



**INTERNAL PRESSURE PIPE CUTTERS**

**Overview**

The Internal Pressure Pipe Cutter utilizes pump pressure to actuate three carbide-coated knives to cut single and multiple strings of pipe from 4 inches O.D. to 36-inches O.D. Each dif-ferent size cutter can be dressed with different lengths of knives to cut different sizes of pipe. Pump pressure is preset by a simple adjustment so the knives will extend at the exact desired diameter. Flow restriction across an orifice feeds

a piston that forces the knives out. When the knives reach a pre-set diameter, the operator will see a sudden pressure drop that indicates that the pipe has been cut.

**Construction**

The Internal Pressure Pipe Cutter con-sists of a body, multiple knives with knife pins and retainers screws, a piston with a pressure relief valve system consisting of a valve stem,

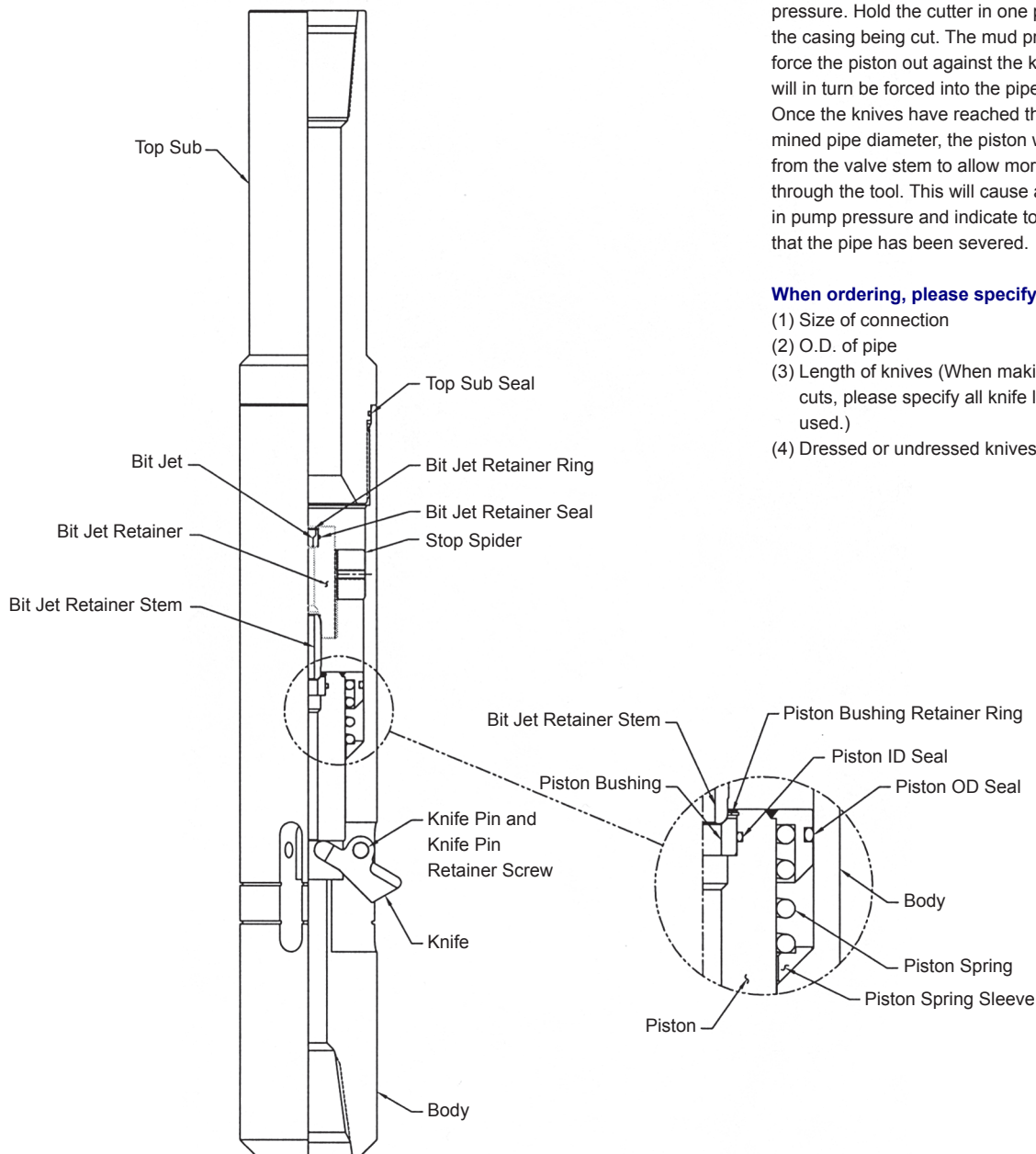
flow bushing, flow bean retainer, stop spider, flow bean, and set screws. All component parts are manufactured from specially selected alloys.

