

EXTENSION SUBS

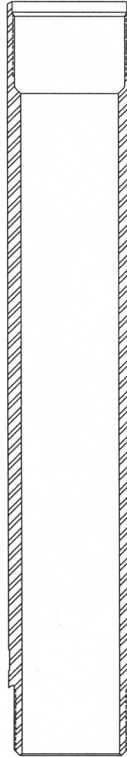
Overview

Logan Series 150 Extension Sub is used when the upper portion of the fish is damaged or cannot be engaged. This accessory will permit the overshot to be lowered far enough over the fish to ensure secure engagement and pack off. An extension sub is assembled between the top sub and the bowl. They are available in lengths from 24 to 60 inches. Special lengths are available upon request.

Logan Series 150 Extension Subs with stops can also be furnished upon request.

When ordering, please specify:

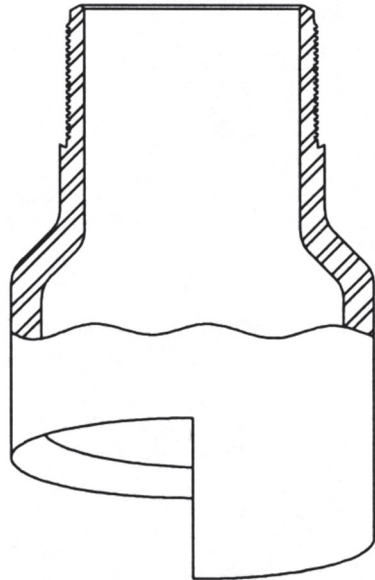
- (1) O.D. and length
- (2) Top or bottom extension
- (3) For Upper Extension, advise part number for Top Sub or Assembly
- (4) For Lower Extension, advise part number for Guide or Assembly



EXTENSION SUB OD (INCHES)		LENGTHS						
		24" Long	30" Long	36" Long	42" Long	48" Long	54" Long	60" Long
2 to 2-1/2	Weight	...	...	...	...	...	...	...
Over 2-1/2 to 3	Weight	...	...	...	...	...	...	...
Over 3 to 3-1/2	Weight	...	...	...	...	...	...	...
Over 3-1/2 to 4	Weight	...	...	...	...	...	...	...
Over 4 to 4-1/2	Weight	53	64	75	86	97	108	119
Over 4-1/2 to 5	Weight	59	72	84	97	109	122	135
Over 5 to 5-1/2	Weight	66	80	94	108	122	136	150
Over 5-1/2 to 6	Weight	73	88	103	119	134	150	166
Over 6 to 6 1/2	Weight	90	109	128	147	166	185	204
Over 6-1/2 to 7	Weight	102	124	146	168	190	212	234
Over 7 to 7-1/2	Weight	122	148	174	200	226	252	276
Over 7-1/2 to 8	Weight	127	154	181	209	236	263	290
Over 8 to 8-1/2	Weight	140	170	200	230	260	290	320
Over 8-1/2 to 9	Weight	150	182	214	246	278	310	342
Over 9 to 9-1/2	Weight	178	212	246	280	314	348	382
Over 9-1/2 to 10	Weight	166	202	238	274	310	346	382
Over 10 to 10-1/2	Weight	176	214	252	290	328	366	404
Over 10-1/2 to 11	Weight	184	224	264	304	344	384	424
Over 11 to 11-1/2	Weight	207	253	298	343	388	433	478
Over 11-1/2 to 12	Weight	218	266	314	362	410	458	516
Over 12 to 12-1/2	Weight	230	280	330	380	430	480	530
Over 12-1/2 to 13	Weight	245	300	355	410	465	520	575

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

**SERIES 150 OVERSHOT
OVERSIZED GUIDES**



Overview

An Logan Series 150 Oversized Guide properly guides the fish into the overshot when the hole size is considerably larger than the diameter of the fish and the overshot may pass alongside the fish without engaging it. Installation of an oversized guide instead of a standard guide will ensure alignment of the fish with the overshot.

When ordering, please specify:

- (1) Part number of Overshot Assembly, Standard Guide, or Bowl
- (2) O.D. of Guide

