

## PRODUCT LINE

Fishing & Intervention | Internal Catch

## PRODUCT

Standard Releasing Spears



### OVERVIEW

Logan Releasing Spears provide a positive means to engage and retrieve an internal fish from the well. The design of this rugged, dependable, and inexpensive internal catch fishing tool ensures positive engagement, easy release, and re-engagement. It may be used with other equipment such as pack-off assemblies and internal cutters.

### CONSTRUCTION

The Logan Releasing Spear consists of a mandrel, grapple, releasing ring, and a bullnose nut. The size and type of the upper box connection is furnished according to customer specification.

#### Mandrel

The mandrel type may be specified as either flush or shoulder. Flush-type mandrels are designed to completely enter the fish. Shoulder-type mandrels provide a positive landing position on top of the fish. The mandrel is made of high strength, specially heat-treated alloy steel. The lower end is threaded to accept a bull nose nut, or the mill, sub, or sidehill type nuts.

#### Standard Spear Grapple

One-piece spear grapples are designed and manufactured to engage a specific size and weight of pipe, tubing, or casing to ensure maximum surface engagement and minimum fish distortion.

#### Segment-Type Spear Grapple

The segment-type spear grapple enhances the spear's usefulness by providing an extended catching range beyond the maximum range of the standard one-piece grapple. The Logan Segment-Type Spear Grapple consists of a grapple body, eight grapple segments, two retainer rings, four retainer ring screws, six retainer ring spacers, and sixteen grapple segment screws.

#### Release Ring

The cammed release ring matches the cammed nut ensuring a positive locking device that will not freeze or jam. It is a standard component of the releasing spear.

#### Nut

The standard bottom nut is a bullnose nut. Optional nut types, sub, mill, and sidehill, are available.

#### Spear Pack-off Assembly

Pack-off assemblies are available for all Logan Spear Assemblies and are designed to efficiently pack off all sizes of drill pipe, tubing, and casing. Circulation through the fish is enabled by attaching the Spear Pack-off Assembly to the bottom of the spear with a sub type nut.

### ASSEMBLY

With left-hand rotation, screw the grapple onto the mandrel from the lower pin end. Slip the release ring onto the mandrel and make up the nut to the mandrel aligning the cams. Screw the grapple down the mandrel against the release ring until hand tight. The Spear Assembly is now in its run-in position.

### OPERATION

#### ENGAGING THE FISH

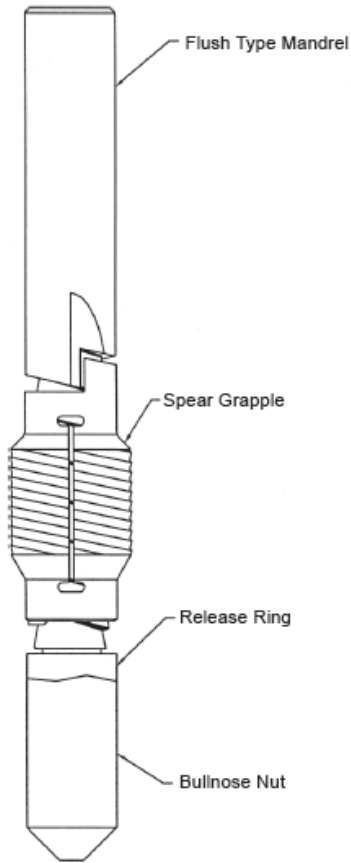
The Logan Releasing Spear is made up to the bottom of the fishing string and lowered to the desired depth into the fish. Rotate the mandrel one full turn to the left to turn the mandrel through the grapple and move the grapple into engaging position. Pulling straight up will cause the tapers on the mandrel to expand the grapple and allow it to positively engage the fish.

