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PROVEN HDD PARTS.



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сайт: <http://www.ditch.nt-rt.ru/> || эл. почта: dhc@nt-rt.ru



We know what it's like on the jobsite. You need to stay on schedule to stay profitable. That's why we offer everything an HDD operation needs. Durable parts that deliver unmatched value and performance, backed by knowledgeable, experienced dealers providing expert service and support.

We're here to help you get the job done. Efficiently. And effectively. After all,

WE'RE IN THIS TOGETHER.



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A close-up photograph of a Ditch Witch saver sub assembly. The assembly is primarily black with a prominent orange section in the middle. It is mounted on a drill pipe. In the background, an orange piece of machinery is visible, along with a yellow warning light on top. The overall scene is brightly lit, suggesting an outdoor construction or mining environment.

THE TIGHTEST CONNECTION. THE BEST PROTECTION.

Your saver sub will make up to every joint of pipe on every job. So replace it every time you change your drill pipe. But don't accept imitations. Trust the only saver subs guaranteed to deliver genuine Ditch Witch® performance. You won't find a tighter connection or better protection against wear and tear on the drill pipe and drive system.



SAVER SUB

Made of high-grade steel, our solid, one-piece units are engineered with the same proprietary gauges used on all Ditch Witch drill string components.

PART NUMBER	MODEL
400-828	JT520
300-7827	JT5
301-891	JT920/JT920L/JT921/JT921S
300-2340	JT922 Fine Thread
300-7767	JT922 Coarse Thread
400-604	JT1220M1
301-892	JT1720M1
400-905	JT2020M1
400-1229	JT2720M1
400-1226	AT2720
400-1225	AT2720 Cobble
400-1223	JT25/JT30
400-1134	JT4020M1
400-1132	JT8020M1/JT100M1
400-1222	AT30
400-1221	AT30 Cobble
400-1133	AT4020
400-1375	AT100

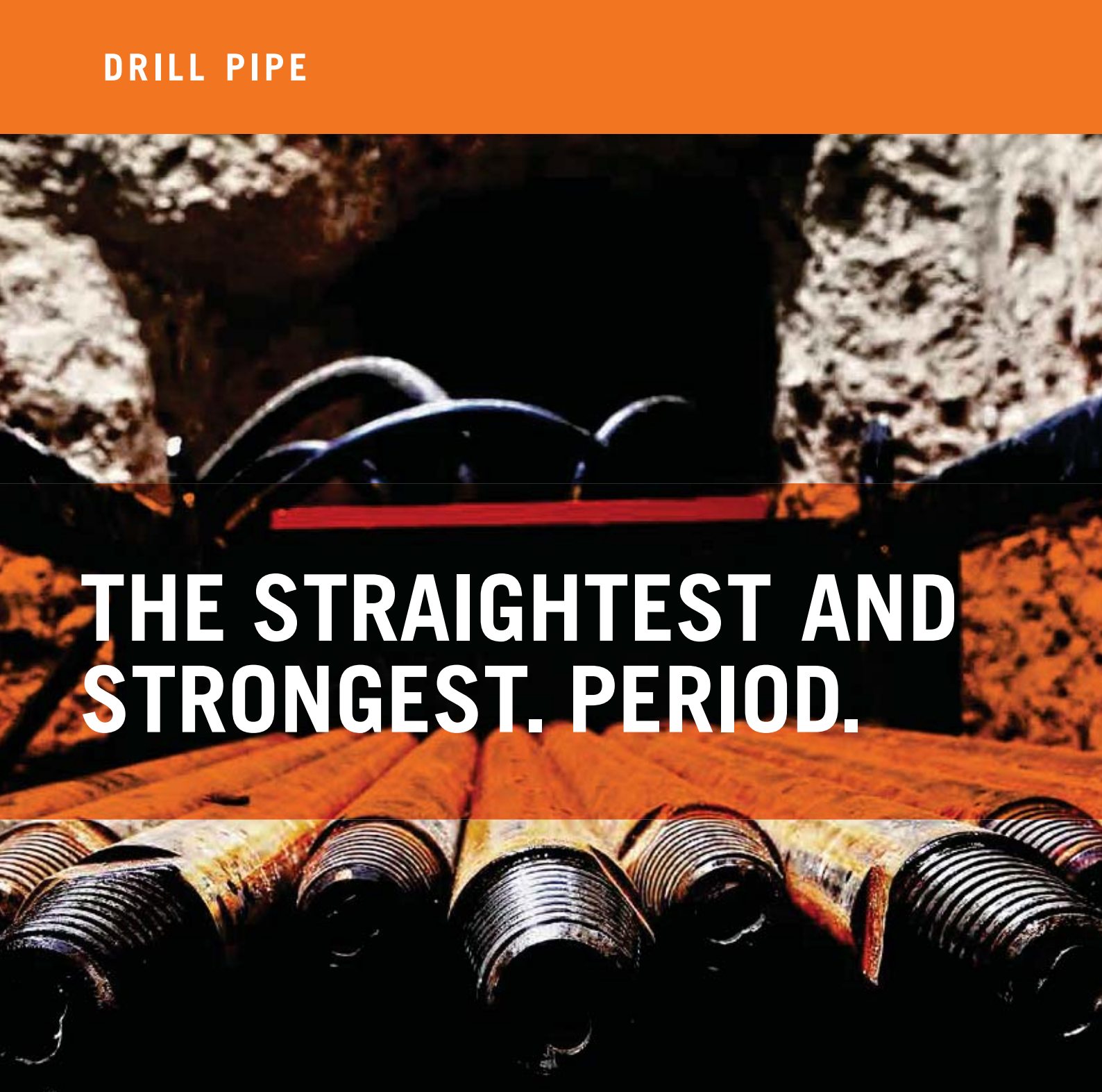
NOTE: REMEMBER TO CHANGE THE SAVER SUB EVERY TIME YOU CHANGE DRILL PIPE. A SAVER SUB IS A WEAR ITEM THAT WILL MAKE UP TO EVERY JOINT OF PIPE ON EVERY JOB. BE SURE TO REGULARLY CHECK FOR WEAR AND REPLACE WHEN NEEDED.



SAVERLOK SYSTEM™

Our new SaverLok System™ is quick and easy to install and replace. There are no special tools required and no overnight downtime for your rig is needed. A few minutes is all you need to get up and running.

PART NUMBER	DESCRIPTION	MODEL
400-2037	2.11 DW Thread	JT25
400-2038	#600 Firestick I	JT25



THE STRAIGHTEST AND STRONGEST. PERIOD.

Our patented manufacturing process produces something no one else can: the straightest, strongest pipe available. Power Pipe®, a high-strength, low-alloy steel pipe, delivers the perfect balance of tensile strength and flexibility. Get it with our exclusive Fluid Miser® II lining to reduce drilling fluid volume of the pipe by as much as 76 percent, allowing your drill string to pressure up faster and clean up quicker. Our patented All Terrain design transfers power to the cutting head more efficiently than any other steerable rock-drilling system. And our UFE pipe is a composite design with forged tubing and high-strength alloy ends for stronger pipe and tool joints. Trust the only HDD manufacturer that designs, tests, and builds its own pipe to match the specifications of the rig: Ditch Witch®



POWER PIPE[®], LINED, FLUID MISER[®] II

Ditch Witch[®] Power Pipe[®] is also available with exclusive Fluid Miser[®] II lining. With patented Fluid Miser[®] II inside each joint of pipe, drilling fluid volume is reduced up to 76 percent, allowing the drill string to pressure up faster and clean up quicker.

Part Number	Description	Drill Pipe Length	Bend Radius	Model(s)
369-227	2 in x 1.63"	9.67 ft / 3 m	100 ft / 30.5 m	JT920L
369-048	2 in x 1.58"	6.5 ft / 2 m	100 ft / 30.5 m	JT921
355-269	2 in x 1.58"	6 ft / 1.8 m	100 ft / 30.5 m	JT922
355-1051	2.125 in x 1.58"	6 ft / 1.8 m	100 ft / 30.5 m	JT922 Coarse Thread
401-239	2.38 in x 1.82"	10 ft / 3 m	120 ft / 36.6 m	JT1220M1
369-056	2.5 in x 26"	10 ft / 3 m	135 ft / 41.1 m	JT1720M1
401-304	2.63 in x 26"	10 ft / 3 m	135 ft / 41.1 m	JT2020M1
400-1029	3 in x 2.38 in	10 ft / 3 m	155 ft / 47.2 m	JT25/JT30
				JT2720M1
369-804	3.5 in x 2.81"	14.75 ft / 4.5 m	185 ft / 56.4 m	JT4020M1

WHY FLUID MISER[®] II LINED PIPE?

The Ditch Witch organization is the only HDD manufacturer that designs, tests, and builds its own pipe to match the specifications of the rig. You can only purchase Fluid Miser II lined pipe from your authorized Ditch Witch dealer.

Five Reasons To Use Fluid Miser[®] II Lined Pipe

1. Uses up to 76% less fluid
2. Pressures up quicker
3. Less cleanup
4. Reduces rust scaling inside pipe that could plug nozzles
5. Less wear on the fluid pumps

DRILL PIPE



POWER PIPE®, UNLINED

Manufactured exclusively by The Charles Machine Works, Inc., Ditch Witch® Power Pipe® is a high-strength, low-alloy steel pipe that provides maximum tensile strength. Our patented manufacturing process produces the straightest pipe in the business. Its expanded, exceptionally strong ends are formed without the heat of the forging process, leaving the integrity of the pipe intact and no strength reduction at the heat-affected zones.

Part Number	OD Tool Joint x OD Pipe Body	Drill Pipe Length	Bend Radius	Model(s)
400-842	2 in x 1.63"	9.67 ft / 3 m	100 ft / 30.5 m	JT920L
400-963	2 in x 1.58"	6.5 ft / 2 m	100 ft / 30.5 m	JT921
400-1118	2 in x 1.58"	6 ft / 1.8 m	100 ft / 30.5 m	JT922
355-1034	2.125 in x 1.58"	6 ft / 1.8 m	100 ft / 30.5 m	JT922 Coarse Thread
355-1005	2.38 in x 1.82"	10 ft / 3 m	120 ft / 36.6 m	JT1220M1
400-843	2.5 in x 26"	10 ft / 3 m	135 ft / 41.1 m	JT1720M1
401-339	2.63 in x 26"	10 ft / 3 m	135 ft / 41.1 m	JT2020M1
400-1031	3 in x 2.38"	10 ft / 3 m	155 ft / 47.2 m	JT25/JT30
				JT2720M1
400-847	3.5 in x 2.81"	14.75 ft / 4.5 m	185 ft / 56.4 m	JT4020M1



ALL TERRAIN PIPE

The patented shaft-within-a-pipe design of our All Terrain systems features a strong drive rod that turns inside an outer pipe. This enables All Terrain systems to transfer power to the cutting head more efficiently than any other system and outperform all other rock systems in their horsepower class.

Part Number	OD Tool Joint x OD Pipe Body	Drill Pipe Length	Bend Radius	Model(s)
400-1491	Power Pipe Assembly AT	9.3 ft / 2.84 m	145 ft / 44.2 m	AT2720/AT30
400-1494	Lead Pipe Assembly 4.75 AT	9.3 ft / 2.84 m	145 ft / 44.2 m	AT2720/AT30
400-1492	Power Pipe Assembly AT Cobble	9.3 ft / 2.84 m	210 ft / 64 m	AT2720/AT30
400-1493	Lead Pipe Assembly 4.75 AT Cobble	9.3 ft / 2.84 m	210 ft / 64 m	AT2720/AT30
355-1041	UFE Pipe Assembly	14.25 ft / 4.34 m	299 ft / 91 m	AT4020
355-1050		14.1 ft / 4.31 m	205 ft / 62.5 m	AT100



