

## Series 10 and 20 Overshots





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# Series 10 Sucker Rod Overshots

## OVERVIEW

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The Logan Series 10 Sucker Rod Overshot is a small, effective tool designed for engaging and retrieving sucker rods, couplings, and other items from inside tubing strings.

## CONSTRUCTION

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The Series 10 Sucker Rod Overshot consists of a top sub, bowl, grapple, and a guide. Depending on the diameter of the fish, either a spiral or basket grapple will be used. Fish diameters near the maximum catch limits require the use of a spiral grapple and a control guide. Fish diameters that are substantially below the maximum catch limits of the overshot require a basket grapple, a basket grapple control, and a plain guide.

## OPERATION

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After the Overshot has reached the top of the fish, combined rotation and lowering results in the following:

1. The guide directs the fish into the overshot.
2. The grapple expands and the fish passes into it until it reaches the pin section of the top sub or the stop of a basket grapple.
3. The fish is now properly positioned in the overshot. The tapers of the bowl will contract the grapple and securely hold the fish when upward pull is exerted on the string.

A sharp downward bump positions the largest portion of the bowl tapers opposite the grapple thereby breaking the hold. Right-hand rotation expands the grapple and the overshot can then be withdrawn from the fish.

Before making up the overshot on the fishing string and running it into the well, be sure the overshot is properly assembled and dressed with the proper size grapple. Check to make sure all of the parts are in working order. Refer to the drawings on page 3.

## ENGAGING A FISH

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Dress the overshot with the proper type and size of grapple. Attach the overshot to the bottom end of the fishing string and run it into the hole. As the overshot nears the top of the fish, slowly rotate the overshot to the right as it is lowered over the fish. This combination of rotating and lowering is important.

After the fish is engaged, allow right-hand torque to release from the fishing string. Raise the fish by pulling upward on the fishing string.

Sinker bars should be used for weight to force the overshot down onto the fish if wireline is used for the fishing string. There will be no releasing effect with wireline because the overshot cannot be rotated.

## RELEASING A FISH

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Bump down or drop the weight of the fishing string against the overshot to break the hold of the grapple within the bowl. Elevate the fishing string while slowly rotating it to the right until the overshot has cleared the fish. The combination of rotation and elevation is important.

To release from a recovered fish, hold the fish below the overshot and follow the same procedure.

## PRECAUTIONS

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Never rotate the fishing string to the right while the overshot is engaged with the fish unless an upward strain is maintained.

Before starting releasing operations, always bump down the full weight of the fishing string.

## MAINTENANCE

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After each use, the tool should be disassembled, inspected, repaired as required and reassembled. Maintenance is simple, but important.

### Disassembly

1. Using a vise, clamp the bowl between the threaded ends. Remove the top sub and guide by breaking loose the threaded connections between the top sub and guide.

**CAUTION: Excessive force can distort or crack the bowl. Use only enough gripping action in the vise to break the connections. Avoid making heavy tool marks on the bowl.**

2. Using right-hand rotation, unscrew and remove the grapple from the bowl. If the grapple is a basket type, the control must first be lifted out through the bottom of the assembly.

Before reassembly, inspect all parts, especially the grapple. Grease the parts as they are reassembled. Check the wickers for damage and wear to ensure safe operation. Grease or paint the exterior to prevent corrosion.

## ORDERING INFORMATION

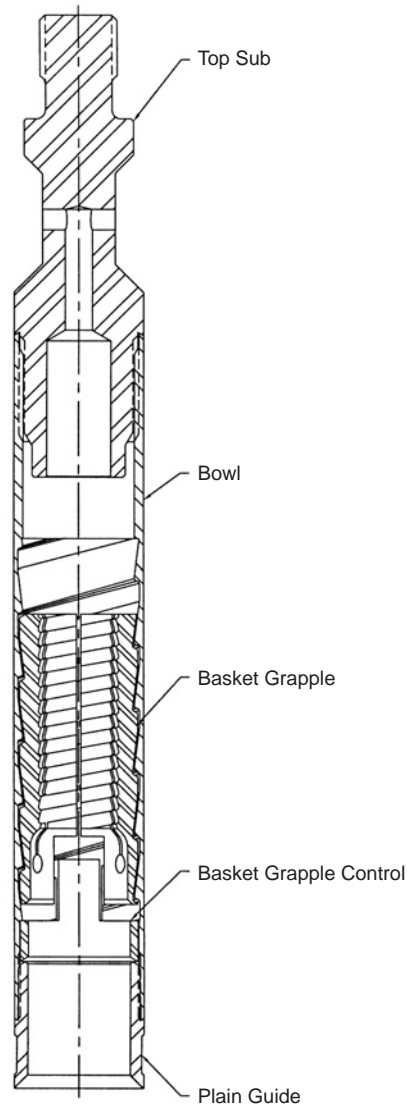
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### When ordering, please specify:

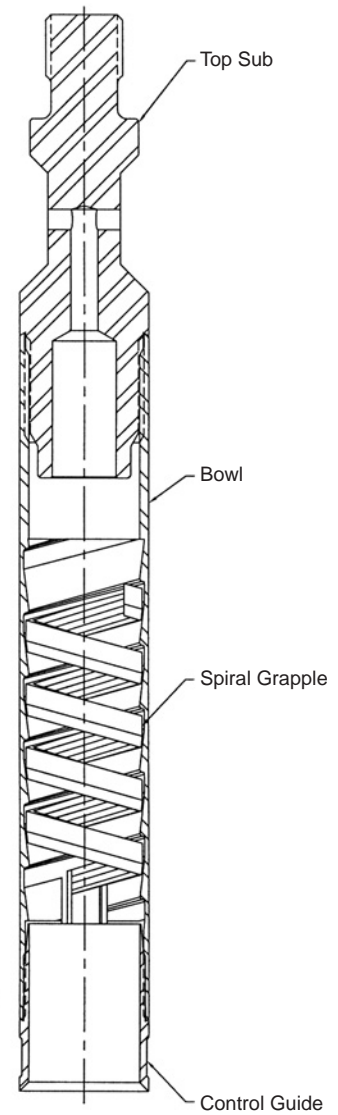
- (1) Complete assembly or part number
- (2) Top sub connection
- (3) Size and type of fish to be caught
- (4) O.D., if other than standard



# Series 10 Sucker Rod Overshots



**Basket Grapple Assembly**



**Spiral Grapple Assembly**



## Series 10 Sucker Rod Overshots

<b>MAXIMUM CATCH SIZE (Spiral)</b>		1-1/16	1-1/4	1-3/8	1-1/2	1-1/2	1-5/8	1-5/8
<b>MAXIMUM CATCH SIZE (Basket)</b>		7/8	1-1/16	1-3/16	1-5/16	1-5/16	1-7/16	1-7/16
<b>OVERSHOT O.D.</b>		1-9/16	1.43	1-21/32	1-25/32	1-29/32	1-29/32	2-5/16
<b>TYPE</b>		FS	SH	SH	SH	SH	SH	FS
<b>STANDARD TOP CONNECTION</b>		3/4 Rod	3/4 Rod	3/4 Rod	3/4 Rod	3/4 Rod	3/4 Rod	7/8 Rod
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No.</b>	<b>110-156-A</b>	<b>110-143-D</b>	<b>110-166-D</b>	<b>110-178-D</b>	<b>110-190-D</b>	<b>110-191-D</b>	<b>110-231-A</b>
	Bowen No.	9790	17985	16490	13940	9990	9340	9880

### SPIRAL COMPONENT PARTS

<b>TOP SUB</b>	<b>Logan Part No.</b>	<b>B1000</b>	<b>B1001</b>	<b>B10015</b>	<b>B1002</b>	<b>B1004</b>	<b>B1004</b>	<b>B1004</b>
	Bowen No.	9791	17986	16491	13941	9341	9341	9341
<b>BOWL</b>	<b>Logan Part No.</b>	<b>B2000</b>	<b>B2001</b>	<b>B20015</b>	<b>B2002</b>	<b>B2003</b>	<b>B2004</b>	<b>B2005</b>
	Bowen No.	9792	17987	16492	13942	9991	9342	9881
<b>SPIRAL GRAPPLE</b>	<b>Logan Part No.</b>	<b>B3000</b>	<b>B3001</b>	<b>B30015</b>	<b>B3002</b>	<b>B3003</b>	<b>B3004</b>	<b>B3004</b>
	Bowen No.	9793	17988	16493	13943	9992	9343	9343
<b>SPIRAL GRAPPLE CONTROL</b>	<b>Logan Part No.</b>	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
<b>CONTROL GUIDE</b>	<b>Logan Part No.</b>	<b>B4000</b>	<b>B4001</b>	<b>B40015</b>	<b>B4002</b>	<b>B4003</b>	<b>B4004</b>	<b>B4005</b>
	Bowen No.	9796	17989	16496	13945	9993	9349	9883
<b>GUIDE (CUT LIPPED)</b>	<b>Logan Part No.</b>	...	...	<b>B80015</b>	...	<b>B4003</b>	...	...
	Bowen No.	...	...	16496	...	9993	...	...

### BASKET COMPONENT PARTS

<b>BASKET GRAPPLE</b>	<b>Logan Part No.</b>	<b>B5000</b>	<b>B5001</b>	<b>B50015</b>	<b>B5002</b>	<b>B5003</b>	<b>B5004</b>	<b>B5004</b>
	Bowen No.	9793	17988	16493	13943	9992	9343	9343
<b>BASKET GRAPPLE CONTROL</b>	<b>Logan Part No.</b>	<b>B6000</b>	<b>B6001</b>	<b>B60015</b>	<b>B6002</b>	<b>B6003</b>	<b>B6004</b>	<b>B6005</b>
	Bowen No.	9794	18003	16494	13947	9993	9344	153338
<b>PLAIN GUIDE</b>	<b>Logan Part No.</b>	<b>B7000</b>	<b>B7001</b>	<b>B70015</b>	<b>B7002</b>	<b>B7003</b>	<b>B7004</b>	<b>B7005</b>
	Bowen No.	9795	18004	16498	13944	9994	9345	9882

