

## FISHING MAGNETS AND MAGNET CHARGER

### Overview

The Logan Fishing Magnet is designed to retrieve small metal, oddly-shaped objects such as milling shavings, bit cones, cutters, bearings, slips, tong pins, and hand tools from the bottom of the well bore. Typically, these objects are the result of bit failures, an accumulation of mill cuttings, or simply accidental droppings of unmillable objects. In almost all of these cases, the fish can not be engaged in the normal manner. Fishing magnets successfully remove these objects from the hole. The tool's design features generous circulation ports that wash away cuttings and other debris that might interfere with or prevent contact with the magnet. A variety of guides are available to accommodate any retrieval situation.

### Construction

The Logan Fishing Magnet Assembly consists of a body, integral housing, integral pole plate, magnet element, and standard flush guide.

The body is manufactured from high strength alloy steel. It has a tool joint pin top connection and generous circulation ports.

The magnet element is the most efficient and powerful permanent magnet available. The magnet can be recharged if necessary.

The magnet body, housing, and pole plate are threaded and welded together during assembly with the magnet element in place.

The standard flush bottom guide is threaded and easily removed. Lipped guides and mill guides are also available.

### Operation

Logan Fishing Magnets are usually run on tubing or drill pipe, but can be run on wireline. Wireline adapters are available.

The Logan Fishing Magnet is made up to the bottom of the fishing string and lowered into the hole to within six to twelve inches of the fish. Circulate to wash the fish. Reduce circulation and lower the fishing magnet to the fish. Slowly rotate to ensure positive contact. Discontinue circulation and lift the fishing magnet from the hole.

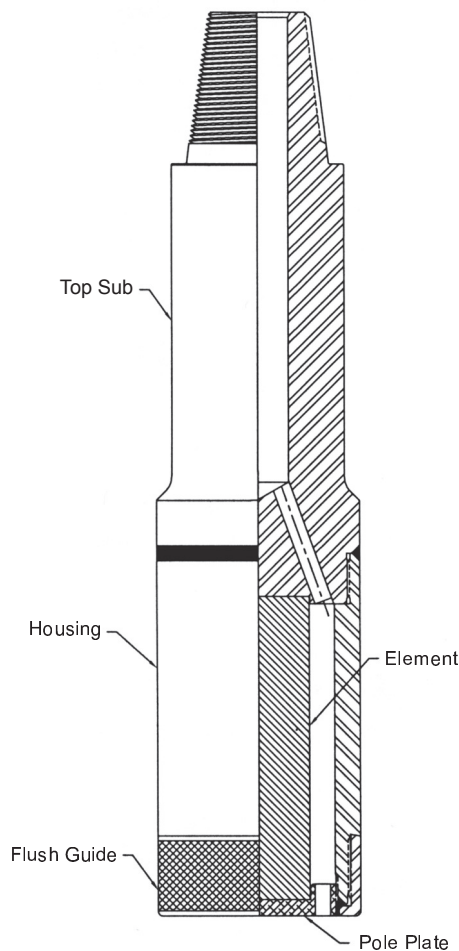
### Optional Accessories

#### Guides

A flush guide is standard. Lipped guides and mill guides are also available. The lipped guide centralizes the fish to assure contact with the magnet. The mill guide enables milling of any soft formation or setting to free debris at the bottom of the hole.

#### Keepers

While magnets should not lose their strength during normal use, storing the magnet in the vicinity of an electric motor or bringing magnets too close to each other can adversely affect their charge. Keepers are recommended when storing magnets to reduce the attraction of miscellaneous metal objects or particles. A keeper is required for shipment via air freight.

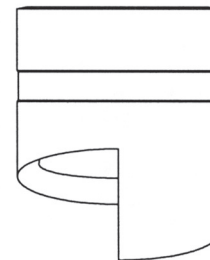


### Magnet Chargers

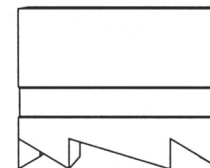
Recharging is quick and easy with our state-of-the-art control console. There is no limit to the number of times a magnet can be recharged. Logan Magnet Chargers ensure maximum charging efficiencies with ease of operation and long-life durability.