UPSET FORGED END (UFE) PIPE

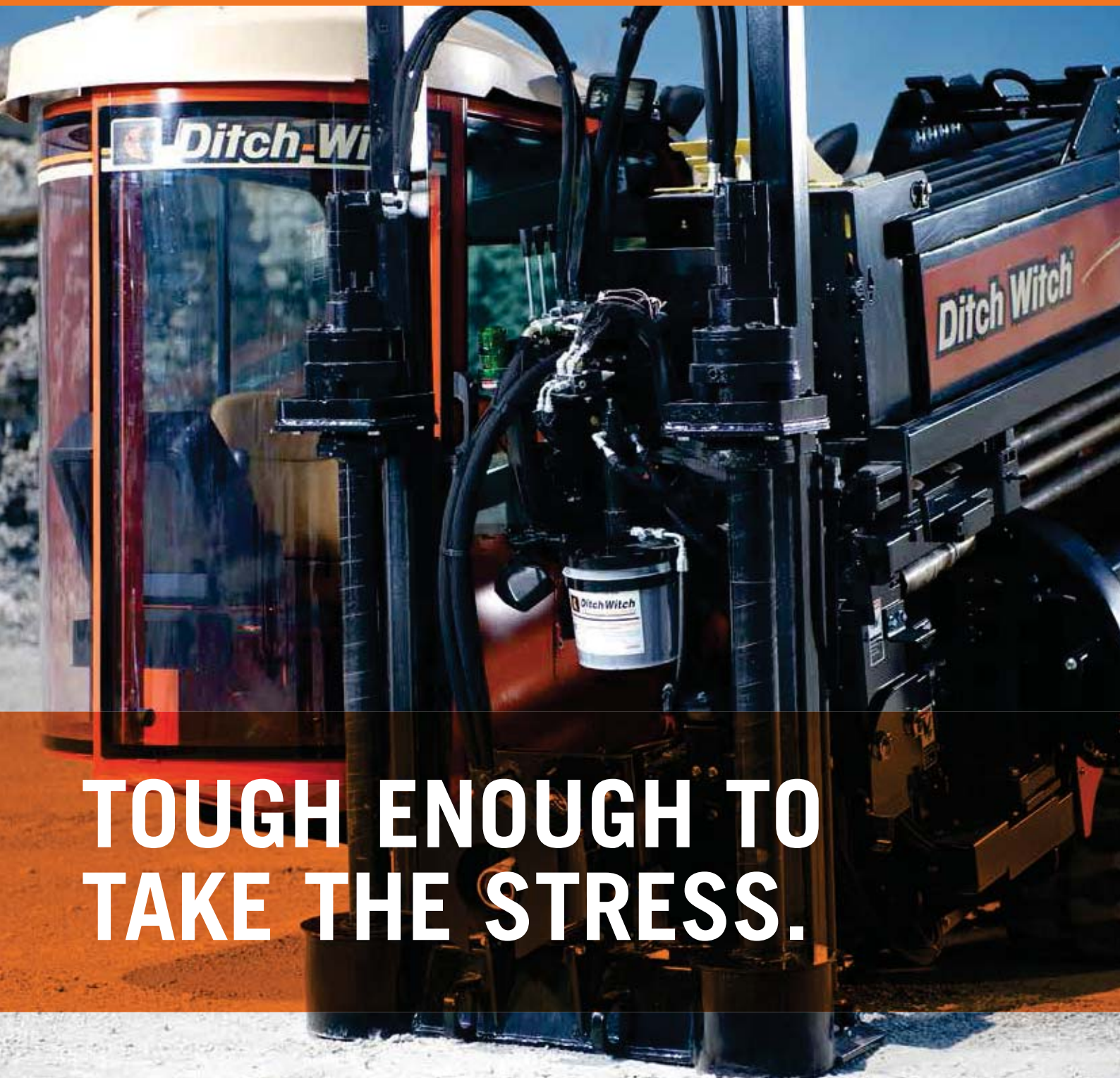
Ditch Witch® UFE is a composite design with tubing and high-strength alloy ends, making the pipe and tool joints stronger and more resistant to abrasion. After forging, all Ditch Witch UFE pipes are fully heat treated to eliminate any potential heat-affected zones.

Part Number	OD Tool Joint x OD Pipe Body	Drill Pipe Length	Bend Radius	Model(s)
355-1052	1.75 in x 1.13"	4.9 ft / 1.5 m	70 ft / 21.3 m	JT520
355-1038	1.875 in x 1.13"	4.9 ft / 1.5 m	70 ft / 21.3 m	JT5
368-665	4 in x 3.63"	14.75 ft / 4.5 m	205 ft / 56.5 m	JT7020M1/JT8020M1/JT100M1

ROD WIPERS



Part Number	Model
116-515	JT520
149-578	JT920/JT920I/JT921/JT922
149-974	JT1220M1
149-973	JT1720M1/JT2020M1/JT2720/AT2720JT25/JT30/AT30
117-627	JT4020M1
157-196	JT7020/JT8020/AT4020/JT100M1/AT100



TOUGH ENOUGH TO TAKE THE STRESS.

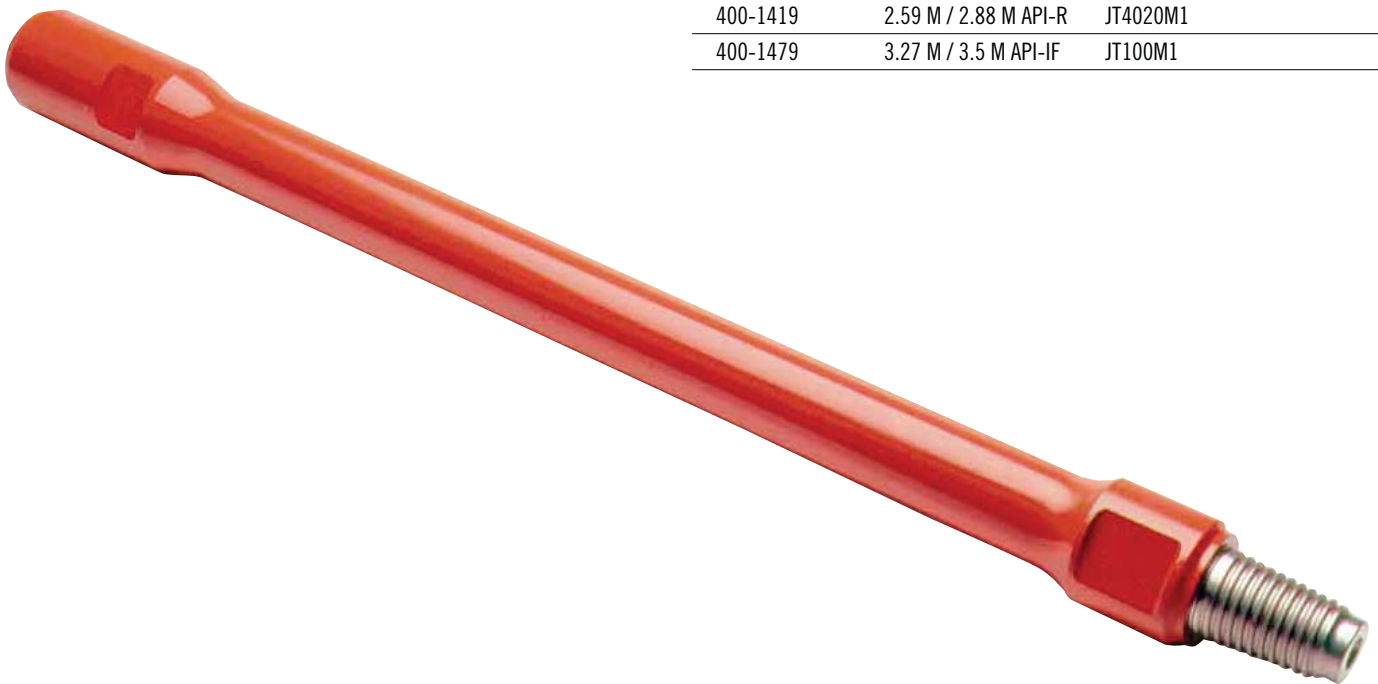
Our transition subs and starter rods absorb stress so your drill pipe, beacon housings, and backreamers don't have to. Their high-strength, low-alloy steel is heat-treated and precision-gun-drilled to produce maximum durability. Using the same proprietary gauges as we use on our saver subs, drill pipe, beacon housings, backreamers and connectors ensures the tightest possible connection throughout the drill string, for worry-free performance downhole.



TRANSITION SUBS



Part Number	Description	Model
369-213	1.21 M / 1.21 F	JT520
400-1260	1.10 M / 1.10 M	JT5
369-326	1.41 M / 1.41 F	JT920/JT920L/JT921/JT922
401-005	1.47 M / 1.94 M	JT1220M1
368-985	1.69 M / 1.69 F	JT1720M1
401-319	1.94 M / 1.94 M	JT2020M1
400-733	2.11 M / 1.94 F	JT2720M1
400-231	2.11 M / 2.59 M	JT25/JT2720M1/JT30
400-575	2.59 M / 2.59 M	JT4020M1
369-222	3.27 M / 3.27 M	JT8020M1/JT100M1
400-1419	2.59 M / 2.88 M API-R	JT4020M1
400-1479	3.27 M / 3.5 M API-IF	JT100M1



TRANSITION SUBS & STARTER RODS



ALL TERRAIN TRANSITION SUBS

Part Number	Description	Model
369-410	2.77 M / 2.59 M	JT2720/AT30
400-057	2.52 M / 2.59 M	JT2720/AT30
400-685	3.25 M / 2.59 M	AT4020
401-143	3.25 M / 3.27 M	AT4020
400-1679	3.25 M / 2.88 M API-R	AT4020
400-1383	3.44 M / 3.27 M	AT100
400-1678	3.44 M / 3.5 M API-IF	AT100



VERMEER® STARTER RODS

Using a Vermeer® rig? You still get the genuine Ditch Witch® performance you expect from Vermeer® compatible starter rods, designed specifically to fit your drill.

Part Number	Description	Model
908-0802	#200 Firestick I F / 2.11 M	D6x6/D7x11/D9x13
908-1702	#250 Firestick I F / 2.38 M API-R	D16x20
908-1705	#400 Firestick I F / 2.38 M API-R	D18x20/D20x22/D24x26
908-4227	#402 Firestick I F / 2.38 M API-R	D24x33
908-4223	#600 Firestick I F / 2.38 M API-R	D24x40
908-4229	#602 Firestick I F / 2.38 M API-R	D33x44/D36x50 (#602)
908-4230	#650 Firestick I F / 2.38 M API-R	D33x44/D36x50 (#650)
908-4241	#700 Firestick I F / 2.38 M API-R	D36x50 (#700)
908-5187	#800 Firestick I F / 2.88 M API-R	D50x100/D55x100/D75x100/D80x100
908-5198	#800 Firestick I F / 3.50 M API-R	D80x120/D100x120 (#1000)
908-5194	#802 Firestick I F / 2.88 M API-R	D80x120/D100x120 (#802)
908-5204	#802 Firestick I F / 3.50 M API-R	D80x120/D100x120 (#802)
908-5185	#900 Firestick I F / 2.88 M API-R	D50x100/D80x100
908-5201	#900 Firestick I F / 3.50 M API-R	D50x100/D80x100
908-5206	#1000 Firestick I F / 3.50 M API-R	D80x120/D100x120 (#1000)



**NO HEAVY TOOLS.
NO HASSLES.**

Our new SaverLok System™ saves you time and energy, helping you quickly remove the drill head or backreamer without heavy tools. It's quick and easy, so you can spend less time setting up and more time drilling.



EZ CONNECT ASSEMBLIES

Part Number	Description	Model
400-105	EZ Connect Assembly	JT520
400-104	Transition Sub	
149-104	O-Ring	
369-258	Collar	
107-519	Retainer Bolt	
400-1261	EZ Connect Assembly	JT5
400-1260	Transition Sub	
149-104	O-Ring	
369-258	Collar	
107-519	Retainer Bolt	
400-070	EZ Connect Assembly	JT920/JT920L/JT921/JT922 Fine Thread
400-067	Transition Sub	
149-911	O-Ring	
400-069	Collar	
107-540	Retainer Bolt	
400-1384	EZ Connect Assembly	JT922 Coarse Thread
400-1178	Transition Sub	
149-911	O-Ring	
400-069	Collar	
107-540	Retainer Bolt	
368-813	EZ Connect Box	
400-918	EZ Connect Assembly	JT1220M1
400-917	Transition Sub	
153-856	O-Ring	
400-926	Collar	
106-847	Retainer Bolt	
400-001	EZ Connect Assembly	JT1720M1
369-998	Transition Sub	
157-194	O-Ring	
369-154	Collar	
107-521	Retainer Bolt	

EZ CONNECT ASSEMBLIES



Part Number	Description	Model
401-300	EZ Connect Assembly	JT2020M1
401-301	Transition Sub	
157-194	O-Ring	
369-154	Collar	
107-521	Retainer Bolt	
369-814	EZ Connect Assembly	JT2720M1
369-812	Transition Sub	
149-548	O-Ring	
369-811	Collar	
107-521	Retainer Bolt	
400-1505	EZ Connect Assembly	JT25/JT30
400-1504	Transition Sub	
149-548	O-Ring	
400-1019	Collar	
107-277	Retainer Bolt	
400-095	EZ Connect Assembly	JT4020M1
400-096	Transition Sub	
149-041	O-Ring	
400-093	Collar	
107-513	Retainer Bolt	
400-1067	EZ Connect Assembly	AT2720/AT30
400-1055	Transition Sub	
149-041	O-Ring	
400-093	Collar	
107-513	Retainer Bolt	
316-573	Inner Rod Support Block	
400-1507	EZ Connect Assembly	AT2720/AT30
400-1506	Transition Sub	
149-548	O-Ring	
400-1019	Collar	
106-847	Retainer Bolt	
316-573	Inner Rod Support Block	



The revolutionary Hawkeye® quick connect system is made specifically for today's more powerful drilling rigs. Our patented wear-compensating design withstands greater torque and pullback forces while improving steering control and extending tool life.