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

*Note: Grapples are available in 1/16" intervals.*

#### When ordering, please specify:

- (1) Complete assembly or part number
- (2) Top Sub connection
- (3) Size and type of fish to be caught
- (4) O.D., if other than standard

#### Logan Coding

- A = FS Full Strength – For all pulling torsional and jarring strain  
 B = XFS Extra Full Strength – For extreme abuse  
 C = SFS Semi Full Strength – Maximum strength for special hole conditions  
 D = SH Slim Hole – For heavy pulling strains only  
 E = XSH Extra Slim Hole – For pick up jobs only

#### Recommended Spare Parts:

- (1) Spiral: 2 Grapples, 1 Control
- (2) Basket: 2 Grapples, 1 Control



## Series 10 Sucker Rod Overshots

<b>MAXIMUM CATCH SIZE (Spiral)</b>		1-9/16	1-3/4	1-3/4	1-13/16	1-13/16	1-15/16	2
<b>MAXIMUM CATCH SIZE (Basket)</b>		1-3/8	1-9/16	1-7/16	1-5/8	1-5/8	1-3/4	1-13/16
<b>OVERSHOT O.D.</b>		1-27/32	2-1/16	2-1/16	2-1/8	2-5/16	2-1/4	2-5/16
<b>TYPE</b>		SH	SH	SH	SH	SFS	SH	SH
<b>STANDARD TOP CONNECTION</b>		5/8 Rod	5/8 Rod	7/8 Rod	7/8 Rod	7/8 Rod	7/8 Rod	7/8 Rod
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No.</b>	<b>110-184-D</b>	<b>110-206-D</b>	<b>110-207-D</b>	<b>110-213-D</b>	<b>110-231-C</b>	<b>110-225-D</b>	<b>110-231-D</b>
	Bowen No.	36423	54178 *	156309	27765	11480	16070	9400

### SPIRAL COMPONENT PARTS

<b>TOP SUB</b>	<b>Logan Part No.</b>	<b>B10051</b>	<b>B10053</b>	<b>B10054</b>	<b>B10052</b>	<b>B1006</b>	<b>B1007</b>	<b>B1008</b>
	Bowen No.	36424	54179 *	156310	27766	11481	16071	9401
<b>BOWL</b>	<b>Logan Part No.</b>	<b>B20051</b>	<b>B20053</b>	<b>B20054</b>	<b>B20052</b>	<b>B2006</b>	<b>B2007</b>	<b>B2008</b>
	Bowen No.	36425	54180 *	156311	27767	11482	16072	9402
<b>SPIRAL GRAPPLE</b>	<b>Logan Part No.</b>	<b>B30051</b>	<b>B30053</b>	<b>B30054</b>	<b>B30052</b>	<b>B3006</b>	<b>B3007</b>	<b>B3008</b>
	Bowen No.	36436	54181	156312	27768	11483	16073	9403
<b>CONTROL GUIDE</b>	<b>Logan Part No.</b>	<b>B40051</b>	<b>B40053</b>	<b>B40054</b>	<b>B40052</b>	<b>B4006</b>	<b>B4007</b>	<b>B4008</b>
	Bowen No.	36427	54184	156313	27764	11484	16076	9406
<b>SPIRAL GRAPPLE CONTROL</b>	<b>Logan Part No.</b>	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...
<b>GUIDE (CUT LIPPED)</b>	<b>Logan Part No.</b>	...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...	...

### BASKET COMPONENT PARTS

<b>BASKET GRAPPLE</b>	<b>Logan Part No.</b>	<b>B50051</b>	<b>B50053</b>	<b>B50054</b>	<b>B50052</b>	<b>B5006</b>	<b>B5007</b>	<b>B5008</b>
	Bowen No.	36436	54181	156312	27768	11483	16073	9403
<b>BASKET GRAPPLE CONTROL</b>	<b>Logan Part No.</b>	<b>B60051</b>	<b>B60053</b>	<b>B60054</b>	<b>B60052</b>	<b>B6006</b>	<b>B6007</b>	<b>B6008</b>
	Bowen No.	36437	54182	54182	27763	11485	16074	9405
<b>PLAIN GUIDE</b>	<b>Logan Part No.</b>	<b>B70051</b>	<b>B70053</b>	<b>B70054</b>	<b>B70052</b>	<b>B7006</b>	<b>B7007</b>	<b>B7008</b>
	Bowen No.	36426	54183	156333	27769	11486	16075	9404

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*Note: Grapples are available in 1/16" intervals.*

#### When ordering, please specify:

- (1) Complete assembly or part number
- (2) Top Sub connection
- (3) Size and type of fish to be caught
- (4) O.D., if other than standard

#### Recommended Spare Parts:

- (1) Spiral: 2 Grapples, 1 Control
- (2) Basket: 2 Grapples, 1 Control

#### Logan Coding

- A = FS Full Strength – For all pulling torsional and jarring strain  
 B = XFS Extra Full Strength – For extreme abuse  
 C = SFS Semi Full Strength – Maximum strength for special hole conditions  
 D = SH Slim Hole – For heavy pulling strains only  
 E = XSH Extra Slim Hole – For pick up jobs only



