

FULL FLOW REVERSE CIRCULATION JUNK BASKETS

Overview

The Full Flow Reverse Circulation Junk Basket is similar to the Reverse Circulation Junk Basket. The unique difference is the Full Flow Valve Assembly that enables continuous circulation through the center thereby keeping out shale and debris while running in the hole. Premature reverse flow action caused by clogged valves is eliminated. The tool's drain feature eliminates pulling a wet string.

Construction

The Full Flow Reverse Circulation Junk Basket consists of a lifting sub, top sub, barrel, full flow valve assembly, filter, type A mill shoe, and an upper and lower catcher.

A lifting sub is provided for ease of handling and for storage of the steel drop ball. The short fingers of the upper catcher are designed to break the core that has been cut by the mill shoe. The combination of short and long fingers of the lower catcher are designed to trap and retrieve the core and junk. Both catchers are free-revolving within the mill shoe, eliminating any breakage of the catcher fingers.

The full flow valve assembly consists of a steel ball, ball seat, ball seat retainer, four shear pins, and O-ring seals.

For component breakdown of the junk catcher assemblies, refer to the Junk Catcher Assemblies tables on pages 115 – 123.

Optional Accessories

Mill shoes for all full flow 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

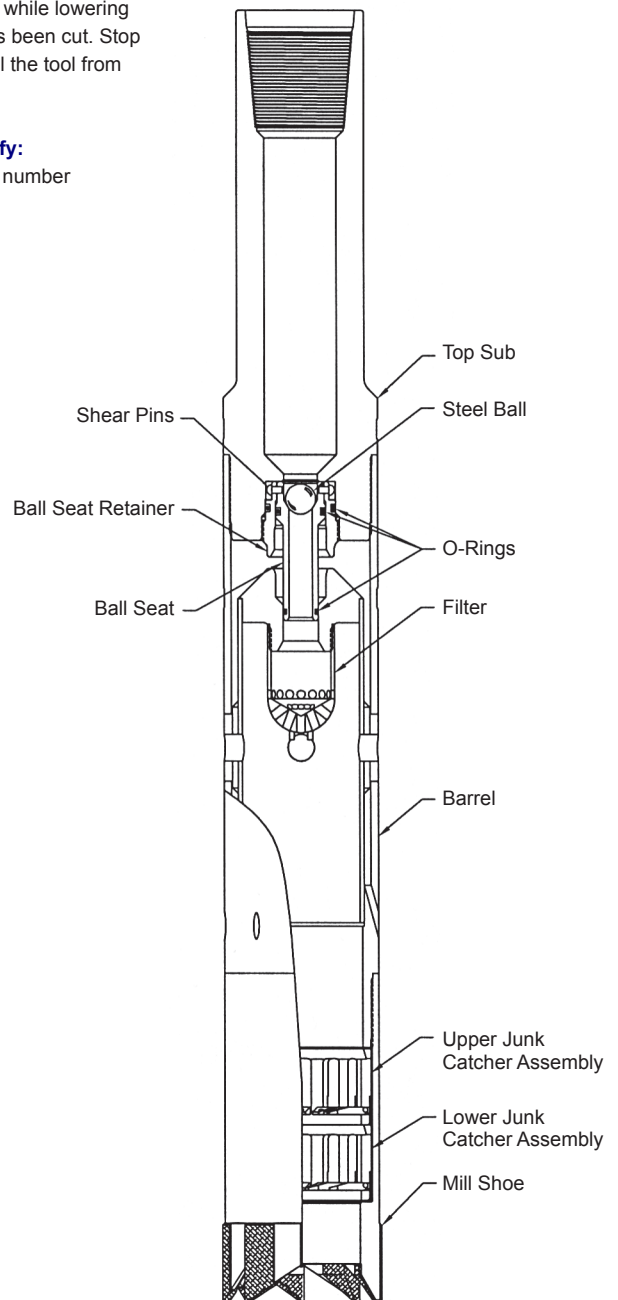
Full Flow Reverse Circulation Junk Baskets can easily be converted to an effective fishing magnet by replacing both junk catcher assemblies with a magnet insert.

Operation

The Full Flow 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. Begin circulation again to shear pins and actuate the valve assembly for reverse circulation. Begin slow rotation while lowering the tool until a 10-inch core has been cut. Stop rotation and circulation and pull the tool from the hole.