HAWKEYE®

Part Number	Description	Model
918-0734	Hawkeye 275 Starter Rod	JT920/920L/JT921/JT922 Fine Thread
918-0715	Hawkeye 275 Collar	
918-0722	O-Ring	
918-0736	Hawkeye 275 Starter Rod	JT922 Coarse Thread
918-0715	Hawkeye 275 Collar	
918-0722	O-Ring	
918-0738	Hawkeye 275 Starter Rod	JT1220M1
918-0715	Hawkeye 275 Collar	
918-0722	O-Ring	
918-2454	Hawkeye 350 Starter Rod	JT1720M1
918-2439	Hawkeye 350 Collar	
918-2423	O-Ring	
918-2453	Hawkeye 350 Starter Rod	JT2020M1
918-2439	Hawkeye 350 Collar	
918-2423	O-Ring	
918-2455	Hawkeye 350 Starter Rod	JT25/JT2720M1/JT30
918-2439	Hawkeye 350 Collar	
918-2423	O-Ring	
918-3049	Hawkeye 390 Starter Rod	JT25/JT2720M1/JT30
918-3029	Hawkeye 390 Collar	
918-3019	O-Ring	
918-2459	Hawkeye 350 Starter Rod	JT4020M1
918-2439	Hawkeye 350 Collar	
918-2423	O-Ring	
918-3050	Hawkeye 390 Starter Rod	JT4020M1
918-3029	Hawkeye 390 Collar	
918-3019	O-Ring	

HAWKEYE®



Part Number	Description	Model
918-3648	Hawkeye 426 Starter Rod	JT4020M1
918-3640	Hawkeye 426 Collar	
918-3619	O-Ring	
918-0713	Hawkeye 275 Starter Rod	D6x6/D7x11/D9x13
918-0715	Hawkeye 275 Collar	
918-0722	O-Ring	
918-2437	Hawkeye 350 Starter Rod	D16x20
918-2439	Hawkeye 350 Collar	
918-2423	O-Ring	
918-3046	Hawkeye 390 Starter Rod	D16x20
918-3029	Hawkeye 390 Collar	
918-3019	O-Ring	
918-2436	Hawkeye 350 Starter Rod	D18x20/D22x20/D24x26
918-2439	Hawkeye 350 Collar	
918-2423	O-Ring	
918-3047	Hawkeye 390 Starter Rod	D18x20/D22x20/D24x26
918-3029	Hawkeye 390 Collar	
918-3019	O-Ring	
918-2456	Hawkeye 350 Starter Rod	D24x33 (#402)
918-2439	Hawkeye 350 Collar	
918-2423	O-Ring	
918-3048	Hawkeye 390 Starter Rod	D24x33 (#402)
918-3029	Hawkeye 390 Collar	
918-3019	O-Ring	
918-2434	Hawkeye 350 Starter Rod	D24x40
918-2439	Hawkeye 350 Collar	
918-2423	O-Ring	
918-3017	Hawkeye 390 Starter Rod	D24x40
918-3029	Hawkeye 390 Collar	
918-3019	O-Ring	
918-3617	Hawkeye 426 Starter Rod	D24x40
908-4244	Hawkeye 426 Collar	
918-3619	O-Ring	



HAWKEYE®



Part Number	Description	Model
918-2435	Hawkeye 350 Starter Rod	D33X44/D36X50 (#602)
918-2439	Hawkeye 350 Collar	
918-2423	O-Ring	
918-3018	Hawkeye 390 Starter Rod	D33X44/D36X50 (#602)
918-3029	Hawkeye 390 Collar	
918-3019	O-Ring	
918-3609	Hawkeye 426 Starter Rod	D33X44/D36X50 (#602)
918-3640	Hawkeye 426 Collar	
918-3619	O-Ring	
918-2457	Hawkeye 350 Starter Rod	D33x44/D36x50 (#650)
918-2439	Hawkeye 350 Collar	
918-2423	O-Ring	
918-3015	Hawkeye 390 Starter Rod	D33x44/D36x50 (#650)
918-3029	Hawkeye 390 Collar	
918-3019	O-Ring	
918-3649	Hawkeye 426 Starter Rod	D33x44/D36x50 (#650)
918-3640	Hawkeye 426 Collar	
918-3619	O-Ring	
918-2458	Hawkeye 350 Starter Rod	
918-2439	Hawkeye 350 Collar	D36x50 (#700)
918-2423	O-Ring	
918-3016	Hawkeye 390 Starter Rod	D36x50 (#700)
918-3029	Hawkeye 390 Collar	
918-3019	O-Ring	
918-3646	Hawkeye 426 Starter Rod	D36x50 (#700)
918-3640	Hawkeye 426 Collar	
918-3619	O-Ring	
908-0101	Socket Head Cap Screw	Hawkeye 275
908-0104	Socket Head Cap Screw	Hawkeye 350-426
918-2488	Reamer Collar	Hawkeye 350
918-2461	Pull Tab Connector	Hawkeye 350
918-3088	Reamer Collar	Hawkeye 390
918-3054	Pull Tab Connector	Hawkeye 390



SPLINELOK II®

SplineLok II is the strongest non-rotational quick connect system on the market. Its patented double-pin system and its unique taper-to-taper interlock design ensures quick assembly and removal of tooling.

Part Number	Description	Model
908-4271	SplineLok II 350 Starter Rod	JT1720M 1
908-4270	SplineLok II 350 Starter Rod	JT2020M1
908-4276	SplineLok II 350 Starter Rod	JT25/JT2720M1/JT30
908-4281	SplineLok II 350 Starter Rod	JT4020M1
908-4174	SplineLok II 350 Starter Rod	D16x20
908-4182	SplineLok II 350 Starter Rod	D18x20/D20x22/D24x26
908-4113	SplineLok II 350 Starter Rod	D24x33 (#402)
908-4111	SplineLok II 350 Starter Rod	D24x40
908-4112	SplineLok II 350 Starter Rod	D33X44/D36X50 (#602)
908-4221	SplineLok II 350 Starter Rod	D33x44/D36x50 (#650)
908-4279	SplineLok II 350 Starter Rod	D36x50 (#700)
908-4104	Solid Pins (Qty 8)	
908-0036	Coiled Pins (Qty 8)	
908-4009	O-Ring	



LPT QUICK CONNECT

Our LPT quick connects are specifically designed to fit your Vermeer® rig.

Part Number	Description	Model
908-0812	1.62 LPT Starter Rod	D6x6, D7x7, D9x13
908-0844	1.62 LPT Collar	
908-4273	2.125 LPT Starter Rod	D16x20
908-4244	2.125 LPT Collar	
908-4272	2.125 LPT Starter Rod	D18x20, D20x22
908-4244	2.125 LPT Collar	
908-4272	2.125 LPT Starter Rod	D24x26,
908-4244	2.125 LPT Collar	
908-4275	2.125 LPT Starter Rod	D24x33 (#402)
908-4244	2.125 LPT Collar	
908-4277	2.125 LPT Starter Rod	D33X44/D36X50 (#602)
908-4244	2.125 LPT Collar	
908-4280	2.125 LPT Starter Rod	D36x50 (700)
908-4244	2.125 LPT Collar	
908-4278	2.125 LPT Starter Rod	D33x44, D36x50 (#650)
908-4244	2.125 LPT Collar	
908-4274	2.125 LPT Starter Rod	D24x40 (#600)
908-4244	2.125 LPT Collar	
908-4288	Reamer Collar	2.12 LPT
908-4285	Pull Tab Connector	2.12 LPT



CONNECTORS

Ditch Witch® HDD Tooling offers the widest range of connectors available, so you can adapt to virtually any drilling situation. You'll find exactly what you need to establish solid pin-to-pin or pin-to-box connections. And if you don't, we'll customize a connector to your specifications.

Part Number	Description	Model
369-306	1.21 M / 1.94 M	JT520/JT5
369-310	1.21 M / 1.41 F	JT520/JT5
369-470	1.21 M / 1.21 M	JT520/JT5
908-0804	1.21 M / #200 Firestick I M	JT520/JT5
369-257	1.31 F EZ II / 1.21 M	JT520/JT5
369-307	1.31 F EZ II / 1.94 M	JT520/JT5
369-309	1.31 F EZ II / 5K Tab	JT520/JT5
369-311	1.31 F EZ II / 1.41 F	JT520/JT5
400-1431	1.31 F EZ II / 1.10 M	JT520/JT5
908-0792	1.31 F EZ II / #200 Firestick I M	JT520/JT5
368-263	1.41 M / 1.94 M	JT920/JT920L/JT921/JT921S/JT922
908-0806	1.41 M / 2.11 M	JT920/JT920L/JT921/JT921S/JT922
908-0805	1.41 M / #200 Firestick I M	JT920/JT920L/JT921/JT921S/JT922
400-064	1.63 F EZ II / 1.41 F	JT920/JT920L/JT921/JT921S/JT922
400-068	1.63 F EZ II / 1.94 M	JT920/JT920L/JT921/JT921S/JT922
908-0793	1.63 F EZ II / 2.11 M	JT920/JT920L/JT921/JT921S/JT922
368-264	1.69 M / 1.94 M	JT1720M1
906-1782	1.69 M / 2.38 M API-R	JT1720M1
906-1783	1.69 F / 2.38 M API-R	JT1720M1
908-1707	1.69 M / 2.38 M API-R	JT1720M1
906-2562	1.69 M / 2.12 LPT M	JT1720M1
400-920	1.88 F EZ II / 1.94 M	JT1220M1
401-006	1.88 F EZ II / 1.94 F	JT1220M1
908-0808	1.88 F EZ II / 2.11 M	JT1220M1
908-0816	1.88 F EZ II / 2.38 M API-R	JT1220M1
368-261	1.94 M / 1.94 M	JT2020M1
369-139	1.94 M / 2.52 M	JT2020M1
906-2582	1.94 M / 2.38 M API-R	JT2020M1
906-2583	1.94 F / 2.38 M API-R	JT2020M1
908-0818	1.94 F / 2.11 M	JT2020M1
908-1703	1.94 F / 2.38 M API-R	JT2020M1
908-1708	1.94 M / 2.38 M API-R	JT2020M1
908-4193	1.94 F / 2.38 M API-R	JT2020M1
908-4189	1.94 M / 2.12 LPT M	JT2020M1
369-565	2 F EZ II / 1.69 F	JT1720M1/JT2020M1
369-999	2 F EZ II / 1.94 M	JT1720M1/JT2020M1
400-615	2 F EZ II / 1.94 F	JT1720M1/JT2020M1
400-824	2 F EZ II / 2.59 M	JT2020



CONNECTORS



Part Number	Description	Model
400-1010	2.25 F EZ II / 2.59 M	JT3020M1
400-309	2.25 F EZ II / 2.59 M	JT2720M1
401-340	2.25 F EZ II / 2.4 M	JT2720M1
400-567	2.59 F / 2.40 M	JT25/JT30
400-568	2.59 F / 3.50 F API-R	JT25/JT30
400-576	2.59 F / 3.27 M	JT25/JT30
908-4226	2.59 F / 2.38 M API-R	JT25/JT30
400-091	2.63 F EZ II / 2/3.27 M	JT4020M1
400-016	2.88 M API-R / 2.88 M API-R	JT4020M1
400-038	2.88 M API-R / 2.38 M API-R	JT4020M1
400-040	2.88 M API-R / 3.5 M API-R	JT4020M1
369-089	3.27 M / 3.50 M API-R	JT100M1
401-255	3.27 F / 2.88 M	JT100M1
401-256	3.27 F / 3.5 M API-R	JT100M1
908-5188	3.27 F / 2.88 M API-R	JT100M1
908-5196	3.27 F / 3.5 M API-R	JT100M1
908-5209	3.27 F / 3.5 M API-IF	JT100M1
400-035	3.5 M API-IF / 3.5 M API-IF	JT100M1
400-036	3.5 M API-IF / 3.5 M API-R	JT100M1
908-5189	3.5 F API-R / 2.88 M API-R	AT100
908-5197	3.5 F / 3.5 M API-R	AT100
908-5212	3.5 F / 3.5 M API-IF	AT100
908-0817	#200 Firestick I F / 2.11 M	JT520/JT5/D6x6/D7x11/D9x13
908-4194	2.375 Firestick I F / 2.38 M API-R	
908-4196	2.375 Firestick I F / 2.88 M API-R	
908-4195	2.375 Firestick II F / 2.38 M API-R	
908-4197	2.375 Firestick II F / 2.88 M API-R	
908-1701	#250 Firestick I F / 2.38 M API-R	D16x20
908-1704	#400 Firestick I F / 2.38 M API-R	D18x20/D20x22/D24x26
908-4228	#402 Firestick I F / 2.38 M API-R	D24x33
908-4224	#600 Firestick I F / 2.38 M API-R	D24x40
908-4233	#602 Firestick I F / 2.38 M API-R	D33x34/D36x50
908-4234	#650 Firestick I F / 2.38 M API-R	D33x34/D36x50
908-4242	#700 Firestick I F / 2.38 M API-R	D36x50
908-5186	#800 Firestick I F / 2.88 M API-R	D55x100/D75x100
908-5199	#800 Firestick I F / 3.50 M API-R	D55x100/D75x100
908-5210	#800 Firestick I F / 3.50 M API-IF	D55x100/D75x100