# Series 10 Sucker Rod Overshots

<b>MAXIMUM CATCH SIZE (Spiral)</b>	2	2-3/8					
<b>MAXIMUM CATCH SIZE (Basket)</b>	1-13/16	2-3/16					
<b>OVERSHOT O.D.</b>	2-7/8	2-27/32					
<b>TYPE</b>	FS	SH					
<b>STANDARD TOP CONNECTION</b>	7/8 Rod	7/8 Rod					
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No.</b>	<b>110-287-A</b>	<b>110-284-D</b>				
	Bowen No.	9530	15860				

## SPIRAL COMPONENT PARTS

<b>TOP SUB</b>	<b>Logan Part No.</b>	<b>B1009</b>	<b>B1010</b>				
	Bowen No.	9531	15863				
<b>BOWL</b>	<b>Logan Part No.</b>	<b>B2009</b>	<b>B2010</b>				
	Bowen No.	9532	15861				
<b>SPIRAL GRAPPLE</b>	<b>Logan Part No.</b>	<b>B3008</b>	<b>B3010</b>				
	Bowen No.	9403	9872				
<b>CONTROL GUIDE</b>	<b>Logan Part No.</b>	<b>B4009</b>	...				
	Bowen No.	9535	...				
<b>SPIRAL GRAPPLE CONTROL</b>	<b>Logan Part No.</b>	...	<b>B8000</b>				
	Bowen No.	...	9873				
<b>GUIDE (CUT LIPPED)</b>	<b>Logan Part No.</b>	...	<b>B8001</b>				
	Bowen No.	...	15862				

## BASKET COMPONENT PARTS

<b>BASKET GRAPPLE</b>	<b>Logan Part No.</b>	<b>B5008</b>	<b>B5010</b>				
	Bowen No.	9403	9872				
<b>BASKET GRAPPLE CONTROL</b>	<b>Logan Part No.</b>	<b>B6008</b>	<b>B6010</b>				
	Bowen No.	9405	9873				
<b>PLAIN GUIDE</b>	<b>Logan Part No.</b>	<b>B7009</b>	<b>B7010</b>				
	Bowen No.	9533	15862				

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

*Note: Grapples are available in 1/16" intervals.*

### When ordering, please specify:

- (1) Complete assembly or part number
- (2) Top Sub connection
- (3) Size and type of fish to be caught
- (4) O.D., if other than standard

### Logan Coding

- A = FS Full Strength – For all pulling torsional and jarring strain
- B = XFS Extra Full Strength – For extreme abuse
- C = SFS Semi Full Strength – Maximum strength for special hole conditions
- D = SH Slim Hole – For heavy pulling strains only
- E = XSH Extra Slim Hole – For pick up jobs only

### Recommended Spare Parts:

- (1) Spiral: 2 Grapples, 1 Control
- (2) Basket: 2 Grapples, 1 Control



## Series 10 Sucker Rod Overshots

Logan Series 10 Overshot Calculated Strengths

BOWL NO.	MAXIMUM CATCH SIZE		LOAD CAPACITY @ YIELD POINT (LBS)				MAX. MAKE-UP TORQUE 50% OF YIELD (FT/LBS)			
	LOGAN	BOWEN	SPIRAL	BASKET	O.D. (IN)	SPIRAL GRAPPLE	BASKET GRAPPLE (IN)	WITHOUT STOP	TOP SUB TO BOWL	BOWL TO GUIDE
B2001	17987	1-1/4	1-1/4	1-1/16	1-7/16	16,500	1-1/16 down	11,500	100	95
B20015	16492	1-3/8	1-3/8	1-3/16	1-21/32	39,100	1-3/16 down to, but not including 1" down	28,500 18,000	235	145
B2002	13942	1-1/2	1-1/2	1-5/16	1-25/32	39,500	1-5/16 down to, but not including 1" down	28,500 18,000	315	170
B2003	9991	1-1/2	1-1/2	1-5/16	1-29/32	83,800	1-5/16 down	38,200	350	235
B2004	9342	1-5/8	1-5/8	1-7/16	1-29/32	39,500	1-7/16 down to, but not including 1" down	28,500 18,000	375	225
B2005	9881	1-5/8	1-5/8	1-7/16	2-5/16	138,100	1-7/16 down to, but not including 1" down	93,900 59,400	1,750	535
B20051	36425	1-9/16	1-9/16	1-3/8	2-27/32	39,500	1-3/8 down to, but not including 1" down	28,500 18,000	...	...
B20052	27767	1-13/16	1-13/16	1-5/8	2-9/64	55,700	1-5/8 down to, but not including 1" down	40,100 25,400	575	175
B2006	11482	1-13/16	1-13/16	1-5/8	2-5/16	118,100	1.660 down to, but not including 1-1/8 down	85,100 53,800	1,050	445
B2007	16072	1-15/16	1-15/16	1-3/4	2-1/4	55,700	1-3/4 down to, but not including 1-1/8 down	40,100 25,400	650	335
B2008	9402	2	2	1-13/16	2-5/16	55,700	1-13/16 down to, but not including 1-1/8 down	40,100 25,400	740	240
B2009	9532	2	2	1-13/16	2-7/8	200,400	1-13/16 down to, but not including 1-1/8 down	144,400 91,300	3,200	1,050
B2010	15861	2-3/8	2-3/8	2-3/16	2-27/32	70,000	2-3/16 down to, but not including 1-1/8 down	51,100 37,700	1,850	500