When ordering, please specify:

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





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HOLE SIZE		3-3/4 to 4	4-1/8 to 4-1/2	4-5/8 to 5	6-1/8 to 6-1/2	7-1/2 to 8-1/4	8-3/8 to 9-1/2	9-5/8 to 10-5/8
BARREL O.D.		3-5/8	4	4-1/2	5-3/4	7	7-7/8	9-1/8
MAXIMUM DIAMETER OF FISH		...	2-1/2	3-1/16	4-3/8	5-1/8	6-1/16	7-1/16
COMPLETE ASSEMBLY		304-363	304-400	304-450	304-575	304-700	304-788	304-913
	Bowen No.	154583	71226	70702	71127	70908	70923	71198
BALL SEAT		S1008	S1000	S1002	S1002	S1003	S1003	S1005
	Bowen No.	154601	70699	70851	70851	67354	67354	67168
SHEAR PIN		S2008	S2000	S2000	S2000	S2003	S2003	S2003
	Bowen No.	154602	70852	70852	70852	67175	67175	67175
	No. Req'd	4	4	4	4	4	4	4
UPPER JUNK CATCHER ASSEMBLY		14000-016	14000-008	14000-009	500-051	14000-011	14000-012	14000-013
	Bowen No.	154611	22070-W	22075-W	15130-W	22050-W	21640-W	14632-W
<i>(See Note 1)</i>								
LOWER JUNK CATCHER ASSEMBLY		600-015	600-016	600-017	600-020	600-022	600-023	600-024
	Bowen No.	21795W	21855-W	21780-W	28349-W	21725-W	18725-W	14633-W
<i>(See Note 1)</i>								
STEEL BALL		D4010	D4000	D4002	D4002	D4007	D4007	D4009
	Bowen No.	80295	6640	4453	4453	2572	2572	2665
TOP SUB		S4008	S4000	S4001	S4002	S4003	S4004	S4005
	Bowen No.	154598	71227	71104	71125	70935	70926	71202
BARREL		S5008	S5000	S5001	S5002	S5003	S5004	S5005
	Bowen No.	154599	71230	71116	71115	70911	70924	71203
BALL SEAT RETAINER		S6008	S6002	S6002	S6002	S6003	S6003	S6005
	Bowen No.	154600	70850	70850	70850	67353	67353	67167
FILTER		S7008	S7002	S7002	S7002	S7003	S7003	S7005
	Bowen No.	154603	80768	80768	80768	70731	70731	70764
RETAINER		568-225	568-331	568-331	568-331	568-243	568-243	568-248
O-RING SEAL	Bowen No.	568225	27-34	27-34	27-34	30-21	30-21	30-26
UPPER SEAT		568-118	568-325	568-325	568-325	568-231	568-231	568-235
O-RING SEAL	Bowen No.	568118	27-28	27-28	27-28	30-9	30-9	30-13
LOWER SEAT		568-118	568-215	568-215	568-215	568-224	568-224	568-229
O-RING SEAL	Bowen No.	568118	27-20	27-20	27-20	30-2	30-2	30-7
MILL SHOE A		S3008-A	S3000-A	S3001-A	S3002-A	S3003-A	S3004-A	S3005-A
<i>(Hard Faced Mill Teeth)</i>	Bowen No.	154612	71228	70909	71124	72070	72081	71199

(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 replacement is 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



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HOLE SIZE	3-3/4 to 4	4-1/8 to 4-1/2	4-5/8 to 5	6-1/8 to 6-1/2	7-1/2 to 8-1/4	8-3/8 to 9-1/2	9-5/8 to 10-5/8
BARREL O.D.	3-5/8	4	4-1/2	5-3/4	7	7-7/8	9-1/8
MAXIMUM DIAMETER OF FISH	...	2-1/2	3-1/16	4-3/8	5-1/8	6-1/16	7-1/16
COMPLETE ASSEMBLY	304-363	304-400	304-450	304-575	304-700	304-788	304-913
Bowen No.	154583	71226	70702	71127	70908	70923	71198