CONNECTORS

Part Number	Description	Model
908-5205	#802 Firestick I F / 3.50 M API-R	D80x120/D100x120
908-5211	#802 Firestick I F / 3.50 M API-IF	D80x120/D100x120
908-5195	#802 Firestick I F / 2.88 M API-R	D80x120/D100x120
908-5184	#900 Firestick I F / 2.88 M API-R	D50x100/D80x100
908-5200	#900 Firestick I F / 3.50 M API-R	D50x100/D80x100
908-5214	#900 Firestick I F / 3.50 M API-IF	D50x100/D80x100
908-5190	#1000 Firestick I F / 2.88 M API-R	D80x120/D100x120
908-5207	#1000 Firestick I F / 3.50 M API-R	D80x120/D100x120
908-5213	#1000 Firestick I F / 3.50 M API-IF	D80x120/D100x120
908-5163	2.88 M API-R / 2.88 Firestick I F	AT4020
908-8157	2.88 M API-R / 3.5 Firestick I F	AT4020
918-0728	1.62 LPT F / 2.38 F API-R	D6x6, D7x7, D9x13
906-0711	1.62 LPT M / 2.38 M API-R	D6x6, D7x7, D9x13
908-0790	1.62 LPT M / 2.38 M API-R	D6x6, D7x7, D9x13
908-0815	1.62 LPT M / 2.11 M	D6x6, D7x7, D9x13
918-3632	2.12 LPT F / 2.38 API R F	16K - 40K Drills
908-1666	2.12 LPT M / 2.38 API R M	16K - 40K Drills
908-4142	2.12 LPT M / 350 SPLK II M	16K - 40K Drills
908-4201	2.12 LPT M / 2.38 API R M	16K - 40K Drills
908-1709	2.12 LPT M / 2.38 API R M	16K - 40K Drills
908-4151	SplineLok II 350 F / 1.69 M	16K - 40K Drills
908-4150	SplineLok II 350 F / 1.94 F	16K - 40K Drills
908-4148	SplineLok II 350 F / 1.94 M	16K - 40K Drills
908-4268	SplineLok II 350 F / 1.94 M	16K - 40K Drills
908-4046	SplineLok II 350 F / 2.38 M API-R	16K - 40K Drills
908-4124	SplineLok II 350 F / 2.38 F API-R	16K - 40K Drills
908-4123	SplineLok II 350 F / 2.38 M API-R	16K - 40K Drills
908-4269	SplineLok II 350 F / 2.59 M	16K - 40K Drills
908-4153	SplineLok II 350 F / 2.88 API F	16K - 40K Drills
908-4137	SplineLok II 350 F / 3.5 F API-R	16K - 40K Drills
908-4180	SplineLok II 350 F / 3.5 M API-R	16K - 40K Drills
908-4188	SplineLok II 350 F / 3.5 M API-R	16K - 40K Drills
908-4021	SplineLok II 350 F / 2.12 LPT M	16K - 40K Drills
908-4171	SplineLok II 350 F / #900 Firestick I M	16K - 40K Drills
908-4149	SplineLok II 350 F / 2.78 M API-R	16K - 40K Drills
908-4102	2.38 API-R M / SplineLok II 350 F	16K - 40K Drills





CONNECTORS

Part Number	Description	Model
918-0749	Hawkeye 275 M / 1.41 F	6K - 12K Drills
918-0747	Hawkeye 275 M / 1.94 M	6K - 12K Drills
918-0751	Hawkeye 275 M / 2 API IF M	6K - 12K Drills
918-0745	Hawkeye 275 M / 2.11 M	6K - 12K Drills
918-0707	Hawkeye 275 M / 2.38 M API-R	6K - 12K Drills
918-0731	Hawkeye 275M / SplineLok II 350 M	6K - 12K Drills
918-0729	Hawkeye 275 M / 1.62 LPT F	6K - 12K Drills
918-0730	Hawkeye 275 M / 2.125 LPT F	6K - 12K Drills
918-2451	Hawkeye 350 M / 1.94 M	16K - 30K Drills
918-2407	Hawkeye 350 M / 2.38 M	16K - 30K Drills
918-2452	Hawkeye 350 M / 2.59 M	16K - 30K Drills
918-2481	Hawkeye 350 M / 2.78 M API-R	16K - 30K Drills
918-2429	Hawkeye 350 M / SplineLok II 350 M	16K - 30K Drills
918-2479	Hawkeye 350 M / #800 Firestick I M	16K - 30K Drills
918-2426	Hawkeye 350 M / 2.125 LPT F	16K - 30K Drills
918-2428	Hawkeye 350 M / 1.625 LPT F	16K - 30K Drills
918-3052	Hawkeye 390 M / 1.94 M	16K - 40K Drills
918-3044	Hawkeye 390 M / 2.59 M	16K - 40K Drills
918-3024	Hawkeye 390M / 2.38 M API-R	16K - 40K Drills
918-3006	Hawkeye 390M / 2.88 M API-R	16K - 40K Drills
918-3035	Hawkeye 390 M / SplineLok II 350 M	16K - 40K Drills
918-3069	Hawkeye 390 M / #800 Firestick I M	16K - 40K Drills
918-3033	Hawkeye 390 M / 1.62 LPT F	16K - 40K Drills
918-3034	Hawkeye 390 M / 2.12 LPT F	16K - 40K Drills
918-3633	Hawkeye 426 M / 1.625 LPT F	33K - 40K Drills
918-3624	Hawkeye 426 M / 2.38 M API-R	33K - 40K Drills
918-3647	Hawkeye 426 M / 2.59 M	33K - 40K Drills
918-3606	Hawkeye 426 M / 2.88 M API-R	33K - 40K Drills
918-3607	Hawkeye 426 M / 3.5 M API-R	33K - 40K Drills
918-3629	Hawkeye 426 M / 2.88 Firestick I M	33K - 40K Drills
918-3622	Hawkeye 426 M / 3.50 Firestick I M	33K - 40K Drills
918-3634	Hawkeye 426 M / 2.12 LPT F	33K - 40K Drills



STRONG CONNECTIONS. SUPERIOR PROTECTION.

When it comes to protecting your electronics, Ditch Witch HDD Tooling continues to offer innovative solutions. The recessed lid on our housings reduces breakage downhole. Our industry-exclusive Beacon Buddy helps protect your electronics like nothing else. And our patented TriHawk housings are exceptionally versatile and durable, with an innovative high-flow design that has the power and volume necessary to run mud motors and air hammers. Plus, as drilling conditions change, you can change tooling with maximum speed and security thanks to the housing's square drive spline.



DIRT HOUSINGS

Part Number	Diameter	Bit Pattern/ Thread	Electronics	Drills
369-161	2"	3 hole / 12mm / DW / 1.21	SBRP/88B	JT5/JT520
400-1434	2"	3 hole / 12mm / DW / 1.1	SBRP/88B	JT5/JT520
368-852	2.25"	5 hole / 12mm / DW / 1.41	SBRP/88B	JT920/JT920L/JT9201/JT921S/JT922
300-1232	2.5"	5 hole / 12mm / DW / 1.94	850 or 86 series	JT920/JT920L/JT9201/JT921S/JT922/JT1220M1
401-175	2.5"	5 hole / 12mm / DW / 1.94	SBRP/88B	JT1220
400-1108	2.75"	5 hole / 12mm / DW / 1.94	850 or 86 series	JT1220/JT2020/JT2720M1
400-1172	3"	5 hole / 12mm / DW / 1.94	850 or 86 series	JT2020M1/JT2720M1
400-1065	3.38"	6 hole / 16mm / DW / 2.59	850 or 86 series	JT25/JT2720M1/JT30
400-1418	3.75"	6 hole / 20mm / DW / 2.88 API	850 or 86 series	JT4020M1
368-822	4.25"	6 hole / 20mm / DW / 3.27	86BHL	JT4020M1
400-1423	4.75"	6 hole / 20mm / DW / 3.27	86BHL	JT7020M1/JT8020M1/JT100M1
159-461	Beacon Buddy -8			2"-3" Housings
159-473	Beacon Buddy -12			3.38"-4.75" Housings

NOTE: CONTACT YOUR DEALER FOR WEAR ITEMS SUCH AS LIDS, WINDOWS, AND LID BOLTS.



HD DIRT HOUSINGS

Part Number	Diameter	Bit Pattern/ Thread	Electronics	Drills
908-0801	2"	3 Hole / 12mm / DW / Firestick I#200	88B	JT520/JT5/JT920/JT920L/JT9201/JT921S/JT922
908-0795	2"	5 Hole / 3/8" / VM / Firestick I#200	DCI Mini	D6x6/D7x11/D9x13
908-0829	2.5"	6 Hole/ 1/2" / VM/ 2.11	DCI	D6x6/D7x11/D9x13
908-0832	2.75"	6 Hole/ 1/2" / VM/ 2.11	DCI	D6x6/D7x11/D9x13
908-0854	2.5"	5 Hole / 12mm / DW / 2.11	850 or 86 series	JT920/JT920L/JT9201/JT921S/JT922/JT1220M1
908-0856	2.75"	5 Hole / 12mm / DW / 2.11	850 or 86 series	JT920/JT920L/JT9201/JT921S/JT922/JT1220M1
908-1754	3"	5 Hole / 12mm / DW / 2.38 API R	850 or 86 series	JT1720M1/JT2020M1
908-1732	3"	6 Hole / 1/2" / VM / 2.38 API R	DCI	D16x20/D18x20/D20x22
908-4254	3.25"	6 Hole / 16mm / DW / 2.38 API R	850 or 86 series	JT2720M1/JT30/JT4020M1
908-4232	3.25"	6 Hole / 1/2" / VM / 2.38 API R	DCI	D24x26/D24x33/D24x40/D33x44/D36x50
908-4256	3.75"	6 Hole / 20mm / DW / 2.38 API R	850 or 86 series	JT/25/JT2720M1/JT30M1/JT4020M1
908-5254	4.25"	6 Hole / 20mm / DW / 2.78 API R	850 or 86 series	JT7020M1/JT8020M1/JT100M1
908-5234	4.25"	6 Hole / 5/8" / VM / 2.78 API R	DCI	D50x100/D55x100/D75x100/D80x100/D80x120/D100x120
908-5232	4.25"	6 Hole / 3/4" / VM / 2.78 API R	DCI	D50x100/D55x100/D75x100/D80x100/D80x120/D100x120



TRIHAWK® HD HOUSINGS

Part Number	Diameter	Thread	Electronics	Drills
906-1854	3 in	2.38 API R	86 Series	JT1220M1/JT1720M1/JT2020M1
906-1832	3 in	2.38 API R	DCI	D6x6/D7x11/D9x13/D16x20/D18x20/D20x22
906-2654	3.5 in	2.38 API R	86 Series	JT25/JT2720M1/JT30/JT4020M1
906-2632	3.5 in	2.38 API R	DCI	D24x26/D24x33/D24x40/D33x44/D36x50
906-5354	4.25 in	2.78 API R	86 Series	JT7020M1/JT8020M1/JT100M1
906-5332	4.25 in	2.78 API R	DCI	D33x44/D36x50/D50x100/D55x100/D75x100/D80x100/D80x120/D100x120
906-5356	4.75 in	3.5 API IF	86BHL	JT7020M1/JT8020M1/JT100M1/D50x100/D55x100/D75x100/D80x100/D80x120



HD UNIVERSAL HOUSINGS

Part Number	Diameter	Front Threads	Rear Threads	Flow Rates
908-1690	3.25"	2.375 F API-R	2.375 F API-R	162 gpm
908-4290	3.75"	2.375 F API-R	2.375 F API-R	245 gpm
908-5290	4.75"	3.5 F API-IF	3.5 F API-IF	749 gpm
908-6190	6.5"	4.5 M API-IF	4.5 F API-IF	1529 gpm
908-8090	8"	6.625 M API-FH	6.625 F API-FH	2202 gpm



ALL TERRAIN HOUSINGS

Part Number	Style	Description	Electronics	Drills
401-160	3.75" Cobble 1.5 degrees	AT30 / 2.78 API R	88 Series	AT2720 / AT30
401-159	3.75" Rockmaster 2 degrees	AT30 / 2.788 API R	88 Series	AT2720 / AT30
401-329	3.75" Rockmaster 2 degrees	AT30 / 2.788 API R	850 or 86 series	AT2720 / AT30
400-1314	4.75" Cobble 2 degrees	AT30 / 2.78 API R	850 or 86 series	AT2720 / AT30
350-1254	4.75" Rockmaster 2 degrees	AT30 / 2.788 API R	850 or 86 series	AT2720 / AT30
400-919	5" Rockmaster 1.5 degrees	AT4020 / 3.5 API R	850 or 86 series	AT4020
401-241	5" Rockmaster 2 degrees	AT4020 / 3.5 API R	850 or 86 series	AT4020
400-1380	5" Rockmaster 2 degrees	AT100 / 3.5 in API R	850 or 86 series	AT100

NOTE: CONTACT YOUR DEALER FOR WEAR ITEMS SUCH AS LIDS, WINDOWS, AND LID BOLTS.

MORE PRODUCTIVE IN THE TOUGH STUFF.

Advanced technology enables the All Terrain Air Hammer to continuously drill as it is being steered, an exclusive All Terrain drill feature that results in superior productivity; other air hammers require stopping the drill rotation to change directions.

Your All Terrain Air Hammer works like nothing else. It not only penetrates rock of 20,000 to 35,000 psi and harder, it keeps drilling while you steer. To ensure that superior performance, trust genuine Ditch Witch® Air Hammer housings — the only parts designed, manufactured and tested by the creators of All Terrain technology.



