

## Reverse Circulation Junk Baskets

### REVERSE CIRCULATION JUNK BASKETS

#### Overview

Utilizing the principal of reverse fluid circulation, the Reverse Circulation Junk Basket has been designed to remove all types of small junk objects from the hole. The tool's drain feature eliminates pulling a wet string. Even when the tool is fitted with a magnet insert, reverse circulation is maintained.

#### Construction

The Reverse Circulation Junk Basket consists of a lifting sub, top sub, barrel, type A mill shoe, and a single junk catcher. A lifting sub is provided for ease of handling and for storage of the steel drop ball. Assemblies with two junk catchers are available upon request.

For component breakdown of the junk catcher assemblies, refer to the Junk Catcher Assemblies tables on pages 114 – 123.

#### Optional Accessories

Mill shoes for all reverse circulation junk baskets are available in three types: A, B, and C.

#### Type A Mill Shoe

Conventional hard metal with side wings.

#### Type B Mill Shoe

Similar to the Type A design, but dressed with sintered tungsten carbide.

#### Type C Mill Shoe

Flat bottomed and dressed with sintered tungsten carbide.

#### Magnet Inserts

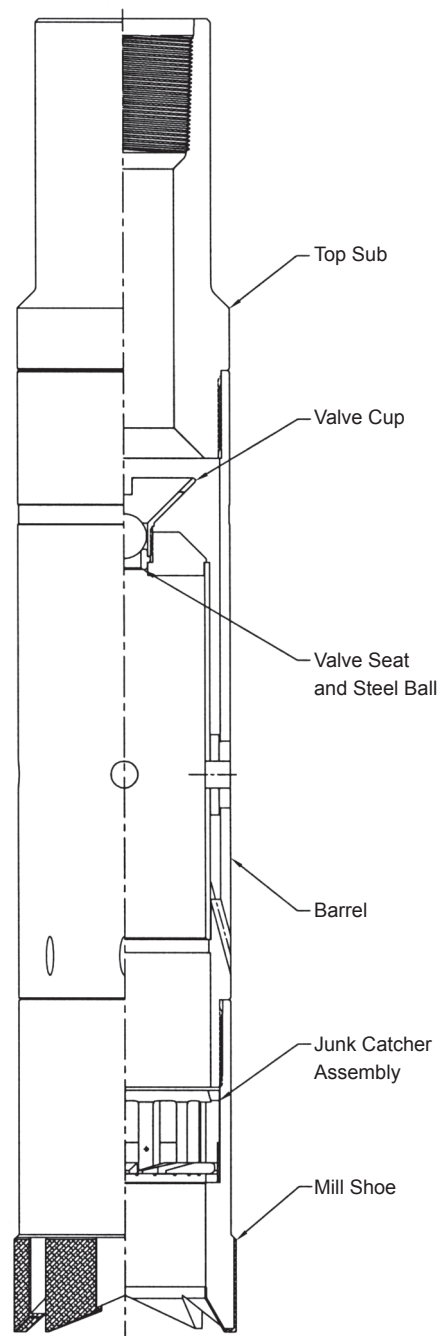
Reverse Circulation Junk Baskets can easily be converted to an effective fishing magnet by replacing the junk catcher assembly with a magnet insert.

#### Operation

The Reverse Circulation Junk Basket is made up to the bottom of the fishing string and lowered to a point within several feet from the bottom of the hole. Begin circulation to wash the hole. Stop circulation and drop the steel ball.

(When the steel ball is dropped into the valve seat, circulation fluid travels outward and downward through the inner passage of the barrel and out through the vents in the lower end. The fluid is then deflected to the center of the tool and up through the return holes in the upper end of the barrel. This reverse fluid circulation carries the junk into the barrel above the junk catcher.)

Begin circulation again, slowly rotating while lowering the tool until a 10-inch core has been cut. Stop rotation and circulation and pull the tool from the hole.