OPTIONAL COMPONENTS

MILL SHOE B <i>(Tungsten Carbide Mill Teeth)</i>	Bowen No.	S3008-B 154612	S3000-B 71228	S3001-B 70909	S3002-B 71124	S3003-B 72070	S3004-B 72081	S3005-B 71199
MILL SHOE C <i>(Tungsten Carbide Faced)</i>	Bowen No.	S3008-C 154612	S3000-C 71228	S3001-C 70909	S3002-C 71124	S3003-C 72070	S3004-C 72081	S3005-C 71199
LIFTING SUB	Bowen No.	...	D6000 4568	D6002 424	D6004 425	D6006 1849	D6008 426	D6009 427
PIPE PLUG	Bowen No.	...	S9000 61520	S9000 61520	S9001 61521	S9002 61522	S9003 61523	S9003 61523
T-WRENCH	Bowen No.	...	S10000 72067	S10000 72067	S10000 72067	S10001 72069	S10001 72069	S10002 72068

FINGER SHOE

COMPLETE ASSEMBLY	Bowen No.	...	600-101 7300	600-102 4456	600-115 2738	600-107 2740	600-108 2741	600-109 2742
BODY	Bowen No.	...	D7001 7300-2	D7002 4456-2	D7015 2738-2	D7007 2740-2	D7008 2741-2	D7009 2742-2
REPLACEMENT	Bowen No.	...	D10001 7300-1	D10002 4456-1	D10015 2738-1	D10007 2740-1	D10008 2741-1	D10009 2742-1

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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 Junk Catchers
- (2) 2 Mill Shoes
- (3) 1 Ball Seat
- (4) 1 Ball Seat Retainer
- (5) 1 Steel Ball
- (6) 4 Valve Repair Kits
- (7) 2 Catcher Repair Kits (for each assembly)

FULL FLOW REVERSE CIRCULATION JUNK BASKETS

HOLE SIZE	3-3/4 to 4	4-1/8 to 4-1/2	4-5/8 to 5	6-1/8 to 6-1/2	7-1/2 to 8-1/4	8-3/8 to 9-1/2	9-5/8 to 10-5/8	
BARREL O.D.	3-5/8	4	4-1/2	5-3/4	7	7-7/8	9-1/8	
MAXIMUM DIAMETER OF FISH	...	2-1/2	3-1/16	4-3/8	5-1/8	6-1/16	7-1/16	
COMPLETE ASSEMBLY	Logan Part No.	304-363	304-400	304-450	304-575	304-700	304-788	304-913
	Bowen No.	154583	71226	70702	71127	70908	70923	71198

MAGNET INSERTS

COMPLETE ASSEMBLY	Logan Part No.	...	...	600-047	600-050	600-052	600-053	600-054
	Bowen No.	...	...	61840	61866	61876	61953	61961
ADAPTER	Logan Part No.	...	...	E4016	E4018	E4020	E4021	E4022
	Bowen No.	...	...	61841	61867	61948	61954	61966
MAGNETIC ASSEMBLY	Logan Part No.	...	...	600-069	600-071	600-073	600-074	600-075
	Bowen No.	...	...	61812	61816	61820	61822	61826

REPAIR KITS

UPPER CATCHER	Logan Part No.	...	14000-008RK	14000-009RK	600-020RK	14000-011RK	14000-012RK	14000-013RK
REPAIR KITS	Bowen No.	...	22070-WK	22075-WK	28349-WK	22050-WK	21640-WK	14632-WK
LOWER CATCHER	Logan Part No.	...	600-016RK	600-017RK	500-051RK	600-022RK	600-023RK	600-024RK
REPAIR KITS	Bowen No.	...	21855-WK	21780-WK	15130-WK	21725-WK	18725-WK	14633-WK
VALVE REPAIR KIT	Logan Part No.	...	14000-032	14000-033	14000-034	14000-035	14000-036	14000-037
	Bowen No.	...	72064	72062	72063	72058	72061	72065

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

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(3) Finger shoe replacement is 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 Junk Catchers
(2) 2 Mill Shoes
(3) 1 Ball Seat
(4) 1 Ball Seat Retainer
(5) 1 Steel Ball
(6) 4 Valve Repair Kits
(7) 2 Catcher Repair Kits (for each assembly)