ALL TERRAIN AIR HAMMER



Part Number	Style	Description	Electronics	Drills
400-1467	5" Rockmaster Air 2 degrees	AT4020 / 3.5 API R	850 or 86 series	AT4020
400-1488	5" Rockmaster Air 2 degrees	AT100 / 3.5 in API R	850 or 86 series	AT100
190-1692	6" Air Hammer Kit	AT4020 / 3.5 API R	850 or 86 series	AT4020
190-1701	6" Air Hammer Kit	AT100 / 3.5 in API R	850 or 86 series	AT100

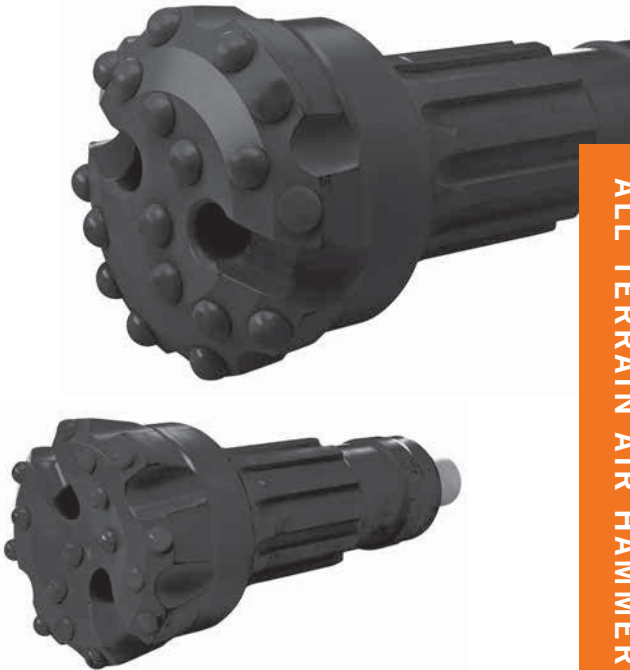
The All Terrain Air Hammer is designed to penetrate the hardest rock where rotary units and mud motors lose effectiveness.

AIR HAMMER JAW

Part Number	Style	Description
400-1477	Convex Bit Jaw	6.5 in

AIR HAMMER BITS

Part Number	Style	Description
400-1451	6.5"	Concave / Spherical Inserts
400-1452	6.5"	Convex / Spherical Inserts
400-1454	6.5"	Convex / Semi Ballistic Inserts
400-1455	6.5"	Convex / Ballistic Inserts



ALL TERRAIN AIR HAMMER

TESTED AND PROVEN TO OUTPERFORM AND OUTLAST.



Nothing touches a Ditch Witch® bit. They are tested in jobsite conditions and engineered to outperform and outlast any competitor's bit. Manufactured with the most effective amount and placement of carbide, our bits maximize performance and value. Best of all, every Ditch Witch bit is optimized not only for soil type, but for the specific drill that drives it.



Choosing the ideal bit for a particular type of soil can be challenging. This chart offers guidelines to help, but for specific recommendations for your area, ask your Ditch Witch® dealer.

SOIL CONDITION CHART							
Key  =Best  =Better  =Good							
	Sandy Soil	Soft Soil	Medium Soil	Hard Soil	Chunk Rock	Soft Rock	Hard Rock
Sand Bit							
Durabit							
Tuff Bit							
Barracuda Bit							
Hard Surface Bit							
Tornado Bit							
Steep Taper Bit							
Steep Taper Tuff Bit							
Grade Bit							
Shot Gun Bit							
TriHawk I							
TriHawk III							
TriHawk IV							
TriHawk V							
Soft Formation Bit							
Tri-Cone Bit							
Cobble Bit							

This chart is meant as a guideline only. See your local Ditch Witch dealer for recommendations in your area.

Note: For bits with clevis holes, there are corresponding sizes of pull holes.

3-hole bits = .531 or 1/2" clevis

5-hole bits = .688 or 5/8" clevis

6-hole, 16-mm bit bolts = 1.125" or 1" clevis

6-hole, 20-mm bit bolts = 1.25" or 1" clevis



Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
369-167	2.5"	3 hole DW	12 mm	1/2 "	0 degrees
368-897	3"	5 hole DW	12 mm	1/2 "	10 degrees
368-896	3"	5 hole DW	12 mm	1/2 "	0 degrees
400-1548	3.5"	6 hole VM	1/2"	3/4 "	10 degrees
369-078	4"	5 hole DW	12 mm	5/8 "	10 degrees
369-076	4"	5 hole DW	12 mm	5/8 "	0 degrees
400-1657	4"	6 hole DW	16 mm	3/4 "	10 degrees
400-1550	4"	6 hole VM	1/2"	3/4"	10 degrees
369-080	5"	5 hole DW	12 mm	5/8 "	10 degrees
400-1659	5"	6 hole DW	16 mm	1"	10 degrees
400-1552	5"	6 hole VM	1/2"	3/4 "	10 degrees
400-1566	5"	6 hole VM	5/8"	1"	10 degrees
400-1568	6"	6 hole VM	5/8"	1"	10 degrees

SAND BIT

With its square nose and carbide added to the surface and cutting edge, the Sand Bit is ideal for soft soil and sandy conditions.

HARD SURFACE BIT

The Hard Surface Bit can be used in cobble and chunk rock conditions and is a good choice for wet and silty clays.



Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
369-068	3"	5 hole DW	12 mm	5/8"	10 degrees
400-1542	3"	6 hole VM	1/2"	3/4"	10 degrees
369-069	4"	5 hole DW	12 mm	5/8"	10 degrees
400-1649	4"	6 hole DW	16 mm	3/4 "	10 degrees
400-1544	4"	6 hole VM	1/2"	3/4"	10 degrees
369-070	5"	5 hole DW	12 mm	5/8"	10 degrees
400-1651	5"	6 hole DW	16 mm	1"	10 degrees
400-1653	5"	6 hole DW	20 mm	1"	10 degrees
400-1546	5"	6 hole VM	1/2"	3/4"	10 degrees
400-1570	5"	6 hole VM	5/8"	3/4"	10 degrees
400-1655	6"	6 hole DW	16 mm	1"	10 degrees
400-1572	6"	6 hole VM	5/8"	1"	10 degrees



DURABIT

The Durabit is designed to provide extended wear in all non-rock soil formations.

Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
369-169	2.5"	3 hole DW	12 mm	1/2 "	0 degrees
400-1869	2.5"	5 hole VM	1/2"	1/2"	10 degrees
368-900	3"	5 hole DW	12 mm	1/2 "	10 degrees
368-898	3"	5 hole DW	12 mm	1/2 "	0 degrees
368-901	3"	5 hole DW	12 mm	5/8 "	10 degrees
368-899	3"	5 hole DW	12 mm	5/8 "	0 degrees
368-902	4"	5 hole DW	12 mm	1/2 "	10 degrees
368-904	4"	5 hole DW	12 mm	3/4 "	10 degrees
368-903	4"	5 hole DW	12 mm	5/8 "	10 degrees
369-082	5"	5 hole DW	12 mm	5/8 "	10 degrees
369-005	5"	6 hole DW	16 mm	3/4 "	0 degrees
368-980	5.2"	6 hole DW	20 mm	1"	0 degrees
368-720	6.4"	6 hole DW	16 mm	3/4 "	0 degrees
368-982	6.4"	6 hole DW	20 mm	1"	0 degrees
368-984	7.8"	6 hole DW	20 mm	1"	0 degrees

BARRACUDA BIT

The Barracuda Bit can be used in most soil conditions, especially running sand and sandy loam soils.



Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
369-171	2.5"	3 hole DW	12 mm	1/2 "	0 degrees
368-890	3"	5 hole DW	12 mm	1/2 "	10 degrees
368-891	3"	5 hole DW	12 mm	5/8 "	10 degrees
400-1534	3.5"	6 hole VM	1/2"	3/4 "	10 degrees
368-892	4"	5 hole DW	12 mm	1/2 "	10 degrees
368-894	4"	5 hole DW	12 mm	3/4 "	10 degrees
368-893	4"	5 hole DW	12 mm	5/8 "	10 degrees
400-1587	4"	6 hole DW	16 mm	3/4 "	10 degrees
400-1536	4"	6 hole VM	1/2"	3/4 "	10 degrees
369-067	5"	5 hole DW	12 mm	5/8 "	10 degrees
369-181	5"	6 hole DW	16 mm	3/4 "	0 degrees
369-468	5"	6 hole DW	16 mm	3/4 "	10 degrees
369-500	5"	6 hole DW	20 mm	1"	10 degrees
369-498	5"	6 hole DW	20 mm	1"	0 degrees
400-1538	5"	6 hole VM	1/2"	3/4 "	10 degrees
400-1562	5"	6 hole VM	5/8"	1"	10 degrees
400-1564	6"	6 hole VM	5/8"	1"	10 degrees
369-177	6.4"	6 hole DW	16 mm	3/4 "	0 degrees
369-469	6.4"	6 hole DW	16 mm	3/4 "	10 degrees
369-504	6.4"	6 hole DW	20 mm	1"	10 degrees
369-502	6.4"	6 hole DW	20 mm	1"	0 degrees
400-1540	6.5"	6 hole VM	1/2"	3/4 "	10 degrees
369-508	7.8"	6 hole DW	20 mm	1"	10 degrees
369-506	7.8"	6 hole DW	20 mm	1"	0 degrees



Vermeer

Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
369-315	2.5"	3 hole DW	12 mm	1/2 "	0 degrees
369-072	3"	5 hole DW	12 mm	5/8 "	10 degrees
400-1851	3.5"	6 hole VM	1/2"	1"	10 degrees
400-160	4"	5 hole DW	12 mm	5/8 "	10 degrees
368-895	4"	5 hole DW	12 mm	5/8 "	10 degrees
400-217	4.5"	6 hole DW	16 mm	3/4 "	0 degrees
400-170	4.5"	6 hole DW	16 mm	3/4 "	10 degrees
369-074	5"	5 hole DW	12 mm	5/8 "	10 degrees
369-183	5"	6 hole DW	16 mm	3/4 "	0 degrees
369-466	5"	6 hole DW	16 mm	3/4 "	10 degrees
369-486	5"	6 hole DW	20 mm	1"	0 degrees
400-1843	5"	6 hole VM	1/2"	1"	10 degrees
400-1847	5"	6 hole VM	5/8"	1"	10 degrees
400-1849	6"	6 hole VM	5/8"	1"	10 degrees
369-179	6.4"	6 hole DW	16 mm	3/4 "	0 degrees
369-467	6.4"	6 hole DW	16 mm	3/4 "	10 degrees
369-490	6.4"	6 hole DW	20 mm	1"	0 degrees
400-1845	6.5"	6 hole VM	1/2"	1"	10 degrees
369-494	7.8"	6 hole DW	20 mm	1"	0 degrees

STEEP TAPER BIT

Designed with a pointed, triangle-shaped nose, the Steep Taper Bit can be used in highly compacted soil, light rock and cobble.

TORNADO BIT

Long-lasting, all-purpose bit designed for use in a variety of soils, including sandstone, chunk rock and hard soils.



Vermeer

Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
400-1041	3"	5 hole DW	12 mm	5/8 "	10 degrees
400-1929	3.5"	5 hole DW	12 mm	5/8 "	10 degrees
400-1514	3.5"	6 hole VM	1/2"	3/4 "	10 degrees
400-1897	3.5"	6 hole VM	1/2"	5/8 "	10 degrees
400-1931	4"	5 hole DW	12 mm	3/4 "	10 degrees
400-1927	4"	5 hole DW	12 mm	5/8 "	10 degrees
400-1933	4.5"	6 hole DW	16 mm	3/4 "	10 degrees
400-1935	5"	6 hole DW	16 mm	3/4 "	10 degrees
400-1127	5"	6 hole DW	20 mm	1"	10 degrees
400-1129	6"	6 hole DW	20 mm	1"	10 degrees
400-1937	6.5"	6 hole DW	16 mm	3/4 "	10 degrees



Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
400-1871	2.5"	5 hole VM	1/2"	1/2"	0 degrees
369-727	3"	3 hole DW	12 mm	1/2 "	0 degrees
369-729	3"	5 hole DW	12 mm	5/8 "	10 degrees
401-334	3.5"	5 hole DW	12 mm	5/8 "	10 degrees
369-731	4"	5 hole DW	12 mm	5/8 "	10 degrees
400-1522	4"	6 hole VM	1/2"	3/4 "	10 degrees
400-172	4.5"	6 hole DW	16 mm	3/4 "	10 degrees
369-733	5"	5 hole DW	12 mm	5/8 "	10 degrees
369-735	5"	6 hole DW	16 mm	3/4 "	10 degrees
369-739	5"	6 hole DW	20 mm	1"	10 degrees
400-1524	5"	6 hole VM	1/2"	3/4 "	10 degrees
400-1560	6"	6 hole VM	5/8"	1"	10 degrees
369-737	6.5"	6 hole DW	16 mm	3/4 "	10 degrees
369-741	6.5"	6 hole DW	20 mm	1"	10 degrees
369-743	8"	6 hole DW	20 mm	1"	10 degrees
400-1528	8"	6 hole VM	5/8"	1"	10 degrees

TUFF BIT

Ultimate long-wearing bit for all soil conditions, including hard, compacted soils or soft, sedimentary rock. Tuff Bit segments along the leading edge have the strength and stability to handle the pounding and vibration of drilling in rock. The Barracuda material down the sides reduces wear on the nose of the housing.



STEEP TAPER TUFF BIT

Designed for hard, compacted soils and soft sedimentary rock, the Steep Taper Tuff Bit features a pointed, triangle-shaped nose and Tuff Bit segments along the leading edge that have the strength and stability to withstand the pounding and vibration of drilling in rock.

Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
400-120	4"	5 hole DW	12 mm	3/4 "	10 degrees
400-122	4"	6 hole DW	16 mm	3/4 "	10 degrees
400-1530	4"	6 hole VM	1/2"	3/4 "	10 degrees
400-124	5"	6 hole DW	16 mm	3/4 "	10 degrees
400-1532	5"	6 hole VM	1/2"	3/4 "	10 degrees
400-431	6"	6 hole DW	20 mm	1"	10 degrees



Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
400-022	5"	6 hole DW	20 mm	1"	0 degrees
400-021	5"	6 hole DW	20 mm	1"	0 degrees
368-144	5.5"	6 hole DW	16 mm	3/4 "	0 degrees

GRADE BIT

Shorter and narrower than our standard bit, the Grade Bit is designed to help the drill head stay on grade and allow steering corrections to be executed more gradually.