### When ordering, please specify:

- (1) Name and number of assembly
- (2) Size – O.D.
- (3) Top connection, if other than standard



Lipped Guide



Mill Guide

## FISHING MAGNETS

HOLE SIZE	1-1/4 to 2	1-5/8 to 2-1/2	2 to 2-3/4	2-3/8 to 3-1/4	2-3/4 to 3-5/8	3 to 3-3/4	3-1/4 to 4-1/8
O.D. OF BODY	1	1-1/4	1-1/2	1-3/4	2-1/4	2-1/2	3
TOP CONNECTION	5/8-11 UNC	5/8 SR	5/8 SR	3/4 SR	3/4 SR	3/4 SR	2-3/8 Tbg
ESTIMATED PULLING CAPACITY IN LBS.	4	6	9	12	20	65	70
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No.</b> 306-100	<b>306-125</b>	<b>306-150</b>	<b>306-175</b>	<b>306-225</b>	<b>306-250</b>	<b>306-300</b>
	Bowen No.	32060	32080	32100	32120	32150	32170
<b>BODY</b>	<b>Logan Part No.</b> ...	<b>V1000</b>	<b>V1001</b>	<b>V1002</b>	<b>V1003</b>	<b>V1004</b>	<b>V1005</b>
	Bowen No.	...	32081	32101	32121	32151	32171
<b>HOUSING</b>	<b>Logan Part No.</b> V20005	<b>V2000</b>	<b>V2001</b>	<b>V2002</b>	<b>V2003</b>	<b>V2004</b>	<b>V2005</b>
	Bowen No.	32062	32082	32102	32122	32152	32172
<b>POLE PLATE</b>	<b>Logan Part No.</b> V30005	<b>V3000</b>	<b>V3001</b>	<b>V3002</b>	<b>V3003</b>	<b>V3004</b>	<b>V3005</b>
	Bowen No.	32063	32083	32103	32123	32153	32173
<b>MAGNETIC ELEMENT</b>	<b>Logan Part No.</b> V4000	<b>V4000</b>	<b>V4001</b>	<b>V4002</b>	<b>V4003</b>	<b>V4004</b>	<b>V4005</b>
	Bowen No.	32064	32084	32104	32124	32154	32174
<b>FLUSH GUIDE</b>	<b>Logan Part No.</b> ...	<b>V6000</b>	<b>V6001</b>	<b>V6002</b>	<b>V6003</b>	<b>V6004</b>	<b>V6005</b>
	Bowen No.	...	32085	32105	32125	32155	32175
<b>LIFTING CAP</b>	<b>Logan Part No.</b> ...	...	...	...	...	...	...
	Connection	...	...	...	...	...	...

## OPTIONAL COMPONENTS

<b>CUT-LIPPED GUIDE</b>	<b>Logan Part No.</b> ...	<b>V6000</b>	<b>V6001</b>	<b>V6002</b>	<b>V6003</b>	<b>V6004</b>	<b>V6005</b>
	Bowen No.	...	32085	32105	32125	32155	32175
<b>MILL GUIDE</b>	<b>Logan Part No.</b> ...	<b>V6000</b>	<b>V6001</b>	<b>V6002</b>	<b>V6003</b>	<b>V6004</b>	<b>V6005</b>
	Bowen No.	...	32085	32105	32125	32155	32175
<b>ADAPTER – 5/8" SUCKER ROD</b>	<b>Logan Part No.</b> ...	...	...	...	...	...	...
	Bowen No.	...	...	...	...	...	...
<b>ADAPTER – 3/4" SUCKER ROD</b>	<b>Logan Part No.</b> ...	...	...	...	...	...	<b>V7005</b>
	Bowen No.	...	...	...	...	...	70513
<b>KEEPER</b>	<b>Logan Part No.</b> V90005	<b>V9000</b>	<b>V9001</b>	<b>V9002</b>	<b>V9003</b>	<b>V9004</b>	<b>V9005</b>
	Bowen No.	...	66005	66008	74731	74732	66014