FULL FLOW REVERSE CIRCULATION JUNK BASKETS

HOLE SIZE		10-3/4 to 11-5/8	11- 3/4 to 12-1/2				
BARREL O.D.		10-1/8	11				
MAXIMUM DIAMETER OF FISH		7-11/16	8-5/16				
COMPLETE ASSEMBLY	Logan Part No.	304-1013	304-1100				
	Bowen No.	71218	70910				
BALL SEAT	Logan Part No.	S1005	S1005				
	Bowen No.	67168	67168				
SHEAR PIN	Logan Part No.	S2003	S2003				
	Bowen No.	67175	67175				
	No. Req'd	4	4				
UPPER JUNK CATCHER ASSEMBLY <i>(See Note 1)</i>	Logan Part No.	14000-014	14000-015				
	Bowen No.	25235-W	31046-W				
LOWER JUNK CATCHER ASSEMBLY <i>(See Note 1)</i>	Logan Part No.	500-019	600-026				
	Bowen No.	18945-W	21760-W				
STEEL BALL	Logan Part No.	D4009	D4009				
	Bowen No.	2665	2665				
TOP SUB	Logan Part No.	S4006	S4007				
	Bowen No.	71219	70920				
BARREL	Logan Part No.	S5006	S5007				
	Bowen No.	71220	70921				
BALL SEAT RETAINER	Logan Part No.	S6005	S6005				
	Bowen No.	67167	67167				
FILTER	Logan Part No.	S7005	S7005				
	Bowen No.	70764	70764				
RETAINER	Logan Part No.	568-248	568-248				
O-RING SEAL	Bowen No.	30-26	30-26				
UPPER SEAT	Logan Part No.	568-235	568-235				
O-RING SEAL	Bowen No.	30-13	30-13				
LOWER SEAT	Logan Part No.	568-229	568-229				
O-RING SEAL	Bowen No.	30-7	30-7				

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HOLE SIZE		10-3/4 to 11-5/8	11- 3/4 to 12-1/2				
BARREL O.D.		10-1/8	11				
MAXIMUM DIAMETER OF FISH		7-11/16	8-5/16				
COMPLETE ASSEMBLY	Logan Part No.	304-1013	304-1100				
	Bowen No.	71218	70910				
MILL SHOE A <i>(Hard Faced Mill Teeth)</i>	Logan Part No.	S3006-A	S3007-A				
	Bowen No.	72080	72071				
MILL SHOE B <i>(Tungsten Carbide Mill Teeth)</i>	Logan Part No.	S3006-B	S3007-B				
	Bowen No.	72080	72071				
MILL SHOE C <i>(Tungsten Carbide Faced)</i>	Logan Part No.	S3006-C	S3007-C				
	Bowen No.	72080	72071				
LIFTING SUB	Logan Part No.	D6009	D6009				
	Bowen No.	427	427				
PIPE PLUG	Logan Part No.	S9003	S9003				
	Bowen No.	61523	61523				
T-WRENCH	Logan Part No.	S10002	S10002				
	Bowen No.	72068	72068				

FINGER SHOE

COMPLETE ASSEMBLY	Logan Part No.	600-110	600-111				
	Bowen No.	2743	2744				
BODY	Logan Part No.	D7010	D7011				
	Bowen No.	2743-2	2744-2				
REPLACEMENT	Logan Part No.	D10010	D10011				
	Bowen No.	2743-1	2744-1				

MAGNET INSERTS

COMPLETE ASSEMBLY	Logan Part No.	600-055	600-056				
	Bowen No.	61963	61973				
ADAPTER	Logan Part No.	E4023	E4024				
	Bowen No.	61968	61974				
MAGNETIC ASSEMBLY	Logan Part No.	600-075	600-076				
	Bowen No.	61826	61828				

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BARREL O.D.	10-1/8	11				
MAXIMUM DIAMETER OF FISH	7-11/16	8-5/16				
COMPLETE ASSEMBLY	Logan Part No. 304-1013	304-1100				
	Bowen No. 71218	70910				

REPAIR KITS

UPPER CATCHER REPAIR KITS	Logan Part No. 14000-14RK	14000-015RK				
	Bowen No. 25235-WK	31046-WK				
LOWER CATCHER REPAIR KITS	Logan Part No. 500-019RK	600-026RK				
	Bowen No. 18945-WK	21760-WK				
VALVE REPAIR KIT	Logan Part No. 14000-038	14000-039				
	Bowen No. 72059	72060				

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