#### RELEASING THE FISH

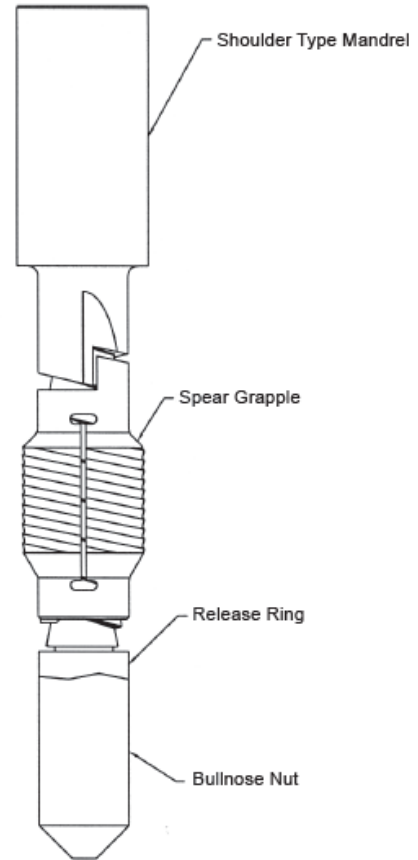
To release the fish, bump down and then make two to three rotations to the right. This right-hand rotation allows the mandrel to move up through the grapple thereby placing the grapple against the release ring and putting the spear in release position. A straight upward pull will release the spear from the fish. Continue with slow, right-hand rotation when coming out of the fish.

#### When ordering, please specify:

- Name and part number of assembly or part
- Size and type of top connection
- Size and weight(s) of pipe to catch
- Flush or Shoulder type (specify O.D. of shoulder, "A")
- Mandrel length desired, "C"
- Thread size and type of nut, if wanted

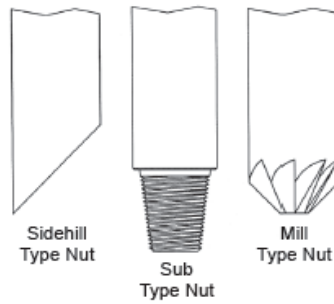


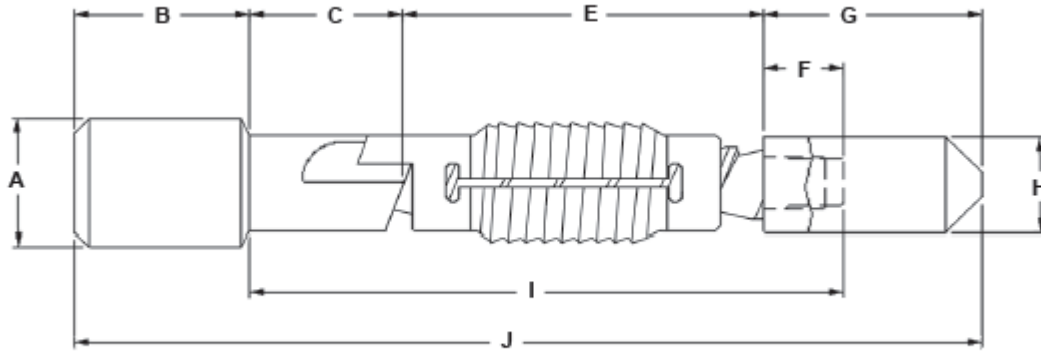
Spear Assembly  
with Flush Type Mandrel