SHOT GUN

This new designed bit is made for hard compacted soils and sedimentary rock. The Shotgun Bit uses large carbide cutters for greater rock fracturing and production. The barracuda material down the sides adds protection for the life of the bit.



Vermeer

Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
400-1665	3.5"	5 hole DW	12 mm	3/4 "	10 degrees
400-1574	3.5"	6 hole VM	1/2"	3/4 "	10 degrees
400-1667	4"	5 hole DW	12 mm	3/4 "	10 degrees
400-1671	4"	6 hole DW	16 mm	1"	10 degrees
400-1576	4"	6 hole VM	1/2"	3/4 "	10 degrees
400-1669	5"	5 hole DW	12 mm	3/4 "	10 degrees
400-1673	5"	6 hole DW	16 mm	1"	10 degrees
400-1578	5"	6 hole VM	1/2"	3/4 "	10 degrees



TriHawk® bits are field-proven to provide unbeatable performance and reliability. Using the highest quality, heat-treated alloy steel and strategically placed carbide, TriHawk bits punch through rock, overburdened cobble or compacted soil, while their patented square-drive spline is the toughest tooling connection in the industry. Combine them with TriHawk HD housings for an unbeatable combination. In 12 years of drilling with TriHawk and TriHawk HD housings, not one beacon has been reported lost or damaged.



TriHawk I with Pullback

TRIHAWK® I

TriHawk I is an aggressive directional drill bit designed for soft rock conditions up to 8,000 psi (552 bar). It also provides excellent performance in dry, compacted soils as well as cobble and broken formations. Made of high-quality, heat-treated alloy steel, TriHawk I features replaceable carbide teeth that are angled into the cut to increase production and reduce machine vibration.

Part Number	Cut	Description
906-1792	3.75"	6K-12K Drills
906-1626	4.44"	16K-20K Drills
906-2426	5.12"	24K-40K Drills
906-5026	6.12"	50K-100K Drills
906-2627	TriHawk I Pullback Tool	5K-12K Drills
906-1827	TriHawk I Pullback Tool	16K-40K Drills



TRIHAWK® III

TriHawk III features superior abrasion resistance and massive, carbide-core cutting teeth designed to efficiently cut through soft to medium rock up to 12,000 psi (827 bar) and cobble. Welded carbide grit is applied not only to the bit surface, but also into grooves that are cut into high-wear areas, keeping the bit surface smooth and resulting in less resistance when pushing to steer.

Part Number	Cut	Description
906-1719	4.38"	16K-20K Drills
906-2519	5.625"	24K-40K Drills
906-5119	6.88"	50K-100K Drills
906-1723	TriHawk III Pullback Tool	16K-20K Drills
906-2523	TriHawk III Pullback Tool	24K-40K Drills

bits



TRIHAWK® IV

The TriHawk® IV drill bit is designed for use in heavy, overburdened cobble or fractured rock. Our bit is machined from high-grade alloy steel and engineered to reduce machine vibration in tough drilling conditions. The TriHawk IV's numerous carbide chisels are positioned to help provide smooth, rotational drilling and fracture clearance space for the housing.

Part Number	Cut	Description
906-1730	4.38"	16K-20K Drills
906-2530	5.5"	24K-40K Drills
906-5130	6.6"	50K-100K Drills



TriHawk V with Pullback

TRIHAWK® V

The innovative design of TriHawk V combines torque-edge steering with thrust-face steering to provide unbeatable performance in round rock cobble, flat river stone, hardpan and loose fill. TriHawk V's patented J-tapered torque edge feature converts rotational torque to direct steering thrust, which gives the operator exceptional control. The key to TriHawk V's outstanding productivity is the tapering of the leading edge toward the bit's trailing edge.

Part Number	Cut	Description
906-0708	3.5"	Vermeer 6 Hole (Bolt on)
906-0792	3.5"	Ditch Witch 5 Hole (Bolt on)
906-1771	3.88"	16K-20K Drills
906-2571	4.8"	24K-40K Drills
906-5371	5 3/4"	50K-100K Drills
906-5171	7"	50K-100K Drills
906-0825	TriHawk V Pullback Tool	5K-12K Drills
906-1825	TriHawk V Pullback Tool	16K-20K Drills
906-2625	TriHawk V Pullback Tool	24K-40K Drills



TRIHAWK® REAMER BIT

Intended to use for fast, easy, small diameter installations. When you finish a bore with your TriHawk system, simply drive out the two roll pins holding the bit and install the reamer bit instead. This cast reamer is equipped with a pulling tab intended to be used in conjunction with a swivel and will cut a 5.25" hole.



Part Number	Cut	Description
906-1812	5.25"	16K-20K Drills
906-2712	5.25"	24K-40K Drills



DIRT BIT ADAPTERS

Part Number	Housing Diameter	Bolt Pattern	Bolt Size
906-1796	3" TriHawk HD	5 hole DW	12 mm
906-1665	3" TriHawk HD	6 hole VM	1/2"
906-2698	3.5" TriHawk HD	5 hole DW	12 mm
906-2465	3.5" TriHawk HD	6 hole VM	1/2"
906-2697	3.5" TriHawk HD	6 hole DW	16 mm
906-5296	4.25" & 4.75" TriHawk HD	6 hole DW	20 mm
906-5166	4.25" TriHawk HD	6 hole VM	3/4"
906-5165	4.25" TriHawk HD	6 hole VM	5/8"

Vermeer



TRI-CONE BIT

The Mill Tooth (MT) Tri-Cone Bit features mill tooth cones designed to cut in hard, compacted soils and soft to medium rock, while our TCI (Tungsten Carbide Insert) bit is designed for medium to hard rock. Both bits are used with a jetting assembly and are also compatible with Ditch Witch All Terrain Systems.

Part Number	Cut	Thread	Description	Maximum Hardness Up To
400-432	4.75"	2.88 API	MT TCI	10,000 psi
400-1356	4.75"	2.88 API	TCI HDS3	30,000 psi
401-345	5.5"	2.88 API	TCI HDX40	50,000 psi
401-349	5.5"	2.88 API	TCI HDS2	25,000 psi
401-138	6.25"	3.5 API	TCI Value Line	3,000 psi - 5,000 psi
401-139	6.25"	3.5 API	TCI Value Line	3,000 psi - 5,000 psi
401-346	6.5"	3.5 API	HDX30	30,000 psi
400-1812	6.5"	3.5 API	TCI XR50	30,000 psi
401-361	6.5"	3.5 API	TCI HDS3	30,000 psi



Part Number	Cut	Thread
400-971	5.25"	2.88 API
400-1094	6.65"	2.88 API
400-683	7"	3.50 API

SOFT FORMATION BIT

The Soft Formation Bit is used in sandstone, shale and tight or compacted clay. Designed exclusively for Ditch Witch® All Terrain systems.

COBBLE BIT

An exclusive design of the Ditch Witch® organization, the Cobble Bit is ideal for loose rock or gravel conditions.

Part Number	Cut	Thread
400-972	5.5"	2.88 API



bits



BUILT BETTER TO LAST LONGER.

Ditch Witch® backreamers are the longest lasting, most ruggedly built in the directional drilling industry. They're also the most flexible, designed to tackle the cutting and expanding requirements of extreme soil conditions like rock, chunk rock, and cobble, and also effectively manage the spoils of long bores. If you demand superior performance, look for backreamers designed, manufactured and extensively tested by the same experts who built the drills that drive them. Demand Ditch Witch HDD Tooling.



SOIL CONDITION CHART

Key ● =Best ◐ =Better ○ =Good

This chart helps you choose the ideal backreamer for a particular type of soil.

	Sandy Soil	Soft Soil	Medium Soil	Hard Soil	Chunk Rock	Soft Rock	Hard Rock
Compact Fluted		◐	◐	●	●	◐	
Cast Fluted		○	◐	●	●	◐	
Beavertail	◐	●	●	●			
Water Wing	○	◐	◐	●	◐		
Three Wing Rock			○	◐	●	●	
Kodiak Cobble		○	○	◐	●	●	●
Rockmaster						●	●
Pre Cutter	●	●	●	●	○	○	

This chart is meant as a guideline only. See your local ditch witch dealer for recommendations in your area.

COMPACT FLUTED BACKREAMER



Featuring a built-in swivel, the Compact Fluted Backreamer is used for cutting and compacting the hole in medium to tough soil conditions. Nozzles over the entire body provide good mixing action and the efficient lubrication in the soil.

Part Number	Cut	Description	Drills
357-696	4.5"	1.41 M / 20K Tab	5K - 9K Drills
401-355	4.5"	1.94 F / 20K Tab	9K - 20K Drills
368-942	6.5"	1.94 F / 20K Tab	9K - 20K Drills
368-944	8.5"	1.94 F / 20K Tab	9K - 20K Drills
368-946	10.5"	1.94 F / 30K Tab	9K - 20K Drills
400-1437	4.5"	1.1 F / 12K Tab	9K - 20K Drills

Note: All compact fluted backreamers use 7/16-20 nozzles.



CAST FLUTED BACKREAMER

Designed for cutting and compacting the hole in medium to tough soil conditions, the Cast Fluted Backreamer is manufactured to be strong, durable, lighter in weight, and more economical than solid steel. Features a built-in swivel and carbide-faced Shark Tooth cutters for maximum productivity and durability. Fluid ports are positioned for efficient fluid mixing and for lubrication of the hole, tool and the product being installed.

Part Number	Cut	Description	Shaft	Ends	Drills
400-270	10"	30K Swivel	3.5"	2.59 F / Swivel	27K - 40K Drills
400-271	12"	40K Swivel	3.5"	2.59 F / Swivel	27K - 40K Drills
400-272	14"	40K Swivel	3.5"	2.59 F / Swivel	27K - 40K Drills
400-273	16"	40K Swivel	3.5"	2.59 F / Swivel	27K - 40K Drills
400-274	18"	40K Swivel	3.5"	2.59 F / Swivel	27K - 40K Drills
400-482	8"	40K Swivel	4"	3.27 F / 70K Swivel	70K - 100K Drills
400-481	10"	40K Swivel	4"	3.27 F / 70K Swivel	70K - 100K Drills
400-495	12"	40K Swivel	4"	3.27 F / 70K Swivel	70K - 100K Drills
400-496	14"		4"	3.27 F / 70K Swivel	70K - 100K Drills
400-497	16"		4"	3.27 F / 70K Swivel	70K - 100K Drills
400-498	18"		4"	3.27 F / 70K Swivel	70K - 100K Drills
400-275	20"		4"	3.27 F / 70K Swivel	70K - 100K Drills
400-276	22"		4"	3.27 F / 70K Swivel	70K - 100K Drills
400-277	24"		4"	3.27 F / 70K Swivel	70K - 100K Drills
400-278	26"		4"	3.27 F / 70K Swivel	70K - 100K Drills

CENTERING CONE



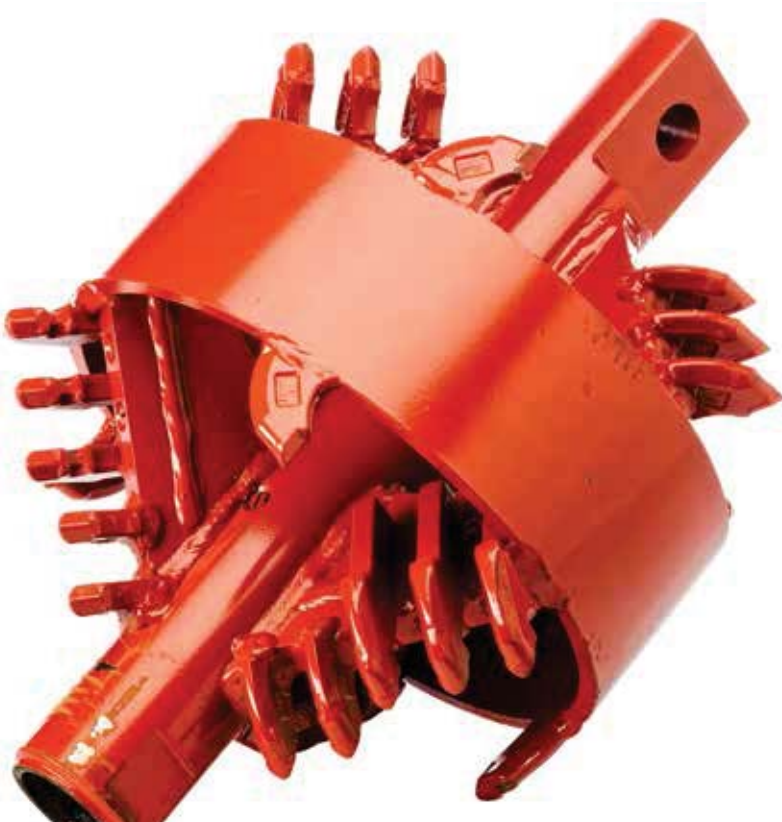
Part Number	Size	All Terrain Drills
401-108	6"	AT30 - AT4020
401-110	8"	AT30 - AT4020
401-112	10"	AT30 - AT4020
401-115	12"	AT30 - AT4020
401-118	14"	AT30 - AT4020
401-121	16"	AT30 - AT4020
401-124	18"	AT30 - AT4020



BEAVERTAIL BACKREAMER

A low-weight design and low-resistance profile give the patented Beavertail Backreamer efficient fluid mixing capability, requiring far less horsepower for rotation in a variety of soil conditions.