SERIES 150 OVERSHOT OVERSIZED GUIDES

GUIDE OD (INCHES)	WEIGHT	GUIDE OD (INCHES)	WEIGHT
to 4-1/2 .....	...	Over 13 to 13-1/2	190
Over 4-1/2 to 5.....	23	Over 13-1/2 to 14.....	197
Over 5 to 5-1/2	27	Over 14 to 14-1/2	205
Over 5-1/2 to 6.....	30	Over 14-1/2 to 15.....	223
Over 6 to 6-1/2	34	Over 15 to 15-1/2	242
Over 6-1/2 to 7.....	49	Over 15-1/2 to 16.....	250
Over 7 to 7-1/2	65	Over 16 to 16-1/2	257
Over 7-1/2 to 8.....	75	Over 16-1/2 to 17.....	267
Over 8 to 8-1/2	85	Over 17 to 17-1/2	278
Over 8-1/2 to 9.....	87	Over 17-1/2 to 18.....	300
Over 9 to 9-1/2	90	Over 18 to 18-1/2	321
Over 9-1/2 to 10.....	110	Over 18-1/2 to 19.....	327
Over 10 to 10-1/2	131	Over 19 to 19-1/2	334
Over 10-1/2 to 11.....	137	Over 19-1/2 to 20.....	344
Over 11 to 11-1/2.....	143	Over 20 to 20-1/2	353
Over 11-1/2 to 12.....	159	Over 20-1/2 to 21.....	362
Over 12 to 12-1/2	175	Over 21 to 22.....	...
Over 12-1/2 to 13.....	183	Over 22 to 24.....	...

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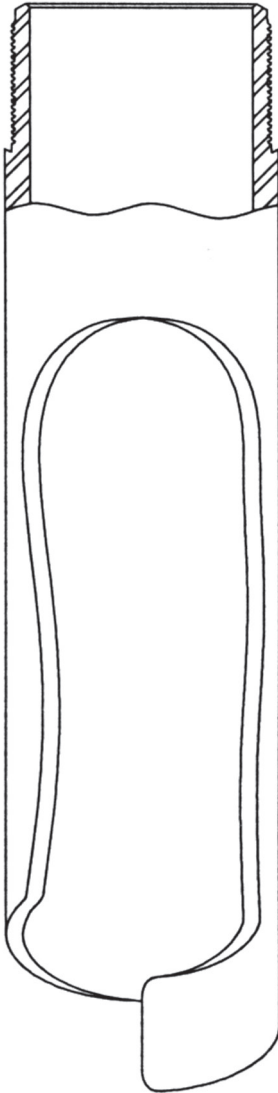
SERIES 150 OVERSHOT WALLHOOK GUIDES

Overview

When it is impossible to engage the top of a fish that is positioned in a washed out section of the well bore using a conventional overshot guide, a Logan Series 150 Wallhook Guide can be used to capture the neck of a fish, center it, and properly guide it into the bowl.

When ordering, please specify:

- (1) Part number of Overshot Assembly, Standard Guide, or Bowl
- (2) Length of Wallhook Guide
- (3) O.D. if other than standard



OD (INCHES)	WEIGHTS:	30" Long	36" Long	42" Long	48" Long
Over 5 to 5-1/2		66	94	110	116
Over 5-1/2 to 6		73	102	117	127
Over 6 to 6-1/2		80	110	126	138
Over 6-1/2 to 7		86	117	134	148
Over 7 to 7-1/2		93	126	144	159
Over 7-1/2 to 8		100	135	155	170
Over 8 to 8-1/2		106	145	166	188
Over 8-1/2 to 9		113	155	177	198
Over 9 to 9-1/2		...	166	191	213
Over 9-1/2 to 10		...	177	204	228
Over 10 to 10-1/2		...	189	244	273
Over 10-1/2 to 11		...	201	285	318
Over 11 to 11-1/2		...	214	299	333
Over 11-1/2 to 12		...	227	312	348
Over 12 to 12-1/2		327	366
Over 12-1/2 to 13		343	383
Over 13 to 13-1/2		360	402
Over 13-1/2 to 14		377	421
Over 14 to 14-1/2		391	436
Over 14-1/2 to 15		404	451
Over 15 to 15-1/2		419	467
Over 15-1/2 to 16		433	483
Over 16 to 16-1/2		448	500
Over 16-1/2 to 17		462	516
Over 17 to 17-1/2		479	535
Over 17-1/2 to 18		496	554

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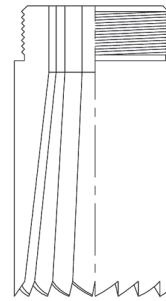
SERIES 150 OVERSHOT MILL GUIDES

Overview

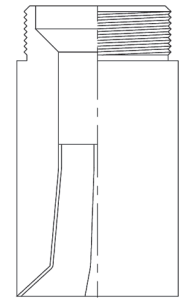
Logan Series 150 Overshot Mill Guides are designed to remove badly burred, flared, or jagged metal from the top of the fish. Mill Guides are used in place of the Standard or Oversized Guide to trim the fish so it can enter the overshot. Series 150 Overshot Mill Guides are available as a Type A, Type B, or Type C. Order by using the Standard Guide part number and the fish size.



Type A



Type B



Type C

Type A

Machine cut carburized teeth mill burrs off tool joints and drill collars.

Type B

Fluted design with tapered end teeth and straight inside teeth mills over pipe, upset sections, tool joints caught by the overshot, or when the top of the fish is unusually jagged.

Type C

Tungsten carburized tapered teeth and straight I.D. mills over pipe, upset sections, and tool joints caught by the overshot.