Spear Assembly  
with Shoulder Type Mandrel

Optional Nuts



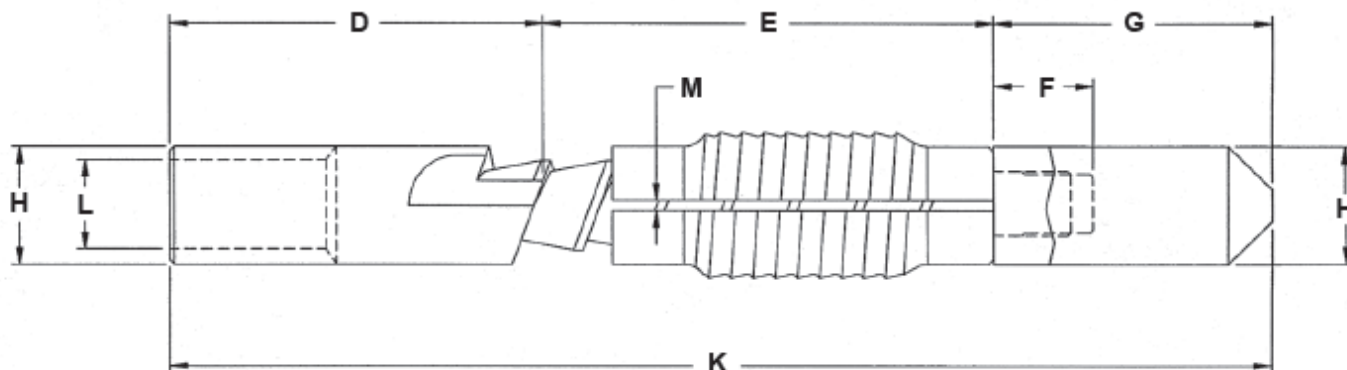


SHOULDER TYPE

PRINCIPAL DIMENSIONS						SHOULDER TYPE ONLY	FLUSH TYPE ONLY		
Spear Mandrel Part No.	Spear Size	Class	ID	A	B	C	D	E	
F1000	1.050 OD Pipe	Standard	-	1-1/2	4-1/8	6	-	2-3/8	
F1001	1.313 OD Pipe	Standard	-	1-5/8	3	3	-	3-5/16	
F1002	1.660 OD Tubing	Standard	-	1-13/16	3	3	3-25/32	3-5/16	
F1004	1.900 OD Tubing	Standard	-	2-1/2	5	3	7	5-1/16	
F1005	2-3/8 OD Drill Pipe	Standard	-	3-1/8	7	3	7	5-29/32	
F1007	2-3/8 OD Tubing	Standard	3/8	3-1/8	7	3	7	6-3/4	
F1008	2-3/8 OD Tubing	Standard	3/8	3-1/8	7	3	7	9	
F1009	2-7/8 OD Tubing	Standard	3/8	3-3/4	7	3	7-1/4	6-3/4	
F1010	2-7/8 OD Tubing	Heavy Duty	3/8	3-3/4	7	3	7-1/4	9	
F1012	3-1/2 OD Tubing	Standard	1/2	3-3/4	7	3-1/2	10-1/2	12	
F1013	3-1/2 OD Drill Pipe	Heavy Duty	1/2	3-3/8	7	3-1/2	10-1/2	9-3/4	
F1014	4 OD Tubing	Light Duty	3/4	3-3/4	7-1/2	3	10-3/8	8-1/8	
F1015	4 OD Tubing	Standard	3/4	4-1/8	7-1/2	3	10-1/2	12	
F1016	4-1/2 OD Tubing	Light Duty	3/4	4-1/2	8	3-1/2	3-3/4	9-3/4	
F1017	4-1/2 OD Tubing	Standard	3/4	4-1/2	8	3-1/2	9-1/2	14-1/4	
F1018	5 OD Casing	Light Duty	7/8	4-3/8	8	3-1/2	9-1/2	9-3/4	
F1019	5 OD Casing	Standard	1	5	8	3-1/2	12	14-1/4	
F1022	6 OD Casing	Light Duty	1	6	8	5-1/2	12	13	
F1023	6 OD Casing	Standard	1	6	8	5-1/2	12	13	
F1024	7 OD Casing	Standard	2	7	10	6-1/2	16-1/2	14-5/8	
F1026	7 OD Casing	Heavy Duty	2	7	10	6-1/2	13-1/2	21-3/8	
F1029	8-5/8 OD Casing	Standard	2-3/4	8-5/8	14	7	20-7/8	14-5/8	
F1030	8-5/8 OD Casing	Heavy Duty	2-3/4	8-5/8	-	-	20-7/8	21-3/8	
F1032	9-5/8 OD Casing	Standard	2-13/16	9-5/8	15-3/8	7	20-7/8	14-5/8	
F1034	9-5/8 OD Casing	Standard	2-13/16	9-5/8	-	-	20-7/8	21-3/8	
F1035	13-3/8 OD Casing	Standard	3-1/2	13-3/8	17-7/8	7	22-3/8	16-7/8	

Innovex reserves the right to change or discontinue designs without prior notice.