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

### Special Notes:

- (1) Guides left oversized are extra charge. Magnets shipped via air freight must include a Keeper.
- (2) Pulling capacity assumes a flat fish, larger than the diameter of the magnet, that is in full contact with a fully charged magnet, pulled with a consistent steady force. Estimated pulling capacity will be considerably reduced when engaging smaller surface areas, i.e., smaller than the diameter of the magnet.

### When ordering, please specify:

- (1) Name and number of assembly
- (2) Size – O.D.
- (3) Top connection, if other than standard

### Recommended Accessories:

- (1) 1 Lipped Guide
- (2) 1 Mill Guide

## FISHING MAGNETS

HOLE SIZE		4 to 4-1/4	4-1/4 to 4-1/2	4-1/2 to 5	5-1/8 to 5-1/2	5-5/8 to 6	6-1/8 to 6-1/2	6-1/8 to 6-1/2
O.D. OF BODY		3-1/4	3-1/2	4	4-1/2	5	5-1/2	5-3/4
TOP CONNECTION		2-3/8 Tbg	2-3/8 API Reg	2-3/8 API Reg	2-7/8 API Reg	2-7/8 API Reg	3-1/2 API Reg	3-1/2 API Reg
ESTIMATED PULLING CAPACITY IN LBS.		85	90	115	160	200	250	250
COMPLETE ASSEMBLY	Logan Part No.	306-325	306-350	306-400	306-450	306-500	306-550	306-575
	Bowen No.	32190	32210	32230	32240	32260	32270	32280
BODY	Logan Part No.	V1006	V1007	V1008	V1009	V1010	V1011	V1012
	Bowen No.	32191	32211	32231	32241	32261	32271	32281
HOUSING	Logan Part No.	V2006	V2007	V2008	V2009	V2010	V2011	V2012
	Bowen No.	32192	32212	32232	32242	32262	32272	32282
POLE PLATE	Logan Part No.	V3006	V3007	V3008	V3009	V3010	V3011	V3012
	Bowen No.	32193	32213	32233	32243	32263	32273	32283
MAGNETIC ELEMENT	Logan Part No.	V4006	V4007	V4008	V4009	V4010	V4011	V4011
	Bowen No.	32194	32214	32234	32244	32264	32274	32274
FLUSH GUIDE	Logan Part No.	V6006	V6007	V6008	V6009	V6010	V6011	V6012
	Bowen No.	32195	32215	32235	32245	32265	32275	32285
LIFTING CAP	Logan Part No.	...	V8000	V8000	V8001	V8001	V8002	V8002
	Connection	...	2-3/8 API Reg	2-3/8 API Reg	2-7/8 API Reg	2-7/8 API Reg	3-1/2 API Reg	3-1/2 API Reg

## OPTIONAL COMPONENTS

CUT-LIPPED GUIDE	Logan Part No.	V6006	V6007	V6008	V6009	V6010	V6011	V6012
	Bowen No.	32195	32215	32235	32245	32265	32275	32285
MILL GUIDE	Logan Part No.	V6006	V6007	V6008	V6009	V6010	V6011	V6012
	Bowen No.	32195	32215	32235	32245	32265	32275	32285
ADAPTER — 5/8" SUCKER ROD	Logan Part No.	...	...	V5008	V5009	V5009	V5011	V5011
	Bowen No.	...	...	62250	62252	62252	62254	62254
ADAPTER — 3/4" SUCKER ROD	Logan Part No.	V7005	...	V7008	V7009	V7009	V7011	V7011
	Bowen No.	70513	...	62251	62253	62253	62255	62255
KEEPER	Logan Part No.	V9006	V9007	V9008	V9009	V9010	V9011	V9012
	Bowen No.	66016	66021	66026	66027	66030	66031	74962