When ordering, please specify:

- (1) Mill Guide O.D. and type
- (2) Size of fish to mill over
- (3) O.D. if other than standard
- (4) Overshot Guide part number

TYPE A — Machine cut carburized teeth to mill burrs off tool joints and drill collars

GUIDE O.D. NOT OVER (inches)	3-1/2	4	4-1/2	5	5-1/2	6	6-1/2
Approximate Length of Guide (inches)	8	8	8	8	8	12	1

GUIDE O.D. NOT OVER (inches)	7	7-1/2	8	8-1/2	9	9-1/2	10
Approximate Length of Guide (inches)	12	12	12	16	16	16	16

GUIDE O.D. NOT OVER (inches)	10-1/2	11					
Approximate Length of Guide (inches)	16	16					

TYPE B — Fluted with end teeth tapered and straight inside teeth to mill over pipe, upset section, or tool joint that the overshot catches

GUIDE O.D. NOT OVER (inches)	4-1/4	5-1/2	6	7	7-1/2	8	8-1/2
Approximate Length of Guide (inches)	8	8	12	12	12	12	16

GUIDE O.D. NOT OVER (inches)	9	9-1/2	9-3/4				
Approximate Length of Guide (inches)	16	16	16				

TYPE C — Tungsten carbide tapered and straight ID to mill over pipe, upset section, or tool joint that the overshot catches

GUIDE O.D. NOT OVER (inches)	3-1/2	4	4-1/2	5	5-1/2	6	6-1/2
Approximate Length of Guide (inches)	8	8	8	8	8	12	12

GUIDE O.D. NOT OVER (inches)	7	7-1/2	8	8-1/2	9	9-1/2	10
Approximate Length of Guide (inches)	12	12	12	16	16	16	16

GUIDE O.D. NOT OVER (inches)	10-1/2	11	11-3/4				
Approximate Length of Guide (inches)	16	16	16				

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SERIES 150 OVERSHOT MILL CONTROL PACKER INNER SEALS

STANDARD – TYPE R

FISH SIZE (inches)	3/4	7/8	1	1-1/8	1-1/4	1-5/16	1.315
Inner Seal	L13591	L66814	L12470	L12471	L12472	L14187	L12280

FISH SIZE (inches)	1-1/2	1-5/8–1.660	1-3/4	1-3/4	1-7/8	1.900	2
Inner Seal	L12281	L11568	L12177	L12177SH	L10803	L218114-1.900	L10804

FISH SIZE (inches)	2-1/16	2-1/8	2-1/4	2-5/16	2-3/8	2-1/2	2-5/8
Inner Seal	L218114-66	L10805	L10806	L218114-74	L10807	L10808	L10809

FISH SIZE (inches)	2.702	2-3/4	2-13/16	2-7/8	2-7/8	2-7/8	2.900
Inner Seal	L10994	L10810	L218114-90	L10811	L10811-100	L10811SH	L218114-2.900

FISH SIZE (inches)	3	3-1/16	3-1/8	3-3/16	3.220	3-1/4	3-1/4
Inner Seal	L10812	L10098	L10813	L218114-102	L218114-3.220	L10814	L10814S

FISH SIZE (inches)	3-5/16	3-3/8	3-7/16	3-1/2	3-5/8	3-21/32	3-3/4
Inner Seal	L218114-106	L10815	L218114-110	L10816	L10817	L10819	L10819

FISH SIZE (inches)	3-3/4	3-13/16	3-7/8	3-15/16	4	4-1/16	4-1/8
Inner Seal	L10819SH	L218114-122	L10820	L218114-126	L10821	L218114-130	L10822

FISH SIZE (inches)	4-1/8	4-1/4	4-1/4	4-3/8	4-1/2	4-5/8	4-5/8
Inner Seal	L10822SH	L10823	L10823SH	L10824	L10825	L10826	L10826SH

FISH SIZE (inches)	4-3/4	4-7/8	5	5-1/8	5-1/4	5-3/8	5-1/2
Inner Seal	L10827	L10828	L10829	L10830	L10831	L10832	L10833

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Note: L10811-100 (2-7/8 catch) inner seal is HNBR material.

When ordering, please specify:

- (1) Size of fish
- (2) Inner Seal number

Recommended Spare Parts:

- (1) 3 Inner Seals

SERIES 150 OVERSHOT MILL CONTROL PACKER INNER SEALS

STANDARD - TYPE R

FISH SIZE (inches)	5-5/8	5-3/4	5-7/8	6	6-1/8	6-1/4	6-3/8
Inner Seal	L10834	L10835	L10836	L10837	L10838	L10839	L10840

FISH SIZE (inches)	6-1/2	6-5/8	6-3/4	6-7/8	7	7-1/8	7-1/4
Inner Seal	L10841	L10842	L10843	L10844	L10845	L10846	L10847

FISH SIZE (inches)	7-3/8	7-1/2	7-5/8	7-3/4	7-7/8	8	8-1/8
Inner Seal	L10848	L10849	L10850	L10851	L10852	L10853	L10854