- 1) For Flush or Shoulder type, specify O.D. of shoulder, "A"
- 2) Mandrel length desired, "C"



FLUSH TYPE

PRINCIPAL DIMENSIONS

Spear Mandrel Part No.	PRINCIPAL DIMENSIONS						TYPE ONLY		TYPE ONLY
	F	G	H	I	J	K	L	M	
F1000	7/8	2-3/8	11/16	9-5/8	15-1/4	-	-	3/16	
F1001	1-3/8	2-1/2	15/16	7-11/16	11-13/16	-	-	1/4	
F1002	1-3/8	2-1/2	1-1/8	7-11/16	11-13/16	-	-	3/8	
F1004	2-1/4	5-5/8	1-3/8	10-5/16	18-11/16	-	-	7/16	
F1005	2-1/4	6-17/32	1-11/16	-	-	19-7/16	-	5/8	
F1007	2-1/4	6-5/8	1-7/8	12	23-3/8	23-3/8	-	5/8	
F1008	2-1/4	6-5/8	1-7/8	14-1/4	25-3/8	22-5/8	-	5/8	
F1009	2-1/2	7	2-5/16	12-1/4	23-3/4	21	-	5/8	
F1010	2-1/2	7	2-5/16	14-1/2	26	23-1/4	-	5/8	
F1012	3-1/2	9	2-13/16	19	31-1/2	32-1/2	-	5/8	
F1013	3-5/8	8-1/8	2-1/2	16-5/8	31-1/8	-	-	5/8	
F1014	2-1/2	8	3-1/4	13-5/8	26-5/8	26-1/2	-	5/8	
F1015	3-1/2	9	3-1/4	18-1/2	31-1/2	31-1/2	-	5/8	
F1016	3-1/2	10-3/4	3-5/8	16-3/4	32	32	-	1	
F1017	3-1/2	10	3-5/8	21-1/4	35-3/4	33-3/4	-	3/4	
F1018	3-1/2	105-/8	4-1/32	13-3/4	34-7/8	29-7/8	-	13/16	
F1019	3-1/2	10-5/8	4-1/32	21-1/4	36-3/8	36-7/8	-	13/16	
F1022	3-1/2	12	5	16-3/8	39-3/16	37-11/16	3-5/16	1-1/4	
F1023	3-1/2	12	5	16-3/8	-	43	3-5/16	1-1/4	
F1024	3-1/2	12-3/4	5-3/4	-	-	40-1/4	3-1/2	1-5/8	
F1026	3-1/2	12-3/4	5-3/4	31-3/8	53-3/8	47	3-1/2	1-5/8	
F1029	4-1/2	13-3/4	7-1/4	21-1/8	53-7/8	49-1/4	5	1-5/8	
F1030	4-1/2	13-3/4	7-1/4	-	-	56	5-3/4	1-5/8	
F1032	3-1/2	14	8-1/4	25-1/8	51	49-1/4	6-1/4	1-5/8	
F1034	3-1/2	13-3/4	8-1/4	-	-	56	6-1/4	1-5/8	
F1035	3-1/2	12	11-3/4	27-3/8	53-3/4	51-1/4	7-3/4	1-5/8	

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- 1) For Flush or Shoulder type, specify O.D. of shoulder, "A"
- 2) Mandrel length desired, "C"

