2,000-4,500	100-80	S
MH	231	8 3/8, 8 1/2, 8 3/4, 9, 9 1/4, 10 1/8, 11, 11 1/4, 12, 12 1/4	2,500-5,500	100-60	S
MH	231	13 1/8, 14 1/4, 15, 15 1/2, 16, 17 1/2, 20	2,500-4,500	100-60	S
MH	231	20, 22, 23, 24, 26	2,500-4,000	100-60	S
MH-TX	237	5 1/2, 6	2,000-4,500	90-50	S
MH-TX	237	8 1/2, 12 1/4	2,500-5,500	90-50	S
MH-TZ	235	8 1/2, 12 1/4	2,500-5,500	80-50	S
MH-X	236	5 1/2, 5 3/4, 6, 6 1/4, 7 1/8	2,000-4,500	90-50	S
MH-X	236	8 3/8, 8 1/2, 8 3/4, 9, 9 1/4, 10 1/8, 11, 11 1/4, 12, 12 1/4	2,500-5,500	90-50	S
MH-XZ	234	8 1/2, 12 1/4	2,500-5,500	250-50	GMW
MH-XZ	234	16, 17 1/2	2,500-4,000	150-50	W
MH-Z	234	8 1/2, 12 1/4	2,500-5,500	80-50	S
Tri-Max					
TM223	223	6-12 1/4	2,000-5,000	60-120	
TM231	231	6-12 1/4	2,000-5,000	60-120	
Varel					
DT4	216S	3 3/4, 3 1/2, 4 1/4, 4 1/2, 4 3/4, 5 1/4, 5 3/4, 6, 11 1/4, 12	2,000-5,000	300-50	MW
DT4G	217S	5 1/2, 6, 6 1/4, 7 1/8, 8 1/4, 8 3/8, 8 1/2, 10 1/8, 11 1/4, 12, 12 1/4	2,000-5,000	300-50	CMW
L2	211S	3 1/2, 3 3/4, 4 1/4, 4 1/2, 4 3/4, 4 1/2, 5 1/4, 5 1/2, 5 3/4, 5 1/2, 6, 6 1/4, 6 3/4, 6 1/2, 6 3/8, 7 1/8, 8 1/4, 8 3/8, 8 1/2, 26	3,000-6,000	85-35	S
HR4	214S	17 1/2	2,000-6,250	300-50	CMW
HR4G	215S	17 1/2	2,000-6,250	300-50	CMW
ER4G	215S	26	2,000-6,250	150-50	CGM
Insert roller cone bits					
Baker Hughes					
GX-50RG	637	8 3/4	3,200-7,600	120-60	GXWY
GX-55R	637	7 1/2	3,200-7,600	120-60	GXWY
MX-50	637	5 1/2, 6, 6 1/2	2,600-6,400	125-60	BCMSX
MX-55	637	6, 8 3/8, 8 1/2	2,900-7,100	95-50	BCMSX
MXL-55	637	8 1/2	2,900-7,100	95-50	BCMSX
RC637	637	7 1/2	3,200-7,600	120-60	X
STX-40	637	6	2,000-5,300	175-80	WX
STX-50	637	5 1/2, 6, 6 1/4, 6 1/2, 6 3/4	2,000-5,300	175-80	WX
STX-50R	637	6 1/2	2,000-5,300	175-80	WX
VG-50	637	6 1/4, 6 1/2	2,000-5,300	175-80	BGWX
VG-50A	637	8 1/2	3,200-7,600	120-60	BGWXA
VG-55	637	6, 8 1/2, 8 3/4	3,200-7,600	120-60	BGWX
VG-55M	637	4 1/2	2,000-5,300	175-80	BGWX
VGD-50	637	5 1/2, 5 3/4	2,000-5,300	175-80	BGWX
VM-55	637	8 1/2, 12 1/4	2,900-7,100	95-50	BCGMSWY
VM-55G	637	8 1/2	2,900-7,100	95-50	BCGMSWY
VMD-55	637	5 1/2, 6, 8 1/2, 12 1/4	2,900-7,100	95-50	BCGMSWY
VMG-55	637	6	2,600-6,400	125-60	BCGMSWY
VMG-55	637	6, 8 1/2	2,900-7,100	95-50	BCGMSWY
GX-68	647	9	3,200-7,600	105-55	GXWY
MX-66	647	6	2,600-6,400	120-60	BCMSX
STX-66	647	6 1/2	2,000-5,300	160-80	WX
VG-66	647	6 1/2	2,000-5,300	160-80	BGWX
VG-68	647	4 1/2, 8 1/2, 12 1/4	3,200-7,600	105-55	BGWX
VG-68G	647	12 1/4	3,200-7,600	105-55	BGWX
VGD-66	647	6 1/2	2,000-5,300	160-80	BCGMSWY
VM-20	647	8 1/2	2,900-7,100	95-45	BCGMSWY
VM-66	647	8 1/2, 8 3/4	2,900-7,100	95-45	BCGMSWY
VM-68C	647	8 1/2	2,900-7,100	95-45	BCGMSWY
VMD-44C	647	8 1/2	2,900-7,100	95-45	BCGMSWY
VMD-66G	647	8 1/2	2,900-7,100	95-45	BCGMSWY
VMD-68	647	8 1/2	2,900-7,100	95-45	BCGMSWY
VMD-68	647	4 1/2, 8 1/2	2,900-7,100	95-45	BCGMSWY
Halliburton					
EBXT40	615	18 1/2	4,000-7,500	35-140	GMW
EQ40	617	4 1/2-16	4,000-7,500	35-140	GMW
EQ42	617	4 1/2-16	4,000-7,500	35-140	GMW
EQ43	617	4 1/2-16	4,000-7,500	35-140	GMW
EQ44	617	4 1/2-16	4,000-7,500	35-140	GMW
EQH40	617	4 1/2-16	4,000-7,500	35-140	GMW
EQH42	617	4 1/2-16	4,000-7,500	35-140	GMW
EQH44	617	4 1/2-16	4,000-7,500	35-140	GMW
EQH45	617	4 1/2-16	4,000-7,500	35-140	GMW
Q42	617	4 1/2-16	4,000-7,500	35-140	GMW
Q43	617	4 1/2-16	4,000-7,500	35-140	GMW
QH41	617	4 1/2-16	4,000-7,500	35-140	GMW
QH42	617	4 1/2-16	4,000-7,500	35-140	GMW
QH43	617	4 1/2-16	4,000-7,500	35-140	GMW
QH44	617	4 1/2-16	4,000-7,500	35-140	GMW
QH45	617	4 1/2-16	4,000-7,500	35-140	GMW
EQ46	627	4 1/2-14 1/4	4,000-7,500	35-140	GMW
EQ47	627	4 1/2-14 1/4	4,000-7,500	35-140	GMW
EQ48	627	4 1/2-14 1/4	4,000-7,500	35-140	GMW
EQ50	627	4 1/2-14 1/4	4,000-7,500	35-140	GMW
EQH47	627	4 1/2-14 1/4	4,000-7,500	35-140	GMW
EQH50	627	4 1/2-14 1/4	4,000-7,500	35-140	GMW
EQH51	627	4 1/2-14 1/4	4,000-7,500	35-140	GMW
Q47	627	4 1/2-14 1/4	4,000-7,500	35-140	GMW
Q48	627	4 1/2-14 1/4	4,000-7,500	35-140	GMW
QH47	627	4 1/2-14 1/4	4,000-7,500	35-140	GMW
QH48	627	4 1/2-14 1/4	4,000-7,500	35-140	GMW
EBXT55	635	17 1/2-28	4,000-7,500	35-140	GMW
XT55	635	17 1/2-28	4,000-7,500	35-140	GMW
EQ55	637	5 1/2-12 1/4	4,000-7,500	35-140	GMW
EQH55	637	5 1/2-12 1/4	4,000-7,500	35-140	GMW
EQH57	637	5 1/2-12 1/4	4,000-7,500	35-140	GMW
Q52	637	5 1/2-12 1/4	4,000-7,500	35-140	GMW
Q55	637	5 1/2-12 1/4	4,000-7,500	35-140	GMW
QH55	637	5 1/2-12 1/4	4,000-7,500	35-140	GMW
QH57	637	5 1/2-12 1/4	4,000-7,500	35-140	GMW
EQ69	647	8 1/2-8 3/4	4,000-7,500	35-140	GMW
EQH69	647	8 1/2-8 3/4	4,000-7,500	35-140	GMW
Kingdram					
GJ635GH	635	12 1/4	2,800-6,000	280-80	G
HA637	637	4 1/2, 4 3/4, 5 1/2, 5 3/4, 6, 6 1/4, 6 3/4, 7 1/8, 8, 8 1/2, 8 3/4, 9 1/4, 12 1/4	3,500-7,000	70-40	CGLY
HA637GH	637	6	3,500-7,000	70-40	G
HA647	647	6, 7 1/8, 8 1/4, 8 3/4, 9 1/4, 10 1/8, 12 1/4	3,500-7,000	70-40	GLY
HA647H	647	6, 7 1/8, 8 1/4, 8 3/4, 9 1/4, 10 1/8, 12 1/4	3,500-7,000	70-40	GLY
HAS637GY	637	6 1/2, 8 1/4, 8 3/8	3,500-7,000	70-40	GLY
PDG drill bits					
Baker Hughes					
HC306	M243	3 1/4-28	235-2,500	350-50	DGWW
HC406	M233	3 1/4-28	235-2,500	350-50	DGWW
HC407	M333	3 1/4-28	235-2,500	350-50	DGWW
HC408	M433	3 1/4-28	235-2,500	350-50	DGWW
HC506	M223	3 1/4-28	235-2,500	350-50	DGWW
HC507	M323	3 1/4-28	235-2,500	350-50	DGWW
HC508	M423	3 1/4-28	235-2,500	350-50	DGWW
HF637H	637	6, 6 1/8, 6 3/8, 8 1/2, 8 3/4, 9 1/4, 10 1/8, 12 1/4	2,000-6,000	200-40	GLY
HF647HM	647	7 1/8, 8 1/4, 8 3/4, 9 1/4, 9 3/4, 10 3/4, 12 1/4	2,000-6,000	200	



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
FX85R	M424	5/8-16	500-3,500	40-250	MVWRst	FX74R	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	MM73	M442	3/8-8 3/4	500-3,500	40-250	MVWRst
FX95D	M424	5/8-16	500-3,500	40-250	MVWRst	FX75D	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX53	M443	3/8-6 3/4	500-3,500	40-250	MVWRst
FX96	M424	5/8-16	500-3,500	40-250	MVWRst	FX84	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX62i	M443	3/8-6 3/4	500-3,500	40-250	MVWRst
GT65D	M424	5/8-16	500-3,500	40-250	MVWRst	FX84D	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX63	M443	3/8-6 3/4	500-3,500	40-250	MVWRst
MM26	M424	5/8-16	500-3,500	40-250	MVWRst	FX84DI	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX63D	M443	3/8-6 3/4	500-3,500	40-250	MVWRst
MM26i	M424	5/8-16	500-3,500	40-250	MVWRst	FX84R	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX73	M443	3/8-6 3/4	500-3,500	40-250	MVWRst
MM45D	M424	5/8-16	500-3,500	40-250	MVWRst	FX94	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	MM63	M443	3/8-6 3/4	500-3,500	40-250	MVWRst
MM55	M424	5/8-16	500-3,500	40-250	MVWRst	FX94R	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	MM63D	M443	3/8-6 3/4	500-3,500	40-250	MVWRst
MM55D	M424	5/8-16	500-3,500	40-250	MVWRst	MM44	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	MM73	M443	3/8-6 3/4	500-3,500	40-250	MVWRst
MM56	M424	5/8-16	500-3,500	40-250	MVWRst	MM44D	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	MM73D	M443	3/8-6 3/4	500-3,500	40-250	MVWRst
MM65	M424	5/8-16	500-3,500	40-250	MVWRst	MM54	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	MM92	M443	3/8-6 3/4	500-3,500	40-250	MVWRst
MM65D	M424	5/8-16	500-3,500	40-250	MVWRst	MM54D	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX53	M444	3/8-6	500-3,500	40-250	MVWRst
MM65DI	M424	5/8-16	500-3,500	40-250	MVWRst	MM64	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX53D	M444	3/8-6	500-3,500	40-250	MVWRst
MM65DR	M424	5/8-16	500-3,500	40-250	MVWRst	MM64D	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX93	M444	3/8-6	500-3,500	40-250	MVWRst
MM65R	M424	5/8-16	500-3,500	40-250	MVWRst	MM64I	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	MM53D	M444	3/8-6	500-3,500	40-250	MVWRst
MM66	M424	5/8-16	500-3,500	40-250	MVWRst	MM64R	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX46s	S421	8 1/2	500-3,500	40-250	MVWRst
MM66D	M424	5/8-16	500-3,500	40-250	MVWRst	MM65	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX45s	S422	6 1/8-8 3/4	500-3,500	40-250	MVWRst
MM75	M424	5/8-16	500-3,500	40-250	MVWRst	MM74	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX46Ds	S422	6 1/8-8 3/4	500-3,500	40-250	MVWRst
MM75D	M424	5/8-16	500-3,500	40-250	MVWRst	MM74D	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX46s	S422	6 1/8-8 3/4	500-3,500	40-250	MVWRst
MM75I	M424	5/8-16	500-3,500	40-250	MVWRst	MM84	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX65Ds	S422	6 1/8-8 3/4	500-3,500	40-250	MVWRst
MM75R	M424	5/8-16	500-3,500	40-250	MVWRst	MM84D	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	SF46	S422	6 1/8-8 3/4	500-3,500	40-250	MVWRst
MM76D	M424	5/8-16	500-3,500	40-250	MVWRst	MM84R	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	SF56	S422	6 1/8-8 3/4	500-3,500	40-250	MVWRst
MM85	M424	5/8-16	500-3,500	40-250	MVWRst	MM94	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX46Ds	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
MM85D	M424	5/8-16	500-3,500	40-250	MVWRst	MM94D	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX46s	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
MM85R	M424	5/8-16	500-3,500	40-250	MVWRst	MM94R	M433	3/8-17 1/2	500-3,500	40-250	MVWRst	FX55Ds	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
MM95	M424	5/8-16	500-3,500	40-250	MVWRst	FX44D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX55s	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
MM95DI	M424	5/8-16	500-3,500	40-250	MVWRst	FX54	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX56s	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
MM96	M424	5/8-16	500-3,500	40-250	MVWRst	FX54D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX65Ds	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
MM96D	M424	5/8-16	500-3,500	40-250	MVWRst	FX54R	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX65Rs	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