**Operation**

The Internal Pressure Pipe Cutter is run on tubing or drill pipe with the knives wired so that they stay in their grooves until the desired cutting depth is reached. Stabilization should be run above the cutter. Begin rotation of the drill string at approximately 35 to 50 rpm. Engage the mud pumps at about 900 psi pump pressure. Hold the cutter in one position inside the casing being cut. The mud pressure will force the piston out against the knives, which will in turn be forced into the pipe being cut. Once the knives have reached the predetermined pipe diameter, the piston will separate from the valve stem to allow more mud to flow through the tool. This will cause a rapid drop in pump pressure and indicate to the operator that the pipe has been severed.

**When ordering, please specify:**

- (1) Size of connection
- (2) O.D. of pipe
- (3) Length of knives (When making multiple cuts, please specify all knife lengths to be used.)
- (4) Dressed or undressed knives when ordering







## Internal Pressure Pipe Cutters

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PIPE SIZE TO CUT	4	4-1/2 to 6-1/8	6-5/8 to 7-5/8	8-5/8 to 11-3/4	9-5/8 to 36	10-3/4 to 36	13-3/8 to 36
CUTTER O.D.	3-1/4	3-5/8	5-9/16	7-3/8	8-1/4	9-1/2	11-3/4
CONNECTION SIZE (BOX UP)	2-3/8 Reg	2-3/8 IF	3-1/2 IF	Blank	Blank	Blank	Blank
CONNECTION SIZE (BOX DOWN)	2-3/8 Reg	2-3/8 Reg	3-1/2 Reg	Blank	Blank	Blank	Blank
<b>COMPLETE ASSEMBLY</b> □	<b>412-325</b>	<b>412-363</b> □	<b>412-556</b> □	<b>412-738</b> □	<b>412-825</b> □	<b>412-950</b> □	<b>412-1175</b> □
Bowen No.	150444	147483	147489	150959	147495	147343	147369
<b>BIT JET RETAINER SEAL</b> □	<b>568-117</b>	<b>568-117</b> □	<b>568-117</b> □	<b>568-219</b>	<b>568-219</b>	<b>568-219</b>	<b>568-219</b>
Bowen No.	568117	568117	568117	27-24	27-24	27-24	27-24
<b>BIT JET RETAINER STEM</b> □	<b>R16000</b>	<b>R16000</b>	<b>R16000</b>	<b>R16001</b>	<b>R16001</b>	<b>R16001</b>	<b>R16001</b>
Bowen No.	80354	80354	80354	147017	147017	147017	147017
<b>STOP SPIDER</b> □	<b>R17000</b>	<b>R17001</b>	<b>R17002</b>	<b>R17003</b>	<b>R17004</b>	<b>R17005</b>	<b>R17006</b>
Bowen No.	150451	80353	80715	151027	145168	147354	147381
<b>STOP SPIDER SET SCREW</b> □	<b>P12008</b>	<b>R18001</b>	<b>R18002</b>	<b>AX10002</b>	<b>AX10002</b>	<b>AX10002</b>	<b>R18004</b>
Bowen No.	23705	23706	23709	145165	145165	145165	23384
No. Req'd	3	3	3	3	3	3	3
<b>BIT JET</b> □	<b>R14000</b>	<b>R14001</b>	<b>R14001</b>	<b>R14002</b>	<b>R14002</b>	<b>R14002</b>	<b>R14002</b>
Bowen No.	150682	80453	80453	147016	147016	147016	147016
<b>BIT JET RETAINER RING</b> □	<b>R15000</b>	<b>R15000</b>	<b>R15000</b>	<b>R15002</b>	<b>R15002</b>	<b>R15002</b>	<b>R15002</b>
Bowen No.	54131	54131	54131	33788	33788	33788	33788
<b>TOP SUB</b> □	<b>R19000</b>	<b>R19001</b>	<b>R19002</b>	<b>R19003</b>	<b>R19004</b>	<b>R19005</b>	<b>R19006</b>
Bowen No.	150452	80351	80713	151028	147018	147356	147383
<b>TOP SUB SEAL</b> □	<b>568-231</b>	<b>568-234</b>	<b>568-249</b>	<b>568-359</b> □	<b>568-438</b>	<b>568-443</b> □	<b>568-447</b>
Bowen No.	30-9	30-12	30-27	568359	27-65	568440	27-74
<b>TOP SUB SEAL</b>		...	...	...	<b>568-437</b>	...	...
Bowen No.	...	...	...	...	27-64	...	...