**PRODUCT LINE**

Fishing & Intervention | Internal Catch

**PRODUCT**

Standard Releasing Spears



Nominal Catch Size OD		1.050	1.313	1.660	1.900	2-3/8	2-3/8	2-3/8
Spear OD		11/16	7/8 NOM	1-1/8	1-3/8	1-11/16	1-7/8	1-7/8
Spear ID		-	-	-	-	-	3/8	3/8
Duty Class		STD	STD	STD	STD	STD	STD	STD
<b>Complete Assembly</b>	<b>Logan Part No.</b>	<b>202-001</b>	<b>202-002</b>	<b>202-003</b>	<b>202-004</b>	<b>202-036</b>	<b>202-005</b>	<b>202-006</b>
	Bowen No.	16455	19350	11195	9915	9645	1344	17228

**REPLACEMENT PARTS**

Top Sub	<b>Logan Part No.</b>	<b>F1000-A</b>	<b>F1001-A</b>	<b>F1002-A</b>	-	-	-	-
	Bowen No.	16456A	19351A	11196A	-	-	-	-
Mandrel (Flush Type)	<b>Logan Part No.</b>	<b>F1000</b>	<b>F1001</b>	<b>F1002</b>	<b>F1004</b>	<b>F1005</b>	<b>F1007</b>	<b>F1008</b>
	Bowen No.	16456B	19351B	11196B	9916	9646	1345	17229
Grapple	<b>Logan Part No.</b>	<b>F3000</b>	<b>F30001</b>	<b>F3002</b>	<b>F3004</b>	<b>F3005</b>	<b>F3007</b>	<b>F3008</b>
	Bowen No.	16457	19352	11197	9917	9647	1348	17230
Release Ring	<b>Logan Part No.</b>	<b>F4000</b>	<b>F4001</b>	<b>F4002</b>	<b>F4004</b>	<b>F4005</b>	<b>F4007</b>	<b>F4007</b>
	Bowen No.	16458	19353	11198	9918	9649	1347	1347
Bull Nose Nut	<b>Logan Part No.</b>	<b>F5000</b>	<b>F5001</b>	<b>F5002</b>	<b>F5004</b>	<b>F5005</b>	<b>F5007</b>	<b>F5007</b>
	Bowen No.	16459	19354	11199	9919	9648	1346	1346

**OPTIONAL PARTS**

Mandrel (Shoulder Type)	<b>Logan Part No.</b>	<b>F1000</b>	<b>F1001</b>	<b>F1002</b>	<b>F1004</b>	<b>F1005</b>	<b>F1007</b>	<b>F1008</b>
	Bowen No.	16456	19351	11196	9916	9646	1345	17229
Mandrel Extra Length Per Inch (C & D)	<b>Logan Part No.</b>	-	-	-	-	-	-	-
	Bowen No.	-	-	-	-	-	-	-

**ACCESSORIES**

Mill Type Nut	<b>Logan Part No.</b>	<b>F5000-A</b>	<b>F5001-A</b>	<b>F5002-A</b>	<b>F5004-A</b>	<b>F5005-A</b>	<b>F5007-A</b>	<b>F5007-A</b>
	Bowen No.	16459-A	19354-A	11199-A	9919-A	9648-A	1346-A	1346-A
Sub Type Nut	<b>Logan Part No.</b>	<b>F5000-B</b>	<b>F5001-B</b>	<b>F5002-B</b>	<b>F5004-B</b>	<b>F5005-B</b>	<b>F5007-B</b>	<b>F5007-B</b>
	Bowen No.	16459-B	19354-B	11199-B	9919-B	9648-B	1346-B	1346-B
Sidehill Type Nut	<b>Logan Part No.</b>	<b>F5000-C</b>	<b>F5001-C</b>	<b>F5002-C</b>	<b>F5004-C</b>	<b>F5005-C</b>	<b>F5007-C</b>	<b>F5007-C</b>
	Bowen No.	16459-C	19354-C	11199-C	9919-C	9648-C	1346-C	1346-C

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Name and part number of assembly or part  
 Size and type of top connection  
 Size and weight(s) of pipe to catch

Flush or Shoulder type (specify O.D. of shoulder, "A")  
 Mandrel length desired "C"  
 Thread size and type of nut, if required