FX05	M425	6-16	500-3,500	40-250	MVWRst	FX64	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX65s	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
FX65D	M425	6-16	500-3,500	40-250	MVWRst	FX64D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX66s	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
FX75D	M425	6-16	500-3,500	40-250	MVWRst	FX64Di	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX75s	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
FX94	M425	6-16	500-3,500	40-250	MVWRst	FX64R	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF46D	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
FX95	M425	6-16	500-3,500	40-250	MVWRst	FX74	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF56	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
FX96D	M425	6-16	500-3,500	40-250	MVWRst	FX74D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF65	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
MM05	M425	6-16	500-3,500	40-250	MVWRst	FX74DR	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF65R	S423	6 1/2-12 1/4	500-3,500	40-250	MVWRst
MM26D	M425	6-16	500-3,500	40-250	MVWRst	FX74R	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX54s	S424	5 1/8-16	500-3,500	40-250	MVWRst
MM65D	M425	6-16	500-3,500	40-250	MVWRst	FX75D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX56Rs	S424	5 1/8-16	500-3,500	40-250	MVWRst
MM75D	M425	6-16	500-3,500	40-250	MVWRst	FX84	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX56s	S424	5 1/8-16	500-3,500	40-250	MVWRst
MM76D	M425	6-16	500-3,500	40-250	MVWRst	FX84D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF56	S424	5 1/8-16	500-3,500	40-250	MVWRst
MM94	M425	6-16	500-3,500	40-250	MVWRst	FX84DR	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF65	S424	5 1/8-16	500-3,500	40-250	MVWRst
MM95	M425	6-16	500-3,500	40-250	MVWRst	FX84I	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF76	S424	5 1/8-16	500-3,500	40-250	MVWRst
MM96D	M425	6-16	500-3,500	40-250	MVWRst	FX84R	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX54s	S431	6 1/8-6 3/4	500-3,500	40-250	MVWRst
FX44	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	FX94	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF54	S431	6 1/8-6 3/4	500-3,500	40-250	MVWRst
FX44D	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	FX94R	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX54s	S432	6 3/8-6 3/4	500-3,500	40-250	MVWRst
FX54	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	GT64D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX64s	S432	6 3/8-6 3/4	500-3,500	40-250	MVWRst
FX54D	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	GT54D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF54	S432	6 3/8-6 3/4	500-3,500	40-250	MVWRst
FX54DR	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM54D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX64Ds	S433	8 1/2	500-3,500	40-250	MVWRst
FX54R	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM64	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF64	S434	6	500-3,500	40-250	MVWRst
FX64	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM64D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX63s	S442	6 1/8-6 3/4	500-3,500	40-250	MVWRst
FX64D	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM64DI	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	FX73s	S442	6 1/8-6 3/4	500-3,500	40-250	MVWRst
FX64R	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM64I	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF63	S442	6 1/8-6 3/4	500-3,500	40-250	MVWRst
FX65D	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM74	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	SF73	S442	6 1/8-6 3/4	500-3,500	40-250	MVWRst
FX74	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM74D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	Kingdream					
FX74D	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM74i	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	KM1382	M433	8 1/8-17 1/2	857-2,685	60-300	SGADTR
FX83	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM74R	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	KM1392	M434	5 1/8-17 1/2	857-2,685	60-300	SGADTR
FX84	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM84	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	KM1682	M423	8 1/8-17 1/2	857-2,685	60-300	SGADTR
FX84I	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM84D	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	ReedHycalog Bits					
FX94	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM84I	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	DS811	M432	7 1/8, 8 1/2	1,000-6,000	Variable	GHMUmV
FX94R	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	MM94	M434	5/8-12 1/4	500-3,500	40-250	MVWRst	DS813	M422	6, 6 1/8, 6 3/4, 6 1/2, 6 3/8, 6 1/4, 6 3/4, 6 1/2, 6 3/8, 6 1/4	1,000-6,000	Variable	GHMUmV
MM44	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	FX64	M435	5/8-12 1/4	500-3,500	40-250	MVWRst	Smith Bits					
MM54	M432	3/8-10 3/4	500-3,500	40-250	MVWRst	FX64D	M435	5/8-12 1/4	500-3,500	40-250	MVWRst	HOX616	M223	8 1/8, 8 3/8, 10 1/2, 12 1/4	500-4,000	60-400	GHM-NUmVW
MM54D	M432	3/8-10 3/4	500-3,500	40-250</													

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
M613	M333	6, 7½, 7%	500-4,000	60-400	GHM-NRstUmVW	MDIZ713		8½	500-4,000	60-400	GHM-NRstUmVW	MDZXI713		8½	500-4,000	60-400	GHM-NRstUmVW
M616	M223	7½, 8½, 8¾, 9¼, 10%	500-4,000	60-400	GHM-NRstUmVW	MDIZ716		8½	500-4,000	60-400	GHM-NRstUmVW	MDZXIZ713		8½	500-4,000	60-400	GHM-NRstUmVW
M713	M333	5%	500-4,000	60-400	GHM-NRstUmVW	MDS616		9½, 14¾	500-4,000	60-400	GHM-NRstUmVW	MI316	M123	8½	500-4,000	60-400	GHM-NRstUmVW
M716	M323	6, 8½, 9½, 11, 12, 14¾	500-4,000	60-400	GHM-NRstUmVW	MDSI413		6½, 6¾, 7%	500-4,000	60-400	GHM-NRstUmVW	MI413		6½	500-4,000	60-400	GHM-NRstUmVW
M816		8%	500-4,000	60-400	GHM-NRstUmVW	MDSI416	M123	8½, 9½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MI416	M123	6½, 7½, 8½	500-4,000	60-400	GHM-NRstUmVW
M909	M442	4½, 4¾, 4¾, 6, 6½, 8½	500-5,000	60-400	GHM-NRstUHVW	MDSI509		5%, 6	500-5,000	60-400	GHM-NRstUHVW	MI513	M223	6½, 6¾, 6¾, 7½, 8¾	500-4,000	60-400	GHM-NRstUmVW
M916	M423	16	500-4,000	60-400	GHM-NRstUmVW	MDSI513		6, 6¾, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MI516	M123	5¾, 6, 6¾, 6¾, 7½, 7½, 8½, 8¾, 12¼, 4%	500-4,000	60-400	GHM-NRstUmVW
MA616	M223	5½, 6, 8¾, 8½	500-4,000	60-400	GHM-NRstUmVW	MDSI516		6, 6½, 6¾, 7½, 8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	MI609			500-5,000	60-400	GHM-NRstUHVW
MA813	6		500-4,000	60-400	GHM-NRstUmVW	MDSI613	M333	5%, 6, 6¾, 6¾, 7½, 8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	MI613	M233	6, 6½, 6¾, 6¾, 6¾, 6¾, 7¾, 8¾	500-4,000	60-400	GHM-NRstUmVW
MA89	8%		500-4,000	60-400	GHM-NRstUmVW	MDSI616	M222	6%, 6¾, 7½, 8¾, 8½, 8¾, 8¾, 9½, 10¼, 10%, 11%, 12¼, 14½, 14¾, 16, 17	500-4,000	60-400	GHM-NRstUmVW	MI616	M323	7¾, 8½, 8¾, 9%, 10%, 11, 12¼, 13%	500-4,000	60-400	GHM-NRstUmVW
MAI616	5%		500-4,000	60-400	GHM-NRstUmVW	MDSI711		8½	500-4,500	60-400	GHM-NRstUHVW	MI711	M333	6	500-4,500	60-400	GHM-NRstUHVW
MASI513	M233	7½, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MDSI713		5¾, 5½, 6, 7½, 8½, 8¾, 8¾, 8¾	500-4,000	60-400	GHM-NRstUmVW	MI716	M223	6, 7½, 8½, 9%, 12, 12¼	500-4,000	60-400	GHM-NRstUmVW
MASI613	8¾		500-4,000	60-400	GHM-NRstUmVW	MDSI716	M223	8¾, 8½, 8¾, 8¾, 8¾, 9½, 9%, 10¼, 10%, 12¼, 14¾, 16, 16½	500-4,000	60-400	GHM-NRstUmVW	MI813	M333	6¾, 12¼, 16, 17½	500-4,000	60-400	GHM-NRstUmVW
MASI716	7½, 8¾		500-4,000	60-400	GHM-NRstUmVW	MDSI811		6½	500-4,500	60-400	GHM-NRstUHVW	MI909		4%	500-5,000	60-400	GHM-NRstUHVW
MASIZ513	8¾		500-4,000	60-400	GHM-NRstUmVW	MDSI813	M333	8¾, 8½, 8¾, 10%, 12¼	500-4,000	60-400	GHM-NRstUmVW	MI913	M433	7¾, 8¾, 8½, 8¾, 8¾, 11½, 12¼, 16	500-4,000	60-400	GHM-NRstUmVW
MAX89	8%		500-4,000	60-400	GHM-NRstUmVW	MDSI816		8¾, 8½, 12¼, 17½, 18%, 18¾	500-4,000	60-400	GHM-NRstUmVW	MI916			500-4,000	60-400	GHM-NRstUmVW
MAZ616	8½		500-4,000	60-400	GHM-NRstUmVW	MDSI913		8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MIR616		6¾	500-4,000	60-400	GHM-NRstUmVW
MAZ89	8%		500-4,000	60-400	GHM-NRstUmVW	MDSI916		8¾	500-4,000	60-400	GHM-NRstUmVW	MIZ516		8¾	500-4,000	60-400	GHM-NRstUmVW
MCR509	3%		500-5,000	60-400	GHM-NRstUHVW	MDSIR516		6¾	500-4,000	60-400	GHM-NRstUmVW	MIZ613		7¾	500-4,000	60-400	GHM-NRstUmVW
MD611	6¾		500-4,500	60-400	GHM-NRstUHVW	MDSIR613		8¾	500-4,000	60-400	GHM-NRstUmVW	MIZ616		8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW
MD616	M223	8¼, 8½, 9½, 12¼, 14¾	500-4,000	60-400	GHM-NRstUmVW	MDSIR616		8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MIZ716		8½	500-4,000	60-400	GHM-NRstUmVW
MD713		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MDSIR713		6½, 6¾, 8½	500-4,000	60-400	GHM-NRstUmVW	MR613		5%	500-4,000	60-400	GHM-NRstUmVW
MD716	12		500-4,000	60-400	GHM-NRstUmVW	MDSIR716		6%	500-4,000	60-400	GHM-NRstUmVW	MS413		6%	500-4,000	60-400	GHM-NRstUmVW
MDI313	6½, 8½		500-4,000	60-400	GHM-NRstUmVW	MDSIR813		8½	500-4,000	60-400	GHM-NRstUmVW	MS516		8½	500-4,000	60-400	GHM-NRstUmVW
MDI413	4%, 6, 6½, 6¼, 6¾, 7%		500-4,000	60-400	GHM-NRstUmVW	MDSIR816		9%	500-4,000	60-400	GHM-NRstUmVW	MS613		12¼	500-4,000	60-400	GHM-NRstUmVW
MDI416	M123	6½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	MDSI2513		8½	500-4,000	60-400	GHM-NRstUmVW	MS616		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW
MDI511	6½, 6¾		500-4,500	60-400	GHM-NRstUHVW	MDSI2516		8¾	500-4,000	60-400	GHM-NRstUmVW	MS713		12¼	500-4,000	60-400	GHM-NRstUmVW