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### When ordering, please specify:

- (1) Name and number of assembly
- (2) Size – O.D.
- (3) Top connection, if other than standard

### Recommended Accessories:

- (1) 1 Lipped Guide
- (2) 1 Mill Guide

## FISHING MAGNETS

HOLE SIZE	6-5/8 to 7-1/2	7-5/8 to 8-1/2	8-5/8 to 9-3/4	9-7/8 to 11-5/8	10-1/2 to 11-7/8	11-3/4 to 13	12-1/4 to 14
O.D. OF BODY	6	7	8	9	10	10-1/2	11-1/2
TOP CONNECTION	3-1/2 API Reg	4-1/2 API Reg	4-1/2 API Reg	4-1/2 API Reg	6-5/8 API Reg	6-5/8 API Reg	6-5/8 API Reg
ESTIMATED PULLING CAPACITY IN LBS.	255	330	560	680	750	800	800
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No. 306-600</b>	<b>306-700</b>	<b>306-800</b>	<b>306-900</b>	<b>306-1000</b>	<b>306-1050</b>	<b>306-1150</b>
	Bowen No. 32290	32300	32310	32330	32340	32350	32370
<b>BODY</b>	<b>Logan Part No. V1013</b>	<b>V1014</b>	<b>V1015</b>	<b>V1016</b>	<b>V1017</b>	<b>V1018</b>	<b>V1019</b>
	Bowen No. 32291	32301	32311	32331	32341	32351	32371
<b>HOUSING</b>	<b>Logan Part No. V2013</b>	<b>V2014</b>	<b>V2015</b>	<b>V2016</b>	<b>V2017</b>	<b>V2018</b>	<b>V2019</b>
	Bowen No. 32292	32302	32312	32332	32342	32352	32372
<b>POLE PLATE</b>	<b>Logan Part No. V3013</b>	<b>V3014</b>	<b>V3015</b>	<b>V3016</b>	<b>V3017</b>	<b>V3017</b>	<b>V3019</b>
	Bowen No. 32293	32303	32313	32333	32343	32343	32373
<b>MAGNETIC ELEMENT</b>	<b>Logan Part No. V4013</b>	<b>V4014</b>	<b>V4015</b>	<b>V4016</b>	<b>V4017</b>	<b>V4017</b>	<b>V4019</b>
	Bowen No. 32294	32304	32314	32334	32344	32344	32374
<b>FLUSH GUIDE</b>	<b>Logan Part No. V6013</b>	<b>V6014</b>	<b>V6015</b>	<b>V6016</b>	<b>V6017</b>	<b>V6018</b>	<b>V6019</b>
	Bowen No. 32295	32305	32315	32335	32345	32355	32375
<b>LIFTING CAP</b>	<b>Logan Part No. V8002</b>	<b>V8003</b>	<b>V8003</b>	<b>V8003</b>	<b>V8004</b>	<b>V8004</b>	<b>V8004</b>
	Connection 3-1/2 API Reg	4-1/2 API Reg	4-1/2 API Reg	4-1/2 API Reg	6-5/8 API Reg	6-5/8 API Reg	6-5/8 API Reg