**Recommended Spare Parts:**

2 x Grapples for each catch size



**PRODUCT LINE**

Fishing & Intervention | Internal Catch

**PRODUCT**

Standard Releasing Spears



Nominal Catch Size OD		2-7/8	2-7/8	2-7/8	3-1/2	3-1/2	4	4
Spear OD		2-5/16	2-5/16	2-5/16	2-13/16	2-1/2	3-1/4	3-1/4
Spear ID		3/8	3/8	3/8	1/2	1/2	3/4	3/4
Duty Class		STD	STD LH	HD	STD	HD	LD	STD
<b>Complete Assembly</b>	<b>Logan Part No.</b>	<b>202-007</b>	<b>202-022</b>	<b>202-008</b>	<b>202-009</b>	<b>202-010</b>	<b>202-024</b>	<b>202-011</b>
	Bowen No.	1227	62198	17231	9410	9945	530	9485

**REPLACEMENT PARTS**

Top Sub	<b>Logan Part No.</b>	-	-	-	-	-	-	-
	Bowen No.	-	-	-	-	-	-	-
Mandrel (Flush Type)	<b>Logan Part No.</b>	<b>F1009</b>	<b>F10095</b>	<b>F1010</b>	<b>F1012</b>	<b>F1013</b>	<b>F1014</b>	<b>F1015</b>
	Bowen No.	1231	62199	17232	9411	9946	531	9486
Grapple	<b>Logan Part No.</b>	<b>F3009</b>	<b>F30095</b>	<b>F3010</b>	<b>F3012</b>	<b>F3013</b>	<b>F3014</b>	<b>F3015</b>
	Bowen No.	1230	49888	17233	9412	9947	532	9487
Release Ring	<b>Logan Part No.</b>	<b>F4009</b>	<b>F4009</b>	<b>F4009</b>	<b>F4012</b>	<b>F4013</b>	<b>F4015</b>	<b>F4015</b>
	Bowen No.	1229	1229	1229	1584	9948	534	534
Bull Nose Nut	<b>Logan Part No.</b>	<b>F5009</b>	<b>F50095</b>	<b>F5009</b>	<b>F5012</b>	<b>F5013</b>	<b>F5014</b>	<b>F5015</b>
	Bowen No.	1228	62200	1228	9413	9949	533	9488

**OPTIONAL PARTS**

Mandrel (Shoulder Type)	<b>Logan Part No.</b>	<b>F1009</b>	<b>F10095</b>	<b>F1010</b>	<b>F1012</b>	<b>F1013</b>	<b>F1014</b>	<b>F1015</b>
	Bowen No.	1231	62199	17232	9411	9946	531	9486
Mandrel Extra Length Per Inch (C & D)	<b>Logan Part No.</b>	-	-	-	-	-	-	-
	Bowen No.	-	-	-	-	-	-	-

**ACCESSORIES**

Mill Type Nut	<b>Logan Part No.</b>	<b>F5009-A</b>	<b>F50095-A</b>	<b>F5010-A</b>	<b>F5012-A</b>	<b>F5013-A</b>	<b>F5014-A</b>	<b>F5015-A</b>
	Bowen No.	1228-A	-	1228-A	9413-A	-	533-A	9488-A
Sub Type Nut	<b>Logan Part No.</b>	<b>F5009-B</b>	<b>F50095-B</b>	<b>F5009-B</b>	<b>F5012-B</b>	<b>F5013-B</b>	<b>F5014-B</b>	<b>F5015-B</b>
	Bowen No.	1228-B	-	1228-B	9413-B	-	533-B	9488-B
Sidehill Type Nut	<b>Logan Part No.</b>	<b>F5009-C</b>	<b>F50095-C</b>	<b>F5009-C</b>	<b>F5012-C</b>	<b>F5013-C</b>	<b>F5014-C</b>	<b>F5015-C</b>
	Bowen No.	1228-C	-	1228-C	9413-C	-	533-C	9488-C