MDI513	M233	5½, 6, 6½, 6¼, 6½, 6¾, 7½, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MDSI2613		5½, 6, 7%	500-4,000	60-400	GHM-NRstUmVW	MS816		8¾	500-4,000	60-400	GHM-NRstUmVW
MDI516	M223	6, 6½, 6¾, 6¾, 7¾, 8½, 8¾, 9½, 10½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MDSI2616		8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	MSI413		6, 6¾	500-4,000	60-400	GHM-NRstUmVW
MDI611		6, 6½, 6½, 8½, 8¾	500-4,500	60-400	GHM-NRstUHVW	MDSI2713		5½, 8½	500-4,000	60-400	GHM-NRstUmVW	MSI416	M221	6½, 6¾, 7¾, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW
MDI613	M333	5¼, 5½, 5½, 5½, 6, 6½, 6¾, 7, 8½, 8¾, 9, 9½, 9½, 11½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MDSI2716		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MSI513	M333	6½, 6¾, 6¾, 8¾	500-4,000	60-400	GHM-NRstUmVW
MDI616	M323	6, 6¾, 7½, 8¾, 8½, 8¾, 9½, 9½, 10½, 10%, 11½, 12¼, 13½, 14½, 14¾, 16, 17, 17½	500-4,000	60-400	GHM-NRstUmVW	MDSI2811		6½	500-4,500	60-400	GHM-NRstUHVW	MSI516	M323	6½, 6¾, 7½, 8½, 8¾, 9½, 9½, 12¼	500-4,000	60-400	GHM-NRstUmVW
MDI711	M333	6½, 6½, 6¾	500-4,500	60-400	GHM-NRstUHVW	MDSI2813		12¼	500-4,000	60-400	GHM-NRstUmVW	MSI613	M433	6, 6½, 6¾, 6¾, 6¾, 6¾, 7¾, 8½, 8¾, 12¼	500-4,000	60-400	GHM-NRstUmVW
MDI713	M333	5½, 6, 8½, 9½, 12¼, 14¾	500-4,000	60-400	GHM-NRstUmVW	MDSI2816		12¼	500-4,000	60-400	GHM-NRstUmVW	MSI616	M433	6, 6½, 6¾, 7¾, 8½, 8¾, 9½, 9½, 10½, 11, 12¼, 13½, 13½, 16	500-4,000	60-400	GHM-NRstUmVW
MDI716	M223	8¾, 8½, 9½, 10½, 11½, 12, 12¼, 14¾, 14¾, 16, 16½, 17½	500-4,000	60-400	GHM-NRstUmVW	MDSI2R816		12¼	500-4,000	60-400	GHM-NRstUmVW	MSI711	M433	5½, 5½, 5½, 6, 6½, 6¾	500-4,000	60-400	GHM-NRstUHVW
MDI811	6½		500-4,500	60-400	GHM-NRstUHVW	MDSXI613		8½	500-4,000	60-400	GHM-NRstUmVW	MSI713	M433	6, 6½, 6¾, 6¾, 7¾, 8½, 8¾, 9½, 12¼	500-4,000	60-400	GHM-NRstUmVW
MDI813	M333	5½, 8½, 9½, 11½, 12¼, 13½, 14½, 14¾, 16, 16½	500-4,000	60-400	GHM-NRstUmVW	MDSXI616		12¼	500-4,000	60-400	GHM-NRstUmVW	MSI716	M433	7½, 7¾, 8½, 8¾, 9½, 12, 12¼, 16, 17½	500-4,000	60-400	GHM-NRstUmVW
MDI816	M323	8¾, 8½, 12¼, 13¾, 14½, 17, 17½, 18½	500-4,000	60-400	GHM-NRstUmVW	MDSXI713		8½	500-4,000	60-400	GHM-NRstUmVW	MSI813	M433	6½, 6¾, 8½, 8¾, 9½, 12¼	500-4,000	60-400	GHM-NRstUmVW
MDI916	17½		500-4,000	60-400	GHM-NRstUmVW	MDSXI813		8½	500-4,000	60-400	GHM-NRstUmVW	MSI816	M432	8¾, 8½, 8¾, 9%, 9%, 12¼, 13½, 16, 17, 17½	500-4,000	60-400	GHM-NRstUmVW
MDIR613	6%		500-4,000	60-400	GHM-NRstUmVW	MDSXIZ713		8½	500-4,000	60-400	GHM-NRstUmVW	MSI916	16		500-4,000	60-400	GHM-NRstUmVW
MDIZ413	6		500-4,000	60-400	GHM-NRstUmVW	MDX516		8½	500-4,000	60-400	GHM-NRstUmVW	MSIR513		6%	500-4,000	60-400	GHM-NRstUmVW
MDIZ513	6%		500-4,000	60-400	GHM-NRstUmVW	MDX613		6%	500-4,000	60-400	GHM-NRstUmVW	MSIR613		6½, 6¾	500-4,000	60-400	GHM-NRstUmVW
MDIZ516	7½, 8½, 8¾		500-4,000	60-400	GHM-NRstUmVW	MDX1616		12¼	500-4,000	60-400	GHM-NRstUmVW	MSIR616		9%	500-4,000	60-400	GHM-NRstUmVW
MDIZ613	6, 8¾		500-4,000	60-400	GHM-NRstUmVW	MDX1713		8½	500-4,000	60-400	GHM-NRstUmVW	MSIR713		6%	500-4,000	60-400	GHM-NRstUmVW
MDIZ616	7½, 8½, 8¾		500-4,000	60-400	GHM-NRstUmVW	MDZ1616		14½	500-4,000	60-400	GHM-NRstUmVW	MSIZ413		6¾	500-4,000	60-400	GHM-NRstUmVW
						MDZ1713		10%	500-4,000	60-400	GHM-NRstUmVW	MSIZ513		6½, 6¾	500-4,000	60-400	GHM-NRstUmVW



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
MSIZ516		8½	500-4,000	60-400	GHM-NRstUmVW	SDXIZ513		8½	500-4,000	60-400	GHM-NRstUmVW	MD713MC	M432	5½, 6, 6½, 6¾	500-4,000	50-400	UH G H M RST W V N
MSIZ613		6¾, 6¾, 7¾	500-4,000	60-400	GHM-NRstUmVW	SI416		8½	500-4,000	60-400	GHM-NRstUmVW	MD716	M422	6, 8, 8½	500-4,000	50-400	UH G H M RST W V N
MSIZ616		8½, 8¾, 9¾, 12¼	500-4,000	60-400	GHM-NRstUmVW	SI516		6¼, 12¼	500-4,000	60-400	GHM-NRstUmVW	MD716C	M422	6, 8, 8½	500-4,000	50-400	UH G H M RST W V N
MSIZ713		8½	500-4,000	60-400	GHM-NRstUmVW	SI616		7¾, 8½, 8¾, 11, 12¼, 13½, 16	500-4,000	60-400	GHM-NRstUmVW	MD716M	M422	6, 8, 8½	500-4,000	50-400	UH G H M RST W V N
MSIZ716		8½	500-4,000	60-400	GHM-NRstUmVW	SI913		8½	500-4,000	60-400	GHM-NRstUmVW	MD716MC	M422	6, 8, 8½	500-4,000	50-400	UH G H M RST W V N
MSIZ813		8½	500-4,000	60-400	GHM-NRstUmVW	SI916		12¼	500-4,000	60-400	GHM-NRstUmVW	MD719	M422	8½	500-4,000	50-400	UH G H M RST W V N
MSIZ816		16	500-4,000	60-400	GHM-NRstUmVW	SIZ516		8¾	500-4,000	60-400	GHM-NRstUmVW	MD719C	M422	8½	500-4,000	50-400	UH G H M RST W V N
MST913		5¾	500-4,000	60-400	GHM-NRstUmVW	SIZ616		8½	500-4,000	60-400	GHM-NRstUmVW	MD719M	M422	8½	500-4,000	50-400	UH G H M RST W V N
MSXI613		8½	500-4,000	60-400	GHM-NRstUmVW	SPSI616		17½	500-4,000	60-400	GHM-NRstUmVW	MD719MC	M422	8½	500-4,000	50-400	UH G H M RST W V N
MSXI616		8½	500-4,000	60-400	GHM-NRstUmVW	SSI516		12¼	500-4,000	60-400	GHM-NRstUmVW	MP609	M443	4¼, 4¾, 6, 6¾, 6¾	500-2,500	50-400	UH G H M RST W V
MSXI716		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	SSI616		12¼, 17½	500-4,000	60-400	GHM-NRstUmVW	MP609C	M443	4¾, 4¾, 6, 6¾, 6¾, 6¾	500-2,500	50-400	UH G H M RST W V
MSXIZ616		8½	500-4,000	60-400	GHM-NRstUmVW	SSI716		12¼	500-4,000	60-400	GHM-NRstUmVW	MP609M	M443	4¾, 4¾, 6, 6¾, 6¾, 6¾	500-2,500	50-400	UH G H M RST W V
MSZ713		5¾	500-4,000	60-400	GHM-NRstUmVW	SSI916		22	500-4,000	60-400	GHM-NRstUmVW	MP609MC	M443	4¾, 4¾, 6, 6¾, 6¾, 6¾	500-2,500	50-400	UH G H M RST W V
MSZ716		12	500-4,000	60-400	GHM-NRstUmVW	SSIZ516		12¼	500-4,000	60-400	GHM-NRstUmVW	MP613	M432	4¼, 5¾, 6, 6¾, 7, 7½, 8½, 8¾, 10½, 11½, 12¼, 15½	500-3,000	50-400	UH G H M RST W V
MV616		6¼	500-4,000	60-400	DGHM-NRstUmVW	SSIZ616		16	500-4,000	60-400	GHM-NRstUmVW	MP613C	M432	4¼, 5¾, 6, 6¾, 7, 7½, 8½, 8¾, 10½, 11½, 12¼, 15½	500-3,000	50-400	UH G H M RST W V
MV716	M323	8½, 12¼	500-4,000	60-400	DGHM-NRstUmVW	SST1213		12¼	500-4,000	60-400	GHM-NRstUmVW	MP613M	M432	4¼, 5¾, 6, 6¾, 7, 7½, 8½, 8¾, 10½, 11½, 12¼, 15½	500-3,000	50-400	UH G H M RST W V
MZ616		8½, 12¼, 16	500-4,000	60-400	GHM-NRstUmVW	SST913		6, 8½	500-4,000	60-400	GHM-NRstUmVW	MP613MC	M432	4¼, 5¾, 6, 6¾, 7, 7½, 8½, 8¾, 10½, 11½, 12¼, 15½	500-3,000	50-400	UH G H M RST W V
MZ713		5¾	500-4,000	60-400	GHM-NRstUmVW	SSXI616		12¼	500-4,000	60-400	GHM-NRstUmVW	MP616	M422	5¾, 6, 6½	500-3,000	50-400	UH G H M RST W V
MZ716		12	500-4,000	60-400	GHM-NRstUmVW	SXI616		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MP616C	M422	5¾, 6, 6½	500-3,000	50-400	UH G H M RST W V
MZI813		8½	500-4,000	60-400	GHM-NRstUmVW	TBRS613		6, 7¾, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MP616M	M422	5¾, 6, 6½	500-3,000	50-400	UH G H M RST W V
MZR813		8¾	500-4,000	60-400	GHM-NRstUmVW	VIS416		8½	500-4,000	60-400	GHM-NRstUmVW	MP616MC	M422	5¾, 6, 6½	500-3,000	50-400	UH G H M RST W V
R35Y		5¾, 8¾	500-4,000	60-400	GHM-NRstUHVW	VIS516		8½	500-4,000	60-400	GHM-NRstUmVW	MP619	M431	7¼, 12¼, 17½	500-2,500	50-400	UH G H M RST W V
R613		8¾	500-4,000	60-400	GHM-NRstUmVW	VIS613		8¾	500-4,000	60-400	GHM-NRstUmVW	MP619C	M431	7¼, 12¼, 17½	500-2,500	50-400	UH G H M RST W V
R716		6¾	500-4,000	60-400	GHM-NRstUmVW	Z316		7¾	500-4,000	60-400	GHM-NRstUmVW	MP619M	M431	7¼, 12¼, 17½	500-2,500	50-400	UH G H M RST W V
R813		8¾	500-4,000	60-400	GHM-NRstUmVW	Z416		8½	500-4,000	60-400	GHM-NRstUmVW	MP619MC	M431	7¼, 12¼, 17½	500-2,500	50-400	UH G H M RST W V
S413		3¾	500-4,000	60-400	GHM-NRstUmVW	Z616		17½	500-4,000	60-400	GHM-NRstUmVW	MP713	M432	5¾, 6, 6½, 8½, 8¾, 9¾, 10¾, 12¼	500-2,500	50-400	UH G H M RST W V N
S516	S123	17	500-4,000	60-400	GHM-NRstUmVW	Z8		8½, 12¼	500-4,000	60-400	GHM-NRstUmVW	MP713C	M432	5¾, 6, 6½, 8½, 8¾, 9¾, 10¾, 12¼	500-2,500	50-400	UH G H M RST W V N
S919		22	500-4,000	60-400	GHM-NRstUmVW	ZR713		8¾	500-4,000	60-400	GHM-NRstUmVW	MP713MC	M432	5¾, 6, 6½, 8½, 8¾, 9¾, 10¾, 12¼	500-2,500	50-400	UH G H M RST W V N
SD516		11¾	500-4,000	60-400	GHM-NRstUmVW	ZR816		12¼	500-4,000	60-400	GHM-NRstUmVW	MP713M	M432	5¾, 6, 6½, 8½, 8¾, 9¾, 10¾, 12¼	500-2,500	50-400	UH G H M RST W V N
SDAI513		8½	500-4,000	60-400	GHM-NRstUmVW	Tercel						MP713MC	M432	5¾, 6, 6½, 8½, 8¾, 9¾, 10¾, 12¼	500-2,500	50-400	UH G H M RST W V N
SDI313		8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MD613	M433	6, 8½, 12¼	1,000-4,000	50-350	UH G H M RST W V N	MP716	M422	8½, 8½, 10¾, 12¼, 16	500-3,000	50-400	UH G H M RST W V N
SDI413		6¾, 7¾, 8½, 8¾	500-4,000	60-400	GHM-NRstUmVW	MD613C	M432	5¾, 6, 6¼, 6½, 8½	500-3,000	50-400	UH G H M RST W V N	MP716C	M422	8½, 8½, 10¾, 12¼, 16	500-3,000	50-400	UH G H M RST W V N
SDI416		7¾	500-4,000	60-400	GHM-NRstUmVW	MD613C	M432	5¾, 6, 6¼, 6½, 8½	500-3,000	50-400	UH G H M RST W V N	MP716M	M422	8½, 8½, 10¾, 12¼, 16	500-3,000	50-400	UH G H M RST W V N
SDI511		6¾	500-4,500	60-400	GHM-NRstUHVW	MD613M	M433	6, 8½, 12¼	1,000-4,000	50-350	UH G H M RST W V N	MP716MC	M422	8½, 8½, 10¾, 12¼, 16	500-3,000	50-400	UH G H M RST W V N
SDI513		6, 6¼, 6¼, 6½, 6¾, 7¾, 8½, 8¾, 8¾	500-4,000	60-400	GHM-NRstUmVW	MD613M	M432	5¾, 6, 6¼, 6½, 8½	500-3,000	50-400	UH G H M RST W V N	MP719	M422	6, 8½, 12¼, 16	500-2,500	50-400	UH G H M RST W V N
SDI516		7¾, 8½, 8¾, 8¾, 8¾, 9¾, 11¾	500-4,000	60-400	GHM-NRstUmVW	MD613MC	M433	6, 8½, 12¼	1,000-4,000	50-350	UH G H M RST W V N	MP719C	M422	6, 8½, 12¼, 16	500-2,500	50-400	UH G H M RST W V N
SDI611		6, 6¼, 6½, 6¾, 7¾, 8½, 8¾, 9¾	500-4,500	60-400	GHM-NRstUHVW	MD613MC	M432	5¾, 6, 6¼, 6½, 8½	500-3,000	50-400	UH G H M RST W V N	MP719M	M422	6, 8½, 12¼, 16	500-2,500	50-400	UH G H M RST W V N
SDI613		8½, 8¾, 17½	500-4,000	60-400	GHM-NRstUmVW	MD616	M422	6, 7¾, 8½, 12¼, 16, 17½	500-4,000	50-400	UH G H M RST W V N	MP719MC	M422	6, 8½, 12¼, 16	500-2,500	50-400	UH G H M RST W V N
SDI616	S223	8½, 8¾, 11¾, 12¼, 13½, 17½	500-4,000	60-400	GHM-NRstUmVW	MD616C	M422	6, 7¾, 8½, 12¼, 16, 17½	500-4,000	50-400	UH G H M RST W V N	MP813	M432	5¾, 6, 6½, 7¾, 8½, 8¾, 12¼	500-2,500	50-400	UH G H M RST W V N