**REVERSE CIRCULATION JUNK BASKETS**

<b>HOLE SIZE</b>		3-3/4 to 4	4-1/8 to 4-1/2	4-5/8 to 5	5-1/8 to 5-1/2	5-11/16 to 6	6-1/8 to 6-1/2	6-5/8 to 7-3/8
<b>BARREL O.D.</b>		3-5/8	4	4-1/2	4-7/8	5-1/8	5-3/4	6-1/4
<b>MAXIMUM DIAMETER OF FISH</b>		2-11/32	2-17/32	3-1/16	3-9/16	3-3/4	4-13/32	4-3/4
<b>COMPLETE ASSEMBLY</b>		<b>302-363</b>	<b>302-400</b>	<b>302-450</b>	<b>302-487</b>	<b>302-513</b>	<b>302-575</b>	<b>302-625</b>
	Bowen No.	6635	7295	4448	4572	2618	2670	2677
<b>TOP SUB</b>		<b>D1000</b>	<b>D1001</b>	<b>D1002</b>	<b>D1003</b>	<b>D1004</b>	<b>D1005</b>	<b>D1006</b>
	Bowen No.	6636	7296	4449	4573	2619	2671	2678
<b>BARREL</b>		<b>D2000</b>	<b>D2001</b>	<b>D2002</b>	<b>D2003</b>	<b>D2004</b>	<b>D2005</b>	<b>D2006</b>
	Bowen No.	6637	7297	4450	4574	2620	2672	2679
<b>VALVE CUP</b>		<b>D3000</b>	<b>D3000</b>	<b>D3002</b>	<b>D3002</b>	<b>D3004</b>	<b>D3004</b>	<b>D3004</b>
	Bowen No.	6638	6638	4451	4451	2621	2621	2621
<b>STEEL BALL</b>		<b>D4000</b>	<b>D4000</b>	<b>D4002</b>	<b>D4002</b>	<b>D4004</b>	<b>D4004</b>	<b>D4004</b>
	Bowen No.	6640	6640	4453	4453	2623	2623	2623
<b>VALVE SEAT</b>		<b>D5000</b>	<b>D5000</b>	<b>D5002</b>	<b>D5002</b>	<b>D5004</b>	<b>D5004</b>	<b>D5004</b>
	Bowen No.	6639	6639	4452	4452	2622	2622	2622
<b>LIFTING SUB</b>		<b>D6000</b>	<b>D6000</b>	<b>D6002</b>	<b>D6002</b>	<b>D6004</b>	<b>D6004</b>	<b>D6006</b>
	Bowen No.	4568	4568	424	424	425	425	1849
<b>JUNK CATCHER ASSEMBLY</b>		<b>600-015</b>	<b>600-016</b>	<b>600-017</b>	<b>600-018</b>	<b>600-019</b>	<b>600-020</b>	<b>600-021</b>
(See Note 1)	Bowen No.	21795W	21855W	21780W	21790W	21735W	28349W	21750W
<b>TYPE A MILL SHOE</b>		<b>D8000-A</b>	<b>D8001-A</b>	<b>D8002-A</b>	<b>D8003-A</b>	<b>D8004-A</b>	<b>D8005-A</b>	<b>D8006-A</b>
(Hard Faced Mill Teeth)	Bowen No.	6642A	7299A	4455A	4576A	2625A	2676A	2683A