All strengths are calculated theoretical yield points and are accurate within 20%. All strengths assume straight, steady pull and full grapple engagement of a round fish. Anything less than full engagement or straight pulling, will reduce the listed strength.

Tong marks or other damage to the bowl surface will also reduce the listed strength.

All torque calculations are theoretical maximum tightening torques for the threaded connection and do not include clamping force. Clamping force is not considered due to the variety of devices used to tighten these connections.

CAUTION: Due to the amount of torque applied to a connection and the type of device used to apply the torque, damage to the bowl, top sub, or guide may occur.



# Series 20 Short Catch Sucker Rod Overshots

## OVERVIEW

Logan Series 20 Short Catch Sucker Rod Overshots are designed for conditions when sucker rods, couplings, and other portions of a fish are too short for retrieval with a standard overshoot.

## CONSTRUCTION

The Logan Series 20 Short Catch Sucker Rod Overshot consists of a top sub, bowl, basket grapple control, and a basket grapple. The grapple control is located at the top end of the tool between the top sub and the basket grapple. The position of the grapple control above the basket grapple rather than below it allows the basket grapple to occupy the lowest position in the bowl. This permits the exposed part of the fish to enter the basket grapple where it can be firmly and securely grasped.

## OPERATION

Operation of the Logan Series 20 Short Catch Sucker Rod Overshot is the same as the Logan Series 10 Sucker Rod Overshot.

After the Overshot has reached the top of the fish, combined rotation and lowering results in the following:

1. The guide directs the fish into the overshoot.
2. The grapple expands and the fish passes into it until it reaches the pin section of the top sub or the stop of a basket grapple.
3. The fish is now properly positioned in the overshoot. The tapers of the bowl will contract the grapple and securely hold the fish when upward pull is exerted on the string.

A sharp downward bump positions the largest portion of the bowl tapers opposite the grapple thereby breaking the hold. Right-hand rotation expands the grapple and the overshoot can then be withdrawn from the fish.

Before making up the overshoot on the fishing string and running it into the well, be sure the overshoot is properly assembled and dressed with the proper size grapple. Check to make sure all of the parts are in working order. Refer to the drawing on page 9.

## ENGAGING A FISH

Dress the overshoot with the proper type and size of grapple. Attach the overshoot to the bottom end of the fishing string and run it into the hole. Gradually lower the overshoot over the fish. As the overshoot nears the top of the fish, slowly rotate it to the right to engage the fish. After the fish is engaged, allow right-hand torque to release from the fishing string. Then raise the fish by pulling upward on the fishing string.

## RELEASING A FISH

Bump down or drop the weight of the fishing string against the overshoot to break the hold of the grapple within the bowl. Elevate the fishing string while slowly rotating it to the right until the overshoot has cleared the fish.

## PRECAUTIONS

Never rotate the fishing string to the right while the overshoot is engaged with the fish unless an upward strain is maintained.

Before starting releasing operations, always bump down the full weight of the fishing string.

## MAINTENANCE

After each use, the tool should be disassembled, inspected, repaired as required and reassembled. Maintenance is simple, but important.

### Disassembly

1. Using a vise, clamp the bowl between the threaded ends. Remove the top sub and guide by breaking loose the threaded connections between the top sub and guide.

**CAUTION: Excessive force can distort or crack the bowl. Use only enough gripping action in the vise to break the connections. Avoid making heavy tool marks on the bowl.**

2. Using right-hand rotation, unscrew and remove the grapple from the bowl. If the grapple is a basket type, the control must first be lifted out through the top.

Before reassembly, inspect all parts, especially the grapple. Grease the parts as they are reassembled. Check the wickers for damage and wear to ensure safe operation. Grease or paint the exterior to prevent corrosion.