SDI711		6, 6¼, 6½, 6¾	500-4,500	60-400	GHM-NRstUHVW	MD616M	M422	6, 7¾, 8½, 12¼, 16, 17½	500-4,000	50-400	UH G H M RST W V N	MP813C	M432	5¾, 6, 6½, 7¾, 8½, 8¾, 12¼	500-2,500	50-400	UH G H M RST W V N
SDI716		8½	500-4,000	60-400	GHM-NRstUmVW	MD616MC	M422	6, 7¾, 8½, 12¼, 16, 17½	500-4,000	50-400	UH G H M RST W V N	MP813M	M432	5¾, 6, 6½, 7¾, 8½, 8¾, 12¼	500-2,500	50-400	UH G H M RST W V N
SDI816		17½, 26	500-4,000	60-400	GHM-NRstUmVW	MD619	M422	7¾, 8½, 12¼, 16, 17½	1,000-4,000	50-400	UH G H M RST W V N	MP813MC	M432	5¾, 6, 6½, 7¾, 8½, 8¾, 12¼	500-2,500	50-400	UH G H M RST W V N
SDIZ513		6¾, 8½	500-4,000	60-400	GHM-NRstUmVW	MD619C	M422	7¾, 8½, 12¼, 16, 17½	1,000-4,000	50-400	UH G H M RST W V N	MP816	M422	8½, 10¾, 12¼	500-3,000	50-400	UH G H M RST W V N
SDIZ516		8½	500-4,000	60-400	GHM-NRstUmVW	MD619M	M422	7¾, 8½, 12¼, 16, 17½	1,000-4,000	50-400	UH G H M RST W V N	MP816C	M422	8½, 10¾, 12¼	500-3,000	50-400	UH G H M RST W V N
SDIZ611		8¾	500-4,500	60-400	GHM-NRstUHVW	MD619MC	M422	7¾, 8½, 12¼, 16, 17½	1,000-4,000	50-400	UH G H M RST W V N	MP816M	M422	8½, 10¾, 12¼	500-3,000	50-400	UH G H M RST W V N
SDSI516		11¾	500-4,000	60-400	GHM-NRstUmVW	MD713	M432	5¾, 6, 6½, 6¾	500-4,000	50-400	UH G H M RST W V N	MP816MC	M422	8½, 10¾, 12¼	500-3,000	50-400	UH G H M RST W V N
SDSI616		8½, 11¾, 12¼, 13½	500-4,000	60-400	GHM-NRstUmVW	MD713C	M432	5¾, 6, 6½, 6¾	500-4,000	50-400	UH G H M RST W V N	MP819	M422	5¾, 6, 6¾, 8½, 8½, 9¾, 12¼	500-3,000	50-400	UH G H M RST W V N
SDSI713		8½	500-4,000	60-400	GHM-NRstUmVW	MD713M	M432	5¾, 6, 6½, 6¾	500-4,000	50-400	UH G H M RST W V N	MP819C	M422	5¾, 6, 6¾, 8½, 8½, 9¾, 12¼	500-3,000	50-400	UH G H M RST W V N
SDSI716		17½	500-4,000	60-400	GHM-NRstUmVW												



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	
MP819M	M422	5½, 6, 6¾, 8½, 9½, 12¼	500–3,000	50–400	UH G H M RST W V N	SD716C	S422	8%	1,000–4,000	50–400	UH G H M RST W V	SR613	S432	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MP819MC	M422	5½, 6, 6¾, 8½, 9½, 12¼	500–3,000	50–400	UH G H M RST W V N	SD716M	S422	8%	1,000–4,000	50–400	UH G H M RST W V	SR613C	S432	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR613	M432	5½, 6, 6¾, 6½, 8, 8½, 10½, 11½, 15½	1,000–4,000	50–400	UH G H M RST W V N	SD716MC	S422	8%	1,000–4,000	50–400	UH G H M RST W V	SR613M	S432	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR613C	M432	5½, 6, 6¾, 6½, 8, 8½, 10½, 11½, 15½	1,000–4,000	50–400	UH G H M RST W V N	SD719	S424	12¼	1,000–4,000	50–400	UH G H M RST W V	SR613MC	S432	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR613M	M432	5½, 6, 6¾, 6½, 8, 8½, 10½, 11½, 15½	1,000–4,000	50–400	UH G H M RST W V N	SD719C	S424	12¼	1,000–4,000	50–400	UH G H M RST W V	SR616	S421	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR613MC	M432	5½, 6, 6¾, 6½, 8, 8½, 10½, 11½, 15½	1,000–4,000	50–400	UH G H M RST W V N	SD719M	S424	12¼	1,000–4,000	50–400	UH G H M RST W V	SR616C	S421	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR616	M422	6, 8½, 12¼, 16	1,000–4,000	50–400	UH G H M RST W V N	SD719MC	S424	12¼	1,000–4,000	50–400	UH G H M RST W V	SR616M	S421	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR616	M424	5½, 6, 6½, 6¾, 8½, 9½, 9¾	1,000–4,000	50–400	UH G H M RST W V N	SD816	S422	8½, 12	1,000–4,000	50–400	UH G H M RST W V	SR616MC	S421	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR616C	M422	6, 8½, 12¼, 16	1,000–4,000	50–400	UH G H M RST W V N	SD816C	S422	8½, 12	1,000–4,000	50–400	UH G H M RST W V	SR619	S422	8½, 9%	1,000–4,000	50–400	UH G H M RST W V	
MR616C	M424	5½, 6, 6½, 6¾, 8½, 9½, 9¾	1,000–4,000	50–400	UH G H M RST W V N	SD816M	S422	8½, 12	1,000–4,000	50–400	UH G H M RST W V	SR619C	S422	8½, 9%	1,000–4,000	50–400	UH G H M RST W V	
MR616M	M422	6, 8½, 12¼, 16	1,000–4,000	50–400	UH G H M RST W V N	SD816MC	S422	8½, 12	1,000–4,000	50–400	UH G H M RST W V	SR619M	S422	8½, 9%	1,000–4,000	50–400	UH G H M RST W V	
MR616M	M424	5½, 6, 6½, 6¾, 8½, 9½, 9¾	1,000–4,000	50–400	UH G H M RST W V N	SD819	S322	12, 12¼	1,000–4,000	50–400	UM G H M RST W V	SR619MC	S422	8½, 9%	1,000–4,000	50–400	UH G H M RST W V	
MR616MC	M422	6, 8½, 12¼, 16	1,000–4,000	50–400	UH G H M RST W V N	SD819	S422	8½, 8½, 9¼, 10%	1,000–4,000	50–400	UH G H M RST W V	SR713	S433	6, 6¼, 8½	1,000–4,000	50–400	UH G H M RST W V	
MR616MC	M424	5½, 6, 6½, 6¾, 8½, 9½, 9¾	1,000–4,000	50–400	UH G H M RST W V N	SD819C	S322	12, 12¼	1,000–4,000	50–400	UM G H M RST W V	SR713C	S433	6, 6¼, 8½	1,000–4,000	50–400	UH G H M RST W V	
MR619	M422	6, 8½, 9¾	1,000–4,000	50–400	UH G H M RST W V N	SD819C	S422	8½, 8½, 9¼, 10%	1,000–4,000	50–400	UH G H M RST W V	SR713M	S433	6, 6¼, 8½	1,000–4,000	50–400	UH G H M RST W V	
MR619C	M422	6, 8½, 9¾	1,000–4,000	50–400	UH G H M RST W V N	SD819M	S322	12, 12¼	1,000–4,000	50–400	UM G H M RST W V	SR713MC	S433	6, 6¼, 8½	1,000–4,000	50–400	UH G H M RST W V	
MR619M	M422	6, 8½, 9¾	1,000–4,000	50–400	UH G H M RST W V N	SD819MC	S322	12, 12¼	1,000–4,000	50–400	UM G H M RST W V	SR716	S423	8½	1,000–4,000	50–400	UH G H M RST W V	
MR619MC	M422	6, 8½, 9¾	1,000–4,000	50–400	UH G H M RST W V N	SD819MC	S422	8½, 8½, 9¼, 10%	1,000–4,000	50–400	UH G H M RST W V	SR716C	S423	8½	1,000–4,000	50–400	UH G H M RST W V	
MR713	M432	5½, 5¾, 6½, 8½	1,000–4,000	50–400	UH G H M RST W V N	SD913	S432	6½, 6¾, 8½	1,000–4,000	50–400	UH G H M RST W V	SR716M	S423	8½	1,000–4,000	50–400	UH G H M RST W V	
MR713C	M432	5½, 5¾, 6½, 8½	1,000–4,000	50–400	UH G H M RST W V N	SD913C	S432	6½, 6¾, 8½	1,000–4,000	50–400	UH G H M RST W V	SR716MC	S423	8½	1,000–4,000	50–400	UH G H M RST W V	
MR713M	M432	5½, 5¾, 6½, 8½	1,000–4,000	50–400	UH G H M RST W V N	SD913M	S432	6½, 6¾, 8½	1,000–4,000	50–400	UH G H M RST W V	SR813	S423	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR713MC	M432	5½, 5¾, 6½, 8½	1,000–4,000	50–400	UH G H M RST W V N	SD913MC	S432	6½, 6¾, 8½	1,000–4,000	50–400	UH G H M RST W V	SR813C	S423	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR716	M422	6, 8½, 8¾, 12¼, 16	1,000–4,000	50–400	UH G H M RST W V N	SP613	S432	4½, 5½, 5¾, 5¾, 6, 6½, 6¾	1,000–4,000	50–400	UH G H M RST W V	SR813M	S423	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR716C	M422	6, 8½, 8¾, 12¼, 16	1,000–4,000	50–400	UH G H M RST W V N	SP613C	S432	4½, 5½, 5¾, 5¾, 6, 6½, 6¾	1,000–4,000	50–400	UH G H M RST W V	SR813MC	S423	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR716M	M422	6, 8½, 8¾, 12¼, 16	1,000–4,000	50–400	UH G H M RST W V N	SP613M	S432	4½, 5½, 5¾, 5¾, 6, 6½, 6¾	1,000–4,000	50–400	UH G H M RST W V	SR816	S423	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR716MC	M422	6, 8½, 8¾, 12¼, 16	1,000–4,000	50–400	UH G H M RST W V N	SP613MC	S432	4½, 5½, 5¾, 5¾, 6, 6½, 6¾	1,000–4,000	50–400	UH G H M RST W V	SR816C	S423	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR813	M432	5½, 6, 8½, 8½	1,000–4,000	50–400	UH G H M RST W V N	SP619	S422	6, 6¼, 6¾	1,000–4,000	50–400	UH G H M RST W V	SR816M	S423	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR813C	M432	5½, 6, 8½, 8½	1,000–4,000	50–400	UH G H M RST W V N	SP619C	S422	6, 6¼, 6¾	1,000–4,000	50–400	UH G H M RST W V	SR816MC	S423	8½, 12¼	1,000–4,000	50–400	UH G H M RST W V	
MR813M	M432	5½, 6, 8½, 8½	1,000–4,000	50–400	UH G H M RST W V N	SP619M	S422	6, 6¼, 6¾	1,000–4,000	50–400	UH G H M RST W V	SR819	S422	8½	1,000–4,000	50–400	UH G H M RST W V	
MR813MC	M432	5½, 6, 8½, 8½	1,000–4,000	50–400	UH G H M RST W V N	SP619MC	S422	6, 6¼, 6¾	1,000–4,000	50–400	UH G H M RST W V	SR819C	S422	8½	1,000–4,000	50–400	UH G H M RST W V	
MR816	M422	8½, 10½, 12, 12¼, 14¾, 16	1,000–4,000	50–400	UH G H M RST W V N	SP713	S434	5½, 6	1,000–4,000	50–400	UH G H M RST W V	SR819M	S422	8½	1,000–4,000	50–400	UH G H M RST W V	
MR816C	M422	8½, 10½, 12, 12¼, 14¾, 16	1,000–4,000	50–400	UH G H M RST W V N	SP713C	S434	5½, 6	1,000–4,000	50–400	UH G H M RST W V	Tri-Max HZ-90H	S977	4½–8½	1,000–3,500	80–200	HMD	
MR816M	M422	8½, 10½, 12, 12¼, 14¾, 16	1,000–4,000	50–400	UH G H M RST W V N	SP713M	S434	5½, 6	1,000–4,000	50–400	UH G H M RST W V	Q-1H	S546	8½–12¼	1,000–3,500	80–120	MDG	
MR816MC	M422	8½, 10½, 12, 12¼, 14¾, 16	1,000–4,000	50–400	UH G H M RST W V N	SP713MC	S434	5½, 6	1,000–4,000	50–400	UH G H M RST W V	SM-1H	S877	4½–12¼	1,000–3,500	80–120	DG	
MR819	M422	8½, 12, 12¼	1,000–4,000	50–400	UH G H M RST W V N	SP813	S432	5½, 5¾, 5¾, 5¾, 6, 6½, 8½, 8½, 9¼, 9¾	1,000–4,000	50–400	UH G H M RST W V	Ulterra U513M	M123, M124, M132, M133, M134, M232, M233, M332, M333, M334, M432, M433	5½, 6, 6¾, 6¾, 6¾, 7½, 8½, 8½, 9¾	500–4,000	Variable	BCDEFGSU	
MR819C	M422	8½, 12, 12¼	1,000–4,000	50–400	UH G H M RST W V N	SP813C	S432	5½, 5¾, 5¾, 5¾, 6, 6½, 8½, 8½, 9¼, 9¾	1,000–4,000	50–400	UH G H M RST W V	U516M	M122, M123, M124, M222, M223, M224, M233, M234, M332, M333, M422, M423, M424	6, 6¾, 6¾, 6¾, 6¾, 7½, 8½, 8½, 9¾, 9¾, 12¼	500–4,000	Variable	BCDEFGSU	
MR819M	M422	8½, 12, 12¼	1,000–4,000	50–400	UH G H M RST W V N	SP813M	S432	5½, 5¾, 5¾, 5¾, 6, 6½, 8½, 8½, 9¼, 9¾	1,000–4,000	50–400	UH G H M RST W V							
MR819MC	M422	8½, 12, 12¼	1,000–4,000	50–400	UH G H M RST W V N	SP813MC	S432	5½, 5¾, 5¾, 5¾, 6, 6½, 8½, 8½, 9¼, 9¾	1,000–4,000	50–400	UH G H M RST W V							
MSD619	S422	8½, 12¼, 16, 17½, 22	1,000–4,000	50–400	UH G H M RST W V	SP816	S422	9½, 9¾	1,000–4,000	50–400	UH G H M RST W V							
SD619	S422	8½, 12¼, 16, 17½, 22	1,000–4,000	50–400	UH G H M RST W V	SP816C	S422	9½, 9¾	1,000–4,000	50–400	UH G H M RST W V							
SD619C	S422	8½, 12¼, 16, 17½, 22	1,000–4,000	50–400	UH G H M RST W V	SP816M	S422	9½, 9¾	1,000–4,000	50–400	UH G H M RST W V							
SD619MC	S422	8½, 12¼, 16, 17½, 22	1,000–4,000	50–400	UH G H M RST W V	SP816MC	S422	9½, 9¾	1,000–4,000	50–400	UH G H M RST W V							
SD713	S434	5½	1,000–4,000	50–400	UH G H M RST W V	SP819	S422	8½, 12¼, 16, 17½, 22	1,000–4,000	50–400	UH G H M RST W V							