**OPTIONAL COMPONENTS**

<b>TYPE B MILL SHOE</b>		<b>D8000-B</b>	<b>D8001-B</b>	<b>D8002-B</b>	<b>D8003-B</b>	<b>D8004-B</b>	<b>D8005-B</b>	<b>D8006-B</b>
(Tungsten Carbide Mill Teeth)	Bowen No.	6642B	7299B	4455B	4576B	2625B	2676B	2683B
<b>TYPE C MILL SHOE</b>		<b>D8000-C</b>	<b>D8001-C</b>	<b>D8002-C</b>	<b>D8003-C</b>	<b>D8004-C</b>	<b>D8005-C</b>	<b>D8006-C</b>
(Tungsten Carbide Faced)	Bowen No.	6642C	7299C	4455C	4576C	2625C	2676C	2683C
<b>FINGER SHOES</b>		<b>600-100</b>	<b>600-101</b>	<b>600-102</b>	<b>600-103</b>	<b>600-104</b>	<b>600-105</b>	<b>600-106</b>
(Complete Assembly)	Bowen No.	6643	7300	4456	4577	22208	22218	2739
	Max. Dia. of Fish	3-1/4	3-3/4	4-1/16	4-1/2	4-3/4	5-17/32	5-29/32
<b>BODY</b>		<b>D7000</b>	<b>D7001</b>	<b>D7002</b>	<b>D7003</b>	<b>D7004</b>	<b>D7005</b>	<b>D7006</b>
	Bowen No.	6643-2	7300-2	4456-2	4577-2	22208-2	22218-2	2739-2
<b>REPLACEMENT</b>		<b>D10000</b>	<b>D10001</b>	<b>D10002</b>	<b>D10003</b>	<b>D10004</b>	<b>D10005</b>	<b>D10006</b>
	Bowen No.	6643-1	7300-1	4456-1	4577-1	22208-1	22218-1	2739-1
<b>MAGNET INSERTS</b>		<b>600-045</b>	<b>600-046</b>	<b>600-047</b>	<b>600-048</b>	<b>600-049</b>	<b>600-050</b>	<b>600-051</b>
(Complete Assembly)	Bowen No.	61836	61848	61840	61850	61852	61866	61872
<b>MAGNETIC ASSEMBLY</b>		<b>600-068</b>	<b>600-069</b>	<b>600-069</b>	<b>600-070</b>	<b>600-070</b>	<b>600-071</b>	<b>600-072</b>
	Bowen No.	61810	61812	61812	61814	61814	61816	61818
<b>ADAPTER</b>		<b>E4028</b>	<b>E4029</b>	<b>E4016</b>	<b>E4030</b>	<b>E4003</b>	<b>E4018</b>	<b>E4019</b>
	Bowen No.	61837	61849	61841	61851	61853	61867	61873

Special Notes:

- (1) For component breakdown of the junk catcher assemblies, refer to Junk Catcher Assemblies chart.
- (2) For type A, B, or C shoes: unless specified, shoes will be furnished with the same O.D. as minimum hole size shown.
- (3) Finger shoe replacements are furnished with the same O.D. as standard shoe unless otherwise specified.

**When ordering, please specify:**

- (1) Complete assembly or part number
- (2) Top Sub connection
- (3) O.D. and type of shoe

**Recommended Spare Parts:**

- (1) 2 Upper Catchers
- (2) 2 Lower Catchers
- (3) 2 Mill Shoes
- (4) 2 Finger Shoes
- (5) 4 Finger Shoe Replacements

## Reverse Circulation Junk Baskets

HOLE SIZE	7-1/2 to 8-1/4	8-3/8 to 9-1/2	9-5/8 to 10-5/8	10-3/4 to 11-5/8	11-3/4 to 12-1/2	12-5/8 to 13-5/8	13-3/4 to 16
<b>BARREL O.D.</b>	7	7-7/8	9-1/8	10-1/8	11	11-7/8	13
<b>MAXIMUM DIAMETER OF FISH</b>	5-3/16	6-1/16	7-1/16	7-11/16	8-5/16	8-11/16	9-7/8
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No. 302-700</b> Bowen No. 2554	<b>302-787</b> 2567	<b>302-913</b> 2659	<b>302-1013</b> 2684	<b>302-1100</b> 2690	<b>302-1187</b> 2696	<b>302-1300</b> 2702
<b>TOP SUB</b>	<b>Logan Part No. D1007</b> Bowen No. 2493	<b>D1008</b> 2568	<b>D1009</b> 2660	<b>D1010</b> 2685	<b>D1011</b> 2691	<b>D1012</b> 2697	<b>D1013</b> 2703
<b>BARREL</b>	<b>Logan Part No. D2007</b> Bowen No. 2555	<b>D2008</b> 2569	<b>D2009</b> 2661	<b>D2010</b> 2686	<b>D2011</b> 2692	<b>D2012</b> 2698	<b>D2013</b> 2704
<b>VALVE CUP</b>	<b>Logan Part No. D3007</b> Bowen No. 2570	<b>D3007</b> 2570	<b>D3009</b> 2662	<b>D3009</b> 2662	<b>D3009</b> 2662	<b>D3009</b> 2662	<b>D3009</b> 2662
<b>STEEL BALL</b>	<b>Logan Part No. D4007</b> Bowen No. 2572	<b>D4007</b> 2572	<b>D4009</b> 2665	<b>D4009</b> 2665	<b>D4009</b> 2665	<b>D4009</b> 2665	<b>D4009</b> 2665
<b>VALVE SEAT</b>	<b>Logan Part No. D5007</b> Bowen No. 2571	<b>D5007</b> 2571	<b>D5009</b> 2663	<b>D5009</b> 2663	<b>D5009</b> 2663	<b>D5009</b> 2663	<b>D5009</b> 2663
<b>LIFTING SUB</b>	<b>Logan Part No. D6006</b> Bowen No. 1849	<b>D6008</b> 426	<b>D6009</b> 427	<b>D6009</b> 427	<b>D6009</b> 427	<b>D6009</b> 427	<b>D6009</b> 427
<b>JUNK CATCHER ASSEMBLY</b> (See Note 1)	<b>Logan Part No. 600-022</b> Bowen No. 21725W	<b>600-023</b> 18725W	<b>600-024</b> 14633W	<b>500-019</b> 18945W	<b>600-026</b> 21760W	<b>600-027</b> 21840W	<b>600-028</b> 21770W
<b>TYPE A MILL SHOE</b> (Hard faced Mill Teeth)	<b>Logan Part No. D8007-A</b> Bowen No. 2556A	<b>D8008-A</b> 2574A	<b>D8009-A</b> 2668A	<b>D8010-A</b> 2689A	<b>D8011-A</b> 2695A	<b>D8012-A</b> 2701A	<b>D8013-A</b> 2707A