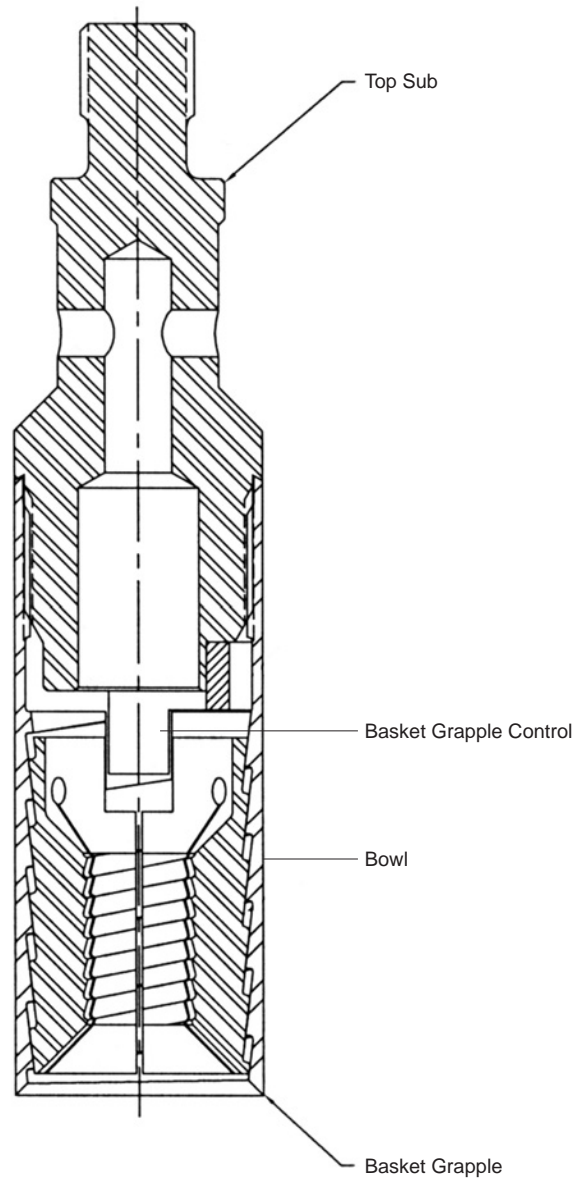
## ORDERING INFORMATION

### When ordering, please specify:

- (1) Complete assembly or part number
- (2) Top sub connection
- (3) Size and type of fish to be caught
- (4) O.D., if other than standard



# Series 20 Short Catch Sucker Rod Overshots





## Series 20 Short Catch Sucker Rod Overshots

<b>MAXIMUM CATCH SIZE (Basket)</b>		7/8	1	1-1/4	1-3/8	1-1/2	1-3/4	1-13/16
<b>OVERSHOT O.D.</b>		1-1/4	1-3/8	1-5/8	1-3/4	1-29/32	2-1/4	2-5/16
<b>TYPE *</b>		SH	SH	SH	SH	SH	SH	SH
<b>STANDARD TOP CONNECTION</b>		5/8 Rod	5/8 Rod	5/8 Rod	3/4 Rod	3/4 Rod	7/8 Rod	7/8 Rod
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No.</b>	<b>120-125-D</b>	<b>120-138-D</b>	<b>120-163-D</b>	<b>120-175-D</b>	<b>120-191-D</b>	<b>120-225-D</b>	<b>120-231-D</b>
	Bowen No.	17315	25780	28760	18355	11555	47464	17438

### BASKET COMPONENT PARTS

<b>TOP SUB</b>	<b>Logan Part No.</b>	<b>B1011</b>	<b>B1012</b>	<b>B1013</b>	<b>B1014</b>	<b>B1004</b>	<b>B1007</b>	<b>B1008</b>
	Bowen No.	17316	25781	28761	18356	9341	16071	9401
<b>BOWL</b>	<b>Logan Part No.</b>	<b>B2011</b>	<b>B2012</b>	<b>B2013</b>	<b>B2014</b>	<b>B2015</b>	<b>B20155</b>	<b>B2016</b>
	Bowen No.	17317	25782	28762	18357	11556	47465	17439
<b>BASKET GRAPPLE</b>	<b>Logan Part No.</b>	<b>B3011</b>	<b>B3012</b>	<b>B3013</b>	<b>B3014</b>	<b>B3015</b>	<b>B30155</b>	<b>B3016</b>
	Bowen No.	17318	25783	28763	18358	11557	47466	17440
<b>BASKET GRAPPLE CONTROL</b>	<b>Logan Part No.</b>	<b>B4011</b>	<b>B4012</b>	<b>B4013</b>	<b>B4014</b>	<b>B4015</b>	<b>B40155</b>	<b>B4016</b>
	Bowen No.	17319	25784	28764	18359	11558	47467	17441
<b>OVERSIZED GUIDES</b>	<b>Logan Part No.</b>	...	...	...	...	...	...	<b>B5016</b>
	Bowen No.	...	...	...	...	...	...	22276
<b>GUIDE PINS</b>	<b>Logan Part No.</b>	...	...	...	...	...	...	<b>B6016</b>
	Bowen No.	...	...	...	...	...	...	14876

Note: Grapples are available in 1/16" intervals.