SD713C	S434	5½	1,000–4,000	50–400	UH G H M RST W V	SP819C	S422	8½, 12¼, 16, 17½, 22	1,000–4,000	50–400	UH G H M RST W V							
SD713M	S434	5½	1,000–4,000	50–400	UH G H M RST W V	SP819M	S422	8½, 12¼, 16, 17½, 22	1,000–4,000	50–400	UH G H M RST W V							
SD713MC	S434	5½	1,000–4,000	50–400	UH G H M RST W V	SP819MC	S422	8½, 12¼, 16, 17½, 22	1,000–4,000	50–400	UH G H M RST W V							
SD716	S422	8%	1,000–4,000	50–400	UH G H M RST W V													

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					
U519M	M123, M132, M223, M323, M334, M423	6¼, 7, 8½, 8¾, 9½, 9¾, 12¼	500–4,000	Variable	BCDEFGSU	U611S	S132, S133, S232	4¾, 6, 6½, 6¾	500–4,000	Variable	BCDEFGSU	PDC coring bits										
U609M	M142, M443	4¾, 4¾, 6	500–4,000	Variable	BCDEFGSU	U613S	S131, S132, S232, S233, S332, S432	6¾, 6¾, 6¾, 6¾, 7¾, 8¾, 8¾	500–4,000	Variable	BCDEFGSU	Bit-Tech										
U611M	M133, M233, M332, M333	4¾, 4¾, 6, 6¾	500–4,000	Variable	BCDEFGSU	U616S	S122, S222, S223, S233, S424	7¾, 8¾, 8¾, 9¾, 11, 12¼, 14¾, 17¾	500–4,000	Variable	BCDEFGSU	CP-440BU	M232	7¾, 8¾, 8¾	300–2,000	50–500	AFGMWV					
U613M	M133, M232, M233, M234, M332, M333, M334, M432, M433, M434	4¾, 4¾, 5¾, 6, 6¾, 6¾, 6¾, 6¾, 7¾, 7¾, 8¾, 8¾, 9¾, 12¼	500–4,000	Variable	BCDEFGSU	U619S	S122, S222, S223, S322	8¾, 9¾, 12¼	500–4,000	Variable	BCDEFGSU	CP-440P	M342	7¾, 8¾, 8¾	300–2,000	50–500	AFGMWV					
U616M	M123, M222, M223, M224, M322, M323, M324, M422, M423, M432, M433	6¾, 6¾, 6¾, 7¾, 8¾, 8¾, 8¾, 9¾, 9¾, 10¾, 11, 12, 12¼, 13¾, 14¾	500–4,000	Variable	BCDEFGSU	U711S	S232	6¾, 6¾	500–4,000	Variable	BCDEFGSU	CP-B66	M232	6¾	300–2,000	50–500	AFGMWV					
U619M	M123, M223, M224, M323, M423, M432	7¾, 8¾, 8¾, 10¾, 11, 12¼, 13¾	500–4,000	Variable	BCDEFGSU	U716S	S424	8¾	500–4,000	Variable	BCDEFGSU	Halliburton										
U709M	M443	6½	500–4,000	Variable	BCDEFGSU	U816S	S422	16	500–4,000	Variable	BCDEFGSU	FC3043	M433	8¼–12¼	250–3,500	50–150	F					
U711M	M223, M232, M333, M434	5¾, 6¾, 6¾	500–4,000	Variable	BCDEFGSU	Varel						FC3743/	M432	5¾–12¼	250–3,500	50–150	F					
U713M	M223, M234, M333, M423, M432, M433	5¾, 6, 6¾, 6¾, 6¾, 7¾, 8¾, 8¾, 12¼	500–4,000	Variable	BCDEFGSU	R713	M433	5¾, 5¾, 5¾, 6, 6¾, 6¾, 6¾, 7¾, 8¾, 8¾, 8¾, 9¾, 9¾, 10¾, 11¾, 12¼	1,000–3,500	50–400	BGTP-DG1G2G3L-HNOUXR	FC3843i	M433	6¼–12¼	250–3,500	50–150	F					
U716M	M223, M324, M423, M432, M433	7¾, 8¾, 8¾, 8¾, 9¾, 10¾, 12¼, 16	500–4,000	Variable	BCDEFGSU	R813	M433	5¾, 5¾, 6, 6¾, 6¾, 6¾, 7¾, 7¾, 8¾, 8¾, 8¾, 9¾, 9¾, 10¾, 11¾, 12¼	1,000–3,500	50–400	BGTP-DG1G2G3L-HNOUXR	FC3843i	M343	8¼–12¼	250–3,500	50–150	F					
U719M	M323, M424, M433	12¼	500–4,000	Variable	BCDEFGSU	R716	M423	7¾, 8¾, 8¾, 8¾, 8¾, 9¾, 9¾, 10¾, 10¾, 11, 11¾, 12, 12¼, 13¾, 14¾, 16, 17¾	1,000–3,500	50–400	BGTP-DG1G2G3L-HNOUXR	FC3844i	M343	8¼–12¼	250–3,500	50–150	F					
U809M	M342, M443	6¾, 6¾, 7¾, 8¾, M443	500–4,000	Variable	BCDEFGSU	R816	M423	7¾, 8¾, 8¾, 9¾, 9¾, 12, 12¼, 16, 17, 17¾	1,000–3,500	50–400	BGTP-DG1G2G3L-HNOUXR	FC3847i	M344	8¼–12¼	250–3,500	50–150	F					
U811M	M333, M424, M433, M443	6¾, 7¾, 8¾, 8¾, M443	500–4,000	Variable	BCDEFGSU	Bi-center PDC drill bits						FC3923	M433	8¼	250–3,500	50–150	F					
U813M	M233, M333, M423, M433, M434	6, 6¾, 6¾, 7¾, 8¾, 8¾, 9¾, 10¾, 11, 12¼, 14¾	500–4,000	Variable	BCDEFGSU	Drill Master, Inc.						FC3933	M433	8¼	250–3,500	50–150	F					
U816M	M323, M423, M443	8¾, 8¾, 9¾, 9¾, 12¼, 17¾	500–4,000	Variable	BCDEFGSU	MBC7-131113	M434	14¾x12¼	200–1,700	60–400	RSTMWUH	FC3943i	M433	8¼	250–3,500	50–150	F					
U909M	M442, M443	6¾, 6¾	500–4,000	Variable	BCDEFGSU	ReedHycalog Bits						FC3943i	M433	8¼	250–3,500	50–150	F					
U913M	M433, M434	8¾, 9¾	500–4,000	Variable	BCDEFGSU	CSD6411	S433	14½x17½, 8½x9½	3,000–3,500	80–200	GHMWUH	ReedHycalog Bits										
U916M	M323	7¾	500–4,000	Variable	BCDEFGSU	CSD6413	S433	17x20, 18x22, 19¼x23¾	3,000–3,500	80–200	GHMWUH	CEP913	S232, S432, S433	7¾, 8¾, 8¾, 8	300–2,000	50–150	GUI					
U513S	S132, S232, S233, S332, S432	4¾, 6¾, 6¾, 6¾, 7¾, 8¾, 8¾, 9¾, 9¾, 10¾, 12¾, 12¾	500–4,000	Variable	BCDEFGSU	PSD6613	S433	12¼x13¾	3,000–3,500	80–201	GHMWUH	CVP913	S232	6	300–2,000	50–150	GUI					
U516S	S122, S222, S233, S322, S332, S422	6¾, 6¾, 7¾, 8¾, 8¾, 11, 12¼, 13¾, 14¾	500–4,000	Variable	BCDEFGSU	SRR7113	S433	12x14¾	3,000–3,500	80–200	GHMWUH	IEP913	S232	3	300–2,000	50–150	GUI					
U519S	S122, S222, S233, S322, S422	7¾, 8¾, 8¾, 9¾, 12¼, 17¾	500–4,000	Variable	BCDEFGSU	Smith Bits						Varel										
						QDM4209	3	500–4,000	60–400	GHM-NRStUmVW	VH609	M243	3¾x4½, 4¾x5¼, 4¾x5¾, 4¾x5¾	500–2,500	100–400	BGDH-NOUXR	Hammer bits					
						QDM4213	7, 7½	200–3,500	60–400	GHM-NRStUmVW	VH709	M242	4¾x4¾, 8¾x9	500–2,500	100–400	BGDH-NOUXR	H1006D	HAMM	6, 6¾, 6¾, 6¾	250–500	40–20	AWP
						QDM7309	6½	500–4,000	60–400	GHM-NRStUmVW							H1206	HAMM	8¾, 8¾	250–500	40–20	AP
						QDM7313	9¾, 12¼	200–3,500	60–400	GHM-NRStUmVW							H1206D	HAMM	8¾, 8¾	250–500	40–20	AWP
						QDM7413	9, 9¾	200–3,500	60–400	GHM-NRStUmVW							H1209	HAMM	8¾, 9¾, 9¾, 9¾, 9¾, 12¼, 12¾	300–700	40–20	AP
						QDMI4209	4¾	500–4,000	60–400	GHM-NRStUmVW							H1209D	HAMM	7¾, 8¾, 8¾, 8¾, 8¾, 11	300–700	40–20	AWP
						QDMI4213	7½	200–3,500	60–400	GHM-NRStUmVW							H1411D	HAMM	12, 12¼, 12¾	300–700	40–20	AWP
						QDMI5216	7	200–3,000	60–400	GHM-NRStUmVW							H1509	HAMM	8¾, 10¾, 11, 12¼, 12¾	300–600	40–20	AP
						QDS3209	5¾	500–4,000	60–400	GHM-NRStUmVW							H1512	HAMM	8¾, 8¾, 12¾	400–650	40–20	AP
						QDS4213	7	200–3,500	60–400	GHM-NRStUmVW							H1809	HAMM	17¾	400–600	40–20	AWP
						QDS5216	9¾, 12¼	200–3,000	60–400	GHM-NRStUmVW							H1809D	HAMM	17¾	400–600	40–20	AWP
						QDS7313	S333	8¾, 9¾, 11, 12¼, 20	200–3,500	60–400	GHM-NRStUmVW						H1812	HAMM	14¾, 14¾, 15	300–600	40–20	AP
						QDSI5216	14¾, 17¾	200–3,000	60–400	GHM-NRStUmVW												
						QDSI5316	9¾	200–3,000	60–400	GHM-NRStUmVW												
						QDSI6213	6¾	200–3,500	60–400	GHM-NRStUmVW												
						SH0716	16, 16¾, 16¾	200–3,000	60–400	GHM-NUmVW												
						SHOI516	17¾	200–3,000	60–400	GHM-NUmVW												
						SHOI616	9¾, 10¾, 14¾, 14¾	200–3,000	60–400	GHM-NUmVW												
						SHOS616	17¾, 18¾	200–3,000	60–400	GHM-NUmVW												
						SHOSI616	12¼, 17¾, 24	200–3,000	60–400	GHM-NUmVW												
						Varel																



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
MDSI711		8½	500–4,500	60–400	GHM-NRstUHVW	MSIZ813		8½	500–4,000	60–400	GHM-NRstUmVW	MD813M	M432	5½, 6, 6½, 6½, 7½, 8½, 8½, 8½, 9½, 9½	500–4,000	50–400	UH G H M RST W V N
MDSI713		5½, 5½, 6, 7½, 8½, 8½, 8½, 8½	500–4,000	60–400	GHM-NRstUmVW	MST913		5½	500–4,000	60–400	GHM-NRstUmVW	MD813M	M332	6, 8½, 12¼	1,000–4,000	50–400	UH G H M RST W V N
MDSI811		6½	500–4,500	60–400	GHM-NRstUHVW	MSX1613		8½	500–4,000	60–400	GHM-NRstUmVW	MD813MC	M432	5½, 6, 6½, 6½, 7½, 8½, 8½, 8½, 9½, 9½	500–4,000	50–400	UH G H M RST W V N
MDSI813	M333	8½, 8½, 8½, 10½, 12¼	500–4,000	60–400	GHM-NRstUmVW	MSXZ616		8½	500–4,000	60–400	GHM-NRstUmVW	MD813MC	M332	6, 8½, 12¼	1,000–4,000	50–400	UH G H M RST W V N
MDSI913		8½, 8½	500–4,000	60–400	GHM-NRstUmVW	MSZ713		5½	500–4,000	60–400	GHM-NRstUmVW	MD816	M422	8½, 8½, 12¼	500–4,000	50–400	UH G H M RST W V N
MDSIR613		8¾	500–4,000	60–400	GHM-NRstUmVW	MZ713		5½	500–4,000	60–400	GHM-NRstUmVW	MD816C	M422	8½, 8½, 12¼	500–4,000	50–400	UH G H M RST W V N
MDSIR713		6½, 6¾, 8½	500–4,000	60–400	GHM-NRstUmVW	MZ1813		8½	500–4,000	60–400	GHM-NRstUmVW	MD816M	M422	8½, 8½, 12¼	500–4,000	50–400	UH G H M RST W V N
MDSIR813		8½	500–4,000	60–400	GHM-NRstUmVW	MZR813		8½	500–4,000	60–400	GHM-NRstUmVW	MD816MC	M422	8½, 8½, 12¼	500–4,000	50–400	UH G H M RST W V N
MDSIZ513		8½	500–4,000	60–400	GHM-NRstUmVW	R35Y		5½, 8½	500–4,000	60–400	GHM-NRstUHVW	MD819	M422	5½, 5½, 6, 8½, 8½, 9½	1,000–4,000	50–400	UH G H M RST W V N
MDSIZ613		5½, 6, 7½	500–4,000	60–400	GHM-NRstUmVW	R613		8¾	500–4,000	60–400	GHM-NRstUmVW	MD819C	M422	5½, 5½, 6, 8½, 8½, 9½	1,000–4,000	50–400	UH G H M RST W V N
MDSIZ713		5½, 8½	500–4,000	60–400	GHM-NRstUmVW	R813		8¾	500–4,000	60–400	GHM-NRstUmVW	MD819MC	M422	5½, 5½, 6, 8½, 8½, 9½	1,000–4,000	50–400	UH G H M RST W V N
MDSIZ811		6½	500–4,500	60–400	GHM-NRstUHVW	S413		3¾	500–4,000	60–400	GHM-NRstUmVW	MD819MC	M422	5½, 5½, 6, 8½, 8½, 9½	1,000–4,000	50–400	UH G H M RST W V N
MDSIZ813		12¼	500–4,000	60–400	GHM-NRstUmVW	SDA1513		8½	500–4,000	60–400	GHM-NRstUmVW	MD919	M623	8½, 12¼, 16	1,000–4,000	50–400	UH G H M RST W V N
MDSX1613		8½	500–4,000	60–400	GHM-NRstUmVW	SDI313		8½, 8¾	500–4,000	60–400	GHM-NRstUmVW	MD919C	M623	8½, 12¼, 16	1,000–4,000	50–400	UH G H M RST W V N
MDSX1713		8½	500–4,000	60–400	GHM-NRstUmVW	SDI413		6¾, 7½, 8½, 8¾	500–4,000	60–400	GHM-NRstUmVW	MD919MC	M623	8½, 12¼, 16	1,000–4,000	50–400	UH G H M RST W V N
MDSX1813		8½	500–4,000	60–400	GHM-NRstUmVW	SDI511		6¾	500–4,500	60–400	GHM-NRstUHVW	MP013	M432	8½, 12	500–3,000	50–400	UH G H M RST W V N
MDSXZ1713		8½	500–4,000	60–400	GHM-NRstUmVW	SDI513		6, 6½, 6¼, 6½, 6¾, 7½, 8½, 8¾, 8¾	500–4,000	60–400	GHM-NRstUmVW	MP013C	M432	8½, 12	500–3,000	50–400	UH G H M RST W V N
MDX613		6½	500–4,000	60–400	GHM-NRstUmVW	SDI611		6, 6½, 6½, 6¾, 7½, 8½, 8¾, 9½	500–4,500	60–400	GHM-NRstUHVW	MP013M	M432	8½, 12	500–3,000	50–400	UH G H M RST W V N
MDX1713		8½	500–4,000	60–400	GHM-NRstUmVW	SDI613		8½, 8¾, 17½	500–4,000	60–400	GHM-NRstUmVW	MP013MC	M432	8½, 12	500–3,000	50–400	UH G H M RST W V N
MDZ1713		10%	500–4,000	60–400	GHM-NRstUmVW	SDI711		6, 6¼, 6½, 6¾	500–4,500	60–400	GHM-NRstUHVW	MP213	M432	12, 12¼	500–3,000	50–400	UH G H M RST W V N
MDZ1713		8½	500–4,000	60–400	GHM-NRstUmVW	SDIZ513		6½, 8½	500–4,000	60–400	GHM-NRstUmVW	MP213	M432	12, 12¼	500–3,000	50–400	UH G H M RST W V N
MDZ1713		8½	500–4,000	60–400	GHM-NRstUmVW	SDIZ611		8¾	500–4,500	60–400	GHM-NRstUHVW	MP213	M434	8½	500–3,000	50–400	UH G H M RST W V N