Part Number	Cut	Shaft	Ends	Nozzle Thread	Drills
400-1439	4.5"	2"	1.1F / 12K Tab	7/16-20	5K - 9K Drills
369-198	4.5"	2"	1.41 M / 12K Tab	7/16-20	5K - 9K Drills
368-536	6"	2"	1.41 M / 12K Tab	7/16-20	5K - 9K Drills
368-539	8"	2"	1.41 M / 12K Tab	7/16-20	5K - 9K Drills
368-542	10"	2"	1.41 M / 12K Tab	7/16-20	5K - 9K Drills
368-545	12"	2"	1.41 M / 12K Tab	7/16-20	5K - 9K Drills
368-548	14"	2"	1.41 M / 12K Tab	7/16-20	5K - 9K Drills
369-201	6"	2.75"	1.94 F / 30K Tab	7/8-14	9K - 20K Drills
368-419	8"	2.75"	1.94 F / 30K Tab	7/8-14	9K - 20K Drills
368-424	10"	2.75"	1.94 F / 30K Tab	7/8-14	9K - 20K Drills
368-621	12"	2.75"	1.94 F / 30K Tab	7/8-14	9K - 20K Drills
368-427	14"	2.75"	1.94 F / 30K Tab	7/8-14	9K - 20K Drills
368-430	18"	2.75"	1.94 F / 30K Tab	7/8-14	9K - 20K Drills
368-433	22"	2.75"	1.94 F / 30K Tab	7/8-14	9K - 20K Drills
400-323	8"	3.5"	2.59 F / 40K Soc	7/16-20	27K - 40K Drills
400-324	10"	3.5"	2.59 F / 40K Soc	7/16-20	27K - 40K Drills
400-325	12"	3.5"	2.59 F / 40K Soc	7/16-20	27K - 40K Drills
400-326	14"	3.5"	2.59 F / 40K Soc	7/16-20	27K - 40K Drills
400-327	16"	3.5"	2.59 F / 40K Soc	7/16-20	27K - 40K Drills
400-328	18"	3.5"	2.59 F / 40K Soc	7/16-20	27K - 40K Drills
400-1339	12"	4.25"	3.27 F / 70K Tab	7/8-14	70K - 100K Drills
400-1338	14"	4.25"	3.27 F / 70K Tab	7/8-14	70K - 100K Drills
400-1337	18"	4.25"	3.27 F / 70K Tab	7/8-14	70K - 100K Drills
400-1336	22"	4.25"	3.27 F / 70K Tab	7/8-14	70K - 100K Drills
400-1335	26"	4.25"	3.27 F / 70K Tab	7/8-14	70K - 100K Drills
400-1334	30"	4.25"	3.27 F / 70K Tab	7/8-14	70K - 100K Drills
400-1322	36"	4.25"	3.27 F / 70K Tab	7/8-14	70K - 100K Drills



WATER WING BACKREAMER

Outer ring adds strength and stability as the backreamer expands the hole. Fluid is delivered at the cutting edge, which keeps the cuttings flowing out instead of balling up on the reamer.

Part Number	Cut	Shaft	Ends	Nozzle Thread	Drills
369-782	12"	2.75"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills
369-783	16"	2.75"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills
369-784	20"	2.75"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills
369-785	24"	2.75"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills
400-205	8"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills
400-206	10"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills
400-186	12"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills
400-187	14"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills
400-188	16"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills
400-189	18"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills
369-236	12"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills
369-237	16"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills
369-238	20"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills
369-239	24"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills
369-240	28"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills
369-241	32"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills





THREE WING ROCK

Designed for low torque pressures and excellent fluid mixing and flow, the Three Wing Rock Backreamer features carbide-reinforced shark teeth strategically positioned to backream in extreme soil conditions such as hard, compacted soils, sandstone and softer limestones.

Part Number	Cut	Shaft	Ends	Nozzle Thread	Drills	All Terrain Drills
369-587	8"	3"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills	
369-588	10"	3"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills	
369-589	12"	3"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills	
369-590	14"	3"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills	
369-591	18"	3"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills	
369-592	22"	3"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills	
369-593	26"	3"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills	
400-355	8"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills	27K - 40K All Terrain
400-356	10"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills	27K - 40K All Terrain
400-357	12"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills	27K - 40K All Terrain
400-358	14"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills	27K - 40K All Terrain
400-359	16"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills	27K - 40K All Terrain
400-360	18"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills	27K - 40K All Terrain
369-548	12"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
369-549	14"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
369-550	18"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
369-551	22"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
369-552	26"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
369-553	30"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
369-554	36"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100



KODIAK COBBLE BACKREAMER

Designed for extreme soil conditions—such as rock, chunk rock and cobble—where a paddle-type reamer could not survive, the Kodiak Cobble Backreamer’s spiraling flutes provide a cutting surface that allows cuttings and fluid to flow behind the reamer and over the product.

Part Number	Cut	Shaft	Ends	Nozzle Thread	Drills	All Terrain Drills
369-660	8"	3"	1.94 F / 30K Tab	7/16-20	9K -20K Drills	
369-661	10"	3"	1.94 F / 30K Tab	7/16-20	9K -20K Drills	
369-662	12"	3"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills	
369-663	16"	3"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills	
369-664	20"	3"	1.94 F / 30K Tab	7/16-20	9K - 20K Drills	
400-329	8"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills	AT2720 - AT4020
400-330	10"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills	AT2720 - AT4020
400-331	12"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills	AT2720 - AT4020
400-332	14"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills	AT2720 - AT4020
400-333	16"	3.5"	2.59 F / 40K Soc	N/A	27K - 40K Drills	AT2720 - AT4020
400-334	18"	3.5"	2.59 F / 40K Soc	N/A	70K - 100K Drills	AT100
369-667	10"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
369-668	12"	4"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
369-669	16"	4"	3.27 F / 70K Tab		70K - 100K Drills	AT100
400-1213	20"	4.75"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
400-1214	24"	4.75"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
400-1215	28"	4.75"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
400-1216	32"	4.75"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100
400-1217	36"	4.75"	3.27 F / 70K Tab	7/16-20	70K - 100K Drills	AT100



ROCKMASTER BACKREAMER

Designed for heavy or solid rock bores, the Rockmaster is available in four reamer body sizes. Features include replaceable Mill Tooth or TCI (Tungsten Carbide Insert) cutters that are field-replaceable and gauge-protected for extended life. Hole diameters range from 6 in (152 mm) to 22 in (559 mm), depending on the reamer body and cutters used.

Part Number	Cut	Description	Shaft	Ends	Drills	All Terrain Drills
190-1403	6"	TCI	2.75"	2.59 F / 30K Tab	27K - 30K Drills	
190-1404	6"	MT	2.75"	2.59 F / 30K Tab	27K - 30K Drills	
190-1391	8"	TCI	4"	2.59 F / 30K Tab	27K - 40K Drills	
190-1392	8"	MT	4"	2.59 F / 30K Tab	27K - 40K Drills	
190-1393	10"	TCI	4"	2.59 F / 30K Tab	27K - 40K Drills	
190-1394	10"	MT	4"	2.59 F / 30K Tab	27K - 40K Drills	
190-1395	12"	TCI	4"	2.59 F / 30K Tab	27K - 40K Drills	
190-1396	12"	MT	4"	3.5 API M / 30K Tab	27K - 40K Drills	
190-1397	10"	TCI	5.75"	3.5 API M / 30K Tab	70K - 100K Drills	AT2720 - AT100
190-1398	10"	MT	5.75"	3.5 API M / 30K Tab	70K - 100K Drills	AT2720 - AT100
190-1399	12"	TCI	5.75"	3.5 API M / 30K Tab	70K - 100K Drills	AT2720 - AT100
190-1400	12"	MT	5.75"	3.5 API M / 30K Tab	70K - 100K Drills	AT2720 - AT100
190-1401	14"	TCI	5.75"	3.5 API M / 30K Tab	70K - 100K Drills	AT2720 - AT100
190-1402	14"	MT	5.75"	3.27 FM / 70K Tab	70K - 100K Drills	AT2720 - AT100
190-1405	16"	TCI 500 Series	8"	3.27 FM / 70K Tab	70K - 100K Drills	
190-1406	16"	TCI 700 Series	8"	3.27 FM / 70K Tab	70K - 100K Drills	
190-1407	18"	TCI 500 Series	8"	3.27 FM / 70K Tab	70K - 100K Drills	
190-1408	18"	TCI 700 Series	8"	3.27 FM / 70K Tab	70K - 100K Drills	
190-1409	20"	TCI 500 Series	8"	3.27 FM / 70K Tab	70K - 100K Drills	
190-1410	20"	TCI 700 Series	8"	3.27 FM / 70K Tab	70K - 100K Drills	
190-1411	22"	TCI 500 Series	8"	3.27 FM / 70K Tab	70K - 100K Drills	
190-1412	22"	TCI 700 Series	8"	3.27 FM / 70K Tab	70K - 100K Drills	

DURABLE AS THE DRILLS THAT PULL THEM.



A weak link can cripple your entire jobsite. That's why you can't skimp on important components like pullers, swivels and tabs. Ditch Witch® one-piece pullers provide a reliable connection you can count on bore after bore. Our swivels are built to last up to four times longer than aftermarket counterparts. And our pulling tabs are made from hardened steel and tested to perform up to the demanding standards of Ditch Witch.

CLEVIS

Part Number	Size
110-289	5/16"
110-509	1/2"
110-969	5/8"
110-040	3/4"
110-987	7/8"
110-847	1"
111-018	1-1/4"
111-019	1-1/2"
369-709	Bit Clevis



PULLING GRIP WITH SWIVEL



Part Number	Size
185-901	1/4" - 1/2"
185-902	1/2" - 3/4"
185-903	3/4" - 1-1/4"
185-904	1-1/4" - 2"
185-906	2" - 2-3/4"
185-907	2-3/4" - 3-1/2"
185-913	3-1/2" - 4-1/4"
185-914	4-1/4" - 4-3/4"

PULLING GRIP WITHOUT SWIVEL

Part Number	Size
185-917	3/4" - 1-1/4"
185-918	1-1/4" - 2"
185-919	2" - 2-3/4"
185-920	2-3/4" - 3-1/2"
185-921	3-1/2" - 4-1/4"



HEAVY-DUTY PULLING GRIP



Part Number	Size
185-922	3/4" - 1-1/4"
185-923	1-1/4" - 2"
185-924	2" - 2-3/4"
185-925	2-3/4" - 3-1/2"
185-926	3-1/2" - 4-1/4"

PULL CLEVIS

Part Number	Size
368-234	1.94-4 F / 12K
400-781	2.77-4 DS AT F / 30k
400-805	2.77-4 SS AT F / 30k



SLEEVED PULLERS



Part Number	Size	Min / Max ID	SDR Range
902-2100	1"	1.050" – 1.200" ID	11-17
902-2200	1.25"	1.200" – 1.500" ID	9-17
902-2300	1.5"	1.530" – 1.620" ID	11-13.5
902-2400	2"	1.900" – 2.050" ID	11-13.5
902-2500	2.5"	2.310" – 2.700" ID	11-17
902-2600	3"	2.825" – 3.070" ID	11-17
902-2700	4"	3.620" – 4.090" ID	11-21
902-2800	5"	4.470" – 5.160" ID	11-26
902-2900	6"	5.320" – 6.040" ID	11-21

NON-SLEEVED PULLERS

Part Number	Size	Min / Max ID	SDR Range
902-0010	1"	1.050" – 1.200" ID	11-17
902-0101	1.25"	1.200" – 1.500" ID	9-17
902-0151	1.5"	1.530" – 1.620" ID	11-13.5
902-0201	2"	1.900" – 2.050" ID	11-13.5
902-0251	2.5"	2.310" – 2.700" ID	11-17
902-0301	3"	2.825" – 3.070" ID	11-17
902-0401	4"	3.620" – 4.090" ID	11-21
902-0501	5"	4.470" – 5.160" ID	11-26
902-0601	6"	5.320" – 6.040" ID	11-21
902-0801	8"	7.050" – 7.750" ID	11-21
902-1001	10"	8.670" – 9.875" ID	11-26
902-1201	12"	10.430" – 11.960" ID	11-23.5



CARROT PULLER



Part Number	Size	Min / Max ID	SDR Range
901-0102	.5" to 1"	0.38" – 1.08" ID	9-11
901-0105	1"	0.90" – 1.21" ID	7.3-17
901-0122	1" to 1.25"	1" – 1.39" ID	9-13.5
901-0125	1.25"	1.27" – 1.51" ID	9-17
901-0152	1.25" to 1.5"	1.1" – 1.66" ID	7-17
901-0150	1.5"	1.52" – 1.67" ID	11-17
901-0202	2.0"	1.82" – 2.10" ID	9-17

PULLERS, SWIVELS & TABS



DOUBLE CLEVIS



CLEVIS TO TAB

Part Number	Connection	Drills
185-935	5K Clevis/5K Clevis	5K-9K
401-283	20K Clevis/20K Clevis	9K-20K
300-1164	30K Clevis/30K Clevis	9K-17K
401-294	40K Clevis/40K Clevis	100K / 27K AT-40K AT