FISH SIZE (inches)	8-1/4	8-3/8	8-1/2	8-5/8	8-3/4	8-7/8	9
Inner Seal	L10855	L10856	L10857	L10858	L10859	L10860	L10861

FISH SIZE (inches)	9-1/8	9-1/4	9-3/8	9-1/2	9-5/8	9-3/4	10
Inner Seal	L10862	L10863	L10864	L12099	L12100	L12101	L12103

FISH SIZE (inches)	10-1/2	11-1/4	12	12-3/4			
Inner Seal	L218114-336	L63841	L10885	L81497			

PACK-OFF PIPE SIZE	1-1/4	1-1/2	2-1/16	2-3/8	2-3/8	2-7/8	2-7/8
PASS UPSET SIZE	1-13/16	1.900	2.330	2-19/32	2-21/32	3-3/32	3-7/32
Inner Seal	L13366	L13317	L13285	L11690	L11690	L11691	L11692

PACK-OFF PIPE SIZE	3-1/2	3-1/2	3-1/2	4-1/2	4-1/2		
PASS UPSET SIZE	3-3/4	3-13/16	3-15/16	5	5-1/8		
Inner Seal	L11693	L11693	L11694	L11695	L11696		

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Note: L10811-100 (2-7/8 catch) inner seal is HNBR material.

When ordering, please specify:

- (1) Size of fish
- (2) Inner Seal number

Recommended Spare Parts:

- (1) 3 Inner Seals

SERIES 150 OVERSHOT MILL CONTROL PACKER OUTER SEALS

PACKER	Logan Part No.	A9950	A9000	A9001	A9002	A90025	A9003	A9004
	Bowen No.	9407M	B-10202-R	9309-R	L-1453-R	1453-R	B-5089-R	B-3395-R
	Outer Seal	568-032	568-226	568-228	568-228	568-228	568-229	568-230

PACKER	Logan Part No.	A9005	A90055	A90056	A90057	A9006	A9007	A9009
	Bowen No.	8550-R	37588-R	B-1839-R	A-1831-R	L-809-RS	B-3594-R	B-5107-R
	Outer Seal	568-233	568-234	568-235	568-233	568-233	568-234	568-234

PACKER	Logan Part No.	A9010	A9011	A9012	A90125	A9013	A90135	A9014
	Bowen No.	809-R	L-7090-R	B-5118-R	1517-R	L-1517-R	21303-R	B-4625-R
	Outer Seal	568-234	568-235	568-235	568-236	568-236	568-236	568-237

PACKER	Logan Part No.	A90145	A9015	A9016	A90165	A9017	A9018	A9019
	Bowen No.	4185-R	L-6515-R	L-7065-R	1253-R	L-168-R	L-6665-R	6665-R
	Outer Seal	568-237	568-237	568-238	568-239	568-239	568-239	568-239

PACKER	Logan Part No.	A9020	A9021	A90215	A90217	A9022	A9023	A90235
	Bowen No.	B-3219-R	B-5538-R	9122-R	L-6163-R	811-R	856-R	60947R
	Outer Seal	568-239	568-240	568-239	568-238	568-240	568-241	568-241

PACKER	Logan Part No.	A9024	A9025	A9026	A9027	A90285	A9029	A9030
	Bowen No.	B-5157-R	A-1508-R	B-4895-R	L-1867-R	B-4672-R	169-R	B-2487-R
	Outer Seal	568-242	568-243	568-242	568-243	568-244	568-244	568-246

PACKER	Logan Part No.	A9031	A9032	A9033	A9034	A9035	A9036	A9037
	Bowen No.	B-2199-1R	1140-R	195-R	B-2199-R	6114-R	B-2362-R	B-6387-R
	Outer Seal	568-248	568-247	568-349	568-248	568-247	568-248	568-249

PACKER	Logan Part No.	A90375	A9038	A9039	A90395	A9040	A90402	A90405
	Bowen No.	1189-R	B-2455-R	L-5950-R	5950-R	M-4505-RS	11826-R	4505-R
	Outer Seal	568-250	568-249	568-250	568-250	568-252	568-251	568-252

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SERIES 150 OVERSHOT MILL CONTROL PACKER OUTER SEALS

PACKER	Logan Part No.	A90407	A9041	A9042	A9043	A9044	A9045	A9046
	Bowen No.	9209-R	L-8618-R	A-756-R	6697-R	L-110-R	223-R	B-5209-R
	Outer Seal	568-252	568-253	568-254	568-255	568-359	568-437	568-259

PACKER	Logan Part No.	A9047	A9048	A9049	A90495	A9050	A9051	A9052
	Bowen No.	L-1642-R	9689-R	1642-R	1680-R	L-1680-R	9005-R	5508-R
	Outer Seal	568-259	568-258	568-259	568-438	568-438	568-259	568-260