*Special Note:*

(1) Optional bullnose nut available upon request.

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**CENTRALIZING TOP SUBS**

5" O.D.	Logan Part No.	...	<b>R2100</b>	...	...	...	...	...
	Bowen No.	...	80566	...	...	...	...	...
5-1/2" O.D.	Logan Part No.	...	<b>R2101</b>	...	...	...	...	...
	Bowen No.	...	80567	...	...	...	...	...
7" O.D.	Logan Part No.	...	...	<b>R2102</b>	...	...	...	...
	Bowen No.	...	...	80720	...	...	...	...
7-5/8" O.D.	Logan Part No.	...	...	<b>R2103</b>	...	...	...	...
	Bowen No.	...	...	80721	...	...	...	...

**KNIVES (UNDRESSED)**

7-5/8" to 9-5/8" O.D.	Logan Part No.	...	...	<b>R2006</b>	...	...	...	...
	Bowen No.	...	...	81896	...	...	...	...
10-3/4" O.D.	Logan Part No.	...	...	...	<b>R2007</b>	<b>R2008</b>	...	...
	Bowen No.	...	...	...	151029	147021	...	...
11-3/4" to 13-3/8" O.D.	Logan Part No.	...	...	...	<b>R2007</b>	...	<b>R2026</b>	...
	Bowen No.	...	...	...	151029	...	...	...
13-3/8" to 16" O.D.	Logan Part No.	...	...	...	...	<b>R2011</b>	<b>R2026</b>	<b>R2010</b>
	Bowen No.	...	...	...	...	147022	...	147358
16" to 18-5/8" O.D.	Logan Part No.	...	...	...	...	...	...	<b>R2012</b>
	Bowen No.	...	...	...	...	...	...	147359
18" to 20" O.D.	Logan Part No.	...	...	...	...	<b>R2015</b>	...	...
	Bowen No.	...	...	...	...	147023	...	...
18-5/8 to 24" O.D.	Logan Part No.	...	...	...	...	...	<b>R2027</b>	<b>R2017</b>
	Bowen No.	...	...	...	...	...	...	147360
24" to 30" O.D.	Logan Part No.	...	...	...	...	<b>R2018</b>	...	...
	Bowen No.	...	...	...	...	147024	...	...
26" to 30" O.D.	Logan Part No.	...	...	...	...	...	<b>R2028</b>	<b>R2020</b>
	Bowen No.	...	...	...	...	...	...	147361
30" to 34" O.D.	Logan Part No.	...	...	...	...	<b>R2021</b>	...	...
	Bowen No.	...	...	...	...	147025	...	...
34" to 36" O.D.	Logan Part No.	...	...	...	...	<b>R2022</b>	<b>R2028</b>	<b>R2024</b>
	Bowen No.	...	...	...	...	147026	147362	147362

*Logan Oil Tools reserves the right to change or discontinue designs without notice.*

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