Part Number	Connection	Drills
368-513	12K Clevis/12K Tab	5K-9K
368-634	20K Clevis/20K Tab	9K-20K
369-712	30K Clevis/20K Tab	9K-20K
300-1157	30K Clevis/30K Tab	17K-100K / 27K AT-100K AT
400-748	40K Clevis/40K Tab	40K AT-100K AT
369-971	70K Clevis/40K Tab	40K AT-100K AT
369-972	70K Clevis/70K Tab	100K / 40K AT-100K AT



SOCKET TO TAB

Part Number	Connection	Drills
300-1162	40K Socket F/30K Tab	27K AT-30K AT
300-1159	40K Socket F/30K Tab	27K-30K / 27K AT-30K AT
400-221	40K Socket/40K Tab	27K AT-30K AT
400-759	40K Socket/40K Tab	40K / 40K AT-100K AT



MALE TO TAB

Part Number	Connection	Drills
400-111	1.94-4M/12K Tab	9K
400-112	1.94-4M/20K Tab	9K-20K



FEMALE TO TAB

Part Number	Connection	Drills
369-195	1.94-4F/12K Tab	5K
400-236	1.94-4F/20K Tab	9K-20K
300-1160	1.94-4F/30K Tab	17K-20K

PULL TABS

Part Number	Models(s)
369-308	JT520
369-309	JT520
400-1432	JT5
368-352	JT920 /JT920L / JT921 / JT921S / JT922
400-921	JT1220M1
401-007	JT1220M1
369-864	JT920L / JT1220M1
369-865	JT920 / JT920L / JT921 / JT921S / JT922 / JT1220M1 JT1720M1 / JT2020M1
401-246	AT4020
400-818	AT4020
369-123	JT8020M1 / JT100M1
369-122	JT8020M1 / JT100M1
400-583	3.5 in Shaft Reamers
400-704	JT4020M1 /AT4020
369-854	JT4020M1 / JT8020M1 / JT100M1
400-760	AT2720 /AT30
400-803	AT2720 /AT30 Cobble





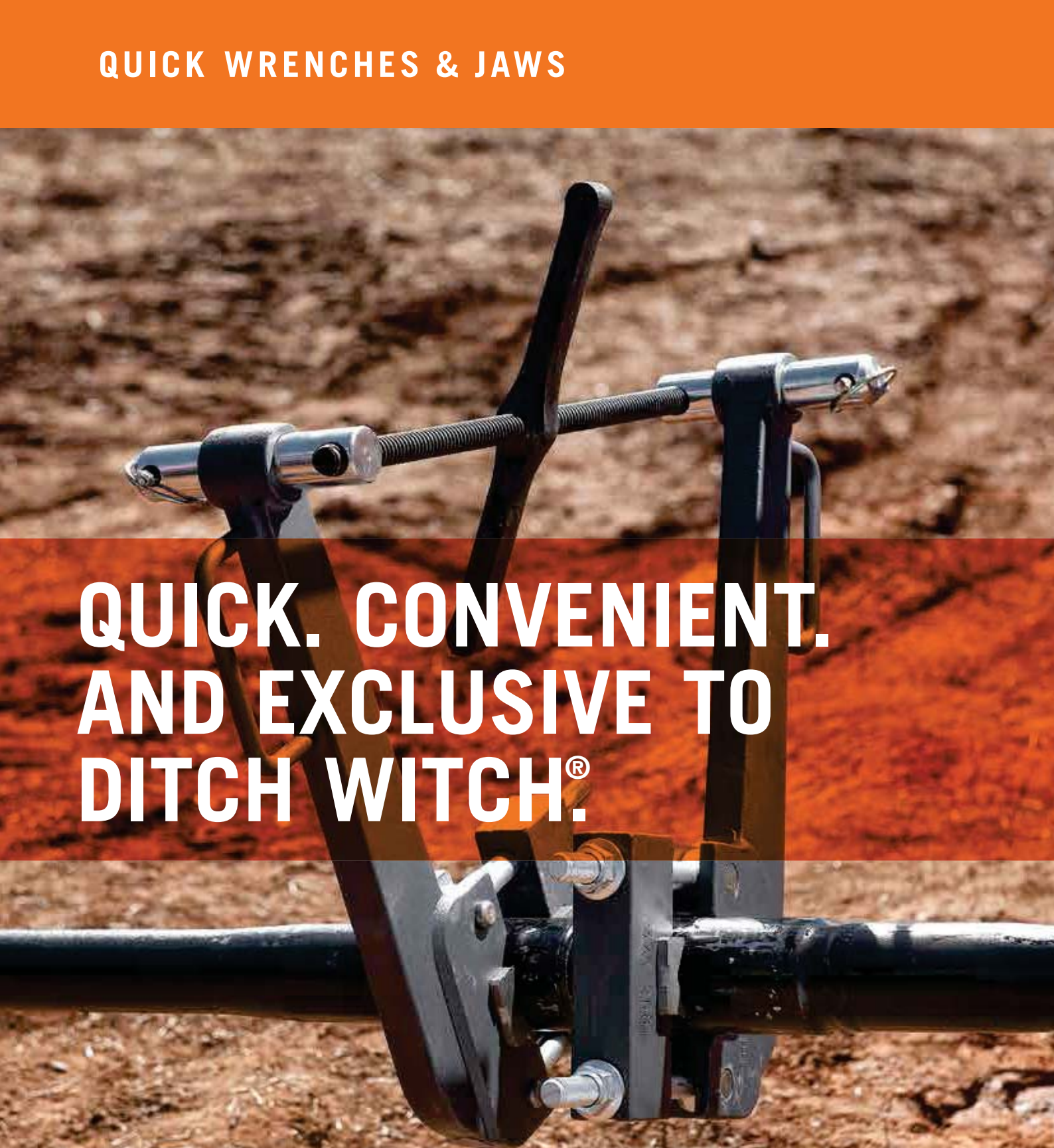
RUGGED CONSTRUCTION. PRECISION PERFORMANCE. MAXIMUM EFFICIENCY.

Whether manufactured from heat-treated steel or fabricated with carbide inserts, our nozzles can take what the jobsite dishes out, while still regulating and directing fluid flow with precision. Available with varying flows and pressures, we have a nozzle that will help maximize the efficiency of your directional drill in virtually any application.

NOZZLES

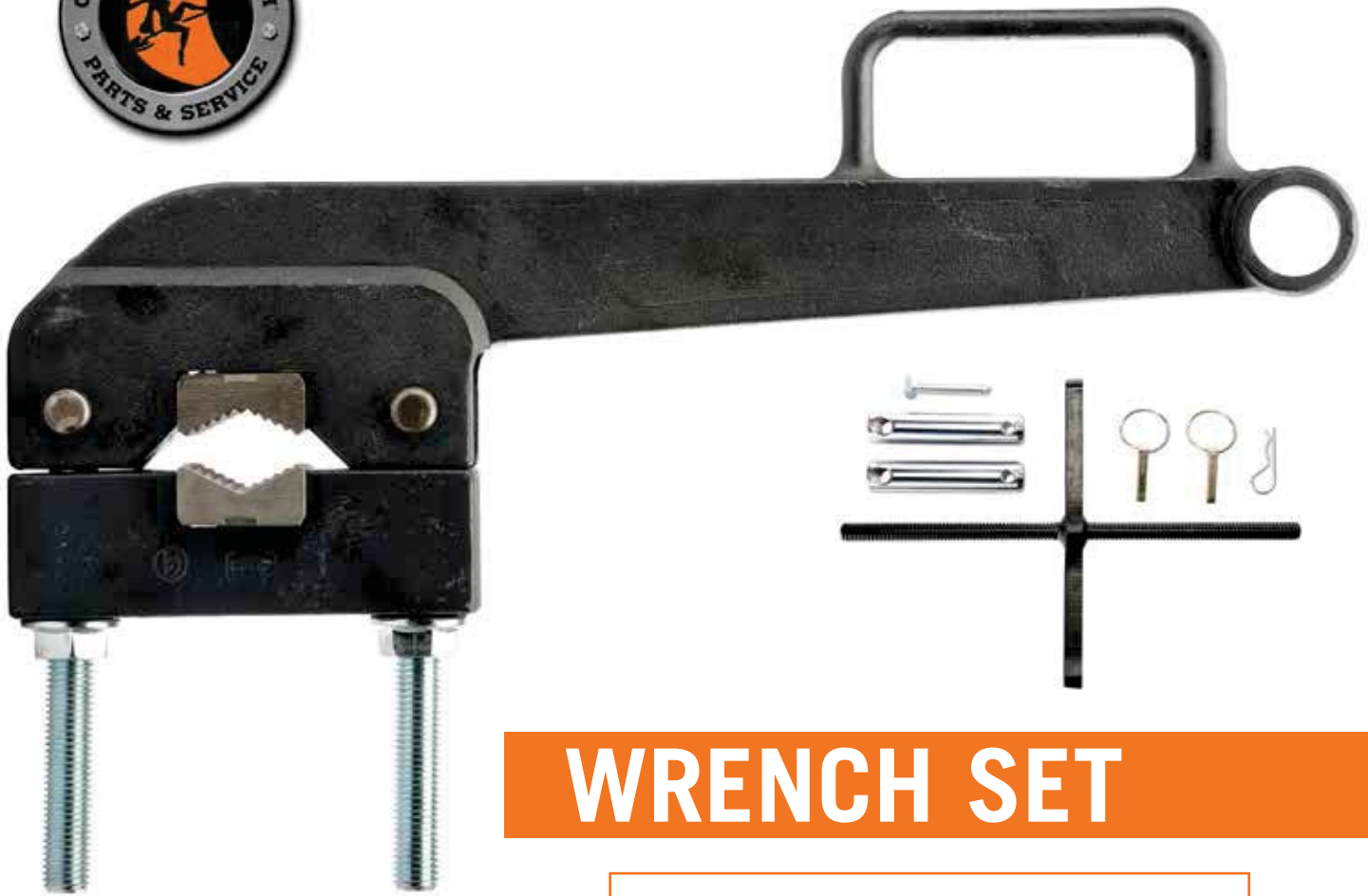


Part Number	Thread Size	Orifice Size	Type
149-200	1/4 NPT	.07 in	Single Jet
149-201	1/4 NPT	.1 in	Single Jet
149-202	1/4 NPT	.15 in	Single Jet
149-203	1/4 NPT	.2 in	Single Jet
149-204	1/4 NPT	.25 in	Single Jet
159-297	7/16-20	.074 in	Single Jet
159-293	7/16-20	.104 in	Single Jet
159-423	7/16-20	.188 in	Single Jet
159-295	7/16-20	.074 in	Angled Jet
159-422	7/16-20	.156 in	Angled Jet
159-291	7/16-20	.209 in	Angled Jet
159-296	7/16-20	.074 in	Dual Jet
159-292	7/16-20	.104 in	Dual Jet
159-294	7/16-20	N/A	Plug
159-407	7/8-14	.104 in	Single Jet
159-405	7/8-14	.157 in	Single Jet
159-397	7/8-14	.209 in	Single Jet
159-406	7/8-14	.104 in	Angled Jet
159-404	7/8-14	.157 in	Angled Jet
159-396	7/8-14	.209 in	Angled Jet
159-398	7/8-14	N/A	Plug



QUICK. CONVENIENT. AND EXCLUSIVE TO DITCH WITCH.®

Ditch Witch quick wrenches and jaws provide an effective way to manually connect and disconnect portions of the drill string. Use them to help you disconnect the drill head from the drill string before attaching a backreamer, or to connect the drill head to the drill string before drilling. We offer a variety of jaw shapes and sizes to accommodate the installation or removal of different types of bits, backreamers and transition subs.



WRENCH SET

Part Number	Description	Size
401-229	Wrench Screw Assembly	0-4000 ft-lb
369-324	Wrench Screw Assembly	3000-6500 ft-lb
368-681	Wrench Handle Assembly	0-4000 ft-lb
368-753	Wrench Handle Assembly	3000-6500 ft-lb
368-533	Vice Wrench Assembly	0-4000 ft-lb
369-325	Vice Wrench Assembly	3000-6500 ft-lb



HYDRA-TONG

Part Number	Description	Size
400-856	Hydra-Tong Assembly	Fits Outside Diameter 2.125" - 5"
400-161	Hydra-Tong Jaw Handle	





BIT BLOCK JAW

Part Number	Description	Size
369-795	Tri-Cone	4.75"
400-928	Tri-Cone	5.5"
401-133	Tri-Cone	6.25"
400-705	Tri-Cone	6.5"
401-148	Soft Formation	6.25"
400-1119	Soft Formation	6.65"

FLAT JAW

Part Number	Description	Size
368-693	Quick Wrench Jaw	1.24"
369-281	Quick Wrench Jaw	1.42"
369-282	Quick Wrench Jaw	1.56"
368-692	Quick Wrench Jaw	1.63"
368-690	Quick Wrench Jaw	2"
368-689	Quick Wrench Jaw	2.1"
368-688	Quick Wrench Jaw	2.25"
359-103	Quick Wrench Jaw	2.25"
368-687	Quick Wrench Jaw	2.35"
368-686	Quick Wrench Jaw	2.4"
369-286	Quick Wrench Jaw	2.5"
400-004	Jaw (1 in thick)	3.25"
368-682	Quick Wrench Jaw	3.75"
369-101	Jaw (1.5 in thick)	3.75"
400-749	Jaw	5.5"



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Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
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