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**Recommended Spare Parts:**

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Standard Releasing Spears



Nominal Catch Size OD		4-1/2	4-1/2	5	5	6	6	7
Spear OD		3-5/8	3-5/8	4-1/32	4-1/32	5	5	5-3/4
Spear ID		3/4	3/4	7/8	1	1	1	2
Duty Class		LD	STD	LD	STD	LD	STD	STD
<b>Complete Assembly</b>	<b>Logan Part No.</b>	<b>202-017</b>	<b>202-012</b>	<b>202-035</b>	<b>202-013</b>	<b>202-023</b>	<b>202-014</b>	<b>202-015</b>
	Bowen No.	13200	17475	1332	9680	9715	17234	9266

**REPLACEMENT PARTS**

Top Sub	<b>Logan Part No.</b>	-	-	-	-	-	-	-
	Bowen No.	-	-	-	-	-	-	-
Mandrel (Flush Type)	<b>Logan Part No.</b>	<b>F1016</b>	<b>F1017</b>	<b>F1018</b>	<b>F1019</b>	<b>F1022</b>	<b>F1023</b>	<b>F1024</b>
	Bowen No.	13201	17476	1333	9681	9716	17235	9267
Grapple	<b>Logan Part No.</b>	<b>F3016</b>	<b>F3017</b>	<b>F3018</b>	<b>F3019</b>	<b>F3022</b>	<b>F3023</b>	<b>F3024</b>
	Bowen No.	13202	17477	1334	9682	9717	17236	9268
Release Ring	<b>Logan Part No.</b>	<b>F4017</b>	<b>F4017</b>	<b>F4019</b>	<b>F4019</b>	<b>F4023</b>	<b>F4023</b>	<b>F4024</b>
	Bowen No.	13183	13183	1336	1336	9718	9718	9279
Bull Nose Nut	<b>Logan Part No.</b>	<b>F5017</b>	<b>F5017</b>	<b>F5019</b>	<b>F5019</b>	<b>F5023</b>	<b>F5023</b>	<b>F5024</b>
	Bowen No.	13184	13184	1335	1335	9719	9719	9269

**OPTIONAL PARTS**

Mandrel (Shoulder Type)	<b>Logan Part No.</b>	<b>F1016</b>	<b>F1017</b>	<b>F1018</b>	<b>F1019</b>	<b>F1022</b>	<b>F1023</b>	<b>F1024</b>
	Bowen No.	13201	17476	1333	9681	9716	17235	9267
Mandrel Extra Length Per Inch (C & D)	<b>Logan Part No.</b>	-	-	-	-	-	-	-
	Bowen No.	-	-	-	-	-	-	-

**ACCESSORIES**

Mill Type Nut	<b>Logan Part No.</b>	<b>F5017-A</b>	<b>F5017-A</b>	<b>F5019-A</b>	<b>F5019-A</b>	<b>F5023-A</b>	<b>F5023-A</b>	<b>F5024-A</b>
	Bowen No.	13184-A	13184-A	1335-A	1335-A	9719-A	9719-A	9269-A
Sub Type Nut	<b>Logan Part No.</b>	<b>F5017-B</b>	<b>F5017-B</b>	<b>F5019-B</b>	<b>F5019-B</b>	<b>F5023-B</b>	<b>F5023-B</b>	<b>F5024-B</b>
	Bowen No.	13184-B	13184-B	1335-B	1335-B	9719-B	9719-B	9269-B
Sidehill Type Nut	<b>Logan Part No.</b>	<b>F5017-C</b>	<b>F5017-C</b>	<b>F5019-C</b>	<b>F5019-C</b>	<b>F5023-C</b>	<b>F5023-C</b>	<b>F5024-C</b>
	Bowen No.	13184-C	13184-C	1335-C	1335-C	9719-C	9719-C	9269-C

Innovex reserves the right to change or discontinue designs without prior notice.