<b>MAXIMUM CATCH SIZE (Basket)</b>		2-1/8	2-1/8	2-3/8	2-1/2			
<b>OVERSHOT O.D.</b>		2-25/32	2-7/8	3-1/8	3-1/4			
<b>TYPE</b>		SH	FS	SH	FS			
<b>STANDARD TOP CONNECTION</b>		7/8 Rod	2-3/8 Tub	2-3/8 Tub	2-3/8 Tub			
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No.</b>	<b>120-278-D</b>	<b>120-287-A</b>	<b>120-313-D</b>	<b>120-325-A</b>			
	Bowen No.	18305	20170	20645	22270			

### BASKET COMPONENT PARTS

<b>TOP SUB</b>	<b>Logan Part No.</b>	<b>B1017</b>	<b>B1018</b>	<b>B1019</b>	<b>B1020</b>			
	Bowen No.	18306	20172	20646	22271			
<b>BOWL</b>	<b>Logan Part No.</b>	<b>B2017</b>	<b>B2018</b>	<b>B2019</b>	<b>B2020</b>			
	Bowen No.	18307	20171	20647	22272			
<b>BASKET GRAPPLE</b>	<b>Logan Part No.</b>	<b>B3017</b>	<b>B3017</b>	<b>B3019</b>	<b>B3020</b>			
	Bowen No.	18308	18308	20648	22273			
<b>BASKET GRAPPLE CONTROL</b>	<b>Logan Part No.</b>	<b>B4017</b>	<b>B4017</b>	<b>B4019</b>	<b>B4020</b>			
	Bowen No.	18309	18309	20649	22274			
<b>OVERSIZED GUIDES</b>	<b>Logan Part No.</b>	...	<b>B5018</b>	...	<b>B5020</b>			
	Bowen No.	...	20173	...	22275			
<b>GUIDE PINS</b>	<b>Logan Part No.</b>	...	<b>B6018</b>	...	<b>B6020</b>			
	Bowen No.	...	20174	...	20651			

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

Note: Grapples are available in 1/16" intervals.

#### When ordering, please specify:

- (1) Complete assembly or part number
- (2) Top Sub connection
- (3) Size and type of fish to be caught
- (4) O.D., if other than standard

#### Logan Coding

- A = FS Full Strength – For all pulling torsional and jarring strain  
 B = XFS Extra Full Strength – For extreme abuse  
 C = SFS Semi Full Strength – Maximum strength for special hole conditions  
 D = SH Slim Hole – For heavy pulling strains only  
 E = XSH Extra Slim Hole – For pick up jobs only

#### Recommended Spare Parts:

- (1) Spiral: 2 Grapples, 1 Control
- (2) Basket: 2 Grapples, 1 Control



## Series 20 Short Catch Sucker Rod Overshots

### CALCULATED STRENGTHS

<b>MAXIMUM CATCH SIZE (Basket)</b>		7/8	1	1-1/4	1-3/8	1-1/2	1-3/4	1-13/16
<b>NOMINAL OVERSHOT O.D. *</b>		1-9/32	1-13/32	1-5/8	1-3/4	1-29/32	2-1/4	2-5/16
<b>LOAD CAPACITY @ YIELD POINT (lbs)</b>		31,500	31,500	42,200	35,100	41,000	50,298	50,400
<b>BOWL</b>	<b>Logan Part No.</b>	<b>B2011</b>	<b>B2012</b>	<b>B2013</b>	<b>B2014</b>	<b>B2015</b>	<b>B20155</b>	<b>B2016</b>
	Bowen No.	17317	25782	28762	18357	11556	47465	17439
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No.</b>	<b>120-125-D</b>	<b>120-138-D</b>	<b>120-163-D</b>	<b>120-175-D</b>	<b>120-191-D</b>	<b>120-225-D</b>	<b>120-231-D</b>
	Bowen No.	17315	25780	28760	18355	11555	47464	17438

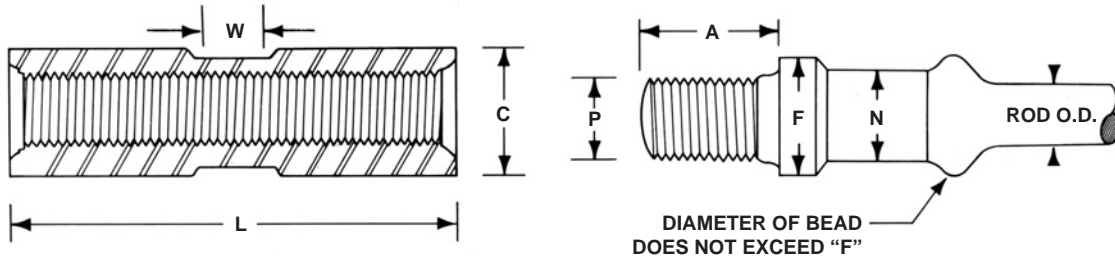
<b>MAXIMUM CATCH SIZE (Basket)</b>		2-1/8	2-1/8	2-3/8	2-1/2			
<b>NOMINAL OVERSHOT O.D. *</b>		2-25/32	2-7/8	3-1/8	3-1/4			
<b>LOAD CAPACITY @ YIELD POINT (lbs)</b>		102,300	101,800	127,000	127,000			
<b>BOWL</b>	<b>Logan Part No.</b>	<b>B2017</b>	<b>B2018</b>	<b>B2019</b>	<b>B2020</b>			
	Bowen No.	18307	20171	20647	22272			
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No.</b>	<b>120-278-D</b>	<b>120-287-A</b>	<b>120-313-D</b>	<b>120-325-A</b>			
	Bowen No.	18305	20170	20645	22270			