MI413		6½	500–4,000	60–400	GHM-NRstUmVW	SDS1713		8½	500–4,000	60–400	GHM-NRstUmVW	MP213C	M432	12, 12¼	500–3,000	50–400	UH G H M RST W V N
MI513	M223	6½, 6¼, 6½, 7½, 8¾	500–4,000	60–400	GHM-NRstUmVW	SDXIZ513		8½	500–4,000	60–400	GHM-NRstUmVW	MP213C	M434	8½	500–3,000	50–400	UH G H M RST W V N
MI609		4½	500–5,000	60–400	GHM-NRstUHVW	SI913		16	500–4,000	60–400	GHM-NRstUmVW	MP213M	M432	12, 12¼	500–3,000	50–400	UH G H M RST W V N
MI613	M233	6, 6½, 6¼, 6½, 6¾, 6¾, 7½, 8¾	500–4,000	60–400	GHM-NRstUmVW	SST1213		12¼	500–4,000	60–400	GHM-NRstUmVW	MP213M	M434	8½	500–3,000	50–400	UH G H M RST W V N
MI711	M333	6	500–4,500	60–400	GHM-NRstUHVW	SST913		6, 8½	500–4,000	60–400	GHM-NRstUmVW	MP213MC	M432	12, 12¼	500–3,000	50–400	UH G H M RST W V N
MI813	M333	6¾, 12¼, 16, 17½	500–4,000	60–400	GHM-NRstUmVW	TBR813		6, 7½, 8½, 8¾	500–4,000	60–400	GHM-NRstUmVW	MP213MC	M434	8½	500–3,000	50–400	UH G H M RST W V N
MI909		4½	500–5,000	60–400	GHM-NRstUHVW	VIS613		8¾	500–4,000	60–400	GHM-NRstUmVW	MP809	M442	6½, 8¾	500–2,500	50–400	UH G H M RST W V N
MI913	M433	7½, 8½, 8½, 8½, 8½, 11½, 12¼	500–4,000	60–400	GHM-NRstUmVW	Z8		8½, 12¼	500–4,000	60–400	GHM-NRstUmVW	MP809C	M442	6½, 8¾	500–2,500	50–400	UH G H M RST W V N
MIZ613		7½	500–4,000	60–400	GHM-NRstUmVW	ZR713		8½	500–4,000	60–400	GHM-NRstUmVW	MP809M	M442	6½, 8¾	500–2,500	50–400	UH G H M RST W V N
MR613		5½	500–4,000	60–400	GHM-NRstUmVW							MP809MC	M442	6½, 8¾	500–2,500	50–400	UH G H M RST W V N
MS413		6½	500–4,000	60–400	GHM-NRstUmVW	MD013	M432	8½	1,000–4,000	50–400	UH G H M RST W V N	MP909	M443	8¾	500–2,500	50–400	UH G H M RST W V N
MS613		12¼	500–4,000	60–400	GHM-NRstUmVW	MD013C	M432	8½	1,000–4,000	50–400	UH G H M RST W V N	MP909C	M443	8¾	500–2,500	50–400	UH G H M RST W V N
MS713		12¼	500–4,000	60–400	GHM-NRstUmVW	MD013M	M432	8½	1,000–4,000	50–400	UH G H M RST W V N	MP909M	M443	8¾	500–2,500	50–400	UH G H M RST W V N
MSI413		6, 6¾	500–4,000	60–400	GHM-NRstUmVW	MD013MC	M432	8½	1,000–4,000	50–400	UH G H M RST W V N	MP909MC	M443	8¾	500–2,500	50–400	UH G H M RST W V N
MSI513	M333	6½, 6¼, 6½, 8¾	500–4,000	60–400	GHM-NRstUmVW	MD213	M432	12, 12¼	1,000–4,000	50–400	UH G H M RST W V N	MP913	M432	5½, 6, 6½, 6½, 8½, 8½, 12¼	500–3,000	50–400	UH G H M RST W V N
MSI613	M433	6, 6½, 6¼, 6½, 6¾, 6¾, 7½, 8½, 8¾, 12¼	500–4,000	60–400	GHM-NRstUmVW	MD213C	M432	12, 12¼	1,000–4,000	50–400	UH G H M RST W V N	MP913C	M432	5½, 6, 6½, 6½, 8½, 8½, 12¼	500–3,000	50–400	UH G H M RST W V N
MSI711	M433	5½, 5½, 5½, 6, 6½, 6¼	500–4,500	60–400	GHM-NRstUHVW	MD213M	M432	12, 12¼	1,000–4,000	50–400	UH G H M RST W V N	MP913M	M432	5½, 6, 6½, 6½, 8½, 8½, 12¼	500–3,000	50–400	UH G H M RST W V N
MSI713	M433	6, 6½, 6½, 6¾, 7½, 8½, 8¾, 9½, 12¼	500–4,000	60–400	GHM-NRstUmVW	MD219	M422	12¼, 14¾	1,000–4,000	50–400	UH G H M RST W V N	MP913MC	M432	5½, 6, 6½, 6½, 8½, 8½, 12¼	500–3,000	50–400	UH G H M RST W V N
MSI813	M433	6½, 6½, 8½, 8¾, 9½, 12¼	500–4,000	60–400	GHM-NRstUmVW	MD219C	M422	12¼, 14¾	1,000–4,000	50–400	UH G H M RST W V N	MP916	M422	12	500–3,000	50–400	UH G H M RST W V N
MSIR513		6½	500–4,000	60–400	GHM-NRstUmVW	MD219M	M422	12¼, 14¾	1,000–4,000	50–400	UH G H M RST W V N	MP916C	M422	12	500–3,000	50–400	UH G H M RST W V N
MSIR613		6½, 6¼	500–4,000	60–400	GHM-NRstUmVW	MD219MC	M422	12¼, 14¾	1,000–4,000	50–400	UH G H M RST W V N	MP916M	M422	12	500–3,000	50–400	UH G H M RST W V N
MSIR713		6½	500–4,000	60–400	GHM-NRstUmVW	MD813	M432	5½, 6, 6¼, 6½, 7¾, 8½, 8½, 8½, 9½, 9½	500–4,000	50–400	UH G H M RST W V N	MP916MC	M422	12	500–3,000	50–400	UH G H M RST W V N
MSIZ413		6¾	500–4,000	60–400	GHM-NRstUmVW	MD813	M332	6, 8½, 12¼	1,000–4,000	50–400	UH G H M RST W V N	MP919	M422	6, 6½, 8½, 12, 12¼, 16	500–3,000	50–400	UH G H M RST W V N
MSIZ513		6½, 6¼	500–4,000	60–400	GHM-NRstUmVW	MD813C	M432	5½, 6, 6¼, 6½, 7¾, 8½, 8½, 8½, 9½, 9½	500–4,000	50–400	UH G H M RST W V N	MP919C	M422	6, 6½, 8½, 12, 12¼, 16	500–3,000	50–400	UH G H M RST W V N
MSIZ613		6½, 6¼, 7½	500–4,000	60–400	GHM-NRstUmVW	MD813C	M332	6, 8½, 12¼	1,000–4,000	50–400	UH G H M RST W V N	MP919M	M422	6, 6½, 8½, 12, 12¼, 16	500–3,000	50–400	UH G H M RST W V N
MSIZ713		8½	500–4,000	60–400	GHM-NRstUmVW							MP919MC	M422	6, 6½, 8½, 12, 12¼, 16	500–3,000	50–400	UH G H M RST W V N



Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
MR813	M433	7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$	500-4,000	50-400	UH G H M RST W V
MR813C	M433	7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$	500-4,000	50-400	UH G H M RST W V
MR813M	M433	7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$	500-4,000	50-400	UH G H M RST W V
MR813MC	M433	7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$	500-4,000	50-400	UH G H M RST W V
SD819	S422	8 $\frac{1}{2}$, 12 $\frac{1}{4}$, 16, 17 $\frac{1}{2}$, 22	1,000-4,000	50-400	UH G H M RST W V
SD819C	S422	8 $\frac{1}{2}$, 12 $\frac{1}{4}$, 16, 17 $\frac{1}{2}$, 22	1,000-4,000	50-400	UH G H M RST W V
SD819M	S422	8 $\frac{1}{2}$, 12 $\frac{1}{4}$, 16, 17 $\frac{1}{2}$, 22	1,000-4,000	50-400	UH G H M RST W V
SD819MC	S422	8 $\frac{1}{2}$, 12 $\frac{1}{4}$, 16, 17 $\frac{1}{2}$, 22	1,000-4,000	50-400	UH G H M RST W V
SP219	S422	12 $\frac{1}{4}$, 14 $\frac{1}{4}$, 17 $\frac{1}{2}$, 22	1,000-4,000	50-400	UH G H M RST W V
SP219C	S422	12 $\frac{1}{4}$, 14 $\frac{1}{4}$, 17 $\frac{1}{2}$, 22	1,000-4,000	50-400	UH G H M RST W V
SP219M	S422	12 $\frac{1}{4}$, 14 $\frac{1}{4}$, 17 $\frac{1}{2}$, 22	1,000-4,000	50-400	UH G H M RST W V
SP219MC	S422	12 $\frac{1}{4}$, 14 $\frac{1}{4}$, 17 $\frac{1}{2}$, 22	1,000-4,000	50-400	UH G H M RST W V
SP913	S432	8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 12, 12 $\frac{1}{4}$	1,000-4,000	50-400	UH G H M RST W V
SP913C	S432	8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 12, 12 $\frac{1}{4}$	1,000-4,000	50-400	UH G H M RST W V
SP913M	S432	8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 12, 12 $\frac{1}{4}$	1,000-4,000	50-400	UH G H M RST W V
SP913MC	S432	8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 12, 12 $\frac{1}{4}$	1,000-4,000	50-400	UH G H M RST W V
SP919	S422	9 $\frac{1}{2}$, 12, 12 $\frac{1}{4}$	1,000-4,000	50-400	UH G H M RST W V
SP919C	S422	9 $\frac{1}{2}$, 12, 12 $\frac{1}{4}$	1,000-4,000	50-400	UH G H M RST W V
SP919M	S422	9 $\frac{1}{2}$, 12, 12 $\frac{1}{4}$	1,000-4,000	50-400	UH G H M RST W V
SP919MC	S422	9 $\frac{1}{2}$, 12, 12 $\frac{1}{4}$	1,000-4,000	50-400	UH G H M RST W V
Ultrerra					
U513M	M123, M124, M132, M133, M134, M232, M233, M332, M333, M334, M432, M433	5 $\frac{1}{2}$, 6, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U516M	M122, M123, M124, M222, M223, M224, M233, M234, M323, M324, M422, M423, M424	6, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 9 $\frac{1}{2}$, 12 $\frac{1}{4}$	500-4,000	Variable	BCDEFGSU
U519M	M123, M132, M223, M334, M423	6 $\frac{1}{4}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 9 $\frac{1}{2}$, 12 $\frac{1}{4}$	500-4,000	Variable	BCDEFGSU
U609M	M142, M443	4 $\frac{1}{2}$, 4 $\frac{1}{2}$, 6 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U611M	M133, M233, M333	4 $\frac{1}{2}$, 4 $\frac{1}{2}$, 6, 6 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U613M	M133, M232, M233, M234, M332, M333, M334, M432, M433, M434	4 $\frac{1}{2}$, 4 $\frac{1}{2}$, 5 $\frac{1}{2}$, 6, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 12 $\frac{1}{4}$	500-4,000	Variable	BCDEFGSU
U616M	M123, M222, M223, M224, M322, M323, M324, M422, M423, M424	6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 12 $\frac{1}{4}$, 13 $\frac{1}{2}$, 14 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U619M	M123, M222, M223, M224	6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U711S	S232	6 $\frac{1}{2}$, 6 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U716S	S424	8 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U816S	S422	16	500-4,000	Variable	BCDEFGSU
Varel					
R809	M443	4 $\frac{1}{2}$, 5 $\frac{1}{2}$, 5 $\frac{1}{2}$, 5 $\frac{1}{2}$, 5 $\frac{1}{2}$, 6, 6 $\frac{1}{4}$, 8 $\frac{1}{2}$, 12 $\frac{1}{4}$	1,000-3,500	50-400	BGTP-DG1G2G3L-HNLXR
R909	M443	5 $\frac{1}{2}$, 5 $\frac{1}{2}$, 6, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 8 $\frac{1}{2}$	1,000-3,500	50-400	BGTP-DG1G2G3L-HNLXR
U619M	M123, M124, M223, M224, M323, M423, M432	7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 10 $\frac{1}{2}$, 11, 12 $\frac{1}{4}$, 13 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U709M	M443	6 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U711M	M223, M232, M333, M434	5 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U713M	M223, M232, M233, M234, M243, M433, M434	5 $\frac{1}{2}$, 6, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 12 $\frac{1}{4}$	500-4,000	Variable	BCDEFGSU
U716M	M223, M323, M324, M423, M424, M432, M433, M434, M443	7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 10 $\frac{1}{2}$, 12, 12 $\frac{1}{4}$, 16	500-4,000	Variable	BCDEFGSU
U719M	M323	12 $\frac{1}{4}$	500-4,000	Variable	BCDEFGSU
U809M	M342, M443	6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U811M	M333, M424, M433, M443	6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U813M	M233, M333, M423, M433, M434	6, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 10 $\frac{1}{2}$, 11, 12 $\frac{1}{4}$	500-4,000	Variable	BCDEFGSU
U816M	M323, M423, M424	8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 9 $\frac{1}{2}$, 12 $\frac{1}{4}$, 17 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U909M	M442, M443	6 $\frac{1}{2}$, 6 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U913M	M433, M434	8 $\frac{1}{2}$, 9 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U916M	M323	7 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U513S	S132, S232, S233, S332, S432	4 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 9 $\frac{1}{2}$, 10 $\frac{1}{2}$, 12 $\frac{1}{4}$, 12 $\frac{1}{4}$	500-4,000	Variable	BCDEFGSU