PACKER	Logan Part No.	A9053	A9054	A9055	A90555	A9056	A9057	A9058
	Bowen No.	9865-R	L-6635-R	9136-R	1634-R	A-1814-R	B-5225-R	207-R
	Outer Seal	568-259	568-439	568-260	568-260	568-260	568-261	568-261

PACKER	Logan Part No.	A90587	A9059	A90595	A9060	A90605	A9061	A9062
	Bowen No.	L-8985-R	9224-R	L-6310-R	L-111-R	9231-R	B-5357-R	L-1025-R
	Outer Seal	568-261	568-261	568-262	568-441	568-262	568-263	568-263

PACKER	Logan Part No.	A9063	A9064	A9065	A9066	A9067	A90675	A9068
	Bowen No.	9237-R	B-4154-R	B-7104-R	M-98-RS	9243-R	B-5244-R	9855-R
	Outer Seal	568-263	568-263	568-264	568-264	568-263	568-264	568-264

PACKER	Logan Part No.	A9069	A90695	A9070	A9071	A9072	A9073	A9074
	Bowen No.	B-5260-R	98-R	L-98-R	B-5268-R	235-R	9055-R	L-1060-R
	Outer Seal	568-265	568-265	568-265	568-266	568-445	568-267	568-268

PACKER	Logan Part No.	A9075	A9076	A9077	A9078	A9079	A9080	A9081
	Bowen No.	B-5287-R	8956-R	B-5300-R	B-5308-R	B-5324-R	B-12825-R	26260-R
	Outer Seal	568-266	568-268	568-269	568-270	568-269	568-271	568-273

PACKER	Logan Part No.	A9082	A9083	A9084	A9085	A9086	A9087	
	Bowen No.	5332-R	15805-R	33011-R	68031-R	64556-R	31656-R	
	Outer Seal	568-274	568-451	568-453	568-279	568-458	568-463	

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TYPE E MILL CONTROL PACKERS

PACKER	Logan Part No.	A9950E	A9000E	A9001E	A9002E	A90025E	A9003E	A9004E
	Bowen No.	9407E	B-10202-E	9309-E	L-1453-E	1453-E	B-5089-E	B-3395-E
	Outer Seal	568-032	568-226	568-228	568-228	568-228	568-229	568-230

PACKER	Logan Part No.	A9005E	A90055E	A90056E	A90057E	A9006E	A9007E	A9009E
	Bowen No.	8550-E	37588-E	B-1839-E	A-1831-E	L-809-ES	B-3594-E	B-5107-E
	Outer Seal	568-233	568-234	568-235	568-233	568-233	568-234	568-234

PACKER	Logan Part No.	A9010E	A9011E	A9012E	A90125E	A9013E	A90135E	A9014E
	Bowen No.	809-E	L-7090-E	B-5118-E	1517-E	L-1517-E	21303-E	B-4625-E
	Outer Seal	568-234	568-235	568-235	568-236	568-236	568-236	568-237

PACKER	Logan Part No.	A90145E	A9015E	A9016E	A90165E	A9017E	A9018E	A9019E
	Bowen No.	4185-E	L-6515-E	L-7065-E	1253-E	L-168-E	L-6665-E	6665-E
	Outer Seal	568-237	568-237	568-238	568-239	568-239	568-239	568-239

PACKER	Logan Part No.	A9020E	A9021E	A90215E	A90217E	A9022E	A9023E	A90235E
	Bowen No.	B-3219-R	B-5538-R	9122-R	L-6163-R	811-R	856-R	60947R
	Outer Seal	568-239	568-240	568-239	568-238	568-240	568-241	568-241

PACKER	Logan Part No.	A9024E	A9025E	A9026E	A9027E	A90285E	A9029E	A9030E
	Bowen No.	B-5157-E	A-1508-E	B-4895-E	L-1867-E	B-4672-E	169-E	B-2487-E
	Outer Seal	568-242	568-243	568-242	568-243	568-244	568-244	568-246

PACKER	Logan Part No.	A9031E	A9032E	A9033E	A9034E	A9035E	A9036E	A9037E
	Bowen No.	B-2199-1E	1140-E	195-E	B-2199-E	6114-E	B-2362-E	B-6387-E
	Outer Seal	568-248	568-247	568-349	568-248	568-247	568-248	568-249

PACKER	Logan Part No.	A90375E	A9038E	A9039E	A90395E	A9040E	A90402E	A90405E
	Bowen No.	1189-E	B-2455-E	L-5950-E	5950-E	M-4505-ES	11826-E	4505-E
	Outer Seal	568-250	568-249	568-250	568-250	568-252	568-251	568-252

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When ordering, please specify:

(1) Specify catch size

LOGAN GENERAL CATALOG

OIL TOOLS

TYPE E MILL CONTROL PACKERS

PACKER	Logan Part No.	A90407E	A9041E	A9042E	A9043E	A9044E	A9045E	A9046E
	Bowen No.	9209-E	L-8618-E	A-756-E	6697-E	L-110-E	223-E	B-5209-E
	Outer Seal	568-252	568-253	568-254	568-255	568-359	568-437	568-259