### OPTIONAL COMPONENTS

<b>TYPE B MILL SHOE</b> (Tungsten Carbide Mill Teeth)	<b>Logan Part No. D8007-B</b> Bowen No. 2556B	<b>D8008-B</b> 2574B	<b>D8009-B</b> 2668B	<b>D8010-B</b> 2689B	<b>D8011-B</b> 2695B	<b>D8012-B</b> 2701B	<b>D8013-B</b> 2707B
<b>TYPE C MILL SHOE</b> (Tungsten Carbide Faced)	<b>Logan Part No. D8007-C</b> Bowen No. 2556C	<b>D8008-C</b> 2574C	<b>D8009-C</b> 2668C	<b>D8010-C</b> 2689C	<b>D8011-C</b> 2695C	<b>D8012-C</b> 2701C	<b>D8013-C</b> 2707C
<b>FINGER SHOES</b> (Complete Assembly)	<b>Logan Part No. 600-107</b> Bowen No. 2740	<b>600-108</b> 2741	<b>600-109</b> 2742	<b>600-110</b> 2743	<b>600-111</b> 2744	<b>600-112</b> 2745	<b>600-113</b> 2746
	Max. Dia. of Fish	6-3/4	7-23/32	9	9-15/16	11	11-7/8
<b>BODY</b>	<b>Logan Part No. D7007</b> Bowen No. 2740-2	<b>D7008</b> 2741-2	<b>D7009</b> 2742-2	<b>D7010</b> 2743-2	<b>D7011</b> 2744-2	<b>D7012</b> 2745-2	<b>D7013</b> 2746-2
<b>REPLACEMENT</b>	<b>Logan Part No. D10007</b> Bowen No. 2740-1	<b>D10008</b> 2741-1	<b>D10009</b> 2742-1	<b>D10010</b> 2743-1	<b>D10011</b> 2744-1	<b>D10012</b> 2745-1	<b>D10013</b> 2746-1
<b>MAGNET INSERTS</b> (Complete Assembly)	<b>Logan Part No. 600-052</b> Bowen No. 61947	<b>600-053</b> 61953	<b>600-054</b> 61965	<b>600-055</b> 61963	<b>600-056</b> 61973	<b>600-057</b> 61975	<b>600-058</b> 61983
<b>MAGNETIC ASSEMBLY</b>	<b>Logan Part No. 600-073</b> Bowen No. 61820	<b>600-074</b> 61822	<b>600-075</b> 61826	<b>600-075</b> 61826	<b>600-076</b> 61828	<b>600-076</b> 61828	<b>600-077</b> 61830
<b>ADAPTER</b>	<b>Logan Part No. E4020</b> Bowen No. 61948	<b>E4021</b> 61954	<b>E4022</b> 61966	<b>E4023</b> 61968	<b>E4024</b> 61974	<b>E4025</b> 61976	<b>E4026</b> 61982

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

#### Special Notes:

- (1) For component breakdown of the junk catcher assemblies, refer to Junk Catcher Assemblies chart.
- (2) For type A, B, or C shoes: unless specified, shoes will be furnished with the same O.D. as minimum hole size shown.
- (3) Finger shoe replacements are furnished with the same O.D. as standard shoe unless otherwise specified.