U516S	S122, S123, S222, S233, S322, S323, S422	6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 11, 12 $\frac{1}{4}$, 13 $\frac{1}{2}$, 14 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U519S	S122, S123, S222, S223, S323, S422	7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 12 $\frac{1}{4}$, 17 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U611S	S132, S133, S232	4 $\frac{1}{2}$, 6, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U613S	S131, S132, S232, S233, S332, S432	6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U616S	S122, S222, S233, S322, S323, S422, S423, S424	7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 11, 12 $\frac{1}{4}$, 14 $\frac{1}{2}$, 17 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U619S	S122, S222, S223, S322	8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 12 $\frac{1}{4}$	500-4,000	Variable	BCDEFGSU
U711S	S232	6 $\frac{1}{2}$, 6 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U716S	S424	8 $\frac{1}{2}$	500-4,000	Variable	BCDEFGSU
U816S	S422	16	500-4,000	Variable	BCDEFGSU
Wobco					
R813	M433	5 $\frac{1}{2}$, 5 $\frac{1}{2}$, 6, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 10 $\frac{1}{2}$, 11 $\frac{1}{2}$, 12 $\frac{1}{4}$	1,000-3,500	50-400	BGTP-DG1G2G3L-HNLXR
R913	M433	4 $\frac{1}{2}$, 4 $\frac{1}{2}$, 5 $\frac{1}{2}$, 6, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 8 $\frac{1}{2}$, 12, 12 $\frac{1}{4}$, 17 $\frac{1}{2}$	1,000-3,500	50-400	BGTP-DG1G2G3L-HNLXR
R816	M423	7 $\frac{1}{2}$, 12 $\frac{1}{4}$	1,000-3,500	50-400	BGTP-DG1G2G3L-HNLXR
R916	M423	7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$, 16, 17 $\frac{1}{2}$	1,000-3,500	50-400	BGTP-DG1G2G3L-HNLXR
PDC Enlarge while drilling					
Tri-Max EWD DTS		4 $\frac{1}{2}$ ×6, 6×7 $\frac{1}{4}$, 8 $\frac{1}{2}$ ×9 $\frac{1}{2}$, 10 $\frac{1}{2}$ ×12 $\frac{1}{4}$, 12 $\frac{1}{4}$ ×14 $\frac{1}{4}$, 14 $\frac{1}{4}$ ×17 $\frac{1}{2}$, 17 $\frac{1}{2}$ ×23			Underream while drilling
Bi-center PDC drill bits					
Smith Bits					
QDM4209	3		500-4,000	60-400	GHM-NRstUmVW
QDM4213	7, 7 $\frac{1}{2}$		200-3,500	60-400	GHM-NRstUmVW
QDM7309	6 $\frac{1}{2}$		500-4,000	60-400	GHM-NRstUmVW
QDM7313	9 $\frac{1}{2}$, 12 $\frac{1}{4}$		200-3,500	60-400	GHM-NRstUmVW
QDM7413	9, 9 $\frac{1}{2}$		200-3,500	60-400	GHM-NRstUmVW
QDMi4209	4 $\frac{1}{2}$		500-4,000	60-400	GHM-NRstUmVW
QDMi4213	7 $\frac{1}{2}$		200-3,500	60-400	GHM-NRstUmVW
QDS3209	5 $\frac{1}{2}$		500-4,000	60-400	GHM-NRstUmVW
QDS4213	7		200-3,500	60-400	GHM-NRstUmVW
QDS7313	S333	8 $\frac{1}{2}$, 9 $\frac{1}{2}$, 11, 12 $\frac{1}{4}$, 20	200-3,500	60-400	GHM-NRstUmVW
QDSi6213	6 $\frac{1}{2}$		200-3,500	60-400	GHM-NRstUmVW
PDC coring bits					
Bit-Tech					
CP-440BUP	M232	7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$	300-2,000	50-300	AFGMVW
CP-440BUP	M242	6, 6 $\frac{1}{2}$	300-2,000	50-300	AFGMVW
ReedHycalog Bits					
CCP911	S232, S233, S332, S432	6, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 8 $\frac{1}{2}$	300-2,000	50-150	GUI
CEP911	S433	8 $\frac{1}{2}$	300-2,000	50-150	GUI
IEP911		3 $\frac{1}{2}$	300-2,000	50-150	GUI
Surface set diamond coring bits					
Bit-Tech					
CN-404P	M812	6, 6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$	750-2,500	60-120	AGKM
CN-404RSP	M812	6 $\frac{1}{2}$, 7 $\frac{1}{2}$, 8 $\frac{1}{2}$, 8 $\frac{1}{2}$	750-2,500	60-120	AGKM
CN-424BLP	M842	6 $\frac{1}{2}$, 6 $\frac{1}{2}$	750-2,500	60-120	AGMR
Dowdco Coring					
CN-54-R	M-811	4 $\frac{1}{2}$ ×1 $\frac{1}{2}$, 5 $\frac{1}{2}$ ×2 $\frac{1}{4}$, 6 $\frac{1}{2}$ ×2 $\frac{1}{4}$, 6×2 $\frac{1}{2}$, 6 $\frac{1}{2}$ ×2 $\frac{1}{2}$, 6 $\frac{1}{2}$ ×3 $\frac{1}{2}$, 6 $\frac{1}{2}$ ×3 $\frac{1}{2}$, 7 $\frac{1}{2}$ ×3 $\frac{1}{2}$, 7 $\frac{1}{2}$ ×4, 8 $\frac{1}{2}$ ×4, 8 $\frac{1}{2}$ ×4	300-3,500	50-140	GMRUH
TSP-54-R	M-591	4 $\frac{1}{2}$ ×1 $\frac{1}{2}$, 5 $\frac{1}{2}$ ×2 $\frac{1}{4}$, 6 $\frac{1}{2}$ ×2 $\frac{1}{4}$, 6×2 $\frac{1}{2}$, 6 $\frac{1}{2}$ ×2 $\frac{1}{2}$, 6 $\frac{1}{2}$ ×3 $\frac{1}{2}$, 6 $\frac{1}{2}$ ×3 $\frac{1}{2}$, 7 $\frac{1}{2}$ ×3 $\frac{1}{2}$, 7 $\frac{1}{2}$ ×4, 8 $\frac{1}{2}$ ×4, 8 $\frac{1}{2}$ ×4	300-3,500	50-140	GMRUH
Halliburton					
CT103	M623	6-12 $\frac{1}{4}$	250-3,500	110-150	I
CT303HS	M623	6-12 $\frac{1}{4}$	250-3,500	110-150	I
CT403	M624	6-12 $\frac{1}{4}$	250-3,500	110-150	I
Surface set diamond bits					
Bit-Tech					
DN-304P	M813	4 $\frac{1}{2}$ -4 $\frac{1}{2}$, 5 $\frac{1}{2}$ -6 $\frac{1}{2}$	1,000-3,000	60-1,000	Custom
DN-424P	M812	1 $\frac{1}{2}$, 1 $\frac{1}{2}$, 2 $\frac{1}{4}$, 2 $\frac{1}{4}$, 3 $\frac{1}{2}$, 3 $\frac{1}{2}$, 4 $\frac{1}{2}$, 4 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$, 6 $\frac{1}{2}$	1,000-3,000	60-1,000	ADGHMNR
DB Bits					
DSM	M711	3 $\frac{1}{4}$ -12 $\frac{1}{4}$	200-4,000	60-120	0
DT6R	M713	3 $\frac{1}{4}$ -8 $\frac{1}{2}$	200-4,000		

Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
ST (Side-Track)	M811	3/8-12/4	200-4,000	80-180	GHMR
Halliburton					
TB26	M711	5/8	300-3,000	80-1,000	MN
TB26	M712	3/4-12	300-3,000	80-1,000	IMN
TB26i	M712	3/4-12	300-3,000	80-1,000	IMN
TB26ST	M712	3/4-12	300-3,000	80-1,000	IMN
TB26STi	M712	3/4-12	300-3,000	80-1,000	IMN
TB26	M713	9/8	300-3,000	80-1,000	IMN
Smith Bits					
DST12	M711	3/4, 5/8, 6/8, 6/4, 6/2, 7/8, 8/8, 8/4	400-4,000	60-2,000	GHD-MNKNUHW
Varel					
N300	M714	3/4, 17/8	400-2,500	50-1,000	BTDGU
Impregnated diamond bits					
Halliburton					
iQ508	M843	5/4-16	300-3,000	80-1,600	MNR Impregnated
iQ510	M843	5/4-16	300-3,000	80-1,600	MNR Impregnated
iQ516	M843	5/4-16	300-3,000	80-1,600	MNR Impregnated
TF508	M843	5/4-16	300-3,000	80-1,600	MNR Impregnated
TF510	M843	5/4-16	300-3,000	80-1,600	MNR Impregnated
iQ308	M843	5/4-16	300-3,000	80-1,600	MNR Impregnated
iQ310	M843	5/4-16	300-3,000	80-1,600	MNR Impregnated
iQ316	M843	5/4-16	300-3,000	80-1,600	MNR Impregnated
iQ512	M843	5/4-16	300-3,000	80-1,600	MNR Impregnated
iQ520	M843	5/4-16	300-3,000	80-1,600	MNR Impregnated
TF410	M843	5/4-16	300-3,000	80-1,600	MNR Impregnated
Smith Bits					
K503	M842	4/4, 5/4, 6/4, 6/2, 8/4, 8/2, 10/4, 12/4	400-4,000	60-2,000	GHMNUHW
K505	M842	3/4, 5/4, 6/4, 6/2, 7/4, 8/4, 12, 14/4, 17/4	400-4,000	60-2,000	GHMNUHW
K507	M842	6/8, 8/8, 8/2, 8/4, 12/4, 12/8	400-4,000	60-2,000	GHMNUHW
K515		6/8	400-4,000	60-2,000	GHMNUHW
K517		8/8	400-4,000	60-2,000	GHMNUHW
K527		8/8	400-4,000	60-2,000	GHMNUHW
K605		6/4, 6/4	400-4,000	60-2,000	GHMNUHW
K607		8/2	400-4,000	60-2,000	GHMNUHW
K703	M842	4/4, 5/4, 6/4, 6/2, 8/4, 8/2	400-4,000	60-2,000	GHMNUHW
K705	M842	3/4, 3/4, 6/4, 6/2, 6/4, 7/4, 8/4, 8/2, 8/4, 9/4, 10/4, 12/4, 12/8	400-4,000	60-2,000	GHMNUHW
K715		6/4, 8/2, 8/4	400-4,000	60-2,000	GHMNUHW
KC507		6	400-4,000	60-2,000	GHMNUHW
KCR507		8/2	400-4,000	60-2,000	GHMNUHW
KGR50		5/8	400-4,000	60-2,000	GHMNUHW
KH509		3/8	400-4,000	60-2,000	GHMNUHW
KH613		5/2, 5/4, 6/2	400-4,000	60-2,000	GHMNUHW
KH713		6/4, 6/4, 8/2	400-4,000	60-2,000	GHMNUHW
KH813	M433	8/2, 11/4, 12/4	400-4,000	60-2,000	GHMNUHW
KH813		8/2, 10/4	400-4,000	60-2,000	GHMNUHW
KZ505		6, 6/4	400-4,000	60-2,000	GHMNUHW
KZ507		8/8, 8/2	400-4,000	60-2,000	GHMNUHW
KZ607		8/2	400-4,000	60-2,000	GHMNUHW
Impregnated diamond coring bits					
Dowdco Coring					
CL-IMPREG	M-843	4/2x1/4, 5/2x2/4, 6/2x2/4, 6x2/4, 6/4x2/4, 6/2x2/4, 6/4x3/4, 7/2x3/4, 7/2x4, 8/2x4, 8/4x4	200-4,000	50-140	IMPREG
MCT586		5/4x2/4, 8/4x4	600-4,000	150-500	MWNIUW
Halliburton					
C13124C	M844	5/4-6/4	250-2,500	50-70	F Impregnated
C13146C	M843	8/8-8/4	250-3,500	50-70	F Impregnated
C13206C	M843	12/4	250-4,000	50-70	F Impregnated
Varel					
CI1613	M842	8/2, 12/4	500-2,500	50-1,000	G
CI1213	M842	5/4, 6	500-2,500	50-1,000	G
Hammer bits					
Smith Bits					
H1006D	HAMM	6, 6/4, 6/4, 6/2	250-500	40-20	AWP
H1206	HAMM	8/2, 8/4	250-500	40-20	AP
H1206D	HAMM	8/2, 8/4	250-500	40-20	AWP
H1209	HAMM	8/4, 9/4, 9/4, 9/4, 12/4, 12/4	300-700	40-20	AP
H1209D	HAMM	7/4, 8/4, 8/2, 8/4, 8/4, 11	300-700	40-20	AWP
H1411D	HAMM	12, 12/4, 12/4	300-700	40-20	AWP
H1509	HAMM	8/4, 10/4, 11, 12, 1/4, 12/4	300-600	40-20	AP
H1512	HAMM	8/4, 8/4, 12/4	400-650	40-20	AP
H1809	HAMM	17/2	400-600	40-20	AWP
H1809D	HAMM	17/2	400-600	40-20	AWP
H1812	HAMM	14/2, 14/4, 15	300-600	40-20	AP
Extremely Hard Steel tooth roller cone bits					
Tri-Max					
TM321	321	6-17/2	2,000-5,000	60-85	DG
Varel					
DT6	236S	4/2, 4/4, 4/4, 4/4	2,000-5,000	300-50	SMW
Insert roller cone bits					
Baker Hughes					
STX-99	837	6/2	2,000-5,300	140-70	WX
VG-90	837	12/4	2,900-7,300	95-50	BGWX
VG-90G	837	12/4	2,900-7,300	95-50	BGWX
VG-95	837	8/2, 12/4	2,900-7,300	95-50	BGWX
VG-95	837	8/2	2,900-7,300	95-50	BGWX
Halliburton					
EQH93, Q93	817	7/4-9/4	4,000-7,500	35-140	GMW
EBXT99	835	14/4	4,000-7,500	35-140	GMW
EQ91, EQ99, EQH91, EQH99	837	6/4-12/4	4,000-7,500	35-140	GMW
Kingdram					
HF827GHY	827	8/4	3,000-7,000	200-40	GHL
HF827GY	827	7/4, 8/4	3,000-7,000	200-40	GHL
HF837GY	837	7/4	3,000-7,000	200-40	GHL
Reed/Hycalog Bits					
R74	747	10/4	3,500-6,500	80-40	GMWY
R75	747	12/4	3,500-6,500	80-40	GMWY
R85	837	5/4, 6/4, 6/4, 6/4, 8/4	3,500-6,500	80-40	GMWY
R90	747	6/4, 6/4, 6/4, 7/4, 10/4, 12/4	3,500-6,500	80-40	GMWY
RH75	747	12/4	3,500-6,500	80-40	GMWY
RH80	837	12/4	3,500-6,500	80-40	GMWY
RH90	837	12/4	3,500-6,500	80-40	GMWY
Smith Bits					
F80Y	817Y	8/2, 8/4	3,000-7,000	110-50	Y
FH80Y	817Y	12/4	3,000-7,000	110-50	Y
GF80Y	817Y	8/2	3,000-7,000	280-50	BGHMWY
F90Y	837Y	10/4, 12/4	3,000-7,000	110-50	Y
FH90Y	837Y	8/2, 8/4	4,000-7,000	110-50	Y