**When ordering, please specify:**

Name and part number of assembly or part  
 Size and type of top connection  
 Size and weight(s) of pipe to catch

Flush or Shoulder type (specify O.D. of shoulder, "A")  
 Mandrel length desired "C"  
 Thread size and type of nut, if required

**Recommended Spare Parts:**

2 x Grapples for each catch size



**PRODUCT LINE**

Fishing & Intervention | Internal Catch

**PRODUCT**

Standard Releasing Spears



Nominal Catch Size OD	7	8-5/8	8-5/8	9-5/8	9-5/8	13-3/8	
Spear OD	5-3/4	7-1/4	7-1/4	8-1/4	8-1/4	11-3/4	
Spear ID	2	2-3/4	2-3/4	2-13/16	2-13/16	3-1/2	
Duty Class	HD	STD	HD	STD	HD	STD	
<b>Complete Assembly</b>	<b>Logan Part No.</b>	<b>202-016</b>	<b>202-025</b>	<b>202-018</b>	<b>202-019</b>	<b>202-020</b>	<b>202-021</b>
	Bowen No.	17237	9380	17243	9281	17246	27780

**REPLACEMENT PARTS**

Top Sub	<b>Logan Part No.</b>	-	-	-	-	-	-
	Bowen No.	-	-	-	-	-	-
Mandrel (Flush Type)	<b>Logan Part No.</b>	<b>F1026</b>	<b>F1029</b>	<b>F1030</b>	<b>F1032</b>	<b>F1034</b>	<b>F1035</b>
	Bowen No.	17238	9381	17244	9282	17247	27781
Grapple	<b>Logan Part No.</b>	<b>F3026</b>	<b>F3029</b>	<b>F3030</b>	<b>F3032</b>	<b>F3034</b>	<b>F3035</b>
	Bowen No.	17239	9382	17245	9283	17248	27782
Release Ring	<b>Logan Part No.</b>	<b>F4024</b>	<b>F4029</b>	<b>F4029</b>	<b>F4032</b>	<b>F4032</b>	<b>F4033</b>
	Bowen No.	9279	9383	9383	9286	9286	27783
Bull Nose Nut	<b>Logan Part No.</b>	<b>F5024</b>	<b>F5029</b>	<b>F5029</b>	<b>F5032</b>	<b>F5032</b>	<b>F5033</b>
	Bowen No.	9269	9384	9384	9284	9284	27784

**OPTIONAL PARTS**

Mandrel (Shoulder Type)	<b>Logan Part No.</b>	<b>F1026</b>	<b>F1029</b>	<b>F1030</b>	<b>F1032</b>	<b>F1034</b>	<b>F1035</b>
	Bowen No.	17238	9381	17244	9282	17247	27781
Mandrel Extra Length Per Inch (C & D)	<b>Logan Part No.</b>	-	-	-	-	-	-
	Bowen No.	-	-	-	-	-	-

**ACCESSORIES**

Mill Type Nut	<b>Logan Part No.</b>	<b>F5024-A</b>	<b>F5029-A</b>	<b>F5029-A</b>	<b>F5032-A</b>	<b>F5032-A</b>	<b>F5035-A</b>
	Bowen No.	9269-A	9384-A	9384-A	9284-A	9284-A	27784-A
Sub Type Nut	<b>Logan Part No.</b>	<b>F5024-B</b>	<b>F5029-B</b>	<b>F5029-B</b>	<b>F5032-B</b>	<b>F5032-B</b>	<b>F5035-B</b>
	Bowen No.	9269-B	9384-B	9384-B	9284-B	9284-B	27784-B
Sidehill Type Nut	<b>Logan Part No.</b>	<b>F5024-C</b>	<b>F5029-C</b>	<b>F5029-C</b>	<b>F5032-C</b>	<b>F5032-C</b>	<b>F5035-C</b>
	Bowen No.	9269-C	9384-C	9384-C	9284-C	9284-C	27784-C

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**Recommended Spare Parts:**

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