## OPTIONAL COMPONENTS

<b>CUT-LIPPED GUIDE</b>	<b>Logan Part No. V6013</b>	<b>V6014</b>	<b>V6015</b>	<b>V6016</b>	<b>V6017</b>	<b>V6018</b>	<b>V6019</b>
	Bowen No. 32295	32305	32315	32335	32345	32355	32375
<b>MILL GUIDE</b>	<b>Logan Part No. V6013</b>	<b>V6014</b>	<b>V6015</b>	<b>V6016</b>	<b>V6017</b>	<b>V6018</b>	<b>V6019</b>
	Bowen No. 32295	32305	32315	32335	32345	32355	32375
<b>ADAPTER — 5/8" SUCKER ROD</b>	<b>Logan Part No. V5011</b>	<b>V5014</b>	<b>V5014</b>	<b>V5014</b>	<b>V5017</b>	<b>V5017</b>	<b>V5017</b>
	Bowen No. 62254	62256	62256	62256	62258	62258	62258
<b>ADAPTER — 3/4" SUCKER ROD</b>	<b>Logan Part No. V7011</b>	<b>V7014</b>	<b>V7014</b>	<b>V7014</b>	<b>V7017</b>	<b>V7017</b>	<b>V7017</b>
	Bowen No. 62255	62257	62257	62257	62259	62259	62259
<b>KEEPER</b>	<b>Logan Part No. V9013</b>	<b>V9014</b>	<b>V9015</b>	<b>V9016</b>	<b>V9017</b>	<b>V9017</b>	<b>V9019</b>
	Bowen No. 66039	56181	66041	66044	66045	66045	66218

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- (1) Name and number of assembly
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### Recommended Accessories:

- (1) 1 Lipped Guide
- (2) 1 Mill Guide

## FISHING MAGNETS

HOLE SIZE		15	17	20				
O.D. OF BODY		14	16	19				
TOP CONNECTION		6-5/8 API Reg	6-5/8 API Reg	7-5/8 API Reg				
ESTIMATED PULLING CAPACITY IN LBS.		1,190	1,120	1,470				
<b>COMPLETE ASSEMBLY</b>	<b>Logan Part No.</b>	<b>306-1400</b>	<b>306-1600</b>	<b>306-1900</b>				
	Bowen No.	32380	79183	79189				
<b>BODY</b>	<b>Logan Part No.</b>	<b>V1020</b>	<b>V1021</b>	<b>V1022</b>				
	Bowen No.	32381	145730	79190				
<b>HOUSING</b>	<b>Logan Part No.</b>	<b>V2020</b>	<b>V2021</b>	<b>V2022</b>				
	Bowen No.	32382	145731	79191				
<b>POLE PLATE</b>	<b>Logan Part No.</b>	<b>V3020</b>	<b>V3021</b>	<b>V3022</b>				
	Bowen No.	32383	145732	79192				
<b>MAGNETIC ELEMENT</b>	<b>Logan Part No.</b>	<b>V4020</b>	<b>V4020</b>	<b>V4022</b>				
	Bowen No.	32384	32384	79193				
<b>FLUSH GUIDE</b>	<b>Logan Part No.</b>	<b>V6020</b>	<b>V6021</b>	<b>V6022</b>				
	Bowen No.	32385	79188	79194				
<b>LIFTING CAP</b>	<b>Logan Part No.</b>	<b>V8004</b>	<b>V8004</b>	<b>V8005</b>				
	Connection	6-5/8 API Reg	6-5/8 API Reg	7-5/8 API Reg				

## OPTIONAL COMPONENTS

<b>CUT-LIPPED GUIDE</b>	<b>Logan Part No.</b>	<b>V6020</b>	<b>V6021</b>	<b>V6022</b>				
	Bowen No.	32385	79188	79194				
<b>MILL GUIDE</b>	<b>Logan Part No.</b>	<b>V6020</b>	<b>V6021</b>	<b>V6022</b>				
	Bowen No.	32385	79188	79194				
<b>ADAPTER — 5/8" SUCKER ROD</b>	<b>Logan Part No.</b>	<b>V5017</b>	...	...				
	Bowen No.	62258	...	...				
<b>ADAPTER — 3/4" SUCKER ROD</b>	<b>Logan Part No.</b>	<b>V7017</b>	...	...				
	Bowen No.	62259	...	...				
<b>KEEPER</b>	<b>Logan Part No.</b>	<b>V9020</b>	<b>V9021</b>	<b>V9022</b>				
	Bowen No.	66219	145867	...				

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