XR90Y	837Y	6/4	2,000-6,000	270-40	HMV
TIX-TSK					
A90	832Y	6/4, 7/4, 15	2,500-5,000	50-30	AY
A90	832Y	9, 9/4, 9/4, 11, 12/4	3,000-6,000	50-30	AY
X90G	837Y	8/2, 12/4	3,000-6,500	60-40	GY
Tri-Max					
TM832	832	6-12/4	2,000-5,000	60-100	
TM837	837	6-12/4	2,000-5,000	60-85	
Varel					
HE85	837Z	8/4	2,500-7,000	300-50	MW
HE95	837Z	8/2, 8/4	2,500-7,000	300-50	MW
PDC drill bits					
Baker Hughes					
HC408	M433	3/4-28	235-2,500	350-50	DGVW
HC409	M433	3/4-28	235-2,500	350-50	DGMVW
HC410	M433	3/4-28	235-2,500	350-50	DGMVW
HC508	M423	3/4-28	235-2,500	350-50	DGVW
HC608	M323	3/4-28	235-2,500	350-50	DGVW
HC609	M423	3/4-28	235-2,500	350-50	DGMVW
HCD408	M433	3/4-28	235-2,500	350-50	DGMVW
Q308F	M333	3/4-28	235-2,500	350-50	DGVW
Q408	M333	3/4-28	235-2,500	350-50	DGVW
Q408F	M333	3/4-28	235-2,500	350-50	DGVW
Q409	M433	3/4-28	235-2,500	350-50	DGMVW
Q508	M323	3/4-28	235-2,500	350-50	DGVW
Q508F	M323	3/4-28	235-2,500	350-50	DGVW
Q509	M423	3/4-28	235-2,500	350-50	DGMVW
Q509F	M423	3/4-28	235-2,500	350-50	DGMVW
Q608F	M323	3/4-28	235-2,500	350-50	DGVW
Q609	M423	3/4-28	235-2,500	350-50	DGMVW
QD308	M333	3/4-28	235-2,500	350-50	DGMVW
QD308F	M333	3/4-28	235-2,500	350-50	DGMVW
QD408	M333	3/4-28	235-2,500	350-50	DGMVW
QD408F	M333	3/4-28	235-2,500	350-50	DGMVW
QD508	M323	3/4-28	235-2,500	350-50	DGMVW
QD508F	M323	3/4-28	235-2,500	350-50	DGMVW
QD509	M423	3/4-28	235-2,500	350-50	DGMVW
QD509F	M423	3/4-28	235-2,500	350-50	DGMVW
QD608	M323	3/4-28	235-2,500	350-50	DGMVW
QD608F	M323	3/4-28	235-2,500	350-50	DGMVW
QT308	M333	3/4-28	235-2,500	350-50	DGMVW
QT408	M333	3/4-28	235-2,500	350-50	DGMVW
QT508	M323	3/4-28	235-2,500	350-50	DGMVW
QT509	M423	3/4-28	235-2,500	350-50	DGVW
QT608	M323	3/4-28	235-2,500	350-50	DGMVW
T408	M333	3/4-28	235-2,500	350-50	DGVW
T408F	M333	3/4-28	235-2,500	350-50	DGVW
T508	M323	3/4-28	235-2,500	350-50	DGVW
T508F	M323	3/4-28	235-2,500	350-50	DGVW
T608	M323	3/4-28	235-2,500	350-50	DGVW
T608F	M323	3/4-28	235-2,500	350-50	DGVW
TD408	M333	3/4-28	235-2,500	350-50	DGMVW
TD408F	M333	3/4-28	235-2,500	350-50	DGMVW
TD508	M323	3/4-28	235-2,500	350-50	DGMVW
TD508F	M323	3/4-28	235-2,500	350-50	DGMVW
TD608	M323	3/4-28	235-2,500	350-50	DGMVW
TD608F	M323	3/4-28	235-2,500	350-50	DGMVW
Smith Bits					
M609	M442	3/4, 3/4, 3/4, 4/4, 4/4, 4/4	500-5,000	60-400	GHM-NRstUHW
M909	M442	4/4, 4/4, 4/4, 6/4, 6/4, 8/2	500-5,000	60-400	GHM-NRstUHW
MCR509		3/8	500-5,000	60-400	GHM-NRstUHW
MD611		6/4	500-4,500	60-400	GHM-NRstUHW
MDI511		6/4, 6/4	500-4,500	60-400	GHM-NRstUHW
MDI611		6, 6/4, 6/2, 8/2, 8/4	500-4,500	60-400	GHM-NRstUHW
MDI711	M333	6/4, 6/2, 6/4	500-4,500	60-400	GHM-NRstUHW
MDI811		6/2	500-4,500	60-400	GHM-NRstUHW
MDSI509		5/4, 6	500-5,000	60-400	GHM-NRstUHW
MDSI711		8/2	500-4,500	60-400	GHM-NRstUHW
MDSI811		6/2	500-4,500	60-400	GHM-NRstUHW
MDSIZ811		6/2	500-4,500	60-400	GHM-NRstUHW
MI609		4/4	500-5,000	60-400	GHM-NRstUHW
MI711	M333	6	500-4,500	60-	



Manufacturer, Bit name/model number	IADC code	Size range, in.	Recommended WOB, lb/in. diameter	Recommended rotary speed, rpm	Special features/usage
U713M	M333, M334, M423, M424, M432, M433, M434, M443	6½, 7½, 8½, 8½, 8½, 12¼	500–4,000	Variable	BCDEFGSU
U716M	M323, M324, M423, M424, M433	7½, 8½, 8½, 8½, 9½, 10½, 12, 12¼, 16	500–4,000	Variable	BCDEFGSU
U809M	M342, M443	6½, 6½, 7½, 8½	500–4,000	Variable	BCDEFGSU
U811M	M333, M424, M433, M443	6½, 7½, 8½, 8½	500–4,000	Variable	BCDEFGSU
U813M	M233, M333, M423, M433, M434	6, 6½, 6½, 7½, 8½, 8½, 9½, 10½, 11, 12¼	500–4,000	Variable	BCDEFGSU
U816M	M323, M423, M424	8½, 8½, 9½, 9½, 12¼, 17½	500–4,000	Variable	BCDEFGSU
U909M	M442, M443	6½, 6½	500–4,000	Variable	BCDEFGSU
U913M	M433, M434	8½, 9½	500–4,000	Variable	BCDEFGSU
U916M	M323	7½	500–4,000	Variable	BCDEFGSU
U613S	S332, S432	6½, 6½, 6½, 6½, 7½, 8½, 8½	500–4,000	Variable	BCDEFGSU
U616S	S323, S422, S423, S424	7½, 8½, 8½, 9½, 11, 12¼, 14¼, 17½	500–4,000	Variable	BCDEFGSU
U716S	S424	8½	500–4,000	Variable	BCDEFGSU
U816S	S422	16	500–4,000	Variable	BCDEFGSU
Varel					
R909	M433	5¾, 5¾, 6, 6½, 6½, 8½	1,000–3,500	50–400	BGTP-DG1G2G3L-HNUXR
R913	M433	4½, 4½, 5½, 6, 6½, 6½, 8½, 8½, 12, 12¼, 17½	1,000–3,500	50–400	BGTP-DG1G2G3L-HNUXR
R1013	M433	17½	1,000–3,500	50–400	BGTP-DG1G2G3L-HNUXR
PDC Bi-Center drill bits					
Smith Bits					
QDM4209	3		500–4,000	60–400	GHM-NRstUHVW
QDM7309	6½		500–4,000	60–400	GHM-NRstUHVW
QDM4209	4%		500–4,000	60–400	GHM-NRstUHVW
QDS3209	5%		500–4,000	60–400	GHM-NRstUHVW
PDC Enlarge while drilling					
Tri-Max					
EWD RKS		4½x6, 6x7¼, 8½x9½, 10½x12¾, 12¼x14¾, 14¾x17½, 17½x23 (special Hard Formation Tool)			
PDC coring bits					
ReedHycalog Bits					
CCP1008	M232	8½	300–2,000	50–149	GUI
Surface set diamond coring bits					
Bit-Tech					
CN-405RSP	M812	6½, 7½, 8½, 8½	1,000–3,000	60–90	AGKUHW
CN-425BLP	M842	6½, 6½	1,000–3,000	60–90	AGRUHW
Varel					
CB600		6, 8½	500–2,500	50–1,000	DG
Surface set diamond bits					
Bit-Tech					
DN405RSP	M812	3½–8½	1,000–4,000	60–120	Custom
DB Bits					
DN-41T	M814	3 7/8–8 ¾	200–4,000	TURBINE	GHKNUH
DP9X	M812	3 7/8–8 ¾	200–4,000	60–500	GHKMUH
Drill Master, Inc.					
MD246	M843	6–18½	500–4,000	500–75	MNDRUWH
Smith Bits					
DST12	M711	3¾, 5½, 6, 6½, 6½, 6½, 7½, 8½, 8½	400–4,000	60–2,000	GHD-MNKNUHW
Varel					
N500	M814	3½, 17½	400–2,500	50–1,000	BTDGU
Impregnated diamond bits					
Drill Master, Inc.					
MI810	M841	6–18½	500–3,500	700–150	MNRUHM-impregnated
Halliburton					
iQ308	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ310	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ316	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ508	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ510	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ512	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ516	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ520	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ608	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ610	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ612	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ616	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ708	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ712	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ716	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
TF410	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
TF508	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
TF510	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
TF512	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
TF516	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
TF608	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
TF610	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
TF616	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
TF708	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
TF710	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
TF816	M843	4½–16	300–3,000	80–1,600	MNR Impregnated
iQ608	M844	3¾–4¾	300–3,000	80–1,000	MNR Impregnated
ReedHycalog Bits					
DD3540	M843	5, 5½, 6, 6½, 12¼, 12½, 13¾	300–3,000	80–1,200	MNR Impregnated
DD3560	M843	5½, 6, 6½, 6½, 8½, 12¼	300–3,000	80–1,200	MNR Impregnated
DD4540	M843	5½, 6½, 7½, 8½, 8½, 8½	300–3,000	80–1,200	MNR Impregnated
DD4560	M843	6½, 6½, 8½, 8½, 9½, 9½, 10½, 14¼, 16	300–3,000	80–1,200	MNR Impregnated
DD5540	M843	6	300–3,000	80–1,200	MNR Impregnated
DD5560	M843	5½	300–3,000	80–1,200	MNR Impregnated
Smith Bits					
K503	M842	4½, 5½, 6, 6½, 6½, 8½, 8½, 10½, 12¼	400–4,000	60–2,000	GHMNUHVW
K505	M842	3¾, 5½, 6, 6½, 6½, 7½, 8½, 12, 14¾, 17½	400–4,000	60–2,000	GHMNUHVW
K507	M842	6, 8½, 8½, 8½, 8½, 12¼, 12¼	400–4,000	60–2,000	GHMNUHVW
K515		6½	400–4,000	60–2,000	GHMNUHVW
K517		8½	400–4,000	60–2,000	GHMNUHVW
K527		8½	400–4,000	60–2,000	GHMNUHVW
K605		6½, 6½	400–4,000	60–2,000	GHMNUHVW
K607		8½	400–4,000	60–2,000	GHMNUHVW
K703	M842	4½, 5½, 6, 6½, 8½, 8½	400–4,000	60–2,000	GHMNUHVW
K705	M842	3¾, 3¾, 6, 6½, 6½, 6½, 7½, 8½, 8½, 8½, 9½, 10½, 12¼, 12¼	400–4,000	60–2,000	GHMNUHVW
K715		6½, 8½, 8½	400–4,000	60–2,000	GHMNUHVW
KC507		6	400–4,000	60–2,000	GHMNUHVW
KCR507		8½	400–4,000	60–2,000	GHMNUHVW
KGR50		5½	400–4,000	60–2,000	GHMNUHVW
KH509		3¾	400–4,000	60–2,000	GHMNUHVW
KH613		5½, 5½, 6½	400–4,000	60–2,000	GHMNUHVW
KH713		6, 6½, 8½, 8½	400–4,000	60–2,000	GHMNUHVW
KH813	M433	8½, 11½, 12¼	400–4,000	60–2,000	GHMNUHVW
KH813		8½, 10½	400–4,000	60–2,000	GHMNUHVW
KZ505		6, 6½	400–4,000	60–2,000	GHMNUHVW
KZ507		8½, 8½	400–4,000	60–2,000	GHMNUHVW
KZ607		8½	400–4,000	60–2,000	GHMNUHVW
Tercel					
MS511	M843	4½, 5¾, 5¾, 6, 8½, 12¼, 16	500–4,000	50–400	UH G H M RST W V N
MS511M	M843	4½, 5¾, 5¾, 6, 8½, 12¼, 16	500–4,000	50–400	UH G H M RST W V N
MS512	M843	4½, 5¾, 5¾, 6, 8½, 12¼, 16	1,000–4,000	150–1,400	UH G H M RST W V N
MS512M	M843	4½, 5¾, 5¾, 6, 8½, 12¼, 16	1,000–4,000	150–1,400	UH G H M RST W V N
Varel					
F613	M843	3¾, 3¾	400–4,000	60–2,000	Impregnated
F913	M843	4½, 4½, 6½, 6½, 6½	400–4,000	60–2,000	Impregnated
F1213	M843	5½, 5½, 6, 6½, 6½, 6½	400–4,000	60–2,000	Impregnated
F1613	M843	7½, 8½, 8½, 9½	400–4,000	60–2,000	Impregnated
Impregnated diamond coring bits					
Halliburton					
CI3124C	M844	5½–6½	250–2,500	50–70	Fimpregnated
CI3146C	M843	8½–8½	250–3,500	50–70	Fimpregnated
CI3206C	M843	12¼	250–4,000	50–70	Fimpregnated
Varel					
CI1613	M842	8½, 12¼	500–2,500	50–1,000	G
CI1213	M842	5½, 6	500–2,500	50–1,000	G
Hybrid PDC/Impregnated diamond bits					
Varel					
F-613	M232	5½, 6½, 8½, 8½, 8½, 8 ¾	400–4,000	60–2,000	PDGUX
F+713	M432	6¾, 8½, 12¼, 13¾	400–4,000	60–2,000	PDGUX
F-913	M432	8¾	400–4,000	60–2,000	PDGUX
Hammer bits					
Smith Bits					
H1812	HAMM	14½, 14¾, 15	300–600	40–20	AP
H1809D	HAMM	17½	400–600	40–20	AWP
H1809	HAMM	17½	400–600	40–20	AP