PACKER	Logan Part No.	A9047E	A9048E	A9049E	A90495E	A9050E	A9051E	A9052E
	Bowen No.	L-1642-E	9689-E	1642-E	1680-E	L-1680-E	9005-E	5508-E
	Outer Seal	568-259	568-258	568-259	568-438	568-438	568-259	568-260

PACKER	Logan Part No.	A9053E	A9054E	A9055E	A90555E	A9056E	A9057E	A9058E
	Bowen No.	9865-E	L-6635-E	9136-E	1634-E	A-1814-E	B-5225-E	207-E
	Outer Seal	568-259	568-439	568-260	568-260	568-260	568-261	568-261

PACKER	Logan Part No.	A90587E	A9059E	A90595E	A9060E	A90605E	A9061E	A9062E
	Bowen No.	L-8985-E	9224-E	L-6310-E	L-111-E	9231-E	B-5357-E	L-1025-E
	Outer Seal	568-261	568-261	568-262	568-441	568-262	568-263	568-263

PACKER	Logan Part No.	A9063E	A9064E	A9065E	A9066E	A9067E	A90675E	A9068E
	Bowen No.	9237-E	B-4154-E	B-7104-E	M-98-ES	9243-E	B-5244-E	9855-E
	Outer Seal	568-263	568-263	568-264	568-264	568-263	568-264	568-264

PACKER	Logan Part No.	A9069E	A90695E	A9070E	A9071E	A9072E	A9073E	A9074E
	Bowen No.	B-5260-E	98-E	L-98-E	B-5268-E	235-E	9055-E	L-1060-E
	Outer Seal	568-265	568-265	568-265	568-266	568-445	568-267	568-268

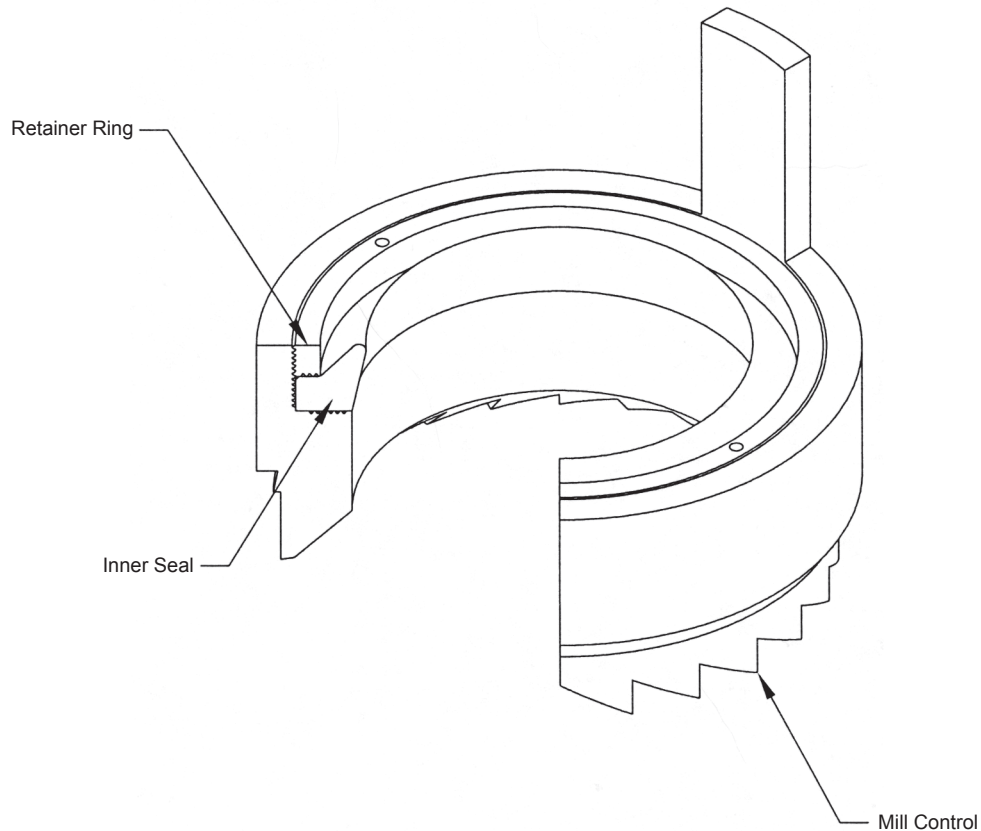
PACKER	Logan Part No.	A9075E	A9076E	A9077E	A9078E	A9079E	A9080E	A9081E
	Bowen No.	B-5287-E	8956-E	B-5300-E	B-5308-E	B-5324-E	B-12825-E	26260-E
	Outer Seal	568-266	568-268	568-269	568-270	568-269	568-271	568-273