#### When ordering, please specify:

- (1) Complete assembly or part number
- (2) Top Sub connection
- (3) O.D. and type of shoe

#### Recommended Spare Parts:

- (1) 2 Upper Catchers
- (2) 2 Lower Catchers
- (3) 2 Mill Shoes
- (4) 2 Finger Shoes
- (5) 4 Finger Shoe Replacements

**REVERSE CIRCULATION JUNK BASKETS**

<b>HOLE SIZE</b>		16 to 17-1/2						
<b>BARREL O.D.</b>		15						
<b>MAXIMUM DIAMETER OF FISH</b>		11-1/8						
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No.</b>	<b>302-1500</b>						
	<b>Bowen No.</b>	2708						
<b>TOP SUB</b>	<b>Logan Part No.</b>	<b>D1014</b>						
	<b>Bowen No.</b>	2709						
<b>BARREL</b>	<b>Logan Part No.</b>	<b>D2014</b>						
	<b>Bowen No.</b>	2710						
<b>VALVE CUP</b>	<b>Logan Part No.</b>	<b>D3009</b>						
	<b>Bowen No.</b>	2662						
<b>STEEL BALL</b>	<b>Logan Part No.</b>	<b>D4009</b>						
	<b>Bowen No.</b>	2665						
<b>VALVE SEAT</b>	<b>Logan Part No.</b>	<b>D5009</b>						
	<b>Bowen No.</b>	2663						
<b>LIFTING SUB</b>	<b>Logan Part No.</b>	<b>D6009</b>						
	<b>Bowen No.</b>	427						
<b>JUNK CATCHER ASSEMBLY</b> (See Note 1)	<b>Logan Part No.</b>	<b>600-029</b>						
	<b>Bowen No.</b>	21775W						
<b>TYPE A MILL SHOE</b> (Hard faced Mill Teeth)	<b>Logan Part No.</b>	<b>D8014-A</b>						
	<b>Bowen No.</b>	2713A						

**OPTIONAL COMPONENTS**

<b>TYPE B MILL SHOE</b> (Tungsten Carbide Mill Teeth)	<b>Logan Part No.</b>	<b>D8014-B</b>						
	<b>Bowen No.</b>	2713B						
<b>TYPE C MILL SHOE</b> (Tungsten Carbide Faced)	<b>Logan Part No.</b>	<b>D8014-C</b>						
	<b>Bowen No.</b>	2713C						
<b>FINGER SHOES</b> (Complete Assembly)	<b>Logan Part No.</b>	<b>600-114</b>						
	<b>Bowen No.</b>	2747						
	<b>Max. Dia. of Fish</b>	15-1/4						
<b>BODY</b>	<b>Logan Part No.</b>	<b>D7014</b>						
	<b>Bowen No.</b>	2747-2						
<b>REPLACEMENT</b>	<b>Logan Part No.</b>	<b>D10014</b>						
	<b>Bowen No.</b>	2747-1						
<b>MAGNET INSERTS</b> (Complete Assembly)	<b>Logan Part No.</b>	<b>600-059</b>						
	<b>Bowen No.</b>	61985						
<b>MAGNETIC ASSEMBLY</b>	<b>Logan Part No.</b>	<b>600-078</b>						
	<b>Bowen No.</b>	61832						
<b>ADAPTER</b>	<b>Logan Part No.</b>	<b>E4027</b>						
	<b>Bowen No.</b>	61986						

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- (3) Finger shoe replacements are furnished with the same O.D. as standard shoe unless otherwise specified.

**When ordering, please specify:**

- (1) Complete assembly or part number
- (2) Top Sub connection
- (3) O.D. and type of shoe

**Recommended Spare Parts:**

- (1) 2 Upper Catchers
- (2) 2 Lower Catchers
- (3) 2 Mill Shoes
- (4) 2 Finger Shoes
- (5) 4 Finger Shoe Replacements