*NOTE: Strengths are theoretical yield points that are accurate within 20%.  
Strengths assume full grapple engagement of a round fish and a straight, steady pull.  
Anything less than full engagement or steady, straight pulling will reduce the listed strength.*

*\* Check the actual tool OD if the tool is to be run through a tight clearance.*



## Series 20 Short Catch Sucker Rod Overshots



### DIMENSIONS AND CALCULATED STRENGTHS

ROD SIZE — INCHES	1/2	5/8	3/4	7/8	1	1-1/8
<b>A — PIN LENGTH</b>	1	1-1/8	1-3/8	1-3/8	1-3/4	2
<b>C — FULL SIZED COUPLING O.D.</b>	1	1-1/2	1-5/8	1-13/16	2-3/16 or 2 *	2-3/8
<b>F — SHOULDER O.D.</b>	1	1-3/8	1-1/2	1-5/8	2	2-1/4
<b>L — MINIMUM LENGTH</b>	2-3/4	4	4	4	4	4-1/2
<b>N — WRENCH FLAT</b>	5/8	7/8	1	1	1-5/16	1-1/2
<b>P — PIN O.D.</b>	3/4	15/16	1-1/16	1-3/16	1-3/8	1-9/16
<b>W — COUPLING WRENCH FLAT WIDTH</b>	3/4	1-3/8	1-1/2	1-5/8	1-7/8	2-1/8
<b>THREAD</b>	3/4 10 thd	15/16 10 thd	1-1/16 10 thd	1-3/16 10 thd	1-3/8 10 thd	1-9/16 10 thd

\* Used when running 1-inch rods in 2-7/8" tubing; 2-3/16" is standard.

### STRENGTH TABLE

ROD SIZE — INCHES		1/2	5/8	3/4	7/8	1
<b>ROD AREA</b>		0.196	0.306	0.442	0.601	0.785
<b>BASED ON:</b>						
J&L Type 7 with ultimate tensile strength of 86,000 and yield of 70,000 psi	Yield	16,000	21,400	30,900	42,100	55,000
	Ultimate	20,000	26,300	38,000	51,700	67,500
	Torque *	70	140	171	381	570
J&L Type 2 with ultimate tensile strength of 100,000 and yield of 65,000 psi	Yield	...	19,900	28,700	39,100	51,000
	Ultimate	...	30,600	44,200	60,100	78,500
	Torque *	65	130	159	353	530
J&L Type 1 with ultimate tensile strength of 100,000 and yield of 65,000 psi	Yield	...	20,900	30,300	41,200	53,800
	Ultimate	...	30,600	44,200	60,100	78,500
	Torque *	68-1/2	136	168	372	560
J&L Type 12 with ultimate tensile strength of 120,000 and yield of 96,000 psi	Yield	...	29,400	42,300	57,700	75,300
	Ultimate	...	37,700	53,000	72,000	94,200
	Torque *	96	192	235	476	783

\* Torque based on rod O.D. @ yield.

## HEADQUARTERS

11006 Lucerne Street  
Houston, TX 77016  
Tel: (281) 219-6613  
Fax: (281) 219-6638

[sales@loganoiltools.com](mailto:sales@loganoiltools.com)

## UNITED STATES

California

3155 Pegasus  
Bakersfield, CA 93308  
Tel: (661) 387-1449/1465  
Fax: (661) 387-1624

Louisiana

103 Bluffwood Drive  
Broussard, LA 70518  
Tel: (337) 839-2331/2332  
Fax: (337) 839-2334

118 Common Court  
Houma, LA 70360  
Tel: (985) 868-7333  
Fax: (985) 868-7007

Oklahoma

424 South Eagle Lane  
Oklahoma City, OK 73128  
Tel: (405) 782-0625/0699/0754  
Fax: (405) 782-0760

Mississippi

6 Donald Drive  
Laurel, MS 39440  
Tel: (601) 649-0636  
Fax: (601) 649-6909

Texas

101 Commerce Street  
Alice, TX 78332  
Tel: (361) 396-0139/0147  
Fax: (361) 396-0112

1305 Energy Drive  
Kilgore, TX 75662  
Tel: (903) 984-6700  
Fax: (903) 984-6755

1617 South Viceroy  
Odessa, TX 79763  
Tel: (432) 580-7414  
Fax: (432) 580-7656

Utah

1369 South 1100 East  
Vernal, UT 84078  
Tel: (435) 781-2856/2857  
Fax: (435) 781-2858

## STOCKING DISTRIBUTORS

Canada

Lee Oilfield Fishing Tools Ltd.  
4604 Eleniak Road NW  
Edmonton, AB T6B2S1  
Canada  
Tel: (780) 440-6705  
Fax: (780) 463-5570

Dubai

Woodhouse International  
P.O. Box 23724  
Dubai, UAE  
Tel: 971-4-347-2300  
Fax: 971-4-347-4642

Scotland

Smith Services, HE Group  
Howe Moss Avenue  
Dyce, Aberdeen  
Scotland AB21 OGP  
Tel: 44-1224-770707  
Fax: 44-1224-724182



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