PACKER	Logan Part No.	A9082E	A9083E	A9084E	A9085E	A9086E	A9087E
	Bowen No.	5332-E	15805-E	33011-E	68031-E	64556-E	31656-E
	Outer Seal	568-274	568-451	568-453	568-457	568-458	568-463

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

When ordering, please specify:

(1) Specify catch size



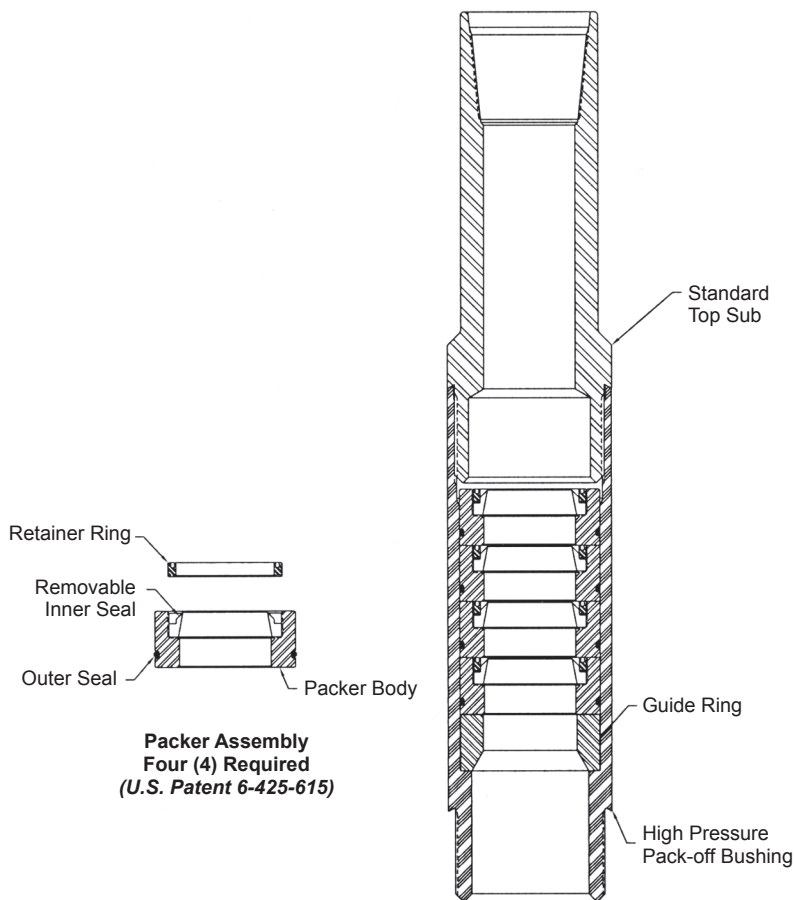
HIGH PRESSURE MILL CONTROL PACKERS

Overview

The Logan High Pressure Mill Control Packer (U.S. Patent 6-425-615) is designed for use with Series 150 Overshots and has been successfully field tested and proven to 5,000 psi. The unique design utilizes a steel retainer ring, which can be easily installed and removed with an adjustable spanner wrench, to compress the inner seal. The steel retainer ring is also machined with left-hand threads to prevent back-off. The body of the Mill Control Packer and the steel retainer ring are machined with a series of grooves to ensure maximum positive retention of the inner seal during high pressure operations. Correct steel retainer ring installation and proper inner seal squeeze are accurately defined when the retainer ring is flush with the top of the Mill Control Packer body.

When ordering, please specify:

- (1) Overshot Assembly to be used with
- (2) O.D. of tubing or pipe size to pack-off



**Packer Assembly
Four (4) Required
(U.S. Patent 6-425-615)**

HIGH PRESSURE PACK-OFF ASSEMBLIES

Overview

The Logan Series 150 High Pressure Pack-off Assembly is for use in areas with extreme pressure. The assemblies listed below are installed between the top sub and bowl of the overshot. High Pressure Pack-off Assemblies for use between the Bowl and Guide are available upon request. Assemblies for overshots not listed are available upon request.

When ordering, please specify:

- (1) Overshot Assembly to be used with
- (2) O.D. of tubing or pipe size to pack-off

Special Notes:

- (1) High Pressure Pack-off Assemblies are used between the Top Sub and Bowl.
- (2) High Pressure Pack-off Assemblies for use between the Bowl and Guide are available upon request.
- (3) High Pressure Pack-off Assemblies for Overshots not listed are available upon request.
- (4) Bi-Directional High Pressure Pack-off Assemblies are available upon request. (seals both internal and external pressure)

FOR USE WITH:

OVERSHOT ASSEMBLY	Logan Part No.	150-413-A	150-413-D	150-438-A	150-425-D	150-4375-A	150-450-A	150-438-D
	Bowen No.	9105	C5115	C5112	C5126	9635	C5123	C4619
COMPLETE ASSEMBLY	Logan Part No.	800-249	800-252	800-254	800-256	800-257	800-258	800-259
BUSHING	Logan Part No.	HPP1010	HPP1012	HPP1013	HPP1014	HPP10145	HPP1015	HPP1016
PACKER *	Logan Part No.	HPP4010	HPP4012	HPP4013	HPP4014	HPP40145	HPP4015	HPP4016
GUIDE RING	Logan Part No.	GR1010	GR1012	GR1013	GR1014	GR10145	GR1015	GR1016
SPACER RING **	Logan Part No.	SR1010	SR1012	SR1013	SR1014	SR10145	SR1015	SR1016

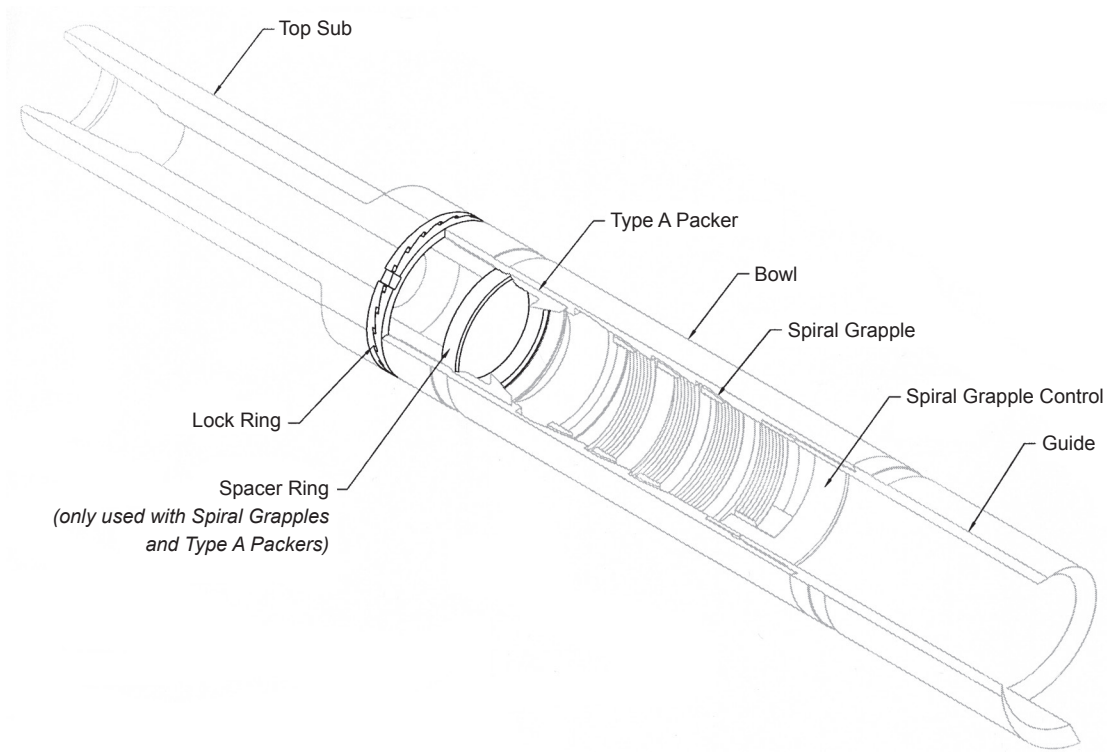
FOR USE WITH:

OVERSHOT ASSEMBLY	Logan Part No.	150-482-A	150-456-D	150-469-C	150-575-A	150-813-D		
	Bowen No.	C4732	C5151	9109	8975	9217		
COMPLETE ASSEMBLY	Logan Part No.	800-260	800-262	800-263	800-284	800-316		
BUSHING	Logan Part No.	HPP1017	HPP1018	HPP1019	HPP1035	HPP1059		
PACKER *	Logan Part No.	HPP4017	HPP4018	HPP4019	HPP4035	HPP4059		
GUIDE RING	Logan Part No.	GR1017	GR1018	GR1019	GR1035	GR1059		
SPACER RING **	Logan Part No.	SR1017	SR1018	SR1019	SR1035	SR1059		

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* Includes O-ring, Inner Seal, and Retainer Ring

** Optional Spacer Ring for Bi-Directional Pack-off



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LOCK RINGS AND SPACERS

Overview

Lock Rings are installed between the Top Sub and the Bowl, and are designed to keep the Top Sub from inadvertently unscrewing from the Bowl. Lock Rings are typically used when a significant amount of torque is being applied through the overshot to the fish (such as encountered during back-off operations). The Lock Rings can be used with either a Basket Grapple or a Spiral Grapple. If a Spiral Grapple and a Type A Packer are being used, then a Spacer Ring must be used in conjunction with the Lock Rings. The Spacer Ring is installed into the Bowl and on top of the Type A Packer. When the Top Sub/Lock Ring assembly is installed into the Overshot Bowl, the Spacer Ring will secure the Type A Packer in the Bowl.

When ordering, please specify:

- (1) Part number of the complete assembly for selected Overshot